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4	Bellcore financial/costs	K
5	"	K
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11	"	K
11A	"	K
12	"	K
14	"	K
15	"	K
16	"	K
19-34	" vendor specific billing	D, K
36	vendor specific	D
37	"	D
38	"	D
43	internal audit services	A
44	"	A
45	"	A
326	vendor specific	D
329	"	D

CONFIDENTIAL

BST
Costing Methods Group

Docket No. 92-02-60TL

Test Period Ended 12/31/92

November 12, 1993

COPY

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Cost

Cost

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Cost

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Bellcore

Ⓜ Bell Communications Research

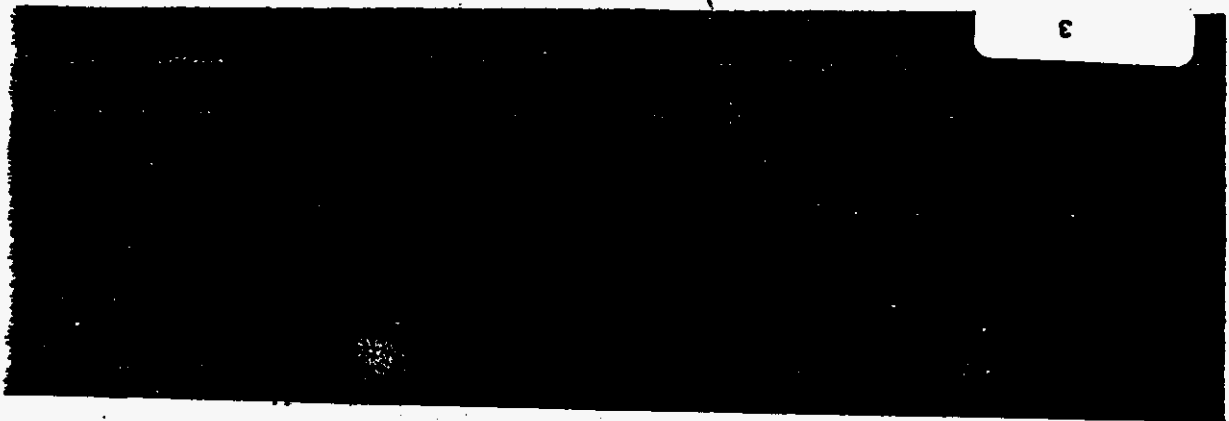
ITEM NO. 1-070
ATTACHMENT

SR-FAD-000229
MARCH 1993

1992
ANNUAL
REPORT TO
SHAREHOLDERS

Bellcore

49-11
2-4,1



44-11
44-11

Billing Amount (5000)
 \$ 150,811
 182,515
 168,793 | 6.3%

44-11

SCHEDULE OF
 BELLCOX OWNER BILLING
 for the year ended December 31, 1992

American Information Technologies Corporation
 Bell Atlantic Corporation
 BellSouth Telecommunications, Inc.
 Telescor Resources Group
 Pacific Telesis Group
 Southwestern Bell Corporation
 US West Communications, Inc.



44-11
44-11

**BELCORE
ADMINISTRATIVE STATEMENT OF INCOME
YEARS ENDING DECEMBER 31, 1992, 1991 AND 1990
(S THOUSANDS)**

1911
2-4-93

PROPRIETARY - BELCORE AND AUTHORIZED CLIENTS ONLY
See proprietary restrictions on the page.

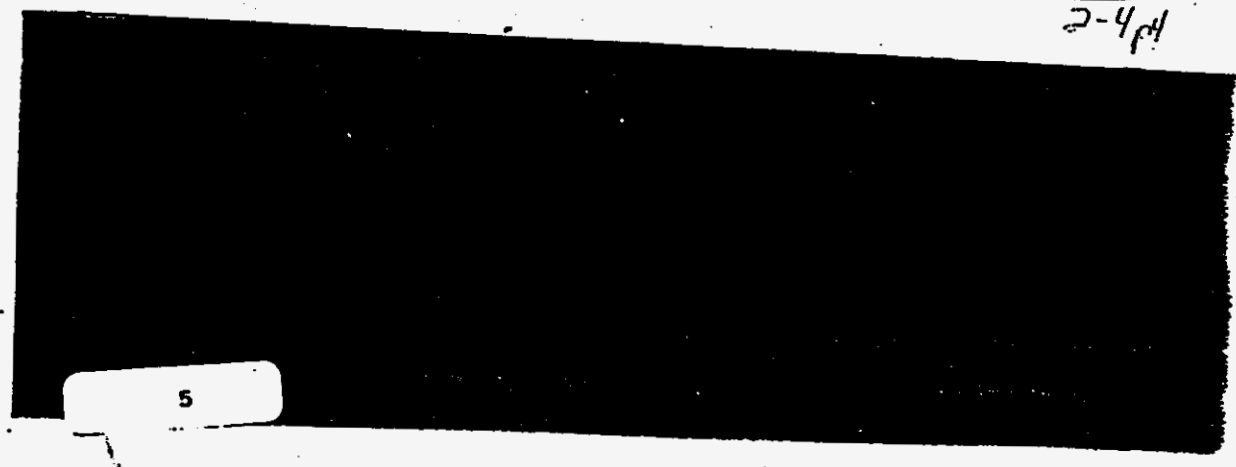
	1992	1991	1990
OWNER BILLING			
1. SUBTOTAL INFRASTRUCTURE			
ELECTIVE			
2. MULTI-CLIENT			
3. USAGE SENSITIVE - BELCORE TEC			
4. USAGE SENSITIVE - ALL OTHER			
5. SUBTOTAL USAGE SENSITIVE (LINES 3 + 4)			
6. CLIENT SPECIFIC			
7. SUBTOTAL ELECTIVE (LINES 2 + 5 + 6)			
8. TOTAL OWNER REVENUES			
NON-OWNER BILLING			
9. INDUSTRY CLIENT REVENUES - COMMON			
10. INDUSTRY CLIENT REVENUES - SPECIFIC			
11. SUBTOTAL - NON-OWNER REVENUES (LINES 9 + 10)			
12. MISC REVENUES BILLED			
13. SUBTOTAL - REVENUES BILLED (LINES 8 + 11 + 12)			
14. MISC REVENUES NON-BILLED			
15. SUBTOTAL - MISC REVENUES (LINES 12 + 14)			
16. ADJUSTMENTS			
17. TOTAL REVENUE (LINES 13 + 14 + 16)			
DEPARTMENTAL EXPENSES			
18. APPLIED RESEARCH			
19. NETWORK TECHNOLOGY			
20. OPERATIONS TECHNOLOGY			
21. SOFTWARE TECHNOLOGY & SYSTEMS			
22. INFORMATION NETWORKING SERVICES			
23. SUBTOTAL - TECHNICAL SERVICES			
24. HUMAN RES & EXT AFFAIRS			
25. FINANCE & ADMIN OTHER			
26. SUBTOTAL - FINANCE & ADMIN			
27. LEGAL			
28. EXECUTIVE			
29. NECA/MCC			
30. SUBTOTAL - OTHER DEPARTMENTS			
31. TOTAL DEPARTMENTAL EXPENSES			
CORPORATE EXPENSES			
32. PENSION			
33. BENEFITS			
34. PAYROLL TAXES			
35. DEPRECIATION AND AMORTIZATION			
36. PROPERTY TAXES			
37. FEDERAL INCOME TAXES			
38. STATE INCOME TAXES			
39. USE (SALES) TAX			
40. INTEREST			
41. INSURANCE AND OTHER			
42. TOTAL CORPORATE EXPENSES			
43. TOTAL COST			
44. NET INCOME			
45. GRAND TOTAL COST			

BELLCORE
OPERATIONAL FORCE SUMMARY
1992

DEPARTMENT	RESTATE		END OF YEAR ON ROLL		CHANGE	
	BEGINNING OF YEAR ON ROLL PAYROLL	CONTRACT TOTAL	PAYROLL	CONTRACT TOTAL	PAYROLL	CONTRACT TOTAL
APPLIED RESEARCH	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
NETWORK TECHNOLOGY	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
OPERATIONS TECHNOLOGY	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SOFTWARE TECHNOLOGY & SYSTEMS	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
INFORMATION NETWORKING SERVICES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SUBTOTAL - TECHNICAL SERVICES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
HUMAN RESOURCES & EXTERNAL AFFAIRS	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
FINANCE & ADMIN - OTHER	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SUBTOTAL - FINANCE & ADMINISTRATION	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
LEGAL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
EXECUTIVE	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
SUBTOTAL - OTHER DEPARTMENTS	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL BELLCORE	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
MECA/MCC	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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2-4 pt



BELLCORE
1992 BILLING ANALYSIS
(\$ Millions)

COST

PROJECT OWNERS	1,094.8
INDUSTRY CLIENTS (A)	81.6
NECA, MCC AND OTHER	<u>4.2</u>
TOTAL COST	<u>1,180.6</u>

REVENUE

	(1) Gross Owner Cost/FQP Price (B)	(2) Industry Client Credits	(3) Other Adjustments	(4) Net Owner Billing (4=1-2+3)
BILLING TO OWNERS				
AMERTECH SERVICES, INC.	153.1	4.5	0.2	157.8
BELL ATLANTIC NETWORK SERVICES, INC.	188.7	5.4	(0.8)	193.3
BELL SOUTH TELECOMMUNICATIONS, INC.	176.5	4.5	(1.2)	179.8
PACIFIC BELL	124.1	4.6	4.7	133.4
SOUTHWESTERN BELL TELEPHONE COMPANY	134.4	4.5	0.6	139.5
TELESECTOR RESOURCES GROUP	146.2	4.5	(0.9)	149.8
U S WEST	141.1	4.5	1.6	147.2
	<u>1,066.1</u>	<u>32.5</u>	<u>1.6</u>	<u>1,099.2</u>
SUBTOTAL BILLING TO OWNERS				1,099.2
BILLING TO INDUSTRY CLIENTS & OTHERS				
INDUSTRY CLIENT CREDITS TO OWNER PROJECTS				
FQP PROJECTS			27.1	
ALL OTHER			<u>2.5</u>	
SUBTOTAL				59.6
INDUSTRY CLIENT PROJECT COST (A)				81.6
NECA, MCC AND OTHER				<u>4.2</u>
SUBTOTAL BILLING TO INDUSTRY CLIENT/OTHERS				<u>145.4</u>
TOTAL REVENUE				<u>1,180.6</u>

NOTES:

- (A) Includes NASC Deferred Billing of \$12.7M.
- (B) "Gross Allocated Cost/Firm Quoted Price (FQP)" as reflected on the Owner Billing Report (BR24), equals Total Owner Project Cost of \$1,094.8M less \$27.1M for Industry Client Credits to FQP Projects and \$1.6M for Buy-Ins to FQP Projects

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1992
BELLCORE COST ACCOUNTING/ALLOCATION PROCESS

BELLCORE
PAYROLL HEADCOUNT
AS OF MARCH 31, 1992

	TOTAL BELLCORE (head)	DCPE			NON-DCPE				SUB TOTAL (head)
		DCPE (#)	SCOPE (#)	SUB TOTAL (#)	OVERSEAS COMMON SUPPORT (#)	AREA SUPPORT (#)	COMP SERVICE CENTERS (#)	DISABILITY FAMCARE LEAVE (#)	
Officers	0	0	0	0	0	0	0	0	0
Assistant Vice President									
A000	25	0	0	0	0	0	0	0	0
L3 (Medical Director)	1	0	0	0	0	0	0	0	0
L3 (General Attorney)	1	0	0	0	0	0	0	0	0
Subtotal	26	0	0	0	0	0	0	0	0
Executive Director/									
A704	199	199	2	199	12	0	14	1	217
L2 (Associate Medical Director)	20	0	0	0	0	0	0	0	20
L2 (Attorney)	20	0	0	0	0	0	0	0	20
Subtotal	241	199	2	199	12	0	14	1	257
Technical Director									
T003	689	689	18	689	11	21	25	0	745
Professional Director									
P003	130	60	0	60	28	0	22	0	70
Members of Technical Staff (MTS)									
T812	64	66	0	66	0	0	0	0	66
T820	2,309	2,309	104	2,413	0	0	16	0	2,429
T422	236	206	19	225	79	117	28	25	445
Subtotal	2,689	2,162	123	2,306	84	124	130	44	2,627
Professional Managers									
P022	543	345	0	345	120	28	144	2	599
P422	123	18	0	18	28	0	0	0	146
Subtotal	726	363	0	363	148	28	144	2	745
Other Technical Staff									
T301	67	63	0	63	1	1	0	0	65
T801	246	230	0	230	14	7	25	11	287
T101	79	67	0	67	0	0	0	0	67
T001	1	1	0	1	0	0	0	0	1
Subtotal	493	411	0	411	15	8	25	11	455
Other Professional Staff									
P201	496	77	0	77	143	27	240	0	447
P201	291	42	0	42	22	16	171	0	281
P101	235	44	0	44	45	16	122	10	197
P001	348	0	0	0	20	17	116	0	153
SL (Legal Assistant)	13	0	1	100	20	0	0	0	113
S3 (Executive Secretary)	1	0	0	0	13	0	0	0	14
S4 (Executive Secretary)	1	0	0	0	1	0	0	0	2
S3 (Executive Secretary)	3	0	0	0	1	0	0	0	4
S2 (AVP Secretary)	44	0	0	0	0	0	0	0	44
P2 (Staff Nurse)	0	0	0	0	0	0	0	0	0
R1 (Nurse)	0	0	0	0	0	0	0	0	0
Subtotal	1,364	242	1	253	296	77	625	43	1,101
Support Staff (Non-Mgmt)									
S1	184	1	0	1	1	1	147	4	153
CO	522	27	0	27	0	22	294	11	486
CC	138	13	0	13	0	2	105	2	132
OS	25	0	0	0	0	0	18	0	18
Subtotal	879	71	0	71	11	25	564	17	828
Total End-of-Month (FTE) *	5,176	4,960	148	5,108	791	336	1,821	148	5,086
Current Month Average (FTE) †	7,924.4	4,267.9	192.6	5,043.6	774.8	322.3	1,812.9	N/A	2,941.8

N/A - Not Applicable

* End-of-Month project category based on predominant project of standard work week.

† Current Month Average represents full time equivalent headcount (FTE) defined as the equivalent of 37.5 paid hours per week.

As such, FTE headcount excludes employees on Disability/Family Care Leave and hours not scheduled for part time employees.

Also FTE project classifications reflect actual Positive Time Reporting (PTW) input rather than Standard Work Week used for

End-of-Month reporting.

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2-4pb

1992
 BELLCORE COST ACCOUNTING/ALLOCATION PROCESS

COST CENTER	SYSTEM CODE	BELLCORE DEPARTMENTAL COST CENTER FOR THE FISCAL YEAR ENDING 12/31, 1992									
		70-41		70-42		70-43		70-44		70-45	
		TOTAL	CHARGED	TOTAL	CHARGED	TOTAL	CHARGED	TOTAL	CHARGED	TOTAL	CHARGED
		ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET	ACTUAL	BUDGET
OFFICE HEADQUARTERS											
BY CONTRACTOR-REPORTED											
TOTAL OFFICE HEADQUARTERS											
OTHER CONTRACTOR HEADQUARTERS											
BY CONTRACTOR-ONLY REPORTED											
TOTAL OTHER CONTRACTOR HEADQUARTERS											
CONTROLLABLE EXPENSES											
DEPARTMENTAL EXPENSE											
SALES											
OTHER DEPARTMENTAL											
CUSTOMER DEPARTMENTAL EXPENSE											
COMPANATE EXPENSES											
EMPLOYEE RELATED											
EQUIPMENT RELATED											
SALES AND OTHER											
CUSTOMER COMPANATE EXPENSES											
CUSTOMER CONTROLLABLE EXPENSES											
DEPARTMENTAL CENTER											
CHARGES											
OVERHEAD/RESEARCH SUPPORT											
AREA SUPPORT											
AREA ADMIN SUPPORT											
AREA TECH SUPPORT											
CUSTOMER AREA SUPPORT											
COMPANATE SERVICE CENTER											
COLLECTED INTERNAL SERVICES											
SOFTWARE/TELEPHONE SYSTEMS											
FINANCE & ADMINISTRATION											
CUSTOMER SERVICE CENTER											
EXTERNAL USAGE PROJECTS											
CUSTOMER CHARGES											
TOTAL CHARGED EXPENSES											
LESS CHARGES											
EXPENSES											
OVERHEAD/RESEARCH SUPPORT											
COMPANATE SERVICE CENTER											
AREA SUPPORT											
SHARED FACILITIES											
TOTAL CHARGES											
NET COST - EXTERNAL PROJECTS											

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 2-4p7



Return on Investment (ROI)

The authorized annual ROR factor on a rate base is the authorized level for interstate operations (i.e., the FCC's prescribed interstate rate), and is calculated as follows:

Capital Components	Cost of Capital	Capital Structure	Weighted Average
Debt	8.8%	x 44.2%	= 3.89%
Equity	13.2%	x 55.8%	= 7.36%
FCC's current authorized rate			11.25%

The 11.25% represents the FCC's current authorized rate of return for the interstate services of local exchange carriers. The FCC prescribes using the composite cost of debt and equity of the Regional Holding Companies in calculating the overall rate of return.

2. Authorized Rate Base

The authorized rate base is developed by utilizing the USTA generic rate base formula for unregulated subsidiaries of regulated entities. Bellcore's average rate base is comprised of three categories which are developed using Bellcore's Balance Sheet: (1) average net asset investment (i.e., net property, plant and equipment), (2) average net other assets (i.e., deferred charges and other non-current assets less deferred income taxes and credits) and (3) average working capital (i.e., current assets less current liabilities (excluding short-term borrowing and current portion capital lease obligations)). See Exhibit 2 for an example of the monthly rate base development.

As noted above, the authorized USTA rate base formula requires the development of an authorized rate base from certain Balance Sheet categories. To further attest to the validity of this rate base, a monthly reconciliation of Bellcore's Investor Supplied Capital is performed. See Exhibit 3 for an example of this monthly reconciliation.

It is important to note that in order to book ROI on a monthly basis, certain Balance Sheet items are estimated to develop the rate base. Therefore, a difference may occur between the rate base used to record monthly ROI and the rate base per the actual final monthly Balance Sheet. As a result, an adjustment to true-up ROI may be required. This adjustment will be done, at a minimum, on a quarterly basis or sooner as deemed appropriate by management. See Exhibit 4, Lines 1 and 2 for the average annual authorized rate base per year.

3. Return on Rate Base

The return on rate base is determined by applying the ROR factor to the average rate base. See Exhibit 5, Line 4 for the return on rate base per year.

4. Resultant Net Income

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RETURN ON INVESTMENT (ROI)

BELLCORE
EXAMPLE OF ROI CALCULATION (MONTHLY)
(DOLLARS IN THOUSANDS)

	BALANCE BEGINNING OF MONTH	BALANCE END OF MONTH	AVERAGE MONTHLY BALANCE
A. RATE BASE (SEE EXHIBIT 3 FOR DETAILS)			
B. AUTHORIZED ANNUAL RATE OF RETURN BEFORE TAX GROSS-UP			
C. RETURN ON RATE BASE ((A x B) / 12)			
D. LESS: INTEREST ON DEBT (FM1, LINE 40)			
E. NET INCOME (C - D)			
GROSS STATE INCOME TAXES ADD: TAX RESERVE			
NET STATE INCOME TAXES			
GROSS FEDERAL INCOME TAX LESS: AMORTIZATION OF IRC INCOME EFFECT ON ACCELERATED DEPRECIATION ADD: TAX RESERVE			
NET FEDERAL INCOME TAX			
F. TOTAL INCOME TAXES			
G. INTEREST ON DEBT (FM1, LINE 40)			
H. RETURN ON INVESTMENT = NET INCOME, TAXES, AND INTEREST ON DEBT (E + F + G)			
I. RATE OF RETURN GROSSED-UP FOR BELLCORE TAXES ((H/A) x 12)			
J. RETURN ON EQUITY (I/AVG. MONTHLY STOCKHOLDERS EQUITY) x 12 (SEE EXHIBIT 6 FOR DETAILS)			

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RETURN ON INVESTMENT (ROI)

BELLCORE
 RETURN ON INVESTMENT BY COMPONENT FOR YEARS 1984 THROUGH 1993
 (DOLLARS IN THOUSANDS)

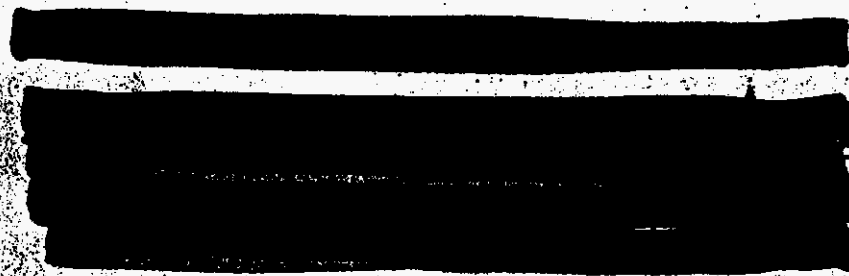
	ACTUAL 1984	ACTUAL 1985	ACTUAL 1986	ACTUAL 1987	ACTUAL 1988	ACTUAL 1989	ACTUAL 1990	ACTUAL 1991	ACTUAL 1992	ACTUAL 1993
1. RETURN ON EQUITY BASE										
2. DEBT RATE BASE										
3. RETURN ON EQUITY										
4. RATE OF RETURN										
5. DIVIDEND GROSS-UP										
6. FOP VARIANCE										
7. INTEREST ON DEBT										
8. NET INCOME										
1984-1990 (La1 X La3 X La5)										
1991-1993 (La2 X La4 - La7)										
9. GROSS STATE INCOME TAXES										
10. ADD: TAX RESERVE										
11. NET STATE INCOME TAXES										
(La9 + La10)										
12. GROSS FEDERAL INCOME TAX **										
13. LESS: AMORT. OF ITC										
14. LESS: INC. EFCY. ON ACL. DEPR.										
15. ADD: TAX RESERVE										
16. NET FEDERAL INCOME TAX										
(La12 - La13 - La14 + La15)										
17. OTHER TAX ADJUSTMENTS ***										
18. TOTAL TAXES										
(La11 + La16 + La17)										
19. INTEREST ON DEBT										
20. TOTAL RETURN ON INVESTMENT										
(La8 + La18 + La19)										
21. GROSSED-UP ROI (La20/La2)										
TAX RATES:										
FEDERAL INCOME TAX RATE										
STATE TAX FACTOR										
COMPOSITE STATE TAX RATE										

* DOES NOT INCLUDE THE EFFECT OF THE FOP VARIANCE.
 ** FEDERAL PRE-TAX INCOME PLUS STATE TAX RESERVE DIVIDED BY THE STATE TAX FACTOR EQUALS STATE PRE-TAX INCOME, MULTIPLIED BY THE COMPOSITE STATE TAX RATE EQUALS GROSS STATE INCOME TAXES.
 *** NET INCOME LESS AMORT. OF ITC, LESS INC. EFFECT ON ACL. DEPR., PLUS TAX RESERVE, DIVIDED BY 1 MINUS THE STATUTORY FEDERAL TAX RATE EQUALS FEDERAL PRE-TAX INCOME. FEDERAL PRE-TAX INCOME MULTIPLIED BY THE STATUTORY FEDERAL INCOME TAX RATE EQUALS GROSS FEDERAL INCOME TAX.
 1988 AND 1989 IS TAX EFFECT OF FOP VARIANCE; 1991 IS COST ASSOCIATED WITH DIVESTITURE-RELATED AUDIT.

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STATEMENTS OF INVESTMENT FOR YEARS 1984 THROUGH 1993

- 1. NET INCOME
- 2. NET INCOME
- 3. INTEREST ON DEBT
- 4. DIVIDEND ON STOCK
- 5. GAIN ON SALE

1984 1985 1986 1987 1988 1989 1990 1991 1992 1993

CALCULATOR OF GAIN ON SALE OF STOCK FOR YEARS 1984 THROUGH 1993
 (DOLLARS IN THOUSANDS)

RETURN ON INVESTMENT (ROI)

Accounting: Incomplete 08
 Effective Date: 01/01/91
 Released: 02/10/93
 Exhibit 5

COMPTROLLER'S ACCOUNTING DIVISION

BELLCORE
RECONCILIATION OF ALLOCATED COSTS
VERSUS PAYMENTS RECEIVED
YEAR: 1992
(0000)

OWNERS	12/31/91 RECEIVABLE BALANCE A	(1)	1992 GENERAL BILLING B	1992 INTEREST CHARGES C	1992 TOTAL BILLING D D=B+C	1992 TOTAL PAYMENTS E E=A+D-F	12/31/92 RECEIVABLE BALANCE F	1992 RECEIVABLE BALANCE AS OF 2/16/93 G
AMERITECH	20,201.7		150,810.9	(455.6)	150,355.3	146,445.2	23,891.8	0.0
BELL ATLANTIC	28,014.9		182,515.3	(590.6)	181,924.7	178,702.2	31,237.4	0.0
BELLSOUTH	21,648.2	163	168,792.4	(909.0)	167,883.4	164,416.4	25,115.2	0.0
PACIFIC BELL	16,444.2		124,221.6	3,562.7	127,784.3	124,781.2	19,447.3	0.0
SOUTHWESTERN BELL TEL.	19,032.0		129,924.0	(473.6)	129,450.4	126,504.0	21,978.4	0.0
TELESECTOR RESOURCES GROUP	18,872.1		140,746.3	(757.9)	139,988.4	135,118.8	23,741.7	0.0
U S WEST	18,620.8		138,233.2	(114.0)	138,119.2	134,648.5	22,091.5	0.0
TOTAL OWNERS	142,833.9		1,035,243.7	262.0 (2)	1,035,505.7	1,010,836.3	167,503.3	0.0
INDUSTRY CLIENTS								
SNET	3,687.4				22,214.1	21,948.9	3,960.6	0.0
CDI	1,377.5				9,531.6	9,429.8	1,309.1	0.0
OTHER	9,325.7				100,286.3	93,081.9	16,330.1	6,184.3 (3)
TOTAL INDUSTRY CLIENTS	14,390.6				132,032.0	124,442.8	21,999.8	6,184.3
TOTAL	157,224.5				1,167,537.7	1,135,279.1	189,503.1	6,184.3

(1) REFLECTS NOVEMBER AND DECEMBER 1991 BILLING

(2) REFLECTS PACIFIC BELL'S 1992 DEFERRED INTEREST PAYMENTS OF \$262.0K FOR THE 1990 PLANNING & ENGINEERING CRITICAL PROJECT BUY-INS.

(3) REFLECTS \$5.5M CENTRAL TELEPHONE COMPANY RECEIVABLE DUE FOR SOFTWARE DEVELOPMENT. ACCEPTANCE TESTING IS COMPLETE AND PAYMENT IS BEING PROCESSED.

4941
2-4-92

01824535

ITEM NO. 2-838
ATTACHMENT 3

CELLCO
ANALYSIS OF PROJECT ALV ALLOCATION EXPENSES
FOR THE MONTH ENDING AUGUST 31, 1992

PROJECT INFORMATION:

APP & WP: ALV 01
APP TITLE:
ORGANIZATION: 04000

PROPRIETARY

ACCOUNT	ACCOUNT DESCRIPTION	(A)	(B)	(C)	(D)	(E)	(F) - G/O	(G) - F-C
		PROJECT ALV	ALLOCATION CYCLE/ SOURCE	TOTAL ALLOCATION POOL	TOTAL BASIS POOL	ALV BASIS POOL	BASIS POOL RATIO	ALLOCATION AMOUNT
401-111	SALARIES - STANDARD							
401-121	SALARIES - OVERTIME							
402-111	MISC. MATERIALS & SUPPLIES							
402-116	COMPUTER SUPPLIES							
402-201	CONT SVCS - OTHER RESIDENCE SVC							
406-212	T/L - DOMESTIC							
406-213	T/L - BUS DEALS - DOMESTIC							
406-301	RELOCATION COST ALLOWANCE PAYMENTS							
406-411	GEN DP-FOOD SVC & DINING SVC							
406-711	GEN DP - TELEPHONE CONCESSION							
406-911	GEN DP - OTHER GEN EXPENSE							
412-911	TELECOM - LOCAL RES UNITS							
TOTAL DEPARTMENTAL EXPENSES								
600-070	DISTRIB ACCOUNT MANAGEMENT							
600-071	DISTRIB TECH SVCS SEC - TECH							
600-079	IN'S NETWORK PRODUCT PLANNING							
600-080	DISTRIB TECH SVCS SEC - ADMIN							
600-081	DISTRIB WORK PROGRAM ADMIN							
600-084	DISTRIB PRODUCT PLAN STRAT #2							
600-082	DISTRIB BEST							
600-087	DISTRIB SHV DEV #2							
600-088	DISTRIB OPER SUPP SVS PLAN #1							
600-090	DISTRIB TECHNICAL SUPPORTING							
600-098	DISTRIB AREA							
673-002	SERVICE CENTERS CHARGEBACK							
673-001	AREA 24 - COMPT & ADMIN CHRGCS							
673-000	AREA'S 51,60,62-COMPT/ADMIN CHRGCS							
673-012	AREA 2600-SOFT COMPT & ADMIN CHRGCS							
673-010	PRO 14/17/24/22 SEC COMPT ADMIN							
673-008	HUMAN RESOURCES S/C-PMS) 514							
673-001	HUMAN RESURCE SVC CHRGCS							
TOTAL DIRECT SERVICE CENTER EXPENSES								



49-12

See 49-12 / 17

C1421306

FORM 2-81
ATTACH 2

BELLONE
ANALYSIS OF PROJECT 014 ALLOCATION LOADINGS
FOR THE MONTH ENDING AUGUST 31, 1992

PROPRIETARY

PROJECT INFORMATION

APN & WP: 014 01
APN TITLE: [REDACTED]
ORGANIZATION: [REDACTED]

ACCOUNT	ACCOUNT DESCRIPTION	(A) PROJECT 014	(B) CYCLE/ SEQUENCE	(C) TOTAL ALLOCATION POOL	(D) TOTAL BASIS POOL	(E) BASIS POOL	(F) - E/B BASIS RATIO	(G) - F-C ALLOCATION AMOUNT
401-011	SALARIES - STANDARD	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
401-021	SALARIES - OVERTIME	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
403-11X	MISC. MATERIALS & SUPPLIES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
403-130	LABORATORY SUPPLIES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
403-00X	CONT SVCS - OTHER	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
403-00X	CONT SVCS - OTHER RESOURCES SVC	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
403-011	SOFTWARE PACKAGES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
406-012	T/L - DOMESTIC	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
406-013	T/L - BUS TRAVEL - DOMESTIC	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
406-301	RELOCATION - OTHER	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
406-011	GEN EXP-FOOD SVC & DINING SVC	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
406-011	GEN EXP - TELEPHONE CONCESSION	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
406-01X	GEN EXP - OTHER GEN EXPENSE	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
407-011	MAINT & REPAIRS	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
408-011	RENTALS & LEASES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
416-011	TUITION	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL DEPARTMENTAL EXPENSES								
600-074	DISTRIB ACCOUNT MANAGEMENT	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-071	DISTRIB TECH SVCS SEC - TECH	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-070	INFO NETWORK PRODUCT PLANNING	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-000	DISTRIB TECH SVCS SEC - ADMIN	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-001	DISTRIB WORK PROGRAM ADMIN	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-004	DISTRIB PRODUCT PLAN STRAT #2	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-005	DISTRIB BEST	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-007	DISTRIB HR DEV #2	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-000	DISTRIB OPER SUPP SVCS PLAN #1	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-000	DISTRIB TECHNICAL RECRUITING	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
600-000	DISTRIB ARMA	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
671-00X	SERVICE CENTERS CHARGEBACK	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
673-007	AREA 21 - COMPT & ADMIN CHARGES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
673-000	AREA'S 21, 00, 03-COMPT/ADMIN CHARGES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
673-012	AREA 2004-SOFT COMP & ADMIN CHARGES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
673-010	PRG 14/17/20/22 SEC COMP ADMIN	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
673-000	HUMAN RESOURCES S/C-PROJ 014	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
673-001	HUMAN RESOURCE SVC CHARGES	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL DIRECT SERVICE CENTER EXPENSES								



See 149-12
1-1

17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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JUN 1992 FROM BELLCORE HILLS PH1

log #86

See
49-12
1-1

⊕ Traced to Henderson report
⊕ Traced to Payroll by Employer

HC	REGULAR SALARY \$	INTERNS SALARY \$	BONUS \$	VACATION IN-LIEU	ADJUSTED SALARY \$	PRIOR MONTH ACCRUAL	AUG. ACCRUAL	CTAP	VACATION ACCRUAL	401-111 TOTAL	408-331 COST ALLOWANCE
0.00	3,530.77	0.00	0.00	0.00	3,530.77	1,674.10	97.30	0.00	12.33	3,463.30	97.40
28.48	27,157.44	6,450.00	2,300.00	1,555.21	299,352.65	74,430.08	9,072.83	3,457.48	1,210.20	187,692.88	0.00

AUGUST 1992

PROPRIETARY

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ITEM NO. 8-93
ATTACHMENT 1

Cheryl

B.S.T.
 Review of Firm Quote Pricing Projects
 T-95 12/13/92

file
 9/25/93

The company charges some projects as a fixed cost. However, the difference between the actual cost of labor & revenue is charged to a true up account which is carried up in "Over/Debit".

Staff reviewed an analysis of this account for 1990-1992. It showed a total of \$1.7M in true up account.

Bechtel Telephone did receive a credit which they charged to head quarters. In 1992 this amount was \$3,127,400.
 (See 49-13) (p. 8542 cont)

Total True up balance was \$15,490,040.6
 Revenue \$57,943,577.54
 Costs \$56,453,975.48

This indicates 20% allocated to B.S.T.

CONFIDENTIAL

6 ALGEN DESIGN SERVICE	439
7 ALGEN DESIGN SERVICE	489
7 ALGEN DESIGN SERVICE	473
6 ALGEN DESIGN SERVICE	437
1 ALGEN DESIGN SERVICE	47
7 ALGEN DESIGN SERVICE	522
6 ALGEN DESIGN SERVICE	420
5 ALGEN DESIGN SERVICE	377
<hr/>	
7 ALGEN DESIGN SERVICE	503
3 ANDAHL CORP	200
4 ANDAHL CORP	290
9 ANDAHL CORP	666
<hr/>	
7 ANDAHL CORP	512
1 ANDAHL CORP	46
11 ANDAHL CORP	813
2 ANDAHL CORP	117
8 ANDAHL CORP	584
12 ANDAHL CORP	905
6 ANDAHL CORP	444
5 ANDAHL CORP	357
10 ANDAHL CORP	730
8 AMERISCRIBE MANAGENE	550
4 AMERISCRIBE MANAGENE	243
7 AMERISCRIBE MANAGENE	483
11 AMERISCRIBE MANAGENE	832
6 AMERISCRIBE MANAGENE	407
11 AMERISCRIBE MANAGENE	833
5 AMERISCRIBE MANAGENE	331
<hr/>	
2 AMERITECH SERVICES I	101
8 AMERITECH SERVICES I	608
8 AMERITECH SERVICES I	594
11 AMERITECH SERVICES I	780
5 AMERITECH SERVICES I	339
<hr/>	
12 ANGEL C. PENZA	881
<hr/>	
12 ARCHITECTURE PROJECT	893
7 ARTHUR ANDERSEN & CO	511
9 ARTHUR ANDERSEN & CO	660
6 ARTHUR ANDERSON & CO	423
6 ARTHUR ANDERSON & CO	424
6 ARTHUR ANDERSON & CO	425
<hr/>	
9 AT&T	675
1 AT&T	29
11 AT&T	767
<hr/>	
2 AT&T BELL LABORATORI	95
4 AT&T BELL LABORATORI	241
7 AT&T BELL LABORATORI	485
7 AT&T BELL LABORATORI	501
6 AT&T BELL LABORATORI	434
7 AT&T BELL LABORATORI	142
4 AT&T BELL LABORATORI	275
<hr/>	
12 AT&T CORPORATE TREAS	880
10 AT&T CORPORATE TREAS	712
10 AT&T CORPORATE TREAS	705
9 AT&T CORPORATE TREAS	634
12 AT&T CORPORATE TREAS	834

NSTS LT05

Lease of Processor & Modem

Duplicating Services

Diversids

Separation Agreement ANSA Phase III Sponsorship fee 1992

Interim billing for review of Switching Cost Infr. Syst. & Sertal. Cost Model

1/2 hr 2 Halr

105 selected Op & Mtc from ATT to Bell core for march for 3 corp. Place, 6 corp. Place, 8 corp. Place, 35 Knights Bridge Rd,

(16)

ESPI

11 AT&T RESOURCE BANK

- 7 AT&T TECHNOLOGIES
- 2 AT&T TECHNOLOGIES
- 3 AT&T TECHNOLOGIES
- 3 AT&T TECHNOLOGIES
- 1 AT&T TECHNOLOGIES

3 AUSPEX SYSTEMS INC

- 5 BANKERS TRUST CO
- 3 BANKERS TRUST CO
- 1 BANKERS TRUST CO
- 1 BANKERS TRUST CO
- 3 BANKERS TRUST CO
- 9 BANKERS TRUST CO
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- 6 BANKERS TRUST CO
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- 4 BANKERS TRUST CO
- 8 BANKERS TRUST CO

- 78
- 84
- 80
- 83
- 83
- 80

ADARS Supt. & Admin. Group
ADARS Service

- 164
- 273
- 156
- 71
- 38
- 210
- 319
- 105
- 197
- 113
- 808
- 800
- 426
- 269
- 268
- 574

- 12 BANKERS TRUST CO
- 12 BANKERS TRUST CO
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- 2 BANKERS TRUST CO
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- 360
- 790
- 714
- 372
- 597
- 75

Salaryed Savings Plan Fringy

10 BANKERS TRUST CO	715	
7 BANKERS TRUST CO	530	
12 BANKERS TRUST CO	187	
12 BELL ATLANTIC INTEGR	308	<i>Salvaged Savings Plan Payment</i>
12 BELL ATLANTIC INTEGR	901	
12 BELL ATLANTIC INTEGR	902	
12 BELL ATLANTIC INTEGR	900	
12 BELL ATLANTIC INTEGR	699	<i>Developing Signaling System 7</i>
9 BELL ATLANTIC LEASIN	621	<i>Software to run on IBM</i>
12 BELL ATLANTIC LEASIN	836	<i>Processor Equipped with AIX op. Sys</i>
5 BELL ATLANTIC LEASIN	323	
10 BELL ATLANTIC LEASIN	688	
6 BELL ATLANTIC LEASIN	391	
3 BELL ATLANTIC LEASIN	203	
8 BELL ATLANTIC LEASIN	548	
11 BELL ATLANTIC LEASIN	759	
7 BELL ATLANTIC LEASIN	469	
7 BELL ATLANTIC LEASIN	468	
11 BELL ATLANTIC LEASIN	758	
9 BELL ATLANTIC LEASIN	620	<i>Processor Monthly Fee</i>
3 BELL ATLANTIC LEASIN	155	
1 BELL ATLANTIC LEASIN	1	
8 BELL ATLANTIC LEASIN	547	
12 BELL ATLANTIC LEASIN	835	
6 BELL ATLANTIC LEASIN	393	
10 BELL ATLANTIC LEASIN	687	
5 BELL ATLANTIC LEASIN	322	
2 BELL ATLANTIC LEASIN	81	
4 BELL ATLANTIC LEASIN	239	
2 BELL ATLANTIC NETWORK	100	
8 BELL ATLANTIC NETWORK	593	
11 BELL ATLANTIC NETWORK	779	
5 BELL ATLANTIC NETWORK	338	
5 BELL ATLANTIC NETWORK	771	
2 BELL ATLANTIC SOFTWA	84	
7 BELL ATLANTIC SOFTWA	479	
7 BELL ATLANTIC SOFTWA	481	
7 BELL ATLANTIC SOFTWA	482	
7 BELL ATLANTIC SOFTWA	480	
8 BELL ATLANTIC SOFTWA	618	<i>Purchase Date Link to Call Processing</i>
3 BELL ATLANTIC SYSTEM	209	<i>SS 7 FE op. Mgmt</i>
3 BELL ATLANTIC SYSTEM	208	
3 BELL ATLANTIC SYSTEM	207	<i>Lease of IBM & Amdeahl Processor</i>

Dividend

X 7 BELL ATLANTIC TRI CO	493	<i>Cancelled</i>
3 BELL ATLANTIC TRICO	229	<i>lease Storage 280, disks, adapters, etc</i>
4 BELL ATLANTIC-NST	780	<i>1 Software CPU License Matchkey 305</i>
X 2 BELL ATLANTIC-TRICO	116	<i>Cancelled</i>
2 BELL SOUTH SERVICES	102	
8 BELL SOUTH SERVICES	609	
8 BELL SOUTH SERVICES	595	
11 BELL SOUTH SERVICES	781	
5 BELL SOUTH SERVICES	340	<i>Dividend</i>
7 BELL SYSTEMS	202	<i>2 with Mkt. of LSS Software</i>
1 BOOZ ALLEN & HAMILTO	5	<i>Consulting for 200 Series Storage</i>
1 BOOZ ALLEN & HAMILTO	4	

7 CARNEGIE MELLON UNIV
 12 CARNEGIE MELLON UNIV
 3 CARNEGIE MELLON UNIV
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 11 CCH COMPUTAX INC
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 7 CENTERLINE SOFTWARE
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 406
 45
 128

30 Titons at 20,890.60
 Advanced Tech. Innov. Session #6
 3/9/92 - 7/2/92
 only 3 actually Bellcore
 Rbt America, Bell Atlantic
 Pacific Bell, SBC Bell
 West
 CML Impressions & Postage
 Support for Software Renewal
 & Some Computer Eq

Lease 290 W Pleasant Ave
 Livingston NJ at 12.50/sqft

Memory Cards & Routers

Premium for HMO for Feb

11 CONNECTICUT NATIONAL	812
1 CONNECTICUT NATIONAL	22
7 CONNECTICUT NATIONAL	525
9 CONNECTICUT NATIONAL	211
2 CONNECTICUT NATIONAL	119
10 CONNECTICUT NATIONAL	719
9 CONNECTICUT NATIONAL	573
3 CONNECTICUT NATIONAL	174
10 CONNECTICUT NATIONAL	638
5 CONNECTICUT NATIONAL	375
5 CONNECTICUT NATIONAL	343
9 CONNECTICUT NATIONAL	672
8 CONNECTICUT NATIONAL	565
5 CONNECTICUT NATIONAL	345
11 CONNECTICUT NATIONAL	810
3 CONNECTICUT NATIONAL	173
7 CONNECTICUT NATIONAL	525
10 CONNECTICUT NATIONAL	737
12 CONNECTICUT NATIONAL	859
4 CONNECTICUT NATIONAL	289
3 CONNECTICUT NATIONAL	177
9 CONNECTICUT NATIONAL	628
10 CONNECTICUT NATIONAL	732
10 CONNECTICUT NATIONAL	636
9 CONNECTICUT NATIONAL	627
7 CONNECTICUT NATIONAL	499
9 CONNECTICUT NATIONAL	654
10 CONNECTICUT NATIONAL	733
3 CONNECTICUT NATIONAL	236
7 CONNECTICUT NATIONAL	533
11 CONNECTICUT NATIONAL	802
10 CONNECTICUT NATIONAL	717
9 CONNECTICUT NATIONAL	674
3 CONNECTICUT NATIONAL	216
9 CONNECTICUT NATIONAL	671
9 CONNECTICUT NATIONAL	664
8 CONNECTICUT NATIONAL	615
11 CONNECTICUT NATIONAL	784
3 CONNECTICUT NATIONAL	176
4 CONNECTICUT NATIONAL	273
5 CONNECTICUT NATIONAL	364
5 CONNECTICUT NATIONAL	376
5 CONNECTICUT NATIONAL	365
7 CONNECTICUT NATIONAL	490
1 CONNECTICUT NATIONAL	79
10 CONNECTICUT NATIONAL	719
1 CONNECTICUT NATIONAL	44
1 CONNECTICUT NATIONAL	78
11 CONNECTICUT NATIONAL	795
8 CONNECTICUT NATIONAL	577
6 CONNECTICUT NATIONAL	443
4 CONNECTICUT NATIONAL	271
1 CONNECTICUT NATIONAL	40
11 CONNECTICUT NATIONAL	794
6 CONNECTICUT NATIONAL	450
12 CONNECTICUT NATIONAL	912

12 CONNECTICUT NATIONAL	892
2 CONNECTICUT NATIONAL	151
10 CONNECTICUT NATIONAL	720
10 CONNECTICUT NATIONAL	716
4 CONNECTICUT NATIONAL	288
12 CONNECTICUT NATIONAL	890
8 CONNECTICUT NATIONAL	616
2 CONNECTICUT NATIONAL	150
12 CONNECTICUT NATIONAL	911
4 CONNECTICUT NATIONAL	772
11 CONNECTICUT NATIONAL	803
11 CONNECTICUT NATIONAL	826
12 CONNECTICUT NATIONAL	914
7 CONNECTICUT NATIONAL	534
11 CONNECTICUT NATIONAL	801
7 CONNECTICUT NATIONAL	535
2 CONNECTICUT NATIONAL	111
10 CONNECTICUT NATIONAL	734
2 CONNECTICUT NATIONAL	152
1 CONNECTICUT NATIONAL	42
2 CONNECTICUT NATIONAL	112

1 CONNECTICUT NATIONAL	41
3 CONNECTICUT NATIONAL	172
5 CONNECTICUT NATIONAL	335
11 CONNECTICUT NATIONAL	772
4 CONNECTICUT NATIONAL	252
2 CONNECTICUT NATIONAL	87
6 CONNECTICUT NATIONAL	438
3 CONTINENTAL BANK	173
4 CONTINENTAL BANK	302
5 CONTINENTAL BANK	346
4 CONTINENTAL BANK	254
3 CONTINENTAL BANK	178
4 CONTINENTAL BANK	274
4 CONTROL DATA CORPORA	281
7 CORPORATION FOR NATI	163
12 CORPORATION FOR OPEN	889
12 DIGITAL EQUIPMENT CO	874
5 DIGITAL EQUIPMENT CO	356
1 DIGITAL EQUIPMENT CO	11
6 DIGITAL EQUIPMENT CO	455
4 DIGITAL EQUIPMENT CO	283
6 DIGITAL EQUIPMENT CO	400
6 DIGITAL EQUIPMENT CO	401
2 DIGITAL EQUIPMENT CO	88
4 DIGITAL EQUIPMENT CO	282
6 DIGITAL EQUIPMENT CO	399
7 DIGITAL EQUIPMENT CO	201
6 ERNST & YOUNG	398
8 EVANS CHARLES ASSOC	606
10 EVANS CHARLES ASSOC	749
11 EVANS CHARLES ASSOC	820
12 EVANS CHARLES ASSOC	920
9 EVANS CHARLES ASSOC	681
2 EVANS CHARLES ASSOC	141

Transfer for Benefit Payment Claims

Flex-FRA acct For Benefit Claims paid

Membership in Natl Research Institutes focuses on US strong in info proc. industries
93 Member Dues & Corp Res Dev. Funds for Corp for Open Syst. Intern

3 VAX 6000 Model 510 VMS w/access

Payment of Italian Taxes for Elec on employees in Italy

EVANS CHARLES ASSOC
 3 EVANS CHARLES ASSOC
 4 EVANS CHARLES ASSOC

75
 83
 78
 809

27
 1801 7457 Stearns NY
 Savings Bond Act of 1968 employees

5 EXECUTIVE RELOCATION	830
6 FEDERAL RESERVE BANK	1415
2 FEDERAL RESERVE BANK	120
4 FEDERAL RESERVE BANK	310
7 FEDERAL RESERVE BANK	519
1 FEDERAL RESERVE BANK	167
12 FEDERAL RESERVE BANK	907
8 FEDERAL RESERVE BANK	591
3 FEDERAL RESERVE BANK	227
10 FEDERAL RESERVE BANK	741
5 FEDERAL RESERVE BANK	370
11 FEDERAL RESERVE BANK	821
10 FEDERAL RESERVE BANK	691
12 FIRST FIDELITY BANK	886
2 FIRST FIDELITY BANK	85
1 FIRST FIDELITY BANK	18
3 FIRST FIDELITY BANK	213
12 FIRST FIDELITY BANK	894
5 FIRST FIDELITY BANK	333
4 FIRST FIDELITY BANK	250
12 FIRST FIDELITY BANK	803
1 FIRST FIDELITY BANK	21
1 FIRST FIDELITY BANK	76
2 FIRST FIDELITY BANK	147
12 FIRST FIDELITY BANK	887
11 FIRST FIDELITY BANK	770
9 FIRST FIDELITY BANK	651
6 FIRST FIDELITY BANK	432
6 FIRST FIDELITY BANK	427
6 FIRST FIDELITY BANK	448
4 FIRST FIDELITY BANK	316
8 FIRST FIDELITY BANK	575
7 FIRST FIDELITY BANK	530
3 FIRST FIDELITY BANK	170
11 FIRST FIDELITY BANK	792
3 FIRST FIDELITY BANK	195
2 FIRST FIDELITY BANK	107
4 FIRST FIDELITY BANK	317
5 FIRST FIDELITY BANK	362
5 FIRST FIDELITY BANK	374

2,080,261 annually
 155,000 sq ft 13,92

US Savings Bond P/R w/H

1 FIRST FIDELITY BANK	17
11 FIRST FIDELITY BANK	769
12 FIRST FIDELITY BANK	854
10 FIRST FIDELITY BANK	694
9 FIRST FIDELITY BANK	626
8 FIRST FIDELITY BANK	563
7 FIRST FIDELITY BANK	471
6 FIRST FIDELITY BANK	405
4 FIRST FIDELITY BANK	249
2 FIRST FIDELITY BANK	86
1 FIRST FIDELITY BANK	19
3 FIRST FIDELITY BANK	162

12	FIRST FIDELITY BANK	867
3	FIRST FIDELITY BANK	194
12	FIRST FIDELITY BANK	868
12	FIRST FIDELITY BANK	845
11	FIRST FIDELITY BANK	791
11	FIRST FIDELITY BANK	771
10	FIRST FIDELITY BANK	731
10	FIRST FIDELITY BANK	695
9	FIRST FIDELITY BANK	663
6	FIRST FIDELITY BANK	428
3	FIRST FIDELITY BANK	234
3	FIRST FIDELITY BANK	212
4	FIRST FIDELITY BANK	251
8	FIRST FIDELITY BANK	598
2	FIRST FIDELITY BANK	126
1	FIRST FIDELITY BANK	54
2	FIRST FIDELITY BANK	106
1	FIRST FIDELITY BANK	20
8	FIRST FIDELITY BANK	564
7	FIRST FIDELITY BANK	521
4	FIRST FIDELITY BANK	287
5	FIRST FIDELITY BANK	361
6	FIRST FIDELITY BANK	396
6	FIRST FIDELITY BANK	453
6	FIRST FIDELITY BANK	418
7	FIRST FIDELITY BANK	488
3	FIRST FIDELITY BANK	171
9	FIRST FIDELITY BANK	636
4	FIRST FIDELITY BANK	269
5	FIRST FIDELITY BANK	334
9	FIRST FIDELITY BANK	652
12	FIRST FIDELITY BANK	885
12	FIRST FIDELITY BANK	909
12	FDRE SYSTEMS INC	841
11	GENERAL OFFICE EQUI	787
12	GENERAL OFFICE EQUI	838
12	GIRSBERGER INDUSTRIE	858
10	HERBERT L. JAMISON &	689
8	HERBERT L. JAMISON &	578
9	HEWLETT PACKARD	662
8	HEWLETT PACKARD	573
7	HEWLETT PACKARD	518
12	HEWLETT PACKARD	837
12	HEWLETT PACKARD	849
3	HITACHI DATA SYSTEMS	218
3	HITACHI DATA SYSTEMS	217
8	HORIZON OF LISLE	569
9	HORIZON OF LISLE	635
10	HORIZON OF LISLE	711
7	HORIZON OF LISLE	542
9	HORIZON OF LISLE	640
2	HORIZON OF LISLE	97
7	HORIZON OF LISLE	467
8	HORIZON OF LISLE	619
3	HORIZON OF LISLE	228
3	HORIZON OF LISLE	190
12	HORIZON OF LISLE	839
12	HORIZON OF LISLE	870
11	HORIZON OF LISLE	788
10	HORIZON OF LISLE	757
5	HORIZON OF LISLE	391
4	HORIZON OF LISLE	260
3	HORIZON OF LISLE	160
6	HORIZON OF LISLE	422

Estimated Inc Tax 4th Qtr

8 Canon A.T.M. Sewel

Purchase Office Furn. & Equip
CONSENS REVIVAL & PAIR OF ADJ. ARMS

Annual Premium for errors/omission insur.

Soft Bench BMS Framework License
to use

Cache Memory Upgrade

7 HORIZON OF LISLE	495	
7 HORIZON OF LISLE	509	
5 HORIZON OF LISLE	350	
5 HORIZON OF LISLE	321	
5 HORIZON OF LISLE	320	<i>Training Facility Charges</i>
3 IBM	158	<i>broader</i>
2 IBM	83	<i>code</i>
9 IBM	629	
5 IBM	389	
10 IBM	756	
1 IBM	12	
12 ILLINOIS DEPARTMENT	864	
10 ILLINOIS DEPT OF REV	702	
9 ILLINOIS DEPT OF REV	639	
4 ILLINOIS STATE UNEMP	292	
8 INDUSTRIAL MATERIAL	559	<i>Equipts Tri level Shelving Storage System</i>
10 JERSEY CENTRAL POWER	727	
2 JERSEY CENTRAL POWER	91	
9 JERSEY CENTRAL POWER	659	
4 JERSEY CENTRAL POWER	257	
8 JERSEY CENTRAL POWER	580	
7 JERSEY CENTRAL POWER	510	
12 JERSEY CENTRAL POWER	865	
3 JERSEY CENTRAL POWER	184	
11 JERSEY CENTRAL POWER	789	
5 JERSEY CENTRAL POWER	348	
1 JERSEY CENTRAL POWER	27	
10 JERSEY CENTRAL POWER	704	
7 JERSEY CENTRAL POWER	492	
9 JERSEY CENTRAL POWER	632	
8 JERSEY CENTRAL POWER	558	
6 JERSEY CENTRAL POWER	417	
6 JERSEY CENTRAL POWER	435	
10 JIP BUSINESSLAND	700	<i>Computer Equip</i>
10 LIEBERT CORPORATION	722	<i>Equipment Mtr. Agreements</i>
7 MAGLIO A J INC	474	
7 MAGLIO A J INC	475	<i>BCR High Voltage Project - Electrical Contractor</i>
7 MANUFACTURERS HANOVE	536	
11 MANUFACTURERS HANOVE	773	
10 MANUFACTURERS HANOVE	721	
7 MANUFACTURERS HANOVE	500	<i>Flex FRA - Benefit Claims 7/92</i>
10 MANUFACTURERS HANOVE	639	
1 MARQUIS LEASING ASSO	2	
3 MARQUIS LEASING ASSO	157	
2 MARQUIS LEASING ASSO	113	
5 MARQUIS LEASING ASSO	354	
9 MARQUIS LEASING ASSO	658	
2 MARQUIS LEASING ASSO	82	
4 MARQUIS LEASING ASSO	278	<i>444 Hoos Lane - computer System</i>
1 MARSH AND MCLENNAN I	50	
2 MARSH & MCLENNAN INC	94	
3 MARSH & MCLENNAN INC	181	
6 MARSH & MCLENNAN INC	452	
6 MARSH & MCLENNAN INC	403	
1 MARSH & MCLENNAN INC	68	
6 MARSH & MCLENNAN INC	430	

1/11/92

MAXIM STRATEGY INC

1 HELLON BANK	55
12 HELLON BANK N A	185
9 HELLON BANK N A	630
3 HELLON BANK N A	197
6 HELLON BANK N A	42
8 HELLON BANK N A	1613
9 HELLON BANK N A	670
10 HELLON BANK N A	736
7 HELLON BANK N A	524
12 HELLON BANK N A	869
11 HELLON BANK N A	809
6 HELLON BANK N A	454
6 HELLON BANK N A	297
4 HELLON BANK N A	301
6 HELLON BANK N A	419
2 HELLON BANK N A	148
6 HELLON BANK N A	449
3 HELLON BANK N A	235
12 HELLON BANK N A	910
12 MICROELECTRONICS AND	888

VEBA trust contribution

9 MICROELECTRONICS AND	653
8 MICROELECTRONICS AND	565
7 MICROELECTRONICS AND	498
5 MICROELECTRONICS AND	363
6 MICROELECTRONICS AND	433
11 MICROELECTRONICS AND	793
8 MICROELECTRONICS AND	576
10 MICROELECTRONICS AND	715
4 MICROELECTRONICS AND	270
3 MICROELECTRONICS AND	196
1 MICROELECTRONICS AND	39
2 MICROELECTRONICS AND	109
4 MIDDLETOWN TAX COLL	300
8 MIDDLETOWN TAX COLL	572
1 MIDDLETOWN TAX COLL	34
10 MIDDLETOWN TAX COLL	729
9 MPR TELTECH LTD	656
12 NETWORK DYNAMICS	863
1 NEW JERSEY BELL	14
7 NEW JERSEY BELL	516
9 NEW JERSEY BELL	668
8 NEW JERSEY BELL	600
8 NEW JERSEY BELL	585
2 NEW JERSEY BELL	132
10 NEW JERSEY BELL	738
12 NEW JERSEY BELL	894
4 NEW JERSEY BELL	244
4 NEW JERSEY BELL	279
5 NEW JERSEY BELL	367
2 NEW JERSEY BELL	133
6 NEW JERSEY BELL	445
12 NEW JERSEY BELL	856
4 NEW JERSEY EMPLOYMEN	297
2 NEW JERSEY SALES TAX	96

*Programs for Adv. Computing Technology
Software Tech. & Superconductivity*

*Project activity 694501 ATM Equip
Computers Equip*

10 NEW JERSEY SALES TAX	706
3 NEW JERSEY SALES TAX	188
12 NEW JERSEY SALES TAX	861
9 NEW JERSEY SALES TAX	647
8 NEW JERSEY SALES TAX	570
7 NEW JERSEY SALES TAX	502
4 NEW JERSEY SALES TAX	266
5 NEW JERSEY SALES TAX	353
6 NEW JERSEY SALES TAX	431
1 NEW JERSEY SALES TAX	9
6 HEC LEASING INC	429
7 NJ DIVISION EMPLOYE	528
7 NORTHERN TELECOM INC	513
2 NYNEX SERVICE COMPAN	103
8 NYNEX SERVICE COMPAN	596
11 NYNEX SERVICE COMPAN	782
5 NYNEX SERVICE COMPAN	341
7 ONE RIVER ASSOCIATES	544
7 ONE RIVER ASSOCIATES	543
7 ONE RIVER ASSOCIATES	545
10 ONE RIVER ASSOCIATES	752
11 ONE RIVER ASSOCIATES	823
2 ONE RIVER ASSOCIATES	144
9 ONE RIVER ASSOCIATES	683
1 ONE RIVER ASSOCIATES	70
4 ONE RIVER ASSOCIATES	312
8 ONE RIVER ASSOCIATES	611
6 ONE RIVER ASSOCIATES	464
3 ONE RIVER ASSOCIATES	231
5 ONE RIVER ASSOCIATES	386
12 ONE RIVER ASSOCIATES	922
6 ONE RIVER ASSOCIATES	463
9 ONE RIVER ASSOCIATES	682
10 ONE RIVER ASSOCIATES	751
1 ONE RIVER ASSOCIATES	69
5 ONE RIVER ASSOCIATES	385
4 ONE RIVER ASSOCIATES	311
3 ONE RIVER ASSOCIATES	230
8 ONE RIVER ASSOCIATES	610
2 ONE RIVER ASSOCIATES	143
11 ONE RIVER ASSOCIATES	822
12 ONE RIVER ASSOCIATES	921
1 ONE RIVER ASSOCIATES	71

*Engineer Furnish Detail PMS100
Extension of Nassau St
NY*

*Lease
Nassau Research Center
at 15.55/sq ft*

6 ONE RIVER ASSOCIATES	465
12 ONE RIVER ASSOCIATES	923
4 ONE RIVER ASSOCIATES	313
2 ONE RIVER ASSOCIATES	145
11 ONE RIVER ASSOCIATES	824
9 ONE RIVER ASSOCIATES	684
5 ONE RIVER ASSOCIATES	387
3 ONE RIVER ASSOCIATES	232
8 ONE RIVER ASSOCIATES	612
10 ONE RIVER ASSOCIATES	753
4 ORACLE CORPORATION	256
2 PACIFIC BELL	99

*Middletown Tech Center 3rd
Lease Nassau Research Eng Center \$16.25/sq ft*

Purchase Computer System

11 PACIFIC BELL

5 PACIFIC BELL

10 PACIFIC MUTL LIFE I

2 PENSION BENEFIT GUAR

11 PEOPLESFT INC

12 PETERSON O A CONSTRU

11 PETERSON O A CONSTRU

12 PETERSON O A CONSTRU

6 PRUDENTIAL INSURANCE

5 PRUDENTIAL INSURANCE

12 PRUDENTIAL INSURANCE

10 PRUDENTIAL INSURANCE

11 PRUDENTIAL INSURANCE

1 PRUDENTIAL INSURANCE

2 PRUDENTIAL INSURANCE

3 PRUDENTIAL INSURANCE

4 PRUDENTIAL INSURANCE

11 PSEIC

11 PSEIC

5 PSEIC

7 PSEIC

3 PSEIC

3 PSEIC

1 PSEIC

1 PSEIC

8 PSEIC

11 PSEIC

6 PSEIC

7 PSEIC

6 PSEIC

1 PSEIC

9 PSEIC

5 PSEIC

12 PSEIC

7 PSEIC

4 PSEIC

10 PSEIC

9 PSEIC

8 PSEIC

3 PSEIC

1 PSEIC

1 PSEIC

2 PSEIC

7 PYRAMID TECHNOLOGYCO

7 PYRAMID TECHNOLOGYCO

5 PYRAMID TECHNOLOGYCO

9 PYRAMID TECHNOLOGYCO

11 READMORE INC

11 READMORE INC

8 RHR SYSTEM

5 RHR SYSTEM

1 RHR SYSTEM

1 RUTGERS HEALTH PLAN

3 RUTGERS HEALTH PLAN

12 RUTGERS HEALTH PLAN

11 RUTGERS HEALTH PLAN

9 RUTGERS HEALTH PLAN

8 RUTGERS HEALTH PLAN

10 RUTGERS HEALTH PLAN

7 RUTGERS HEALTH PLAN

6 RUTGERS HEALTH PLAN

5 RUTGERS HEALTH PLAN

4 RUTGERS HEALTH PLAN

2 RUTGERS HEALTH PLAN

3 RUTGERS HEALTH PLAN

778
337
726
804
853
774
904
408
352
875
710
785
57
115
166
259
814
761
332
507
159
204
7
59
586
760
156
527
409
51
667
324
857
476
242
630
622
549
180
58
6
89
514
515
351
646
830
775
582
326
53
8
161
871
796
641
555
723
477
410
328
262
122
165

Interest Due on Loan on Cont and Equip

Software License Fees

Monitor HVAC & Internal Partitions & Refurbish

Premium for March for Group Life AD&D & Retirees

Electric

MIS 4T Base System 32mb

Publication appears to be for Utility

Metered Postage Payment

119
134
157
560
35
285
247
245
35
286
118
587
336
776
590
98
223
306
222
305
63
600
917
539
137
746
678
381
842
817
460
459
62
745
677
916
538
380
816
138
602
129
657
617
686
466
546
325
827
755
319
153
388
277
80
10

2 SOUTHWESTERN BELL TE
2 SOUTHWESTERN BELL TE
3 SOUTHWESTERN BELL TE
8 SOUTHWESTERN BELL TE
1 SOUTHWESTERN BELL TE
4 SOUTHWESTERN BELL TE
4 SOUTHWESTERN BELL TE
4 SOUTHWESTERN BELL TE
1 SOUTHWESTERN BELL TE
4 SOUTHWESTERN BELL TE
2 SOUTHWESTERN BELL TE
8 SOUTHWESTERN BELL TE
5 SOUTHWESTERN BELL
11 SOUTHWESTERN BELL
8 SOUTHWESTERN BELL
2 SOUTHWESTERN BELL
3 SOUTHWATE CORP OFFIC
4 SOUTHWATE CORP OFFIC
3 SOUTHWATE CORP OFFIC
4 SOUTHWATE CORP OFFIC
1 SOUTHWATE CORP OFFIC
8 SOUTHWATE CORP OFFIC
12 SOUTHWATE CORP OFFIC
7 SOUTHWATE CORP OFFIC
2 SOUTHWATE CORP OFFIC
10 SOUTHWATE CORP OFFIC
9 SOUTHWATE CORP OFFIC
5 SOUTHWATE CORP OFFIC
12 SOUTHWATE CORP OFFIC
11 SOUTHWATE CORP OFFIC
6 SOUTHWATE CORP OFFIC
5 SOUTHWATE CORP OFFIC
10 SOUTHWATE CORP OFFIC
9 SOUTHWATE CORP OFFIC
12 SOUTHWATE CORP OFFIC
7 SOUTHWATE CORP OFFIC
5 SOUTHWATE CORP OFFIC
11 SOUTHWATE CORP OFFIC
2 SOUTHWATE CORP OFFIC
8 SOUTHWATE CORP OFFIC
2 SMITH BARNEY HARRIS
9 BIEREN STROMBERG CA
8 SHAW ASSOCIATES
9 SHAW ASSOCIATES
6 SHAW ASSOCIATES
7 SHAW ASSOCIATES
12 SHAW ASSOCIATES
11 SHAW ASSOCIATES
10 SHAW ASSOCIATES
4 SHAW ASSOCIATES
2 SHAW ASSOCIATES
5 SHAW ASSOCIATES
3 SHAW ASSOCIATES
1 SHAW ASSOCIATES
1 SECURITY DYNAMICS

Monitorium US Southgate II
Office Cont

Southgate I
Monitorium US Office Cont
\$15168/54 ff

Fullerton Tilt Center Pentax 13-50
Computer Equip
Pioneer Equipment for LT enclosure
Plan

1991 Security Cards SDSmart
Canada
3 yr/yr

9 SOUTHWESTERN BELL TE	588
6 SOUTHWESTERN BELL TE	440
5 SOUTHWESTERN BELL TE	359
12 SOUTHWESTERN BELL TE	776
9 SOUTHWESTERN BELL TE	549
11 SOUTHWESTERN BELL TE	806
10 SOUTHWESTERN BELL TE	739
1 SOUTHWESTERN BELL TE	60
3 SOUTHWESTERN BELL TE	192
4 SOUTHWESTERN BELL TE	293
4 SOUTHWESTERN BELL TE	303
3 SOUTHWESTERN BELL TE	205
6 SOUTHWESTERN BELL TE	441
5 SOUTHWESTERN BELL TE	368
2 SOUTHWESTERN BELL TE	135
1 SOUTHWESTERN BELL TE	77
4 SOUTHWESTERN BELL TE	294
9 SOUTHWESTERN BELL TE	661
8 SOUTHWESTERN BELL TE	589
10 SOUTHWESTERN BELL TE	701
9 SOUTHWESTERN BELL TE	645

*Kansas City Data-Centers bill for
Computer Services for
Number Admin Service Center
(NASC)*

4 SOUTHWESTERN BELL TE	246
12 SOUTHWESTERN BELL TE	852
9 SOUTHWESTERN BELL TE	644
11 SOUTHWESTERN BELL TE	907
12 SOUTHWESTERN BELL TE	895
12 SOUTHWESTERN BELL TE	878
10 SOUTHWESTERN BELL TE	740
6 STATE OF NEW JERSEY	413
4 STATE OF NEW JERSEY	296
3 STATE OF NEW JERSEY	206
5 STATE OF NEW JERSEY	358
8 STATE OF NEW JERSEY	607
11 STATE OF NEW JERSEY	805
6 STATE OF NEW JERSEY	451
7 STATE OF NEW JERSEY	529
2 STATE OF NEW JERSEY	121
9 STATE OF NEW JERSEY	669
2 STATE OF NEW JERSEY	93
4 STATE OF NEW JERSEY	258
11 STATE OF NEW JERSEY	777
6 STATE OF NEW JERSEY	416
10 STATE OF NEW JERSEY	703
1 STATE OF NEW JERSEY	49
12 STATE OF NEW JERSEY	860
7 STATE OF NEW JERSEY	491
8 STATE OF NEW JERSEY	567
9 STATE OF NEW JERSEY	630
4 STATE OF NEW JERSEY	239
1 STATE OF NEW JERSEY	24
10 STATE OF NEW JERSEY	735
5 STATE OF NEW JERSEY	347
3 STATE OF NEW JERSEY	168
4 STATE OF NEW JERSEY	255
12 STATE OF NEW JERSEY	906

12 STEVENS INSTITUTE OF	850
4 STEVENS INSTITUTE OF	277
6 STRATUS COMPUTER INC	421
6 SUDLER COMPANIES	461
4 SUDLER COMPANIES	307
9 SUDLER COMPANIES	679
1 SUDLER COMPANIES	65
2 SUDLER COMPANIES	140
5 SUDLER COMPANIES	382
7 SUDLER COMPANIES	540
12 SUDLER COMPANIES	843
12 SUDLER COMPANIES	918
3 SUDLER COMPANIES	225
11 SUDLER COMPANIES	818
10 SUDLER COMPANIES	747
8 SUDLER COMPANIES	604
1 SUDLER COMPANIES	64
11 SUDLER COMPANIES	819
12 SUDLER COMPANIES	919
2 SUDLER COMPANIES	139
8 SUDLER COMPANIES	605
6 SUDLER COMPANIES	462
4 SUDLER COMPANIES	308
7 SUDLER COMPANIES	511
5 SUDLER COMPANIES	383
9 SUDLER COMPANIES	680
10 SUDLER COMPANIES	748
3 SUDLER COMPANIES	224
4 SUN MICROSYSTEMS	291
3 SUN MICROSYSTEMS	186
5 SUN MICROSYSTEMS	355
4 SUN MICROSYSTEMS	276
1 SUN MICROSYSTEMS	30
3 SUN MICROSYSTEMS	185
2 SUN MICROSYSTEMS	92
9 SUN MICROSYSTEMS	624
12 TECHNOLOGIES RESEARC	924
1 TOWNSHIP OF LIVINGST	33
4 TOWNSHIP OF LIVINGST	298
11 TOWNSHIP OF LIVINGST	765
12 TOWNSHIP OF LIVINGST	897
10 TOWNSHIP OF LIVINGST	708

Order for Sony 9250 Computer System
Purchase Computer System

Order 19
09 Sept 74

Lease on Piscataway Admin Center
6 corp. place @ 8.70/sq ft.

Lease on Piscataway Admin. Center
3 corp. place at 8.09/sq ft.

Purchase Computer Equip
notes for mass mkt Reseach
Project

Property Tax Payment

4 TOWNSHIP OF MORRIS	295
1 TOWNSHIP OF MORRIS	32
8 TOWNSHIP OF MORRIS	552
11 TOWNSHIP OF MORRIS	763
1 TRAVELERS INSURANCE	77
11 TRAVELERS INSURANCE	793
12 TRAVELERS INSURANCE	877
10 TRAVELERS INSURANCE	709
7 TRAVELERS INSURANCE	472
8 TRAVELERS INSURANCE	553
6 TRAVELERS INSURANCE	402
9 TRAVELERS INSURANCE	637

Property Tax Morris Township

5 TRAVELERS INSURANCE	349
4 TRAVELERS INSURANCE	261
12 TURNER CONSTRUCTION	898
8 UNIPRESS SOFTWARE, I	583
5 UNISYS CORPORATION	377
1 UNISYS CORPORATION	13
5 UNISYS CORPORATION	378
12 UNITED RESEARCH CO I	846
12 UNITED RESEARCH CO I	847
12 UNITED RESEARCH CO I	848
12 UNITED WAY OF	840
4 UNITED WAY OF	265
9 UNITED WAY OF	629
12 US HEALTHCARE	872
10 US HEALTHCARE	774
11 US HEALTHCARE	797
8 US HEALTHCARE	556
4 US HEALTHCARE	263
7 US HEALTHCARE	484
9 US HEALTHCARE	642
6 US HEALTHCARE	411
5 US HEALTHCARE	329
2 US HEALTHCARE	123
3 US HEALTHCARE	182
6 US SPRINT	457
1 US SPRINT-NATIONAL	48
8 US SPRINT-NATIONAL	551
3 US SPRINT-NATIONAL	191
5 US SPRINT-NATIONAL	325
5 US SPRINT-NATIONAL	366
9 US SPRINT-NATIONAL	685
11 US SPRINT-NATIONAL	765
8 US SPRINT-NATIONAL	614
12 US SPRINT-NATIONAL	662
4 US SPRINT-NATIONAL	240
2 US WEST COMMUNICATIO	108
8 US WEST COMMUNICATIO	539
11 US WEST COMMUNICATIO	783
5 US WEST COMMUNICATIO	342
4 WANZIE EDWARD V	294
8 WANZIE EDWARD V	571
10 WANZIE EDWARD V	707
1 WANZIE EDWARD V	31
12 WANZIE EDWARD V	896
11 WANZIE EDWARD V	762
1 WASHINGTON UNIVERSIT	28
11 WILLS CORROON CORP	828
8 WORLD LEASING CORP	568
2 XEROGRAPHIC REPRODUC	130
3 XEROGRAPHIC REPRODUC	154
10 XEROGRAPHIC REPRODUC	750
1 XEROGRAPHIC REPRODUC	52
5 YETKA GEORGE A CORP	392

Medical Premium March 1993
 Construction of MRE-2 Cafeteria
 Computer Purchase Unisys DCP35
 Entry Systems
 5 Wks Professional Service
 Remitting Payroll W/H
 Premium for Healthcare

50 Knight Bridge, 370 Hoes Ln
 Property Tax for DE, P41-3, RCC,
 ATN Fast Packet Service, Broadband Terminal 15000 units
 Premium Casualty Prog. Retro Clm 28,000
 Blake Industries Huber Four-Curve & Ethanol
 Diffractometer System Partida
 Inventech & Bell Atlantic Special Printing
 Cor plbed 1000' 6 chelled
 water mains for chiller A/C
 in 8 Corp. Place

2-12-1 A

#	Payee	Amnt.	Questions
2 91	Seminor Consulting	[REDACTED]	What were the Services for?
31			What is Lab 2 Lab?
4 84	ATT	[REDACTED]	What is inessia For?
6 69	MPR	[REDACTED]	What is Equipment Used for?
8 63	Unipress	\$ [REDACTED]	What is Equip used for?
10 62	Claremont	[REDACTED]	What is Contract for?
11 49	Chrysler	[REDACTED]	What Equip is being Bought out? What For?
14 46	Ernst & Young	[REDACTED]	What are employees doing in Italy? What Project?
17 39	Charles Evans affil	[REDACTED]	What is at this address?
38	Control Data		No Booking Provided
20 3?	Executive Relocation Services	[REDACTED]	Provide title of employee & where transferred to
23	Carnegie Mellon Univ	[REDACTED]	Provide how this was charged?

CONFIDENTIAL

No time to review answers Not received in time.

ESPI

BELLCORE VOUCHER INFORMATION

- 4 91. Gemini Consulting [REDACTED]
This voucher covered expenses accrued to a consulting firm specializing in business process re-engineering.
- 8 84. ATT [REDACTED]
This item is required to access AT&T operations systems in order to complete interproduct system testing.
- 12 69. MRP [REDACTED]
The equipment, which consists of three (3) Asynchronous Transfer Mode (ATM) switches, was used to build part of the Bellcore Research Network Testbed.
- 17 63. Unipress [REDACTED]
Equipment is for the Network Services Test System (NSTS) Network Controller in the NSTS Lab.
- 21 62. Claremont [REDACTED]
This contract was associated with the relocation of Bellcore's Distribution Storage Center (DSC) to PYA-Building III.
- 26 49. Chrysler [REDACTED]
The equipment bought out was an electron beam evaporator system, used to conduct applied research on thin-film materials that are unavailable from commercial sources. The equipment was necessary to prepare these electronic materials, evaluate their performance, and appraise their potential for components to support exchange access telecommunications applications.
- 36 46. Ernest & Young [REDACTED]
This project is a Licensing activity conducted in support of an international client through one of the RBOCs as provided in the Service Agreement. BellSouth is not a participant of this client-specific project. All charges are billed to the sponsoring RBOC.
- 43 39. Charles Evans Affil [REDACTED]
This is the location of Bellcore's Building 4 in Piscataway.

38. Control Data
See Attachment II for the requested backup. A clearer
or better copy is not available.

5
44. Executive Relocation Services [REDACTED]
The employee's title is Director and transferred to
Bellcore.

8
20. Carnegie Mellon Univ [REDACTED]
This was charged to Account 403-291.

PROPRIETARY

RECEIVED
FLORIDA PUBLIC SERVICE
COMM

93 OCT 14 AM 11:32

ADDITIONAL
FINANCIAL ANALYSIS DIV.

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260
Audit
Date: 09/28/93
Item No. 2-121.A
Page 1 of 1

Request: Answer questions related to vouchers provided. Attachment with questions is being given to Al Carreras as it is ESPI.

Response: See Attachment I for explanation of expenses. See Attachment II for backup for Control Data.

These attachments are being sent in the overnight mail on October 13, 1993.

This material constitutes proprietary confidential business information and is being produced subject to a "Notice of Intent to Request Confidential Classification."

Date Provided: October 13, 1993

COMPANY: BST
TITLE: REVIEW OF INTERNAL AUDIT
H20-36-02-A-SF
PART 64 - JOINT COST ORDER, COST SEPARATION SYSTEM
AND COST ALLOCATION MANUAL COMPLIANCE
BSC - COMPTROLLERS; BST - COMPTROLLERS, INFORMATION
SYSTEMS, NETWORK

AUDIT REPORT
DATE: NOVEMBER, 1993

DATE: AUGUST 10, 1993
AUDITOR: RKY

CONFIDENTIAL

from ESPT info

WP NO.

INTRO:

The JCO makes it a requirement that BST allocate g/l accounts between reg and nonreg activities. The tables in the CAM (cost apportionment tables) documents the allocation method of each account and corresponding cost pool.

Changes to the CAM are submitted to the FCC quarterly and are implemented by filling out CR (change requestes) and entering these into the CSS (Cost Separations System).

The CSS performs the cost apportionment. The process is dependent on 15 othe info systems. "CSS produces the Cost Pool Allocation Matrix (CPAM) file, which is used for generating monthly regulated and non-regulated info as well as for financial analysis purposes."

26 [REDACTED]
27 [REDACTED]

28 [REDACTED]
29 [REDACTED]
30 [REDACTED]

31 [REDACTED]

32 [REDACTED]
33 [REDACTED]
34 [REDACTED]
35 [REDACTED]
36 [REDACTED]
37 [REDACTED]
38 [REDACTED]

39 Does not say how much.

CONFIDENTIAL

40 [REDACTED]
41 [REDACTED]
42 [REDACTED]
43 [REDACTED]

44 Does not say how much.

9/17/93

COMPANY: BST
TITLE: REVIEW OF INTERNAL AUDIT
H20-36-02-A-SF
PART 64 - JOINT COST ORDER COST SEPARATION SYSTEM
AND COST ALLOCATION MANUAL COMPLIANCE
BSC - COMPTROLLERS; BST - COMPTROLLERS, INFORMATION
SYSTEMS, NETWORK

AUDIT REPORT
DATE: NOVEMBER, 1992

DATE: AUGUST 10, 1993
AUDITOR: RKY

CONFIDENTIAL

For ESPI

WP NO.

INTRO:

The JCO makes it a requirement that BST allocate g/l accounts between reg and nonreg activities. The tables in the CAM (cost apportionment tables) documents the allocation method of each account and corresponding cost pool.

Changes to the CAM are submitted to the FCC quarterly and are implemented by filling out CR (change requestes) and entering these into the CSS (Cost Separations System).

The CSS performs the cost apportionment. The process is dependent on 15 othe info systems. "CSS produces the Cost Pool Allocation Matrix (CPAM) file, which is usedfor generating monthly regulated and non-regulated info as well as for financial analysis purposes."

25
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[REDACTED]

Does not say how much.

29
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[REDACTED]

22 Did internal audit recompute these?

Page 3

MEMORANDUM

AUGUST 10, 1993

TO:
FROM:
RE:

KAREN KAETZ, BST, BIRMINGHAM
RUTH K YOUNG, FPSC, MIAMI

PK

NARUC AUDIT - COSTING METHODOLOGIES GROUP

2-007

RE: CSS
CONFIDENTIAL QUESTIONS ARE BEING SUBMITTED UNDER
SEPARATE COVER REGARDING INTERNAL AUDIT NO.
H20-36-02-A-SF, JOINT COST ORDER COST SEPARATION SYSTEM
AND COST ALLOCATION MANUAL COMPLIANCE, DATED NOVEMBER,
1992.

This is the only copy being submitted. Tim Devlin will
send you the official number.

ACCORDING TO THE INTERNAL AUDIT, [REDACTED]

[REDACTED]

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1. DID INTERNAL AUDIT RECALCULATE THESE ACCOUNTS BASED ON THE CORRECTIONS TO THE COST POOLS?
2. IF SO, PROVIDE AMOUNTS ADJUSTED AND ALL SOURCE DOCUMENTATION TO ADJUSTMENTS.
3. IF NOT, EXPLAIN WHY NO ADJUSTMENT AND RECALCULATE NOW. PROVIDE ALL SOURCE DOCUMENTATION TO RECALCULATION.

CONFIDENTIAL

P93/13

COMPANY: BSI
 TITLE: ANALYSTS OF PLANT REG/NON REG
 TEST YEAR: DEC. 92
 EDITOR: KATHY WELCH
 DATE: AUGUST 25, 1993
 WORKPAPER #

ACCOUNT	NR REG	NON-REG	TOTAL NR	% NON REG	% OF TOTAL	FR REG	NON-REG	TOTAL FR	% NON REG	% OF TOTAL
2124	315,595,047.26	22,534,106.62	338,129,153.88	6.66%	4.12%	315,498,264.26	22,534,106.62	338,032,370.88	6.67%	4.12%
2211	587,694,137.40	110.59	587,694,247.99	0.00%	7.17%	587,694,137.40	110.59	587,694,247.99	0.00%	7.16%
2212	984,345,384.85	20,861,940.63	1,005,207,325.48	2.08%	12.26%	984,345,384.85	20,861,940.63	1,005,207,325.48	2.08%	12.25%
2215	3,544.56		3,544.56	0.00%	0.00%	3,544.56		3,544.56	0.00%	0.00%
2231	5,569,689.60		5,569,689.60	0.00%	0.07%	5,569,689.60		5,569,689.60	0.00%	0.07%
2232	1,779,526,665.87		1,779,526,665.87	0.00%	21.68%	1,779,526,665.87		1,779,526,665.87	0.00%	21.68%
2411	122,074,845.39		122,074,845.39	0.00%	1.49%	122,074,845.39		122,074,845.39	0.00%	1.49%
2421	655,242,207.53		655,242,207.53	0.00%	7.99%	655,129,450.53		655,129,450.53	0.00%	8.00%
2422	889,866,241.82		889,866,241.82	0.00%	10.85%	889,866,241.82		889,866,241.82	0.00%	10.84%
2423	2,127,703,241.15		2,127,703,241.15	0.00%	25.94%	2,130,851,296.15		2,130,851,296.15	0.00%	25.96%
2424	9,914,568.07		9,914,568.07	0.00%	0.12%	9,914,568.07		9,914,568.07	0.00%	0.12%
2426	42,037,673.14		42,037,673.14	0.00%	0.51%	42,034,673.14		42,034,673.14	0.00%	0.51%
2431	4,427,265.59		4,427,265.59	0.00%	0.05%	4,427,265.59		4,427,265.59	0.00%	0.05%
2441	635,390,264.73		635,390,264.73	0.00%	7.75%	635,390,264.73		635,390,264.73	0.00%	7.74%
	8,158,390,776.96	43,396,157.84	8,201,786,934.80	0.53%	100.00%	8,163,326,291.96	43,396,157.84	8,206,722,449.80	0.53%	100.00%
SUM OF 221X	1,572,043,066.81	20,862,051.22	1,592,905,118.03	1.31%		1,572,043,066.81	20,862,051.22	1,592,905,118.03	1.31%	
SUM 2231,2, 24XX	6,270,752,662.89	0.00	6,270,752,662.89	0.00%		6,275,784,960.89	0.00	6,275,784,960.89	0.00%	
ALL EXCEPT 2124	7,842,795,729.70	20,862,051.22	7,863,657,780.92	0.27%		7,847,828,027.70	20,862,051.22	7,868,690,078.92	0.27%	

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Source M.P. 2702

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Bellcore

Bell Communications Research

ITEM NO. 1-828.2
ATTACHMENT
PAGE 1 OF 197

Special Report
SR-GLC-000669
Issue 3, May 1988

Basic Bellcore

AGREEMENTS

F01K01W 000122

Bellcore

49



Bellcore

© Bell Communications Research

Special Report
SR-GLC-000669
Issue 3, May 1988

Basic Bellcore Agreements

C O N T E N T S

Shareholders' Agreement

Dated October 2, 1984 and Amended January 1, 1988

Service Agreement

Dated January 1, 1988

Bellcore TEC Agreement

Currently Under Negotiation — To Be Provided Upon Execution

Trade Name, Trademark and Service Mark License Agreement

Dated December 31, 1983

Intellectual Property Agreement

Currently Under Negotiation — To Be Provided Upon Execution

National Security/Emergency Preparedness Agreement

Dated March 6, 1984

May, 1988

Shareholders'

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1.2 Bylaws	2
1.3 Supremacy of this Agreement	2
1.4 Capital Structure	2
1.5 Ownership of Shares	3
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SHAREHOLDERS' AGREEMENT

Shareholders' Agreement, dated as of October 2, 1984 ("Agreement") and amended as of January 1, 1988 among Ameritech Services, Inc.; Bell Atlantic Network Services, Inc.; BellSouth Services Incorporated; NYNEX Service Company; Pacific Bell; U S WEST Advanced Technologies, Inc., as agent for The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company; and Southwestern Bell Telephone Company (which are referred to individually as a "Shareholder" and collectively as the "Shareholders").

Bell Communications Research, Inc. (the "Corporation") was incorporated in the State of Delaware on October 20, 1983. In accordance with the Modification of Final Judgment ("MFJ") in *United States of America v. Western Electric Company, Incorporated and American Telephone and Telegraph Company* (Civil Action No. 82-0192) in the United States District Court for the District of Columbia, the Shareholders are the sole shareholders of the Corporation. The parties desire to effect certain understandings among themselves with respect to the organization and operation of the Corporation and to provide for certain restrictions on the abilities of the Shareholders to transfer their interests in the Corporation.

THEREFORE, the Shareholders agree as follows:

Section 1. *Organization and Capital Structure.*

1.1 *Certificate of Incorporation.* The Corporation's certificate of incorporation shall be as contained in the restated certificate of incorporation filed with the Secretary of State of the State of

Delaware on April 24, 1985, until such time as the Corporation's certificate of incorporation may be further amended if any such amendment becomes necessary.

1.2 *Bylaws.* The Corporation's bylaws shall be those adopted on October 21, 1983 and amended on October 2, 1985, and shall remain in effect until such time as further amended, if needed, in accordance with the terms of this Agreement.

1.3 *Supremacy of this Agreement.* If any provision of the Corporation's certificate of incorporation or bylaws shall be deemed to be inconsistent with any provision of this Agreement, then the provisions of this Agreement shall govern, and the parties shall promptly take whatever actions may be necessary or desirable to cause the provisions of the certificate of incorporation and bylaws to be amended to be consistent with the provisions of this Agreement. In the event that and to the extent that the provisions of this Shareholders' Agreement conflict with matters specifically addressed in the Service Agreement, Intellectual Property Agreement, or Bellcore TEC Agreement, the provisions of this Shareholders' Agreement shall control.

1.4 *Capital Structure.* The Corporation shall make or cause to be made whatever changes in its capital structure as may be necessary so that the capital structure shall consist of only seven (7) shares of no par common voting shares (collectively the "Shares," or individually the "Share"). Except as provided herein in the next sentence, one Share shall be issued to each of the Shareholders. For all purposes of this Agreement, The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company shall be deemed to be one Shareholder, and each of these corporations shall receive a fractional interest in one Share but shall be jointly and severally liable for the obligations of a Shareholder under this Agreement and shall designate in writing a single representative whose vote shall be binding on all three corporations on any matter on which a Shareholder vote is required or authorized. Except for (a) any transfer permitted by Section 6 of this Agreement, or (b) any reissuance of a Share or a fractional Share to a "Related Entity" (as defined in Section 1.5), there shall

be no issuance of any additional Share of any kind of the Corporation without the unanimous vote of all Shareholders.

1.5 *Ownership of Shares.* Except for any transfers in accordance with the provisions of Section 6, the Shares may be owned and registered only in the name of a Shareholder or a "Related Entity" of a Shareholder. Related Entity shall mean: (a) a corporation that is 90% or more owned, directly or indirectly, by a Shareholder, (b) a corporation that owns, directly or indirectly, 90% or more of the Shares or interests in the capital or profits of the Shareholder, if and for so long as such corporation may be designated as a Related Entity in a written instrument filed by the Shareholder with the Corporation, or (c) a trust for the benefit of a Shareholder or any entity described in (a) or (b) of this Section.

Section 2. *Governance.*

2.1 *Board of Directors.* The Corporation's board of directors (the "Board of Directors") shall consist of seven (7) directors (collectively "Directors" and individually "Director"), and the number of Directors shall not be changed without the unanimous consent of the Shareholders. At each election of Directors, each Shareholder shall be entitled to nominate one Director, and each Shareholder hereby agrees to vote its Share for the nominees of each of the other Shareholders. In the event one or more Shareholders shall have purchased or otherwise acquired the Share owned by another Shareholder, the right of the transferor Shareholder to nominate a Director shall be exercised by the transferee Shareholder.

2.2 *Removals; Vacancies.* At any time a Shareholder may remove its Director and nominate a replacement Director for the removed Director, and each Shareholder agrees to vote for such nominee. A Director nominated by a Shareholder may be removed only with the written consent of such Shareholder, and no Shareholder shall vote its Share for the removal of a Director nominated by another Shareholder without the nominating Shareholder's written consent. In the event of the removal, resignation, death or incapacity of any Director, the vacancy thereby created shall be filled within thirty (30) days by a nominee

of the Shareholder whose nominee was so removed, resigned, deceased or incapacitated. If such Shareholder fails to nominate a Director within the thirty (30) day period, then the remaining Directors may after five (5) days written notice to such Shareholder, by a majority vote, appoint a Director to serve until such time as such Shareholder shall nominate another Director and such nominee shall have taken office.

2.3 Ex-Officio Directors. The persons serving from time to time as the chief executive officer, executive vice president and chief financial officer of the Corporation shall not be eligible to be Directors nominated by any one Shareholder but shall serve ex-officio as nonvoting members of the Board of Directors. The chief executive officer shall preside at meetings of Directors and Shareholders. The ex-officio directors shall not be counted with respect to any votes required or permitted of the Directors under the terms of this Agreement.

2.4 Compensation; Expenses. No Director shall receive compensation for serving as a Director, and each Shareholder shall pay all expenses incurred by the Director it nominates in connection with serving as a Director. Any Director may serve the Corporation in any other capacity and receive compensation therefor.

2.5 Special Voting Requirements. The Shareholders agree that, in addition to the special voting requirements specified elsewhere in this Agreement, the following actions by the Corporation shall not be undertaken unless first approved by the *unanimous vote of the entire Board of Directors* and of all the Shareholders:

- (a) the dissolution or liquidation of the Corporation;
- (b) the merger or consolidation of the Corporation with or into any other corporation or other entity;
- (c) the lease, mortgage, pledge, sale or other disposition or transfer of all or substantially all of the assets of the Corporation; and
- (d) any amendment to the Corporation's certificate of incorporation or bylaws.

All other matters to be voted upon by the Board of Directors, except as specifically provided to the contrary in this Agreement, shall be decided by the affirmative vote of a majority of the entire Board of Directors.

2.6 Restrictions on Directors. The Shareholders recognize that the provisions of this Agreement constitute restrictions upon the discretion of Directors in the manner described in Section 350 of the Delaware General Corporation Law (the "GCL").

Section 3. Projects, Business Plans, Budgets and Funding of the Corporation.

3.1 General. The minimum unit of Bellcore work, including services and deliverable(s), which is available to Shareholders for funding shall be referred to herein as a project ("Project"). As described more fully below, there shall be two (2) major categories of Projects, designated as Infrastructure Projects and Elective Projects. A business plan covering a three-year period reflecting goals, strategies, and objectives for the Corporation and each of its subsequent years' Projects shall be approved annually by the Board of Directors. Revised business plans will be reviewed and modified as appropriate at meetings of the Board of Directors.

3.2 Authorized Activities. The authorized activities ("Authorized Activities") of the Corporation shall consist only of those activities which support (a) the provision of exchange telecommunications services and exchange access services (as these terms are used and defined in the MFJ and in the orders of the Court relating to the MFJ), (b) the activities undertaken by the Corporation in its capacity as the single point of contact for coordination of the Bell Operating Companies (as named in Appendix A to the MFJ) to meet the requirements of national security and emergency preparedness, and/or (c) any other activities consistent with the MFJ and antitrust laws and authorized by the unanimous vote of the entire Board of Directors.

3.3 Infrastructure Projects: Each Infrastructure Project of the Corporation shall consist only of those activities which (a) are activities within the definition of Authorized Activities as defined in Section 3.2 above, (b) are activities which are consistent with the antitrust standard set forth in Section 7.3, and (c) are

either: (1) mandated to Bellcore by federal regulatory, judicial or legislative bodies or (2) conform to the following criteria ("Infrastructure Project Criteria"):

- (i) the Project is within at least one of the definitions of applied research, standards and architecture, or generic technology procurement support which are set forth in Attachment A, of this Agreement and incorporated by reference herein ("Infrastructure Project Categories"), and
- (ii) the Project is judged to be potentially of substantial benefit to all of the Shareholders, and
- (iii) the Project is of such a nature that this substantial benefit is believed unable to be prevented from accruing to a Shareholder who might elect not to participate in the Project.

The designation of a particular Project as an Infrastructure Project by the affirmative vote of at least five (5) voting members of the Board of Directors shall be a conclusive and binding determination that the requirements of Section 3.3 (a) and (b) and the above Infrastructure Project Criteria have been satisfied unless a Shareholder or Shareholders shall have commenced arbitration proceedings with respect to the designation, within sixty (60) days, pursuant to Section 7 of this Agreement. The Shareholders shall only be obligated to fund a Project designated as an Infrastructure Project if the further conditions set forth in Sections 3.4 and 3.5 are met.

3.4 Budgeting for Infrastructure Projects. Zero-based budgets relating to Infrastructure Projects shall be developed annually pursuant to a moving three (3) year budget cycle. The goal of such budgets will be to compensate the Corporation for all its direct and indirect costs in connection with the performance of Infrastructure Projects. The annual budget for a given year will be adopted by the Board of Directors on or before December 31, of the preceding calendar year. The budget for National Security Emergency Preparedness ("NSEP") shall be dealt with separately pursuant to certification by the Chief Executive Officer of Bellcore to the Board as to the level of funding necessary for Bellcore's NSEP activities. Except for NSEP, the budgets for Infrastructure Projects shall be subject to the following limitations.

- (a) No budget for Infrastructure Projects shall exceed an aggregate upper dollar level ("Aggregate Peg") established for all Infrastructure Projects to be funded in a given year, unless otherwise approved by unanimous vote of the Board.
- (b) In addition to the Aggregate Peg, there shall be separate upper dollar levels established for each Infrastructure Project Category ("Category Peg" or "Category Pegs").
- (c) As long as the Aggregate Peg is not exceeded, an affirmative vote of not fewer than five (5) members of the Board is required to authorize a shift of any or all of an Infrastructure Project's budget between Infrastructure Project Categories or to authorize any overrun of the budget applicable to an Infrastructure Project Category, where either action would have the effect of causing any Category Peg to be exceeded.
- (d) Each budget proposed to the Board which does not exceed the Aggregate Peg must be adopted by the affirmative vote of not fewer than five (5) members of the Board of Directors and the Projects therein must satisfy the requirements described in Section 3.3 of this Agreement.
- (e) The Aggregate Peg and each Category Peg shall be an upper dollar level calculated on the basis of a fixed percentage of Bellcore's total budgeted revenues from all sources in the previous calendar year. The percentages to be utilized, which are set forth in Attachment A to this Agreement, shall remain the same from year to year unless the Board votes unanimously to change the percentage used to calculate the Aggregate Peg or, by at least five (5) members of the Board, to change any of the percentages used to calculate the Category Pegs so long as the Aggregate Peg is not exceeded.
- (f) In order to achieve year to year stability for the Infrastructure work, no Peg (Aggregate or Category) in a given year shall be lower than 95% of the previous year's Peg due to a decline in Bellcore's total revenues, except that nothing contained herein shall require that a particular Peg will be reached in any given year unless a sufficient number of Infrastructure Projects are approved by at least five (5) members of the Board.

3.5 *Funding for Infrastructure Projects.* Each Shareholder shall pay to the Corporation a portion of the amounts provided for in the budget for Infrastructure Projects, which portion shall be in direct proportion to the percentage of such Shareholder's ownership of Shares. No Shareholder shall be required, in any calendar year, to make payments pursuant to this Section 3.5 in an aggregate amount which would exceed three and three-tenths percent (3.3%) of the pre-tax income during the previous calendar year of the Shareholder (if it is one or more Bell Operating Companies) or of all the Bell Operating Companies affiliated with the Shareholder (if it is not one or more Bell Operating Companies) from operations attributable to the provision of exchange telecommunications services and exchange-access services (as these terms are used and defined in the MFJ and in the orders of the Court relating to the MFJ). The amount of this limitation shall be determined by the certified public accounting firm regularly auditing the Shareholder's books of accounts. Payments of such amounts shall be at the time and in the manner agreed upon by an affirmative vote of at least five (5) members of the Board of Directors. Any default with respect to such payments shall be dealt with as provided in Section 5.

3.6 *Elective Projects.* The Corporation may undertake to perform any additional Projects for one or more Shareholders authorized by the Board of Directors and legally permissible for the Corporation to perform consistent with Section 3.2. These additional Projects shall be called "Elective Projects." Except as otherwise directed by the unanimous vote of the Board of Directors or as set forth in the Service Agreement, a Shareholder who does not participate in an Elective Project shall not be entitled to the benefit of any work product emanating from that Elective Project or from any other Project which utilizes such work product. Any Shareholder who engages in an Elective Project shall automatically be deemed to have indemnified and held harmless those Shareholders not engaging in such Elective Project.

3.7 *Funding of Elective Projects.* Each Shareholder who agrees to participate in an Elective Project with the Corporation shall pay to the Corporation, at such time and in such manner as shall be commercially reasonable, its appropriate share of the amount required to compensate the Corporation for all its direct and indirect costs in connection with the Corporation's performance of such Elective Project. Nothing herein shall be construed as preventing the Board of Directors from adopting any pricing methodology reasonably calculated to recover Bellcore's direct and indirect Project costs. Any Shareholder who does not agree to participate in an Elective Project prior to the commencement of such Project may do so subsequently by providing notification to Bellcore, provided that in the case of an Elective Project undertaken for a single Shareholder, such Shareholder may specify that such participation shall not be offered to the other Shareholders for a period not to exceed the earlier of (a) eighteen (18) months from the date of delivery of the principal deliverable of the Project or, in the event there is no such deliverable, the termination of the work effort being supported by the Shareholder or (b) twenty-four (24) months from the date of acknowledgment of Project authorization, as set forth in the Service Agreement. A disagreement with respect to the participation by the other Shareholders during such period shall be submitted to the Corporation by any Shareholder in writing within ninety (90) days after such Shareholder has received a description of the affected Project and thereafter shall be resolved by the Board of Directors.

Except as otherwise directed by the unanimous vote of the Board of Directors or as set forth in the Service Agreement, the Shareholder subsequently participating shall pay to the Shareholders participating in the Project an amount fixed at 10% greater than the amount it would have been required to pay to the Corporation if it had participated in the Project from its commencement.

Any default with respect to the payments required by this Section shall be dealt with as provided in Section 5.

3.8 *Redesignation of Infrastructure Projects.* In the event a Shareholder commences arbitration proceedings pursuant to Section 3.3 hereof, an affirmative vote of at least five (5) members of the Board of Directors may, at any time within sixty (60) days after the initiation of the arbitration, reconsider its

designation of the Project in question as an Infrastructure Project and redesignate it as an Elective Project, i.e., a Project of the type described in Section 3.6 hereof. Such a redesignation shall automatically terminate the arbitration proceedings, relieve the Shareholder or Shareholders voting against the Project from any obligation to fund it, and all the provisions of Sections 3.6 and 3.7 shall apply to such redesignated Project.

Section 4. Capital Payments.

4.1 Authorization. By an affirmative vote of not fewer than five (5) members of the Board of Directors, the Corporation may, from time to time, issue written requests to the Shareholders for advances or additional capital contributions by the Shareholders to the Corporation. Each such advance or contribution is called a "Capital Payment." The amounts of such Capital Payments, the maturity date, interest rate (if any), and other terms and conditions shall be established by an affirmative vote of not fewer than five (5) members of the Board of Directors.

4.2 Limitation on Amount. No Shareholder shall be required, in any calendar year, to make Capital Payments in an aggregate amount which would exceed six-tenths of one percent (0.6%) of the pre-tax income during the previous calendar year of the Shareholder (if it is one or more Bell Operating Companies) or of all the Bell Operating Companies affiliated with the Shareholder (if it is not one or more Bell Operating Companies) from operations attributable to the provision of exchange telecommunications services and exchange access services (as these terms are used and defined in the MFJ and the orders of the Court relating to the MFJ). The amount of this limitation shall be determined by the certified public accounting firm regularly auditing the Shareholder's books of accounts.

4.3 Written Calls. Each written Capital Payment call issued pursuant to Section 4.1 shall contain the following information:

- (a) the amount of the Capital Payment requested from each Shareholder, which amount shall be in direct proportion to the percentage of such Shareholder's ownership of Shares;

- (b) the purpose for which the Capital Payment is to be applied;
- (c) all the material terms and conditions of the Capital Payment; and
- (d) the date on which the Capital Payment shall be made (which date shall not be less than ten (10) nor more than sixty (60) days following the date the call is delivered) and the method of payment, which date and method shall be the same for each Shareholder.

Section 5. *Payment Defaults.* The Shareholders acknowledge that a default in making the payments provided for in Sections 3.5, 3.7 and 4 (which three types of payments are collectively called "Shareholder Payments") may have extremely harmful effects on the Corporation's business. Therefore, if any Shareholder fails to make any Shareholder Payment when due, such failure shall be an event of default. While an event of default has occurred and is continuing:

- (a) the Shareholder in default shall have none of the rights or authority conferred by this Agreement or Delaware law, except the rights to receive dividends (subject to the lien described in paragraph (d) of this Section) and to participate in the management of Infrastructure Projects and Elective Projects with respect to which it is not in default;
- (b) the Shareholder in default shall continue to be subject to all of its obligations under this Agreement, whether such obligations arise before or after any default;
- (c) any nondefaulting Shareholder shall have the right, but not the duty, to make the Shareholder Payment which is the subject of the event of default. The amount of any Shareholder Payment made on behalf of a defaulting Shareholder shall remain an obligation of the defaulting Shareholder to the contributing Shareholder, and it shall bear interest during the period of default at a rate equal to the corporate base rate per annum published each day by Citibank, N.A., compounded daily. In the event no other Shareholder makes the Shareholder Payment of the defaulting Shareholder, the defaulting Shareholder shall pay interest at such rate to the Corporation for the period of default; and

(d) a nondefaulting Shareholder who makes a Shareholder Payment on behalf of a defaulting Shareholder shall have a lien upon the defaulting Shareholder's remaining interest in the Corporation to secure reimbursement for the defaulted Shareholder payment, interest at the stated rate thereon, and any damages and costs related thereto. The lien may be foreclosed as provided by Delaware law. A Shareholder in default of a Shareholder Payment shall execute and deliver to the Shareholder making the defaulted Shareholder Payment on its behalf a security agreement and financing statement for the amount owing pursuant to this paragraph (d), and shall surrender possession of the certificate for its Share to such Shareholder to perfect such lien. Such lien shall be removed simultaneously upon the curing of the default of the Shareholder Payment and the Share certificate shall thereupon be returned to the Shareholder formerly in default; and no Shareholder in default may be permitted to vote on any matter subject to any vote of the Shareholders, nor may such Shareholder's nominated Director vote on any matter subject to the vote of the Board of Directors, nor may such defaulting Shareholder or Director participate in the management of the Infrastructure Project or Elective Project with respect to which it is in default. Whenever unanimity or assent by Shareholders holding a particular share of interest in the Corporation (or the Directors nominated by such Shareholders) is required by the terms of this Agreement, the calculation of such interests shall be made without reference to any Shareholder in any such default (or the Director nominated by any such Shareholder).

Notwithstanding any other provision of this Agreement to the contrary, no Shareholder shall be deemed to be in default under this Agreement by reason of the failure to make any Shareholder Payment during the pendency of an arbitration proceeding pursuant to Section 7 (or any litigation arising out of such arbitration) challenging the determination that the Project or business activity related to that Shareholder Payment qualifies as an Infrastructure Project.

Section 6. Transfers or Disposition of Shares.

6.1 *Restrictions.* No Shareholder shall surrender, sell or otherwise dispose of its Share, except as hereinafter provided and except that each Shareholder shall have the right (a) to assign all or part of its Share to one or more of its Related Entities, and (b) to pledge its Share to one or more of its Related Entities, provided that such entities agree in writing that the Share so pledged shall not be sold or disposed of except in accordance with this Agreement.

6.2 *Sale of Shares.* If a Shareholder desires to sell or otherwise dispose of its stock, it shall give the Corporation and the other Shareholders written notice (hereinafter referred to as "Notice") of its desire. This Notice must be given at least three (3) years prior to the effective date, which may only be the first day of a calendar year. The Notice need only state that the Shareholder desires to dispose of its Share. No sale or disposition of less than one Share (except as provided in Section 6.1) shall be permitted.

6.3 *Successive Notices.* The Notice of a desire to sell or otherwise dispose of a Share can be revoked at any time before its effective date, and a Notice given subsequent to a prior Notice shall revoke the prior Notice and the effective date of the new Notice shall be computed as provided above on the basis of the date of the subsequent Notice. On and after the effective date of a Notice, any Shareholder shall have the right to sell, surrender, or otherwise dispose of its Share as hereinafter provided in this Section 6.

6.4 *Right of First Refusal.* Not less than twelve (12) months before the effective date of the Notice, the Shareholder giving the Notice shall inform the Corporation in writing of the name and address of the person or persons desiring to or who will acquire such Share and the terms and conditions of the proposed sale, assignment or disposition, including the terms and conditions of any bona fide offer to purchase such stock. Whereupon:

- (a) The Corporation shall have the first right to acquire all or any portion of such stock, but only upon substantially the same terms and conditions as any such bona fide offer to purchase the stock for cash; provided, however, that if such contemplated disposition is not pursuant to a bona fide offer to purchase the stock for cash, then the Corporation may acquire the stock at a reasonable price and

upon such reasonable terms and conditions as may be determined by the Board of Directors;

- (b) If the Corporation does not elect to acquire all or any portion of such stock within forty-five (45) days after it has received the information relating to the terms and conditions of the proposed sale, assignment or disposition, then any Shareholder or group of Shareholders (excluding the selling Shareholder) shall have the next right to acquire the Shareholder's interest in the Corporation on the same terms and conditions as the Corporation's first right. Such Shareholder or group of Shareholders shall exercise the right to acquire no later than one hundred ten (110) days after the Corporation has originally received Notice of the terms and conditions of the proposed sale, assignment or disposition. If more than one Shareholder or group of Shareholders elects to acquire a Share, the selling Shareholder may accept the offer of its choice;
- (c) The Corporation or any Shareholder or group of Shareholders shall give written Notice of intent to acquire such stock. If the Corporation and the non-selling Shareholders do not in the aggregate exercise a right to acquire all the stock, then the selling Shareholder may sell, assign or dispose of its stock on the terms and conditions specified in the Notice to the Corporation, provided that the Shareholder effect such disposition within the time and constraints set forth below;
- (d) Any sale, assignment or other disposition of stock pursuant to this Section 6.4 must be a disposition of the entire equity interest of the Shareholder. As a condition of acquisition, the acquirer must engage in the provision of exchange telecommunications and exchange access functions as defined in the MFJ and, in writing, must acknowledge its qualification and agree to be bound by this Agreement.

6.5 Surrender of Stock to the Corporation. A Shareholder may voluntarily surrender its stock to the Corporation if Notice is given pursuant to Section 6.2 hereof and the time constraints contained therein are met. Upon voluntary surrender of stock of the Corporation pursuant to this Section, any withdrawing Shareholder shall transfer all its stock to the Corporation for cancellation.

6.6 *Failure to Dispose of Stock.* The Shareholder shall have one hundred twenty (120) days from the effective date of its Notice to dispose of its Share in accordance with this Agreement. If the disposition of a Share is not completed within the one hundred twenty (120) day period (exclusive of any days during the pendency of any arbitration proceeding pursuant to Section 7 hereof with reference thereto) then the Notice shall be deemed void and ineffective and, in such event, a new Notice shall be effective only after the date calculated as provided in Section 6.2.

6.7 *Intrashareholder Transfers.* The foregoing provisions of this Section 6 notwithstanding, any Shareholder may at any time sell its Share to any other Shareholder on such terms as shall be mutually agreed upon between or among such Shareholders.

6.8 *Rights and Obligations of Successors.* Any person or entity to whom a Share is transferred in accordance with this Agreement shall execute a counterpart of this Agreement simultaneously upon the transfer and shall succeed to all the rights and obligations of such person's or entity's transferor. The obligation of any such person or entity which is not a Bell Operating Company or an affiliate of a Bell Operating Company with respect to the payment limitations of Sections 3.5 and 4.2 shall be determined by reference to the amounts which would be payable if the last Bell Operating Company or last affiliate of a Bell Operating Company which owned such Share were still the owner of such Share.

To enable the payment limitations of Section 3.5 and 4.2 to be easily determinable in the event of a transfer to a person or entity which is not a Bell Operating Company or an affiliate thereof, upon any such transfer the transferring Bell Operating Company or affiliate thereof shall agree in writing with the Corporation that, so long as this Agreement shall be in force, it will make available to the Corporation all accounting records reasonably necessary or desirable to determine such payment limitations.

The transfer of a Share to the Corporation shall not confer upon the Corporation the right to nominate a Director, vote such Share, be counted with respect to any votes required or permitted of the

Shareholders under this Agreement or confer any rights or obligations on the Corporation which it does not otherwise have under this Agreement.

All the holders, whether by first or any successive transfer, of the Share or any fractional portion of the Share of any of the Shareholders originally named in this Agreement shall be deemed to be but one shareholder (and a "Shareholder") for all purposes of this Agreement, including but not limited to the provisions of Sections 2.1 and 2.5.

Section 7. Arbitration.

7.1 General Provision. Except as specified to the contrary in this Section 7, any controversy or claim among the Shareholders relating to the qualification of a particular Project as an Infrastructure Project, shall be settled by arbitration in accordance with the Rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

7.2 Special Time Rules. All arbitration proceedings shall be handled in an expeditious manner and the parties to the proceeding shall use good faith efforts to submit all submissions to the arbitrator(s) within sixty (60) days of initiating the proceeding. Any party that intends to proceed to arbitration on any given Infrastructure Project must notify all other parties within thirty (30) days after the adoption of the first or any subsequent annual budget providing for funding for an Infrastructure Project. Any arbitration proceeding challenging the classification of a Project as an Infrastructure Project shall be initiated no sooner than thirty (30) days and no later than ninety (90) days from the date of the above recited notice.

7.3 Antitrust Standard. Any dispute with respect to whether a proposed activity complies with the antitrust criterion described in Section 3.3 (b) shall be determined in accordance with the following standard: whether the proposed activity is of such a nature that it is likely to facilitate agreements or understandings which constitute a violation of the MFJ, any orders of the Court relating to the MFJ or any

other applicable federal or state antitrust laws.

7.4 *Compliance by Corporation.* Even though the Corporation may not be a party to an arbitration proceeding, the Shareholders and Directors will cause the Corporation to take or refrain from taking whatever actions may be necessary consistent with the award resulting from any such arbitration.

Section 8. *Legend on Certificate.* Each certification for a Share or Shares will be conspicuously stamped or otherwise imprinted on its face with a legend in substantially the following form:

THE SECURITY REPRESENTED BY THIS CERTIFICATE IS SUBJECT TO THE PROVISIONS OF A SHAREHOLDERS' AGREEMENT DATED AS OF OCTOBER 2, 1984, AMONG THE CORPORATION AND THE SHAREHOLDERS OF THE CORPORATION, WHICH AGREEMENT INCLUDES NUMEROUS RESTRICTIONS, INCLUDING RESTRICTIONS ON SHAREHOLDER QUALIFICATION, TRANSFERS OF SHARES AND DISSOLUTION OF THE CORPORATION. BY ACCEPTANCE OF THIS CERTIFICATE, THE HOLDER HEREOF AGREES TO BE BOUND BY THE TERMS OF SUCH AGREEMENT.

Section 9. *Audit.* A Shareholder shall have the right to conduct an independent audit of the books, records, and operations of the Corporation, including records relating to Elective Projects undertaken for such Shareholder or any Related Entity of such Shareholder. The Corporation shall cooperate in making such books, records and other necessary information available upon reasonable notice.

Section 10. *Amendments and Termination.* This Agreement may be amended or modified only by the unanimous written agreement among the Shareholders. This Agreement shall continue for the life of the Corporation unless sooner terminated by written agreement among at least five (5) Shareholders. This Agreement shall not terminate merely because a Shareholder sells its Share.

Section 11. *Corporate Consent.* The Corporation acknowledges its consent to the terms of this Agreement by the execution hereof.

Section 12. *Severability.* In the event any provisions of this Agreement are found to be void by any court of competent jurisdiction, the remaining provisions of this Agreement, whether relating to similar or dissimilar subjects, shall nevertheless be binding with the same effect as though the void provisions were deleted. Without otherwise limiting the scope of this Section, if the notice periods provided for in Section 6 are deemed by any court of competent jurisdiction to be too lengthy for the purposes set forth therein, such periods shall then be deemed to be the maximum number of years permitted by law.

Section 13. *Governing Law.* This Agreement shall be subject to, governed by and interpreted in accordance with the laws of the State of Delaware.

Section 14. *Notices.* All notices required by the Agreement shall be sent by certified mail, postage paid to the principal place of business of the Corporation and, in the case of a Shareholder, to the address of such Shareholder as it appears on the records of the Corporation. Any such mailing shall constitute full and adequate notice, and shall be deemed delivered when postmarked.

Section 15. *Binding Effect and Benefits.* Except as otherwise provided herein, the terms of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns when Shares are transferred in accordance with the terms of this Agreement, and the obligations hereof shall be binding upon any person to whom any of the Shares of the parties are transferred, even if in violation of the provisions of this Agreement, and upon the successors and assigns of each such party.

Section 16. *Remedies for Violations.* The Shares cannot be readily purchased or sold on the open market. For this and other reasons, the parties hereto will be irreparably damaged in the event that this Agreement is not fulfilled by any party. In the event of any controversy concerning any right or obligation with respect to the Transfer of Shares, such right or obligation shall be enforceable in a court of

equity by a decree of specific performance.

Section 17. *Entire Agreement.* This Agreement contains the entire understanding and agreement among the parties hereto, and supersedes any prior agreements among the parties pertaining to the Corporation or the Shares. There are no representations, warranties, promises, covenants or understandings other than those herein expressly set forth.

Section 18. *Additional Parties.* With the approval of the Corporation, anyone in whose name Shares are registered may become a party to this Agreement by executing a duplicate original copy thereof.

Section 19. *Guarantees of the Obligations of Non-BOC Shareholders.* If a Shareholder is not one or more Bell Operating Companies, a Bell Operating Company which is affiliated with that Shareholder or another affiliated entity acceptable to the Board of Directors shall acknowledge and guarantee in writing all the obligations of such Shareholder under this Agreement. If a Purchaser is neither a Bell Operating Company nor an affiliate of a Bell Operating Company, a similar guarantee may be required from the appropriate affiliate of the Purchaser simultaneously upon the Transfer of a Share to the Purchaser. Any guarantee pursuant to this Section 19 shall be in the form approved by a majority of the entire Board of Directors, which approval may not be unreasonably withheld.

Section 20. *Singular and Plural.* Unless the context clearly requires otherwise, words used in this Agreement in singular form shall be deemed to include the plural form, and words used in the plural form shall be deemed to include the singular form.

Section 21. *Captions.* The captions in this Agreement are for convenience only and in no way define, limit or describe the scope or intent of any provision of this Agreement.

Section 22. *Counterparts.* This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same

instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their
duly Authorized Representatives.

Ameritech Services, Inc.
1900 East Golf Road
Schaumburg, Illinois 60173

BY: Bruce R. DeMaeyer

DATE: 12-30-87

Bell Atlantic Network
Services, Inc.
1310 North Court House Road
Arlington, Virginia 22201

BY: Philip A. Campbell

DATE: 12-22-87

BellSouth Services Incorporated
600 North 19th Street
Birmingham, Alabama 35203

BY: Hugh B. Jacks

DATE: 12-28-87

NYNEX Service Company
120 Bloomingdale Road
White Plains, New York 10605

BY: P. D. Covill

DATE: 12-29-87

Pacific Bell
140 New Montgomery Street
San Francisco, California 94105

BY: M. A. Kaplan

DATE: 1-5-88

Southwestern Bell Telephone Company
1010 Pine Street
St. Louis, Missouri 63101

BY: C. E. Foster

DATE: 12-31-87

The Mountain States Telephone
and Telegraph Company
931 Fourteenth Street, Suite 1300
Denver, Colorado 80202

BY: W. J. Wade

DATE: 1-18-88

Northwestern Bell Telephone Company
1314 Douglas On-The-Mall
Omaha, Nebraska 68102

BY: W. J. Wade

DATE: 1-18-88

Pacific Northwest Bell
Telephone Company
1600 Bell Plaza
Seattle, Washington 98191

BY: W. J. Wade

DATE: 1-18-88

Bell Communications Research, Inc.
290 West Mt. Pleasant Avenue
Livingston, New Jersey 07039

BY: R. J. Marano

DATE: 12-10-87

CRITERIA FOR INFRASTRUCTURE WORK CLASSIFICATION

The Infrastructure Work of Bellcore shall consist only of those Projects which:

- a. are within at least one of the attached definitions of applied research, standards and architecture, or generic technology procurement support,
- b. and are judged to be potentially of substantial benefit to all of the Owner-Clients,
- c. and are of such a nature that this substantial benefit is believed unable to be prevented from accruing to an Owner-Client who might elect not to participate in the project,
- d. or are mandated to Bellcore by federal regulatory, judicial or legislative bodies.

The implementation of the above criteria shall be as follows. Each of the three work categories in (a) above are assigned an upper dollar level Pegged as a percent of Bellcore's total annual revenue from all sources. For Projects above this level, agreement to fund a Project will be by unanimous affirmation by the Board of Directors. For all Projects below this level, designation as meeting the criteria and agreement to fund will be by at least five Board members. To help attain year-over-year stability in these work categories, the upper dollar level Peg will always be kept at a dollar level at least 95% of the previous year's Peg. (It should be noted that this Peg will not be reached if insufficient Projects in a given year are affirmed by at least five Board members.)

Actual Pegs expressed as percentages of Bellcore's total annual revenues, derived from the 1988 program "core" designations, are listed in the table below. The final percentages applicable to the five-year agreement beginning January 1, 1988 have been derived from the core categories of the 1988 Bellcore budget as approved by the Board in January 1988. These Pegs will be used with each view of the subsequent year budget for Bellcore, or for any future views. NSEP is not included, as it is covered separately by Bellcore's CEO certification to the Board of Directors.

Applied Research	14.3%
Standards & Architecture	13.3%
Generic Technology Procurement Support	9.1%
	<u>36.7%</u>

Definitions of Infrastructure Categories of Work

Applied Research

Research in relevant scientific disciplines and technologies for potential enhancements of current or evolution toward new exchange and exchange access telecommunications services. Such research ranges from theoretical analyses/models to prototype demonstrations of technical feasibility. The work provides for the development of a leading edge knowledge base in such key areas as optical and solid state sciences, materials research, communication theory, mathematics and economics, computer software technology, artificial intelligence, network technologies and systems, and information age service capabilities. Emphasis is placed on applications to current and future needs in networks, services and operations.

Standards and Architecture

Fundamental technical support for the establishment of public standards and related network and computing

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architectures for efficient integration of evolving technologies in the Owner-Clients' networks, service capabilities, operations and computer systems used in their provision of exchange and exchange access telecommunications products and services. This work includes (a) industry standards activities bearing on compatibility between and among networks, customer premises equipment, network components and supporting systems; (b) the conceptualization, planning, analysis, and related testing of fundamental compatible network and operating architectures, capabilities and systems; (c) support for language and computing environment standards; (d) the conceptualization of new service capabilities; (e) analysis for *Bellecore's* use of the potential impacts on standards and architecture, and the services supported by the network, of industry issues; (f) support for billing and financial industry activities; (g) fire and safety standards activities; and (h) logistics related equipment standards such as for bar codes.

Generic Technology Procurement Support

Basic support enabling the Owner-Clients to obtain, from multiple industry sources, high quality applications of technology to implement the growth and evolution of their networks (switching, distribution, interoffice and operations systems/network equipment interface system, as well as apparatus and materials). This work includes: (a) the formulation and promulgation of generic requirements for network equipment and software which are made available through an open communications and interaction process to all potential vendors of new industry-wide network capabilities (e.g., development and issuance of Technical Advisories and Technical References as well as planning for and conducting Technical Requirements Industry Forums); (b) the development of the basic capabilities to carry out the technical analyses which determine whether vendor offered products are likely to meet the generic requirements and Owner-Client expectations with regard to features, functions, quality and reliability, and (c) the establishment of basic common principles, methods and standards for quality surveillance.

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Appendix E	Cost Sharing Revenue Crediting Process
Appendix F	Notices

SERVICE AGREEMENT

THIS AGREEMENT ("this Service Agreement") is entered into as of January 1, 1988 among the following entities (sometimes referred to herein collectively as "the parties" and individually as a "party") which are Bell Communications Research, Inc. ("Bellcore") and Ameritech Services, Inc.; Bell Atlantic Network Services, Inc.; BellSouth Services Incorporated; NYNEX Service Company; Pacific Bell; U S WEST Advanced Technologies, Inc. as agent for The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company; and Southwestern Bell Telephone Company (herein collectively referred to as "Owner-Clients" and individually as an "Owner-Client").

WHEREAS, on August 24, 1982, the United States District Court for the District of Columbia ("Court") entered a Modification of Final Judgment (the "MFJ") in *United States vs. Western Electric*, Civil Action No. 82-0192; and

WHEREAS, Bellcore has been established pursuant to Section I (B) of the MFJ which provides that the Bell Operating Companies (the "BOCs"), as defined therein, may "support and share the costs of a centralized organization for the provision of engineering, administrative and other services which can most efficiently be provided on a centralized basis" and permits Bellcore to furnish such services primarily for the support of the BOCs in their provision of exchange telecommunications and exchange access services, as those terms are defined in the MFJ, and

WHEREAS, the Owner-Clients desire to obtain the services of Bellcore and Bellcore desires to provide the services to the Owner-Clients, consistent with Bellcore's primary purposes under the MFJ;

NOW, THEREFORE, in consideration of the terms and conditions contained herein, the parties to this Service Agreement hereby agree as follows:

Article 1. - *Definitions*

As used herein:

1.1 "Affiliate" of any corporation or partnership means: (i) any person owning directly or indirectly a majority of outstanding voting shares (other than directors' qualifying shares) or interests of any such corporations or partnerships (such person owning such shares or interests being hereinafter called the "Parent"); (ii) any corporation or partnership of which a majority of the outstanding voting shares (other than directors' qualifying shares) or interests are owned directly or indirectly by the Parent; and (iii) any other corporation or partnership of which a majority of the outstanding voting shares (other than directors' qualifying shares) or interests are owned directly or indirectly by such corporation or partnership. Ownership of voting shares or interests by a person for the purpose of this definition include shares or interests owned directly or indirectly by the person and shares or interests owned directly or indirectly by one or more Affiliates of such person.

1.2 "Authorization Ceiling" means the amount of billing of fully loaded costs under a Work Authorization that cannot be exceeded without additional authorization from the Owner-Client.

1.3 "Authorized Representative" means any individual designated by an Owner-Client's member of the Board of Directors or by his or her designee to take action on the Owner-Client's behalf on matters provided for within this Service Agreement. Designation of all such Authorized Representatives shall be provided in writing to Bellcore's Division Manager, Contract Administration and shall include for each identified individual a description of the specific activities as authorized in this Service Agreement for which such individual may commit the Owner-Client.

1.4 "Bellcore TEC Agreement" means the Bellcore TEC Agreement among the parties thereto effective as of January 1, 1986, as amended from time to time.

SERVICE AGREEMENT

THIS AGREEMENT ("this Service Agreement") is entered into as of January 1, 1988 among the following entities (sometimes referred to herein collectively as "the parties" and individually as a "party") which are Bell Communications Research, Inc. ("Bellcore") and Ameritech Services, Inc.; Bell Atlantic Network Services, Inc.; BellSouth Services Incorporated; NYNEX Service Company; Pacific Bell; U S WEST Advanced Technologies, Inc. as agent for The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company; and Southwestern Bell Telephone Company (herein collectively referred to as "Owner-Clients" and individually as an "Owner-Client").

WHEREAS, on August 24, 1982, the United States District Court for the District of Columbia ("Court") entered a Modification of Final Judgment (the "MFJ") in *United States vs. Western Electric*, Civil Action No. 82-0192; and

WHEREAS, Bellcore has been established pursuant to Section I (B) of the MFJ which provides that the Bell Operating Companies (the "BOCs"), as defined therein, may "support and share the costs of a centralized organization for the provision of engineering, administrative and other services which can most efficiently be provided on a centralized basis" and permits Bellcore to furnish such services primarily for the support of the BOCs in their provision of exchange telecommunications and exchange access services, as those terms are defined in the MFJ, and

WHEREAS, the Owner-Clients desire to obtain the services of Bellcore and Bellcore desires to provide the services to the Owner-Clients, consistent with Bellcore's primary purposes under the MFJ;

NOW, THEREFORE, in consideration of the terms and conditions contained herein, the parties to this Service Agreement hereby agree as follows:

1.5 "Board of Directors" or "Board" means the Board of Directors of Bellcore.

1.6 "Deliverable" means any tangible item (such as a report or other document, computer or system software, data base, prototype, etc.) produced or to be produced by Bellcore in the course of a Project and delivered or to be delivered to an Owner-Client pursuant to the agreed description of such Project.

1.7 "Firm Quoted Price" means a specific price charged to an Owner-Client for participation in a Multi-Client or Client-Specific Project, which price shall be set in accordance with the methodology described in Article 6.4(a).

1.8 "Intellectual Property Agreement" means the Intellectual Property Agreement among the parties thereto, effective as of January 1, 1984, as amended from time to time.

1.9 "Participant" means an Owner-Client that funds all of, or contributes to the funding of, any Elective Project.

1.10 "Project" means the minimum unit of Bellcore work, including services and Deliverable(s), which is available to Owner-Clients for funding as set forth in Section 3.1 of the Shareholders' Agreement.

(a) "Infrastructure Project" means any Project designated as such in conformance with Section 3.3 of the Shareholders' Agreement.

(b) "Elective Project" means any Project that is not an Infrastructure Project and which one or more Owner-Clients may fund.

(1) "Usage-Sensitive Project" means an Elective Project for which costs are charged to individual Owner-Clients based on usage.

(i) For purposes of this definition, Usage-Sensitive Projects may include Projects, such as Technical Analysis, where an annual funding commitment is established by each Owner-Client prior to the commencement of the Project

and is paid for through equal monthly billings. The usage is measured by Deliverables which are issued to each Owner-Client on an as requested basis and credited against that Owner-Client's funding commitment. An Owner-Client may increase its annual funding commitment for such Projects through written notification to Bellcore by an Authorized Representative.

- (2) "Multi-Client Project" means an Elective Project that is not usage-sensitive and that is funded by two or more Owner-Clients.
- (3) "Client-Specific Project" means an Elective Project that is funded by one Owner-Client.

1.11 "Project Dependency" means a relationship between two Projects (called for illustrative purposes here Projects A and B) such that Project B requires the utilization of Project A Deliverable(s) or other identifiable work product(s) in order to support the completion of Project B Deliverable(s). Project Dependency may exist between Projects undertaken in the same year or in different years. Project Dependency as used in this Service Agreement, however, shall not include Bellcore's internal reuse in whole or in part, of Software (as defined in the Intellectual Property Agreement) developed under one or more Projects as it applies to Software being developed under another Project.

1.12 "Project Profile" means the written description of a Project, which Bellcore submits to each Owner-Client as documentation of the Project commitment agreed upon between Bellcore and the funding Owner-Client(s). Project Profiles may be supplemented by descriptions contained in Work Authorization(s).

1.13 "Shareholders' Agreement" means the Shareholders' Agreement among the parties thereto dated as of October 2, 1984, as amended from time to time.

1.14 "Work Authorization" means the ordering of work from Bellcore by an Authorized Representative. Written confirmation from an Authorized Representative of a Work Authorization shall be

furnished to Bellcore as specified in Article 6.

Article 2. - Scope of Agreement and Services Rendered

2.1 This Service Agreement applies to all Infrastructure Projects and Elective Projects undertaken by Bellcore for an Owner-Client. All work Bellcore performs for any Affiliate of an Owner-Client shall be subject to the terms and conditions of this Service Agreement. Bellcore may perform work for such Affiliate if authorized in writing by an Authorized Representative of the Owner-Client.

2.2 Bellcore agrees to perform the Projects offered to and committed for by an Owner-Client in consideration for the Owner-Client's agreement to fund such Projects, all in accordance with the terms of this Service Agreement. The rights and obligations with respect to intellectual property, whether related to these Projects or otherwise, are as set forth in the Intellectual Property Agreement, including, but not limited to, such matters as confidentiality and conditions of use.

Article 3. - Term of Agreement

3.1 The term of this Service Agreement shall be for five (5) years beginning January 1, 1988 and shall become effective for all Projects begun or in progress on or after such date. A review of the terms and conditions of this Service Agreement shall commence no later than January 1, 1991 by a task force of Owner-Clients and Bellcore representatives or by such other review process as the Board may designate.

3.2 Notwithstanding the foregoing, an Owner-Client shall be deemed to have withdrawn from this Service Agreement upon the sale or transfer of its Share of stock in Bellcore pursuant to and in accordance with Section 6 of the Shareholders' Agreement, effective as of the date that such Owner-Client ceases to be a Shareholder. In such event, said Owner-Client shall cease all further participation in all Projects under the terms of this Service Agreement as of the date that it ceases to be a Shareholder.

Article 4. - *Budget Commitment Process, Project Profiles and Project Attachment(s)*

4.1 Project commitments occurring during the annual budget cycle shall be handled as follows:

(a) Preliminary Project Profiles

Belcore shall provide to all Owner-Clients preliminary Project Profiles pertaining to all Projects offered during the annual budget cycle for the applicable calendar year. Such Project Profiles may be aggregated by Belcore and the Owner-Client into Project groupings particular to that Owner-Client.

(b) Owner-Clients' Intentions

In accordance with a schedule established by the Board, each Owner-Client shall signify in writing to Belcore's Division Manager, Corporate Budgets those Projects, or the aggregation of Project groupings particular to the Owner-Client, which it intends to fund for the established duration of each Project. At the request of the Owner-Client, Belcore will assist the Owner-Client in the aggregation of Projects into Project groupings particular to that Owner-Client which the Owner-Client intends to fund and which Belcore shall bill under a special billing arrangement ("Special Billing Arrangement"). Such Special Billing Arrangements shall be provided for the administrative convenience of the parties and shall be carried out consistently with the terms and conditions of this Service Agreement.

(c) Budget Submission to Board

Belcore will submit to the Board for its approval no later than the October Board meeting, pursuant to a schedule established by the Board, a calendar year budget (annual budget), covering Projects for the succeeding calendar year which the Owner-Clients have indicated to Belcore an intention to fund during the annual budget cycle

adopted by the Board.

(d) Budget Approval and Project Commitment

The obligations for Owner-Client Project funding and Bellcore's performance of the work specified for such Projects shall be effective upon approval of the annual budget by the Board. The annual budget, as approved by the Board, shall become effective on January 1st of each year. Projects may be added, terminated or amended during the course of the calendar year (subsequent to the applicable budget cycle) in accordance with the procedures set forth in Article 5 and Article 6 of this Service Agreement.

4.2 Following Project approval, Bellcore will furnish within a reasonable time to all Owner-Clients the following documentation in connection with all Projects it offers under this Service Agreement:

(a) Project Attachment(s) as follows:

A list showing all the Projects which the Owner-Client receiving that list will fund in that calendar year pursuant to the budget process specified in Article 4.1 (referred to as "Project Attachment(s)"). Firm Quoted Prices for Projects or estimates of fully loaded costs for Projects, whichever may be applicable, selected by Owner-Clients for each calendar year, will be provided to Owner-Clients in conjunction with the Project Attachment for that calendar year.

(b) Project Profiles and descriptions as follows:

- (1) Final Project Profiles of all Infrastructure Projects upon Board approval;
- (2) Final Project Profiles of Elective Projects, including Client-Specific Projects, authorized upon Board budget approval thereof pursuant to Article 4.1(d), except that no Owner-Client's proprietary information shall be distributed to any other Owner-Client;

- (3) Final Project Profiles of work authorized subsequent to the annual budget cycle, on a periodic basis, except that no Owner-Client's proprietary information shall be distributed to any other Owner-Client.
- (4) Descriptions of authorized specific work performed for Southern New England Telephone Company, or Cincinnati Bell Inc. or any entity other than the Owner-Clients or their Affiliates.

Article 5. - Infrastructure Projects

5.1 Budgeting

The budgeting for Infrastructure Projects and the Owner-Clients' funding of Infrastructure Projects, whether committed for during the annual budget cycle or subsequent to it, shall be accomplished pursuant to the terms set forth in Section 3.4 and Section 3.5 of the Shareholders' Agreement, respectively. The Owner-Clients agree to fund all Infrastructure Projects approved under the terms of the Shareholders' Agreement and charges for such Projects shall be included on the monthly bills issued to each Owner-Client.

5.2 Governance

One or more governance councils ("Council" or "Councils"), as determined by the Board, shall be established and comprised of an officer level representative from each Owner-Client, with a Chairman elected annually from the Owner-Client members and Belcore shall appoint a non-voting member as executive secretary to provide any needed staff support and coordinate Belcore inputs and Owner-Client(s) requests. The Council(s) shall have the responsibility for formulating and directing the Infrastructure Projects, including but not limited to:

- (a) screening all proposed Infrastructure Projects and recommending designation as Infrastructure Projects for Board approval in accordance with the criteria set forth in

Section 3.3 of the Shareholders' Agreement;

- (b) providing oversight of ongoing Infrastructure Projects;
- (c) deciding during the current budget year to shift a portion of an Infrastructure Project's budget to another Infrastructure Project, new or existing, as long as no Category Peg (as that term is defined in Section 3.4 of the Shareholders' Agreement) is exceeded. The Council with jurisdiction may, by at least five (5) votes, also make a portion of funds available from one or more Infrastructure Projects for use in an Elective Project(s), new or existing. If a Category Peg is exceeded, budget shifts for Infrastructure Projects shall be treated as described in Section 3.4 of the Shareholders' Agreement. Further, such budget shifts shall be subject to the parameters set forth in Appendix A to this Service Agreement;
- (d) deciding during the current year to terminate an Infrastructure Project by at least five (5) votes of the Council with jurisdiction over the Project; provided, however, that any Owner-Client may submit a decision by the Council regarding termination to the Board for final resolution. The Council with jurisdiction may assign any remaining funds or portion thereof to another Infrastructure Project, new or existing, as long as no Category Peg is exceeded. The Council with jurisdiction may, by at least five (5) votes, also make available any remaining funds or portion thereof to an Elective Project(s), new or existing. If a Category Peg is exceeded, budget shifts for Infrastructure Projects shall be treated as described in Section 3.4 of the Shareholders' Agreement. Further, such budget shifts shall be subject to the parameters set forth in Appendix A to this Service Agreement; and
- (e) establishing advisory groups for specific subject areas.

In addition to the responsibilities of the Council(s) for governance pertaining to Infrastructure Projects, the Council(s) shall have oversight responsibility for Bellcore TEC and for such other areas as the

Board determines. The Council(s) shall assume the role of the Bellcore TEC Council as defined in the Bellcore TEC Agreement.

5.3 Project Overruns

An Infrastructure Project's annual budget may be overrun as long as Bellcore provides timely written notice to all Owner-Clients and none of the Category Pegs nor the Aggregate Peg are exceeded, and further, as long as such overrun does not exceed the amounts set forth in Appendix A to this Service Agreement. Any overrun exceeding a Category or Aggregate Peg must be dealt with in accordance with Section 3.4 of the Shareholders' Agreement. Further, an overrun exceeding the limits set forth in Appendix A to this Service Agreement shall be authorized by at least five (5) members of the Board.

Article 6. - *Elective Projects*

6.1 (a) Individual Negotiations for Bellcore Offering

Bellcore shall negotiate with each Owner-Client individually with respect to that Owner-Client's commitments to the funding of Elective Projects. Each Bellcore offering to an Owner-Client may consist of one or more Projects, including but not limited to combinations of Multi-Client Projects and Client-Specific Projects, as are necessary to meet the requirements of that Owner-Client. However, except as provided in Article 6.1(c) herein, the parties agree that Bellcore shall not sell or license to an Owner-Client individual Deliverables or components of a Project.

(b) Project Dependency

In order to implement the Project Dependency requirement of Section 3.6 of the Shareholders' Agreement, Bellcore will use its best efforts to specify in advance of the funding commitment whether a Project ordered by any Owner-Client is dependent upon

any other Projects). Where Bellcore identifies that there is a Project Dependency between a desired Project (for this purpose, Project "B") and one or more other Projects (for this purpose, Project "A") the Owner-Client agrees that it must participate in the funding of Project A in order to participate in Project B. If the required Deliverable(s) of Project A are already in the public domain, then the Project Dependency requirements of this provision shall not apply.

(c) Late Notice of Project Dependency

- (1) In the case of a Project Dependency which Bellcore fails to identify in advance of the funding commitment, but which is discovered after the Owner-Client has made its commitment to fund Project B, Bellcore shall immediately notify the Owner-Client of the Project Dependency, whereupon the Owner-Client may in its discretion withdraw from Project B or remain in Project B and either (i) buy-in to Project A; or (ii) pay a royalty or license fee for the Deliverable(s) or use of the tangible resources of Project A, utilized in Project B, which were produced prior to the end of the calendar month in which the late notice of Project Dependency is received by the Owner-Client and participate thereafter in Project A as a full Project Participant. The Owner-Client shall then continue to fund Project A as a Project Participant as long as there continues to be a Project Dependency between Projects A and B and the Owner-Client remains a Participant in Project B. The royalty or license fee determined by Bellcore shall be calculated on the same basis as is utilized in calculating the price to an entity that is neither an Owner-Client nor an Affiliate and shall take into account the market value of the affected Project A Deliverable(s) or resources. Such royalty or license fee revenues to the Participants in Project A shall be distributed in proportion to their participation for Projects based on fully loaded costs, and shall be handled in accordance with Article 6.8(c) for Projects based on Firm Quoted Price.

- (2) The Owner-Client must notify Bellcore in writing of its intention, within thirty (30) days of receipt of notice of such Project Dependency and estimated price, to either (i) withdraw from Project B, (ii) buy-in to Project A or (iii) pay the royalty or license fee applicable for use of the identified Project A Deliverable(s) or tangible resource(s) produced during the period specified herein and participate thereafter in the funding of Project A as a full Project Participant. Otherwise the Owner-Client will be deemed to have elected to remain in Project B and buy-in to Project A.
- (3) In the event that the Owner-Client elects to withdraw from Project B and no Deliverable(s) have been delivered to such Owner-Client to date, the Owner-Client may receive a refund of its payment(s) made for Project B to date with interest (as such interest is calculated in Article 7.6 of this Service Agreement). In the event that one or more Deliverables have been delivered to the Owner-Client, the Owner-Client may withdraw, effective upon full payment of monies due and owing to the date it receives notice of Dependency.

6.2 Usage-Sensitive Project Work Requests

All Usage-Sensitive Projects shall be described in writing in the applicable Project Profiles. All work requested under Usage-Sensitive Projects shall be ordered as needed by an Authorized Representative of the Owner-Client. Usage-Sensitive Projects committed to during the annual budget cycle shall be listed on the Project Attachments as described in Article 4.2. Procedures for ordering work under the Bellcore TEC Agreement shall continue in accordance with the methodology described in the Bellcore TEC Agreement.

6.3 Elective Project Commitments Outside Annual Budget Cycle

An Owner-Client shall signify its intent to authorize the funding of Elective Projects other than those Projects approved during the annual budget cycle through the execution of Work Authorizations by an Authorized Representative. The Work Authorizations may pertain to Projects or groups of related Projects as the case may be.

- (a) Any new Elective Projects, except Client-Specific Projects which are treated pursuant to Article 6.3(b), that require funding in addition to the applicable authorized annual budget (as defined in Article 4.1(d)) and that do not exceed the parameters set forth in Appendix A to this Service Agreement, may be established at any time during the calendar year with the approval of at least two (2) Owner-Clients through an executed Work Authorization from each Owner-Client's Authorized Representative and the written approval of Bellcore's Chief Executive Officer or designee. Such executed Work Authorization from each Owner-Client shall be sent to Bellcore's Division Manager, Corporate Budgets.
- (b) A new Client-Specific Project may be established at any time during the calendar year if requested by an Owner-Client's Authorized Representative through an executed Work Authorization and agreed to by Bellcore. The parties agree that the signing of a Work Authorization by the Authorized Representative of the Owner-Client and written acknowledgment by Bellcore's Division Manager, Contract Administration shall be necessary to commit the Owner-Client to fund the Client-Specific Project referenced therein and to commit Bellcore to perform the work described in the associated Project Profiles. Further, in order to improve Bellcore's ability to respond to certain requests for Client-Specific work and to allow for quick processing of each request involving consultation services where the price of such request is anticipated to be less than \$100,000, an Owner-Client may elect to establish blanket Work Authorization(s). Such blanket Work Authorization(s) may cover any aggregate amount as determined by the Owner-Client, except that no individual request for work thereunder may exceed

\$100,000. If the Owner-Client establishes such blanket Work Authorization, individual requests thereunder may be submitted to Bellcore by any Authorized Representative designated by the Owner-Client for this specific purpose.

6.4 Pricing

The pricing of Elective Projects shall be as follows:

(a) Multi-Client and Client-Specific Projects that are not usage-sensitive shall be priced on the basis of Firm Quoted Price unless otherwise determined by the Board pursuant to Article 6.4(b). The Firm Quoted Prices for all Projects priced in this manner shall be set in anticipation of Bellcore's full recovery of its total fully loaded costs associated with such Projects as calculated according to the costing methodologies and procedures set forth in Appendix B to this Service Agreement. The Firm Quoted Price specific to each Owner-Client for each Multi-Client Project will be based on the projected cost of the Project, the number of Owner-Clients forecasted to participate in such Project, size-related or billing allocation factors approved for use by the Board as defined in Article 7.3, and any other pertinent data.

(1) The total effect, if any, on Bellcore's net income in connection with the results of Firm Quoted Prices shall be shared equally by all Bellcore Shareholders.

(b) The Board may direct that some or all of Bellcore's work shall not be covered by Firm Quoted Prices. In that event, the pricing for any Project subject to such directive shall compensate Bellcore for its total fully loaded costs, calculated according to the cost methodology set forth in Appendix B to this Service Agreement. In addition, for a Client-Specific Project which may be priced on the basis of fully loaded costs rather than Firm Quoted Price, Bellcore shall provide estimated costs to the Owner-Client. In the event that, during the course of the work Bellcore is performing for one Owner-Client

where the Client-Specific Project is based on fully loaded costs, Bellcore estimates that its total billing for the work may exceed the Authorization Ceiling set forth in the Work Authorization, Bellcore will seek additional written authorization from the Owner-Client to continue the Project. Bellcore's total fully loaded costs for this Project will not exceed the Authorization Ceiling set forth in the Work Authorization, without the Owner-Client's specific written authorization. If the Owner-Client does not provide such additional written authorization, the Owner-Client will be obligated only to pay for all work that was performed by Bellcore up to the date at which the Authorization Ceiling is reached, and Bellcore will be discharged of its responsibilities under such Work Authorization by delivering to the Owner-Client, in the form then existing, any Deliverable(s) that are in progress provided for in the Project Profile(s).

6.5 Project Duration and Deliverable Changes

- (a) An Owner-Client is obligated to continue funding all Elective Projects to which it is committed for the duration specified in the applicable Project Profiles. Bellcore shall specifically identify, in the Project Profiles, Projects of a multi-year duration in advance of an Owner-Client's funding commitment. The parties agree that the pricing of a multi-year Project will be established on a year to year basis.
- (b) After a Multi-Client Project based on fully loaded costs has been established, the Deliverables for that Project may be changed with the consent of a majority of the Project Participants.
 - (1) If a change approved by a majority of a Project's Participants is "significant" (as that term is defined in Article 6.5(b)(1)(i)), any Project Participant which does not concur in such a change may withdraw from the Project without any further liability for payment for work undertaken on the Project after the Participant's withdrawal. Notice of withdrawal shall be provided to all Project Participants and

Belcore. Such withdrawal shall not relieve the Owner-Client of any obligation to ~~pay~~ monies owing to Belcore prior to the effective date of its withdrawal or of any indemnification obligations arising from that portion of the Project which it has funded. Notwithstanding its withdrawal from such Project, the withdrawing Owner-Client's intellectual property rights and obligations (as specified in the Intellectual Property Agreement) shall continue to apply to the Deliverables designated as proprietary and which it has received because of its participation in the Project.

- (i) For the purposes of this provision, a "significant change" is defined as any change that (a) affects the timing or completion of any intermediate target date or Deliverable in a manner which has a materially adverse impact on any Participant; or (b) increases the cost or investment commitment or obligation of any Participant by an annual amount in excess of the lower of \$100,000 or 10% of total Project cost; or (c) changes the substantive content of a Project Deliverable in a materially adverse manner to a dissenting Participant. Any disputes concerning what changes are significant in accordance with this definition shall be resolved pursuant to the dispute resolution provisions of Article 8.19 of this Service Agreement.
- (c) If a Project is based on Firm Quoted Price, the Deliverables for that Project may be changed only with unanimous consent of the Participants and with Belcore's ~~concurrence~~ concurrence, and such change may be made only if the Firm Quoted Price does not change. Otherwise, the Firm Quoted Price Project must be terminated pursuant to Article 6.9(c) and a new Firm Quoted Price Project established.

6.6 Role of Advisory Forums

Advisory Forums chaired by Bellcore managers responsible for specific subject areas may be established to facilitate the transfer of information between Bellcore and the Owner-Clients on matters of common interest and needs affecting Elective Projects and to provide an opportunity for input from the Owner-Clients as to the formulation, scope and direction of such Projects. In addition, specific groups may also be established on an as needed basis.

6.7. Rights to Consultation Services and Intellectual Property after Discontinuance of Funding

- (a) If an Owner-Client decides to cease funding a Project which continues beyond the duration originally committed for by the Owner-Client or withdraws from a Project pursuant to Article 6.1(c) without receiving a refund or pursuant to Article 6.5(b) of this Service Agreement, Bellcore shall be obligated to furnish to such Owner-Client, at its request, consultation services pertaining to the affected Project, for a period not to exceed one year (unless the parties agree to a further extension). Such consultation services shall be performed pursuant to a Work Authorization for a Client-Specific Project.
- (b) The Owner-Client's rights with respect to intellectual property, as between Bellcore and the Owner-Client, after discontinuance of funding an Elective Project shall be as set forth in the Intellectual Property Agreement.

6.8 Buy-in Provisions

- (a) Any Owner-Client who does not agree to participate in an Elective Project prior to the commencement of such Project may subsequently do so, pursuant to Section 3.7 of the Shareholders' Agreement. Such buy-in may occur at the Project level only, and the terms and conditions contained in the Shareholders' Agreement and herein are applicable, irrespective of whether the buy-in occurs while the Project is in progress, or after it has been completed. These buy-in procedures will also be utilized where a

Project Dependency is identified and funding of one or more additional Projects initiated in the current year or a prior year is thereby required.

- (1) An Owner-Client requesting Belcore to undertake a Client-Specific Project on its behalf may include in the Work Authorization a provision stipulating that no buy-in to the Project by any other Owner-Client shall be permitted during a period not to exceed the earlier of (a) eighteen (18) months from the date of delivery of the principal Deliverable of the Project or, in the event there is no such Deliverable, the termination of the work effort being supported by the Owner-Client or (b) twenty-four (24) months from the date upon which the Client-Specific Project Work Authorization is acknowledged by Belcore as provided in this Service Agreement (such period to be known as the "Access Period"). Belcore shall honor such request subject to any rights which the other Owner-Clients may exercise pursuant to Section 3.7 of the Shareholders' Agreement. This provision shall not affect Belcore's obligations to provide information on all Projects which it undertakes to all Owner-Clients pursuant to Article 4 of this Service Agreement and shall not affect any other rights of the parties pursuant to this Service Agreement or the Intellectual Property Agreement. The Owner-Client stipulating any such Access Period may permit buy-in at its discretion at any time during the Access Period and, if it does so, may require an appropriate non-disclosure agreement from any Owner-Client who chooses to buy-in to the affected Client-Specific Project during that period. After the Access Period expires, all other Owner-Clients shall be entitled to buy-in to the affected Client-Specific Project if they so choose, by notification to Belcore and on the terms set forth in this Service Agreement.
- (2) The methodology illustrated in Appendix C to this Service Agreement shall be utilized to calculate the buy-in amount. However, an Owner-Client seeking to

buy-in to a Project may request an exception to such standard buy-in methodology to permit the adjustment of the base used in the calculation of the buy-in amount (fully loaded costs or Firm Quoted Price, as the case may be) in order to take account of the obsolescence or any other circumstances relevant to the Project Deliverable(s) to which such base pertains. Such request shall be submitted in writing to Bellcore and to the Board members or their designees at the time that such buy-in is sought. Bellcore shall provide to the Board members or their designees its recommendation as to whether an adjustment is warranted in the circumstances and, if so, the appropriate amount. The Board or Board members' designees may permit an adjustment on a case-by-case basis by unanimous vote.

(3) For Client-Specific Projects subject to an Access Period provision, the fixed 10% fee (as provided for in Section 3.7 of the Shareholders' Agreement and referred to herein as the "risk fee") shall be applicable immediately as and when buy-in occurs. For all other Projects, the risk fee shall not be applicable in the following circumstances:

- (i) if a new Project commences with the new calendar year and an Owner-Client decides and notifies Bellcore by the last work day in January to fund a new Project which it had not previously committed to during the annual budget cycle; or
- (ii) if a new Project commences during the calendar year subsequent to the completion of the budget cycle and an Owner-Client provides Bellcore with notice of its decision to buy-in to such Project no later than ninety (90) days after it has received notice from Bellcore that such Project has been authorized.

(b) When an Owner-Client requests Bellcore to undertake a Client-Specific Project on its

behalf and a Project Dependency is identified between that Project and a Multi-Client Project, then the Owner-Client shall also buy-in to the Multi-Client Project if it is not already a Participant, subject to the provisions of Article 6.1.

(c) The revenues realized from a buy-in by the additional Owner-Client shall be handled as follows:

(1) For a buy-in to a Multi-Client Project based on a Firm Quoted Price, where such buy-in occurs prior to or during the first full calendar year of the Project, the risk fee and interest shall be credited to the Participants in the Project in proportion to their respective participation and the balance of the revenues shall be dealt with in accordance with Article 6.4(a) (1).

(2) For a buy-in to a Multi-Client Project based on a Firm Quoted Price where such buy-in occurs after the first full calendar year of the Project, the distribution of revenues shall occur as follows:

(i) Revenues associated with Firm Quoted Price(s) applicable prior to the calendar year in which the buy-in occurs shall be credited to the Participants in the Project, in proportion to their respective participation;

(ii) Revenues associated with the Firm Quoted Price applicable to the calendar year in which the buy-in occurs shall be dealt with in accordance with Article 6.4(a) (1);

(iii) In all cases, risk fee and interest shall be credited to the Participants in the Project, in proportion to their respective participation.

(3) For a Client-Specific Project based on Firm Quoted Price, when buy-in occurs, the Client-Specific Project is terminated and a new Firm Quoted Priced Multi-Client Project is established. The original Owner-Client receives a credit reflecting the buy-in adjustment calculated as the difference between the monies billed to date

and the pro rata portion of its new price for the Firm Quoted Priced Multi-Client Project, including credit for the risk fee and interest paid by the Owner-Client(s) buying in. For each and every subsequent buy-in which occurs prior to or during the first full calendar year of the newly established Multi-Client Project, a new Firm Quoted Price shall be established immediately prior to the buy-in for each previously existing and new Participant and the associated revenues, risk fee, and interest shall be credited to the previously existing Participants in the Projects, in proportion to their respective participation. The new Firm Quoted Price shall be based on the Project's original budgeted costs except when the addition of Participants increases costs.

(4) For any Elective Projects for which the price is based on fully loaded costs, revenues including risk fee and interest, shall be credited to the Participants in the Project, in proportion to each such Participant's Project fully loaded cost.

(d) Any Owner-Client who chooses to buy-in to a Project shall provide notice to Bellcore of such intent, and set forth the desired date of the buy-in. Bellcore shall thereafter notify all other Owner-Clients of the buy-in. In such notice to the Owner-Clients, Bellcore shall identify the affected Project and the Owner-Client intending to buy-in, and set forth the effective date of the buy-in.

6.9 Flexibility, Overruns and Terminations

In order to recognize changes in the Owner-Clients' priorities during the calendar year and to provide for work program and budget flexibility, the following procedures may be invoked (in addition to the establishment of new Elective Projects as provided for in Article 6.3):

Revised per Board Resolution October 4, 1989

(a) Flexibility

With the agreement of Bellcore and the Authorized Representatives of all Owner-Clients funding an Elective Project, excluding Firm Quoted Price Projects, any or all of the authorized budget of such Project may be moved to another new or existing Project without specific Board approval so long as the parameters set forth in Appendix A to this Service Agreement are not exceeded.

(b) Overruns

For an Elective Project, excluding Firm Quoted Price Projects, Bellcore may exceed the authorized budget of such Project without specific Board approval so long as the parameters set forth in Appendix A to this Service Agreement are not exceeded and provided (1) that the specific Deliverables are achieved, (2) that no other Project Deliverables are negatively impacted, and (3) that the Owner-Clients receive timely written notification and explanation.

(c) Terminations

Any Elective Project may be terminated with written agreement of all participating Owner-Clients funding such Project and payment to Bellcore of all costs directly associated with such termination which cannot be reasonably avoided by Bellcore. Such costs shall include, but not be limited to, outstanding obligations to vendors, licensors, licensees and other third parties. Upon request, Bellcore shall furnish an itemized estimate of costs for such termination in accordance with Bellcore's standard costing methodology. For Projects covered by Firm Quoted Price the difference between Bellcore's fully loaded cost associated with the work performed up to the termination date and the amount billed on account of the Firm Quoted Price by the termination date shall be dealt with in accordance with Article 6.4(a)(1). The difference remaining between the total amount committed and actually billed may be

applied to other Elective Projects, new or existing in accordance with the parameters set forth in Appendix A to this Service Agreement.

6.10 Client-Specific Projects Supported By Vendor Contribution

In order to recognize and account for non-affiliate vendor contributions to any Client-Specific Project that is authorized by an Owner-Client on or after April 1, 1989, unless grandfathered in accordance with Board approval, and which Project equals or exceeds the threshold specified in Article 6.10 (a), the following procedures shall govern, where applicable, the buy-in calculation and revenue distribution methodologies described in Articles 6.8 and 7.4 respectively:

- (a) For each Client-Specific Project whose annual total fully loaded cost or Firm Quoted Price, as the case may be, equals or exceeds \$100,000, the authorizing Owner-Client receiving funding or equivalent forms of contribution from one or more non-affiliate vendors toward the cost of such Project shall report to Bellcore the existence of such contribution and the quantification thereof as described below. The authorizing Owner-Client shall be solely responsible for determining whether and to what extent there is a net vendor contribution to be reported, after evaluating all relevant factors including Owner-Client risk, obligations and contingencies ("Net Vendor Contribution"). The authorizing Owner-Client's determination of what Net Vendor Contribution, if any, is reported to Bellcore shall not be subject to audit or evaluation by Bellcore or any other Owner-Client.
- (b) For administrative convenience, the authorizing Owner-Client shall quantify the proportion of Net Vendor Contribution to total annual Project cost in percentage terms and then round such contribution to the nearest ten (10) percent. Such quantification shall then be reported to Bellcore.
- (c) Based on the data submitted by the authorizing Owner-Client, Bellcore shall reduce the base used in the calculation of the buy-in amount charged to each Owner-Client subsequently seeking to buy in to the Project (fully loaded costs or Firm Quoted Price, as the case may be)

Revised per Board Resolution December 6, 1989

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by the percent of Net Vendor Contribution reported by the Owner-Client. Appendix C, as amended, to this Service Agreement illustrates the methodology utilized to calculate the buy-in amount, including the impact on risk fee and interest. Further, in recognition of the authorizing Owner-Client's efforts in connection with obtaining and managing the Net Vendor Contribution, the Owner-Client(s) that first buys into the Project shall pay a fee (hereinafter, "Management Fee") that is equal to ten (10) percent of the Net Vendor Contribution as calculated from the data submitted by the authorizing Owner-Client. The Management Fee shall be due and credited to the authorizing Owner-Client upon the first buy-in. Each time a buy-in occurs subsequent to the initial buy-in(s) and payment of the Management Fee, the Owner-Client(s) then buying into the Project shall pay a *pro rata* share of the Management Fee, in addition to all other applicable charges, which amounts shall be credited to all existing Participants in the Project which previously contributed to the payment of the Management Fee.

- (d) Based on the data submitted by the authorizing Owner-Client, Belcore shall adjust the distribution of revenues realized from the provision of services or Deliverables of a Project to any entity other than Owner-Clients or their Affiliates to reflect the proportion of Net Vendor Contribution reported by the authorizing Owner-Client. Appendix E, as amended, to this Service Agreement illustrates the methodology utilized to accomplish this distribution adjustment.
- (e) All other provisions of the Service Agreement, as amended from time to time, affecting Client-Specific Projects, including without limitation the rules affecting buy-in and handling of revenues, shall remain in force as set forth therein and are not affected by this Article 6.10 except to the extent expressly stated.

Revised per Board Resolution December 6, 1989

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Article 7. - *Billing and Payment*

7.1 General Terms

Each Owner-Client shall compensate Belcore for its undertaking of Projects on the Owner-Client's behalf according to the following terms:

- (a) The Owner-Clients will be billed for either (1) the Firm Quoted Price of each of their Projects covered by a Firm Quoted Price or (2) their allocated share of the fully loaded costs of each Project based on fully loaded costs. For a Project covered by a Firm Quoted Price, each Participant shall be charged the Firm Quoted Price applicable to that Participant and Project and shall be billed monthly for the charges due against this price pursuant to the billing provisions of Article 7.5 of this Service Agreement.
- (b) The billings for all Projects not covered by a Firm Quoted Price will reflect credits for revenues attributable to Belcore's provision of services or Deliverables to any entity other than the Owner-Clients or their Affiliates, as described in Article 7.4 hereof.
- (c) The Owner-Clients agree to pay Belcore the charges indicated on each bill within thirty (30) days after receipt of each bill as hereinafter provided for in this Article. In the event of any dispute arising under this Service Agreement including, but not limited to, the amount of any bill rendered by Belcore to an Owner-Client for Projects furnished to the Owner-Client, or Belcore compliance with the warranty provided for in Article 8.1, either the Owner-Client or Belcore may pursue dispute resolution according to the procedures described in Article 8.19 hereof. Pending resolution of such dispute, the Owner-Client shall nevertheless pay the full amount of the bill, in accordance with the provisions of this Article 7.1(c), except as follows:

- (1) If the Owner-Client intends to dispute any billing(s), the member of the Board of such Owner-Client, or person designated by such member as an Authorized Representative for this purpose, shall notify Bellcore in writing of such dispute by the date that payment of such billing(s) is due under Article 7. The notification shall specify the basis of this dispute;
- (2) Upon giving such notification, such Owner-Client shall have the right to withhold payment of up to \$500,000 of such disputed billing(s) relating specifically to such Project(s) in dispute pending resolution of such dispute;
- (3) The Owner-Client agrees to pay Bellcore that portion of the disputed amount of billing that is in excess of \$500,000 and all other amounts shown on the bill not affected by the dispute in accordance with the provisions of this Article 7.1(c);
- (4) If the Owner-Client does not provide the aforementioned notice then the Owner-Client shall forfeit such right to withhold any payment of the amount in dispute pending resolution of such dispute(s). Should a dispute be resolved in favor of Bellcore where the Owner-Client has provided proper notice and withheld payment pursuant to these provisions, the Owner-Client shall pay to Bellcore the amount in dispute which it withheld, plus an interest charge calculated from the original due date to the actual payment date. Should the dispute be resolved in favor of the Owner-Client and the Owner-Client had made some payment to Bellcore of the disputed amount, Bellcore shall refund or credit, at the Owner-Client's option, such amounts in dispute, plus an interest charge calculated from date of initial payment to refund or credit date. The aforementioned interest charges will be calculated at an annual rate of one percent (1%) over the lowest prime rate in effect in New York City as

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published in *The Wall Street Journal* on the Monday (or, if Monday is a holiday, the next legal business day) following the payment due date.

7.2 Costs

The fully loaded costs that Belcore incurs in performance of the Projects which it undertakes for the Owner-Clients will be charged or distributed to the Projects in a manner consistent with generally accepted accounting principles. The costs will consist of those described in Appendix B to this Service Agreement.

From time to time as circumstances warrant, it may be necessary to make changes to the description of costs to be billed contained in Appendix B to this Service Agreement. All such changes will be in accordance with generally accepted accounting principles, and timely notice will be provided to all Authorized Representatives of the Owner-Clients pursuant to the notice provisions of this Service Agreement. Board approval will be required for changes which Belcore's Senior Vice President-Finance and Administration determines to be major in nature.

The costs incurred in the performance of any Project, to the extent attributable to research or experimental activities, shall constitute contract research expenses within the meaning of the Federal Income Tax Law and of the revenue statutes of any state or political subdivision.

7.3 Billing Allocation Provisions

When a Firm Quoted Price is used for pricing of a Multi-Client Project, and the price is determined as specified in Article 6.4, the size-related billing allocation factors as approved by the Board shall be used in establishing the price. When a Firm Quoted Price is not used for pricing of a Multi-Client Project, the billing of that Project shall be based on the allocation of actual fully loaded costs utilizing the same size-related factors approved by the Board, as specified herein.

An allocation factor will be developed for each Owner-Client based on its relative Total Operating Expenses (TOE) and Total Plant in Service (TPIS) investment for each year over a four year period. Each Owner-Client's TOE and TPIS will be separately calculated and averaged for each of the four individual years 1984 through 1987. For each Owner-Client, these four (4) separate averages will then form the basis for a single four-year average percentage which will be used as an allocation factor.

Appendix D to this Service Agreement illustrates the derivation of these factors based on a four-year average for 1984 through 1987 TOE and TPIS-values. These factors will be used for the 1988, 1989, and 1990 annual budget cycles and billing to the Owner-Clients. Prior to January 1, 1990 the Board will review billing allocation to determine if a new factor(s) should be introduced. If there is not unanimous agreement by the Board to introduce a new factor(s), then these original factors based on a four-year average will continue to be utilized until such time as the Board decides otherwise by unanimous vote. With a unanimous vote of the Board, the factors may be updated to include a more current four-year period. Without such unanimous vote of the Board, the original factors based on the 1984-1987 period will be used for the life of this Service Agreement or until 1993, whichever is earlier.

It is the intent of the parties that the billing allocation data submitted be as consistent as feasible among the Owner-Clients in terms of what sources and categories of data are included or excluded. The Owner-Clients agree that they shall submit such data to Belcore with a statement of attestation by the Owner-Clients' external auditors.

7.4 Cost-Sharing Revenue

The revenues realized from the provision of services or Deliverables of a Project to any entity other than Owner-Clients or their Affiliates shall be treated as payment for sharing in the benefits/costs of the Project, thereby reducing the cost to the respective Owner-Clients. Belcore shall credit such cost-sharing revenue directly to Owner-Clients in the manner described in Appendix E to this Service Agreement for Projects based on fully loaded costs and for Client-Specific Projects based on

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Firm Quoted Price. Any cost-sharing revenues received for Multi-Client Projects based on Firm Quoted Price shall be dealt with in accordance with Article 6.4(a)(1).

7.5 Monthly Service Billing

- (a) On or about the twelfth work day of each month, Belcore shall submit a bill to each Owner-Client for services provided by Belcore during the previous month, which billing shall be based on costs incurred during the previous month or on Firm Quoted Prices, whichever is applicable. Each bill will provide referencing Project numbers. For Projects based on actual fully loaded costs, the billing will detail the total Belcore costs for each Project, the Owner-Client's allocation of the total Project cost (where applicable), credits from any revenues received from any entity other than Owner-Clients or their Affiliates and any applicable billing adjustments. For Firm Quoted Price Projects, the billing will show total price billed for that Project and the Owner-Client's price. In addition, for Client-Specific Projects based on Firm Quoted Price, the billing will reflect credits from any revenues received from any entity other than Owner-Clients or their Affiliates, whenever applicable.
- (b) It may be necessary in certain instances for Belcore to bill previous month services on an estimated basis. If billing is on an estimated basis, subsequent adjustment bills, including backup details, will be rendered based on actual costs and Billing Allocation Factors, and will also be payable according to the aforementioned provisions.
- (c) Special Billing Arrangements shall be provided as requested pursuant to Article 4.1(b).
- (d) On or about the twelfth work day of February, a final adjustment of billing residuals from the previous year will be made, except for Firm Quoted Price Projects where a final adjustment will be made to the 1st quarter dividend in the following year.

7.6 Interest on Payments Overdue

Payments to Belcore provided for in this Service Agreement shall, when overdue, be subject to an interest charge for the period such payment is overdue, calculated at an annual rate of one percent (1%) over the lowest prime rate in effect in New York City as published in *The Wall Street Journal* on the Monday (or, if Monday is a holiday, the next legal business day) following the payment due date. If the amount of such interest charge exceeds the maximum permitted by law for such charge, the interest charge shall be reduced to such maximum amount.

7.7 Form of Payment

Payment to Belcore shall be made via wire transfer (Fed wire) to those accounts designated by Belcore's Senior Vice President-Finance and Administration.

Article 8. - Miscellaneous Provisions

8.1 Warranty

Belcore warrants that it will provide all services, information and Deliverables furnished in connection with each Project hereunder in reasonable conformance with the Project description contained in the pertinent Project Profile as supplemented by any Work Authorization. If any Project description is changed by agreement of Belcore and the funding Owner-Client(s), Belcore warrants that it will perform in reasonable conformance with the description as so changed. Belcore also agrees that once Belcore's performance of a Project has been accepted by an Owner-Client pursuant to Article 8.17 hereof, Belcore shall continue to satisfy the Owner-Client's ongoing service requirements with respect to such Project as described in the Project Profile or Work Authorization. Where appropriate, the Project's written description shall specify the practicable criteria (which may include "time is of the essence" criteria) and procedures for verifying Belcore's performance in reasonable conformance with such Project's written description, together with any specific requirements applicable to the continued

servicing of a Project's Deliverables. Bellcore also warrants that it shall perform its services in a manner consistent with generally accepted professional standards. BELLCORE HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF PERFORMANCE OR QUALITY WITH RESPECT TO ANY PROJECT AND INFORMATION FURNISHED THEREUNDER, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

8.2 Liability

- (a) NO PARTY HERETO SHALL BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER WITH RESPECT TO ANY PROJECT PROVIDED TO ANY OWNER-CLIENT UNDER THIS SERVICE AGREEMENT. This provision is applicable to claims between the parties to this Service Agreement for alleged breach thereof.
- (b) In the event of nonperformance by Bellcore of any obligation under this Service Agreement, each Owner-Client's sole recourse shall be as set forth in Article 8.3(b) hereof.

8.3 Default

- (a) Owner-Client Default
 - (1) Notwithstanding any grant of rights under the Intellectual Property Agreement, if any Owner-Client is in default in the payment of any amount due Bellcore under this Service Agreement for more than thirty (30) days after written notice from Bellcore that said payment is in default, such Owner-Client shall forfeit all rights to any license under Software, Technical Information or Copyrights (as those terms are defined in the Intellectual Property Agreement) resulting from the Project as to which payment is in default until such time as

the defaulting Owner-Client satisfies all outstanding payment obligations to Belcore relating to such Project.

(2) If any Owner-Client materially breaches its obligations with respect to the use and disclosure of proprietary information which Belcore has transferred to such Owner-Client, the Board may declare such Owner-Client to be in default hereunder and may determine an appropriate remedy for such default. Such remedy shall be limited to the Project in question and shall be reasonable in light of the extent of the breach. Further, such remedy is subject to the disclaimer of liability set forth in Article 8.2. The Board or the affected Owner-Client may submit to binding arbitration (as provided in Article 8.19 hereof) any dispute which has not been resolved to the satisfaction of the Board or the affected Owner-Client for a determination whether the Owner-Client is in default hereunder and/or the appropriate remedy for such default.

(3) If the remedy decided upon under Article 8.3(a)(2) includes the termination of Belcore's obligations to the defaulting Owner-Client with respect to any Project(s), such termination shall not relieve the Owner-Client from its obligation to pay any sums of money then due or payable under this Service Agreement at the date of such termination, together with any payments that it would otherwise have been obligated to pay with respect to the affected Project for the balance of the term of the Owner-Client's commitment for said Project, discounted to the date of payment. The parties' obligations with respect to all other Projects in which they are participating remain unchanged. Belcore's termination of its obligations with respect to the defaulting Owner-Client shall not relieve it of its obligations to the other participating Owner-Clients.

(4) The foregoing remedies are in addition to any other applicable remedies for default set forth in the Shareholders' Agreement.

the satisfaction of the Board or the affected Owner-Client(s) for a determination whether Belcore is in default hereunder and/or the appropriate remedy for such default except that where Belcore's failure to perform is due to an action of the Board which directly prevents Belcore from fulfilling the Project Deliverables, Belcore shall not be liable for any damages or expenses hereunder. Further, the arbitrator's award shall be limited by the provisions contained in Article 8.3(b)(1).

- (3) Any Owner-Client which terminates its obligations under Article 8.3(b)(1) by reason of Belcore's default shall continue to have the rights to all Belcore intellectual property with respect to such Project in accordance with those terms of the Intellectual Property Agreement applicable to an Owner-Client which withdraws from a Project.

8.4 Owner-Client's Information

The parties agree that Belcore's performance as described in a Project Profile and/or Work Authorization may be conditional upon the Owner-Client's timely, accurate and complete provision of relevant Owner-Client information and that the Owner-Client's failure to provide such information may constitute a justification for Belcore's nonperformance under this Service Agreement. Belcore shall protect the confidentiality of all Owner-Client information which it receives from an Owner-Client in accordance with the Intellectual Property Agreement.

8.5 Legal Compliance

This Service Agreement is subject to termination or modification as shall be required (a) by the Court under the MFJ or (b) otherwise by law or judicial ruling.

the satisfaction of the Board or the affected Owner-Client(s) for a determination whether Bellcore is in default hereunder and/or the appropriate remedy for such default except that where Bellcore's failure to perform is due to an action of the Board which directly prevents Bellcore from fulfilling the Project Deliverables, Bellcore shall not be liable for any damages or expenses hereunder. Further, the arbitrator's award shall be limited by the provisions contained in Article 8.3(b)(1).

- (3) Any Owner-Client which terminates its obligations under Article 8.3(b)(1) by reason of Bellcore's default shall continue to have the rights to all Bellcore intellectual property with respect to such Project in accordance with those terms of the Intellectual Property Agreement applicable to an Owner-Client which withdraws from a Project.

8.4 Owner-Client's Information

The parties agree that Bellcore's performance as described in a Project Profile and/or Work Authorization may be conditional upon the Owner-Client's timely, accurate and complete provision of relevant Owner-Client information and that the Owner-Client's failure to provide such information may constitute a justification for Bellcore's nonperformance under this Service Agreement. Bellcore shall protect the confidentiality of all Owner-Client information which it receives from an Owner-Client in accordance with the Intellectual Property Agreement.

8.5 Legal Compliance

This Service Agreement is subject to termination or modification as shall be required (a) by the Court under the MFJ or (b) otherwise by law or judicial ruling.

8.5 Independent Responsibilities

Each party will be solely responsible for all matters relating to the payment of its respective employees, including ~~compliance~~ with social security taxes, withholding taxes, workers' compensation and all other regulations governing such matters. Further, each party will be responsible for its own acts and those of its own subordinates, employees, agents and subcontractors during the performance of that party's obligations hereunder.

8.7 Security and Access

- (a) Employees and agents of each party shall, while on the premises of another party, comply with all applicable rules and regulations, including security requirements, and, where required by Government Regulations, shall obtain satisfactory clearance from the U.S. Department of Defense or other relevant federal authority.
- (b) Each party shall provide each of its employees who perform work on or have access to another party's premises or facilities with an identification card, which shall be displayed to the other party's representatives upon request.
- (c) Each party is responsible for all keys or access cards to another party's premises issued in connection with activities performed under this Service Agreement. Such keys or access cards shall not be duplicated.
- (d) All such keys or access cards shall be returned to the owners thereof upon request, or, in any event, when no longer required to perform activities under this Service Agreement. Loss of keys or access cards shall be promptly reported to the owner thereof.

8.8 Force Majeure

- (a) No party shall be held liable to any other party for any delay or failure in performance under this Service Agreement caused by fire, labor strike, embargo, explosion, power blackout, earthquake, volcanic action, flood, war, water, the elements, labor dispute, civil disturbance, government requirement, civil or military authority, act of God or public enemy, or inability of the performing party to secure the product of any manufacturer or outside vendor through no fault of its own, or any such delay or failure resulting from any other cause beyond the performing party's control, whether or not similar to any of the foregoing conditions (any and all of which are hereinafter referred to as a "Force Majeure Condition").
- (b) If any Force Majeure Condition occurs, the affected party shall give immediate notice thereof to every other party that may be affected.

8.9 Compliance With Employment Laws

- (a) All obligations under this Service Agreement shall be performed in compliance with all applicable legislation and government agency orders and regulations prohibiting discrimination against any employee or applicant for employment because of race, color, religion, sex, national origin, age or handicap. Where required by law, certificates of compliance shall be provided.
- (b) Each party shall comply with the provisions of the Fair Labor Standards Act of 1938, as amended, OSHA and all other applicable federal, state and local law governing employment.

8.10 Amendments; Waivers

This Service Agreement may be amended in whole or in part by written agreement among all of the parties hereto. No consent to any waiver or any default under this Service Agreement shall be

effective unless the same shall be in writing and signed by an Authorized Representative of the party against whom such waiver or default is claimed.

The Board may change any of the Appendices to this Service Agreement by unanimous vote whereupon such changes shall be deemed effective for the purposes of this Service Agreement without any further action required by the parties.

In addition, no course of dealing or failure of any party to strictly enforce any term, right or condition of this Service Agreement shall be construed as a waiver of such term, right or condition.

8.11 Notices

All notices and demands of any kind, which either Bellcore or any Owner-Client may be required to, or desires to, furnish the other under the terms of this Service Agreement, shall be in writing and shall be sent by certified mail to the addresses set forth in the Appendix F to this Service Agreement. Any such mailing shall constitute full and adequate notice, and shall be deemed delivered when postmarked. If any party desires to change its designated address, it may do so by written notification to all of the other parties.

8.12 Severability

If any provision of this Service Agreement shall be held invalid or unenforceable, the remainder of this Service Agreement shall not be affected thereby and the remaining terms shall continue in effect and be binding on the parties. If any party is prevented from performing any of the provisions of this Service Agreement by any governmental order, judicial decree, regulation, Force Majeure Condition, or statute, it will be relieved of its obligation to perform that provision which it is prevented from performing, and the remaining terms shall continue in effect and be binding on the parties.

8.13 Assignment

- (a) An Owner-Client shall not have the right to assign, transfer or sell any rights acquired under this Service Agreement, or to delegate its obligations hereunder, without the prior written consent of Belcore, except as provided in subparagraph (b) hereof. Belcore may not assign its rights and/or delegate its obligations to perform under this Service Agreement without the prior written consent of all Owner-Clients funding the affected Projects.
- (b) Without Belcore's consent, each Owner-Client may assign its rights under this Service Agreement to any of its Related Entities, as that term is defined in Section 1.5 of the Shareholders' Agreement. The Owner-Client shall notify Belcore in writing in a timely manner of such assignment and such assignment shall only be effective upon the assumption of the assignor's obligations hereunder by the assignee. Upon effectiveness, the assignee under any such assignment shall assume all of the rights and obligations of the assigning party.

8.14 Executed in Counterparts

This Service Agreement may be executed in any number of counterparts, each of which shall be an original; but such counterparts shall together constitute but one and the same instrument.

8.15 Headings

The headings in this Service Agreement are for convenience only and shall not be construed to define or limit any of the terms herein or affect the meaning or interpretation of this Service Agreement.

8.16 Governing Law

This Service Agreement is to be governed by and interpreted under the laws of the State of New Jersey.

8.17 Acceptance

Each Owner-Client shall have the obligation to accept Bellcore's performance of all Infrastructure and Elective Projects which such Owner-Client has committed to fund, except any Project(s) that fails to meet the warranty specified in Article 8.1.

8.18 Audit

An Owner-Client shall have the right to conduct an independent audit of the books, records and operations of Bellcore as described in Section 9 of the Shareholders' Agreement.

8.19 Dispute Resolution

If a dispute arises under this Service Agreement between or among the parties hereto, it is agreed that the disputing parties shall first attempt to resolve such dispute through negotiations between or among themselves, referring the matter, at their option, to a Board-appointed body with expertise in the subject matter of the dispute. If the dispute is not resolved through direct negotiation, either of the disputing parties may take the dispute to the Board for resolution. Within sixty (60) days of final action by the Board, any aggrieved party or the Board may submit the dispute to binding arbitration. If the dispute reaches arbitration, such arbitration shall be conducted in accordance with the Rules of the American Arbitration Association except that the parties may agree to name any and all of the arbitrators and determine the method and amounts of compensation for the arbitrator(s) selected. The arbitrator(s) shall be bound by the terms, conditions, and remedies provided for in this Service Agreement, the Shareholders' Agreement and the Intellectual Property Agreement. Any

arbitration award rendered shall be final and binding upon the parties, and judgment upon any such award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

8.20 Third-Party Claims

This Service Agreement shall not provide third parties with any remedy, claim, liability, reimbursement, claim of action or other right in excess of those existing without reference to this Service Agreement.

8.21 Controlling Agreement

In the event that and to the extent that the provisions of the Shareholders' Agreement conflict with the terms of this Service Agreement, the provisions of the Shareholders' Agreement shall control.

8.22 Entire Agreement

Except for matters specifically addressed in the Shareholders' Agreement, Intellectual Property Agreement or Belcore TEC Agreement, this Service Agreement contains the entire understanding and agreement among the parties hereto with respect to Projects offered to the Owner-Clients hereunder, and supersedes any prior agreements among the parties pertaining thereto. This Service Agreement supersedes and replaces the Service Agreement among the parties effective January 1, 1984 as amended. There are no representations, warranties, promises, covenants or understandings other than those herein expressly set forth.

IN WITNESS WHEREOF, the parties hereto have caused this Service Agreement to be signed by their duly Authorized Representatives.

AMERITECH SERVICES, INC.

1900 East Golf Road
Schaumburg, IL 60173

BY: Bruce R. DeMaeyer

DATE: 12-30-87

BELL ATLANTIC NETWORK SERVICES, INC.

1310 North Courthouse Road
Arlington, VA 22201

BY: Philip A. Campbell

DATE: 12-22-87

BELLSOUTH SERVICES INCORPORATED

600 North 19th Street
Birmingham, AL 35203

BY: Hugh B. Jacks

DATE: 12-28-87

NYNEX SERVICE COMPANY

120 Bloomingdale Rd.

White Plains, NY 10605

BY: P. D. Covill

DATE: 12-28-87

PACIFIC BELL

140 New Montgomery Street

San Francisco, CA 94105

BY: M. A. Kaplan

DATE: 1-5-88

SOUTHWESTERN BELL TELEPHONE COMPANY

1010 Pine Street

St. Louis, MO 63101

BY: C. E. Foster

DATE: 12-31-87

**U S WEST ADVANCED TECHNOLOGIES, INC. as Agent for THE MOUNTAIN STATES
TELEPHONE & TELEGRAPH COMPANY, NORTHWESTERN BELL TELEPHONE COMPANY and
PACIFIC NORTHWEST BELL TELEPHONE COMPANY**

6200 South Quebec Street

Englewood, CO 80111

BY: W. J. Wade

DATE: 1/18/88
re-signed 3/18/88

BELL COMMUNICATIONS RESEARCH, INC.

290 West Mt. Pleasant Avenue

Livingston, NJ 07039

BY: R. J. Marano

DATE: 12-10-87

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Agreement," the following terms and conditions contained in the SERVICE AGREEMENT shall be incorporated as part of this AGREEMENT:

- Section 7.5 Monthly Service Billing
- Section 7.6 Interest on Payments Overdue
- Section 7.7 Form of Payment
- Section 8.1 Warranty
- Section 8.2 Liability
- Section 8.3(a) Owner-Client
- Section 8.3(b) Bellcore Default
- Section 8.6 Independent Responsibilities
- Section 8.7 Security and Access
- Section 8.8 Force Majeure (subject to the exception noted in Section 9.4 hereinabove)
- Section 8.9 Compliance with Employment Laws
- Section 8.17 Acceptance
- Section 8.18 Audit
- Section 8.19 Dispute Resolution
- Section 8.20 Third Party Claims

- (d) To the extent not contradicted herein, with respect to matters relating to confidentiality of the parties' information and indemnification for third party intellectual property claims including, but not limited to, COURSE RELATED MATERIALS, the rights and obligations of the parties shall be as set forth in the IPA. These matters include, but are not limited to, security of the parties' information, disclosure of information to third parties and indemnification.

IN WITNESS WHEREOF, the parties hereto have caused the Bellcore TEC Agreement to be signed by their duly authorized representatives.

AMERITECH SERVICES, INC.
1900 E. Golf Road
Schaumburg, IL 60173

By: Bruce R. DeMaeyer Date: 9-27-88

BELL ATLANTIC NETWORK SERVICES, INC.
1310 North Courthouse Road
Arlington, VA 22201

By: R. W. Smith Date: 11-1-88

BELLSOUTH SERVICES INCORPORATED
600 North 19th Street
Birmingham, AL 35203

By: Hugh B. Jacks Date: 9-30-88

NYNEX SERVICE COMPANY
500 Westchester Avenue
White Plains, NY 10604

By: Paul D. Covill Date: 9-30-88

PACIFIC BELL
140 New Montgomery Street
San Francisco, CA 94105

By: Martin A. Kaplan Date: 10-14-88

SOUTHWESTERN BELL TELEPHONE COMPANY
1010 Pine Street
St. Louis, MO 63101

By: C. E. Foster Date: 10-12-88

U S WEST ADVANCED TECHNOLOGIES, INC. as Agent
for THE MOUNTAIN STATES TELEPHONE & TELEGRAPH
COMPANY, NORTHWESTERN BELL TELEPHONE COMPANY and
PACIFIC NORTHWEST BELL TELEPHONE COMPANY
6200 S. Quebec Street
Englewood, CO 80111

By: W. J. Wade Date: 11-21-88

BELL COMMUNICATIONS RESEARCH, INC.
290 West Mt. Pleasant Avenue
Livingston, NJ 07039

By: Donald S. Baker Date: 9-23-88

BELLCORE TEC

1988 LICENSING ALGORITHMS*

I. The following algorithms are approved for the licensing of Bellcore TEC courses by an Owner-Client:

A. To be employed when an Owner-Client plans to deliver a course or any portion of a course "as is." Instructor guide and complete set of media provided with initial set of copies.

Cost to provide (e.g., duplication costs)	Tier	x (#s of copies ordered (converted to stu.wks.))	= Price charged
	+ development component		
	to be sensitive to course dev. &/or maintenance costs		
	Medium = \$500		

B. To be employed when an Owner-Client requests a copy of a course or a portion of a course for the purpose of local adaptation.

Cost to provide (e.g., duplication costs)	Actual development costs for the course requested**	x 1/3	= Price charged
	•		

* As approved by the Research & Network Council on January 12, 1988.

** Development Cost Component shall not contain any development costs previously charged to and paid for by Owner-Clients in the funding of a pre-1986 project.

Attachment A
 Page 2 of 2

1988 ALGORITHMS FOR SELECTED MATERIALS

II. The following algorithms are approved for the licensing of selected portions of Bellcore TEC courses by an Owner-Client:

A. For selected materials (i.e., student work binder, instructor guide) allowing for recreation of a specific lesson(s), but not substantive portions of the course.

$$\begin{array}{r}
 \text{Cost to} \\
 \text{provide} \\
 \text{(e.g., dupli-} \\
 \text{cation costs)}
 \end{array}
 \times
 \begin{array}{|l}
 \hline
 \text{Course} \\
 \text{+| develop-} \\
 \text{| ment} \\
 \text{| costs} \\
 \hline
 \end{array}
 \times
 \frac{1}{3}
 \times
 \begin{array}{|l}
 \hline
 \text{\% of Course} \\
 \text{lesson} \\
 \text{| represents} \\
 \hline
 \end{array}
 \times
 \begin{array}{|l}
 \hline
 \text{Criticality} \\
 \text{factor} \\
 \text{| (1.0 - 2.0)} \\
 \hline
 \end{array}
 =
 \begin{array}{|l}
 \hline
 \text{Price} \\
 \text{charged} \\
 \hline
 \end{array}$$

Criticality Factor accounts for lessons that require more development effort than reflected in the actual length or are critical to the overall intent of the course (i.e., final casework). If substantive portions of the entire course can be recreated from the selected materials requested, the algorithm for the entire course (I) will apply.

B. For selected materials where the lesson(s) cannot be recreated (miscellaneous slides, job aids, video tapes).

$$\begin{array}{|l}
 \hline
 \text{Cost to provide} \\
 \text{| (e.g., duplication} \\
 \text{| costs)} \\
 \hline
 \end{array}
 \times
 \begin{array}{|l}
 \hline
 \text{Pricing factor} \\
 \hline
 \end{array}
 =
 \begin{array}{|l}
 \hline
 \text{Price} \\
 \text{charged} \\
 \hline
 \end{array}$$

Pricing Factor is based on relative intentions of usage and market pricing.

ADDRESSES FOR NOTICES AND DEMANDS

Mr. B. Pruski
Sr Dir. - Financial Assurance
Ameritech Services, Inc.
1900 E. Golf Road, Floor 10
Schaumburg, IL 60173

(312) 519-2208

Mr. D. L. Myers
Managing Director
Bell Atlantic Network Services, Inc.
1310 N. Courthouse Road, 3rd floor
Arlington, VA 22201

(703) 974-8025

Mr. E. W. Parish
Director - Regulatory Affairs
BellSouth Services, Incorporated
600 N. 19th St., 17th floor
Birmingham, AL 35203

(205) 321-8648

Mr. C. P. Turner
Managing Director, Financial Administration
NYNEX
120 Bloomingdale Road
White Plains, NY 10605

(914) 683-3342

Mr. H. Bowen
Vice President - Network Operations
Southwestern Bell Telephone Company
1010 Pine Street - Room 2508
St. Louis, MO 63101

(314) 247-1000

Schedule I
Page 2 of 2

Mr. M. E. King
Division Manager, Circuit & Facilities
Pacific Bell
2600 Camino Ramon, Rm. 4N904
San Ramon, CA 94583

(415) 823-7500

Ms. A. Doggett
Associate Director
Bellcore Administration
U S WEST Advanced Technologies, Inc.
6200 S. Quebec St., Suite 260
Englewood, CO 80111

(303) 740-4492

Mr. E. M. Bookrajian
Division Manager, Contract Administration
Bell Communications Research, Inc.
290 West Mount Pleasant Avenue, Room 3E110
Livingston, NJ 07039

(201) 740-3150

Trade Name,
Trademark, and
Service Mark

TRADE NAME, TRADEMARK AND SERVICE MARK
LICENSE AGREEMENT
BETWEEN
AMERICAN INFORMATION TECHNOLOGIES CORPORATION
BELL ATLANTIC CORPORATION
BELLSOUTH CORPORATION
CINCINNATI BELL INC.
NYNEX CORPORATION
PACIFIC TELESIS GROUP
SOUTHERN NEW ENGLAND TELEPHONE COMPANY
SOUTHWESTERN BELL CORPORATION
U S WEST, INC.
AND
BELL COMMUNICATIONS RESEARCH, INC.

AMERICAN INFORMATION TECHNOLOGIES CORPORATION, a Delaware corporation, having its principal place of business at 225 West Randolph Street, Chicago, Illinois; BELL ATLANTIC CORPORATION, a Delaware Corporation, having its principal place of business at 1600 Market Street, Philadelphia, Pennsylvania; BELLSOUTH CORPORATION, a Georgia corporation, having its principal place of business at 675 West Peachtree Street, N.E., Atlanta, Georgia; CINCINNATI BELL INC., an Ohio corporation, having its principal place of business at 201 East Fourth Street, Cincinnati, Ohio; NYNEX CORPORATION, a Delaware corporation, having its principal place of business at 335 Madison Avenue, New York, New York; PACIFIC TELESIS GROUP, a Nevada corporation, having its principal place of business at 140 New Montgomery Street, San Francisco, California; SOUTHERN NEW ENGLAND TELEPHONE COMPANY, a Connecticut corporation, having its principal place of business at 227 Church Street, New Haven, Connecticut; SOUTHWESTERN BELL CORPORATION, a Delaware corporation, having its principal place of business at 1010 Pine Street, St. Louis, Missouri; and U S WEST, INC., a Colorado corporation, having its principal place of business at 7800 East Orchard Road, Englewood, Colorado (hereinafter referred to collectively as "Licensors" and individually as "Licensor") and BELL COMMUNICATIONS RESEARCH, INC, a Delaware corporation, having its principal place of business at 290 West Mount Pleasant Avenue, Livingston, New Jersey (hereinafter referred to as "Licensee");

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WITNESSETH:

Whereas Licensors have been assigned certain trademarks, trade names and service marks (the "Assigned Marks") under the Agreement with American Telephone and Telegraph Company Concerning Trademarks, Trade Names and Service Marks, effective December 31, 1983 (the "Assignment Agreement"); and

Whereas Licensors have entered into a Supplemental Agreement Concerning Trademarks, Trade Names and Service Marks, effective December 31, 1983 (the "Supplemental Agreement") and a Trademark, Trade Name, and Service Mark Graphics Standard Agreement, effective December 31, 1983 (the "Standards Agreement") to provide for proper use of the Assigned Marks; and

Whereas by Memorandum of February 6, 1984, the U.S. District Court for the District of Columbia in U.S. v. Western Electric Company, Inc., et al., Civ. Action No. 82-0192, stated that "it is appropriate under the decree that [Licensee] be enabled to make use of the Bell name and marks"; and

Whereas Licensors desire to permit Licensee to use certain of the Assigned Marks subject to all the terms of this License Agreement;

Now, Therefore, the parties agree as follows:

1. Licensors hereby grant to Licensee a non-exclusive, royalty-free license throughout the United States:

(a) To use the term BELL in Licensee's corporate name, BELL COMMUNICATIONS RESEARCH, INC., and in the trade names BELL COMMUNICATIONS RESEARCH, BELLCORE and BELL COMMUNICATIONS TECHNICAL EDUCATION CENTER (herein called the "Licensed Names") and to use the Licensed Names only as authorized pursuant to Paragraph 3 below; provided, however, that Licensee's use of the term BELLCORE in any written materials distributed outside of Licensee shall be limited to situations where the context identifies the term BELLCORE with the term BELL COMMUNICATIONS RESEARCH or BELL COMMUNICATIONS RESEARCH, INC; and

(b) To use the Bell Symbol in the forms depicted in Exhibit 1 hereto and the Blue and Ochre Stripes Design (the "Design Marks") in accordance with the graphics standards applicable to such Design Marks set forth in the Standards Agreement, as amended from time to time, only in conjunction with one of the Licensed Names and only as authorized pursuant to Paragraph 3 below.

2. The term "in conjunction with" as used in Paragraph 1(b) above does not require that a Licensed Name be used next to or in direct proximity to a Design Mark but shall mean that a Licensed Name must be used at least in equal prominence with and in sufficient proximity to a Design Mark such that a reasonable observer would normally view both in a single visual impression and would recognize that both are being used by the same entity. Licensee may not represent a Licensed Name used in conjunction with one or more of the Design Marks by the use of any initials, abbreviations or contractions thereof.

3. Licensee shall use the Licensed Names and the Design Marks (herein collectively called the "Licensed Marks") only in the forms expressly permitted in Paragraph 1 above and only in connection with such goods and services as may be approved from time to time by Licensors.

4. Licensee agrees that the goods and services rendered and materials published by Licensee and associated with the Licensed Marks will comply with all applicable laws and with standards of quality established by Licensors from time to time. Upon Licensors' request, Licensee shall promptly provide Licensors with samples of all materials bearing the Licensed Marks and with information concerning the manner in which Licensee uses the Licensed Marks. Licensee shall permit Licensors access to Licensee's premises during usual business hours to inspect all materials relating to the goods and services and to interview Licensee's personnel and Licensee shall otherwise cooperate fully in Licensors' supervision of the nature and quality of the goods and services.

5. The Licensors' rights under Paragraphs 3 and 4 above shall be exercised on behalf of all Licensors by the board of directors of Licensee, such board being composed of persons who serve at the direction of certain of the Licensors.

6. Licensors will not use any of the Licensed Names (or the abbreviation "BCR") as a trade name, trademark or service mark. ~~But~~, however, a Licensor is denied permission by any State to form or qualify a corporation under any other name on account of the prior formation or qualification of Licensee under its corporate name. Licensee, promptly upon request of such Licensor, shall execute and deliver to such Licensor all appropriate consents and shall perform all other acts (including, if necessary, changing its corporate name in such state) to permit the Licensor to form or qualify its corporation.

7. Licensee acknowledges the value of the Licensed Marks and the goodwill associated therewith and acknowledges that such goodwill is a property right belonging to Licensors and that Licensors are the owners of all trademark and other rights in the Licensed Marks. Licensee recognizes that nothing contained in this Agreement is intended as an assignment or grant to Licensee of any right, title or interest in or to the Licensed Marks or any other marks of Licensors or the goodwill associated therewith and that this Agreement does not confer any right on Licensee to grant sublicenses and is not assignable. Licensee will do nothing inconsistent with Licensors' ownership of the Licensed Marks, and all use of the Licensed Marks by Licensee shall inure to the benefit of and be on behalf of Licensors. Licensee will not adopt, use (other than licensed use provided for herein), register or seek to register any mark anywhere in the world which is identical to any of the Licensed Marks or to any mark used by any Licensor or which is so similar thereto as to constitute a colorable imitation thereof or to suggest some association, sponsorship and/or endorsement by any of the Licensors.

8. Licensee agrees to notify Licensors of any unauthorized use of the Licensed Marks by others promptly as it comes to Licensee's attention. Licensors shall have the sole right to engage in infringement or unfair competition proceedings involving the Licensed Marks, and Licensee shall cooperate fully in any such proceedings to the extent requested by one or more Licensors.

9. Licensors make no warranties regarding their ownership of any rights in the Licensed Marks. Licensee agrees to indemnify, defend and hold Licensors and their affiliates harmless against all claims, suits, costs, damages and judgements incurred, claimed or sustained by third parties, whether for personal injury or otherwise, because of the offering, sale or providing of the goods and services under the Licensed Marks.

10. This Agreement shall be effective as of the 6th day of February 1984 and shall continue until the first to occur of (a) termination by Licensee, (b) the withdrawal of four or more of Licensors or their affiliates from ownership interest in Licensee, or (c) termination in accordance with Paragraph 11 below. For the purposes of this Paragraph 10, The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company affiliates of U S West shall collectively be deemed to constitute one ownership interest in Bellcore.

11. In the event of a material breach of this Agreement by Licensee, any Licensor may notify Licensee in writing of the alleged breach and, if not cured within 30 days, a second written notice given by three or more Licensors shall terminate this Agreement.

12. Upon any termination of this Agreement, Licensee shall within a reasonable time of no more than 60 days discontinue all use of the Licensed Marks or any colorable imitation thereof, delete the same from its corporate name and trade names, and destroy all printed materials bearing any Licensed Marks.

13. To the extent this Agreement is inconsistent with the Supplemental Agreement, that Agreement is hereby amended, such amendment to remain in effect only so long as this License Agreement remains in effect.

14. Any notice or other communication hereunder shall be deemed to be sufficiently given to the addressee when sent by certified mail to the respective parties as follows:

AMERICAN INFORMATION TECHNOLOGIES CORPORATION
225 West Randolph Street
Chicago, Illinois 60606
Attention: General Counsel

BELL ATLANTIC CORPORATION
1600 Market Street
Philadelphia, Pennsylvania 19103
Attention: General Counsel

BELLSOUTH CORPORATION
675 West Peachtree Street, N.E.
Atlanta, Georgia 30375
Attention: General Counsel

CINCINNATI BELL INC.
201 East Fourth Street
Cincinnati, Ohio 45202
Attention: General Counsel

NYNEX CORPORATION
400 Westchester Avenue
White Plains, New York 10604
Attention: General Counsel

PACIFIC TELESIS GROUP
140 New Montgomery Street
San Francisco, California 94105
Attention: General Counsel

SOUTHERN NEW ENGLAND TELEPHONE COMPANY
227 Church Street
New Haven, Connecticut 06506
Attention: General Counsel

SOUTHWESTERN BELL CORPORATION
1010 Pine Street
St. Louis, Missouri 63101
Attention: General Counsel

U S WEST, INC.
7800 East Orchard Road
Englewood, Colorado 80111
Attention: General Counsel

BELL COMMUNICATIONS RESEARCH, INC.
290 West Mt. Pleasant Avenue
Livingston, New Jersey 07039
Attention: General Counsel

The foregoing addresses may be changed at any time by written notice to the other parties.

15. No provision of this Agreement shall be deemed waived, amended or modified by any party, unless such waiver, amendment or modification be in writing and signed by the party against whom it is sought to enforce the waiver, amendment or modification.

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16. If any provision, or portion thereof, of this Agreement is found to be invalid under an applicable statute or rule of law, it is, to the extent that it is so found to be invalid, deemed omitted.

17. This Agreement is binding on each party and its respective affiliates, successors, assignees and licensees.

18. This Agreement may be executed in up to ten (10) counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Executed this 8th day of January, 1985.

BELL ATLANTIC CORPORATION

By [signed] R. A. Levetown

Title Vice President and General Counsel

STATE OF Virginia)
) SS.
COUNTY OF Arlington

On January 8, 1985, before me, the undersigned, a Notary Public in and for said state, personally appeared R. A. Levetown, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the V.P. and General Counsel of BELL ATLANTIC CORPORATION and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature Vivian V. Engle
[signed]

Executed this 6th day of January, 1986.

BELLSOUTH CORPORATION

By [signed] M. L. Campbell

Title Vice President - Corporate Affairs and Secretary

STATE OF Georgia)
) SS.
COUNTY OF Fulton

On January 6, 1986, before me, the undersigned, a Notary Public in and for said state, personally appeared M. L. Campbell, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Vice President of BELLSOUTH CORPORATION and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature Lisa Sims
(signed)

Executed this 15th day of May, 1986.

CINCINNATI BELL, INC.

By [signed] Raymond R. Clark

Title Vice President

STATE OF Ohio)
) SS.
COUNTY OF Hamilton)

On May 15, 1986, before me, the undersigned, a Notary Public in and for said state, personally appeared Raymond R. Clark, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Vice President of CINCINNATI BELL INC. and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature Mary Louise Parker
 [signed]

Executed this 5th day of February, 1985.

NYNEX CORPORATION

By [signed] R. B. Pulling

Title Vice President - Administration

STATE OF New York)
) SS.
COUNTY OF Westchester

On February 5, 1985, before me, the undersigned, a Notary Public in and for said state, personally appeared R. B. Pulling, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Vice President - Administration of NYNEX CORPORATION and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature Cherie Jacobs Cavell
[signed]

Executed this 7th day of February, 1985.

PACIFIC TELESIS GROUP

By: [signed] John E. Hulse

Title: Vice Chairman and Chief Financial Officer

STATE OF California)
) SS.
COUNTY OF San Francisco

On February 7, 1985, before me, the undersigned, a Notary Public in and for said state, personally appeared John E. Hulse, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Vice Chairman & Chief Financial Officer of PACIFIC TELESIS GROUP and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature P. J. Buchan
[signed]

Executed this 22nd day of January, 1985.

U S WEST, INC.

By [signed] A. G. Ames

Title Group Vice President

STATE OF Colorado)
) SS.
COUNTY OF Arapahoe

On January 22, 1985, before me, the undersigned, a Notary Public in and for said state, personally appeared A. Gary Ames, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the Group Vice President of US WEST, INC. and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature Kathryn L. Barrett
[signed]

Executed this 29th day of January, 1985.

BELL COMMUNICATIONS RESEARCH, INC.

By [signed] Rocco J. Marano

Title President

STATE OF New Jersey)
) SS.
COUNTY OF Essex)

On January 29, 1985, before me, the undersigned, a Notary Public in and for said state, personally appeared Rocco J. Marano, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument as the President of BELL COMMUNICATIONS RESEARCH, INC. and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature Deborah Rein
(signed)



Exhibit I. The Bell Symbol

Intellectual
Property

INTELLECTUAL PROPERTY AGREEMENT

THIS AGREEMENT is made as of January 1, 1984, and amended as of November 2, 1988, among the following entities (sometimes referred to herein collectively as "parties" and individually as "party") which are BELL COMMUNICATIONS RESEARCH, INC. ("Bellcore"), a Delaware Corporation located at 290 West Mount Pleasant Avenue, Livingston, New Jersey 07039, and Ameritech Services, Inc.; Bell Atlantic Network Services, Inc.; BellSouth Services Incorporated; NYNEX Service Company; Pacific Bell; Southwestern Bell Telephone Company; and U S WEST Advanced Technologies, Inc., agent for the Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company (herein collectively referred to as "Bellcore Shareholders" and individually as a "Bellcore Shareholder");

WITNESSETH

WHEREAS, on August 24, 1982, the District Court for the District of Columbia entered a Modification of Final Judgment ("MFJ") in *United States v. Western Electric*, Civil Action No. 82-0192; and

WHEREAS, Bell Communications Research, Inc. was established pursuant to Section I(B) of the MFJ and is owned by the Bellcore Shareholders for the provision of certain services to them; and

WHEREAS, Bellcore owns the intellectual property produced or acquired by it under the Service Agreement or any other agreements whereby it provides its services to others; and

WHEREAS, the Bellcore Shareholders have certain rights in and to such Bellcore intellectual property; and

WHEREAS, the parties desire to set forth the rights with respect to such intellectual property of the parties hereto;

NOW, THEREFORE, the parties hereby agree as follows:

Article 1. - *Definitions*

As used herein:

1.1 "AFFILIATE" of any corporation or partnership means: (i) any person owning directly or indirectly a majority of outstanding voting shares (other than directors' qualifying shares) or interests of any such corporations or partnerships (such person owning such shares or interests being hereinafter called the "Parent"); (ii) any corporation or partnership of which a majority of the outstanding voting shares (other than directors' qualifying shares) or interests are owned directly or indirectly by the Parent; and (iii) any other corporation or partnership of which a majority of the outstanding voting shares (other than directors' qualifying shares) or interests are owned directly or indirectly by such corporation or partnership. Ownership of voting shares or interests by a person for the purpose of this definition includes shares or interests owned directly or indirectly by the person and shares or interests owned directly or indirectly by one or more affiliates of such person.

1.2 "BELLCORE INTELLECTUAL PROPERTY" refers to Bellcore Software, Copyrights, Mask Works, Patents, and Technical Information, as defined in this Agreement, and trade secrets.

1.3 "BELLCORE SOFTWARE" means Software, including modifications to the Pre-Divestiture Software other than the Designated Systems, which Bellcore acquires, develops or modifies under the Service Agreement.

1.4 "BELLCORE TEC AGREEMENT" means the Bellcore TEC Agreement among the parties thereto effective as of January 1, 1986, as amended from time to time.

1.5 "COMPUTER BUREAU SERVICE" means the provision of computer service by a Bellcore Shareholder to a non-affiliated company using Bellcore Software on the Bellcore Shareholder's facilities to process the non-affiliated company's input data.

1.6 "COPYRIGHTS" means any and all copyrights existing in any country and owned or controlled by Bellcore or as to which Bellcore has the right to grant licenses, except as may otherwise be provided pursuant to Articles 6.1 and 9.21.

1.7 "DESIGNATED SYSTEMS" means the small business systems set forth on Appendix A.

1.8 "FUNDING PARTICIPANT" means a Bellcore Shareholder that funds any acquisition, development or modification by Bellcore of any Bellcore Intellectual Property under the Shareholders' Agreement or the Service Agreement.

1.9 "MAJOR SOFTWARE SYSTEM" means Bellcore Software having an embedded cost in excess of five million (5,000,000) dollars and identified in Appendix C, as changed by Bellcore from time to time.

1.10 "MASK WORK" means the term as defined in 17 United States Code, Sec. 901.

1.11 "NORTH AMERICA" means United States, Canada and the islands, as of the effective date of this Agreement, included in the 809 area code.

1.12 "PATENTS" means any and all Patents issued in any country and owned or controlled by Bellcore or as to which Bellcore has the right to grant licenses, except as may otherwise be provided pursuant to Articles 6.1 and 9.21.

1.13 "PRE-DIVESTITURE SOFTWARE" means any Software, including Software for the Designated Systems, granted to Bellcore, the Bellcore Shareholders or their Affiliates by the American Telephone and Telegraph Company or its Affiliates in connection with the divestiture contemplated by the MFJ.

1.14 "PROJECTS" means External Projects (i.e., Infrastructure Projects and Elective Projects) and Internal Projects as described in Appendix B of the Service Agreement.

1.15 "RIGHT-TO-LICENSE FEE" or "RTL Fee" means the payment by a Bellcore Shareholder or Affiliate to Bellcore for the right to sublicense Major Software Systems under the provisions of Article 8 of this Agreement.

1.16 "SERVICE AGREEMENT" means the Service Agreement among the parties hereto, effective as of January 1, 1988 as amended from time to time or, if specifically indicated, its predecessor agreement, effective as of January 1, 1984, as amended.

1.17 "SHAREHOLDERS' AGREEMENT" means the Shareholders' Agreement among the parties hereto dated as of October 2, 1984, amended as of January 1, 1988, and as further amended from time to time.

1.18 "SOFTWARE" means all source code, object code, and documentation associated with the system in question.

1.19 "TECHNICAL INFORMATION" means any and all information other than Software (including, by way of example, business plans, training materials, engineering specifications, innovations, technical know-how, testing procedures, and market studies in whatever form or manner of documentation) which Bellcore acquired or developed under the Service Agreement.

1.20 Terms employed herein and not otherwise defined shall have meanings consistent with the Shareholders' and Service Agreements.

Article 2. - Software Intellectual Property

2.1 Bellcore agrees to deliver promptly to any Bellcore Shareholder upon its request copies of any Pre-Divestiture Software. With respect to such Pre-Divestiture Software which has not been destroyed prior to the effective date of the Amendment of this Agreement, Bellcore further agrees to give reasonable prior notice in writing to each Bellcore Shareholder before any such Pre-Divestiture Software is destroyed.

A Bellcore Shareholder may, without limitation or payment of any fee or compensation to Bellcore, grant to any third person licenses for any Pre-Divestiture Software.

2.2 Bellcore hereby grants to each Bellcore Shareholder a non-exclusive, royalty-free, perpetual license to use, copy, enhance, and modify any Software for Designated Systems, as modified by Bellcore after divestiture and for which the Bellcore Shareholder was a Funding Participant in the Project whereunder such Software was modified. Bellcore agrees to deliver promptly copies of such Software for the Designated Systems, as modified by Bellcore after divestiture, to any Bellcore Shareholder licensed to use it at the request of such Bellcore Shareholder. A Bellcore Shareholder may, without limitation or payment of any fee or compensation to Bellcore, grant to any third person sublicenses for any Software for Designated Systems, as modified by Bellcore after divestiture and for which such Bellcore Shareholder was a Funding Participant in the Project whereunder such Software was modified. Each Bellcore Shareholder shall further have the right to modify and enhance, or to contract with others to modify and enhance, any Software for Designated Systems delivered to it.

2.3 Bellcore hereby grants to each Bellcore Shareholder a non-exclusive, royalty-free, perpetual license to use, copy, enhance and modify all Bellcore Software which was acquired, developed or modified under a Project as to which such Bellcore Shareholder was a Funding Participant. Bellcore agrees to deliver promptly copies of such Bellcore Software to any Bellcore Shareholder licensed to use it on the request of such Bellcore Shareholder.

2.4 Except as may be provided in Articles 2.7, 2.8, 7 and 8, each Bellcore Shareholder agrees that it will use Bellcore Software solely:

(a) for its internal purposes (including providing goods and services, other than Computer Bureau Services, to its customers); and

(b) to provide Computer Bureau Services, provided in such event the Bellcore Shareholder shall pay Bellcore 10% of its gross receipts for such Computer Bureau Service.

2.5 Each Bellcore Shareholder shall have ~~the~~ right to modify and enhance, or to contract with others to modify and enhance, any Bellcore Software delivered to it and may license its modifications and enhancements to any person having a license or sublicense to use the underlying Bellcore Software. Each Bellcore Shareholder may disclose such Bellcore Software to third persons solely for the purposes of enhancing, modifying or evaluating such Software, subject to the provisions of Article 9.10.

2.6 Bellcore agrees to cooperate with any Bellcore Shareholder to which Bellcore Software or Pre-Divestiture Software has been delivered pursuant to this Agreement on matters of normal turn-up, application, documentation, maintenance, enhancements and training, at a fee mutually agreeable to Bellcore and the Bellcore Shareholder in accordance with Bellcore standard costing procedures, such fee to apply only with regard to those Projects as to which the Bellcore Shareholder was not entitled to receive such cooperation without additional fees as a Funding Participant under the Service Agreement.

2.7(a) If a Bellcore Shareholder is no longer supporting an item of Bellcore Software as a Funding Participant in an Elective Project under the Service Agreement, Bellcore agrees to deliver promptly to such Bellcore Shareholder on the request of such Bellcore Shareholder, made within a reasonable time of the cessation of funding, copies of such Bellcore Software related to such Elective Project as such Software existed at the date of the cessation of funding by such Bellcore Shareholder.

(b) A Bellcore Shareholder receiving Bellcore Software in accordance with Article 2.7(a) agrees that it will use such Bellcore Software solely for the purposes set forth in Article 2.4, except as set forth in Article 2.7(c) and (d).

(c) Following cessation of such funding support, a Bellcore Shareholder

(i) may sublicense to third persons such Bellcore Software only as significantly enhanced or modified by such Bellcore Shareholder, but for five (5) years following cessation of funding support such Bellcore Shareholder shall pay Bellcore a percentage of the established Bellcore Software license fee in existence at the time of cessation of such funding support (or a percentage of the maximum if a range of fees has been established for such Bellcore Software) as follows:

During year 1, 90%

During year 2, 80%

During year 3, 60%

During year 4, 40%, and

During year 5, 20%;

(ii) shall pay Bellcore for each Computer Bureau Service using such Software for five (5) years following cessation of such support the following percentages of the gross receipts for such Computer Bureau Service:

During year 1, 9%

During year 2, 8%

During year 3, 6%

During year 4, 4%, and

During year 5, 2%

(d) Bellcore shall determine and certify for any Bellcore Shareholder the fact that the enhancements or modifications to such Bellcore Software are significant, in accordance with prior established objective criteria.

(e) After the passage of the five year period following cessation of funding of an item of Bellcore Software by a Bellcore Shareholder as a Funding Participant in an ongoing Elective Project, such Bellcore Shareholder may sublicense such Bellcore Software, whether enhanced or modified or not, to others without payment of any fees to Bellcore.

2.8 If Bellcore is no longer engaged in the support or maintenance of any item of Bellcore Software, then any Bellcore Shareholder that was a Funding Participant of the Project, in which such item of Bellcore Software had been supported or maintained, at the time of the termination thereof, may sublicense such item or provide a Computer Bureau Service using such item without payment of any fees therefor to Bellcore and any Bellcore Shareholder that had ceased its funding support prior to such time of termination by Bellcore of its support or maintenance may also license the Software, or provide a Computer Bureau Service using the Software, as it received pursuant to Article 2.7(a), without the payments required by Article 2.7(c).

2.9 The parties agree that the delivery of any Software to a Bellcore Shareholder may be subject to a reasonable gathering, reproduction and delivery fee, such fee to apply only with regard to those Projects as to which the Bellcore Shareholder was not entitled to receive such cooperation without additional fees as a Funding Participant.

Article 3. - Technical Information

3.1 Bellcore hereby grants to each Bellcore Shareholder a non-exclusive, royalty-free, perpetual license to use, copy, modify and enhance any Technical Information which was acquired or developed under a Project as to which such Bellcore Shareholder was a Funding Participant. Bellcore agrees to deliver promptly copies of such Technical Information to any Bellcore Shareholder licensed to use it on the request of such Bellcore Shareholder.

3.2 Each Bellcore Shareholder agrees that it will use such Technical Information solely for its internal purposes (including providing goods and services to its customers). Each Bellcore Shareholder may disclose such Technical Information to third persons for the purposes of enhancing, modifying or evaluating such Technical Information, and for the purposes of consultation and procurement, all subject to the provisions of Article 9.10.

3.3 If a Bellcore Shareholder is no longer supporting an item of Technical Information as a Funding Participant in an ongoing Elective Project under ~~the Service Agreement~~, Bellcore agrees to deliver promptly to such Bellcore Shareholder upon request made within a reasonable time of the cessation of funding, copies of all such Technical Information related to such Elective Project as such Technical Information existed at the date of the cessation of funding by the Bellcore Shareholder. Each Bellcore Shareholder receiving such Technical Information in accordance with this Article agrees that it will only use such Technical Information for the purposes set forth in Article 3.2.

Article 4. - *Patents*

4.1 Bellcore hereby grants to each Bellcore Shareholder a non-exclusive, royalty-free license to make, use, sell, and have made under all Patents.

4.2 Any license granted hereunder shall continue in force for the term of the Patent or for the period for which Bellcore holds rights to grant licenses if shorter than the entire term.

4.3 Except as may occur by the exercise of a have made right by a Bellcore Shareholder, Bellcore shall have the exclusive right to grant to third persons non-exclusive licenses under any Patents, pursuant to procedures approved by its Board of Directors.

4.4 Any Bellcore Shareholder which withdraws from ownership in Bellcore shall continue to have a license under Article 4.1 under any Patents in existence or for which applications were pending as of the date of its withdrawal from ownership in Bellcore.

4.5 Bellcore shall require all Bellcore employees to assign to Bellcore the rights to inventions, discoveries, improvements, and similar innovations made by its employees, either solely or jointly with other persons, in the course of their employment in research, engineering or other inventive activities.

4.6 Bellcore shall ensure that, except as may be specifically provided in Article 4.7, the licenses and rights granted hereunder shall not be limited by any commitment or restriction.

4.7 The parties recognize that Bellcore may enter into a contract with the government of any nation or political subdivision or agency thereof, which contract may require that Bellcore assign or otherwise transfer its rights to Patents arising thereunder, with prejudice to its ability to grant rights to Bellcore Shareholders but without any liability therefor to the Bellcore Shareholders under this Agreement.

4.8 Nothing in this Agreement shall be construed as: (a) requiring the filing of any applications for Patents or the securing or maintaining of any Patents; (b) representing the validity or scope of any

Patents; (c) representing that the licensed use of any Patents hereunder be free of infringement of Patents except those licensed hereunder; or (d) agreeing to bring or prosecute infringement actions against third parties.

Article 5. - Copyrights and Mask Works

5.1 Bellcore hereby grants to each Bellcore Shareholder a non-exclusive, royalty-free, perpetual license under all Copyrights resulting from a Project as to which such Bellcore Shareholder was a Funding Participant, including the right to make copies and derivative works thereof, provided that all copies, derivative works, and publications covered by a Copyright and made or published by a Bellcore Shareholder include an appropriate Copyright notice protecting the Copyright.

5.2 Any license granted hereunder shall continue in force for the term of the Copyright or for the period for which Bellcore holds rights to grant licenses if shorter than the entire term.

5.3 Bellcore shall have the exclusive right to grant to third persons non-exclusive licenses under any Copyrights, pursuant to procedures approved by its Board of Directors.

5.4 Any Bellcore Shareholder which withdraws from ownership in Bellcore shall continue to have a license under Article 5.1 under any Copyrights in existence as of the date of its withdrawal from ownership in Bellcore and as to which the withdrawing Bellcore Shareholder was a Funding Participant prior to its withdrawal.

5.5 Bellcore shall require all Bellcore employees to assign to Bellcore the rights to works of authorship and all Copyrights in works made by its employees, either solely or jointly with other persons, in the course of their employment in research, engineering, or other Bellcore activities.

5.6 Bellcore shall ensure that, except as may be otherwise specifically provided in Article 5.7, the licenses and grants hereunder shall not be limited by any commitment or restriction.

5.7 The parties recognize that Bellcore may enter into a contract with the government or any nation or political subdivision or agency thereof, which contract may require that Bellcore assign or otherwise transfer its rights to Copyrights arising thereunder, with prejudice to its ability to grant rights to Bellcore Shareholders but without any liability therefor to the Bellcore Shareholders under this Agreement.

5.8 Nothing in this Agreement shall be construed as (a) requiring the registration of any claim for Copyright; (b) representing the validity or scope of any Copyright; or (c) agreeing to bring or prosecute any infringement actions against third parties.

5.9 Bellcore hereby grants to each Bellcore Shareholder a non-exclusive, royalty-free license under all Bellcore Mask Works for which protection is acquired under the Semiconductor Chip Protection Act of 1984, resulting from a Project as to which such Bellcore Shareholder was a Funding Participant, including the rights (i) to reproduce the Mask Work by optical, electronic, or any other means; (ii) to import or distribute a semiconductor chip product in which the mask work is embodied; (iii) to induce or knowingly cause another person to do any of the acts described in (i) and (ii) for the benefit of said Bellcore Shareholder; and (iv) to sublicense third persons to manufacture semiconductor chip products in which the Mask Work is embodied solely for procurement by said Bellcore Shareholder.

5.10 Upon registration of a Mask Work with the Register of Copyrights, the other provisions of this Article 5 shall apply to Mask Works as well as to Copyrights.

Article 6. - Licensing Principles and Allocation of Licensing Revenues

6.1 (a) Except as limited by Articles 6.1(b), (c) and (d), Bellcore may grant to third persons non-exclusive licenses for any Bellcore Intellectual Property in accordance with the Principles of Licensing set forth in Appendix B.

(b) Grants of licenses of Major Software Systems to foreign telephone companies or their governing authorities for use outside North America shall be made only in accordance with the provisions of Article 8.

(c) No Bellcore Intellectual Property that is subject to an Access Period, as defined under the Service Agreement, shall be licensed during such Access Period other than by the Funding Participant of such Bellcore Intellectual Property.

(d) Licenses of Major Software Systems may be granted to third persons other than foreign telephone companies or their governing authorities for use outside North America pursuant to terms and conditions authorized by the Bellcore Board of Directors.

6.2 License fees received by Bellcore with respect to licensing of Bellcore Software, Software for Designated Systems, or Technical Information shall (after deduction of licensing expenses, including any agent's fee) be treated in accordance with the provisions of the Service Agreement with respect to cost-sharing of non-affiliate revenue.

6.3 License fees received by Bellcore with respect to licensing of Patents shall (after deduction of licensing expenses) be divided equally among all Bellcore Shareholders as of the date of the receipt of the royalty income.

6.4 License fees received by Bellcore with respect to licensing of Copyrights or Mask Works shall (after deduction of licensing expenses, including any agent's fee) be divided as follows:

(a) 50% of such license fee will be divided equally among the Bellcore Shareholders who, at the time the license is granted, are:

(i) For an ongoing Project, Funding Participants in the Project under which such Copyright was acquired, or

(ii) For a completed Project, Funding Participants in the Project under which such Copyright was acquired at the time the Project was completed; and

(b) 50% of such license fee will be divided equally among all of the Bellcore Shareholders.

6.5. Subject to Section 6.1, any Belcore Shareholder may request Belcore to grant a license for Belcore Intellectual Property to a third person and Belcore will undertake to grant such license pursuant to a process approved by the Belcore Board of Directors.

6.6 No Belcore Shareholder shall have the right to execute a sublicense of a Major Software System under the provisions of Article 8 or to act as an agent for licensing Belcore Intellectual Property under the provisions of Article 7, unless such Belcore Shareholder shall have been a Funding Participant for such Major Software System or such Belcore Intellectual Property.

Article 7. - Agency Arrangements

7.1 This Article applies to the licensing to third persons of all Belcore Intellectual Property, except the sublicensing of Major Software Systems to foreign telephone companies or their governing authorities for use outside North America, as to which the provisions of Article 8 shall apply. All licensing of Belcore Intellectual Property shall be consistent with the Principles of Licensing set forth in Appendix B.

7.2 Belcore, while retaining its own right to license Belcore Intellectual Property, hereby appoints each funding Belcore Shareholder its agent for the sole purpose of arranging for licensing to third persons of any Belcore Intellectual Property, except Patents. All such licenses of Belcore Intellectual Property must be executed by Belcore which has sole responsibility for the determination and justification of license fees. However, such Belcore Shareholder may be entitled to an appropriate agent's fee for arranging for such a license.

7.3 The Belcore Shareholder agency appointments shall not be limited in respect to any territory or geographic designation.

7.4 The licensing activities that can be performed by an agent include:

- (a) initial licensee contact, including trade shows, and qualification and referral to Bellcore;
- (b) demonstration of the Bellcore Intellectual Property;
- (c) maintenance of an inventory of brochures, catalogues, or other materials descriptive of the Bellcore Intellectual Property and the provision of such materials to potential licensees;
- (d) licensee needs or benefit analysis;
- (e) preliminary negotiation including preparatory work and assistance to Bellcore;
- (f) installation support, if appropriate, for the Bellcore Intellectual Property involved; and
- (g) licensee training and consultation and post licensing contacts and support.

7.5 Bellcore will solely be responsible for the coordination of activity of all agents, for maintenance of quality control for all materials disseminated by agents, and for all licensing contract negotiations arising from agent activity.

7.6 The agent compensation shall be 20% of the right-to-use fees received by Bellcore for so long as the agent is recognized by the third person as Bellcore's agent, but no agent compensation shall be paid on licenses involving right-to-use fees of less than \$100,000.

7.7 The agent compensation may be split between two or more agents. Any disputes as to the sharing of an agent fee between two or more agents or as to the level of compensation involved in an agent fee shall be determined by Bellcore on the basis of the effective efforts of the disputants to effectuate the license. Payment of agent compensation is due thirty (30) days after receipt of the license fee by Bellcore.

7.8 Each Bellcore Shareholder will determine for itself whether to act as an agent and for which Bellcore Intellectual Property it will represent Bellcore as an agent.

*Article 8. - Sublicensing Arrangement
For Major Software Systems Outside North America*

8.1 Grants of sublicenses of Major Software Systems to foreign telephone companies or to their governing authorities for use outside North America shall be carried out exclusively pursuant to the provisions of this Article 8. All references to Bellcore Shareholder in this Article 8 shall include an Affiliate of a Bellcore Shareholder unless otherwise indicated. The scope of Bellcore's obligations to support such sublicensing shall be as follows:

(a) In addition to the rights granted elsewhere herein, Bellcore hereby agrees that any Bellcore Shareholder which enters into a Memorandum of Understanding with Bellcore pursuant to this Article 8 may execute directly a sublicense of an object or executable code copy of the deliverable release of a Major Software System to a foreign telephone company or its governing authority for use outside North America (hereinafter "Customer"), except to a third person in or for use in one of the countries specified in Article 8.1(b) herein. A current list of such Major Software Systems is attached as Appendix C. Bellcore shall be responsible for updating this list from time to time to include any other Major Software Systems. All sublicensing pursuant to this Article 8 must be in the best interests of all Bellcore Shareholders and shall not impair Bellcore's performance in carrying out its work program for its Shareholders.

(b) Major Software Systems shall not be sublicensed for use in Mexico, Portugal, Turkey and South American countries, or any other countries which do not provide at the time of such sublicensing adequate legal protection for Bellcore's Intellectual Property, unless appropriate authorities in such country provides written assurance that the Major Software System to be sublicensed will be adequately protected. Bellcore and the Bellcore Shareholders may agree to modify from time to time the enumerated countries to reflect the legal protection available in these or other countries.

(c) A Bellcore Shareholder shall have the right to sublicense directly other Bellcore Software and Technical Information ancillary to the sublicensing of a Major Software System by (i) executing Bellcore's standard "Order Form" (a sample copy of which is attached as Appendix D and may be changed from time-to-time) and paying Bellcore's standard or listed prices thereon, if available, and (ii) obtaining

from its Customer an agreement with respect to such ancillary Software and Technical Information that is consistent with the terms and conditions of Bellcore's Order Form.

(d) The sublicensing of any copy of the source code for a Major Software System shall be at the discretion of Bellcore which shall be exercised: (i) so as to protect the investment of the Funding Participants of such Major Software System in Bellcore's ability to maintain such source code for their use in accordance with the Service Agreement and the Shareholders' Agreement and (ii) by applying a pricing methodology that recognizes the added capability provided to the sublicensee, any revenues that might be lost to Bellcore and the value of the remaining useful life of such source code.

(e) The sublicensing of such Major Software Systems, ancillary Bellcore Software and Technical Information, all as specified in Appendix C1, with the additional right to allow a European Customer, or its Affiliate, to further sublicense and provide support for such Intellectual Property to other European telephone companies or their governing authorities shall be at the discretion of Bellcore which shall be exercised: (i) so as to protect the investment of the Funding Participants of such Intellectual Property in Bellcore's ability to maintain such Intellectual Property for their use in accordance with the Service Agreement and the Shareholders' Agreement; (ii) to permit, in the case of Software, the European Customer or its Affiliate to further sublicense such Software in object code form only; and (iii) by utilizing any terms and conditions approved by the Bellcore Board of Directors. Changes to this subparagraph (e) and to Appendix C1 may be authorized by unanimous vote of the Bellcore Board of Directors.

(f) Bellcore's obligation to support a sublicensed Major Software System is dependent upon the continued funding of such system by one or more Bellcore Shareholders. If such funding ceases, Bellcore may either (i) continue support on terms to be agreed upon or (ii) deliver the source code as provided in this Agreement.

8.2 A Major Software System sublicensed under this Article 8 shall be subject to the following terms and conditions:

(a) The Bellcore Shareholder shall be responsible for making all contacts with a Customer to

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determine the suitability of a Major Software System for a Customer's needs.

(b) The right of a Belcore Shareholder to sublicense a Major Software System will be conferred by and effective only upon the execution of a Memorandum of Understanding between Belcore and such Belcore Shareholder that is consistent with the provisions of this Article 8. Before an Affiliate of a Belcore Shareholder may sublicense a Major Software System it shall provide Belcore with authorization from its Belcore Shareholder permitting such Affiliate to enter into a Memorandum of Understanding with Belcore and shall provide backup indemnification from the Belcore Shareholder or another Affiliate of the Belcore Shareholder as authorized by the Belcore Shareholder or its Parent for all claims that may arise out of the sublicensing or operating of the Major Software System.

(c) The Belcore Shareholder shall provide to Belcore (i) the Customer size information, based on the factors described in Appendix C of the Service Agreement, called for by Appendix E and (ii)

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Customer information regarding the scope and place of intended use, as needed to enable Bellcore to calculate the Right-to-License Fee under Article 8.3.

(d) The Memorandum of Understanding shall indicate on which of the following two bases the Bellcore Shareholder shall have the right to sublicense the Major Software System to its Customer:

(i) Qualified Support Basis:

At the Bellcore Shareholder's option, a Major Software System may be sublicensed on a Qualified Support Basis, which means that:

(i-a) Bellcore shall provide the existing documentation for a Major Software System to the Bellcore Shareholder, which shall be responsible for the installation and implementation of the Major Software System in the Customer's operating environment. The installation and implementation shall satisfy Bellcore's installation criteria for such Major Software System.

(i-b) Bellcore shall be given the opportunity to inspect and, as necessary, test the installation and implementation of the Major Software System in the Customer's operating environment to determine if it meets Bellcore's specified installation criteria for such Major Software System.

(i-c) If Bellcore determines that the installation and implementation reasonably satisfies its installation criteria, then Bellcore shall provide, if requested by the Bellcore Shareholder, maintenance releases and other support services as agreed to between Bellcore and the Bellcore Shareholder. The RTL Fee for any such maintenance releases shall be determined in accordance with the provisions of Article 8.3.

(i-d) If Bellcore determines that the installation and implementation do not reasonably satisfy its installation criteria, then the Bellcore Shareholder shall, at its cost, undertake to satisfy such criteria.

(i-e) Bellcore's cost of performing the aforementioned inspection and testing shall be identified and included in the calculation of fully loaded costs for determining the RTL Fee for such Major Software System. Such cost component for inspection and testing shall not exceed the greater of one staff year or five percent of such RTL Fee.

(ii) Full Support Basis:

At the Bellcore Shareholder's option, a Major Software System may be sublicensed on a Full Support Basis, which means that:

(ii-a) Bellcore shall specify and provide the minimum level and type of installation and implementation services which are necessary, in the professional opinion of Bellcore's management, to ensure that the Major Software System is properly installed and is capable of meeting the Bellcore specified operating criteria for the system in the Customer's operating environment (see warranty provisions below).

(ii-b) Bellcore shall provide such installation and implementation services, under the pricing formula for services indicated in Appendix E.

(ii-c) Bellcore shall provide maintenance releases and other support services as agreed to between Bellcore and the Bellcore Shareholder. The RTL Fee for any such maintenance releases shall be determined in accordance with the provisions of Article 8.3.

(ii-d) At the Bellcore Shareholder's request, the Bellcore specified operating criteria and Bellcore's firm quote price for its services can be provided to the Bellcore Shareholder at or within a reasonable time after the RTL Fee is quoted.

(ii-e) To the extent consistent with policies authorized by the Board of Directors, Bellcore will provide all modifications and other support services as agreed to between Bellcore and the Bellcore Shareholder.

8.3 The determination of the RTL Fee, the means for making any adjustment of the Appendix E markup factors, and the obligation to pay such RTL Fee shall be as follows:

(a) Bellcore will quote the Bellcore Shareholder the firm price for an RTL Fee for the Customer designated, determined based on the formula set forth in Appendix E.

(b) The formula for the firm quote price for the RTL Fee would have two components, cost and markup. The cost component would recover a portion of the system's development cost, allocated to the Customer based on size information and, for sublicenses made on a Qualified Support Basis, a subcomponent

representing Bellcore's cost of inspection and testing. The markup component would be a standard fixed percentage added to a cost component as determined from the table set forth in Appendix E.

(c) There would be no leeway for adjustment of the RTL Fee determined from the formula.

(d) The Bellcore Shareholder's agreement to pay such RTL Fee would give the Bellcore Shareholder the right to execute a sublicense to the designated Customer to use the specified Major Software System configured according to information provided by the Bellcore Shareholder.

(e) After December 31, 1990, Bellcore's Board of Directors may, upon the request of Bellcore or any Bellcore Shareholder, change prospectively the markup factors shown on Appendix E.

(f) Once the Bellcore Shareholder has executed a sublicense agreement with a designated Customer, the Bellcore Shareholder's responsibility for payment of the RTL Fee to Bellcore shall be fixed and shall not be conditional on the Bellcore Shareholder's receipt of monies from the Customer. In addition, the Bellcore Shareholder shall be responsible for payment to Bellcore of charges incurred in connection with presales support, as provided for in Article 8.4.

8.4 Upon request of a Bellcore Shareholder, Bellcore will provide presales staff support for the requesting Bellcore Shareholder's marketing and contracting effort (e.g., presentations, proposal assistance, implementation studies, specification of operating criteria, etc.). The Bellcore Shareholder will pay Bellcore's fully loaded costs for providing such support. The support to be provided by Bellcore will be formalized in the Memorandum of Understanding, and the costs incurred will be billed to the Bellcore Shareholder monthly. The Bellcore Shareholder will be responsible for payment to Bellcore of these charges regardless of whether a sublicense is consummated.

8.5 Any services provided by Bellcore in support of a sublicense under this Article 8, including installation and implementation services, shall be priced under two options, firm quote price or cost plus.

(a) The Bellcore Shareholder shall elect either:

(i) A firm quote price, which would include all estimated costs, as may be adjusted for inflation, and including a contingency factor (to be separately identified and disclosed to the Bellcore

Shareholder in advance of its election). to cover ~~estimating~~ uncertainties for the firm quote option, plus standard markups as described in Appendix E; or

(ii) Cost plus, which would include all actual fully loaded costs plus the markup, as described in Appendix E. Bellcore's fully loaded costs will be calculated as described in Appendix B of the Service Agreement and will include, among other things, the cost of appropriate insurance coverage.

(b) While Bellcore's normal practice is to provide firm quote prices on a year to year basis, under the firm quote price option involving long term (multi-year) transactions for large amounts of work, Bellcore will provide the Bellcore Shareholder with a firm quote price for the entire period if the Bellcore Shareholder requests it. However, if the actual costs in any year exceed the firm price quoted for that year, Bellcore shall be entitled to recoup these excess costs from the Bellcore Shareholder in the subsequent year in addition to any firm quote price already applicable to that year. Such readjustment shall be permitted year to year during the life of the project as necessary.

(c) If additional modifications to the Major Software System should be required because the information previously supplied by the Bellcore Shareholder to Bellcore should change, or if the project is delayed or changed by the Bellcore Shareholder or the designated Customer, Bellcore would be given the opportunity to revise its firm quote price accordingly.

8.6 The Memorandum of Understanding between Bellcore and a Bellcore Shareholder also shall be subject to the following terms and conditions:

(a) Bellcore shall have no direct contractual relationship with any Customer, the Bellcore Shareholder or an Affiliate of the Bellcore Shareholder as authorized by the Bellcore Shareholder or its Parent will assume all responsibility for liability to its Customer or third persons resulting from the sublicense or the operation of the Major Software System in the Customer's environment and shall indemnify Bellcore for any such liabilities. The Bellcore Shareholder's liability and indemnity obligations under this paragraph shall not extend to claims of physical injury to persons or property arising solely from Bellcore's own negligence, gross negligence or willful misconduct.

(b) The Belcore Shareholder will assure in its sublicense with any Customer that the Customer will indemnify the Belcore Shareholder and Belcore against any unauthorized use or disclosure of the Major Software System.

(c) Before Belcore shall perform any work for an Affiliate of a Belcore Shareholder relating to the sublicense of a designated Major Software System, the Affiliate shall provide Belcore:

(1) Authorization from its Belcore Shareholder for Belcore to perform the requested work, pursuant to the Service Agreement, and

(2) Indemnification to Belcore, guaranteed by the Belcore Shareholder or by a financially responsible Affiliate, other than the sublicensing entity, of the Belcore Shareholder as authorized by the Belcore Shareholder or its Parent.

(d) Except as provided in the Service Agreement and in Article 6.1(c) with respect to Belcore Intellectual Property subject to an Access Period, no Belcore Shareholder or any Customer will be entitled to any exclusive rights in any Belcore Intellectual Property. At all times Belcore shall continue to own all Major Software Systems including any modifications or enhancements thereto developed by Belcore at the request of a Belcore Shareholder.

(e) Belcore and the Belcore Shareholder shall undertake to protect each other's and the Customer's proprietary information, in accordance with the provisions of this Agreement and the Service Agreement, and the Belcore Shareholder will assure in its sublicense with any Customer that the confidentiality of Belcore's Intellectual Property will be protected and, except as otherwise provided in Article 8.1(e), that its use of such property shall be limited solely to the support of Customer's own internal requirements, which may include the provision of telecommunications services. Any such sublicense entered into by a Belcore Shareholder shall recognize that Belcore shall have the right, if it so chooses, to protect its ownership of and interest in its Major Software System independently of any action by the Belcore Shareholder.

(f) All sublicensing of Major Software Systems shall be consistent with and, to the extent appropriate, incorporate the provisions of this Agreement, the Shareholders' Agreement and the Service Agreement.

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(g) Each Memorandum of Understanding shall be consistent with this Article 8 and shall not impose obligations on any Bellcore Shareholder not a party thereto.

(h) If a Bellcore Shareholder violates the terms of its Memorandum of Understanding with Bellcore relating to the sublicensing of a Major Software System, Bellcore shall have the right to terminate such agreement and shall be entitled to any remedies allowable by law.

8.7 In connection with the sublicensing of Major Software Systems under Article 8 of this Agreement, Bellcore is authorized to provide the following warranties and related support:

(a) With respect to a Major Software System sublicensed on a Qualified Support Basis:

(i) Bellcore shall warrant that the sublicensed Major Software System is a true and correct copy of the Major Software System provided to the Funding Participants of that Major Software System and, if not, Bellcore shall, within thirty (30) days of delivery, provide a new copy of the Major Software System without charge.

(ii) If Bellcore determines that the Major Software System has been installed and implemented in accordance with its installation criteria, Bellcore shall, upon the request of the Bellcore Shareholder, provide maintenance releases and other support services as agreed upon between Bellcore and such Bellcore Shareholder.

(b) With respect to a Major Software System sublicensed on a Full Support Basis, Bellcore shall, provided Bellcore has had sufficient opportunity itself to assess the Customer's environment, warrant that the such sublicensed Major Software System will, when installed, meet its specified operating criteria in the Customer's operating environment.

(c) With respect to any customizations, modifications, or support provided by Bellcore at the Bellcore Shareholder's request, Bellcore shall warrant that the same shall conform in type and scope to the specifications and work description agreed to between the Bellcore Shareholder and Bellcore.

(d) With respect to installation, implementation, and maintenance services provided by Bellcore at the Bellcore Shareholder's request, Bellcore shall warrant that it will employ expert personnel trained in accordance with generally accepted professional standards.

(e) THE WARRANTY CONTAINED IN THIS ARTICLE 8.7 IS EXCLUSIVE AND NO OTHER WARRANTY BY BELLCORE IS EXPRESSED OR IMPLIED. BELLCORE HEREBY DISCLAIMS ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED WITH RESPECT TO ANY MAJOR SOFTWARE SYSTEM, AND INFORMATION THEREUNDER, AND SERVICES PROVIDED BY BELLCORE IN CONNECTION THEREWITH FURNISHED TO A BELLCORE SHAREHOLDER OR AFFILIATE INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL SUBLICENSES SHALL LIMIT WARRANTIES ON MAJOR SOFTWARE SYSTEMS IN ACCORDANCE WITH THE FOREGOING AND ANY WARRANTY MADE BY A BELLCORE SHAREHOLDER TO ITS CUSTOMER THAT IS SUPPLEMENTAL TO THIS WARRANTY SHALL NOT CONSTITUTE AN OBLIGATION OF BELLCORE OR ANY OTHER BELLCORE SHAREHOLDER.

8.8 THE LIMITATION ON LIABILITY AND REMEDY PROVISIONS OF ARTICLE 8 OF THE SERVICE AGREEMENT ARE INCORPORATED HEREIN AND SHALL BE INCORPORATED IN ANY MEMORANDUM OF UNDERSTANDING.

Article 9. - Miscellaneous Provisions

9.1 If any Intellectual Property is protectable both as proprietary information (Articles 2 or 3) and a statutory right (Articles 4 or 5), the provisions of Articles 2 or 3 of this Agreement shall take precedence over the provisions of Articles 4 or 5 in case of non-uniformity in the rights and obligations set forth.

9.2 Neither this Agreement nor any licenses or rights granted hereunder shall be assignable or otherwise transferable except to an acquirer of a withdrawing Bellcore Shareholder's interest in Bellcore, in accordance with the Shareholders' Agreement.

9.3 This Agreement and any agreements entered into under the provisions of Article 8 shall be subject to termination or modification as required under the continuing jurisdiction of the Court under the MFJ.

9.4 In the event that and to the extent that the provisions of the Shareholders' Agreement conflict with the terms of this Agreement, the provisions of the Shareholders' Agreement shall control.

9.5 This Agreement shall be governed by the laws of the State of New Jersey.

9.6 All notices and demands of any kind in connection with this Agreement shall be in writing and shall be sent by certified mail to the respective parties as follows:

Ameritech Services, Inc.
1900 East Golf Road
Schaumburg, Illinois 60173
Attention: General Counsel

Bell Atlantic Network Services, Inc.
1310 North Courthouse Road
Arlington, Virginia 22201
Attention: General Counsel

BellSouth Services Incorporated
600 North 19th Street
Birmingham, Alabama 35203
Attention: General Counsel

NYNEX Services Company
120 Bloomingdale Road
White Plains, New York 10605
Attention: General Counsel

Pacific Bell
140 New Montgomery Street
San Francisco, California 94105
Attention: General Counsel

Southwestern Bell Telephone Company
1010 Pine Street
St. Louis, Missouri 63101
Attention: General Counsel

U S WEST Advanced Technologies, Inc., agent for
The Mountain States Telephone and Telegraph Company
Northwestern Bell Telephone Company and
Pacific Northwest Bell Telephone Company
6200 So. Quebec
Englewood, Colorado 80111
Attention: General Counsel

Bell Communications Research, Inc.
290 West Mt. Pleasant Avenue
Livingston, New Jersey 07039
Attention: General Counsel

The foregoing addresses may be changed at any time by written notice to the other parties.

9.7 This Agreement shall not provide third persons with any remedy, claim, liability, reimbursement, claim of action or other right in excess of those existing without reference to this Agreement.

9.8 If any provision of this Agreement shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and the remaining terms shall continue in effect and be binding on the parties. If any party is prevented from performing any of the provisions of this Agreement by any governmental order, judicial decree, regulation or statute, it will be relieved of its obligation to perform that provision which it is prevented from performing, and the remaining terms shall continue in effect and be binding on the parties.

9.9 This Agreement may be executed in any number of counterparts, each of which shall be an original; but such counterparts shall together constitute but one and the same instrument.

9.10 All information provided by Bellcore to a Bellcore Shareholder pursuant to this Agreement, the Service Agreement or otherwise, which is marked by Bellcore as proprietary shall be treated by each Bellcore Shareholder as confidential, using the same degree of care it employs for its own information of like sensitivity. The Bellcore Shareholder shall not disclose such information to any party not affiliated with such Bellcore Shareholder (except pursuant to specific provisions of this Agreement), unless and until such information (1) has come into the public domain through no fault of such Bellcore Shareholder or (2) is otherwise in such Bellcore Shareholder's possession, free of any obligation of

confidentiality. A Bellcore Shareholder shall not disclose any such information to a third person, as may be permitted in accordance with this Agreement, unless and until such third person has agreed in writing to protect and respect the confidentiality and proprietary nature of such disclosed information and, except as otherwise authorized herein, to use such information solely in support of such Bellcore Shareholder's business activities, which writing shall be made available to Bellcore upon its request.

9.11 (a) Each Bellcore Shareholder grants to Bellcore a non-exclusive, nontransferable license to use any information furnished by such Bellcore Shareholder to Bellcore as follows: (1) such information may be used by Bellcore only in connection with its performance for such Bellcore Shareholder of work under one or more Projects as designated by such Bellcore Shareholder or as may be authorized in writing by such Bellcore Shareholder and; (2) such license and right to use shall expire upon termination of the licensing Bellcore Shareholder's obligations under the Service Agreement unless otherwise agreed to by the parties. Such information remains the property of the licensing Bellcore Shareholder and shall be returned thereto by Bellcore, if requested by the licensing Bellcore Shareholder, upon the expiration of the license.

(b) Any information received by Bellcore from a Bellcore Shareholder, either pursuant to the Service Agreement or otherwise, which is marked by such Bellcore Shareholder as proprietary shall be treated by Bellcore as confidential, using the same degree of care it employs for protecting its own information of like sensitivity. Bellcore shall not disclose such proprietary information of the owning Bellcore Shareholder to any third party or other Bellcore Shareholder without the prior written consent of the owning Bellcore Shareholder (except as may be agreed to by the parties or as provided for in Article 9.17) unless and until such information (1) has come into the public domain through no fault of Bellcore or (2) is otherwise in Bellcore's possession free of any obligation of confidentiality.

9.12 If any party materially breaches its obligations of Article 9.10 or 9.11 with respect to the use and disclosure of proprietary information which has been transferred to it, such party may be determined to be in default and be subject to an appropriate remedy for such default, as set forth in Article 8.3 of the Service Agreement. Notwithstanding such remedy and in addition thereto, any party may seek injunctive

relief from a court of competent jurisdiction to enjoin any unauthorized use or disclosure of another party's proprietary information.

9.13 Notwithstanding any grant of rights hereunder, if a Belcore Shareholder is in default in a payment due Belcore under the Service Agreement, such Belcore Shareholder may be subject to forfeiture of certain rights to licenses under Software, Technical Information or Copyrights, as set forth in Article 8.3(a)(1) of the Service Agreement.

9.14 The provisions of Article 9.10 and 9.11 shall continue to apply to information designated as proprietary hereunder notwithstanding the expiration or termination of the Service Agreement or the withdrawal of any Belcore Shareholder from an Elective Project.

9.15 Belcore agrees to indemnify, hold harmless and defend the Belcore Shareholders against all actions or suits by third parties charging copyright or trade secret infringement arising out of the Belcore Shareholder's use of information transferred to it by Belcore pursuant to this Agreement or the Service Agreement and, further, will indemnify, hold harmless and defend each Belcore Shareholder against all actions or suits charging Patent infringement where the alleged Patent infringement was a direct result of the use of such transferred information, provided that Belcore will not indemnify, hold harmless or defend a Belcore Shareholder where the alleged infringement involves the procurement from a third party of goods or services in the same form as provided by that third party in general trade and commerce.

9.16 Each Belcore Shareholder agrees to indemnify, hold harmless and defend Belcore against all actions or suits by third parties charging copyright or trade secret infringement arising out of Belcore's use of information transferred to it by such Belcore Shareholder pursuant to the Service Agreement and, further, will indemnify, hold harmless and defend Belcore against all actions or suits charging Patent infringement where the alleged Patent infringement was a direct result of the use of such transferred information, provided that such Belcore Shareholder will not indemnify, hold harmless or defend Belcore where the alleged infringement involves the procurement from a third party of goods or services in the same form as provided by that third party in general trade and commerce.

9.17 If any party ~~is~~ served with lawful process or a bona fide request by a judicial, administrative or regulatory body or staff to disclose any proprietary information in its possession which is owned or controlled by another party in accordance with this Agreement or the Service Agreement, such party required or requested to make such a disclosure shall give notice thereof to every other affected party. In addition, such party required or requested to make such a disclosure shall use its best efforts to make such a disclosure only subject to a suitable protective order or other adequate provisions to safeguard against further disclosure.

9.18 For all purposes of this Agreement, The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company shall collectively be deemed to be one Bellcore Shareholder, and each of these corporations shall be jointly and severally liable for the obligations as one Bellcore Shareholder under this Agreement and shall designate in writing a single representative whose vote shall be binding on all three corporations on any matter on which a Bellcore Shareholder vote is required or authorized.

9.19 Bellcore hereby acknowledges that under the related company doctrine of trademark law each Bellcore Shareholder may use any trademark, service mark, acronym, or other unique identification of any service which is to be offered to the public by a Bellcore Shareholder, which has been described, developed or taught by Bellcore, and which results from a Project as to which such Bellcore Shareholder was a Funding Participant, and each Bellcore Shareholder acknowledges the rights of each other Bellcore Shareholder that was such a Funding Participant to use such Bellcore originated trademark, service mark, acronym or other unique identification. However, notwithstanding the above, the Bellcore Shareholders have no such licenses or rights with respect to any trademarks or service marks related to goods or services which are provided by Bellcore to such Bellcore Shareholders.

9.20 The parties agree that all rights granted herein to the Bellcore Shareholders may be exercised by their respective Affiliates for so long as they remain Affiliates and subject to the same obligations of the Bellcore Shareholders as set forth in this Agreement.

9.21 The ownership of and all rights with respect to course and training materials prepared by the Belcore Technical Education Center (Belcore TEC) and funded out of tuition revenues paid to Belcore TEC shall not be governed by this Agreement but shall be in accordance with the Belcore TEC Agreement.

9.22 Except as qualified by Article 9.21, ownership of the intellectual properties which Belcore acquires, develops, or modifies under the Service Agreement shall reside in Belcore and rights thereto shall be governed by the applicable provisions of this Agreement. Nothing herein shall affect the ownership of intellectual properties provided to Belcore for modification or further development.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their duly authorized representatives.

AMERITECH SERVICES, INC.
1900 East Golf Road
Schaumburg, IL 60173

EC
11

BY: Bruce R. DeMaeyer DATE: 11-9-88

BELL ATLANTIC NETWORK SERVICES, INC.
1310 North Courthouse Road
Arlington, VA 22201

BY: R. W. Smith DATE: 11-16-88

BELLSOUTH SERVICES INCORPORATED
600 North 19th Street
Birmingham, AL 35203

BY: Hugh B. Jacks DATE: 11-16-88

NYNEX SERVICE COMPANY
120 Bloomingdale Road
White Plains, NY 10605

BY: P. D. Covill DATE: 11-7-88

PACIFIC BELL
140 New Montgomery Street
San Francisco, CA 94105

BY: M. A. Kaplan DATE: 12-5-88

SOUTHWESTERN BELL TELEPHONE COMPANY
1010 Pine Street
St. Louis, MO 63101

BY: C. E. Foster DATE: 11-29-88

U S WEST ADVANCED TECHNOLOGIES, INC., as agent for
THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY,
NORTHWESTERN BELL TELEPHONE COMPANY and
PACIFIC NORTHWEST BELL TELEPHONE COMPANY

BY: W. J. Wade DATE: 12-8-88

BELL COMMUNICATIONS RESEARCH, INC.
290 West Mt. Pleasant Avenue
Livingston, NJ 07039

BY: R. J. Marano DATE: 11-3-88

ACRONYM	SYSTEM NAME
ACAS	ACCESS CHARGE ANALYSIS SYSTEMS
ACC CHG	ACCESS CHARGE ANALYSIS
ADBS	ACCESS DATA BASE SYSTEM
ADMIN	ADMINISTRATION OF 08 DATA SYSTEMS
AIM(AIMS)	APPLICATION INFORMATION MANAGEMENT SYSTEM
ANCOF	ANNUAL COST FACTORS
APSS	ACCESS PROFITABILITY STUDY SYSTEM
APTS	AUDIT PROGRAM TRACKING SYSTEM
ATLISS	ANTITRUST LITIGATION INFORMATION SYSTEM
BACAS	BARGAINING & CONTRACT ADMIN SYSTEM
BAMS	BUILDING ADMINISTRATION MANAGEMENT SYSTEM
BCAPS	BUSINESS CUSTOMER ANALYTIC PROFILE SYSTEM
BECS/COMTOC	BROADBAND EQUIPMENT CHARACTERISTICS/COST OF MULTIPLEX TERMINAL AND OTHER COMMON BELL SYSTEM STATISTICS
BELLSTAT	BELL SYSTEM STATISTICS
BERPM	BASIC EXCHANGE RATE PLANNING MODEL
BESMIS	BASIC EXCH SERVICE MANAGEMENT INFO SYS
BITS	BUSINESS INTERIM TRACKING SYSTEM
BLIS	BELL LEGAL INFORMATION SYSTEM
BOC APPL STUDY	BOC NETWORK DATA LIFE MANAGEMENT
BOCCS	BOC COMPENSATION SYSTEM
BOFADS	BUSINESS OFFICE FORCE ADMINISTRATION SYST
BOLD	BELL ON-LINE DOCUMENTATION
BRECS	BRE COMPENSATION SYSTEM
BRIS	BUSINESS REVENUE INFORMATION SYSTEM
BRL/CCM	BUY/RENT/LEASE COPIER CONFIGURATION MODEL
BSBIS	BELL SYSTEM BUDGET INFORMATION SYSTEM
BSBPA	BELL SYSTEM BUDGET PLANNING ANALYSIS
BSPAS	BELL SYSTEM PRODUCTIVITY ANALYSIS SYSTEM
BSPDB	BELL SYSTEM PERSONNEL DATA BASE
BSPDB REPRTS	BSPDB REPORTS
BSPD/NAAP	BSPDS/NAAP REPORT SYSTEM
BSSP	BELL SYSTEM SAVINGS PLAN
BSVCP	VOLUNTARY CONTRIBUTION PLAN
BUILDTRK	BUILDING COST INFORMATION SYSTEM
CAFE	CORE ANALYTIC FRONT END
CAMI	CORE ANALYTIC MODEL INTERFACE
CAPCOST	CAPITAL-COST-MODEL
CAPMANI	CAPACITY MANAGEMENT SYSTEM
CAPS	CUSTOMER ANALYTIC PROFILE SYSTEM
CAS	COMPENSATION ACCOUNTING SYSTEM
CASHFLO	COMMERCIAL PAPER MODULE OF CASHFLO SYSTEM
CATS	CREDIT CARD AND THIRD NUMBER SYSTEM
CBS&A	CONSTRUCTION BUDGET SUMMARY & ANALYSIS
CCALL	CALL CHARACTERISTICS
CCSTT	CUSTOMER CALLING AND TOUCH TONE MODELING
CCUAP	COMPUTERIZED CABLE UPKEEP ADMIN PROGRAM
CDS	CUSTOMER DEFINITION SYSTEM
CEDARS	COMPUTER EVALUATION OF DECISION ANALYSIS
CES	ESTIMATED FUTURE CO. AND AREA CODE REQUIREMENT
CIM	CAPITAL INVESTMENT MODEL

ACRONYM	SYSTEM NAME
CIM-OVAL	CAPITAL INVESTMENT MODEL - VALUATION OPTION
CIS	COMPETITIVE INFORMATION SYSTEM
CMRS	COIN MESSAGE REPORTING SYSTEM
COCUS	MON. CO. & AREA CODE USAGE & EXHAUST
COMADS	COMPUTERIZED ADDRESS DISTRIBUTION SYSTEM
COMPAR	COMMUNICATIONS COST COMPARISON SYSTEM
CONTRAK	CONTRIBUTION TRACKING
CORE	CORE ANALYTIC FINANCIAL MODEL
COSTGEN2	COST MODELING
COSTUS	COST OF SERVICE TRAFFIC USAGE STUDY
CRIS	CRIS DATA CATALOG
CRP	CUSTOMER RECOGNITION PROCESS
CRS	CENTRALIZED RESULTS SYSTEM
CS/PL	CIRCUIT STUDY/PRIVATE LINE
CSRS	CENTRALIZED SALES REFERENCE SYSTEM
CSTAT	CORPORATE STATISTICS DATA BASE
CUCRIT	CAPITAL UTILIZATION CRITERIA
D&FDBS	DEMAND & FACILITY DATA BASE SYSTEM
D-DAS	DDS-DATA ACQUISITION SYSTEM
DAPR	DATA PROFILE
DARCIS	DIRECTORY ASSISTANCE RATE & COST INFO SYS
DARCS	DEMAND ANALYSIS REPRICE CHANNEL SYSTEM
DCAS/WC	DATA COLLECTION AND ANALYSIS SYSTEM/WIRE CENTER
DCATS	DEMAND AND CAPACITY ANALYSIS TRACKING SYSTEM
DDITS	DEPRECIATION AND DEFERRED INCOME TAX SYSTEM
DDSSTA	DATAPHONE DIGITAL SERVICE STATUS
DECA 1&2	DUAL ELEMENT COST ASSIGNMENTS-VERSIONS 1&2
DIAL/MARC	DIAL/MARKET ANALYSIS OF REVENUE & CUSTOMER
DILSO	DIAL LINE SERVICE OBSERVING
DM SCORS	DIRECT MKTING SALES CENTER OPERATIONS REP
DMAP	DEMOGRAPHIC ANALYSIS PACKAGE
DOPS	DETAILED OUTSIDE PLANT STUDY
DPS	DISCRETIONARY PROJECT SELECTION SYSTEM
DRIT	DATA REQUEST INFO TRACKING SYS
DRS	DEPOSIT REPORTING SYSTEM
DSCS	DEPRECIATION STUDIES COMPUTER SYSTEM
DSEDS	DISTRIBUTION SERVICE ENGINEERING DISTRIC SIZES
EAMS	EXCHANGE ACCESS MEASUREMENT STUDY
ECEMS	EMPEDED COST OF EXCHANGE OF EXCHANGE MSG STUDY
ECMS	EMPLOYEE COMMUNICATION MESSAGE SYSTEM
ECS	EXCHANGE COST STUDY
ECS	ENGINEERING CATALOGUE SYSTEM
ECTS	EQUIPMENT COSTS TABLE SYSTEM
EDA	EMBEDDED DIRECT ANALYSIS
EDA CALC	EMBEDDED DIRECT ANALYSIS - DISAGREGATION (CALC)
EIS/PAIRS	EXPERIENCE INFO SYS/PRODUCT ANALYSIS RPT SYS
EMASS	EXTERNAL MECHANIZED ALLOCATION STUDY SYST
EG01	DEPRECIATION SYSTEM
EG02	DEPRECIATION SYSTEM
ENERGY	ENERGY SYSTEM
ENERGY 2	ENERGY 2 DATABASES

ACRONYM	SYSTEM NAME
ESIS	ELECTRONIC SWITCHING INVESTMENT SYSTEM
ESOP	EMPLOYEE STOCK OWNERSHIP PLAN
ESSCOSTS	CO. VERTICAL STUDIES
E2	ELECTRONIC INFORMATION SERVICE
FAADMI	ADMIN GUIDE COMPONENTS
FABS	FUNCTIONAL ACCOUNTING BUDGET SYSTEM
FABS/CR	FINANCIAL ANALYSIS BUDGET SYSTEM/COMPTROLLERS RESULTS
FAMIS	FORECASTING & MONITORING INFORMATION SYST
FAMP TS	FASC ACCTG. MONITORING PLAN
FARS	FINANCIAL ADMINISTRATION REPORTS SYSTEM
FAST	FLEET-SIZE ANALYSIS & SENSITIVITY TECHNIQUE
FCS	FORMS CONTROL SYSTEM
FIC	FACILITY INVESTMENT CALCULATOR
FINAN	FINANCIAL ANALYSIS
FINITS	FINANCIAL INFORMATION SYSTEM
FMBA	FINANCIAL MANAGEMENT BUDGET ANALYSIS
GELDECS	GEN. OF EQUIP LISTS & DESIGN ENSEMBLE FOR
GENOSWTS	OPERATOR SERVICE WORK TIME STUDIES
GOAL	AFFIRMATIVE ACTION GOALS SYSTEM
HASS	HEALTH AND SAFETY SYSTEM
HFLAC	HIGH FREQUENCY LINE ACTIVITY AND COST
HIS	HOME INFORMATION SYSTEM
IADS	INTEGRATED ADMINISTRATION DATA SYSTEM
IBIS	INSTALLED BASE INFO SYSTEM
ICAFS	INDEPENDENT CARRIER FORECAST SYSTEM
ICONS	INDEPENDENT TELCO NETWORK DATA BASE
ICS	INTERSTATE COST SYSTEM
ICSA	INTERSTATE COST SYSTEM ANALYSIS
IFFAS	INTEGRATED FACILITIES AND FORCE ADMINISTER
IFITS	INTEGRATED FEDERAL INCOME TAX SYSTEM
IFPS	INTERACTIVE FINANCIAL PLANNING SYSTEM
IFS	INTERACTIVE FLOW SIMULATOR
I/ICA	I/I CIRCUIT ANALYSIS
I/ICS	INTERSTATE/INTEREXCHANGE CHARACTERISTICS STUDY
IIS	INSTRUCTOR INFORMATION SYSTEM
IMA	INEFFECTIVE MACHINE ATTEMPTS
IMARKS	INVESTMENT MANGMT ANAL. & RECD KEEPNG SYS
IMPACT	INTEGRATED MANAGEMENT PRODUCT ACTIVITY TR
IPAC	INTERACTIVE PLANNING AND CONTROL
IRR	INTERNAL RATE OF RETURN
ISOPDB	ISO PLANNING DATABASE
ITCAP	INTERIM TOC COST ANALYSIS PROGRAM
L&B	LAND AND BUILDINGS
LADS	LATA ANALYSIS DATA SYSTEM
LATA	LOCAL ACCESS AND TRANSPORT AREA
LATAWATS	PROVIDE INPUT-REPRICE WATS BY LATA
LIFECOST	LIFE-CYCLE COST STUDY SYSTEM
LIFMOD-V3	LIFE-CYCLE MODEL - VERSION 3
LIPMOD	LABOR INPUT PRODUCTIVITY MODEL
LOOPNVST	LOOP INVESTMENT CALCULATION

ACRONYM

SYSTEM NAME

LRSS/ECON	LONG RANGE SWITCHING STUDIES/ECONOMICS
LSD&F	LOCAL SWITCHED DEMAND AND FACILITY DATA BASE SYSTEM
MACS	MECHANIZED ANALYSIS OF COST STUDIES
MADCAP	MAILING ADDRESS COMPUTER SYSTEM
MAPSS	MAINTENANCE AND ANALYSIS PLAN FOR SPECIAL SERVICE
MARC	MARKET ANALYSIS OF REVENUE AND CUSTOMERS
MARS	MESSAGE AND REVENUE ANALYSIS
MASCOT	MONITORING & APPT SYS BY COMPUTER FOR OTC
MASER	MECHANIZED ADMINISTRATION SWITCHING EQUIP
MASS	MECHANIZED ALLOCATION STUDY SYSTEM
MATS	MECHANIZED ANALYSIS OF TRAFFIC STUDIES
MCAS	MECHANIZED ADMINISTRATION SYSTEM
MCC	MAINTENANCE CONTROL CENTER
MEDCAP	MEDICAL COSTING OF ACTIVITIES & PROCEDURE
MFAS	MECHANIZED FORECASTING AND ANALYSIS (E-5300)
MICD	MARKETING INTERCOMPANY COMM DIRECTORY
MIG	MECHANIZED INTERVAL GUIDE SYSTEM
MIGS	MECHANIZED INDEX GENERATION SYSTEM
MIMIC	MTS/WATS INTRASTATE MODEL FOR INCREMENTAL COSTS
MIND	MODULAR INTERACTIVE NETWORK DESIGN
MITRE	MESSAGE AND REVENUE ANALYSIS
MMS	MARKETING MEASUREMENT SYSTEM
MMS/SSII BRE	MMS SUPPORT SYSTEMII-BRE MKEG
MORT	MORTALITY DATA BASE
MOVIMS	MOTOR VEHICLE INFORMATION MANAGEMENT SYSTEM
MPS	MASTER PATENT SYSTEM
MPTS	USAGE OF MPTS
MRSS	MINI-COMPUTER RELIABILITY STUDIES SYSTEM
MSM	MULTI-STATE MARKETING
MTSI	INTERACTIVE INTERSTATE MESSAGE TELECOMM SVES
MUSIC	MODEL FOR USAGE SENSITIVE INCREMENTAL COS
MVAS	MOTOR VEHICLE ACCIDENT SUMMARY REPORT
MVMCC	MOTOR VEHICLE MAINT CONTROL CENTER
M520	NON-CAPITALIZED LEASE SYSTEM
NAAP REPORTS	BS PDB/NAAP REPORTS
NAFMP	NETWORK ADMIN. FORCE MGMT. & PRODUCTIVITY
NCIS	NON-RECURRING COST INTERFACE SYSTEM
NCR STUDY	NATIONAL CREDIT STUDY
NCRP	NETWORK COST RESULTS PLAN
NCSR	NETWORK COMPLETION STUDY RATES
NE/FMS	NETWORK ENGINEERING FORCE MANAGEMENT SYSTEM
NERCE	NETWORK RESPONSE TIME & CONFIGURATION EVA
NETTIMS	MECHANIZATION OF TAP ADMINISTRATIVE REPORTS
NIMS	MSM-NAE INQUIRY MANAGEMENT SYSTEM
NOTES/DB	NETWORK OPERATIONS TECHNICAL SUPPORT/DATABASE
NOTIS	NETWORK OPERATIONS TROUBLE INFORMATION SYSTEM
NPIS	NETWORK PLANNING INFORMATION SYSTEM
NSMRS	NATIONAL SELF MONITORING REPORT SYSTEM
NTC	N&T CARRIES SYSTEM
NUA	NETWORK UTILIZATION ANALYSIS
NVTS	NATIONAL VENDOR TRACKING SYSTEM

ACRONYM

SYSTEM NAME

OCIPS	OPERATING COMPANY INTEGRATED PLANNING SYSTEM
ODA	NOT AVAILABLE
ODOD	OPERATOR DIFFERENTIAL OVER DIAL COST STUDY
ODP	ORGANIZATIONAL DESIGN PROGRAM
OSAC	OPERATOR SPEED OF ANSWER CONSISTENCY
OSFABS	OPERATOR SVCS FUNCTIONAL ACCTING BUDGETING
OSPD&F	OPERATOR SVCS CONSTRUCTION BUDGET MANAGEMENT
OSPDBS	OUTSIDE PLANT DATA BASE SYSTEM
OSPI	OPERATOR SERVICES PLANNING INFORMATION SYSTEM
OSTNP-1	OPERATOR SERVICES TRAFFIC NETWORK PLAN PH
PACO	POLE ATTACHEMENT CONDUIT OCCUPANCY
PACS	POLITICAL ACTION COMMITTEE SYSTEM
PCS	PRICE COMPARISON STUDIES
PDIS	PROCUREMENT DECISION INFORMATION SYSTEM
PENSFUND	PENSION FUND RECORD KEEPING & REPORTING SYS
PFS	PENSION FIELD SYSTEM
PIPES	PROGRAM FOR INVENTORY PIPELINE ESTIMATION
PIPES/PLUGS	PROGRAM FOR INVENTORY PIPELINE ESTIMATION
PJU	POLE JOINT USAGE
PLAN	NOT AVAILABLE
PLANT	PLANT PERFORMANCE DATA GATHERING
PLIAC	PRIVATE LINE INVESTMENT AND ANNUAL COSTS
PPD	PERIODIC PARTIAL DISTRIBUTION
PPS	PERFORMANCE AND PLANNING SYSTEM
PRINTS	PUBLIC RELATIONS INFO NET TRANS SYSTEM
PRIRS	PUBLIC RELATIONS INFO RETRIEVAL SYSTEM
PRISM	PLANNING & REPOSITION OF INTERXCHG SERVICE MODEL
PRMS	PRESS RELATIONS MESSAGE SYSTEM
PROS	PRIVATE LINE RATES OPTIMIZATION SYSTEM
PS INCOME	PUBLIC SVCS - INCOME STUDY
PSDS	PUBLIC SWITCHED SVCS - AGGREGATED DEMAND ANALYSIS MODEL
PTIMA	PUBLIC TELEPHONE INSTALLATION & MAINTENANCE ADMIN.
PTIPP	PUBLIC TELEPHONE INSTALLATION PERFORMANCE
QAS	QUALITY ASSURANCE SYSTEM
QES	QUICK ESTIMATION SYSTEM
QUICSTAT	QUICK ANALYSIS OF TRAFFIC DATA & INDEP COMPANY
RAFT	RESOURCE ALLOCATION
RAPUD	REVENUE ANALYSIS FROM PARAMETRIC USAGE DESCRIPTION
REIMS	REAL ESTATE INFORMATION MNGMT SYSTEM
REVGEN2	REVENUE MODELING
REVS	REVENUE EVALUATION SYSTEM
RIVAL	REVENUE-INTERCITY VULNERABILITY ANALYSIS
RMP/WP	RESULTS MEASUREMENT PLAN/WORD PROCESSING
ROMMS	RESIDENCE OFFICE METHODS MANAGEMENT SYSTEM
RSFM	RESIDENCE SEGMENT FINANCIAL MODEL
SAF	SERVICE AREA FUNCTION
SAOBS	SALES AID ORDERING & BILLING SYSTEM
SASS	SICKNESS ABSENCE SUMMARY SYSTEM
SAV	STATISTICALLY ADJUSTED VALUE
SC-EACS	SERVICE COSTS-ECONOMIC ANALYSIS & COMPARI

ACRONYM	SYSTEM NAME
SCADDS	DEVELPT. OF COSTS FOR DDS FILINGS
SCAM/USOC	SYSTEM CODE ADMINISTRATION AND MAINTENANCE
SCCANS	SYNCHRONIZED CODE CONTROL & NOTIFICATION
SCIS	SWITCHING COST INFORMATION SYSTEM
SEPMOD	SEPARATIONS PLANNING MODEL
SEPSTAT	SEPARATIONS PLANNING MODEL - STATISTICS
SESKED	SERVICE EVALUATORS SCHEDULING
SLUS	SUBSCRIBER LINE USAGE SYSTEM
SMACS	SYSTEM FOR MEDICAL ADMIN & CLINICAL STATI
SMART(SMARTS)	SAMPLE MESS. & REV. TIMESHARE SYS.
SMCA	SENIOR MANAGEMENT COMPENSATION ANALYSIS
SNAC	STANDARD NETWORK ANNUAL COST
SOSS	SAMPLE OFFICE SELECTION SYSTEM
SPICE	SIMPLIFIED PEAK INCREMENTAL CIRCUIT ESTIMATOR
SPMS	SALES PERFORMANCE MEASUREMENT SYSTEM
SSM	STATE SEPARATIONS MODEL
SSP	BELL SYSTEM SAVINGS & SECURITY PLAN (NON-
STATLIB	STATISTICAL COMPUTING LIBRARY
STATOC	SERVICE & TECHNOLOGY ANALYSIS WITH TOC
SWAT	SCIENTIFIC WATS ANALYSIS TECHNIQUES
SWIN	SWITCHING INVENTORY
TAMP	TRUNK ADMINISTRATION MEASUREMENT PLAN
TASP	TOLL ALTERNATIVES STUDIES PROGRAM
TBDS	TRAFFIC BUDGET DATA SYSTEM
TCWATS	TARIFFS & COSTS WATS MODELING
TDEAS	TASK DATA ENTRY & ANALYSIS SYSTEM
TELSAM	TELEPHONE SERVICES ATTITUDE MEASUREMENT
TFTS	TRUNK FORECAST TRACKING SYSTEM
TMDS	TRAINING MEASUREMENT & DATA SYSTEM
TNICS	TOTAL NETWORK INFO AND COSTS SYSTEM
TONIC	T OR N INVESTMENT CALCULATOR
TRAC	TRACKING REVENUE & COST SYSTEM
TRACS(PL)	TRANSLATION OF ROUTE & AIR CHARACTERISTICS
TRISS	TRAFFIC ITEM SUMMARIZATION SYSTEM
TSAM	TARIFF SIMPLIFICATION & MECHANIZATION
TSPC/ODOD	TSPC/ODOD
TUFS	TRAFFIC USAGE FORECASTING SYSTEM
USO/SDCS	UNIVERSAL SERVICE ORDER/STDS DOCUMENTATION CONTR
VAPAY	VACATION PAY FROM DATABASE
VRPM	VOLUME DIMENSION TRACKING ANALYSIS
VSOS	VEHICLE SCHEDULING OPTIMIZATION SYSTEM
WATSPI	WATS PRICE INDEX
WEBR	WESTERN ELECTRIC BILLING REPORTS
WECAN	CLASS W ECONOMIC ANALYSIS
WRPM	WATS RATE PLANNING MODEL
WRS	WORK RELATIONSHIP ANALYSIS SAMPLE
SEDOPS	SESS DIGITAL ORDERING & PLANNING SYSTEM
DDITSO	DDD-INCOMING TRUNK SERVICE OBSERVING SYSTEM
SESOR	SERVICE EVALUATION SYSTEM OUTPUT RESULTS
TREST	TRANSMISSION EVALUATION SYSTEM
TTMI	TRUNK TRANSMISSION MAINTENANCE INDEX

PRINCIPLES OF LICENSING

Belcore shall license its Intellectual Property to third persons in accordance with the principles below:

1. Licensing shall be in the best interests of the Belcore Shareholders, shall not impair Belcore's performance in carrying out its work program, and shall accord with the desires of the Belcore Shareholders as expressed by Belcore Board of Directors in the Shareholders' Agreement.
2. Belcore is responsible for licensing its Intellectual Property in accordance with process(es) approved by the Belcore Board of Directors.
3. Belcore shall treat third persons licensed at the same time with equivalent non-discriminatory terms.
4. Pricing for licenses shall be market-based except as specifically provided for in the Intellectual Property Agreement and structured to conform to all applicable legal requirements.

BELLCORE DEVELOPED
MAJOR SOFTWARE SYSTEMS AS OF 9/1/88

CAMIS
COIN™ SYSTEM
COSMOS
CUSTUMate™ SYSTEM
EPLANS
EXACT™ MAINFRAME SOFTWARE
FACS
LEIS™ SYSTEM
LSS
MIZAR
NMA
NPS
PICS
PREMIS
SEAS™ SYSTEM
SSFS
TELEGATE™ SYSTEM
TIRKS® SYSTEM
TNDSEQ
TNDSTK
WFA

TIRKS is a registered trademark and COIN, CUSTUMate, EXACT, LEIS, SEAS and TELEGATE are trademarks of Bellcore.

Revised May 16, 1989

F01K01W 000308

TIRKS® System Modules (all Release Level 15.2 except OPS/INE)

S1, TTS
GOC, CI/INV
PCF
FI
E1/EQP, E1/REF
CI/REP
CI/CDS (PRO/CDS)
CI/MDS
CI/DIST
TSEND
TOS
TDIF
TCM
OPS/INE Release 3.0

FEPS System Modules

FEPS - Release 15.2
SCS - Release 15.2
PWS - Release 4.3

LTS - Release 1.3

TIRKS is a registered trademark of Bellcore.

Added July 17, 1989

FBIK01W 000309



© Bell Communications Research

ORDER FOR BELLCORE TASKMATE SOFTWARE

Company Name _____ Date of Order _____ Customer Purchase Order No. _____

Company Address _____ City _____ State _____ Zip Code _____

In accordance with the TERMS and CONDITIONS printed on the reverse side herein, please furnish the above-identified CUSTOMER with one copy of BELLCORE TASKMATE Software for each of the following machines:

Development Module

Location (Bldg. City, State) _____ Type _____ Serial No. _____

1 _____
 # 2 _____

(Continue List on Separate Page)

Total No. of Machines @ \$ 1,250.00 (U.S.) (single copy) \$ _____
 @ \$ 1,000.00 (U.S.) (2-5 copies) \$ _____
 (Call for prices in quantities more than 5)

Interpreter

Location (Bldg. City, State) _____ Type _____ Serial No. _____

1 _____
 # 2 _____

(Continue List on Separate Page)

Total No. of Machines @ \$125 (2-5) _____
 (Call for prices in quantities more than 5)

Included in Basic Price - one copy of Interpreter per Development Module Ordered

Applicable Taxes: State _____
 Local _____

International orders (except Canada and Mexico)
 add shipping and handling charge of \$49.50 \$ _____

Total Order Fee \$ _____

CUSTOMER shall enclose payment in the amount of the Total Order Fee. (See below) BELLCORE normally ships orders via an express carrier within 48 hours of receipt of this executed order form.

Charge to: (check one): VISA Mastercard American Express
 Number _____ Exp. Date _____ Signature _____

Ship to: _____

**AUTHORIZED SIGNATURE REQUIRED
 (AGREEING TO TERMS AND CONDITIONS)**

Name and Title (Please print or type) _____

Phone: _____

CUSTOMERS located in the following states shall include applicable state and local taxes: Arizona, California, Colorado, D.C., Florida, Georgia, Illinois, Indiana, Maryland, Massachusetts, Nebraska, New Jersey, North Carolina, Ohio, Oklahoma, Pennsylvania, Texas, and Wisconsin

For Bellcore Use Date Accepted by Bellcore _____ For Bellcore Treasury Use
 Date Rec'd _____ By _____ Cr# _____ Date _____ Amount \$ _____

2.0 OPERATING ENVIRONMENT

- IBM® P22 Models 50 and 60, or IBM 3270 PC/XT or Personal Computer AT® with 640K bytes of memory, or IBM Personal Computer AT or PC/XT with 3270 emulation.
- A hard disk, for workload development.

Software

- PC DOS, release 2.0 or higher
- 3270 Personal Computer Control Program, release 3.0 or higher
- 3270 PC High Level Language API, release 3.0

3.0 LICENSE GRANT

- 3.1 CUSTOMER is granted a personal, nontransferable, non-exclusive and paid-up right to receive a copy of the DELIVERABLES for use solely in its own internal business operations and not for export, re-export, resale, sublicense or use by others including owners, subsidiaries or affiliates of CUSTOMER.

- 3.2 BELLCORE assumes no responsibility for protecting the DELIVERABLES against obsolescence.

- 3.3 All materials furnished hereunder are copyrighted by BELLCORE which retains title to the intellectual property in the DELIVERABLES and all rights under the copyright.

4.0 LIMITED WARRANTY

- 4.1 The DELIVERABLES and the information contained therein are directed solely to professionals who have the appropriate degree of experience to understand and interpret their contents in accordance with generally accepted professional standards and applicable regulations. No recommendation as to products is made or should be implied.
- 4.2 BELLCORE warrants that the deliverable media shall be free from defects in materials and workmanship under normal use for a period of three months from the date of shipment.
- 4.3 While the information contained in the DELIVERABLES has been prepared from sources deemed to be reliable, IBM and Personal Computer AT are registered trademarks and PC/XT is a trademark of International Business Machines Corporation.

DESCRIPTION

BELLCORE's TASKMATE Software is a program development tool and workload manager used to automate task flows at a stand alone PC workstation or among a PC workstation and up to four host sessions, performing such tasks as entering data, recording results and deciding on the next task to be accomplished.

TASKMATE Software includes eight subsystems: Configuration, Screen Paint, Generator, Interactive Capture, Parser, Interpreter, Customization and Data Management.

- The Configuration Subsystem is the manager of all Taskmate System files.
- The Screen Paint Subsystem is used to define formatted PC screens for subsystem interaction with the TASKMATE Interpreter.
- The Generator Subsystem is used to define host screen layout, PC screen layout, sequential file layout, and direct access file layout.
- The Interactive Capture Subsystem is used to record a host session, play back the recording, and translate the recording into a TASKMATE workload.
- The Parser Subsystem is used to examine each program statement contained in a TASKMATE workload and check it for syntax and semantics.
- The Interpreter Subsystem reads the TASKMATE code produced by the Parser Subsystem and executes the workload.
- The Customization Subsystem permits control of the memory reserved for system calls.
- The Data Management Subsystem provides a means for performing data maintenance functions.
- The Interpreter Subsystem is offered as a separate module for installation in a terminal intended to merely execute a workload program.

TERMS AND CONDITIONS

1.0 DELIVERABLES:

1.1 DEVELOPMENT PACK

- One copy of three 5 1/4" or two 3 1/2" floppy disks
- One copy of a User's Manual
- One Copy of a Reference Manual
- 1.2 INTERPRETER SUBSYSTEM
 - One copy of two 5 1/4" or two 3 1/2" floppy disk

BELLCORE reserves the right to revise the views expressed herein without notice. Unless the CUSTOMER is under separate applicable written agreement with BELLCORE, BELLCORE MAKES NO REPRESENTATION OR WARRANTY THAT THE INFORMATION CONTAINED IN THE DELIVERABLES CONFORMS TO ANY STATUTE, GOVERNMENTAL RULE OR REGULATION, AND MAKES NO OTHER REPRESENTATION OR WARRANTY INCLUDING THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. BELLCORE SHALL NOT BE HELD LIABLE BEYOND THE AMOUNT OF ANY SUM RECEIVED IN PAYMENT FOR THE WITHIN DELIVERABLES WITH RESPECT TO ANY CLAIM AND IN NO EVENT SHALL BELLCORE BE LIABLE FOR LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.

4.4 BELLCORE's entire liability and CUSTOMER's exclusive remedy shall be the replacement of any defective deliverable media which is returned to BELLCORE within three months of shipment.

5.0 GENERAL

5.1 CUSTOMER will pay or reimburse Bellcore for any and all sales or use taxes, duties, withholding taxes or levies however denominated (hereafter "TAX") imposed by any authority, government or government agency arising out of any transaction associated with the LICENSED INFORMATION including any agreement for services, support, maintenance or grant or right in connection with the LICENSED INFORMATION. If Bellcore is required to collect a TAX to be paid by CUSTOMER, CUSTOMER shall pay such TAX to Bellcore on demand. If CUSTOMER shall be required to withhold any sum from payment, the amount so withheld shall nevertheless be deemed to be still owing to Bellcore and the amount thereof shall promptly be paid to Bellcore to overcome the effect of such withholding. Any additional withholdings that may be occasioned by such last mentioned payment shall be overcome in the same manner as the original withholding.

5.2 The construction and performance of this Order will be governed by the laws of the State of New Jersey.

5.3 The terms hereof set forth the entire understanding between CUSTOMER and BELLCORE superseding all prior discussions.

5.4 No provision appearing on any form originated by CUSTOMER shall be applicable unless such provision is expressly accepted in writing by BELLCORE from date of shipment.

BELLCORE SHAREHOLDER OR AFFILIATE
 SUBLICENSING ARRANGEMENT
 PRICING FORMULA

I. FOR EXISTING INTELLECTUAL PROPERTY RIGHT-TO-LICENSE
 FEE, INCLUDING COMMON MAINTENANCE & ENHANCEMENTS

RTL FULLY LOADED QUANTITATIVE
 FEE - TOTAL COSTS X SIZE FACTOR
 X OF CUSTOMER X MARKUP

MARKUP TABLE

FULLY LOADED TOTAL COSTS #	MARKUP
\$5.0M - \$10.0M	1.50
\$10.0M+	1.35

#INCLUDES DEVELOPMENT, MAINTENANCE AND ENHANCEMENTS.

II. SERVICES

A) FIRM QUOTED PRICE BASIS

YEAR	SERVICES FQP	-	ESTIMATED FULLY LOADED COSTS	X	MARKUP OF
YEAR 1					1.45
YEAR 2					1.55
YEARS 3 & BEYOND					1.65

B) COST PLUS BASIS

YEARS 1 - 5	SERVICES COST PLUS	-	ACTUAL FULLY LOADED COSTS	X	MARKUP OF
					1.25

National Security
Emergency Preparedness

BELL COMMUNICATIONS RESEARCH, INC. FUNDING
FOR
NATIONAL SECURITY/EMERGENCY PREPAREDNESS

THIS AGREEMENT is between Bell Communications Research, Inc., a Delaware Corporation formed in accordance with and as a result of the Modification of Final Judgment entered by the United States District Court for the District of Columbia on August 24, 1982 in United States v. WESTERN ELECTRIC COMPANY *et al.* (Civ. No. 82-0192).

and

American Information Technologies Corporation, Bell Atlantic Corporation, BellSouth Corporation, NYNEX Corporation, Pacific Telesis Group, Southwestern Bell Corporation and U S West, Inc.; being the seven Regional Holding Companies formed as a result of the divestiture mandated by that same Modification of Final Judgment or their respective designated stockholder in Bell Communications Research, Inc. (hereinafter "Regional Companies").

WHEREAS the said Modification of Final Judgment provides in part as follows:

Notwithstanding separation of ownership, the BOCs may support and share the costs of a centralized organization for the provision of engineering, administrative and other services which can most efficiently be provided on a centralized basis. The BOCs shall provide, through a centralized organization, a single point of contact for coordination of BOCs to meet the requirements of national security and emergency preparedness.

NOW, THEREFORE, IT IS HEREBY AGREED BETWEEN Bell Communications Research, Inc. and the Regional Companies executing this Agreement that:

- 1) Bell Communications Research, Inc. shall serve as the single point of contact for the Regional Companies to meet the requirements of National Security and Emergency Preparedness (hereinafter "NS/EP").

- 2) The President of Bell Communications Research, Inc. shall certify to the Board of Directors of the Bell Communications Research, Inc. the level of funding necessary for the Bell Communications Research, Inc.'s NS/EP group.
- 3) With the advice and counsel of the President of Bell Communications Research, Inc., the Regional Companies hereby agree that they will fund the NS/EP activities at a level that shall not be less than that certified by the President of Bell Communications Research, Inc. to be needed for the NS/EP group to perform its functions effectively, and that they will not withdraw funding from Bell Communications Research, Inc. for the said NS/EP functions and they will pay annually to Bell Communications Research, Inc. the amount determined by the Board of Directors of Bell Communications Research, Inc. to be their respective share of said funding.
- 4) It is understood that the NS/EP related services provided hereunder will be billed to the Federal Agency requesting the service by the individual BOC or Bell Communications Research, Inc.

IN WITNESS WHEREOF the parties hereto have executed this agreement this 6th day of..

March 1984.

Ameritech Services, Inc.
225 W. Randolph Street
Chicago, Illinois 60606

By: [Signed] L. J. Rutigliano

Title: President

Bell Atlantic Management Services, Inc. _____
1310 N. Court House Road
Arlington, Virginia 22216

By: [Signed] W. M. Newport

Title: Executive Vice-President

BellSouth Services, Inc.
600 N. 19th Street
Birmingham, AL 35201

By: [Signed] Hugh B. Jacks

Title: President

NYNEX Service Company
400 Westchester Avenue
White Plains, New York 10604

By: [Signed] Paul D. Covill

Title: Executive Vice-President

Pacific Bell
140 N. Montgomery Street
San Francisco, California 94105

By: [Signed] T. J. Saenger

Title: President

Southwestern Bell Telephone Company
1010 Pine Street
St. Louis, Missouri 63101

By: [Signed] Joe H. Hunt

Title: Executive Vice-President

Bell-Tri-Co. Services Company
1600 Bell Plaza
Seattle, Washington 98191

By: [Signed] A. V. Smith

Title: President

Bell Communications Research, Inc.
290 W. Mt. Pleasant Avenue
Livingston, New Jersey 07039

By: [Signed] J. Kenneth Looloian

Title: Secretary

FLEXIBILITY PROVISIONS

PROJECT

BUDGET FLEXIBILITY
(moving monies from one Project to another)

NEW PROJECTS
(establishing new Projects)

OVERRUNS
(exceeding Authorized Budget)

<p>ELECTIVE MULTI-CLIENT-FQP If amount is: • Less than or equal to \$10M • Greater than \$10M</p>	<p>Authorized Owner Representative Written Approval upon Project Termination by Unanimous Agreement of all Participants Board Approval upon Project Termination by Unanimous Agreement of all Participants (reference Article 6.9(c))</p>	<p>Written Approval of Authorized Owners' Representatives and Bellicore's CEO or Designee Approval Board Approval (reference Article 6.3(a))</p>	<p>Not Applicable Not Applicable</p>
<p>CLIENT-SPECIFIC-FQP • No dollar limitation</p>	<p>Not Applicable</p>	<p>Written Approval by Authorized Owner Representative and Agreed to by Bellicore (reference Article 6.3(b))</p>	<p>Not Applicable</p>

Revised Per Board Resolution 06/03/88

1-40

Appendix A

FLEXIBILITY PROVISIONS

PROJECT	BUDGET FLEXIBILITY (moving monies from one Project to another)	NEW PROJECTS (establishing new Projects)	OVERRUNS (exceeding Authorized Budget)
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<p>ELECTIVE</p> <p>MULTI-CLIENT-NON-FQP</p> <p>If amount is:</p> <ul style="list-style-type: none"> • Greater than 5% with a minimum resulting value of \$2,500 or \$5,000 regardless of percent • Greater than 15% of project cost or \$1M (whichever is less) • Less than or equal to \$10M • Greater than \$10M 	<p>Not Applicable</p> <p>Not Applicable</p> <p>Written Approval of Authorized Owners' Representatives and Agreed to by Bellcore</p> <p>Board Approval</p> <p>(reference Article 6.9(a) and 6.9(c))</p> <p>Not Applicable</p>	<p>Not Applicable</p> <p>Not Applicable</p> <p>Written Approval of Authorized Owners' Representatives and Bellcore's CEO or Designee Approval</p> <p>Board Approval</p> <p>(reference Article 6.3(a) and 6.9(c))</p> <p>Written Approval by Authorized Owner Representative and Agreed to by Bellcore</p> <p>(reference Article 6.3(b))</p>	<p>Timely Written Notification and Explanation by Bellcore to Owner-Clients</p> <p>Board Approval</p> <p>Not Applicable</p> <p>Not Applicable</p> <p>(reference Article 6.9(b))</p> <p>Written Authorization by Authorized Owner Representative</p> <p>(reference Article 6.4(b))</p>
<p>CLIENT-SPECIFIC-NON-FQP</p> <ul style="list-style-type: none"> • No dollar limitations 	<p>Not Applicable</p>	<p>Written Approval by Authorized Owner Representative and Agreed to by Bellcore</p> <p>(reference Article 6.3(b))</p>	<p>Written Authorization by Authorized Owner Representative</p> <p>(reference Article 6.4(b))</p>

OVERVIEW

BELLCORE COST ACCOUNTING/ALLOCATION PROCESS

The overriding goal in developing the Cost Accounting/Allocation Process (CAAP) was to establish a procedure which would accurately report the financial status of Bellcore and equitably bill our Customers via specific work endeavors. CAAP is designed to achieve five key objectives:

1. Accurately measure all incurred costs by the "cost causers", regardless of whether it is directly or indirectly authorized by an organization.
2. Minimize the possibility of cross-subsidization by insuring that all cost streams are properly charged to the appropriate Project.
3. Establish matrix cost management control environment and provide that all incurred costs are identified by organizations and expense categories and that all billed costs are identified at a work package level by organization and expense categories.
4. Provide auditability which can be accomplished in a reasonable time frame by internal and external auditors, our Owners and regulators.
5. Insure that costs Bellcore incurs in performance of Projects are directly charged or distributed to the Projects in a manner consistent with the terms of this Service Agreement and Generally Accepted Accounting Principles.

In view of the above, Bellcore's billing process ensures that Customer bills for Projects are based on the aggregation of the actual cost streams charged to a Project/work package, and a size factor unique to each Customer, with the one exception of the Firm Quoted Price Projects. Firm Quoted Price (FQP) Projects are billed to Customers based on budget estimates. Monthly, a comparison is made between revenues and costs

of FQP Projects with the difference booked as a normalization expense adjustment to each department. At the end of the quarter, a review will be made to determine action to be taken based on the normalization amount. An explanation of the billing process is described in the Bellcore Billing and Billing Allocation Process Overview.

GAAP provides that actual cost streams are disaggregated into two major categories, Departmental Expenses and Corporate Costs. These costs are defined and charged out to Projects as explained below:

1. Departmental Expenses

Departmental Expenses are all expenditures incurred directly by an organization. These costs include all salaries and all expenditures for contracted services, purchases of materials and supplies, rentals for buildings, computers, telecommunication services and equipment, maintenance and repair of buildings and computers, utility expenses and other miscellaneous expenditures such as employee relocation costs, travel expenses, and tuition.

Departmental Expenses are disaggregated into two subcategories which are as follows:

1. External Project

An External Project is any Project undertaken for a billable Customer. External Project costs include all departmental direct expenses which are *directly* related to an External Project/work package. Salaries for all Direct Charging Professional Employees (DCPE) along with their associated departmental expenses represent the bulk of these charges.

2. Internal Project

An Internal Project is an administrative and accounting mechanism utilized to accumulate and allocate departmental costs which are not immediately chargeable to an External Project. These costs are assigned to one of three accounting pools as follows:

2.1 *Organization Support Pool*

An Organization Support Pool includes those directly incurred costs of a 5th level organization which cannot be directly assigned to its External Projects, but are indirectly associated with the development of External Projects/work packages within that 5th level organization. The Organization Support Pool also includes costs of the Vice President-Administration Support Organizations. These expenses are charged to the External Projects/work packages based on the proportion of DCPEs working on the Projects. Client Program Manager Support Internal Projects are allocated based on total External Project cost within each Client Program. Client Program Development Support Internal Projects are allocated to External Projects based on total headcount.

2.2 *Service Center Pool*

A Service Center Pool includes those costs for support functions which are performed on a centralized basis (e.g., computer processing, graphics, technical publications, secretarial and clerical, word processing, reproduction and landlord services) and can be assigned to either an External or Internal Project based on a usage measurement. Costs associated with building administration are assigned to either an External or Internal Project based on management headcount.

2.3 *Common Support Pool*

A Common Support Pool includes those costs for support functions which are performed on a centralized basis (e.g., Comptrollers, Executive, Legal, Personnel, Corporate Communications, Medical and Corporate Security Organizations) which *cannot* be assigned to an External or Internal Project based on usage. Common support costs for Comptrollers, Executive and Legal are charged to both External and Internal Projects based on Departmental Direct Cost plus Capital/Employee Related Corporate Costs and ROI. Common support costs for Personnel,

3. *Property Taxes*

Property Taxes are added to the total landlord services Service Center Pool and are charged-back on the basis of assigned square footage.

4. *Return on Investment (ROI)*

Return on Investment (ROI) includes return on equity (Net Income) and associated Federal and State Income Taxes, and interest on debt. These costs will be allocated to Common Support, Service Center and Organization Support Pools based on net assets utilized. ROI is allocated from 5th level organization support pools to External Projects based on total headcount. Net Income may be adjusted upward or downward if there is a difference in revenues and actual cost of Firm Quoted Price Projects. Monthly, this difference is normalized pending management review.

5. *Other Corporate Costs*

Other Corporate Costs include sales and use tax, insurance premiums, workers' compensation, liability claims, and corporate contributions. These costs are assigned to the Common Support, Service Center and Organization Support Pools as well as External Projects based upon total Bellcore employee headcount.

BUY-IN PROCESS

OVERVIEW:

For an Owner-Client who chooses to buy in to a Multi-Client or Client-Specific Project which is based on fully loaded costs, the buy-in procedures shall be as outlined in the example below, using actual costs as the basis for apportionment with revenue, including risk fee and interest, credited to the Participant(s) in proportion to each such funding Owner-Client's Project Cost. For an Owner-Client who chooses to buy in to a Client-Specific Project, which is based on Firm Quoted Price, or to the new Firm Quoted Price Multi-Client Project which results from the initial buy-in prior to or during the first full calendar year of the new Multi-Client Project, the same methodology shall apply, provided that: a) following the initial buy-in, the Client-Specific Project is terminated and a new Firm Quoted Price Multi-Client Project is established; b) each time a buy-in occurs, new Firm Quoted Prices are established based on the actual number of Participants and the Project's original budgeted costs, except when the addition of Participants increases costs; c) the funding Participants receive a credit which consists of the associated revenues, risk fee and interest in proportion to their respective participation.

Any buy-in to such a Project after the first full calendar year shall be handled in accordance with the provisions described below for Multi-Client Projects. For a buy-in to a Multi-Client Project based on a Firm Quoted Price where such buy-in occurs prior to or during the first full calendar year of the Project, the risk fee and interest shall be credited to the Participants in the Project in proportion to their respective participation, and the balance of the revenues shall be dealt with in accordance with Article 6.4(a)(1). For a buy-in to a Multi-Client Project based on a Firm Quoted Price where such buy-in occurs after the first full calendar year of the Project, risk fee and interest shall be credited to the Participants of the Project, in proportion to their respective participation. Revenues associated with the Firm Quoted Price(s) applicable prior to the calendar year in which the buy-in occurs shall be credited to the Participants in the Project, in proportion to their respective participation. Revenues associated with the Firm Quoted Price applicable to the calendar year in which the buy-in occurs shall be dealt with in accordance with Article 6.4(a)(1).

Revised per Board Resolution October 4, 1989

EXAMPLE:

In 1994, Owner-Client "A" decides to "buy-in" to Project XYZ, effective 1/1/95. The Project began in 1989 with Owner-Client "B", "C", "D" and "F" as Participants. Annual costs for 1989 to 1994 were \$75.00, \$60.00, \$100.00, \$150.00, \$125.00, and \$150.00, respectively, and 1% over Prime interest rates during those years were 10%, 9%, 8%, 9%, 10%, and 8%, respectively.

In calculating the buy-in price, the following calculations would be made given the assumptions:

ASSUMPTIONS:

- (1) Owner-Client "A" is allocated 20% of each year's funding.
- (2) Total annual costs will be divided into 12 amounts, each amount due at the end of the month.
- (3) Interest is compounded monthly, and starts the day payment is due.
- (4) Risk fee is 10% pursuant to Section 3.7 of the Shareholders' Agreement.

EXAMPLE (Continued)

		1989	1990	1991	1992	1993	1994	1/1/95 PRESENT WORTH	
AVERAGE ANNUAL INTEREST RATE		10%	9%	8%	9%	10%	8%	F	
ALLOCATED YEARLY COST	MONTHLY AMOUNTS	—VALUE AT END OF YEAR—							
\$15.00	\$1.25	\$15.71	\$17.18	\$18.61	\$20.35	\$22.48	\$24.35	\$24.35	
12.00	1.00		12.51	13.55	14.82	16.37	17.73	17.73	
20.00	1.67			20.75	22.70	25.07	27.15	27.15	
30.00	2.50				31.27	34.54	37.41	37.41	
25.00	2.08					26.18	28.35	28.35	
30.00	2.50						31.12	31.12	
\$132.00	= Total Allocated Yearly Costs	PRESENT WORTH OF TOTAL ALLOCATED YEARLY COSTS							\$166.11
		RISK FEE (10% OF \$166.11)							+ 16.61
		TOTAL BUY-IN AMOUNT							<u>\$182.72</u>

EXAMPLE (continued)

OWNER DISTRIBUTION OF BUY-IN MONIES

ASSUMPTIONS

- (1) Project XYZ is allocated on the basis of Allocation Factor Values using the Average of TOE/TPIS.
- (2) Following reflects each Owner-Client Allocation Factor Values in terms of Percent prior to Owner-Client "A" participating.

<u>OWNER-CLIENT</u>	<u>PERCENT</u>
B	26.3
C	24.5
D	26.1
F	<u>23.1</u>
	100.0

For Buy-in to Projects based on fully loaded costs, the credits received by each of the current Owner-Client Participants are as follows:

(1) <u>OWNER-CLIENT</u>	(2) <u>PERCENT OF TOTAL</u>	(3) <u>PRESENT WORTH OF TOTAL ALLOCATED YEARLY COSTS</u>	(4) <u>PROPORTIONATE SHARE OF CREDIT (2) x (3)</u>
B	26.3	\$166.11	\$43.69
C	24.5	166.11	40.70
D	26.1	166.11	43.35
F	<u>23.1</u>	166.11	<u>38.37</u>
TOTAL	100.00		\$166.11

For their share of the risk fee, each of the current Owner-Client Participants would receive credit of:

(1) <u>OWNER-CLIENT</u>	(2) <u>PERCENT OF TOTAL</u>	(3) <u>RISK FEE</u>	(4) <u>PROPORTIONATE SHARE OF CREDIT (2) x (3)</u>
B	26.3	\$16.61	\$4.37
C	24.5	16.61	4.07
D	26.1	16.61	4.33
F	<u>23.1</u>	16.61	<u>3.84</u>
TOTAL	100.00		\$16.61

EXAMPLE (continued)

METHODOLOGY FOR CALCULATING BUY-INS TO
 CLIENT-SPECIFIC PROJECTS SUPPORTED BY NET VENDOR CONTRIBUTION
 (\$K)

ASSUMPTIONS:

- (1) Annual Client-Specific Project Cost or FQP is \$1,000.0K for Owner-Client #1.
- (2) Owner-Client #1 provided Net Vendor Contribution Data (Column "A")
- (3) All Owner-Client Allocation Factor Values are Equal.
- (4) Owner-Client #2 is buying in.
- (5) Interest is applicable to the buy-in amount but, for this example, is not being calculated.

% OF NET VENDOR CONTRIBUTION (A)	AMOUNT OF NET VENDOR CONTRIBUTION (B) (A * 1,000K)	BUY-IN BASE OWNER #2 (C) (1,000K - B)	BUY-IN PRINCIPAL OWNER #2 (D) (50% * C)	BUY-IN RISK FEE OWNER #2 (E) (10% * D)	BUY-IN MANAGEMENT FEE OWNER #2 (F) (10% * B)	TOTAL BILLED TO OWNER #2 (G) (D + E + F)	TOTAL PAID BY OWNER #1 (H) (C - G)
(1) 0.00%	0.0	1,000.0	500.0	50.0	0.0	550.0	450.0
10.00%	100.0	900.0	450.0	45.0	10.0	505.0	395.0
20.00%	200.0	800.0	400.0	40.0	20.0	460.0	340.0
30.00%	300.0	700.0	350.0	35.0	30.0	415.0	285.0
40.00%	400.0	600.0	300.0	30.0	40.0	370.0	230.0
50.00%	500.0	500.0	250.0	25.0	50.0	325.0	175.0
60.00%	600.0	400.0	200.0	20.0	60.0	280.0	120.0
70.00%	700.0	300.0	150.0	15.0	70.0	235.0	65.0
80.00%	800.0	200.0	100.0	10.0	80.0	190.0	10.0
90.00%	900.0	100.0	50.0	5.0	90.0	145.0	(45.0)
100.00%	1,000.0	0.0	0.0	0.0	100.0	100.0	(100.0)

(1) ONLY THE APPLICABLE PERCENTAGE WOULD BE PROVIDED BY OWNER #1.
 THE ADDITIONAL PERCENTAGES ARE PROVIDED FOR EXAMPLE PURPOSE ONLY.

Revised per Board Resolution December 6, 1989

Appendix C

EXAMPLE (continued)

METHODOLOGY FOR CALCULATING BUY-INS TO
 MULTI-CLIENT PROJECT ORIGINALLY ESTABLISHED AS A CLIENT-SPECIFIC PROJECT
 SUPPORTED BY NET VENDOR CONTRIBUTION
 (\$K)

ASSUMPTIONS:

- (1) Annual Client-Specific Project Cost or FQP is \$1,000.0K for Owner-Client #1.
- (2) Owner-Client #1 provided Net Vendor Contribution Data.
- (3) All Owner-Client Allocation Factor Values are Equal.
- (4) Owner-Client #2 is a participant as a result of an earlier buy-in.
- (5) Owner-Client #3 is buying in within the first full calendar year of the project.
- (6) Net Vendor Contribution of \$400.0K.
- (7) Interest is applicable to the buy-in amount but, for this example, is not being calculated.

	Owner-Client #1 Establishes Client- Specific Project	Owner-Client #2 Buys In — Multi- Client Project Established		Owner-Client #3 Buys In At A Later Date Within 1st Calendar Year		
	O-C #1	O-C #1	O-C #2	O-C #1	O-C #2	O-C #3
Original Amt Auth	1,000.0					
Net Vendor Contribution	400.0					
Buy-In Base	600.0	600.0		600.0		
1st BUY-IN ADJUSTMENT						
Principal/Backbilling		(300.0)	300.0			
Risk Fee		(30.0)	30.0			
Management Fee		(40.0)	40.0			
Net Impact After 1st Buy-In		230.0	370.0	230.0	370.0	
2nd BUY-IN ADJUSTMENT						
Principal/Backbilling				(100.0)	(100.0)	200.0
Risk Fee				(10.0)	(10.0)	20.0
Management Fee				0.0	(20.0)	20.0
Net Impact After 2nd Buy-In				120.0	240.0	240.0

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ALLOCATION FACTOR VALUES
 DERIVATION OF 4-YEAR-AVERAGE TOE/IPIS
 BY OMB-C-11161

	1984		1985		1986		1987		4-YEAR AVERAGE TOE / IPIS (84-87-86-87/4)	
	TOE (A)	IPIS (B)	TOE (C)	IPIS (D)	TOE (E)	IPIS (F)	TOE (G)	IPIS (H)	AVERAGE TOE / IPIS (I-1-87/2)	AVERAGE TOE / IPIS (84-87-86-87/4)
NA	16.4994	15.8252	16.8305	14.9721	17.2428	14.7648	17.8120	14.9129	16.2675	16.0078
BA	14.2433	14.2327	14.8255	14.2203	14.9133	14.2165	14.8548	14.3174	14.6765	14.3658
BS	13.8597	17.8548	16.4914	17.8274	16.4127	17.8529	17.2018	17.8434	17.5263	17.0762
AM	14.2947	13.8918	14.4822	13.7569	14.1055	13.7272	14.8032	13.7281	13.8371	14.0038
SP	12.5454	12.9739	12.5598	13.0832	11.5867	13.1483	10.9147	13.1285	12.8214	12.4475
LS	12.1388	12.9891	12.1408	12.9187	12.3043	12.8783	12.1108	12.7935	12.4521	12.5326
PS	14.5207	13.2425	13.9545	13.3697	13.4235	13.4067	13.3023	13.3002	13.2511	13.5527
	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000

REVENUE CREDITING PROCESS FOR COST SHARING REVENUES RECEIVED FROM
ENTITIES OTHER THAN OWNER-CLIENTS AND THEIR AFFILIATE

The following describes the Cost Sharing Revenue Crediting procedures approved by the Board as of the effective date of the Service Agreement. Revenues realized from the provision of Projects, services or Deliverables to any entity other than the Owner-Clients or their Affiliates are treated as payments for sharing in the benefits/costs of Projects, thereby reducing the costs to respective Owner-Clients.

Where a Project is based on fully loaded costs, or if a Client-Specific Project is based on Firm Quoted Price, a four step process is used.

- (1) After the recovery of any unique costs Belcore incurs in connection with the consummation or implementation of an agreement of license with any entity other than Owner-Clients or their Affiliates, the portion of the cost-sharing revenue received from such entity which covers the portion of the Project's fully loaded costs allocated to the entity on the basis of size or usage, will be credited to the Owner-Clients funding the Projects, in proportion to each such funding Owner-Client's Project cost.
- (2) Fifty percent (50%) of the remaining portion of the cost-sharing revenue received will be credited in the same manner.
- (3) The remaining fifty percent (50%) will be credited equally to all Owner-Clients, whether or not they funded the Project, in recognition of the utilization of common assets, including human resources who possess the knowledge and expertise gained from Infrastructure Projects, reflected in the surcharge incurred by any entity other than the Owner-Client or their Affiliates participation in the Project.

- (4) Cost-sharing revenue from any entity other than Owner-Client or their Affiliates will be applied to the applicable Owner-Clients' cost each month.

Where a Multi-Client Project is based on Firm Quoted Price, anticipated revenue credits described in (1) and (2) above are a part of other pertinent data considered in determining the Firm Quoted Price. Therefore, as actual revenues from any entity other than Owner-Clients and their Affiliates are received for such a Project, these portions of such revenues are applied to directly offset Bellcore's costs for the Project, and any difference between the Firm Quoted Price and the adjusted costs are reflected in Bellcore's net income. The remaining portion of any such revenue is credited to all Owner-Clients as discussed in (3) above.

Where a Client-Specific Project is supported by Net Vendor Contribution, the following illustrates the methodology to be utilized for the distribution of revenues realized from the provision of services or Deliverables of a Project to any entity other than Owner-Clients or their Affiliates.

between parties

Revised per Board Resolution December 6, 1989

Page 2 of 3

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REVENUE CREDITING DISTRIBUTION
 WHERE NET VENDOR CONTRIBUTION IS INVOLVED
 (Dollars in Millions)

ASSUMPTIONS

Client-Specific Project Cost	=	\$10.000
Total Revenue from Non-Affiliate	=	\$ 1.420
Size Related Cost (\$10.000 x 10%)	=	1.000
Market Value/Mark-up (42% x 1.000)	=	\$.420

Based on Net Vendor Contribution of 70%
 \$.700 of the \$1.000 size portion is
 returned to the Owner-Clients and 70% of the
 mark-up portion or \$.294 is returned
 to the Owner-Clients.

SUMMARY

<u>Revenue Source</u>	<u>FUNDER</u>	<u>+</u>	<u>OWNER</u>	<u>(x 6)</u>	<u>=</u>	<u>TOTAL</u>
Size Portion						
70% of Size Portion Returned to all Owner-Clients	\$.100		\$.100	(\$.600)		\$.700
30% of Size Portion Returned to Funder	\$.300		-			\$.300
TOTAL	<u>\$.400</u>		<u>\$.100</u>	<u>(\$.600)</u>		<u>\$1.000</u>
<u>Mark-up Portion</u>						
70% of Mark-up Returned to all Owner-Clients	\$.042		\$.042	(\$.252)		\$.294
Remaining 30% is split 50/50 between Funder and Owner-Clients	\$.063 \$.009		- \$.009	(\$.054)		\$.063 \$.063
TOTAL	<u>\$.114</u>		<u>\$.051</u>	<u>(\$.306)</u>		<u>\$.420</u>
TOTAL REVENUE DISTRIB.	<u><u>\$.514</u></u>		<u><u>\$.151</u></u>	<u><u>(\$.906)</u></u>		<u><u>\$1.420</u></u>

Revised per Board Resolution December 6, 1989

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TOTAL REVENUE DISTRIB.	\$.514		\$.151	(\$.906)		\$1.420

Revised per Board Resolution December 6, 1989

NOTICES

For Ameritech Services, Inc.:
Ms. J. F. Woods
Vice President - Finance & Administration
Ameritech Services, Inc.
1900 E. Golf Road, Floor 10
Schaumburg, IL 60173

(708) 605-3637

For Bell Atlantic Network Services, Inc.:
Mr. D. L. Myers
Managing Director - Bellcore Administration
Bell Atlantic Network Services, Inc.
1310 N. Court House Road, Floor 3
Arlington, VA 22201

(703) 974-8025

For BellSouth Services Incorporated:
Mr. J. L. Wilson
Director - Regulatory Affairs
BellSouth Services, Inc.
South E4E2, 3535 Colonnade Parkway
Birmingham, AL 35243

(205) 977-1570

For NYNEX Service Company:
Mr. T. E. O'Brien
Director - Financial Assurance
NYNEX Service Company
120 Bloomingdale Road, Room 443
White Plains, NY 10605

(914) 683-3458

For Pacific Bell:
Mr. M. E. King, Jr.
Vice President - Planning
Pacific Bell
2600 Camino Ramon, Room 3CN100
San Ramon, CA 94583

(415) 823-8565

For Southwestern Bell Telephone Company:
Ms. B. J. Adkins
District Manager - Bellcore Administration
Southwestern Bell Telephone Company
1010 Pine Street, Room 2010
St. Louis, MO 63101

(314) 331-2602

For U S WEST Advanced Technologies, Inc.:
Ms. N. T. Robinson
Technical Director - Bellcore Alliance
US West Advanced Technologies, Inc.
6200 S. Quebec, Suite 430
Englewood, CO 80111

(303) 740-4492

For Bell Communications Research, Inc.:
Mr. E. M. Bookrajian
Division Manager
Contract Administration & Billing
Bell Communications Research, Inc.
290 W. Mt. Pleasant Avenue
Room 3B141
Livingston, NJ 07039

(201) 740-3150

The following resolutions were adopted by the Bellcore Board of Directors on January 6, 1988:

RESOLVED: that, as required by the resolutions of this Board at its December 2, 1987 meeting, unanimous authorization be, and hereby is, given for the revised Service Agreement and the amended Shareholders' Agreement to become effective as of January 1, 1988; and

RESOLVED: that simultaneously with its acknowledgement and commencement of work on a project (or on a material change in an authorized project) subject to an Access Period, as defined in Article 6.8(a)(1) of the revised Service Agreement, the Corporation shall provide to all shareholder companies a generic description of such project, containing sufficient specificity for all shareholder companies to determine that the project is an Authorized Activity under the amended Shareholders' Agreement and that the project does not materially and adversely affect any company's rights as an owner of the Corporation; and

RESOLVED: that the ownership of all intellectual properties resulting from work product created or caused to be created by the Corporation shall reside with the Corporation; and the Corporation shall not grant exclusive licenses to any of its work; and

RESOLVED: that any disagreements with respect to whether the Corporation should perform a project subject to an Access Period, as defined in Article 6.8(a)(1) of the revised Service Agreement, or with respect to whether other shareholder companies shall be allowed to participate in such a project shall be submitted to and resolved by this Board, provided, that any such disagreement shall be submitted to the Corporation by any shareholder company within 90 days from the date such company has received a description of the affected project; and

RESOLVED: that the President and Chief Executive Officer by, and hereby is, authorized to prepare and deliver on behalf of the Corporation revised page(s) to the amended Shareholders' Agreement reflecting the 90 day provision described in the foregoing resolution; and

RESOLVED: that the Corporation shall not be authorized to act in any manner inconsistent with the foregoing series of five (5) resolutions unless, and only to the extent that, such resolutions are amended or repealed with the unanimous consent of all of the Directors of this Board.

These resolutions will be attached to the certified copies of the Service Agreement.

Bellcore TEC

BELLCORE TEC AGREEMENT - TABLE OF CONTENTS

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Attachment A - Bellcore TEC 1988 Licensing Algorithms

Schedule I - Addresses for Notices and Demands

BELLCORE TEC AGREEMENT

THIS AGREEMENT is entered into as of January 1, 1986, and amended as of January 1, 1988, among the following entities which are Bell Communications Research, Inc. (hereinafter referred to as "Bellcore") and Ameritech Services, Inc.; Bell Atlantic Network Services, Inc.; BellSouth Services Incorporated; NYNEX Service Company; Pacific Bell; US WEST Advanced Technologies, Inc., as agent for The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company, and Pacific Northwest Bell Telephone Company, and Southwestern Bell Telephone Company (hereinafter collectively referred to as "Regional Companies" and individually as a "Regional Company");

WHEREAS, the Regional Companies and their affiliated Operating Telephone Companies (hereinafter referred to as the "OTCs") desire to obtain the education and training services of Bellcore through Bell Communications Research Technical Education Center (hereinafter referred to as "Bellcore TEC") and Bellcore desires to provide the services to the Regional Companies and their affiliated OTCs;

NOW, THEREFORE, in consideration of the terms and conditions contained herein, the parties to this Agreement hereby agree as follows:

Section 1. - Definitions

- (a) "AGGREGATE FINANCIAL OBLIGATION" is the sum of tuition rates, excluding room and board, for committed BELLCORE TEC COURSE seats for a Regional Company, including its affiliated OTCs that results from the DEMAND SOLICITATION process.
- (b) "COUNCIL" is the governance council or councils, as determined by the Bellcore Board of Directors, which is comprised of an officer level representative from each Regional Company, as set forth in section 5.2 of the Service Agreement. Included in its responsibility is overseeing the functions and activities of Bellcore TEC.

- (c) "BELLCORE TEC COURSES" are training and educational programs that are developed and/or delivered by or under the auspices of Bellcore TEC.
- (d) "COURSE RELATED MATERIALS" include books, course documents, course outlines, computer software, computer time and any other related miscellaneous materials.
- (e) "DEMAND SOLICITATION" is the process by which Bellcore TEC announces BELLCORE TEC COURSES being offered and pursuant to which each Regional Company commits to an AGGREGATE FINANCIAL OBLIGATION for the applicable FINANCIAL OBLIGATION PERIOD.
- (f) "ELECTIVE PROJECTS" are any Projects performed by Bellcore, as defined in Section 1.10(b) of the SERVICE AGREEMENT.
- (g) "FINANCIAL OBLIGATION PERIOD" refers to the specified period of time for which an AGGREGATE FINANCIAL OBLIGATION has been established.
- (h) "IPA" (INTELLECTUAL PROPERTY AGREEMENT) means the IPA among Bell Communications Research, Inc., Ameritech Services, Inc., Bell Atlantic Management Services, Inc., BellSouth Services Incorporated, NYNEX Service Company, Pacific Bell, Southwestern Bell Telephone Company, and Bell Tri-Co Services Company, (a partnership composed of The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company, and Pacific Northwest Bell Telephone Company), effective as of January 1, 1984, as amended from time to time. The IPA applies to BELLCORE TEC COURSES which have been or will be developed as Projects funded under the SERVICE AGREEMENT or its predecessor agreement, where the stated deliverable was or is the development of a BELLCORE TEC COURSE.
- (i) "NEW COURSES" are any BELLCORE TEC COURSES offered that are not included in the original DEMAND SOLICITATION listing.

- (j) "NEW COURSE DEMAND LETTER" is correspondence sent to the Regional Companies and their affiliated OTCs requesting a forecast of seats for specific courses.
- (k) "SERVICE AGREEMENT" means the Service Agreement among Bell Communications Research, Inc., Ameritech Services, Inc., Bell Atlantic Network Services, Inc., BellSouth Services Incorporated, NYNEX Service Company, Pacific Bell, US WEST Advanced Technologies, Inc., as agent for The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company and Pacific Northwest Bell Telephone Company, and Southwestern Bell Telephone Company, effective as of January 1, 1988, as amended from time to time.
- (l) "SHAREHOLDERS' AGREEMENT" means the Shareholders' Agreement among Bell Communications Research, Inc., Ameritech Services, Inc., Bell Atlantic Network Services, Inc., BellSouth Services Incorporated, NYNEX Service Company, Pacific Bell, The Mountain States Telephone and Telegraph Company, Northwestern Bell Telephone Company, Pacific Northwest Bell Telephone Company and Southwestern Bell Telephone Company, dated as of October 2, 1984, amended as of January 1, 1988 and as further amended from time to time.
- (m) "SPECIAL COURSES" are BELLCORE TEC COURSES which are provided by Bellcore TEC or its contractors which have unique cost considerations associated with them.
- (n) "STAND-BY SEATS" are course seats which are requested after a BELLCORE TEC COURSE is filled to capacity.
- (o) "SUPPLEMENTAL STUDENT WEEKS" are STUDENT WEEKS (a measurement used by Bellcore TEC equal to one course seat for one week) which result from (1) a NEW COURSE solicitation announcement (2) the addition of a BELLCORE TEC COURSE to the course schedule.
- (p) "TIER PRICE" means a price charged for a BELLCORE TEC COURSE. A TIER

PRICE includes (1) the cost of delivering a BELLCORE TEC COURSE, (which varies according to instructor cost, laboratory expenses, licensing fees and COURSE RELATED MATERIALS cost, (2) a portion of the total annual course development program, plus (3) weekly room and board as appropriate. Rates will be determined as defined in Section 6.1 of this Agreement.

Section 2. - Scope of Agreement

This Agreement applies to course delivery, course development and the provision of materials and services to the Regional Companies and their affiliated OTCs, as well as associated tuition rates, cost recovery considerations, ownership rights to BELLCORE TEC COURSES, rights to use COURSE RELATED MATERIALS and rights to attend BELLCORE TEC COURSES which have been, are presently being or will be developed and/or delivered by Bellcore TEC.

Section 3. - Term of Agreement

This Agreement shall commence January 1, 1986, and shall remain in force until at least three Regional Companies have given written notice of withdrawal and withdrawal is effective, as set forth in Section 8 of this Agreement.

Section 4. - Development and Delivery Terms and Conditions

Bellcore, through Bellcore TEC, agrees to develop and/or deliver BELLCORE TEC COURSES and to license to the Regional Companies and their affiliated OTCs, certain information, services or materials relating to such BELLCORE TEC COURSES.

4.1 Description of Bellcore TEC Services

- (a) Based upon the needs of the Regional Companies as expressed through the council and forum process and the DEMAND SOLICITATION process, Bellcore TEC will deliver

BELLCORE TEC COURSES to the Regional Companies and their affiliated OTCs at its facility in Lisle, Illinois or at any other location as determined by Bellcore TEC administration. Bellcore TEC will provide the instruction, space, COURSE RELATED MATERIALS, and room and board, as appropriate, for each BELLCORE TEC COURSE.

- (b) Based upon the needs of the Regional Companies as expressed through the council and forum process, Bellcore TEC will develop NEW COURSES and maintain and update existing BELLCORE TEC COURSES for the Regional Companies and their affiliated OTCs as determined by Bellcore TEC administration. Bellcore TEC will also determine the overall nature of the Bellcore TEC curricula with the for BELLCORE TEC COURSES in accordance with advisory assistance of various forums and with the concurrence of the COUNCIL.

4.2 Participation in Courses

- (a) Bellcore TEC shall solicit and allocate seats for BELLCORE TEC COURSES in accordance with the published schedule for each FINANCIAL OBLIGATION PERIOD. Regional Companies and their affiliated OTCs will confirm, with financial obligation, allocated seats for specific BELLCORE TEC COURSE session dates. The TIER PRICES for all seats which are confirmed by a Regional Company or its affiliated OTC(s) and allocated by Bellcore TEC to that Regional Company or its affiliated OTC(s) will be translated into an AGGREGATE FINANCIAL OBLIGATION for that Regional Company for that FINANCIAL OBLIGATION PERIOD. Bellcore TEC will provide the capability to the Regional Companies to obtain reports which will enable each Regional Company to determine its AGGREGATE FINANCIAL OBLIGATION status. Each Regional Company shall compensate Bellcore TEC in an amount not less than the AGGREGATE FINANCIAL OBLIGATION in accordance with the provisions of Sections 6 and 7.

- (i) Bellcore TEC shall publicize the schedule for the DEMAND SOLICITATION process to the Regional Companies. The schedule shall include the date(s) on which the list of BELLCORE TEC COURSES will be distributed, the date(s) TIER PRICES will be available (which will be a reasonable time period prior to the date the AGGREGATE FINANCIAL OBLIGATION will be established), and the date(s) after which time the AGGREGATE FINANCIAL OBLIGATIONS will be final.
- (ii) At any time prior to the start date of a BELLCORE TEC COURSE session a Regional Company or its affiliated OTC may increase the number of its personnel attending one or more BELLCORE TEC COURSE sessions, including new sessions for existing BELLCORE TEC COURSES. Tuition paid for the increased number of BELLCORE TEC COURSE seats shall be credited to the AGGREGATE FINANCIAL OBLIGATION if the BELLCORE TEC COURSE was available for selection at the time of the DEMAND SOLICITATION for that FINANCIAL OBLIGATION PERIOD.
- (iii) Not less than six (6) weeks prior to the start date of a BELLCORE TEC COURSE session, a Regional Company or its affiliated OTCs may cancel one or more seats in any BELLCORE TEC COURSE session. Such a cancellation, however, will in no way decrease the AGGREGATE FINANCIAL OBLIGATION. The financial obligation with respect to the cancelled seats may nevertheless be satisfied in whole or part by increasing the commitment for seats in other BELLCORE TEC COURSES as provided for and allowed by Section 4.2(a)(ii) hereinabove.
- (iv) Within six weeks or less before the start date of a BELLCORE TEC COURSE session, a Regional Company or its affiliated OTC(s) may cancel one or more seats in any BELLCORE TEC COURSE and Bellcore TEC shall endeavor to fill such seat(s). If Bellcore TEC is unable to fill that specific cancelled seat(s) with

another student(s) prior to the start date of the BELLCORE TEC COURSE session, the Regional Company will be charged for that BELLCORE TEC COURSE seat(s) minus an allowance for room and board, as applicable. If Bellcore TEC is able to fill that specific cancelled seat(s) with another student(s), the AGGREGATE FINANCIAL OBLIGATION shall not be decreased but the financial obligation with respect to that cancelled seat may nevertheless be satisfied in whole or in part by increasing the commitment for seats in other BELLCORE TEC COURSES as provided for and allowed by Section 4.2(a)(ii) hereinabove.

- (v) If, at any time prior to the delivery of a scheduled BELLCORE TEC COURSE, Bellcore TEC cancels a session, changes the dates of a session, increases the length of a session or increases the costs of a session, except as noted in Section 4.2(c), the Regional Company or its OTC may (1) move the seat to another session of the same BELLCORE TEC COURSE, if in the same AGGREGATE FINANCIAL OBLIGATION PERIOD, (2) move the seat to another BELLCORE TEC COURSE contained in the DEMAND SOLICITATION list for that FINANCIAL OBLIGATION PERIOD, or (3) cancel the seat and reduce the AGGREGATE FINANCIAL OBLIGATION for that Regional Company or its affiliated OTCs.
- (vi) Bellcore TEC may at any time prior to delivery of a scheduled BELLCORE TEC COURSE reduce the TIER PRICE. Such a change will be reflected in the AGGREGATE FINANCIAL OBLIGATION.
- (vii) From time to time, NEW COURSES may be added to the course delivery schedule. Regional Companies or their affiliated OTCs which register for these NEW COURSES and associated sessions will be charged tuition at the prevailing TIER PRICE. These resulting SUPPLEMENTAL STUDENT WEEKS and charges are not included in, and will in no way increase nor be applied towards, the original AGGREGATE FINANCIAL OBLIGATION for the current

FINANCIAL OBLIGATION PERIOD. Unless Bellcore TEC is notified of a seat cancellation at least six (6) weeks prior to the start date of the NEW COURSE session (except for the initial session of a NEW COURSE) the Regional Company will be charged for that seat as specified above. There is no charge for cancellation of a NEW COURSE seat prior to six weeks before the start date of the NEW COURSE. For the initial session of a NEW COURSE, the commitment will be as set forth in the NEW COURSE DEMAND LETTER.

- (b) In order to stimulate early commitment, starting January 1, 1987, a reduction of the delivery component of the TIER PRICES established and publicized for that DEMAND SOLICITATION period will be applied as appropriate to the specific BELLCORE TEC COURSE seats financially committed to by a Regional Company and its affiliated OTCs during that DEMAND SOLICITATION period and subsequently billed. This discount and its applications are to be reviewed at least annually by the COUNCIL, with input from Bellcore TEC administration.
- (i) The discount shall not apply where Regional Companies or their affiliated OTCs change BELLCORE TEC COURSES after the DEMAND SOLICITATION period; however, the discount shall apply to changes between sessions of the same BELLCORE TEC COURSE in the same FINANCIAL OBLIGATION PERIOD.
 - (ii) With respect to discounted seats, where Bellcore TEC cancels a session, changes the dates of a session, increases the length of a session or increases the cost of a session except as noted in Section 4.2(c), the Regional Company or its affiliated OTC may:
 - (1) move the discounted seat to another session of the same BELLCORE TEC COURSE in the same FINANCIAL OBLIGATION PERIOD.
 - (2) move the discounted seat to another BELLCORE TEC COURSE contained

in the DEMAND SOLICITATION list for that FINANCIAL OBLIGATION PERIOD, or

(3) cancel the seat and reduce the AGGREGATE FINANCIAL OBLIGATION for that Regional Company.

(iii) The discount shall also apply to an unmet demand by a Regional Company or its affiliated OTC for a BELLCORE TEC COURSE seat submitted during the DEMAND SOLICITATION period which results in STAND-BY SEATS. If the unmet demand of a Regional Company or its affiliated OTC is subsequently met, the AGGREGATE FINANCIAL OBLIGATION of that Regional Company or its affiliated OTC is increased accordingly.

(iv) The discount shall not apply to BELLCORE TEC COURSE seats which are added after the DEMAND SOLICITATION period, except as set forth in Section 4.2(b)(iii) above.

(c) As authorized by the COUNCIL Bellcore TEC may increase or decrease BELLCORE TEC COURSE TIER PRICES (and consequently AGGREGATE FINANCIAL OBLIGATION dollars) up to a maximum of five percent (5%) during any current FINANCIAL OBLIGATION PERIOD and up to a maximum of ten percent (10%), in the subsequent FINANCIAL OBLIGATION PERIOD.

(d) In the event costs for a particular BELLCORE TEC COURSE increase or decrease prior to its delivery, Bellcore TEC may also increase or decrease the tuition rate for any BELLCORE TEC COURSE by moving a BELLCORE TEC COURSE to a higher or lower TIER PRICE with a concurrent adjustment to the AGGREGATE FINANCIAL OBLIGATION. In the event of an increase in the tuition rate, a Regional Company may cancel the affected BELLCORE TEC COURSE seats and reduce their AGGREGATE FINANCIAL OBLIGATION by the amount of the original TIER PRICE.

- (e) Since the products of a non-Belcore TEC Project funded under the SERVICE AGREEMENT may be obtained through training on that subject, where a BELLCORE TEC COURSE offered by Belcore TEC originates from a Belcore ELECTIVE PROJECT, a Regional Company which did not fund such ELECTIVE PROJECT will not be permitted to participate in the BELLCORE TEC COURSE unless the Regional Company buys into the Project provided for in the SHAREHOLDERS' AGREEMENT and the SERVICE AGREEMENT.

Section 5. - Ownership of and Rights to Belcore TEC Courses

- (a) Belcore shall own all BELLCORE TEC COURSES developed or acquired by Belcore TEC. No Regional Company or OTC shall have the right to the use of any COURSE RELATED MATERIALS, except as specified below except in connection with attendance at BELLCORE TEC COURSES.
- (b) The foregoing notwithstanding, the IPA shall govern the right to use BELLCORE TEC COURSES which have been or will be developed as Projects funded under the SERVICE AGREEMENT or its predecessor agreement, where the stated deliverable was or is the development of the BELLCORE TEC COURSE. In such cases, COURSE RELATED MATERIALS shall be provided to Regional Companies which were or are funding such Projects or their affiliated OTCs upon request, at the cost of provision by Belcore TEC, provided that, as to BELLCORE TEC COURSES developed prior to January 1, 1986, the COURSE RELATED MATERIALS to be furnished shall be only such materials as they existed on January 1, 1986, and to the extent they are still available.
- (c) Belcore TEC may designate as available for licensing to the Regional Companies and their affiliated OTCs those BELLCORE TEC COURSES which were developed or maintained after January 1, 1986. The terms of licensing for those designated

BELLCORE TEC COURSES shall be based upon procedures established by the COUNCIL.

- (d) The participation in a BELLCORE TEC COURSE, the payment of tuition, the acquisition of COURSE RELATED MATERIALS, the payment of any underrecovery or receipt of an overrecovery of funds does not entitle a Regional Company or OTC to any ownership or licensing rights to such BELLCORE TEC COURSES under the IPA or otherwise.

Section 6. - *Billing and Payment*

6.1 Tier Prices

- (a) Bellcore will determine the cost components for each BELLCORE TEC COURSE. A cost for development of BELLCORE TEC COURSES and a cost for maintenance of existing BELLCORE TEC COURSES will be added to the delivery costs and room and board costs to determine the TIER PRICE to be charged to the Regional Companies for a particular BELLCORE TEC COURSE committed to or attended. The funds obtained from the development cost component will contribute to the overall development and/or maintenance of BELLCORE TEC COURSES as administered by Bellcore TEC. The development cost component shall not contain any development costs previously charged to and paid for by Regional Companies in the funding of a pre-1986 project.
- (b) Bellcore TEC shall advise the Regional Companies of the tuition rate for those SPECIAL COURSES which are not priced under the TIER PRICE system in the DEMAND SOLICITATION schedule.

6.2 Licensing Charges

Bellcore will determine the cost components and charges for designated COURSE RELATED MATERIALS which may be licensed to a Regional Company or OTC. The pricing algorithm(s) for the :

licensing charge shall include a component consisting of compensation for the development program at Bellcore TEC. The pricing algorithm(s) for 1986, as set forth in Attachment A, have been approved by the COUNCIL. The algorithms shall be reviewed at least annually by Bellcore TEC and the COUNCIL and updated and distributed to all parties as appropriate.

6.3 Payment for Courses and Licensing Charges

Regional Companies will be billed monthly. Such billing will be based on the number of seats in each course for which the Regional Company and any of its affiliated OTCs attended or was financially obligated but has not attended. Such billing may also include licensing charges identified in Section 6.2. Regional Companies agree to pay Bellcore the charges indicated on each bill within thirty (30) days after receipt of each bill.

6.4 Aggregate Financial Obligation Billing Adjustment

At calendar year end, a billing adjustment will be made based upon the AGGREGATE FINANCIAL OBLIGATION for each FINANCIAL OBLIGATION PERIOD during that year and the relevant amounts billed to each Regional Company. A bill will be rendered to each Regional Company in accordance with the procedures set forth in Section 6.3 for the difference no later than March 31 of the following year.

Section 7. - *Underrecovery and Overrecovery of Funds*

- (a) Not later than November 30 of each year, Bellcore shall review the current year's actual Bellcore TEC costs incurred and revenues pursuant to this Agreement. Bellcore shall determine if a variance exists and shall act in accordance with the provisions of this section.
- (b) In the event the Bellcore TEC revenues paid pursuant to this Agreement (which includes all revenues received by Bellcore TEC, except for revenues attributed to ELECTIVE

PROJECTS funded under the SERVICE AGREEMENT) do not provide enough funding to meet Bellcore TEC costs incurred pursuant to this Agreement (which include all costs of Bellcore TEC, excluding costs attributable to ELECTIVE PROJECTS funded under the SERVICE AGREEMENT), the participants to this Agreement will share the funding of the underrecovery of those costs on an equal (1/n) basis regardless of usage and other costs committed and paid for by each participating Regional Company. This will be billed to each participating Regional Company in the December billing cycle.

- (c) Notwithstanding Sections 7(a) and 7(b) above, during the first quarter, Bellcore shall make a final adjustment of billing residuals from the previous year based upon the previous year's total actual Bellcore TEC costs incurred and revenues and amounts billed to each Regional Company as set forth in Section 7.5 of the SERVICE AGREEMENT.
- (d) In the event the Bellcore TEC revenues provide excess funds after meeting Bellcore TEC costs, the COUNCIL will recommend the manner of disposition, annually, of those excess funds to the Board of Directors. Upon notification of the decision of the Board of Directors, Bellcore will implement the chosen course of action regarding those funds.

Section 8. - *Withdrawal of Participation*

A Regional Company may withdraw from the Bellcore TEC Agreement at the end of any calendar year by giving Bellcore thirty (30) months prior written notice of its intent to withdraw. During the notice period but prior to actual withdrawal, a Regional Company which has given such notice shall be liable for any and all charges in accordance with this Agreement plus any pro rata share of underrecovery as described in Section 7.

8.1 Conditions Upon Withdrawal

- (a) A Regional Company which has given thirty (30) months written notice prior to actual withdrawal and has withdrawn from this Agreement and which desires to attend BELLCORE TEC COURSES will, after the time of actual withdrawal, be charged the prevailing rate for participants in this Agreement plus a surcharge rate to be determined by the COUNCIL.
- (b) A Regional Company which has withdrawn from this Agreement, and its OTCs, will not be granted the privileges of a participant in this Agreement for purposes of registration, seat allocation, availability of courses and licensing. The specific treatment of a Regional Company which has withdrawn from this Agreement shall be determined by Bellcore TEC and the COUNCIL.
- (c) (i) Regional Companies may renew participation in this Agreement in the manner contemplated by Section 3.7 of the SHAREHOLDERS' AGREEMENT for "Buy-In" to an ELECTIVE PROJECT, upon written notice to Bellcore of its intent to do so. The following example illustrates such a "Buy-In":

EXAMPLE:

In 1990, Region A, having previously withdrawn from participation at the end of 1988, decides to renew participation in this Agreement, effective 1/1/91. Bellcore TEC has underrecovery in 1989 with Regions B, C, D, and F as current participants in this Agreement. Underrecovery costs for 1989 were \$75K and \$0 in 1990; development/maintenance expenses for 1989 and 1990 were \$13,000K and \$14,000K respectively; and average annual Short Term Treasury Bill interest rates during those years were 10% and 9% respectively.

In calculating the subsequent participation price, the following calculations would be made given the ASSUMPTIONS:

- (1) Total annual underrecovery costs, as well as total annual development/maintenance expenses, will be divided equally into 1/n amounts among the participating Regional Companies and the Regional Company renewing participation, each amount due by the end of the first month of each subsequent year's 1st quarter.
- (2) Interest is compounded annually, beginning the first day the Regional Company is a non-participant (i.e., 1/1/year not a participant).
- (3) Risk fee is 10% pursuant to Section 3.7 of the SHAREHOLDERS' AGREEMENT.

	1989	1990	1/1/91 PRESENT WORTH
AVERAGE ANNUAL INTEREST RATE	10%	9%	
ALLOCATED YEARLY UNDERRECOVERY COST AND DEV./MTC. EXP.	VALUE AT END OF YEAR		
\$2,615.0K* (1989)	\$2,876.5K	\$3,135.4K	\$3,135.4K
\$2,800.0K** (1990)	-	\$3,052.0K	\$3,052.0K
\$5,415.0K = Total Allocated Under-recovery and Dev./Mtc. Expense	<ul style="list-style-type: none"> • PRESENT WORTH OF TOTAL ALLOCATED COSTS • RISK FEE (10% of \$5,415.0K) • TOTAL SUBSEQUENT PARTICIPATION AMOUNT 		<hr/> \$6,187.4K + \$541.5K <hr/> \$6,728.9K
• $\frac{\$13,075K}{5} = \$2,615$ (1989)	• $\frac{\$14,000K}{5} = \$2,800$ (1990)		

(ii) Any revenues realized from such subsequent participation by the renewing Regional Company shall be credited on a proportionate basis (1/n) to the Regional Companies currently participating in this Agreement at the time of such renewed participation.

to change its designated address, it may do so by written notification to all of the other parties. Any such notice shall be deemed delivered when postmarked.

9.4 Severability

If any provision or portion of a provision of this Agreement shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and the remaining terms shall continue in effect and be binding on the parties, provided, that such holding of invalidity or unenforceability does not materially affect the essence of the Agreement. If any party is prevented from performing any of the provisions of this Agreement by any governmental order, judicial decree, regulation, Force Majeure Condition, as defined in Section 8.8 of the SERVICE AGREEMENT (except for failure to perform caused by a labor strike, which failure shall be reviewed by the COUNCIL and obligations determined by the COUNCIL), or statute, it will be relieved of its obligation to perform that provision which it is prevented from performing, and the remaining terms shall continue in effect and be binding on the parties provided that any such change does not materially affect the essence of this Agreement.

9.5 Assignment

- (a) A Regional Company shall not have the right to assign, transfer or sell any rights acquired under this Agreement, or to delegate its obligations hereunder, without the prior written consent of Bellcore, except as provided in sub-paragraph (b) hereof. Bellcore may not assign its rights and/or delegate its obligations to perform under this Agreement without the prior written consent of all participating Regional Companies.
- (b) Without Bellcore's consent, each Regional Company may assign its rights under this Agreement to any of its Related Entities, as that term is defined in Section 1.5 of the SHAREHOLDERS' AGREEMENT. The Regional Company shall notify Bellcore in writing in a timely manner of such assignment and such assignment shall only be effective upon the assumption of the assignor's obligations hereunder by the assignee.

Upon effectiveness, the assignee under any such assignment shall assume all of the rights and obligations of the assigning party.

9.6 Executed in Counterparts

This Agreement may be executed in any number of counterparts, each of which shall be an original; but such counterparts shall together constitute but one and the same instrument.

9.7 Headings

The headings in this Agreement are for convenience only and shall not be construed to define or limit any of the terms herein or affect the meaning or interpretation of this Agreement.

9.8 Governing Law

This Agreement is to be governed by and interpreted under the laws of the State of New Jersey.

9.9 Controlling Agreement

- (a) In the event that and to the extent that the provisions of the SHAREHOLDERS' AGREEMENT conflict with the terms of this Agreement, the provisions of the SHAREHOLDERS' AGREEMENT shall control.
- (b) In the event that and to the extent that the provisions of the SERVICE AGREEMENT conflict with the terms of this Agreement, the provisions of this Agreement shall control.
- (c) To the extent not contradicted by express provisions herein and recognizing that the word "Project," as used in the Service Agreement, should be read as "development, delivery and licensing of BELLCORE TEC COURSES," the words "Owner-Client," as used in the Service Agreement, should be read as "Regional Company" and the words "SERVICE AGREEMENT," as used therein, should be read as "Bellcore TEC

COMPANY: BST
 TITLE: ANALYSIS OF REG/NON-REG ACCOUNT 2231
 TEST YEAR: 1992
 AUDITOR: K. WELCH
 DATE: AUGUST 19, 1993
 WORKPAPER #

MONTH	FLORIDA		REGULATED					TOTAL	
	67C CP01-03	67C CP01-04	167C CP01	527C CP01	567C CP01-03	567C CP01-04	67C CP02	REGULATED	TOTAL
JANUARY	889,250.34	697,401.89	7,734,521.09	7,486.48	8,546.20	6,702.44	12,047.82	9,355,956.26	
FEBRUARY	891,506.07	688,996.31	7,666,680.13	7,381.03	8,480.07	6,553.80	14,195.48	9,283,792.89	
MARCH	939,030.72	671,452.22	7,659,611.76	7,275.58	8,640.63	6,178.47	16,050.00	9,308,240.18	
APRIL	934,078.13	654,201.66	7,664,676.43	7,170.13	8,588.90	6,015.43	17,255.84	9,291,986.52	
MAY	929,176.84	649,990.69	7,707,346.60	7,064.68	8,466.76	5,922.80	355,738.89	9,663,707.26	
JUNE	927,916.63	651,250.90	7,729,817.67	6,959.23	8,329.08	5,845.71	18,481.36	9,348,600.58	
JULY	927,608.39	657,745.89	7,731,837.32	6,853.78	8,168.16	5,791.86	21,289.21	9,359,294.61	
AUGUST	902,429.79	636,405.80	7,740,799.70	6,748.33	8,060.72	5,684.53	52,490.92	9,352,610.79	
SEPTEMBER	939,073.12	625,152.53	8,484,150.78	6,642.88	8,122.93	5,407.55	391,553.14	10,460,102.93	
OCTOBER	937,645.61	626,559.29	8,664,267.02	6,537.43	7,991.95	5,333.76	393,582.97	10,641,908.03	
NOVEMBER	778,425.85	517,029.35	4,225,489.49	6,431.98	7,872.22	5,228.72	402,684.32	5,943,161.93	
DECEMBER	638,077.96	433,646.96	4,478,751.98	6,326.53	7,672.10	5,214.07	274,033.10	5,843,722.70	

MONTH	NON-REG		TOTAL					TOTAL	
	67C CP01-03	67C CP01-04	167C CP01	527C CP01	567C CP01-03	567C CP01-04	67C CP02	NON-REG	TOTAL
JANUARY									0.00
FEBRUARY									0.00
MARCH									0.00
APRIL									0.00
MAY									0.00
JUNE									0.00
JULY									0.00
AUGUST									0.00
SEPTEMBER									0.00
OCTOBER									0.00
NOVEMBER									0.00
DECEMBER									0.00

MONTH	TOTAL		TOTAL					TOTAL	
	67C CP01-03	67C CP01-04	167C CP01	527C CP01	567C CP01-03	567C CP01-04	67C CP02	TOTAL	TOTAL
JANUARY	889,250.34	697,401.89	7,734,521.09	7,486.48	8,546.20	6,702.44	12,047.82	9,355,956.26	
FEBRUARY	891,506.07	688,996.31	7,666,680.13	7,381.03	8,480.07	6,553.80	14,195.48	9,283,792.89	
MARCH	939,030.72	671,452.22	7,659,611.76	7,275.58	8,640.63	6,178.47	16,050.00	9,308,240.18	
APRIL	934,078.13	654,201.66	7,664,676.43	7,170.13	8,588.90	6,015.43	17,255.84	9,291,986.52	
MAY	929,176.84	649,990.69	7,707,346.60	7,064.68	8,466.76	5,922.80	355,738.89	9,663,707.26	
JUNE	927,916.63	651,250.90	7,729,817.67	6,959.23	8,329.08	5,845.71	18,481.36	9,348,600.58	
JULY	927,608.39	657,745.89	7,731,837.32	6,853.78	8,168.16	5,791.86	21,289.21	9,359,294.61	
AUGUST	902,429.79	636,405.80	7,740,799.70	6,748.33	8,060.72	5,684.53	52,490.92	9,352,610.79	
SEPTEMBER	939,073.12	625,152.53	8,484,150.78	6,642.88	8,122.93	5,407.55	391,553.14	10,460,102.93	
OCTOBER	937,645.61	626,559.29	8,664,267.02	6,537.43	7,991.95	5,333.76	393,582.97	10,641,908.03	
NOVEMBER	778,425.85	517,029.35	4,225,489.49	6,431.98	7,872.22	5,228.72	402,684.32	5,943,161.93	
DECEMBER	638,077.96	433,646.96	4,478,751.98	6,326.53	7,672.10	5,214.07	274,033.10	5,843,722.70	

% CP TO TOTAL 10.32% 7.42% 76.64% 0.11% 0.13% 0.09% 4.69%* 100.00%

PERCENT NON-REG MONTHLY *See on NP-2700*

MONTH	NON-REG		TOTAL					TOTAL	
	67C CP01-03	67C CP01-04	167C CP01	527C CP01	567C CP01-03	567C CP01-04	67C CP02	NON-REG	TOTAL
JANUARY	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
FEBRUARY	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
MARCH	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
APRIL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
MAY	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
JUNE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
JULY	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
AUGUST	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
SEPTEMBER	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
OCTOBER	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
NOVEMBER	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%
DECEMBER	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%*	0.00%

49-15
L.H.

COMPANY: ANALYSIS OF ACCOUNT 222
 TITLE: DEC. 1952
 AUDITOR: K. WELCH
 DATE: AUGUST 26, 1953

100 % REG.	JAN 52	FEB 52	MARCH 52	APRIL 52	MAY 52	JUNE 52	JULY 52	AUGUST 52	SEPT 52	OCT 52	NOV 52	DEC 52
370C102	208,244.74	216,463.92	218,658,302.41	217,794,332.91	216,022,329.78	216,103,812.50	216,048,043.28	216,048,043.28	216,048,043.28	216,048,043.28	216,048,043.28	216,048,043.28
370C103	(16,874,943.87)	(22,879,222.41)	(24,025,460.17)	(24,186,646.93)	(23,390,630.90)	(23,043,870.83)	(22,808,063.28)	(22,808,063.28)	(22,808,063.28)	(22,808,063.28)	(22,808,063.28)	(22,808,063.28)
370C104	(12,061,002.99)	(17,204,140.64)	(18,088,601.25)	(18,117,923.29)	(18,048,432.15)	(18,018,000.30)	(18,018,000.30)	(18,018,000.30)	(18,018,000.30)	(18,018,000.30)	(18,018,000.30)	(18,018,000.30)
370C105	21,474,450.24	21,607,241.83	21,607,241.83	21,358,481.50	21,607,241.83	21,607,241.83	21,607,241.83	21,607,241.83	21,607,241.83	21,607,241.83	21,607,241.83	21,607,241.83
370C106	781,826,486.57	783,844,453.74	787,682,901.14	787,682,901.14	786,438,418.81	786,438,418.81	786,438,418.81	786,438,418.81	786,438,418.81	786,438,418.81	786,438,418.81	786,438,418.81
370C107	494,746,955.44	522,851,040.79	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99	528,870,706.99
370C108	(26,182,158.88)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)	(34,803,198.43)
370C109	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)	(20,807,738.49)
370C110	78,594.00	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50
370C111	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50	178,062.50
370C112	163,000.00	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53	446,946.53
370C113	(87,834.81)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)	(92,347.64)
370C114	(51,694.33)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)	(61,026.94)
370C115	136,384.41	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12	141,818.12
370C116	(10,803.65)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)	(14,751.41)
370C117	(8,252.78)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)	(10,708.97)
370C118	5,022,072.78	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36	4,394,228.36
370C119	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97	38,300.97
370C120	146,314,000.55	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73	181,246,122.73
370C121	168,848,454.54	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36	185,780,336.36
370C122	(12,441,281.37)	(17,276,132.23)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)	(18,378,998.74)
370C123	(8,472,909.44)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)	(12,962,374.24)
370C124	118,909.87	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97	129,751.97
370C125	644,322.35	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42	528,178.42
370C126	897,318.30	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64	824,928.64
370C127	22,723.75	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44	44,381.44
370C128	218,728.31	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28	308,486.28
370C129	61,203.85	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04	63,168.04
370C130	1,056,798.11	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28	1,174,709.28
370C131	2,263,383.18	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81	1,153,878.81
370C132	1,785.80	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28	654,835.28
370C133	688,988.88	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41	501,584.41
370C134	478,483.74	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49	1,074,984,224.49
370C135	1,887,102,154.88	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49
370C136	1,887,102,154.88	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49	1,874,984,224.49

Source: NIP 2,700

49.15
 1-1
 1-3
 1-18/16

FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Alabama

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGULATE USE	REGULATED USE	NONREG RATIO
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING+ INCOMING)*				
1993			<u>8,103,046,116</u>	0	<u>8,103,046,116</u>	0
1994			<u>5,634,067,859</u>	0	<u>5,634,067,859</u>	0
1995			<u>5,317,424,003</u>	0	<u>5,317,424,003</u>	0
<i>CP2 uses originating & incoming # of calls</i>						
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)*				
1993			<u>4,624,440,831</u>	0	<u>4,624,440,831</u>	0
1994			<u>3,215,385,063</u>	0	<u>3,215,385,063</u>	0
1995			<u>3,034,675,148</u>	0	<u>3,034,675,148</u>	0
<i>only CP1 only uses originating calls</i>						
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED**				
1993			<u>105852</u>	<u>5621.13</u>	<u>100,231</u>	<u>0.0531036731</u>
1994			<u>145050</u>	<u>8157.15</u>	<u>136,893</u>	<u>0.0562368149</u>
1995			<u>184248</u>	<u>10693.17</u>	<u>173,555</u>	<u>0.0580368308</u>
<i>Actual # of segments for public basic, for ports & enhanced (in house) & enhanced Averaged</i>						
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)*				
1993			<u>31,358,111,415</u>	0	<u>31,358,111,415</u>	0
1994			<u>36,563,369,151</u>	0	<u>36,563,369,151</u>	0
1995			<u>38,554,814,078</u>	0	<u>38,554,814,078</u>	0

CP2 uses originating & incoming # of calls

only CP1 only uses originating calls

Actual # of segments for public basic, for ports & enhanced (in house) & enhanced Averaged

03

STATE: Alabama

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGULATE USE	REGULATED USE	NONREG RATIO
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)*				
1993			17,237,052,115	0	17,237,052,115	0
1994			20,098,299,008	0	20,098,299,008	0
1995			21,192,964,422	0	21,192,964,422	0
ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME@				
1993			20,319,496	19,822,984	496,512	0.9755647483
1994			28,136,111	27,372,023	764,088	0.9728431552
1995			34,303,135	32,315,383	1,987,752	0.9420533429

col

Minutes of Use Res Bus & Intra

06

04 is done 100% by Ross's group

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- Reg. Use = Basic (Non-CDAR) Call Volumes, Average Month, for type of switch.

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- Reg. Use = Basic Packets Switched, Public & Corporate, Annual

- @ Total Use + Total Minutes Connect Time, Public & Corporate, Annual
- Nonreg. Use = Public Minutes Connect Time, Annual
- Reg. Use = Corporate Minutes Connect Time, Annual

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Florida

<u>ACCOUNT/COST/POOL/ YEAR OF FORECAST</u>	<u>PRODUCT/ SERVICE</u>	<u>FORECAST UNIT OF USAGE</u>	<u>TOTAL USE</u>	<u>NONREGUL USE</u>	<u>REGULATED USE</u>	<u>NONREG RATIO</u>
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING+ INCOMING)*				
1993			<u>50,571,527,365</u>	<u>3,887</u>	<u>50,571,523,478</u>	<u>0.0000000769</u>
1994			<u>30,165,926,613</u>	<u>3,963</u>	<u>30,165,922,650</u>	<u>0.0000001314</u>
1995			<u>20,909,739,582</u>	<u>4,040</u>	<u>20,909,735,542</u>	<u>0.0000001932</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)*				
1993			<u>29,965,856,695</u>	<u>3,887</u>	<u>29,965,852,808</u>	<u>0.0000001297</u>
1994			<u>17,874,640,434</u>	<u>3,963</u>	<u>17,874,636,471</u>	<u>0.0000002217</u>
1995			<u>12,389,942,377</u>	<u>4,040</u>	<u>12,389,938,337</u>	<u>0.0000003261</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED**				
1993			<u>1046065</u>	<u>362,222.3</u>	<u>683,843</u>	<u>0.3462712738</u>
1994			<u>1537218</u>	<u>542,695.8</u>	<u>994,522</u>	<u>0.3530376303</u>
1995			<u>2028372</u>	<u>723,169.4</u>	<u>1,305,203</u>	<u>0.3565269832</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)*				
1993			<u>130,271,789,815</u>	<u>18,247</u>	<u>130,271,771,568</u>	<u>0.0000001401</u>
1994			<u>131,064,810,021</u>	<u>18,605</u>	<u>131,064,791,416</u>	<u>0.000000142</u>
1995			<u>146,639,106,457</u>	<u>18,962</u>	<u>146,639,087,495</u>	<u>0.0000001293</u>

STATE: Florida

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGUL USE	REGULATED USE	NONREG RATIO
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)*				
1993			<u>66,528,491,022</u>	<u>18,247</u>	<u>66,528,472,775</u>	<u>0.0000002743</u>
1994			<u>66,933,496,933</u>	<u>18,605</u>	<u>66,933,478,328</u>	<u>0.000000278</u>
1995			<u>74,887,134,555</u>	<u>18,962</u>	<u>74,887,115,593</u>	<u>0.0000002532</u>

ACCOUNT 2212-- COST POOL: COMMON USE CALL INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY-	CONNECT TIME@				
1993			<u>15,395,505</u>	<u>14,867,385</u>	<u>528,120</u>	<u>0.9656964809</u>
1994			<u>19,392,267</u>	<u>18,722,235</u>	<u>670,032</u>	<u>0.9654484955</u>
1995			<u>22,799,634</u>	<u>21,930,870</u>	<u>868,764</u>	<u>0.9618957041</u>

- * Total Use = Total Call Volumes, Average Month, for type of switch.
 Nonreg. Use = CDAR Call Volumes, Average Month, for type of switch.
 Reg. Use = Basic (Non-CDAR) Call Volumes, Average Month, for type of switch.

Note:

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 Reg. Use = Basic Packets Switched, Public & Corporate, Annual

- @ Total Use = Total Minutes Connect Time, Public & Corporate, Annual
 Nonreg. Use = Public Minutes Connect Time, Annual
 Reg. Use = Corporate Minutes Connect Time, Annual

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Georgia

<u>ACCOUNT/COST/POOL/ YEAR OF FORECAST</u>	<u>PRODUCT/ SERVICE</u>	<u>FORECAST UNIT OF USAGE</u>	<u>TOTAL USE</u>	<u>NONREGULATE USE</u>	<u>REGULATED USE</u>	<u>NONREG RATIO</u>
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING+ INCOMING)*				
1993			<u>41,018,606,285</u>	<u>16,123</u>	<u>41,018,590,162</u>	<u>0.0000003931</u>
1994			<u>36,967,030,259</u>	<u>16,439</u>	<u>36,967,013,820</u>	<u>0.0000004447</u>
1995			<u>27,414,702,311</u>	<u>16,755</u>	<u>27,414,685,556</u>	<u>0.0000006112</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>23,909,629,273</u>	<u>16,123</u>	<u>23,909,613,150</u>	<u>0.0000006743</u>
1994			<u>21,547,977,894</u>	<u>16,439</u>	<u>21,547,961,455</u>	<u>0.0000007629</u>
1995			<u>15,979,954,722</u>	<u>16,755</u>	<u>15,979,937,967</u>	<u>0.0000010485</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>2175524</u>	<u>278814.53</u>	<u>1,896,709</u>	<u>0.1281597123</u>
1994			<u>3136388</u>	<u>415683.84</u>	<u>2,720,704</u>	<u>0.132535847</u>
1995			<u>4097251</u>	<u>552553.15</u>	<u>3,544,698</u>	<u>0.1348594826</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>64,546,789,841</u>	<u>14,643</u>	<u>64,546,775,198</u>	<u>0.0000002269</u>
1994			<u>78,975,705,327</u>	<u>14,930</u>	<u>78,975,690,397</u>	<u>0.000000189</u>
1995			<u>94,237,033,742</u>	<u>15,217</u>	<u>94,237,018,525</u>	<u>0.0000001615</u>

STATE: Georgia

<u>ACCOUNT/COST/POOL/ YEAR OF FORECAST</u>	<u>PRODUCT/ SERVICE</u>	<u>FORECAST UNIT OF USAGE</u>	<u>TOTAL USE</u>	<u>NONREGULATE USE</u>	<u>REGULATED USE</u>	<u>NONREG RATIO</u>
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>34,601,381,679</u>	<u>14,643</u>	<u>34,601,367,036</u>	<u>0.0000004232</u>
1994			<u>42,336,240,744</u>	<u>14,930</u>	<u>42,336,225,814</u>	<u>0.0000003527</u>
1995			<u>50,517,328,536</u>	<u>15,217</u>	<u>50,517,313,319</u>	<u>0.0000003012</u>
ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME				
1993			<u>58,874,222</u>	<u>48,436,694</u>	<u>10,437,528</u>	<u>0.8227148038</u>
1994			<u>78,633,270</u>	<u>66,226,902</u>	<u>12,406,368</u>	<u>0.8422249513</u>
1995			<u>99,621,335</u>	<u>84,668,783</u>	<u>14,952,552</u>	<u>0.849906127</u>

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Reg. Use = Basic Packets Switched, Public & Corporate, Annual

Total Use + Total Minutes Connect Time, Public & Corporate, Annual

Nonreg. Use = Public Minutes Connect Time, Annual

Reg. Use = Corporate Minutes Connect Time, Annual

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Kentucky

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST		NONREGULA USE	REGULATED USE	NONREG RATIO
		UNIT OF USAGE	TOTAL USE			
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING+ INCOMING)*				
1993			<u>2,514,399,861</u>	<u>23,999</u>	<u>2,514,375,862</u>	<u>0.0000095446</u>
1994			<u>2,067,132,363</u>	<u>24,469</u>	<u>2,067,107,894</u>	<u>0.0000118372</u>
1995			<u>874,343,781</u>	<u>24,940</u>	<u>874,318,841</u>	<u>0.0000265242</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>1,610,313,275</u>	<u>23,999</u>	<u>1,610,299,276</u>	<u>0.0000149033</u>
1994			<u>1,323,868,579</u>	<u>24,469</u>	<u>1,323,844,110</u>	<u>0.000018483</u>
1995			<u>559,967,578</u>	<u>24,940</u>	<u>559,942,638</u>	<u>0.0000445383</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>38417</u>	<u>1002.29</u>	<u>37,415</u>	<u>0.0260897519</u>
1994			<u>43651</u>	<u>1223.93</u>	<u>42,427</u>	<u>0.0280389911</u>
1995			<u>48885</u>	<u>1445.58</u>	<u>47,439</u>	<u>0.0295710341</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>22,114,869,198</u>	<u>883,928</u>	<u>22,113,985,270</u>	<u>0.0000399698</u>
1994			<u>25,044,678,869</u>	<u>901,260</u>	<u>25,043,777,609</u>	<u>0.0000359861</u>
1995			<u>29,783,779,469</u>	<u>918,592</u>	<u>29,782,860,877</u>	<u>0.000030842</u>

STATE: Kentucky

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST		NONREGULA USE	REGULATED USE	NONREG RATIO
		UNIT OF USAGE	TOTAL USE			
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>12,223,352,891</u>	<u>883,928</u>	<u>12,222,468,963</u>	<u>0.0000723147</u>
1994			<u>13,842,675,631</u>	<u>901,260</u>	<u>13,841,774,371</u>	<u>0.0000651074</u>
1995			<u>16,461,999,137</u>	<u>918,592</u>	<u>16,461,080,545</u>	<u>0.0000558008</u>

ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME				
1993			<u>32,885,075</u>	<u>31,849,115</u>	<u>1,035,960</u>	<u>0.9684975631</u>
1994			<u>47,988,660</u>	<u>46,429,740</u>	<u>1,558,920</u>	<u>0.9675148254</u>
1995			<u>65,337,878</u>	<u>61,811,390</u>	<u>3,526,488</u>	<u>0.9460268973</u>

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- @ Total Use = Total Minutes Connect Time, Public & Corporate, Annual
- Nonreg. Use = Public Minutes Connect Time, Annual
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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Louisiana

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGULA USE	REGULATED USE	NONREG RATIO
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)*				
1993			<u>13,686,812,138</u>	<u>0</u>	<u>13,686,812,138</u>	<u>0</u>
1994			<u>9,001,207,566</u>	<u>0</u>	<u>9,001,207,566</u>	<u>0</u>
1995			<u>7,495,554,475</u>	<u>0</u>	<u>7,495,554,475</u>	<u>0</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>8,452,838,308</u>	<u>0</u>	<u>8,452,838,308</u>	<u>0</u>
1994			<u>5,559,055,781</u>	<u>0</u>	<u>5,559,055,781</u>	<u>0</u>
1995			<u>4,629,179,488</u>	<u>0</u>	<u>4,629,179,488</u>	<u>0</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>120478</u>	<u>7220.49</u>	<u>113,258</u>	<u>0.0599320208</u>
1994			<u>142457</u>	<u>10065.52</u>	<u>132,391</u>	<u>0.070656549</u>
1995			<u>164436</u>	<u>12910.55</u>	<u>151,525</u>	<u>0.0785141332</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>34,104,917,634</u>	<u>0</u>	<u>34,104,917,634</u>	<u>0</u>
1994			<u>45,443,034,364</u>	<u>0</u>	<u>45,443,034,364</u>	<u>0</u>
1995			<u>47,683,098,387</u>	<u>0</u>	<u>47,683,098,387</u>	<u>0</u>

STATE: Louisiana

<u>ACCOUNT/COST/POOL/ YEAR OF FORECAST</u>	<u>PRODUCT/ SERVICE</u>	<u>FORECAST UNIT OF USAGE</u>	<u>TOTAL USE</u>	<u>NONREGULA USE</u>	<u>REGULATED USE</u>	<u>NONREG RATIO</u>
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>19,397,557,930</u>	<u>0</u>	<u>19,397,557,930</u>	<u>0</u>
1994			<u>25,846,240,153</u>	<u>0</u>	<u>25,846,240,153</u>	<u>0</u>
1995			<u>27,120,301,921</u>	<u>0</u>	<u>27,120,301,921</u>	<u>0</u>

<u>ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:</u>	<u>MEMORY- CALL</u>	<u>CONNECT TIME</u>				
1993			<u>22,313,100</u>	<u>21,553,740</u>	<u>759,360</u>	<u>0.965967974</u>
1994			<u>46,991,802</u>	<u>45,711,930</u>	<u>1,279,872</u>	<u>0.9727639302</u>
1995			<u>71,980,317</u>	<u>66,542,865</u>	<u>5,437,452</u>	<u>0.9244591824</u>

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- Nonreg. Use = CDAR Call Volumes, Average Month, for type of switch.
- Reg. Use = Basic (Non-CDAR) Call Volumes, Average Month, for type of switch.
- Note: ~

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Mississippi

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST		NONREGULA USE	REGULATED USE	NONREG RATIO
		UNIT OF USAGE	TOTAL USE			
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING+ INCOMING)*				
1993			<u>552,968,278</u>	0	<u>552,968,278</u>	0
1994			<u>390,223,427</u>	0	<u>390,223,427</u>	0
1995			<u>257,535,334</u>	0	<u>257,535,334</u>	0
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>391,808,438</u>	0	<u>391,808,438</u>	0
1994			<u>276,494,760</u>	0	<u>276,494,760</u>	0
1995			<u>182,477,949</u>	0	<u>182,477,949</u>	0
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>78797</u>	<u>1575.73</u>	<u>77,211</u>	<u>0.0199998731</u>
1994			<u>89063</u>	<u>1781.26</u>	<u>87,282</u>	<u>0.02</u>
1995			<u>99340</u>	<u>1986.79</u>	<u>97,353</u>	<u>0.0199998993</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>10,156,243,694</u>	0	<u>10,156,243,694</u>	0
1994			<u>13,079,815,509</u>	0	<u>13,079,815,509</u>	0
1995			<u>13,609,058,153</u>	0	<u>13,609,058,153</u>	0

STATE: Mississippi

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGULA USE	REGULATED USE	NONREG RATIO
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>600,348,166</u>	<u>0</u>	<u>600,348,166</u>	<u>0</u>
1994			<u>7,731,641,243</u>	<u>0</u>	<u>7,731,641,243</u>	<u>0</u>
1995			<u>8,044,483,137</u>	<u>0</u>	<u>8,044,483,137</u>	<u>0</u>

ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME				
1993			<u>19,449,133</u>	<u>18,472,021</u>	<u>977,112</u>	<u>0.9497606397</u>
1994			<u>15,724,925</u>	<u>14,194,469</u>	<u>1,530,456</u>	<u>0.9026732401</u>
1995			<u>19,934,095</u>	<u>16,298,755</u>	<u>3,635,340</u>	<u>0.817632052</u>

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: North Carolina

<u>ACCOUNT/COST/POOL/ YEAR OF FORECAST</u>	<u>PRODUCT/ SERVICE</u>	<u>FORECAST UNIT OF USAGE</u>	<u>TOTAL USE</u>	<u>NONREGULA USE</u>	<u>REGULATED USE</u>	<u>NONREG RATIO</u>
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING+ INCOMING)*				
1993			<u>1,579,367,045</u>	<u>0</u>	<u>1,579,367,045</u>	<u>0</u>
1994			<u>1,162,336,134</u>	<u>0</u>	<u>1,162,336,134</u>	<u>0</u>
1995			<u>841,796,695</u>	<u>0</u>	<u>841,796,695</u>	<u>0</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>932,808,923</u>	<u>0</u>	<u>932,808,923</u>	<u>0</u>
1994			<u>686,501,292</u>	<u>0</u>	<u>686,501,292</u>	<u>0</u>
1995			<u>497,183,648</u>	<u>0</u>	<u>497,183,648</u>	<u>0</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>476985</u>	<u>65804.8</u>	<u>411,180</u>	<u>0.1379598939</u>
1994			<u>713842</u>	<u>98674.5</u>	<u>615,168</u>	<u>0.1382301686</u>
1995			<u>950699</u>	<u>131544.2</u>	<u>819,155</u>	<u>0.1383657709</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>49,868,824,219</u>	<u>57,078</u>	<u>49,868,767,141</u>	<u>0.0000011446</u>
1994			<u>54,204,293,044</u>	<u>58,197</u>	<u>54,204,234,847</u>	<u>0.0000010737</u>
1995			<u>57,539,466,951</u>	<u>59,317</u>	<u>57,539,407,634</u>	<u>0.0000010309</u>

STATE: North Carolina

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST		NONREGULA USE	REGULATED USE	NONREG RATIO
		UNIT OF USAGE	TOTAL USE			
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>26,733,034,987</u>	<u>57,078</u>	<u>26,732,977,909</u>	<u>0.0000021351</u>
1994			<u>29,057,135,318</u>	<u>58,197</u>	<u>29,057,077,121</u>	<u>0.0000020028</u>
1995			<u>30,845,011,004</u>	<u>59,317</u>	<u>30,844,951,687</u>	<u>0.0000019231</u>

ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME				
1993			<u>31,049,305</u>	<u>28,625,245</u>	<u>2,424,060</u>	<u>0.9219286873</u>
1994			<u>59,751,378</u>	<u>56,208,090</u>	<u>3,543,288</u>	<u>0.9406994764</u>
1995			<u>92,348,418</u>	<u>84,308,730</u>	<u>8,039,688</u>	<u>0.9129417896</u>

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Note:

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: South Carolina

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGULA USE	REGULATED USE	NONREG RATIO
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)*				
1993			<u>463,294,417</u>	<u>0</u>	<u>463,294,417</u>	<u>0</u>
1994			<u>142,496,432</u>	<u>0</u>	<u>142,496,432</u>	<u>0</u>
1995			<u>20,270,303</u>	<u>0</u>	<u>20,270,303</u>	<u>0</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>265,250,416</u>	<u>0</u>	<u>265,250,416</u>	<u>0</u>
1994			<u>81,583,625</u>	<u>0</u>	<u>81,583,625</u>	<u>0</u>
1995			<u>11,605,371</u>	<u>0</u>	<u>11,605,371</u>	<u>0</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>37443</u>	<u>2825.37</u>	<u>34,618</u>	<u>0.075457896</u>
1994			<u>47497</u>	<u>4064.71</u>	<u>43,432</u>	<u>0.085578247</u>
1995			<u>57552</u>	<u>5304.05</u>	<u>52,248</u>	<u>0.0921610022</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>32,435,266,116</u>	<u>1,525</u>	<u>32,435,264,591</u>	<u>0.000000047</u>
1994			<u>35,617,548,919</u>	<u>1,555</u>	<u>35,617,547,384</u>	<u>0.0000000437</u>
1995			<u>38,027,071,310</u>	<u>1,585</u>	<u>38,027,069,725</u>	<u>0.0000000417</u>

STATE: South Carolina

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST		NONREGULA USE	REGULATED USE	NONREG RATIO
		UNIT OF USAGE	TOTAL USE			
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>17,343,568,705</u>	<u>1,525</u>	<u>17,343,567,180</u>	<u>0.0000000879</u>
1994			<u>19,045,177,639</u>	<u>1,555</u>	<u>19,045,176,084</u>	<u>0.0000000816</u>
1995			<u>20,333,581,308</u>	<u>1,585</u>	<u>20,333,579,723</u>	<u>0.0000000779</u>

ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME				
1993			<u>43,060,132</u>	<u>42,001,360</u>	<u>1,058,772</u>	<u>0.97541178</u>
1994			<u>61,510,852</u>	<u>59,882,140</u>	<u>1,628,712</u>	<u>0.9735215503</u>
1995			<u>78,487,248</u>	<u>74,779,680</u>	<u>3,707,568</u>	<u>0.9527621608</u>

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FORECAST USE OF SHARED NETWORK INVESTMENT

STATE: Tennessee

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST UNIT OF USAGE	TOTAL USE	NONREGULA USE	REGULATED USE	NONREG RATIO
ACCOUNT 2211-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)*				
1993			<u>12,554,418.091</u>	<u>188,309</u>	<u>12,554,229.782</u>	<u>0.0000149994</u>
1994			<u>7,256,126.939</u>	<u>192,002</u>	<u>7,255,934.937</u>	<u>0.0000264607</u>
1995			<u>2,471,883.102</u>	<u>195,694</u>	<u>2,471,687.408</u>	<u>0.000079168</u>
ACCOUNT 2211-- COST POOL: COMMON USE TOUCH TONE CUSTOMER DIGIT RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>7,584,738.353</u>	<u>188,309</u>	<u>7,584,550.044</u>	<u>0.0000248274</u>
1994			<u>4,383,814.302</u>	<u>192,002</u>	<u>4,383,622.300</u>	<u>0.0000437979</u>
1995			<u>1,493,448.340</u>	<u>195,694</u>	<u>1,493,252.646</u>	<u>0.000131035</u>
ACCOUNT 2212-- COST POOL: PACKET SWITCH-COMMON FORECAST YEAR:	PROTOCOL CONVERSION	PACKETS CONVERTED				
1993			<u>223083</u>	<u>8102.8</u>	<u>214,980</u>	<u>0.0363219071</u>
1994			<u>270597</u>	<u>10873.65</u>	<u>259,723</u>	<u>0.0401839267</u>
1995			<u>318111</u>	<u>13644.49</u>	<u>304,467</u>	<u>0.0428922294</u>
ACCOUNT 2212-- COST POOL: COMMON USE PROCESSOR & MEMORY FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING + INCOMING)				
1993			<u>40,509,243.678</u>	<u>0</u>	<u>40,509,243.678</u>	<u>0</u>
1994			<u>54,351,430.753</u>	<u>0</u>	<u>54,351,430.753</u>	<u>0</u>
1995			<u>59,195,065.673</u>	<u>0</u>	<u>59,195,065.673</u>	<u>0</u>

STATE: Tennessee

ACCOUNT/COST/POOL/ YEAR OF FORECAST	PRODUCT/ SERVICE	FORECAST		NONREGULA USE	REGULATED USE	NONREG RATIO
		UNIT OF USAGE	TOTAL USE			
ACCOUNT 2212-- COST POOL: COMMON USE UNIVERSAL TONE DECODER/RECEIVER FORECAST YEAR:	CDAR	CALL VOLUMES (ORIGINATING ONLY)				
1993			<u>23,089,642,571</u>	<u>0</u>	<u>23,089,642,571</u>	<u>0</u>
1994			<u>30,991,550,571</u>	<u>0</u>	<u>30,991,550,571</u>	<u>0</u>
1995			<u>33,753,423,708</u>	<u>0</u>	<u>33,753,423,708</u>	<u>0</u>

ACCOUNT 2212-- COST POOL: COMMON USE INFORMATION STORAGE, FORWARD & RETREIVAL FORECAST YEAR:	MEMORY- CALL	CONNECT TIME				
1993			<u>86,660,991</u>	<u>84,288,675</u>	<u>2,372,316</u>	<u>0.9726253304</u>
1994			<u>127,963,053</u>	<u>124,539,885</u>	<u>3,423,168</u>	<u>0.9732487783</u>
1995			<u>166,695,129</u>	<u>158,367,165</u>	<u>8,327,964</u>	<u>0.9500407477</u>

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ACCOUNTS &
FINANCIAL ANALYSIS DIV

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 08/31/93
Item No. 1-145
Page 1 of 1

Request: Provide the FCC Audit Report discussed in our August 25 interview.

Response: The FCC Audit Report on the audit of BellSouth's enhanced service - - protocol processing, dated December 30, 1992 will be sent in the overnight mail on September 15, 1993. This is the FCC Audit Report which was discussed in the August 25 interview.

This material constitutes proprietary confidential business information and is being produced subject to a "Notice of Intent to Request Confidential Classification."

Date Provided: September 15, 1993

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20544

IN REPLY REFER TO:

December 30, 1992

Mr. Maurice P. Talbot, Jr.
Director, Federal Regulatory
BellSouth Corporation
1133 21st Street N.W.
Suite 900
Washington, D.C. 20036

Dear Mr. Talbot:

We have completed our audit of BellSouth's enhanced service -- protocol processing. The field work was conducted at BellSouth Telecommunications-- formerly Southern Bell, South Central Bell and BellSouth Services -- and its Cost Allocation Group during 1990 and 1991. The purpose of the audit was to evaluate the adequacy of BellSouth Bell Operating Companies' (BOCs) compliance with the Commission's Joint Costs Order and related guidelines, and the Automated Reporting Management Information Systems (ARMIS) requirements, for separating and allocating joint and common costs associated with central office equipment (COE). The audit assessed whether the procedures implemented by BellSouth for identifying and reporting shared common central office investment associated with both regulated and nonregulated services were in compliance with the requirements of the Joint Costs Order and other applicable rules and policies of the Commission.

The Joint Cost rules require the regulated telephone companies to directly assign investment that's dedicated solely to the provision of a specific service on a fully distributed cost causative basis, either to regulated-- basic services -- or to nonregulated -- enhanced services. Investment that's used on either a joint or common basis for the provision of both regulated and nonregulated services should be allocated between the services on a fully distributed cost causative relative usage basis.

The Commission considers protocol processing to be a nonregulated enhanced service when a subscriber's transmitted data involves a net-protocol conversion, i.e., when the originating and terminating end-to-end protocols of a subscriber's data transmission are different. On the other hand, protocol processing is a basic service (regulated) when the subscriber's originating data protocol is the same as the terminating protocol.

PROPRIETARY

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Generally, we found that the BellSouth BOCs are allocating the costs of common components of the COE investment that are directly associated with protocol conversion to both regulated and nonregulated services. However, the costs of other common components of COE investment used for the provision of protocol processing/protocol conversion are not being allocated between regulated and nonregulated services as required by the Joint Cost Order. These costs are charged by BellSouth to their regulated activities. In our opinion BellSouth for 1991 under estimated its nonregulated shared common COE used for protocol processing by \$6 million because it did not properly allocate all of the common COE costs as common costs.

BellSouth's Protocol Processing System and Related FCC Rules

BellSouth provides protocol processing through its public packet switching network. BellSouth's packet switching network facilities consist primarily of three different Northern Telecom DPM-100 switches -- Access Module (AM), Resource Module (RM), Network Module (NM). The switches are specialized, sophisticated and flexible stand-alone data communication computers that permit interconnection and system configurations as access switches, intermediate switches, or network switches.

The architecture of the system allow the same function to be duplicated in a module. The modules' functions are implemented by software running on processor elements in the three modules. While the modules hardware are basically identical, they use different software. Where there are common functions, the same software is used in the different modules.

In BellSouth's packet switching network the RM and NM function as intermediate and network switches, and the AM as an access switch. AM Access switches provide subscriber packet-mode and non-packet-mode subscriber data terminating equipment with access to public and private packet switch networks.

Audit Analyses

The access switch -- AM -- terminates and originates a subscriber's data transmission and its where protocols of packet and non-packet mode terminals are converted, if need be, for transmission through the packet switch network. The AM access switch, therefore, is where the communication enhancement-- protocol processing -- takes place within a packet switching network and should be classified as shared common COE.

¹ Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Notice of Proposed Rulemaking, CC Docket No. 85-229, FCC 85-397, Released August 16, 1985, Paras. 85 and 86.

2
PROPRIETARY

11-14-88 10:30 AM FROM BSI REG PLOY (PING)

P04

The access switch is shared common² COZ because it supports both basic and enhanced services³ on an integrated basis. The mere fact that a specific component of the access switch is involved directly with the conversion of a protocol does not mean that all other components of the switch are not indirectly involved with protocol processing on an integrated basis. The access switch is a stand-alone data communications computer and all of its components are shared for the provision of both basic and enhanced services when both services are integrated within the same switch.⁴

In Supplemental Notice Of Proposed Rule Making, CC Docket No. 85-229⁵, the Commission stated that "[p]rotocol processing is a generic term that denotes the use of a computer or computer-like device to process the protocol-related symbols appearing either in a subscriber's transmission or generated within the network for the purpose of intra-network data transport. Protocol processing takes place throughout the process of setting up and maintaining end-to-end communications." The Commission consider "protocol conversion to be a subset of protocol processing. Protocol conversion is the specific type of protocol processing that is employed to permit communications between terminals or networks that observe disparate protocols." A general exemption⁶ provision was made for protocol processing during end-to-end communications when a data call is routed over the network and it does not invoke a net-protocol conversion between users, such protocol processing taken place is a basic service rather than an enhanced service.

The following is a brief architectural overview of the AM access switch. The AM access switch performs switching -- multiplexing -- and communications -- protocol conversion -- functions on an integrated basis. The AMs are built from a combination of standard circuit packs -- circuit boards -- and consists of a shelf assembly that contains the circuit packs. The circuit packs can be grouped into three categories for simplicity. The categories are called common, line dependent, and line terminating.

² Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), CC Docket No. 85-229, FCC 85-397, Released August 16, 1985, Para. 62

³ Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Supplemental Notice of Proposed Rulemaking, CC Docket No. 85-229 Phase II, FCC 86-253, Released June 16, 1986, Para. 26 Footnote 33.

⁴ Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), MO&O On Reconsideration, CC Docket No. 85-229 Phase II, FCC 88-10, Released February 18, 1988, Para. 26 Footnote 58.

⁵ Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), FCC No. 86-253, Released June 16, 1986, Para. 16.

⁶ Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry), Report and Order, CC Docket No. 85-229, FCC 87-103, Released May 22, 1987, Para. 69.

3

PROPRIETARY

274

F1K1W 021614

P 04

09.01.93 03:13 PM

01-04-93 10:50 AM FROM BST REG PLCY & PLNG

P005

Common circuit packs perform various basic controls of the AM switch whether or not there is protocol processing/conversion. The common circuit packs are called:

- o Common Memory (CM)
- o Power Converter (PC)
- o Alarm Interface (AI)
- o Disk
- o Peripheral Bus Extender (PBE)

The line dependent circuit pack perform protocol conversion and allow subscriber and network access. The line dependent circuit pack is called:

- o Processing Element (PE)

The line termination circuit pack provide an electrical and physical interface to the network for subscriber access lines, and network links, trunks, disks. The line termination circuit pack is called:

- o Peripheral Interface (PI)

The PE is the engine -- a single board microcomputer -- that drives the processes within the AM and the other modules. The processes are controlled by software that's downloaded into the PE. Thus the PE can provide many different functions. The PI provide a physical interface between a PE and the specific access lines, network links, trunks, and disks which it is associated with. The PBE, which is a passive device, allow a PE to control more than one PI. The CM provide PE to PE communications. The AI contain alarm sensing inputs for error detection and power failure, etc. which are monitored by a specific PE through the common memory. The Disk store the AM's software and service assignment parameters which are downloaded from the packet switching network administration system.

The AM also consist of components that are not categorized as circuit pack items. Such items are called cabinets, cooling units, shelf/assemblies, power supply, and shelf interconnect cards.

Allocation of Common Costs

BellSouth considers the Processor Element (PE) circuit packs of the AM to be shared common central office investment that should be allocated between regulated and nonregulated activities. The PE component was selected by BellSouth because subscribers' data transmission access to the network is gained -- terminated, originated -- and protocol converted, if need be, for switching through the network. BellSouth does not believe that the remaining components of the AM are shared on a common basis in providing protocol processing service. Based on our audit analysis of the equipment, related audit tests, and our review of industry-wide allocation practices, we disagree with BellSouth's position that only the PE is shared on a common basis for the provision of protocol processing.

PROPRIETARY

11-04-92 10:50 AM FROM EST RES PLOY 1 PLNG

F006

Audit Analyses

The AM as a unit provides access to the network for subscriber data transmission and not just the PE. All components of the AM are an integral part of the protocol processing function performed in an AM access switch. The AM access switch main objectives are to standardize the subscriber's data transmission for compatibility with the network and the destine subscriber's terminal, and to perform computer processing applications that interpret and react to a subscriber's protocol symbol. While we recognize that there are specific components involved in the protocol conversion process that are associated with a subscriber's line and thus are direct costs of protocol processing, the other components of the access switch perform functions that are an indirect cost of protocol processing.

Additionally, all of the AM's circuit packs are integrated within a single unit. The individual component (PE) cannot stand-alone or perform communications oriented tasks without the other components. All circuit packs in an AM configured as an access switch are either directly or indirectly involved on a common basis for the provision of protocol processing in a nonregulated and regulated packet switching environment. Also the cost of non-circuit pack components -- cabinets, frames, shelves, shelf interconnect cards -- are indirectly involved with providing protocol processing services. To separate out the circuit packs -- e.g. PE -- from the AM results in the misallocation of costs to regulated activities and is in conflict with the Commission's Joint Costs Order that requires a fully distributed cost method for assigning costs between cost causers regulated and nonregulated activities. Based on our audit, BellSouth Telecommunications is not following the above criteria in allocating the shared common cost of providing protocol processing as a regulated and nonregulated activity.

We have estimated, based on the Automated Reporting and Management Information System-495 A and B Reports and the Detail Continuing Property Records (DCPR) that approximately \$5 million was misallocated to the regulated protocol processing service for the 1991 forecast year. To adequately estimate the extent of the misallocation, we would like BellSouth to first, identify all shared common central office equipment of the access switch -- components including cabinets, frame, power supply, shelves/chassis, etc., used for subscriber's data access to the packet switching network. Second, develop the appropriate shared common central office equipment investment base using the AM access switch for 1991 and prior years (1988, 89, 90) instead of just the PE component. Third, justify and adjust all other cost pools -- e.g., maintenance -- that use the packet switching cost pool as a basis for apportionment accordingly. Fourth and finally, provide us with supporting schedules and source documentation of the results for each of the above to the Audits Branch for our review.

PROPRIETARY

01-04-93 10:50 AM FROM BST REG POLY & PLNG

P007

Please advise us in writing by January 29, 1993 if you agree with our finding and detail what corrective action you plan to take with respect to the finding. Should you disagree with our finding or have any additional facts you believe would alter our finding, you should advise us in writing by January 29, 1993, detailing your disagreement. If you have any other questions regarding the finding, please feel free to contact me or Sam Francis of my staff on (202) 632-7500.

Sincerely,
for Sam Francis
Jose-Luis Rodriguez
Chief, Audits Branch

SF

PROPRIETARY

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 08/31/93
Item No. 1-146
Page 1 of 1

Request: Provide all adjustments taking place as a result of the FCC Audit for 1992. Include a breakdown by states, account, source codes, cost pools, USOC's and etc. for amounts.

Response: Documents and correspondence detailing adjustments taking place as a result of the FCC Audit for 1992 will be sent in the overnight mail on September 15, 1993.

Date Provided: September 15, 1993

File Code: 794.0100

May 11, 1993

To: Bonnie Perez
From: Gordon Williams
CC: Terry Ledford
Linda Ferguson
Emily Jorgenson

Subject: CSS Adjustments to Acct. 2212

To comply with the results of an FCC audit of Pulselink, please make the following CSS adjustments to Account 2212 FRC 377C, product 102, in April, 1993 business, as per the attached back-up. Additional Pulselink related adjustments (expenses, taxes, and depreciation) will be provided in another memo.

Please call me at (404) 529-6290 if you have any questions.

1)

State	Acct	CP		Debit	Credit
Florida	2212	03	Reg	\$2,248,843	
	2212	04	Reg		\$2,248,843

To correct and move investment from Common Pool to Pulselink per 1992 FCC audit finding. See attached detailed back-up.

2)

Florida	2212	03	NR	569,228	
	2212	05	NR	53,627	
	2212	03	Reg		622,855

Per ARMIS, CP03 should be "frozen" after the above adjustments are made, and the NR ratio is .3565.

To allocate \$'s in 1) to NR and proportionally allocate part of support pool to support of NR. See attached detailed back-up.

CSS Adjustments (Cont.).

Debit Credit

3)

Georgia	2212	03	Reg	1,465,600	
	2212	04	Reg		1,465,600

See explanation for 1).

4)

Georgia	2212	03	NR	64,950	
	2212	05	NR	1,864	
	2212	03	Reg		66,814

Per ARMIS, CP03 should be "frozen" after the above adjustments are made, and the NR ratio is .1350.

See explanation for 2).

5)

North Carolina

	2212	03	Reg	803,924	
	2212	04	Reg		803,924

See explanation for 1).

6).

North Carolina

	2212	03	NR	30,386	
	2212	05	NR	1,738	
	2212	03	Reg		32,124

Per ARMIS, CP03 should be "frozen" after the above adjustments are made, and the NR ratio is .1388.

See Explanation for 2).

CSS Adjustments (Cont.).

7)

				Debit	Credit
AL	2212	CP03	Reg	526,791	
	2212	CP04	Reg		526,791
KY	2212	CP03	Reg	144,010	
	2212	CP04	Reg		144,010
LA	2212	CP03	Reg	455,409	
	2212	CP04	Reg		455,409
MS	2212	CP03	Reg	149,287	
	2212	CP04	Reg		149,287
SC	2212	CP03	Reg	519,684	
	2212	CP04	Reg		519,684
TN	2212	CP03	Reg	514,278	
	2212	CP04	Reg		514,278

See explanation for 1).

File Code: 794.0100

May 11, 1993

TO: Bonnie Perez
FROM: Gordon Williams
COPY TO: Jim Byrd
Linda Ferguson
Emily Jorgenson
Terry Ledford
SUBJECT: CSS Adjustments

Would you please make the following CSS adjustments listed on the attached sheet in April, 1993 business. All 6XXX amounts should appear as Debits to Nonreg and Credits to Reg. Other Accounts (3XXX, 4XXX and 7XXX) should appear as Credits to Nonreg and Debits to Reg.

Please call me at 404-529-6290 if you have any questions.



Attachments

<u>ACCOUNT</u>	<u>CP</u>	<u>SP</u>	<u>GA</u>	<u>NC</u>	<u>FL</u>
6212	03	04	\$650	\$611	\$12,596
6531	01		588	152	2,017
6532	01		269	100	994
6533	03		127	47	674
6534	02		754	157	2,354
6535	02		1,623	625	8,046
6561	12		13,063	4,096	48,300
3100	12	01	(50,123)	(14,161)	(163,795)
4340	12	12	(30,688)	(9,112)	(97,102)
7220	01		(3,984)	(3,495)	(20,795)
7230	01		(1,227)	(291)	(4,016)

To adjust relevant expense, tax and depreciation accounts for the effects of Account 2212 Pulselink adjustments made per the 1992 FCC audit finding. (See memo dated 5/11/93 detailing these adjustments.)

File Code 794.0100

September 1, 1993

To: Bill Chappell
From: Gordon Williams
CC: Linda Ferguson
Steve Mitchell
Lib Overton
Emily Jorgenson
Ed Martinez
Terry Ledford
Stephanie Pulliam

Subject: Pulselink Expense Adjustments

Attached is a quantification of the 1993 YTD expense adjustments required as a result of a 1992 FCC audit of Pulselink. The purpose of these adjustments was referred to in my memo of May 27, 1993 (copy attached).

CSS system modifications to be implemented in July, 1993 business will appropriately reflect the above referenced expenses on a going-forward basis, thus no future adjustments should be necessary.

Should you have any questions on the above, please call me at (404) 529-6290.

Attachment

July CSS Adjustments

ACCOUNT	CP	SP	Ga	NC	F1
6212	03	04	\$325	\$306	\$ 6,298
6531	01		294	76	1,009
6532	01		135	50	497
6533	03		64	24	337
6534	02		377	78	1,177
6535	02		812	313	4,023
6561	12		6,532	2,048	24,150
7220	01		(1,992)	(1,748)	(10,398)
7230	01		(614)	(146)	(2,008)

To adjust relevant expense, tax, and depreciation accounts for the period January 1, 1993 to June 30, 1993, for the effects of Account 2212 Pulselink adjustments made per the 1992 FCC audit finding. See memo dated 5/27/93, attached.

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From: AB009BP --VU2
To: AB009CM --VU2

Charles Morris

Date and time 10/01/92 09:33:29

From: Bonnie Perez
Subject: BST R&D Cost Identification
Bonnie
(205) 988-1180

Item No. 1-134
Attachment

*** Forwarding note from ALLIN1 --DU4 09/30/92 16:34 ***

Date: 30 Sep 92 16:18:18 CDT
From: J. H. WHITSON <whitson_j@alnp>
Subject: BST R&D Cost Identification
To: BONNIE PEREZ <AB009BP@VU2>

I N T E R O F F I C E M E M O R A N D U M

Date: 30-Sep-1992 03:43pm CDT
From: J. H. WHITSON
WHITSON_J AT A1 AT ALNP
Dept: Plng & Eng Support
Tel No: 205-977-2683

TO: PEREZ, B (AB009BP!VU2 @ BRIDGE)
CC: LEDFORD, TERRY L (AB009TL!VU2 @ BRIDGE)
CC: KOEPER, JAMES C (KOEPER_JC @ A1 @ GANP)
CC: Linda N. Larson (LARSON_LN AT A1 AT ALNP)
CC: TATE, SALLY (TATE_S @ A1 @ GANP)
CC: PATTERSON, GORDON (GSP1!UOS5 @ BRIDGE)
CC: BRYANT, PHIL (JPBS!UOSS @ BRIDGE)
Subject: BST R&D Cost Identification

File Code: 710.0100

DATE: September 30, 1992
TO: B. H. Perez, Manager - Management Accounting
FROM: J. H. Whitson, Manager - NEPCOT
SUBJECT: Active Internal (BST Science & Technology)
Research & Development Projects

A Cost Allocation Manual (CAM) change was processed (September 1992 filing - changes effective in CSS 1/1/93) to revise the regulated/nonregulated apportionment basis for Account 6727 - Cost Pool "BellSouth Generic Research and Development".

It was decided that Internal R&D (BellSouth Science and Technology) costs would be more equitably allocated between regulated/nonregulated, based on an annual analysis of internal R&D projects. This methodology is similar to the process currently used to allocate contracted R&D (Bellcore).

Analysis of the 1992 internal R&D projects was accomplished as a joint effort with assistance and input from Sally Tate, BST Science

& Technology Budget Coordinator and Doug Bergdoll and Susan Nelson, Network Budget group. Active projects were identified along with their allocated headcounts. The headcounts were converted into budget dollars using total management year-to-date actuals. A detailed description of each project was reviewed to determine the purpose of the project and categorized as either switched, non-switched, combined, general assignment or generic.

Attached is a summary of the active projects for 1992 and the associated budget dollars. Also on the attachment is the categorization of each project for 1992.

The work papers used in the research will be on file at NEPCOT and available for review upon request.

Please refer any questions on this subject to Linda Larson at (205)977-2684.

Attachment

cc: Phil Bryant
 Gordon Patterson
 Sally Tate
 Linda Larson
 Jim Koeper
 Terry Ledford

Active Internal R&D Projects

1992

(a) Project (Package ID)	(b) Grouping	(c) (000) Budget \$	(d) % Non Reg	(e) Non Reg \$
NPB1092-SP01	N	120.0		N = NONSWITCHED
NPB1092-SP04	GA	1,080.0		GA = GENERAL APPLICATION
NPB1092-SP05	GA	360.0		G = GENERIC
NPB1092-SP09	G	180.0		
NPB1092-SP11	GA	360.0		
NPB1092-WPE	N	120.0		
NPB1092-WPF	GA	120.0		

See pg 3

NPB2092-SP04	GA	(B)	2,546.0
NPB0292-WPA	G	(C)	340.0
NPB0292-WPB	G	(C)	136.0
NPB0192-WPA	GA	(B)	532.0
NPB0192-SP14	GA	(B)	456.0

	TOTAL (f)		6,350.0

(a) = active internal projects in 1992

(b) = S - Switched, direct support of switched facilities for customer data and voice.

N - Non-switched, direct support of transport facilities for customer data and voice.

C - Combined Switched and Non-switched, direct support of combined switched and transport facilities for customer data and voice.

GA - General Application, supports both network (switched and non-switched) and computer facilities.

G - Generic, futuristic, no specific application.

(c) = budgeted dollars

(d) = Provided by Comptrollers - based on elements within the unique groupings listed in column (b).

(e) = (Budget \$) (c) times (% Non Reg) (d) equals dollars of each project assigned to non-regulated activity.

(f) = Total Non-reg \$ (e) divided by Total Budget \$ (c) equals the Non-reg ratio to apply to the cost pool monthly.

$$\begin{array}{l}
 \sum (A) = 240 \\
 \sum (B) = 5,454 \\
 \sum (C) = 654
 \end{array}
 \left. \vphantom{\begin{array}{l} \sum (A) \\ \sum (B) \\ \sum (C) \end{array}} \right\} 49-15/1-1 p 2$$

From: ALLIN1 --DU4

Date and time 07/02/92 16:56:18

Date: 02 Jul 92 16:58:34 CDT
From: J. H. WHITSON <whitson_j@alnp>
Subject: BELCORE R&D NONREGULATED COST
To: Charles Morris <AB009CM@VU2>

I N T E R O F F I C E M E M O R A N D U M

Date: 02-Jul-1992 04:48pm CDT
From: J. H. WHITSON
WHITSON_J AT A1 AT ALNP
Dept: Plng & Eng Support
Tel No: 205-977-2683

TO: PEREZ, B (AB009BP!VU2 @ BRIDGE)
CC: AB009CM!VU2 @ BRIDGE
CC: Linda N. Larson (LARSON_LN AT A1 AT ALNP)
CC: BRYANT, PHIL (JPB5!UOSS @ BRIDGE)
CC: PATTERSON, GORDON (GSP1!UOSS @ BRIDGE)
CC: LEDFORD, TERRY L (AB009TL!VU2 @ BRIDGE)
CC: KOEPER, JAMES C (KOEPER_JC @ A1 @ GANP)
Subject: BELCORE R&D NONREGULATED COST

File Code: 710.0100

DATE: July 1, 1992
TO: B. H. Perez, Manager - Management Accounting
FROM: J. H. Whitson, Manager - NEPCOT
SUBJECT: Active Bellcore Network R & D Projects

The BellSouth Cost Allocation Manual states that the Account 6727 contracted research and development cost pool, should be allocated to regulated/nonregulated based upon an annual analysis of the contracted R & D projects in that cost pool.

Analysis of the 1992 projects was accomplished as a joint effort with assistance and input from Brenda Gibson, Comptrollers and Pat Eubank, Bellcore Budget Coordinator - Network. Active projects in Account 6727 were identified and the budgeted dollars as of December, 1991, for those projects were obtained. A detailed description of each active project was reviewed to determine the purpose of the project and categorized as either switched, non-switched, combined, general application or generic.

Attached is a summary of the active projects for 1992 and the associated budget dollars. Also on the attachment is the categorization of each project for both 1991 and 1992.

The work papers used in the research will be on file at NEPCOT and available for review upon request.

Please refer any questions on this subject to Linda Larson at (205)

Attachment

cc: Gordon Patterson
 Phil Bryant
 Jim Koeper
 Terry Ledford

Active Bellcore Network R & D Projects

1992

(a) PROJECT	(b) GROUPING		(c) (000) BUDGET \$	(d) % NON REQ	(e) NON REG \$
	'91	'92			
021411	C	C	917.8		
0231A4	S	S	54.8		
023134	S	S	301.1		
1R1011	C	C	168.2		
1R1024	C	C	694.9		
1R1028	N	N	67.7*		
1R1111	C	C	825.5		
1R2112	GA	GA	1,336.8		
1R3011	GA	GA	1,018.3		
1R4111	GA	GA	1,913.8		
1R501N	GA	GA	699.2		
1R502X	G	G	191.7		
1W0111	N	N	212.3		
1W0211	N	N	941.8		
1W1511	N	N	1,061.7		
1W3012	C	C	566.1		

1Y2011	G	GA	315.1
1Y2012	C	C	160.9
124430	GA	GA	499.7
* 100% Non-reg			

- 1 -

(a) PROJECT	(b) GROUPING		(c) (000) BUDGET \$	(d) % NON REQ	(e) NON REG \$
	'91	'92			
2R1070	-	C	89.1		
2R1111	-	C	447.2		
2R1122	-	C	71.3		
2R1210	-	C	182.7		
2W4620	-	G	52.1		
2Y1122	-	G	32.0		
224101	-	G	636.3		
2243DN	-	N	152.3		
22441W	-	N	316.0		
421203	GA	GA	1,268.5		
421301	N	N	918.5		
421302	N	N	789.2		
421303	C	C	742.0		
421306	N	N	1,116.3		
422241	N	N	432.9		
423228	N	C	189.2		
423334	N	N	132.0		
424322	GA	GA	139.9		

424516	N	N	186.0
524475	N	S	208.8
621204	G	G	807.6
621306	N	N	889.8

- 2 -

(a) PROJECT	(b) GROUPING		(c) (000) BUDGET \$	(d) % NON REQ	(e) NON REG \$
	'91	'92			
621307	N	N	880.0		
621405	C	C	1,040.0		
621406	C	GA	1,107.6		
621408	GA	GA	924.5		
621409	S	S	975.7		
721205	GA	G	643.0		
721206	GA	G	482.8		
721207	GA	GA	1,140.1		
722603	C	C	58.6		
724429	C	C	211.2		
821101	G	G	1,482.0		
821102	G	G	1,440.1		
821103	G	G	1,055.2		
821104	G	G	1,175.6		
824463	C	C	224.9		
	TOTAL (f)		34,588.4		

(a) = Active Network projects in 1992

(b) = S - Switched, direct support of switched facilities for customer data and voice.

Σ C's = 6,589.60
 Σ N's = 8,096.50
 Σ G's = 7,998.40
 Σ GA's = 10,363.5
 Σ S's = 1,540.4

49-15/1-1

293

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p7

N - Non-switched, direct support of transport facilities for customer data and voice.

C - Combined Switched and Non-switched, direct support of combined switched and transport facilities for customer data and voice.

- 3 -

GA - General Application, supports both network (switched and non-switched) and computer facilities.

G - Generic, futuristic, no specific application.

(c) = budgeted dollars as of 12/91.

(d) = Provided by Comptrollers - based on elements within the unique groupings listed in column (b).

(e) = (Budget \$) (c) times (% Non Reg) (d) equals dollars of each project assigned to non-regulated activity.

(f) = Total Non reg \$ (e) divided by Total Budget \$ (c) equals the Non reg ratio to apply to the cost pool monthly.

- 4 -

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 08/16/93
Item No. 1-134
Page 1 of 1

Request: Provide the backup by project by dollars on Allocation Factor Calculation on F01K01W (007384, 007385) as discussed in out 8/12/93 interview with John Mast. Include the project numbers or names, dollars and categories.

Response: Attached is the backup for the 1992 category classification of Bellcore R&D projects and Science & Technology work programs.

Date Provided: August 18, 1993

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BELLSOUTH TELECOMMUNICATIONS FINANCIAL SYSTEMS DOCUMENTATION

APPLICATION	AB01: CSS/PPS USER GUIDE
PART	9: CSS INVESTMENT AND EXPENSE APPORTIONMENT
SECTION	20: CORPORATE OPERATIONS EXPENSE

- 9.08.1 CP05 is identified by function codes via the TACCTFC table.
- 9.08.2 CP05 is assigned to regulated/nonregulated based on the product reported on CISSP detail.

ACCOUNT 6727 - RESEARCH AND DEVELOPMENT

- 10.01 Account 6727 contains of costs in making a planned search or critical investigation aimed at discovery of new knowledge. Other costs include translating research finds into plans.
- 10.02 The following inputs are used in this account:
- CISSP
TACCTFC
TDACAT
TMANAMT
- 10.03 Account 6727 consists of the following cost pools:
- | | |
|------|-------------------------------|
| CP99 | Leased to Others |
| CP01 | Contracted R&D |
| CP02 | Direct Regulated/Nonregulated |
| CP03 | BellSouth Generic R&D |
- 10.04.1 CP01 contains the following SPFCs:
- 561T88 561V88
- 10.04.2 CP01 is allocated to regulated/nonregulated based on the TDACAT nonregulated ratio. This ratio is developed by the Comptrollers organization and reflects only research and development billing from Bellcore.
- 10.05.1 CP02 is identified by function code via the TACCTFC table. The following function codes are included:
- 561WXX (except for 561W88)
- 10.05.2 CP02 is assigned to regulated/nonregulated based on the product reported on CISSP detail.
- 10.06.1 CP03 contains the following function codes identified by TACCTFC:
- 24XX 561W88 56EQ- 56ER 56ES

What's written

JUL 21 1992

9.20.12

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F01P99W 0000308

BELLSOUTH TELECOMMUNICATIONS FINANCIAL SYSTEMS DOCUMENTATION

APPLICATION	AB01:	CSS/PPS USER GUIDE
PART	9:	CSS INVESTMENT AND EXPENSE APPORTIONMENT
SECTION	20:	CORPORATE OPERATIONS EXPENSE

11.07.2 CP04 is allocated to regulated/nonregulated based on the CGA01.

11.08.1 CP05 contains the following:

SRC	6728.8000				
SPFCs	55E8	561Z	5612		
	5612-04	5612-80	5612-60	5612-70	5614
	5616XX				

11.08.2 CP05 is directly assigned to regulated/nonregulated.

ACCOUNT 6790 - PROVISION FOR UNCOLLECTIBLE NOTES RECEIVABLE

12.01 Account 6790 contains charges to offset amounts currently credited to Account 1200.

12.02 The following inputs are used for this account:

CISSP
TANANT

12.03 Account 6790 consists of the following cost pools:

CP01 Provision for Uncollectible Notes Receivable

12.04.1 CP01 contains the entire account.

12.04.2 CP01 is directly assigned to regulated/nonregulated.

JUL 21 1992

9.20.14

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F01P99W 0000310

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299

"Proprietary"

49-15

2

• TRACED TO GL

PERCENT NON-REG MONTHLY

MONTH	CP01 NON-REG	CP02 NON-REG	CP03 NON-REG	CP04 NON-REG	CP05 NON-REG	CP06 NON-REG	CP07 NON-REG	CP08 NON-REG	CP10 NON-REG	CP10-D REGULATED	CP99 NON-REG	TOTAL NON-REG
JANUARY	2.32%	0.24%	48.95%	0.00%	12.19%	2.22%	2.90%	10.73%	7.53%	0.00%	0.00%	7.63%
FEBRUARY	3.11%	0.36%	48.29%	0.00%	9.15%	2.29%	2.74%	5.98%	5.14%	0.00%	0.00%	5.14%
MARCH	2.73%	0.41%	44.53%	0.00%	8.58%	2.46%	2.81%	6.15%	5.32%	0.00%	0.00%	5.02%
APRIL	49-118 2.40%	0.22%	50.10%	0.00%	8.60%	3.31%	3.70%	5.54%	3.39%	0.00%	0.00%	4.29%
MAY	2.47%	0.31%	45.49%	0.00%	8.29%	4.52%	2.34%	7.75%	5.05%	0.00%	0.00%	5.35%
JUNE	2.55%	0.45%	52.54%	0.00%	3.10%	3.68%	3.02%	5.07%	5.50%	0.00%	0.00%	5.50%
JULY	2.93%	2.22%	49.36%	0.30%	9.30%	1.32%	2.65%	6.20%	5.14%	0.00%	0.00%	5.14%
AUGUST	2.92%	1.82%	49.31%	0.00%	10.05%	1.80%	3.87%	6.53%	5.53%	0.00%	0.00%	5.53%
SEPTEMBER	3.37%	-0.01%	48.24%	0.00%	3.15%	2.87%	3.18%	4.95%	5.07%	0.00%	0.00%	5.07%
OCTOBER	3.53%	1.84%	52.91%	0.00%	9.64%	7.10%	3.19%	6.98%	5.36%	0.00%	0.00%	5.36%
NOVEMBER	2.80%	0.52%	55.94%	0.00%	3.24%	5.58%	3.15%	13.35%	7.28%	0.00%	0.00%	7.28%
DECEMBER	3.32%	2.20%	53.96%	0.00%	7.93%	2.49%	3.12%	6.73%	4.64%	0.00%	0.00%	4.64%
	3.11%	1.48%	50.10%	0.00%	9.19%	3.46%	3.03%	7.79%	5.41%	0.00%	0.00%	5.41%

(C)
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 5.45%
 Diff
 3548 - Ammaterial

302

Proprietary
 $\frac{49,729,714}{52,565,333} = 94.55\%$ Non Reg 5.45%
Generalized

49-16
Pg. 2 of 3

APPLICATION	AB01:	CSS/PPS USER GUIDE
PART	9:	CSS INVESTMENT AND EXPENSE APPORTIONMENT
SECTION	20:	CORPORATE OPERATIONS EXPENSE

- 5.05 CP02 is not used.
- 5.06.1 CP03 contains the following JFCs:
0310 033X
- 5.06.2 CP03 is allocated to regulated/nonregulated based on CMA01.
- 5.07.1 CP04 contains the following:
FCs 030X 0311 0312 037X 106X
03TA 03TE 0318
SPFCs 56EA 56EB 56E9
- 5.07.2 CP04 is allocated to regulated/nonregulated based on CGA01.

ACCOUNT 6723 - HUMAN RESOURCES

- 6.01 Account 6723 contains cost of performing personnel administration activities.
- 6.02 The following inputs are used in this account:
CISSP
TMANAMT
- 6.03 Account 6723 consists of the following cost pools:
CP99 Leased to Others
CP01 Human Resources
- 6.04.1 CP01 contains the entire account.
- 6.04.2 CP01 is allocated to regulated/nonregulated based on CSW16.

ACCOUNT 6724 - INFORMATION MANAGEMENT

- 7.01 Account 6724 contains costs incurred in planning, developing, testing, implementing and maintaining data bases and applications systems for general purpose computers.

JAN 16 1992

9.20.5

303

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F01P99W 0000140 91

APPLICATION	AB01:	CSS/PPS USER GUIDE
PART	9:	CSS INVESTMENT AND EXPENSE APPORTIONMENT
SECTION	20:	CORPORATE OPERATIONS EXPENSE

7.02 The following inputs are used in this account:

- CISSP
- TACCTFC
- TMANAMT

} 49-16
2-1

7.03 Account 6724 consists of the following cost pools:

- CP99 Leased to Others
- CP01 General Support Related
- CP02 COE Related
- CP03 Terminal Equipment Related
- CP04 Cable and Wire Related
- CP05 Plant Nonspecific Related
- CP06 Customer Related Marketing
- CP07 Customer Related Other
- CP08 Corporate Related
- CP09 Not Used
- CP10 General Costs

7.04.1 CP01 contains the following FCs:

57A6

7.04.2 CP01 is allocated to regulated/nonregulated based on Accounts 6112 through 6123.

7.05.1 CP02 contains the following FCs:

57AD

7.05.2 CP02 is allocated to regulated/nonregulated based on Accounts 6211 through 6232.

7.06.1 CP03 contains the following FCs:

57AL

7.06.2 CP03 is allocated to regulated/nonregulated based on Accounts Accounts 63XX.

7.07.1 CP04 contains the following FCs:

57AT

7.07.2 CP04 is allocated to regulated/nonregulated based on Accounts 6411 through 6441.

JAN 16 1992

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9.20.6

F01P99W 0000141

APPLICATION	AB01:	CSS/PPS USER GUIDE
PART	9:	CSS INVESTMENT AND EXPENSE APPORTIONMENT
SECTION	20:	CORPORATE OPERATIONS EXPENSE

- 7.08.1 CP05 contains the following FCs:
57BD 57BL 57B6 /
- 7.08.2 CP05 is allocated to regulated/nonregulated based on Accounts 6511, 6512 CP02, 6530, 6531 CP01, and 6534 of the prior month.
- 7.09.1 CP06 contains the following FCs:
57BT
- 7.09.2 CP06 is allocated to regulated/nonregulated based on Accounts 6611 through 6613, excluding Account 6612 CP01.
- 7.10.1 CP07 contains the following FCs:
57C6
- 7.10.2 CP07 is allocated to regulated/nonregulated based on Accounts 6621 through 6623.
- 7.11.1 CP08 contains the following FCs:
57CD
- 7.11.2 CP08 is assigned to regulated/nonregulated based on Accounts 67XX of the prior month excluding Account 6724.
- 7.12.1 CP10 contains the following FCs:
- | | | | | | |
|------|------|------|------|------|------|
| 155A | 155E | 1550 | 1551 | 1558 | 1559 |
| 156A | 1560 | 1569 | 5A3M | 55C1 | 56C9 |
| 1552 | 156E | 156R | 56EH | 56EF | 56EG |
| 1561 | 56ES | 5525 | 57CL | | |
- 7.12.2 CP10 is allocated to regulated/nonregulated based on Account 6724 CP01 through CP08.

ACCOUNT 6725 - LEGAL

- 8.01 Account 6725 costs include the pay and expenses of employees responsible for providing legal services. Legal services include coordinating and conducting litigation, providing guidance on regulatory and labor matters, preparing, reviewing and filing patents and contracts, interpreting legislation, and miscellaneous services such as court costs, filing fees, cost of outside council, depositions, transcripts and witnesses.

JAN 16 1992

9.20.7

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305

F01P99W 0000142

23

COMPANY: BST
 TITLE: ANALYSIS OF 6000 ACCOUNTS
 TEST YEAR: DECEMBER 31, 1992
 AUDITOR: K. WELCH
 DATE: AUGUST 17, 1993
 WORKPAPER #

ACCOUNT	MR REG	NON-REG	TOTAL	% NON REG	% TO TOTAL GROUP
motor vehicle - 6112	7,069,054.35	509,354.05	7,578,408.40	6.72%	8.16% 4.46%
Aircraft 6113	1,697,232.37	113,423.00	1,810,655.37	6.26%	1.95% 1.07%
Special Purp Veh 6114	555.27	38.06	593.33	6.41%	0.00%
Garage work Equip 6115	332,731.54	29,530.33	362,261.87	8.15%	.39 0.21%
Other Work Eq. 6116	678,549.34	43,687.06	722,236.40	6.05%	.78 0.43%
Land & Bldg Exp - 6121	65,833,775.55	1,720,739.52	67,554,515.07	2.55%	72.70 39.76%
Furniture & artwork 6122	2,049,471.52	138,214.95	2,187,686.37	6.32%	2.35 1.29%
Office Equip & Exp 6123	12,455,104.93	253,848.81	12,708,953.74	2.00%	13.78 7.48%
Gen Purpose Computers 6124	72,754,361.85	4,215,506.27	76,969,868.12	5.48%	45.30%
Digital Electronic w/o 6124	162,870,836.72	7,024,341.95	169,895,178.67	4.13%	100.00%
Analog Electronic 6212	90,116,477.87	2,802,825.68	92,919,303.55	3.02%	
Operator Support 6211	64,620,168.97	1,472,350.15	66,092,519.12	2.23%	41.47%
Radio Systems Exp 6220	34,810,458.51	99.37	34,810,557.88	0.00%	21.84%
Circuit Eq Exp 6231	3,139,564.69		3,139,564.69	0.00%	1.97%
	720,463.58		720,463.58	0.00%	0.45%
	54,626,989.41		54,626,989.41	0.00%	34.27%
	157,917,645.16	1,472,449.52	159,390,094.68	0.92%	100.00%
Sat. Apparatus Exp 6311	153,231.92		153,231.92	0.00%	0.19%
Lang Box Exp 6341	1,137,039.34	1,824.33	1,138,863.67	0.16%	1.40%
Public Tel Terminal Exp 6351	15,966,954.54		15,966,954.54	0.00%	19.59%
Other Terminal Exp. (6362)	23,243,570.86	41,004,513.30	64,248,084.16	63.82%	78.83%
	40,500,796.66	41,006,337.63	81,507,134.29	50.31%	100.00%
Pole Exp 6411	7,046,181.24		7,046,181.24	0.00%	2.88%
Aerial Cable 6421	80,327,576.03		80,327,576.03	0.00%	32.85%
Underground Cable 6422	18,395,205.72		18,395,205.72	0.00%	7.52%
Buried Cable 6423	134,627,544.77		134,627,544.77	0.00%	55.05%
Submarine Cable 6424	84,360.30		84,360.30	0.00%	0.03%
Intra build up Network Cable 6426	1,447,956.29		1,447,956.29	0.00%	0.59%
Aerial Cable 6431	72,692.42		72,692.42	0.00%	0.03%
Conduit System Exp 6441	2,550,348.34		2,550,348.34	0.00%	1.04%
	244,551,865.11	0.00	244,551,865.11	0.00%	100.00%
Provisioning Exp 6512	3,473,597.18	192,553.36	3,666,150.54	5.25%	0.37%
Power Exp 6531	10,292,076.80	51,652.50	10,343,729.30	0.50%	1.05%
Network Admin 6532	27,559,586.20	817,167.13	28,376,753.33	2.88%	2.89%
Testing Expenses 6533	62,462,062.95	18,607,489.68	81,069,552.63	22.95%	8.26%
Plant op. Admin 6534	86,700,923.82	9,888,139.06	96,589,062.88	10.24%	9.84%
Engineering Exp 6535	75,390,551.77	416,200.33	75,806,752.10	0.55%	7.72%
Access Exp 6540	12,801,651.72		12,801,651.72	0.00%	1.30%
Depreciat of used in allocation 6561	660,917,804.77	5,150,239.26	666,068,043.73	0.77%	67.87%
Inventory Exp Tangible 6563	2,747,692.93	166,627.64	2,914,320.57	5.72%	0.30%

w/o 6124

used to allocate Gen. Support Related Expenses

Excludes 6124 - why? Duplicate it because this is allocated same as 6124

used to allocate COE Related

Information oriented based on MTR

near regulated Cable & wire Related

Plans Non-Specific Related cut-off CPO 5

Am. Exp Other	6565	3,670,747.23	151,959.68	3,822,706.91	3.98%	0.39%
		945,926,695.07	35,442,028.64	981,368,723.71	3.61%	100.00%
Product mgmt	✓ 6611	18,598,775.58	673,281.43	19,272,057.01	3.49%	53.54%
Product Advertis	6613	15,615,196.26	1,107,057.44	16,722,253.70	6.62%	46.46%
		34,213,971.84	1,780,338.87	35,994,310.71	4.95%	100.00%
Sales	- 6612	61,777,824.33	1,471,260.14	63,249,084.47	2.33%	19.28%
all Completion Saw.	6621	20,350,172.35	6.47	20,350,178.82	0.00%	6.23%
# Services	6622	58,039,042.46		58,039,042.46	0.00%	17.76%
Customer Sew	✓ 6623	238,781,818.14	9,569,465.87	248,351,284.01	3.85%	76.01%
		317,171,032.95	9,569,472.34	326,740,505.29	2.93%	100.00%
Executive	✓ 6711	10,034,029.72	600,039.17	10,634,068.89	5.64%	4.16%
Planning	✓ 6712	4,426,546.86	235,932.37	4,662,479.23	5.06%	1.82%
Acctg & Fin	✓ 6721	35,543,847.17	1,607,622.39	37,151,469.56	4.33%	14.54%
Internal Relations	✓ 6722	21,923,966.54	591,582.95	22,515,548.89	2.63%	8.81%
Human Resources	✓ 6723	25,709,448.25	1,897,398.07	27,606,846.32	6.87%	10.80%
Legal	- 6725	8,048,573.50	6,090,289.84	14,138,863.34	43.07%	5.53%
Recruitment	✓ 6726	9,949,186.75	483,519.50	10,432,706.25	4.63%	4.08%
R & D	- 6727	11,424,261.06	254,793.85	11,679,054.91	2.18%	4.57%
Other G&A	- 6728	109,856,368.54	6,910,382.40	116,766,750.94	5.92%	45.69%
		236,916,228.39	18,671,559.94	255,587,788.33	7.31%	100.00%

Bell South being billed directly for services related to customer related mktg
 Premise Sales Pool C/P01

Customer Related Other

Corporate Related Other

Source: Balance to Reg. Accts Report

- ✓ Sample of expenses being reviewed in NARUC C S&P audit to determine if charged to proper cost pool
- Sample of expenses being reviewed in FIA. Rate Case audit to determine if charged to proper cost pool.

✓ - Both of these have had analysis done by cost pool & are being turned over to Archie Hickerson to test appropriate OAM allocation

Most large accts appear to be being reviewed
 need to do circled items Not able to complete
 due to time restrictions

COMPANY: GST
 TITLE: ANALYSIS OF 5000 ACCOUNTS
 TEST YEAR: DECEMBER 31, 1992
 AUDITOR: K. WELCH
 DATE: AUGUST 17, 1993
 WORKPAPER #

ACCOUNT	FR REG	NON-REG	TOTAL	% NON REG	% TO TOTAL GROUP
6112	7,069,054.35	509,354.05	7,578,408.40	6.72%	4.48%
6113	1,697,232.37	113,423.00	1,810,655.37	6.26%	1.07%
6114	555.27	38.06	593.33	6.41%	0.00%
6115	332,731.54	29,530.33	362,261.87	8.15%	0.21%
6116	678,549.34	43,687.06	722,236.40	6.05%	0.43%
6121	65,044,447.55	1,720,739.52	66,765,187.07	2.58%	39.49%
6122	2,049,471.52	138,214.85	2,187,686.37	6.32%	1.29%
6123	12,455,104.93	253,848.81	12,708,953.74	2.00%	7.52%
6124	72,697,526.85	4,215,506.27	76,913,033.12	5.48%	45.50%
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	162,024,573.72	7,024,341.95	169,049,015.67	4.16%	100.00%
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6212	62,678,298.87	1,472,350.15	64,150,649.02	2.30%	41.96%
6211	33,506,212.51	99.37	33,506,311.88	0.00%	21.92%
6220	3,139,564.69		3,139,564.69	0.00%	2.05%
6231	720,463.58		720,463.58	0.00%	0.47%
6232	51,363,835.41		51,363,835.41	0.00%	33.60%
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	151,408,375.16	1,472,449.52	152,880,824.68	0.96%	100.00%
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6311	153,231.92		153,231.92	0.00%	0.19%
6341	1,137,039.34	1,324.33	1,138,363.67	0.16%	1.41%
6351	15,490,436.54		15,490,436.54	0.00%	19.12%
6362	23,243,570.86	41,004,513.30	64,248,084.16	63.82%	79.29%
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	40,024,278.66	41,006,337.63	81,030,616.29	50.61%	100.00%
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6411	7,046,181.24		7,046,181.24	0.00%	3.66%
6421	46,813,742.03		46,813,742.03	0.00%	24.29%
6422	18,395,205.72		18,395,205.72	0.00%	9.55%
6423	116,305,296.77		116,305,296.77	0.00%	60.35%
6424	84,360.30		84,360.30	0.00%	0.04%
6426	1,447,956.29		1,447,956.29	0.00%	0.75%
6431	72,692.42		72,692.42	0.00%	0.04%
6441	2,550,348.34		2,550,348.34	0.00%	1.32%
<hr/>					
	192,715,783.11	0.00	192,715,783.11	0.00%	100.00%
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6512	3,473,597.18	192,553.36	3,666,150.54	5.25%	0.35%
6531	10,292,076.80	51,652.50	10,343,729.30	0.50%	1.00%
6532	27,559,586.20	817,167.13	28,376,753.33	2.88%	2.73%
6533	60,127,195.95	18,607,489.68	78,734,685.63	23.63%	7.59%
6534	95,700,923.82	9,888,139.06	105,589,062.88	10.24%	9.31%
6535	75,300,551.77	416,200.33	75,716,752.10	0.55%	7.30%
6540	12,801,651.72		12,801,651.72	0.00%	1.23%
6561	719,710,275.47	5,150,239.26	724,860,514.73	0.71%	69.84%
6562	2,747,592.93	166,827.64	2,914,420.57	5.72%	0.28%

6565	3,670,747.23	151,959.68	3,822,706.91	3.98%	0.37%
	1,002,384,289.07	35,442,028.64	1,037,826,317.71	3.42%	100.00%
6611	18,598,775.58	673,281.43	19,272,057.01	2.49%	53.54%
6613	15,615,196.26	1,107,057.44	16,722,253.70	6.62%	46.46%
	34,213,971.84	1,780,338.87	35,994,310.71	4.95%	100.00%
6612	51,777,824.33	1,471,250.14	53,249,074.47	2.33%	19.39%
6621	20,220,997.35	6.47	20,221,003.82	0.00%	6.20%
6622	58,039,042.46		58,039,042.46	0.00%	17.80%
6623	238,321,115.14	9,569,465.87	247,890,581.01	3.86%	76.00%
	316,581,154.95	9,569,472.34	326,150,627.29	2.93%	100.00%
6711	9,208,971.72	600,039.17	9,809,010.89	6.12%	3.83%
6712	4,426,546.86	235,932.37	4,662,479.23	5.06%	1.82%
6721	35,462,687.17	1,607,622.39	37,070,309.56	4.33%	14.47%
6722	21,923,966.54	591,582.35	22,515,548.89	2.63%	8.78%
6723	25,569,957.25	1,897,398.07	27,467,355.32	6.91%	10.72%
6725	8,048,573.50	5,090,289.84	14,138,863.34	43.07%	5.52%
6726	9,949,186.75	483,519.50	10,432,706.25	4.63%	4.07%
6727	11,424,261.06	254,793.85	11,679,054.91	2.18%	4.56%
6729	111,614,654.54	6,910,382.40	118,525,036.94	5.83%	46.24%
	227,648,905.39	18,671,559.94	256,320,465.33	7.28%	100.00%

COMPANY: 98T
 TITLE: ANALYSIS OF 6000 ACCOUNTS FOR APRIL
 TEST YEAR: DECEMBER 31, 1992
 AUDITOR: K. WELCH
 DATE: AUGUST 17, 1993
 WORKPAPER #

ACCOUNT	REG	NON-REG	TOTAL	% NON REG	% TO TOTAL GROUP	
6112	224,745.36	18,568.40	243,313.76	7.62%	3.29%	
6113	124,634.21	7,752.17	132,386.38	5.86%	1.79%	
6115	25,853.67	2,151.02	28,004.69	7.68%	0.28%	
6116	76,695.74	4,643.10	81,338.84	5.71%	1.10%	
6121	5,110,175.11	121,488.34	5,231,663.45	2.32%	70.67%	
6122	67,116.95	4,041.62	71,157.67	5.68%	0.95%	
6123	1,590,523.23	24,680.89	1,615,204.12	1.53%	21.82%	C P01
	7,219,743.37	183,325.54	7,403,068.91	2.48% 48-16p3	100.00%	
6212	3,088,480.82	33,311.56	3,121,792.38	1.07%	29.18%	
6211	3,343,823.60	2.11	3,343,825.71	0.00%	31.25%	C P02
6220	125,010.52		125,010.52	0.00%	4.17%	
6231	33,498.98		33,498.98	0.00%	0.31%	
6232	4,076,079.74		4,076,079.74	0.00%	38.09%	
	10,666,893.66	33,313.67	10,700,207.33	0.31% 49-16p3	100.00%	
6311	9,876.14		9,876.14	0.00%	0.18%	
6341	44,952.65	99.56	44,952.21	0.22%	0.83%	C P03
6351	955,872.00		955,872.00	0.00%	17.70%	
6362	1,684,047.64	2,705,144.31	4,389,191.95	61.63%	81.28%	
	2,694,648.43	2,705,243.87	5,399,892.30	50.10%	100.00%	
				49-16p3		
6411	580,529.73		580,529.73	0.00%	3.64%	
6421	3,818,009.98		3,818,009.98	0.00%	23.94%	C P04
6422	1,495,038.09		1,495,038.09	0.00%	9.37%	
6423	9,751,693.72		9,751,693.72	0.00%	61.14%	
6424	34.36		34.36	0.00%	0.00%	
6426	86,638.94		86,638.94	0.00%	0.54%	
6431	1,617.72		1,617.72	0.00%	0.01%	
6441	216,479.26		216,479.26	0.00%	1.36%	
	15,950,041.80	0.00	15,950,041.80	0.00%	100.00%	
				49-16p3		
6512	588,229.72	23,162.60	611,392.32	3.79%	2.75%	
6531	713,952.11	3,044.34	716,996.45	0.42%	3.22%	C P05
6532	2,299,429.39	6,915.31	2,306,344.70	0.30%	10.36%	
6533	4,836,733.26	1,118,818.71	5,955,551.97	18.79%	26.76%	
6534	5,826,077.52	688,872.47	6,494,949.99	10.30%	29.18%	
6535	6,142,353.52	28,923.22	6,171,276.74	0.47%	27.79%	
	20,406,775.52	1,849,736.55	22,256,512.17	8.31%	100.00%	
				Per 49-16p3/867.		
6611	1,569,634.45	55,818.55	1,625,453.01	2.43%	28.47%	

6612	4,981,523.27	44,992.25	5,026,515.52	0.90%	18.52%
LESS CP01 6612	(4,029,015.13)	(27,689.65)	(4,056,704.78)	0.68%	-14.95%
6613	2,799,328.50	314,045.71	3,113,374.21	10.89%	54.54%
	5,321,471.00	387,156.87	5,708,637.96	6.78%	86.59%
				49-16p3	
6621	1,727,510.42		1,727,510.42	0.00%	5.37%
6622	4,682,911.64		4,682,911.64	0.00%	17.26%
6623	19,952,820.13	773,511.49	20,726,331.62	3.73%	76.38%
	26,363,142.19	773,511.49	27,136,653.68	2.85%	100.00%
				49-16p3	
6711	727,032.12	39,836.96	766,869.08	5.19%	4.22%
6712	510,105.81	23,202.92	533,308.73	4.35%	2.93%
6721	2,958,557.15	110,236.59	3,068,793.74	3.60%	16.88%
6722	1,645,263.31	45,612.74	1,690,876.05	2.70%	9.30%
6723	1,913,107.71	129,026.84	2,042,134.55	6.32%	11.23%
6725	946,829.17	340,350.62	1,287,189.79	26.44%	7.08%
6726	820,380.26	21,006.62	841,386.88	2.50%	4.63%
6727	792,284.99	22,828.50	815,113.49	2.80%	4.48%
6728	6,455,630.60	675,417.11	7,132,047.71	9.48%	39.23%
	16,769,301.12	1,408,688.90	18,177,990.02	7.75%	100.00%
				Pen 49-16p3	
				5.64%	

CP08
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 must be done after
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COMPANY: 3ST
 TITLE: ANALYTICAL REVIEW OF BELLCORE
 TEST YEAR: 1992
 AUDITOR: KATHY WELCH
 DATE: AUGUST 3, 1993
 WORKPAPER #

ACCOUNT #	1992	INCREASE OVER 91	1991	INCREASE OVER 90	1990
	476,033,702.26	99.42%	483,665,623.04	107.97%	447,954,450.60
Force Adj. Allow	401113 3,991,568.57	209.42%	1,906,044.30		
Incremental Inc. over Budget	401114 20,287,329.43	368.80%	5,500,924.70		
	401115 143,855.90				
	401116	0.00%	1,361,154.00		
	401121 3,497,982.20	114.81%	3,046,794.46	60.11%	5,068,706.89
Other Mfg Supplies	403111 12,255,640.37	71.74%	17,082,412.77	79.61%	21,458,097.70
	403112 62,767.40	1.77%	3,541,928.37	71.05%	4,985,330.29
	403113 2,121,269.87	100.56%	2,109,539.23	108.65%	1,941,568.78
	403114 291,427.07	101.05%	288,392.13	69.87%	412,733.53
Books	403115 1,217,970.21				
Computer Supp	403116 4,392,171.18				
Office Supp	403117 1,994,854.54				
Electronic Comp	403118 1,950,682.89				
Hardware	403119 261,179.11				
Lab Supp	403120 758,163.41				
Contract Svc RV Rep	403251 453,230.98	9.05%	5,010,661.84	91.64%	5,467,562.95
	403252 10,478.34				
	403253 2,978.30				
	403254 30,918,490.33	110.00%	28,106,827.00	89.99%	31,233,128.53
	403255 1,345,287.24	86.95%	1,547,211.72	69.78%	2,217,360.19
	403256 1,936,788.08	106.66%	1,815,813.10	120.11%	1,511,748.23
Contract Serv. Eng Dnt	403261 550,144.76	35.46%	1,551,267.14	317.86%	488,037.56
	403262 625,459.71	77.49%	807,121.00	130.52%	618,408.00
	403263 1,100,681.83	103.69%	1,061,474.60	104.93%	1,011,581.39
	403264 3,499,638.91	94.78%	3,692,309.83	98.43%	3,751,286.77
	403265 12,041,962.95	118.87%	10,130,635.49	67.39%	15,032,724.03
	403266 13,429,629.43	128.00%	10,492,261.18	99.07%	10,591,010.47
	403271 15,297,590.59	165.20%	9,260,183.24	199.37%	4,644,740.40
	403281 248,904.84	58.74%	423,736.70	96.00%	441,400.09
Outplacement Svc. For	403282 (44,978.57)	-6.44%	697,915.00		
	403283	0.00%	184,685.00		
Contract Svc. L.C.	403291 1,323,414.00	93.36%	1,417,600.29	2569.03%	55,180.44
	403311 3,616,324.66	93.04%	3,986,760.74	93.39%	4,162,004.03
	403321 1,819,495.85	57.20%	3,180,774.91	73.14%	4,349,102.53
	403322 93,242.48	75.42%	123,633.65	99.23%	124,513.88
	403331 11,596,200.87	97.88%	11,847,694.30	92.31%	12,834,275.78
	403341 5,738.57	83.41%	6,979.72	20.54%	33,332.40
	403351 1,272,545.42	90.60%	1,404,585.36	98.03%	1,432,825.51
Tracking	403361 1,258,614.60	128.17%	981,988.13	79.47%	1,235,701.19
Misc Contract Svc	403391 16,563,089.11	121.06%	13,682,076.70	95.16%	14,377,945.25
	403392 3,708,677.99	102.65%	3,612,951.63	95.43%	3,785,998.00
	403393 441,772.39	87.39%	505,489.36	218.37%	231,484.73
	403394 1,898,538.03	98.08%	2,155,591.98	98.57%	2,186,798.54
	403411 11,427,685.48	124.46%	9,181,680.11	133.14%	6,896,095.16
	403412 (79,162.01)				
	406212 20,728,493.25	102.52%	20,219,676.39	79.51%	25,430,863.32

COMPANY: 8ST
 TITLE: ANALYTICAL REVIEW OF BELLCORE
 TEST YEAR: 1992
 AUDITOR: KATHY WELCH
 DATE: AUGUST 3, 1993
 WORKPAPER #

ACCOUNT #	1992	INCREASE OVER 91	1991	INCREASE OVER 90	1990
406213	2,189,550.62	103.93%	2,106,802.14	76.85%	2,741,569.10
406214	1,368.55	75.10%	1,822.28	26.86%	6,784.04
406215	44,178.64	93.88%	47,056.76		
406251	1,217,818.00	111.14%	1,095,714.31	76.52%	1,430,039.14
406252	147,743.75	106.35%	138,916.61	77.05%	180,288.30
406253	339.99	46.14%	736.91	85.50%	861.92
406254	45,296.41	79.06%	57,295.55	78.67%	72,826.48
406255	6,911.77	319.97%	2,160.10		
Relocation Exp. 406311	9,993,567.43	98.73%	9,108,831.01	88.38%	10,306,616.87
Relocation RTAP 406321	255,341.60				
406331	3,047,374.10	109.75%	2,776,556.49	113.37%	2,449,097.05
406391	2,709,611.67	101.49%	2,669,778.86	48.38%	5,517,919.73
406411	816,231.44	83.33%	972,551.58	63.73%	1,526,167.20
406421	49,316.92	56.87%	86,711.71	191.14%	45,365.51
406431	53,475.48	94.65%	56,495.31	85.76%	65,873.79
406451	244,014.08	62.85%	388,243.26	144.12%	269,390.44
406511	11,758,530.75	98.63%	11,922,374.67	103.13%	11,560,031.18
406711	174.70	0.00%	3,586,961.70	143.95%	2,491,894.17
Membership Fees & Dues 406811	1,742,245.60	120.51%	1,445,780.93	126.62%	1,141,792.65
406910	1,461,349.81	184.68%	791,267.03		
406911	3,478,771.28	69.46%	5,007,974.17	73.24%	6,838,036.63
406913	1,587,613.42	64.40%	2,465,182.16	55.10%	4,473,807.67
Recognition Awards 406914	142,845.79	258.68%	55,220.36	594.91%	9,282.08
406915	11,190.00				
Training Reg. Fees 406916	722,422.01				
406917	135,257.38				
406918	146,821.30				
406998	0.00			0.00%	(235,944.38)
407111	16,525,878.61	95.58%	17,289,336.27	99.76%	17,330,827.70
407211	15,772,997.64	91.81%	17,180,179.52	97.80%	17,566,877.21
407311	171,906.33	83.43%	206,038.10	109.86%	187,550.05
407411	811,369.90	158.70%	511,266.40	191.29%	267,274.31
408111	31,083,092.17	99.04%	31,384,366.49	97.80%	32,091,187.08
Rentals & Lease Equip 408211	25,112,359.01	82.69%	30,368,516.83	101.93%	29,793,060.70
408311	425,241.58	85.20%	499,119.21	114.00%	437,898.79
408411	8,543,169.99	126.97%	6,728,495.99	94.54%	7,116,722.11
408911	329,823.91	41.58%	793,158.21	99.81%	794,691.61
411111	(6,105.73)	275.90%	(2,213.04)	-5.79%	38,245.71
411911	8,042.22	140.24%	5,734.60	91.46%	6,270.36
415111	82,889.26	48.54%	170,753.84	95.89%	178,074.94
Leased Telcom Equip 415211	2,533,554.42	61.94%	4,090,548.84	97.58%	4,191,989.70
Local Message Units 415311	6,302,524.12	103.63%	6,081,801.36	102.31%	5,944,297.13
415312	134,179.03	7071.99%	1,897.33		
415411	3,410,004.19	92.93%	3,669,351.83	113.37%	3,236,659.87
416111	3,664,168.79	103.24%	3,549,268.32	103.01%	3,445,403.96
TOTAL 400	842,285,987.40	101.14%	832,804,153.11	102.68%	809,464,657.96

Inco. in
Exp 9,481,834.29

COMPANY: BST
 TITLE: ANALYTICAL REVIEW OF BELLCORE
 TEST YEAR: 1992
 AUDITOR: KATHY WELCH
 DATE: AUGUST 3, 1993
 WORKPAPER #

ACCOUNT #	1992	INCREASE OVER 91	1991	INCREASE OVER 90	1990
Pension Plan Mgmt 501111	13,589,980.01	49.68%	27,357,416.00	119.57%	22,890,181.00
501121	370,148.01	77.14%	479,866.00	-175.14%	(273,984.00)
Pension Plan Mgmt Tru 501131	1,593,752.34	58.86%	2,707,635.82	95.34%	2,839,998.44
501141	19,830.00	13.82%	143,533.02	138.92%	103,320.00
Pension Exp. Other 501151	11,121,037.96	4866.45%	228,524.70	49.88%	459,105.20
501211	19,746.91	80.01%	24,679.16	288.62%	8,550.88
501212	131.50	9.89%	1,330.17		
501222	3,585,418.76	106.06%	3,380,703.43	118.63%	2,849,730.96
501224	9,122.46	111.46%	8,184.44	51.31%	15,950.67
501225	92,567.22	116.50%	79,459.54		
501231	1,821.00	101.06%	1,801.90	10.67%	16,892.39
501391				0.00%	1,200.00
Death Benefits 501411	377,684.99			0.00%	305,257.98
501511				0.00%	54,606.83
501611	706,777.26	71.40%	989,862.16	79.60%	1,243,500.12
501621	166,192.16	102.27%	162,500.16	59.31%	273,999.96
501641	175,857.29	73.63%	238,851.94	121.68%	196,299.20
501651	14,388,240.22	104.02%	13,831,964.26	113.77%	12,158,186.18
501652	2,201,151.27	100.91%	2,183,572.00	109.10%	2,001,504.00
501653		0.00%	20,134.57	4491.42%	448.29
501661	450,994.70	117.56%	383,621.48	98.21%	390,596.43
501662	98,899.01	330.02%	29,967.74	24.05%	124,598.00
Group Life Flex 501711	797,927.37	178.10%	448,030.03	40.08%	1,117,831.34
501712	116,938.93	24.00%	487,286.86	93.50%	521,136.59
501721	9,714.90	126.79%	7,661.94	251.81%	3,042.78
Dental Retirees 501722	276,562.50	1189.77%	23,245.10	7.88%	294,996.00
501723	116,302.45	101.69%	114,367.04	90.12%	126,899.25
501724	19,768.18	148.50%	13,311.96		
Medical Ins Retirees 501731	2,359,309.65	132.92%	1,774,996.51	80.63%	2,201,532.93
Flex Subsidization 501732	3,000,000.00			0.00%	2,369,609.85
501733	693,000.00	184.90%	375,000.00	25.00%	1,500,000.00
501741	85,452.18	140.64%	60,760.57	104.23%	58,297.10
501751				0.00%	204.84
Flex Com. Credit 501751	39,556,665.10	122.42%	32,311,606.15	97.97%	32,980,897.54
501771	929,793.37	119.94%	775,208.41	190.61%	406,702.49
501772	17,583.07	122.59%	14,342.45		
501811	329,843.53	150.45%	219,236.46	91.92%	238,499.36
501812	60,771.63	103.41%	58,765.28		
501813	28,878.40	131.41%	21,975.35	71.72%	30,639.47
501814	5,584.88	56.08%	8,451.12	143.80%	5,876.97
501911	21,323.55	79.94%	26,674.78	24.13%	110,536.12
501912	146,398.00	135.37%	109,143.60		
Non Quality Pension 501917	1,112,605.01	1925.28%	57,789.25		
Non Quality Pension Sr Mgmt 501914	5,434,823.01	1800.44%	301,860.48		
501915	299,424.95	151.02%	198,265.08		
501921	323,237.93	174.95%	184,763.06	114.10%	161,936.63

COMPANY: BST
 TITLE: ANALYTICAL REVIEW OF BELLCORE
 TEST YEAR: 1992
 AUDITOR: KATHY WELCH
 DATE: AUGUST 3, 1993
 WORKPAPER #

ACCOUNT #	1992	INCREASE OVER 91	1991:	INCREASE OVER 90	1990
502111	78,719,109.03	101.43%	77,609,768.20	105.44%	73,507,564.24
<i>Deprec Gain/Loss</i> 502112	7,895,438.07	178.49%	4,423,449.99	238.53%	1,854,492.81
502211	988.45	120.02%	823.54	100.00%	823.53
502221	63,965.63	65.89%	97,072.55	99.23%	97,827.59
502222				0.00%	1,038,817.17
<i>Amortiz Cap Lease</i> 502311	14,259,020.13	137.88%	10,341,968.08	123.27%	8,389,899.64
503111	36,849,050.00	104.02%	35,426,436.00	107.05%	33,092,620.00
503113	(1,327,000.00)	93.91%	(1,413,000.00)	61.17%	(2,310,000.00)
503121	(18,061,017.00)	111.01%	(16,269,961.00)	86.68%	(18,770,977.00)
503122	(3,735,282.00)	244.10%	(1,530,242.00)	104.62%	(1,462,675.00)
503211	9,957,463.00	135.28%	7,360,457.00	89.41%	8,232,009.00
<i>Dej Tax Vacation Acc</i> 503221	(4,499,017.00)	167.29%	(2,689,421.00)	141.87%	(1,895,690.00)
503231	8,170,499.09	101.10%	8,081,350.07	112.06%	7,211,310.40
503241	(949,563.00)	234.25%	(405,360.00)	123.57%	(328,046.00)
<i>State ID Tax</i> 503311	678,892.00	122.78%	552,939.00	111.02%	498,043.00
503331	88,600.00	692.19%	12,800.00	35.73%	35,820.00
503332		0.00%	29,600.00		
504111	489,120.66	92.61%	528,157.66	105.76%	499,380.36
504211	33,340,892.85	104.19%	31,999,934.29	112.39%	28,472,063.11
<i>St. Unemploy Tax</i> 504311	2,371,084.18	169.22%	1,401,219.37	102.24%	1,370,474.21
504411	5,809.95	-319.87%	(1,816.32)	122.19%	(1,486.53)
505111		0.00%	28,600.01	116.97%	24,450.00
505211	1,705,291.98	83.41%	2,044,408.26	103.52%	1,974,834.46
505221	5,382,884.02	94.99%	5,667,005.10	93.73%	6,045,795.28
506211	16,065.64	11.58%	138,699.12		
506311	49,972.51	68.70%	72,737.47		
506811	(1,667,493.35)				
<i>Other Corp Costs</i> 506911	16,631,837.77	611.54%	2,719,666.38	7512.24%	36,203.15
<i>Residual</i> 507111	4,510,913.52	100.00%	4,510,913.52	100.00%	4,510,913.52
509111	1,005,072.27	33.62%	2,999,813.40	246.08%	1,214,987.66
<i>Interest Exp</i> 509211	2,846,884.50	53.14%	5,357,034.38	86.49%	6,193,888.91
509221	1,493.32	-34.01%	(4,390.62)	9.70%	(45,253.48)
<i>Interest Cap Lease</i> 509411	4,313,097.50	152.31%	2,831,860.02	121.76%	2,325,792.94
509911		0.00%	662.73		
510111	528,762.00	126.05%	419,475.35	108.60%	386,239.94
510211	570,333.00	73.93%	771,401.00	173.82%	443,804.00
<i>Ins. W/C</i> 510311	1,183,524.50	258.33%	458,137.13	118.98%	385,049.40
510411		0.00%	100.00	100.00%	100.00
<i>Errors & Ammis</i> 510811	448,015.85				
<i>Other Ins</i> 510911	518,421.95	69.87%	741,937.23	112.83%	657,576.00
520111	226,228.35	98.78%	229,015.86	115.45%	198,371.93
520211	79,640.90	98.59%	80,779.60	122.83%	65,765.00
520311	21,600.00	165.52%	13,050.00	43.94%	29,700.00
520411	178,300.00	93.82%	190,050.00	97.59%	194,750.00
520511	155,290.00	85.30%	182,960.00	72.45%	251,280.00
520611	6,600.00	366.67%	1,900.00	180.00%	1,000.00
520711	13,137.90	110.77%	11,860.00	79.91%	14,842.00

CONFIDENTIAL
 TITLE: ANALYTICAL REVIEW OF BELLCORE
 TEST YEAR: 1992
 AUDITOR: KATHY WELCH
 DATE: AUGUST 3, 1993
 WORKPAPER #

ACCOUNT #	1992	INCREASE		1991	INCREASE		1990
		OVER 91	%		OVER 90	%	
520911	38,400.00	127.15%		30,200.00	40.92%		73,800.00
TOTAL 500	307,793,589.83	111.97%	274,888,301.35	108.89%	252,453,743.03		

Inc in Exp 32,905,288.48

Total Inc 42,387,122.77

WP49-1 p11 describes \$53.9 mil. impact of reorg costs.
 This would indicate that other costs actually
 decreased by \$11,512,878

Source: Bellcore T/B.

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CONFIDENTIAL

"Proprietary"

Not completed due to time restrictions
"ESPI"

49-17

Bellcore
KW

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 07/02/93
Amended Response to
Item No. 2-117
Page 1 of 2

Request: Provide the following Bellcore accounts for 1992, provide the balances per the general ledger by month. For the highest month of the twelve, provide all supporting documentation for all entries for each of these accounts.

406212
408111
408211
649086
671151

Response: The Company amends its response of July 12, 1993 in which it stated that the requested information or a status report would be provided on or before July 19, 1993 as follows:

See Attachment A for the 1992 general ledger balances, by month, for accounts 406-212, 408-111, 408-211, 649-086, and 671-151.

The highest month for each account are as follows:

<u>Account</u>	<u>Highest Month</u>
406-212	December 1992
408-111	January 1992
408-211	September 1992
649-086	September 1992
671-151	December 1992

Bellcore has provided the requested supporting documentation in the form of a report which identifies the charges to the accounts in question. The report provides the amount of each charge, vendor name, date paid and other identifying information for Bellcore. Due to the number of entries involved for each of the

Southern Bell Tel. & Tel. Co.
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Item No. 2-117
Page 2 of 2

Response continued:

accounts, further supporting documentation (i.e., invoices, vouchers, etc.) would be voluminous and require extensive time to compile for each of these accounts. However, Bellcore is willing to compile further supporting documentation for a sample of these entries.

This supporting documentation information constitutes very sensitive proprietary confidential business and is being mailed to the 666 Flagler Street building to be available for review on Company premises on July 16, 1993.

SPECIFIED CONFIDENTIAL

Date Provided: July 15, 1993

323

808

MS 10:20 06-01-10

Staff reviewed all ESPI documentation provided by payee

corp ledger see 49-18/12
Washington Reg

Per the General Ledger, the balances by month for the accounts indicated are as follows:

	406-212	408-111	408-211	649-086	671-151
January	974,480.04	2,658,405.59	2,343,752.68	134,474.04	31,944.88
February	1,494,442.00	2,499,279.26	1,899,441.80	147,960.22	33,622.60
March	2,053,266.54	2,641,968.30	2,060,432.44	175,977.40	34,236.40
April	1,890,278.21	2,630,066.98	2,135,103.90	158,008.10	34,209.12
May	1,656,063.50	2,621,979.66	2,306,357.50	160,849.94	34,236.40
June	1,929,844.54	2,623,774.75	2,037,114.59	153,304.01	32,422.28
July	1,723,936.85	2,504,617.30	1,931,503.08	202,247.55	32,940.60
August	1,600,700.57	2,545,103.21	2,129,487.44	180,593.11	33,881.76
September	1,470,884.50	2,597,944.79	2,561,709.30	209,938.45	34,236.40
October	1,956,925.72	2,579,733.69	2,014,419.79	188,334.90	34,222.76
November	1,762,766.85	2,591,925.28	1,985,645.31	198,131.34	34,222.76
December	2,204,903.93	2,588,293.36	1,707,391.18	(5,147.30)	76,463.47
				\$ 1,904,671.60	\$ 446,639.43

49-12
1

49 P1

- (A) Consists mainly of A/P entries most under \$5000 - skimmed - appeared to payroll
- (B) Consists mainly of vouchers. Several are over \$100,000 & being tested in an alternative test. (One River Assoc, Shaw Assoc, Sudler, Evans Charles, Soulyte Corp, Circle Assoc) (49-14)
- (C) Mostly small vouchers, selected a few for review 49-18/11 (Bell Atlantic Leasing 49-14) (Arndahl Corp 49-14)

Confidential

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CONFIDENTIAL

EST

Account 408-211 Bellcore
1992

KW
8/6/93

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Out	Dist acct	Dist Voucher	Dist Inv #	Payee	Amt	check
9/24/92	1001408211	258715/20	984072	1794-101 BKRT	IFC One (A)	
9/24/92	1001408211	258715/20	719429	3056	total F.C.I. Sy	
9/24/92	1001408211	258715/20	845418	666-788	World Jour	
9/24/92	1001408211	258715/20	284027	2511-8402	Central Syst	
9/24/92	1001408211	258715/20	284027	66782-486	MagnaLan	
9/24/92	1001408211	258715/20	713143	9092056	IBM	



(A) Rent on Equip - Disk, Cable, Adapter, Block New Cl...
 (B) Rent 1 Digital vax 6430 system 7/92-9/92
 (C) Monthly lease payment for RIM10 System
 (D) Billing for Rent of Central System Capital
 Recovery System for our 21 Dec 93. Picked from
 9/10 Sept 92. This month out of period at 5208
 is immaterial

Source: Reg 2-117C

(E) Equip Rental Computer, Printer etc.
 (F) Rent L.C. RISC System

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RECEIVED

SEP 5 1993

Florida Public Service Comm.
Miami, Florida

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 08/11/93
Item No. 2-117.1
Page 1 of 2

Request: A. Provide detail for charges to Account 649-086, Project 915XXX and Account 671-151, Project 815XXX as done in this request for Account 406-212, 408-111 and 2117.

Do the XX's mean that there are sub-projects? If so, provide descriptions and dollars for each.

B. Are any of these costs charged to Project 48004? If so, describe duplication.

C. Provide supporting documentation for the 6 checks from ESPI. List provided on attached sheet. (The list was given to Al Carreras due to the confidential nature and since it may be ESPI material).

Response: A. As included in our original response to Data Request 2-117 and included in Attachment 1, Accounts 649-086 and 671-151 represent allocation chargeback accounts and as such, accumulate cost on the basis of allocations identified in Accounting Instruction 02, Bellcore's Cost Accounting/Allocation Process. These accounts are not billable to any customer, but are used to accumulate costs for the purpose of allocating to external billable projects. The XX designations in the project number represent different work package levels which provide Bellcore with the ability to track the allocation of costs at a more detailed level for the allocation to external billable projects.

This material constitutes proprietary confidential business information and is being produced subject to a "Notice of Intent to Request Confidential Classification."

B. Yes, there are costs charged to external project 48004 from Accounts 649-086 and 671-151. However, there is no duplication of costs as these accounts are reduced to zero after allocation to the external billable projects(s). The supporting costs details associated with such allocations are handled in accordance with Accounting Instruction 02.

4918
2

**BELLCORE
TOTAL SALARY DOLLARS FOR
REQUESTED EMPLOYEES**

REVISED

**Data Request
#93-0145**

Project(s) Charged	Employee Name	Total Salary (401 - 111)	Total Overtime (401 - 121)	Total Charged
A1701	Mike Knapp	282,023.06	4,255.13	286,278.19
	Ramona Stewart			
	Mary Davis			
	Joel Ader			
	William Wesley			
	Carrie Jackson			
	Portia Morris			
	Jennifer Sheppard			
	Suzan Andrews			
	Rosiland Parker			
81501	Eddie Cooper	93,680.94	3,697.03	97,377.97
	Brenda Wesley			
	Jacqueline White			
	Mike Knapp			
91501	Rosiland Parker	179,589.13	3,286.85	182,875.98
	Angela Patterson			
	Mimi Darayand			
	Baxlor Macon			
	Brenda Wesley			
	Jennifer Sheppard			
	Jacqueline White			

PROPRIETARY

PROPRIETARY - BELLCORE AND AUTHORIZED CLIENTS ONLY

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ITEM NO. 2-098.A
ATTACHMENT

Michael Knapp - Director, Federal Regulatory Matters

On behalf of Bellcore, interfaces with the Federal Communications Commission, industry organizations and the RHC client companies in Washington, D.C. Supervises the managers of the Federal Regulatory Resource Center and Administrative Services projects.

Federal Regulatory Resource Center
1992 Project Number 582402 (A1701)

The Federal Resource Center project provides a centralized location for procuring documents from the Federal Communications Commissions and the U S Courts on behalf of its seven BCC clients. These documents are distributed, daily, to over 40 BCC locations for their use in responding to FCC proceedings (i.e., dockets, rulemakings, etc.) and other issues of importance to them. The Federal Resource Center project also procures U S Court documents, on behalf of the BCCs, that are of importance to them. In addition, the Federal Resource Center project provides the BCCs with access to individuals to perform specialized FCC and U S Court research on behalf of that BCC client. A typical example is that a BCC requests that a staff member research information for them from a past FCC proceeding.

Federal Resource Center Staff

Joe Ader - Staff Manager

Directly manages the staff and operations of the Federal Resource Center staff.

Portia Morris - Assistant Manager

Performs specialized FCC research for individual BCC clients and is responsible for monitoring and tracking a specific set of FCC proceedings on behalf of the clients.

Ramona Stewart - Assistant Manager

Performs specialized FCC research for individual BCC clients and is responsible for monitoring and tracking a specific set of FCC proceedings on behalf of the clients.

Susan Andrews - Specialist

Performs specialized FCC research for individual BCC clients and is responsible for monitoring and tracking a specific set of FCC proceedings on behalf of the clients. Also monitors U S Court proceedings of interest to the clients.

Mary Davis - Assistant Manager

Serves as the single point of contact for BCC informal complaints filed with the FCC. Interfaces with FCC staff and BCC staff to facilitate the resolution of the informal complaints.

Carrie Jackson -

Assists the Assistant Manager in the facilitation of BCC informal complaints.

Jennifer Sheppard - Senior Support Associate

Maintains the filing system for all FCC documents obtained from the FCC. This material includes docketed proceedings, tariffs, formal complaints and FCC Reports.

William Wesley - Support Associate

Responsible for distributing all FCC material obtained from the FCC to over 40 BCC locations daily. Normal daily distributing includes approximately 700 pages of FCC documents, 165 copies of the Daily Digest and 50 copies of the Federal Register.

WASHINGTON ADMINISTRATIVE SUPPORT
1992 Project Number 81501/915

Brenda Wesley - Associate Manager

Supervises support staff manager and directly manages the other members of the administrative staff in the Bellcore Washington, DC office. Also directly responsible for local area network and other communications functions in the office.

Mimi Darayand - Support Associate

Performs the Receptionist functions. Assist with the preparation of purchase orders, vouchers and accounts payable documentation.

Baxter Macon - Senior Support Associate

Responsible for all conference planning and facilitation activities in the Washington office. Administers the daily mailroom, supply ordering and stockroom functions for the office.

Eddie Cooper - Support Associate

Performs and administers the daily activities of the reproduction center. Responsible for processing the daily

overnight shipment of courier packages to the clients and has secondary responsibility for mailroom services.

Angela Patterson - Secretary

Provide secretarial, administrative and clerical support to the Federal Regulatory Director, Government Affairs organization and Legal organization.

Jacqueline White - Senior Support Associate

Provides administrative, clerical and secretarial support to the Government Affairs, Federal Regulatory and Legal organizations.

Rosiland Parker - Administrative Supervisor

Supervised the activities of support staff employees. Serves as liaison with Bellcore administrative personnel in New Jersey on behalf of the Washington office.

NOTE: On December 1, 1992, Rosiland Parker, Jacqueline White and Carrie Jackson left Bellcore as part of the work force adjustment at Bellcore.

PROPRIETARY

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 07/02/93
Amended Response to
Item No. 2-098.A
Page 1 of 1

Request: Re Bellcore: Clarification to Item #11. Instead of legislative/regulated, it should read "Washington Regulatory Support Division."

Response: In its response dated July 12, 1993 the Company stated that it would provide the information or a status report on or before July 19, 1993. The Company is providing the information as follows:

Bellcore has agreed to provide the following information in response to this request:

A list of the 1992 Bellcore employees, their job titles, job descriptions and a sheet showing total salaries paid to employees on each project is being mailed in the overnight mail on July 19, 1993. Individual employee salaries are not being furnished, as requested, for the following reasons, as stated on July 12, 1993 in response to Item No. 2-118.

BellSouth has requested this information from Bellcore. Bellcore has not provided the data, as requested, due to the following response:

1. Bellcore is concerned over the privacy issues related to providing confidential personal employee information.
2. Release of personal confidential employee information is in violation of Section 22, of Bellcore's Corporate Personnel Practice.
3. Bellcore is a non-regulated company.
4. BellSouth has only 14% ownership in Bellcore; other regions have not given consent to provide this information.

This material constitutes proprietary confidential business information and is being produced subject to a "Notice of Intent to Request Confidential Classification."

Date Provided: July 19, 1993

Southern Bell Tel. & Tel. Co.
FPSC Docket No. 920260-TL
Audit
Date: 07/02/93
Item No. 2-098.A
Page 1 of 1

Request: Re Bellcore: Clarification to Item #11. Instead of legislative/regulated, it should read "Washington Regulatory Support Division."

Response: The Company is not in possession of the requested information. BST has asked Bellcore to provide the requested information and Bellcore has stated that they will provide the information.

Bellcore has received an enormous number of requests from all seven regions and is processing them as quickly as possible. Bellcore has agreed to provide the information to the Company in sufficient time for the information or a status report on or before July 19, 1993.

Date Provided: July 12, 1993

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