

ORIGINAL

BELLSOUTH TELECOMMUNICATIONS, INC.

FPSC DOCKET NO. 990649-TP

STAFF'S 1ST REQUEST FOR PRODUCTION OF DOCUMENTS

POD NO. 2

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FPSC-RECORDS/REPORTING

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BELLSOUTH TELECOMMUNICATIONS, INC.

FPSC DOCKET NO. 990649-TP

STAFF'S 1ST REQUEST FOR PRODUCTION OF DOCUMENTS

POD NO. 4

PROPRIETARY

SNC UNE COST INPUTS REPORT

9/28/99

Florida - FL Docket 990649-TP

<u>ID No</u>	<u>Description</u>	<u>Source</u>	<u>Value</u>
-			
3			
4	NETWORK INPUTS		
5			
6	Intra-Office Call Set-up:		
7	Percent of Calls Using DTMF	Ntwk Eng	100.0%
8	Included AMA (Yes or No)	Ntwk Eng	Yes
9			
10	Line-Trunk Call Set-up:		
11	Percent of Calls Using DTMF	Ntwk Eng	100.0%
12	Percent of Calls Using SS7	Ntwk Eng	100.0%
13	Included AMA (Yes or No)	Ntwk Eng	Yes
14	Percent of Calls Using 7 Digits	Ntwk Eng	76.4%
15	Percent of Calls Which Complete	Ntwk Eng	74.1%
16			
17	Trunk-Line Call Set-up:		
18	Percent of Calls Using SS7	Ntwk Eng	100.0%
19	Percent of Calls Which Complete	Svc Eval System	74.1%
20			
21	Trunk-Trunk Call Set-up:		
22	Percent of Calls Using MF-MF Signalling	Ntwk Eng	0
23	Percent of Calls Using MF-SS7 Signalling	Ntwk Eng	0
24	Percent of Calls Using SS7-SS7 Signalling	Ntwk Eng	100.0%
25	Percent of Calls Using SS7-MF Signalling	Ntwk Eng	0
26	Percent of Calls Which Complete	Svc Eval System	74.1%
27			
28	SWITCH SPECIFIC INPUTS		
29			
30	MO10 Switching Functionality:		
31	5ESS - % MO10 Switching Functionality	BellCore	0
32	DMS - % MO10 Switching Functionality	BellCore	0
33			
34	Distribution of Remotes Switch type:		
35	Percent Remotes of 5ESS Switches	Dmd Fac Db	6.83%
36	Percent Remotes of DMS Switches	Dmd Fac Db	4.63%
37			
38	Distribution of End Office:		
39	Percent 5ESS of All Switches	Dmd Fac Db	69.46%
40	Percent DMS of All Switches	Dmd Fac Db	30.56%
41			
42	Distribution of Tandem:		
43	Percent 5ESS of All Switches	Trunk Forecast	10.7%
44	Percent DMS of All Switches	Trunk Forecast	89.3%
45			
46	Distribution of Calls:		
47	Percent Intra-Office Calls	Ntwk Sw DC	25.57%
48	Percent Inter-Office Calls	Ntwk Sw DC	74.43%
49			
50	Percent Tandem Occurrence of Inter-Office Calls	Separations	100.0%
51	USAGE INPUTS		

SNC UNE COST INPUTS REPORT

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<u>ID No</u>	<u>Description</u>	<u>Source</u>	<u>Value</u>
	Marginal Busy Hour Busy Season Traffic Load (CCS)	Ntwk Eng	20.6
55	Busy Hour to Full Day Ratio	Usg & Dmd Anal	9.8%
56	Ratio of Avg Busy Season Load to Avg Bus. Day Load	Usg & Dmd Anal	1.1
57	Ratio of Avg Business Day Load to Avg Cal. Day Load	Usg & Dmd Anal	1.177
58	Average Number of Minutes Per Call	Usg & Dmd Anal	2.3
59	Average Number of Calls Per Line ABS ABD	Usg & Dmd Anal	28.57
60	Completion Ratio	Usg & Dmd Anal	0.741
61	Average Number of Non-Conversation Minutes	Svc Eval System	0.2192
62	Equivalent Business Days	Svc Eval System	310
63			
64	FACILITIES INPUTS		
65			
66	Facilities Investment Per Airline Mile 822C-00	Com Fund Study	\$0.030000000
67	Facilities Investment Per Airline Mile 845C-00	Com Fund Study	\$0.100000000
68	Facilities Investment Per Airline Mile 85C-00	Com Fund Study	\$0.230000000
69			
70	Facilities Termination Investment Per Term 357C-03	Com Fund Study	\$6.350000000
71	Facilities Termination Investment Per Term 357C-06	Com Fund Study	\$39.770000000
72	Facilities Termination Investment Per Term 357C-09	Com Fund Study	\$7.540000000
73	Facilities Termination Investment Per Term 357C-15	Com Fund Study	\$0.130000000
74			
75	SS7 INPUTS		
76			
77	STP Investment Per Octet Orig End Office 377C-03	SS7 Fund Study	\$0.010000000
78	Link Investment Per Octet Orig End Office 377C-03	SS7 Fund Study	\$0.000000000
79	STP Investment Per Octet Term End Office 377C-03	SS7 Fund Study	\$0.010000000
80	Link Investment Per Octet Term End Office 377C-03	SS7 Fund Study	\$0.000000000
81			
82	STP Investment Per Octet Orig End Office 357C-03	SS7 Fund Study	\$0.000000000
83	Link Investment Per Octet Orig End Office 357C-03	SS7 Fund Study	\$0.000000000
84	STP Investment Per Octet Term End Office 357C-03	SS7 Fund Study	\$0.000000000
85	Link Investment Per Octet Term End Office 357C-03	SS7 Fund Study	\$0.000000000
86			
87	STP Investment Per Octet Orig End Office 357C-06	SS7 Fund Study	\$0.000000000
88	Link Investment Per Octet Orig End Office 357C-06	SS7 Fund Study	\$0.000000000
89	STP Investment Per Octet Term End Office 357C-06	SS7 Fund Study	\$0.000000000
90	Link Investment Per Octet Term End Office 357C-06	SS7 Fund Study	\$0.000000000
91			
92	STP Investment Per Octet Orig End Office 357C-09	SS7 Fund Study	\$0.000000000
93	Link Investment Per Octet Orig End Office 357C-09	SS7 Fund Study	\$0.000000000
94	STP Investment Per Octet Term End Office 357C-09	SS7 Fund Study	\$0.000000000
95	Link Investment Per Octet Term End Office 357C-09	SS7 Fund Study	\$0.000000000
96			
97	STP Investment Per Octet Orig End Office 357C-15	SS7 Fund Study	\$0.000000000
98	Link Investment Per Octet Orig End Office 357C-15	SS7 Fund Study	\$0.000000000
99	STP Investment Per Octet Term End Office 357C-15	SS7 Fund Study	\$0.000000000
100	Link Investment Per Octet Term End Office 357C-15	SS7 Fund Study	\$0.000000000
101			
102	STP Investment Per Octet Orig End Office 822C-00	SS7 Fund Study	\$0.000000000
103	Link Investment Per Octet Orig End Office 822C-00	SS7 Fund Study	\$0.000000000
104	STP Investment Per Octet Term End Office 822C-00	SS7 Fund Study	\$0.000000000
105	Link Investment Per Octet Term End Office 822C-00	SS7 Fund Study	\$0.000000000
106			

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<u>ID No</u>	<u>Description</u>	<u>Source</u>	<u>Value</u>
108	STP Investment Per Octet Orig End Office 845C-00	SS7 Fund Study	\$0.000000000
109	Link Investment Per Octet Orig End Office 845C-00	SS7 Fund Study	\$0.000000000
110	STP Investment Per Octet Term End Office 845C-00	SS7 Fund Study	\$0.000000000
111	Link Investment Per Octet Term End Office 845C-00	SS7 Fund Study	\$0.000000000
112	STP Investment Per Octet Orig End Office 85C-00	SS7 Fund Study	\$0.000000000
113	Link Investment Per Octet Orig End Office 85C-00	SS7 Fund Study	\$0.000000000
114	STP Investment Per Octet Term End Office 85C-00	SS7 Fund Study	\$0.000000000
115	Link Investment Per Octet Term End Office 85C-00	SS7 Fund Study	\$0.000000000
116			
117	SS7 VS Link Expense Per Octet Orig End Office	SS7 Fund Study	\$0.000000000
118	SS7 VS Link Expense Per Octet Term End Office	SS7 Fund Study	\$0.000000000
119	SS7 VI Link Expense Per Octet Orig End Office	SS7 Fund Study	\$0.000000000
120	SS7 VI Link Expense Per Octet Term End Office	SS7 Fund Study	\$0.000000000
121			
149	ADDITIONAL INPUTS		
150			
151	Gross Receipts Tax	Not Applicable	
152	Average Number of Octets Per Attempt	Ntwk Eng	127.
153	Facility Utilization Factor	IOF - Fund St	1
154	Facility Termination Utilization Factor	IOF - Fund St	1
155	Average Number of Terminations Per Call	Strat Mgt	2.152
156	Average Airline Miles	Usg & Dmd Anal	22.69
157	Holding Time (seconds)	Directory Tpt	42
158			
159	SCIS MODEL OFFICE DATA V2.3		
202			
203			
204			
205			
206			
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208			
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217			
300	SCIS TABLE DATA		
301			
302			
303			
304			
305			
306			
307			
3			
J			

SNC UNE COST INPUTS REPORT

Florida - FL Docket 990649-TP

9/28/99

<u>ID No</u>	<u>Description</u>	<u>Source</u>	<u>Value</u>
311			
312			
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SNC - UNE SUMMARY OF INVESTMENTS

Florida - FL Docket 990649-TP

9/28/99

<u>Number</u>	<u>Element</u>	<u>Source</u>	<u>Value</u>
		State:	FL
2	UNBUNDLED LOC SWITCHG - SW FUNC (ULS-SF)		
3	377C-03		
4	ULS-SF (Line-Line or Line-Trunk or Trunk-Line)	LS SUM L37	\$0.00697663
5			
6			
7			
8	UNBUNDLED LOC SWITCHING - TR PORT (ULS-TP)		
9	377C-03		
10	ULS-TP (Line-Trunk or Trunk-Line)	LS SUM L85	\$0.001129563
11			
12			
13			
14	UNBUNDLED TDM SWITCHG - SW FUNC (UTS-SF)		
15	377C-03		
16	UTS-SF (Trunk-Trunk)	TS SUM L23	\$0.002325356
17			
18			
19			
20	UNBUNDLED TDM SWITCHING - TR PORT UTS-TP)		
21	377C-03		
22	UTS-TP (Trunk-Trunk)	TS SUM L85	\$0.001354046
23			
24			
25			
	UNBUNDLED INTEROFFICE TRNSPT (UIT-S)		
	Total Facilities Investment Per MOU Per Airline Mile		
28	822C-00	FAC SUM L25	\$0.000000014
29	845C-00	FAC SUM L26	\$0.000000048
30	85C-00	FAC SUM L27	\$0.000000011
31	357C-03	FAC SUM L28	\$0.00
32	357C-06	FAC SUM L29	\$0.00
33	357C-09	FAC SUM L30	\$0.00
34	357C-15	FAC SUM L31	\$0.00
35	377C-03	FAC SUM L32	\$0.000045681
36			
37			
38	Facilities Termination Investment Per MOU		
39	357C-03	357C-03 L42	\$0.000006297
40	357C-06	357C-06 L42	\$0.000039438
41	357C-09	357C-09 L42	\$0.000007477
42	357C-15	357C-15 L42	\$0.000000129
43			
44			
45	SS7 Expense		
46	SS7 VS Expense Per Call	FAC SUM L41	NA
47	SS7 VS Expense Per Call Per Airline Mile	FAC SUM L42	NA
48	SS7 VS Expense Per MOU Per Airline Mile	FAC SUM L43	\$0.00
49	SS7 VI Expense Per Call	FAC SUM L44	NA
50	SS7 VI Expense Per Call Per Airline Mile	FAC SUM L45	NA
51	SS7 VI Expense Per MOU Per Airline Mile	FAC SUM L46	\$0.00

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SNC - UNE SUMMARY OF INVESTMENTS

Florida - FL Docket 990649-TP

9/28/99

<u>Number</u>	<u>Element</u>	<u>Source</u>	<u>Value</u>
		State:	FL
2	UNBUNDLED LOC SWITCHG - SW FUNC (ULS-SF)		
3	377C-03		
4	ULS-SF (Line-Line or Line-Trunk or Trunk-Line)	LS SUM L37	\$0.00697663
5			
6			
7			
8	UNBUNDLED LOC SWITCHING - TR PORT (ULS-TP)		
9	377C-03		
10	ULS-TP (Line-Trunk or Trunk-Line)	LS SUM L85	\$0.001129563
11			
12			
13			
14	UNBUNDLED TDM SWITCHG - SW FUNC (UTS-SF)		
15	377C-03		
16	UTS-SF (Trunk-Trunk)	TS SUM L23	\$0.002325356
17			
18			
19			
20	UNBUNDLED TDM SWITCHING - TR PORT UTS-TP)		
21	377C-03		
22	UTS-TP (Trunk-Trunk)	TS SUM L85	\$0.001354046
23			
24			
25			
	UNBUNDLED INTEROFFICE TRNSPT (UIT-S)		
	Total Facilities Investment Per MOU Per Airline Mile		
28	822C-00	FAC SUM L25	\$0.000000014
29	845C-00	FAC SUM L26	\$0.000000048
30	85C-00	FAC SUM L27	\$0.000000011
31	357C-03	FAC SUM L28	\$0.00
32	357C-06	FAC SUM L29	\$0.00
33	357C-09	FAC SUM L30	\$0.00
34	357C-15	FAC SUM L31	\$0.00
35	377C-03	FAC SUM L32	\$0.000045681
36			
37			
38	Facilities Termination Investment Per MOU		
39	357C-03	357C-03 L42	\$0.000006297
40	357C-06	357C-06 L42	\$0.000039438
41	357C-09	357C-09 L42	\$0.000007477
42	357C-15	357C-15 L42	\$0.000000129
43			
44			
45	SS7 Expense		
46	SS7 VS Expense Per Call	FAC SUM L41	NA
47	SS7 VS Expense Per Call Per Airline Mile	FAC SUM L42	NA
48	SS7 VS Expense Per MOU Per Airline Mile	FAC SUM L43	\$0.00
49	SS7 VI Expense Per Call	FAC SUM L44	NA
50	SS7 VI Expense Per Call Per Airline Mile	FAC SUM L45	NA
51	SS7 VI Expense Per MOU Per Airline Mile	FAC SUM L46	\$0.00

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BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

The Switched Network Calculator (SNC) is a stand-alone system that incorporates proprietary formulas and data from the Telcordia Switching Cost Information System (SCIS). SNC produces individual unbundled network element investments on an account specific, MOU basis suitable to be handed off to the TELRIC Calculator, where they are converted to costs. The individual unbundled network element investments are:

1. End Office Switching function, Per MOU
2. End Office Interoffice Trunk Port - Shared, Per MOU
3. Tandem Switching function, Per MOU
4. Tandem Interoffice Trunk Port - Shared, Per MOU
5. Common Transport - Per Mile, Per MOU
6. Common Transport - Facilities Terminations, Per MOU
7. Switched Common Transport, Per DA Access Service, Per Call
8. Switched Common Transport, Per DA Access Service, Per Call, Per Mile
9. Access Tandem Switching, Per DA Access Service, Per Call

SNC is divided into the following categories for detailed explanations for each category:

- I. Unbundled Local Switching - Switching Functionality (ULS-SF) Investment per MOU Calculation
- II. Unbundled Local Switching - Interoffice Trunk Port (ULS-ITP) Investment per MOU Calculation
- III. Unbundled Tandem Switching - Switching Functionality (UTS-SF) Investment per MOU Calculation
- IV. Unbundled Tandem Switching - Interoffice Trunk Port (UTS-ITP) Investment per MOU Calculation
- V. Unbundled Interoffice Transport - Shared (UIT-S) Facilities Investment Per MOU, per Airline Mile
- VI. Unbundled Interoffice Transport - Shared (UIT-S) Facilities Terminations Investment Per MOU
- VII. Directory Transport

The following terminologies are used interchangeably throughout the cost study:

- a) ULS-SF - End Office Switching Function
- b) ULS-ITP - End Office Interoffice Trunk Port
- c) UTS-SF - Tandem Switching Function
- d) UTS-ITP - Tandem Interoffice Trunk Port
- e) UIT-S - Common Transport

The portion of SNC that is based upon Telcordia switch investment formulas is referred to herein as the Central Office Calculator.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

I. ULS-SF Investment Per MOU Calculation

The ULS-SF investment per MOU is the end office - switching function investment per MOU, per end office switch.

Methodology for calculating ULS-SF investment per MOU for an end office switch:

The ULS-SF investment per MOU for an end office switch is developed by dividing the weighted ULS-SF investment per MOU for intra-office and inter-office calls by the equivalent measured call factor. The weighted ULS-SF investment per MOU for intra-office and inter-office calls is produced by combining the weighted portion of intra-office ULS-SF investment per MOU and the weighted portion of inter-office ULS-SF investment per MOU. The weighted portion of intra-office ULS-SF investment per MOU is derived by multiplying the ULS-SF investment per MOU for intra-office by the percent intra-office calls occurrence. Similarly, the weighted portion of inter-office ULS-SF investment per MOU is derived by multiplying the ULS-SF investment per MOU for inter-office by the percent inter-office calls occurrence. The ULS-SF investment per MOU is divided by the equivalent measured call factor in order to account for billing at each end office switch. This step is required because there is one set of minutes of use recorded at the intra-office for an intra-office call; whereas, there are two sets of minutes of use recorded for an interoffice call, one set at each end office. The equivalent measured call factor is developed by summing the percent intra-office calls and two times the percent inter-office calls.

The ULS-SF investment per MOU for intra-office calls or inter-office calls is a summation of the ULS-SF investments per MOU for set-up and duration. The ULS-SF investment per MOU for set-up is calculated by dividing the melded ULS-SF investment per call for set-up by an average number of minutes per call. Both the melded ULS-SF investment per call for set-up and the melded ULS-SF investment per MOU for duration is based on outputs from the Central Office Calculator (COC). The melded ULS-SF investment is a meld of ULS-SF investments for 5ESS and DMS technologies.

The ULS-SF investment per MOU output from COC is the Busy Hour investment per MOU; it needs to be converted to an investment per MOU for any calendar day because the customer will be billed though-out the day.

The following steps convert the Busy Hour investment to any time, any day:

Step 1. The Busy Hour investment per MOU is multiplied by the Busy Hour to Full Day ratio.

Step 2. The product of step 1 is divided by the equivalent business days.

Step 3. The result of step 2 is multiplied by the ratio of Busy Season Load to Business Day Load.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

The Busy Hour to Full Day ratio is the percent of traffic during the busy hour. The ratio of Busy Season Load to Business Day Load represents the relationship between the traffic carried during the busy season to any business day.

II. ULS-ITP Investment Per MOU Calculation

The ULS-ITP investment per MOU is the end office - Interoffice Trunk Port investment per MOU, per end office switch.

Methodology for calculating ULS-ITP investment per MOU for a Interoffice Trunk Port

The ULS-ITP investment per MOU for an Interoffice Trunk Port is calculated by dividing the ULS-ITP investments per MOU for interoffice calls by two because the customer will be billed for both ends of the call. The investment per MOU included both the originating and terminating call investments.

The ULS-ITP investment per MOU is a summation of the ULS-ITP investments per MOU for set-up and duration. The ULS-ITP investment per MOU for set-up is calculated by dividing the melded ULS-ITP investment per call for set-up by an average number of minutes per call. Both the melded ULS-ITP investment per call for set-up and the melded ULS-ITP investment per MOU for duration is based on outputs from the Central Office Calculator (COC). The melded ULS-ITP investment is a meld of ULS-ITP investments for 5ESS and DMS technologies.

The ULS-ITP investment per MOU output from COC is the Busy Hour investment per MOU; it needs to be converted to an investment per MOU for any calendar day because the customer will be billed though-out the day.

The following steps convert the Busy Hour investment to any time, any day:

Step 1. The Busy Hour investment per MOU is multiplied by the Busy Hour to Full Day ratio.

Step 2. The product of step 1 is divided by the equivalent business days.

Step 3. The result of step 2 is multiplied by the ratio of Busy Season Load to Business Day Load.

The Busy Hour to Full Day ratio is the percent of traffic during the busy hour. The ratio of Busy Season Load to Business Day Load represents the relationship between the traffic carried during the busy season to any business day.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

III. UTS-SF Investment Per MOU Calculation

The UTS-SF investment per MOU is the tandem switching function investment per MOU, per tandem switch.

Methodology for calculating UTS-SF investment per MOU for a tandem switch

The UTS-SF investment per MOU for a tandem switch is a summation of the UTS-SF investments per MOU for set-up and duration. The UTS-SF investment per MOU for set-up is calculated by dividing the melded UTS-SF investment per call for set-up by an average number of minutes per call. Both the melded UTS-SF investment per call for set-up and the melded UTS-SF investment per MOU for duration is based on outputs from the Central Office Calculator (COC). The melded UTS-SF investment is a meld of UTS-SF investments for 5ESS and DMS technologies.

The UTS-SF investment per MOU output from COC is the Busy Hour investment per MOU; it needs to be converted to an investment per MOU for any calendar day because the customer will be billed though-out the day.

The following steps convert the Busy Hour investment to any time, any day:

Step 1. The Busy Hour investment per MOU is multiplied by the Busy Hour to Full Day ratio.

Step 2. The product of step 1 is divided by the equivalent business days.

Step 3. The result of step 2 is multiplied by the ratio of Busy Season Load to Business Day Load.

The Busy Hour to Full Day ratio is the percent of traffic during the busy hour. The ratio of Busy Season Load to Business Day Load represents the relationship between the traffic carried during the busy season to any business day.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

IV. UTS-ITP Investment Per MOU Calculation

The UTS-ITP investment per MOU is the tandem interoffice Trunk Port investment per MOU, per tandem switch.

Methodology for calculating UTS-ITP investment per MOU for a Interoffice Trunk Port

The UTS-ITP investment per MOU for a Interoffice Trunk Port is calculated by dividing the UTS-ITP investments per MOU for interoffice calls by two because the customer will be billed for both ends of the call. The investment per MOU included both the originating and terminating call investments.

The UTS-ITP investment per MOU is a summation of the UTS-ITP investments per MOU for set-up and duration. The UTS-ITP investment per MOU for set-up is calculated by dividing the melded UTS-ITP investment per call for set-up by an average number of minutes per call. Both the melded UTS-ITP investment per call for set-up and the melded UTS-ITP investment per MOU for duration is based on outputs from the Central Office Calculator (COC). The melded UTS-ITP investment is a meld of UTS-ITP investments for 5ESS and DMS technologies.

The UTS-ITP investment per MOU output from COC is the Busy Hour investment per MOU; it needs to be converted to an investment per MOU for any calendar day because the customer will be billed though-out the day.

The following steps convert the Busy Hour investment to any time, any day:

Step 1. The Busy Hour investment per MOU is multiplied by the Busy Hour to Full Day ratio.

Step 2. The product of step 1 is divided by the equivalent business days.

Step 3. The result of step 2 is multiplied by the ratio of Busy Season Load to Business Day Load.

The Busy Hour to Full Day ratio is the percent of traffic during the busy hour. The ratio of Busy Season Load to Business Day Load represents the relationship between the traffic carried during the busy season to any business day.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

V. UIT-S Facilities Investment Per MOU, Per Airline Mile Calculation

The facilities investment per MOU, per airline mile, is the common transport, facilities investment per MOU. The facilities investment per MOU, per airline mile is a sum of the interoffice facilities investment per MOU, per airline mile at DS0 equivalent level and the SS7 investment per MOU, per airline mile.

The interoffice facilities investment per MOU, per airline mile is developed by dividing the interoffice facilities material price per airline mile at DS0 equivalent level by the total conversation minutes per year.

A. Methodology for deriving the interoffice facilities material price per airline mile at DS0 equivalent level:

The interoffice facilities material price per airline mile at DS0 equivalent level is derived by dividing the DS1 interoffice facilities material price per airline mile by 24. The DS1 interoffice facilities material price per airline mile is based on the Fundamental Cost Study for DS1 Unbundled Interoffice Transport - Dedicated. The facility utilization factor is set as 1 because the facility objective fill factor has already been applied in the Fundamental Cost Study for DS1 Unbundled Interoffice Transport - Dedicated.

B. Methodology for deriving the total conversation minutes per year:

The total conversation minutes per year, per interoffice trunk is produced by multiplying the MOU's for a calendar day, per interoffice trunk, by the percent conversation time and 365 days. The percent conversation time is determine using the two sets of calculations:

Calculation Set 1

The following calculations were used for producing the MOU's for a calendar day, per interoffice trunk:

Step 1: Calculate average busy season, busy hour MOU per interoffice trunk.

The average busy season, busy hour MOU is developed by dividing an average busy season, busy hour traffic load for an interoffice trunk by the Busy Season, Busy Hour to Full Day ratio. The average busy season, busy hour traffic load is the maximum load a trunk group is engineered to carry during the hour that has the most traffic at a busy season. The Busy Hour to Full Day ratio is the percent of traffic during the busy hour.

Step 2: Calculate average business day MOU's per interoffice trunk.

The average business day MOU's are derived by dividing the average busy season, busy hour MOU's by a ratio of Busy Season Load to Business Day Load. A ratio of busy season load to average business day load represents the relationship between the traffic carried during the busy season to any business day.

Step 3: Calculate average calendar day MOU's per interoffice trunk.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

The average calendar day MOU's are derived by dividing the average business day MOU by a ratio of business day load to calendar day load. The ratio of Business Day Load to Calendar Day Load is 1.177, which translates to 17.7 percent more traffic usage on an average business day than on a calendar day. 1.177 is calculated by dividing 365 days by 310 equivalent business days.

Calculation Set 2

The following steps were taken to determine the percent conversation time:

Step 1: Calculate the number of conversation minutes per line for a busy season, business day.

The number of conversation minutes per line for a busy season, business day is obtained by multiplying an average number of conversation minutes per call by the average number of calls per network access line.

Step 2: Calculate the number of attempts per line for a busy season, business day.

The number of attempts per line for a busy season, business day is derived by dividing the average number of calls per network access line, for a busy season, business day by the completion ratio. The completion ratio is an average percent of attempts that are completed.

Step 3: Calculate the non-conversation minutes per line for a busy season, business day.

The non-conversation minutes per line for a busy season, business day is obtained by multiplying the average non-conversation minutes per attempt by the number of attempts per line for a busy season, business day. The non-conversation minutes is the duration from off-hook to final disposition. Final disposition is time when either someone answers the phone or nobody answers the phone and the called party hangs up.

Step 4: Calculate the total MOU's per line for a busy season, business day.

The total MOU's per line for a busy season, business day are produced by adding the conversation minutes and non-conversation minutes per line for a busy season, business day.

Step 5: Calculate the percent conversation time.

The percent conversation time is obtained by dividing the conversation minutes per line for a busy season, business day by the total MOU's per line for a busy season, business day.

Methodology for deriving SS7 Investment per MOU, per Airline Mile

The SS7 investment per MOU, per airline mile is developed by dividing the SS7 investment per MOU by the average airline mile.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

The SS7 investment per MOU is a summation of the SS7 Signaling Transfer Point (STP) investment per MOU and SS7 A Link investment per MOU that incurred at the originating end office and terminating end office, and the SS7 STP investment per MOU and SS7 A Link investment per MOU that incurred at the tandem.

The following calculations were used for deriving the SS7 STP and A Link investments per MOU:

Step 1: Calculate the SS7 STP and A Link investments per attempt.

The SS7 STP and A Link investments per attempt is derived from multiplying the SS7 STP and Link investments per octet by the average number of octets per attempt. The SS7 STP and A Link investments per octet is based on the Fundamental Cost Study for SS7.

Step 2: Calculate the SS7 STP and A Link investments per MOU incurred at the originating end office and terminating end office.

The SS7 STP and A Link investments per attempt is the Busy Hour investment per MOU; therefore, it needs to be converted to an investment per MOU for a calendar day because the customer will be billed through-out the day. The SS7 STP and A Link investments per attempt is converted to SS7 STP and A Link investments per MOU by multiplying the SS7 STP and A Link investments per attempt by the Busy Hour to Full Day ratio; dividing the product by equivalent business days; and finally multiplying the result by the ratio of Busy Season Load to Business Day Load.

Step 3: Calculate the SS7 STP and A Link investments per MOU incurred at a tandem.

The same calculation in Step 2 is applied and then multiplied by a percent tandem occurrence factor because not all traffic is routed through a tandem.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

VI. UIT-S - Facilities Terminations Investment Per MOU

The facilities terminations investment per MOU is the common transport, facilities terminations investment per MOU, per interoffice trunk.

The facility investment per MOU, per termination is developed by dividing facility investment per termination by the total conversation minutes per year per interoffice trunk. The Facilities Terminations investment per MOU is calculated by multiplying the facility investment per MOU, per termination by two because there are two terminations per interoffice trunk.

Methodology for developing Facility Investment per Termination

The material price for the facility terminations at a DS0 equivalent level is developed by dividing the weighted material price for the DS1 facility terminations by 24. The weighted material price for the DS1 facility terminations is based on the Fundamental Cost Study for DS1 Unbundled Interoffice Transport - Dedicated. The facility utilization factor is set as 1 because the facility objective fill factor has already been applied in the Fundamental Cost Study for DS1 Unbundled Interoffice Transport - Dedicated. The facility investment per termination is derived by dividing the material price for the facility terminations, at a DS0 equivalent level, by two.

The same methodology used in the Common Transport - Facilities Investment per MOU, per airline mile is also used to determine the total conversation minutes per year, per interoffice trunk.

BELLSOUTH SWITCHED NETWORK CALCULATOR (SNC)

VII. Directory Transport Calculation

Directory Transport has the following cost elements:

- Access Tandem Switching Investment per DA Access Service Per Call
- Switched Common Transport Investment per DA Access Service Per Call, Per Airline Mile
- Switched Common Transport Investment per DA Access Service Per Call

The Access Tandem Switching Investment per DA Access Service Per Call is developed by multiplying the tandem switching investment per MOU by the holding time of an operator call. The tandem switching investment per MOU is a summation of the UTS-SF investment per MOU and two times the UTS-ITP investment per MOU.

The Switched Common Transport Investment per DA Access Service Per Call Per Airline Mile is derived by multiplying the UTS-S facilities investment per MOU, per airline mile by the holding time of an operator call.

The Switched Common Transport Investment per DA Access Service Per Call is calculated by multiplying the UTS-S facilities terminations investment per MOU by the holding time of an operator call.

SNC Glossary of Inputs

5ESS - % MO10 SWITCHING FUNCTIONALITY

The proportion of a 5ESS Digital Trunk Termination Investment in SCIS/MO that is attributable to the switch network. This proportion is determined by using the ratio of the Spare SM Term. Inv. Per Trunk to the Total Non-Traffic Sensitive Inv. These investments are found on the 5ESS Grand Weighted Trunk Termination Report. The % MO10 Switching Functionality is used to split the Investment per Trunk CCS into the switch network investment and trunk port investment.

DMS - % MO10 SWITCHING FUNCTIONALITY

The proportion of a DMS-100F Digital Trunk Termination Investment in SCIS/MO that is attributable to the switch network, which is based on 64Kbps CCC trunks and the DSNE network option. This proportion is provided by Bellcore. The % MO10 Switching Functionality is used to split the Investment per Trunk CCS into the switch network investment and trunk port investment.

INTRA-OFFICE CALL SET-UP - IP1 PERCENT OF CALLS USING DTMF

The proportion of Dual Tone Multi-Frequency network control signal that is used in an intra-office call set-up. Input provided by Network Engineering Department.

INTRA-OFFICE CALL SET-UP - IP2 INCLUDED AMA

An option of either YES or NO for including AMA investment in the intra-office call set-up cost calculation. Input provided by Network Engineering Department.

LINE-TRUNK CALL SET-UP - IP1 PERCENT OF CALLS USING DTMF

The proportion of Dual Tone Multi-frequency network control signal that is used in a line-trunk call set-up. Input provided by Network Engineering Department.

LINE-TRUNK CALL SET-UP - IP2 PERCENT OF CALLS USING SS7

The proportion of SS7 signaling that is used in a line-trunk call set-up. Input provided by Network Engineering Department.

LINE-TRUNK CALL SET-UP - IP3 INCLUDE AMA INVESTMENT

An option of either YES or NO for including AMA investment in the line-trunk call set-up cost calculation. Input provided by Network Engineering Department.

LINE-TRUNK CALL SET-UP - IP4 PERCENT OF CALLS USING 7 DIGITS

The proportion of calls dialed using 7 digits. Input provided by Network Engineering Department.

LINE-TRUNK CALL SET-UP - IP5 PERCENT OF CALLS WHICH COMPLETE

The completion ratio of a call.

SNC Glossary of Inputs

TRUNK-LINE CALL SET-UP - IP1 PERCENT OF CALLS USING SS7

The proportion of SS7 signaling that is used in a trunk-line call set-up. Input provided by Network Engineering Department.

TRUNK-LINE CALL SET-UP - IP2 PERCENT OF CALLS WHICH COMPLETE

The completion ratio of a call.

TRUNK-TRUNK CALL SET-UP - IP1 PERCENT OF CALLS USING MF-MF SIGNALING

The proportion of multifrequency - multifrequency signaling used in trunk-trunk call set-up. Input provided by Network Engineering Department.

TRUNK-TRUNK CALL SET-UP - IP2 PERCENT OF CALLS USING MF-SS7 SIGNALING

The proportion of multifrequency - SS7 signaling used in trunk-trunk call set-up. Input provided by Network Engineering Department.

TRUNK-TRUNK CALL SET-UP - IP3 PERCENT OF CALLS USING SS7-SS7 SIGNALING

The proportion of SS7-SS7 signaling used in trunk-trunk call set-up. Input provided by Network Engineering Department.

TRUNK-TRUNK CALL SET-UP - IP4 PERCENT OF CALLS USING SS7-MF SIGNALING

The proportion of SS7 - multifrequency signaling used in trunk-trunk call set-up. Input provided by Network Engineering Department.

TRUNK-TRUNK CALL SET-UP - IP5 PERCENT OF CALLS WHICH COMPLETE

The completion ratio of a call.

PERCENT OF 5ESS REMOTES

The proportion of 5ESS remotes to total 5ESS end offices and remotes. This proportion is determined by using the ratio of the three years of projected number of access lines from the 5ESS remotes to the three years of projected number of access lines from the total 5ESS end offices and remotes. The access lines data is derived from the Demand & Facility Database.

PERCENT OF DMS REMOTES

The proportion of DMS remotes to total DMS end offices and remotes. This proportion is determined by using the ratio of the three years of projected number of access lines from the DMS remotes to the three years of projected number of access lines from the total DMS end offices and remotes. The access lines data is derived from the Demand & Facility Database.

SNC Glossary of Inputs

PERCENT 5ESS END OFFICE DISTRIBUTION

The proportion of 5ESS end offices to total end offices. This proportion is determined by using the ratio of the three years of projected number of access lines from the 5ESS end offices to the three years of projected number of access lines from the total end offices. The access lines data is derived from the Demand & Facility Database.

PERCENT DMS END OFFICE DISTRIBUTION

The proportion of DMS end offices to total end offices. This proportion is determined by using the ratio of the three years of projected number of access lines from the DMS end offices to the three years of projected number of access lines from the total end offices. The access lines data is derived from the Demand & Facility Database.

PERCENT 5ESS TANDEM DISTRIBUTION

The proportion of 5ESS tandem offices to total tandem offices. This proportion is determined by using the ratio of the Carried CCS from the 5ESS tandem offices to the carried CCS from the total tandem offices. The Carried CCS data is derived from the General Trunk Forecast.

PERCENT DMS TANDEM DISTRIBUTION

The proportion of DMS tandem offices to total tandem offices. This proportion is determined by using the ratio of the carried CCS from the DMS tandem offices to the carried CCS from the total tandem offices. The Carried CCS data is derived from the General Trunk Forecast.

SCIS 5ESS MO1 INVESTMENT PER MILLISECOND

It is the Total Getting Started Investment component for a Standalone/Host office or a Remote Per Millisecond based on call processing capacity. MO1 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS 5ESS MO2 INVESTMENT PER EPHC

It is the Switching Module Investment Per Equivalent POTS Half Calls (EPHC), which represents the capacity unit investment of Switching Module equipment based on the realtime capacity of the Switching Module processor. MO2 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS 5ESS MO4 INVESTMENT PER LINE CCS

The Investment Per Line CCS (Originating + Terminating) recovers the Line Unit Termination Investment through the usage Investment Per CCS on a Conventional SM and/or Switching Module-2000. MO4 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS 5ESS MO7 INVESTMENT PER TERMINATING CALL

The Investment Per Terminating Call represents the investment associated with the High Level Service Circuit (HLSC) used to provide power ringing to the terminating party on completed calls and to perform False Cross and Ground, Power Cross and Continuity test for calls analog lines. MO7 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SNC Glossary of Inputs

SCIS 5ESS MO10 INVESTMENT PER TRUNK CCS

The Investment Per Trunk CCS (Outgoing or Incoming) represents the weighted average of Analog Trunk CCS, DLTU Digital Trunks CCS, and DNU-Sonet Trunk CCS Investments, and Excess Switching Module Processor (EPHC) Capacity Adjustment per trunk. MO10 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS 5ESS MO17 INVESTMENT PER SS7 OCTET

It is the unit resource investment for SS7 signaling equipment in an SSP. MO17 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS 5ESS MO21 AMA INVESTMENT PER CALL

It is the Average Busy Season Busy Hour Automatic Message Accounting (AMA) Storage Investment Per Call. MO21 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS 5ESS MO19 UMBILICAL TRUNK INVESTMENT PER CCS

The Umbilical Trunk Investment Per CCS (Outgoing or Incoming) represents the investment associated with terminating the T1 umbilical links connecting for all Remote Switching Modules Remotes. MO19 input is derived from the SCIS 5ESS Grand Weighted Investment Report.

SCIS DMS MO1 INVESTMENT PER MILLISECOND

It is the Getting Started Investment Per Millisecond - the expenditure required to establish a new DMS-100F office, independent of the carried traffic or the line-trunk size of the switching system based on call processing capacity. MO1 input is derived from the SCIS DMS-100F Grand Weighted Investment Report.

SCIS DMS MO4 INVESTMENT PER LINE CCS

The Investment Per Line CCS is the usage investment for the office. It represents the actual use of traffic-sensitive investment components of serving lines in the office(s) being studied. MO4 input is derived from the SCIS DMS-100F Grand Weighted Investment Report.

SCIS DMS MO10 INVESTMENT PER TRUNK CCS

The Investment Per Trunk CCS category reflects the cost associated with local trunk usage (analog, digital, and DS0 CCC digital) for interoffice calls. The Investment Per trunk CCS is calculated for end offices (DMS-100s) and end office/tandem combined switches (DMS-100/200s).

TRAFFIC LOAD

It is the usage capacity per circuit for the Interoffice Trunk Group at the busy hour. The average busy hour traffic load per circuit is derived from trunks which are actually installed and in-service.

BUSY HOUR TO FULL DAY RATIO

The ratio of usage at the busy hour to usage for a full day. The busy hour is the hour when a communication switching system carries the most traffic (load). Defined as the busiest hour of the day of a normal week, excluding holidays, week-ends and special event days.

RATIO OF AVERAGE BUSY SEASON LOAD TO AVERAGE BUSINESS DAY

The ratio of usage at the busy season, business day to usage at the average business day.

SNC Glossary of Inputs

RATIO OF AVERAGE BUSINESS DAY LOAD TO AVERAGE CALENDAR DAY

The ratio of usage at the average business day to usage at the average calendar day.

AVERAGE NUMBER OF MINUTES PER CALL

The average number of minutes per call during the busy season, business day.

AVERAGE NUMBER OF CALLS PER LINE, BUSY SEASON, BUSINESS DAY

The average number of calls per line at the busy season, business day.

COMPLETION RATIO

The proportion of call attempts that result in the calling party being engaged in conversation with the party at the called number.

AVERAGE NUMBER OF NON-CONVERSATION MINUTES

The average non-conversation time is the period from the conclusion of dialing, on the originating end, until the telephone goes off-hook on the terminating end.

EQUIVALENT BUSINESS DAYS

The number of equivalent business days in a calendar year.

PERCENT INTRA-OFFICE CALLS

The proportion of intra-office calls to all calls.

PERCENT INTER-OFFICE CALLS

The proportion of inter-office calls to all calls.

AVERAGE AIRLINE MILES PER CALL

The average number of airline miles per call.

PERCENT TANDEM OCCURRENCE

The proportion of inter-office usage that routes through the tandem.

AVERAGE NUMBER OF TERMINATIONS

This is a variable number depending on the cost study. Two terminations per link are used in the UNE cost studies. In a service specific cost study, the number of terminations depends on the average number of facility links for that service.

FACILITY INVESTMENT PER AIRLINE MILE

It is the equivalent DS0 level facility investment per airline mile for the 822C, 85C, and 845C plant accounts. The equivalent DS0 level facility investment per airline mile is derived by dividing the DS1 facility investment per airline mile by 24.

SNC Glossary of Inputs

FACILITY TERMINATION INVESTMENT PER TERMINATION

It is the equivalent DS0 level facility termination investment per termination for 357C plant account. The equivalent DS0 level facility termination investment per termination is derived by dividing the DS1 facility termination investment by 48.

SS7 INVESTMENT PER OCTET

It is the Signaling System 7 (Network) Investment per octet for the links and STP.