ORIGINAL

ATTACHMENT B

BellSouth Telecommunications, Inc.
FPSC Docket No. 990649-TP
Request for Confidential Classification
Page 1 of 1
8/30/00

REQUEST FOR CONFIDENTIAL CLASSIFICATION OF BELLSOUTH INFORMATION INCLUDED IN THE AT&T REBUTTAL TESTIMONY OF WITNESSES' CATHERINE E. PITTS, JOHN C. DONOVAN/BRIAN F. PITKIN, BRENDA J. KAHN AND GREG DARNELL, FILED JULY 31, 2000 IN FLORIDA DOCKET NO. 990649-TP

Two Redacted Copies

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claimed by BellSouth. Unbundled local switching and trunk ports are approximately 40% and 50%, respectively of BellSouth's claimed BellSouth costs.

The restated BellSouth costs sponsored by Mr. King include the corrected discount inputs.

Q. PLEASE EXPLAIN WHY SOME ISDN RESULTS ARE NOT RELIABLE.

A. When AT&T attempted to calculate the offices in BellSouth's SCIS/MO, multiple processing errors were displayed associated with calculating ISDN on DMS RSC-S remotes.[7] The ISDN port section of BellSouth's SCIS/MO ISDN Investment report that was included in BellSouth's electronic SCIS/MO filing is excerpted below:

*****Begin Proprietary*****

expiration dates.

[7] While the user had to click on the error messages indicating that there were missing table items necessary to the calculations, SCIS/MO continued to calculate.

[redacted]

End Proprietary

Note that subcategory D is the sum of the D1, D2 and D3. Also note that the Min. Inv. per BRI (ISDN 2-wire port) should be the sum of subcategories A, C and D, but obviously it is not. It appears that the D3 category value, which is usually minimal, is wrong, but the printed value not being added to the Min. Inv. per BRI.

The SST model, when importing the detailed results from SCIS, does load the individual subcategory values to calculate an incorrect investment for ISDN BRI ports.[1] When we removed the wire centers with the DMS RSC-S remote switches from the SCIS/MO study, the individual 'A, C, and D' sub-elements added up correctly to the Min. Inv. per BRI and no error messages were received during calculations.

Q. HOW SHOULD THE ISDN COSTS BE CALCULATED?

A. We removed the offices that had DMS RSC-S remotes with ISDN in order to have SCIS/MO recalculate the ISDN port investments with corrected discounts without processing errors. Therefore, the restated ISDN port investments in Mr. King's testimony excludes these offices.

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[1] See, for example, Columns AA and AK of the SCIS Input Worksheeet in FLST_SST-P.

Q. HOW DOES BELLSOUTH USE THE FLAWED AVERAGE USAGE PER CATEGORY PER LINE?

A. BellSouth takes the call usage, multiplies it by the average number of features per line times the averaged cost of the resources used in the switch for a given category to generate the composite feature investment. The number of busy hour calls per feature category that are used up to make up the composite feature[23] is:

*****Begin Proprietary*****

Feature Category	Busy Hour Calls	Features per Line
Processor	1.1	4.0
Line Path	0.7	2.2
Hardware	1.6	1.4
SS7	0.9	0.4

*****End Proprietary*****

BellSouth stated that "... it can be concluded that the typical user activates about 4.5 features *in the busy hour*."[24] However, according to BellSouth's SCIS inputs, originating and terminating calls only average less than *****Begin Proprietary***** [redacted] *****End Proprietary***** requiring more than ***** Begin Proprietary***** [redacted] *****End Proprietary***** features to be active on every originating and every terminating call.

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[23] See BellSouth's response to POD #141, Attachment 1 included as Exhibit CEP-5.

[24] BellSouth's response to ATT Item #89, attached as Exhibit CEP-7.

cost – adding features do not cause BellSouth to purchase additional processing equipment. The processor, along with the rest of the getting started cost of the switch is a fixed cost and feature usage does not impact the level of getting started investment. Historically, analog and earlier digital switches could be call processing limited, but this is no longer true with the dramatic increases in computer processing power.[25] The limiting capacity of the current generation of switches is ports, not call processing. When a switch's port capacity is reached, an additional switch must be placed, thus incurring an additional getting started cost. A cost study, based on true cost-causation, would allocate the processor and getting started cost to all the ports in the switch, not the traffic sensitive minute of use and feature costs.

Q. WHAT IS THE SWITCH ELEMENT CENTREX FUNCTIONALITY?

A. BellSouth's Centrex functionality feature costs out intra-Centrex intercom usage and assigns it as a flat-rate port additive.

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[25] In fact, BellSouth's inputs to SCIS/MO show less than ***Begin Proprietary*** [redacted] ***End Proprietary*** average processor utilization, including features. Features that simply add usage to a processor that will not exhaust has no economic processor-related cost.

Q. WHAT PROBLEMS DID YOU FIND WITH RESPECT TO CALLER ID AND REMOTE CALL FORWARDING?

A. One of the key inputs to these features is the percent penetration of Caller ID (for the CLASS Modem Card hardware cost) and Remote Call Forwarding (for assignment of a second line port). BellSouth's support for these penetration levels provided in BellSouth's response to POD Item 33 and its Attachment 1 (attached as Exhibit CEP-8) uses the number of lines per office in order to develop the penetration of Caller ID (shown as Calling Number Delivery –CND on BellSouth's POD) and lines that are remotely call forwarded. BellSouth's SCIS inputs show different average office line counts than what BellSouth used in its separate analysis documented in POD Item #33 for these two features as shown below:

*****Begin Proprietary*****

[redacted]

*****End Proprietary***** Replacing the POD Item #33 line counts causes with the SCIS line counts results in penetrations of *****Begin Proprietary***** [redacted] *****End Proprietary***** for Caller ID and RCF, respectively. These corrections are reflected in Mr. King's restated costs.

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

BellSouth - Cost Matters
Room 30-B-49
675 West Peachtree Street
Atlanta, GA 30375

a	b	c		d	e	f	g	h	i
Item	Switch	Feature Hardware	5ESS Hardware	Vintage Date (YYYY)	Material Only Cost ($)	(EF&I) - Engineered Furnished & Installed Cost ($)	Capacity	Capacity Units	BellSouth Utilization
1	5ESS	3 Point Conference Circuit	GDSF Ckt Pack	2000	[redacted]			Note 1, 5	
2	5ESS	6 Point Conference Circuit	GDSF Ckt Pack	2000				Note 1, 5	
3	5ESS	30 Second Announcement	16A BLD3 CP	2000				Note 2, 5	
4	5ESS	60 Second Announcement	16A BLD3 CP	2000				Note 2, 5	
5	5ESS	DSU2/RAF BRCS	SAS svs grp	2000				Note 3, 5	
6	5ESS	Announcement/Music Trunk	STSX-1 KTU1 CP	2000				Note 4, 5	

NOTES

1- The GDSF ckt pack can be programed for a combination of 3 & 6 port conf, ISTF and TTF functions. The capacity shown is the maximum qty of each type conference ckt supported on a dedicated GDSF pack. The GDSF mounts in a DSU3 unit. A DSU3 can support up to (4) GDSF packs, but is not usually fully equipped. The DSU3 has (6) slots available for packs, the first (2) are required for LDSF function(1st unit), leaving (4) for possible GDSF packs.

2- The 16A announcement unit requires (1) T1 ckt and supports (3) 8-channel announcement ckt packs. The loaded price shown is for (1) 8 channel 60 second rec ann ckt pack with remote record option. The loaded price includes (when required) a misc cabinet and/or 16A ann unit. Not included in the pricing is the associated T1 trunk that is required for each 16A ann unit.

3- The RAF service announcements have been replaced by SAS service announcements. The pricing reflects a loaded price for (1) SAS BRCS service group. A DSU2 can support up to (4) SAS service groups.

4- The KTU1 circuit pack mounts on a DNU-S and supports 28 DS1s in a STSX-1 format.

5- This is a loaded pricing estimate and includes an average price of associated office resources required to add this equipment.

BellSouth - Cost Matters
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a				d	e	f
Item	Switch	Feature Hardware	PEC	Vintage Date (YYYY)	Material Only Cost ($)	(EF&I) Engineered Furnished & Installed Cost ($)
1	DMS	3 Point Conference Circuit	NT1X81AA Conference Trunk Module CP	2000	[redacted]	$87.86
2	DMS	6 Point Conference Circuit	NT1X81AA Conference Trunk Module CP	2000	[redacted]	$87.86
3	DMS	30 Second Announcement	NT1X80AA Enhanced Digitally Recorded Announcement Mach	2000	[redacted]	$209.96
4	DMS	60 Second Announcement	NT1X80AA Enhanced Digitally Recorded Announcement Mach	2000	[redacted]	$209.96
5	DMS	Metallic Access Point	NT3X09BA 6X8 Matrix CP	2000	[redacted]	$94.54
6	DMS	Scan Point	NT0X10AA Misc Scanner	2000	[redacted]	$76.56
7	DMS	Signal Distributor Point	NT2X57AA SD Card I	2000	[redacted]	$76.56
8	DMS	Recorded Announcement for Coin	NT1X80AA Enhanced Digitally Recorded Announcement Mach	2000	[redacted]	$209.96
9	DMS	XAT Channel Investment				
10	DMS	Voice Coupler				
11	DMS	Announcement/Music Trunk	NT2X86AA 4W INC/OG 600 E&M MF/DP	2000	[redacted]	$34.60
12	DMS	Tone Circuit	NT6X76AA Continuity Tone Detector	2000	[redacted]	$23.20
13	DMS	Transmitter Circuit Cost				
14	DMS	Modems				

DOCKET 990649-TP
WITNESS: PITTS
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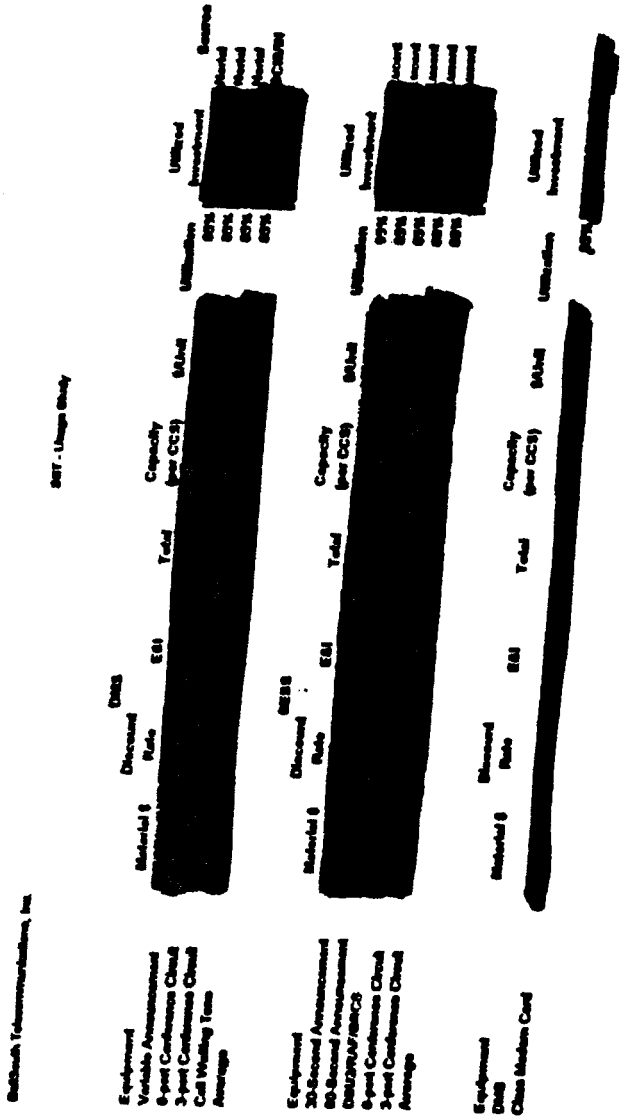
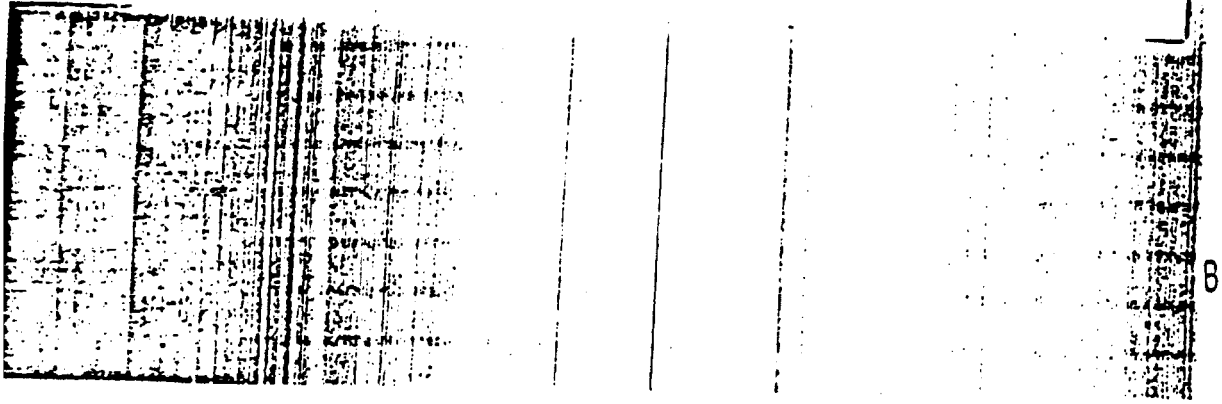




Restated Hardware Study using New Switch Discounts

DMS

Equipment	Material $	Discount Rate	E&I	Total	Capacity (per CCS)	$/Unit	Utilization	Utilized Investment	Source
Variable Announcement			$			$	$	$	Inv. from SCIS investment table;capacity from SCIS default table
6-port Conference Circuit			$			$	$	$	Inv. from SCIS/IN investment table; capacities from SCIs/IN default Table
3-port Conference Circuit			$			$	$	$	Inv. from SCIS/IN investment table; capacities from SCIs/IN default Table
Call Waiting Tone			$			$	$	$	Inv. from SCIS/IN investment table; capacities from SCIs/IN default Table
Average								$	

5ESS

Equipment	Material $	Discount Rate	E&I	Total	Capacity (per CCS)	$/Unit	Utilization	Utilized Investment	
30-Second Announcement		$	$	-	$	$	$	$	Inv. from SCIS investment table;capacity calculated per note
60-Second Announcement		$	$	-	$	$	$	$	Inv. from SCIS investment table;capacity calculated per note
DSU2/RAF/BRCS			$	-					Lucent
6-port Conference Circuit			$	-	$	$	$	$	Inv., capacities and equations from SCIS/IN 6-port feature
3-port Conference Circuit			$	-	$	$	$	$	Inv., capacities and equation from SCIS/IN 3-port feature
Average								$	

Equipment	Material $	Discount Rate	E&I	Total	Capacity (per CCS)	$/Unit	Utilization	Utilized Investment	
DMS									
Class Modem Card		$	$		$				Inv. from SCIS/IN investment table; capacities from SCIs/IN default Table

Notes:

BS 5E Announcement investments are for 8 channels with no trunk; SCIS is for one channel with trunk
BS 5E Capacity appears to be 36 CCS per trunk * 8 channels; AT&T capacity is 36 CCS per trunk * 32 fanouts per announcement
BS used investment for an 5E SAS announcement from its Engineering org., but incorrectly used the capacity from SCIS/IN for an RAF announcement.
The SAS has a cpacity of 638 CCS.
Capacity of 5E DSU@/RAF is ~450 CCS - SCIS uses conservative 300 CCS, so no utilization adjustment should be applied
BS DMS Announcement investment appears for announcement machine with multiple channels
SCIS DMS announcement investment for one channel with trunk
BS conference circuit investments and capacities include 10 3 port or 5 6 port circuits; SCIS investments are for 1 circuit
SCIS capacities are already average utilizations, not capacity.
SCIS/IN default table call waiting "capacities" are average utilizations, not capacities
BS filed call waiting tone investment could not be identified in the SCIS/IN investment tables
Capacity for CLASS Modem Resource Card is lines, not CCS as shown in BS Hardware Study
SCIS/IN does not have capacity in default table, but BS's capacity is incorrect.
A CMR card is required for each LGC. And LGC handles 16-20 DSA links. Each LCM requires 2-6 DSA links.
LCMs per LGC therefore is min 16/6=2 to 20/2=10.
Each LCM handles 640b line cards
Lines per LGC is 640*2 = 1280 to 640*10=6400
Therefore lines per CMR is 1280 to 6400

BellSouth Telecommunications, Inc. Features

POD Item No. 33
Attachment No. 1
Page 1 of 1

	A	B	C
1	Florida		
2	Back-up for CLASS Modem Card Penetration		
3	Study Period: 2000-2002		
4			
5			
6	Item/Description	Source	Amount
7	Lines per Office w/ CND	Network	
8	Residence		12,000
9	Business		900
10			
11	Percent Distribution		
12	Residence		[redacted]
13	Business		[redacted]
14			
15	Melded Input - Lines per Office	Ln8*Ln12+Ln9*Ln13	8,699
16			
17	Average Number of Lines per Office	SCIS/MO Inputs	[redacted]
18			
19	Penetration of CND	Ln15/Ln17	54%

Q. HAVE YOU BEEN ABLE TO CORRECT THIS OVERSTATEMENT IN THE BSTLM?

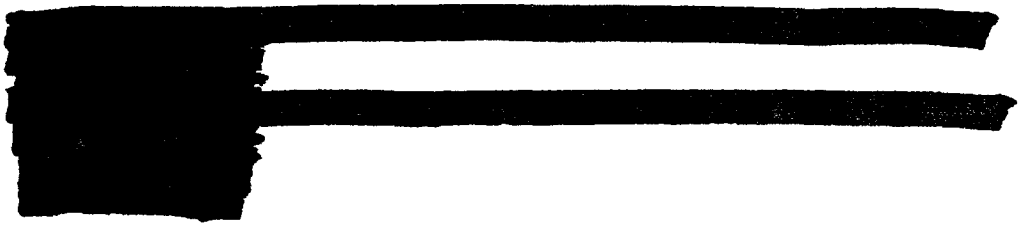
A. Again, we have been unable to modify the BSTLM algorithms because BellSouth has refused to provide the source code in a format that would allow us to correct this problem. This Commission should require BellSouth to fix this obvious overstatement in the BSTLM.

The BSCC distorts land and building investment

Q. HOW DOES THE BSCC DEVELOP LAND AND BUILDING INVESTMENT?

A. The BSCC develops land and building investment by applying a factor to other investments in the BSCC, specifically DLC investment. This process assumes that required land and building investment is directly proportional to these underlying investments. However, this is not an appropriate way to develop investment because it assumes that two different types of plug-in cards, which are each exactly the same size, would require different amounts of land and building investment. Consider the following example:

*****Begin Proprietary*****



[redacted]***End Proprietary*** This makes no sense, because both cards are identical in size and therefore require identical land and building investment.

Q. HOW WOULD YOU PROPOSE TO FIX THIS PROBLEM?

A. The current problem is created by the way BSCC calculates land and building investment. Unfortunately, BellSouth has not provided us with a way to correct this error in the BSCC. This Commission should require BellSouth to use a more appropriate methodology for allocating land and building investment. Two possible options would be to calculate land and building investment based on equipment size or to apply a fixed land and building investment per line.

IV. RESULTS AND CONCLUSION

Q. WHAT ARE THE RESULTS OF YOUR ANALYSES?

A. The testimony of Jeffrey A. King discusses the pricing proposals based on our restatements of the BSTLM and the associated components of the BSCC. The table in Exhibit JCD/BFP-15 provides the results of our restatement for a few selected loop-related elements.

Q. WHY DO YOUR RESTATEMENTS SHOW SUCH SIGNIFICANT REDUCTIONS TO BELLSOUTH'S PROPOSED PRICES?

A. Simply put, the BSTLM, with the adjustments we identify above, estimates reasonable investment based on the underlying network. A

	A	B	C	D	E	F	G
1	**Comparison of Input Values**						
2							
326							
327	**Indoor FDI Terminals Primitives**						
328	Type		BellSouth Value	Revised Value			
329	66 -type Punch-Down Connector Blocks (50 pair)		$ 5.46	$ 8.71		Applied a 1.595 installation factor based on FCC FNPRM 99-120 Appendix D2: ratio of total SAI cost to total cost of material ($21,708.00 / $13,609.33)	
330	Backboard (bl) (200 pair)		$ 8.87	$ 14.15		Applied a 1.595 installation factor based on FCC FNPRM 99-120 Appendix D2: ratio of total SAI cost to total cost of material ($21,708.00 / $13,609.33)	
331	189 type Protector (100 pair)		$ 307.81	$ 490.96		Applied a 1.595 installation factor based on FCC FNPRM 99-120 Appendix D2: ratio of total SAI cost to total cost of material ($21,708.00 / $13,609.33)	
332							
333	**NID/NIU**						
334	Type	Size	Value	Value			
335	HDSLModem	1	[redacted]	$ 161.38		Same labor as the NID. HAI uses $15 for labor and $44 total, adjusted to $50 for commission business NID for $17.04 labor cost.	
336	NID	2		$ 30.00		USF Order. Docket No. 980696-TP. Order No. PSC-99-0068-FOF-TP.	465
337	NID	6		$ 50.00		USF Order. Docket No. 980696-TP. Order No. PSC-99-0068-FOF-TP.	465
338	NIDintandProt	1		$ -		Included in installed NID cost.	
339	NIU	1		$ 186.90		Same labor as the NID. HAI uses $15 for labor and $44 total, adjusted to $50 for commission business NID for $17.04 labor cost.	
340							
341	**Service Description (Extended Range Cutover)**						
342	Service Code		BellSouth Value	Revised Value			
343	A - 2WG UV		14,800	13,000		See testimony.	
344	a - LOCAL POTS/POTS-LIKE		14,800	13,000		See testimony.	
345	b - PBX		14,800	13,000		See testimony.	
346	c - CENTREX		14,800	13,000		See testimony.	
347	d - COIN SMART LINE		14,800	13,000		See testimony.	
348	E - 2WVG USL FEEDER		14,800	13,000		See testimony.	
349	e - COIN REGULAR		14,800	13,000		See testimony.	
350	H - 2WVG U LOCAL CHANNEL(357C)		14,800	13,000		See testimony.	
351	j - SLV ANALOG 2W		14,800	13,000		See testimony.	
352	Q - UCL 2W		14,800	13,000		See testimony.	
353							
354	**Service Description (DS0 Equivalence)**						
355	Service Code		BellSouth Value	Revised Value			
356	B - 2WVG UDL ADSL		32	1		See testimony.	
357	C - 2WVG UDL HDSL		24	1		See testimony.	
358	D - 2WVG UDL ISDN		3	1		See testimony.	
359	f - ISDN LOC		3	1		See testimony.	
360	g - ISDN PBX		3	1		See testimony.	
361	J - 4WVG UDL (257C) HDSL		24	2		See testimony.	
362	k - DS1 DIGITAL MEGALINK ISDN		24	2		See testimony.	
363	K - 4WVG UDL (257C) DS1		24	2		See testimony.	
364	L - 4WVG USLC DS1		24	2		See testimony.	
365	p - DS1 DIGITAL ACCESS		24	2		See testimony.	
366	P - UCL (357C) LOCAL CHANNEL DS1 DIGITAL		24	2		See testimony.	
367	t - DS1 DIGITAL SWITCHED AREA COMM. PLAN		24	2		See testimony.	
368							
369	**Splicing And Placing Hours**						
370	**Drop Placing Hours (Travel)**						
371	Item		BellSouth Value	Revised Value			Page
372	AerialCU		1.0392	-		Included in installed drop cost.	
373	BuriedCU		1.4216	-		Included in installed drop cost.	
374	NIDCU		0.2500	-		Included in installed drop cost.	
375							

	A	B	C	D	E	F	G
1	**Comparison of Input Values**						
2							
376	**Engineering Rules**						
377	**Building Cable Rules**						
378	Rule		Value	Value			Page
379	AvgLengthFloortoFloor		25	10		Commercial floors are 10 feet apart. Industry standard calls for vertically aligned telco closets.	
380							
381	**Electronic and Fiber Sizing (Engineering Fill)**						
382	Equipment		Value	Value			Page
383	DistFOFill		75.0%	100.0%		Distribution fiber optics not used. Also see comments below.	
384	DLCCOTFill		80.0%	90.0%		Universal DLC should not be used in favor of integrated DLC (see testimony). Also see below.	
385	DLCRTFill		70.0%	90.0%		Standard engineering guideline is to provide for 6 months growth for line card additions.	
386	FdrFOFill		75.0%	100.0%		Standard design of 4 fibers rather than 2 per Remote Terminal provides an effective fill of 50%.	
387							
388	**GIS Rules**						
389	Input	Units	Value	Value			
390	AALineMinimumLimit	Lines	10	1,800		See testimony.	
391	CopperLengthDesignLimit	Feet	12,000	15,999		See testimony.	
392	CopperLengthHardLimit	Feet	13,000	16,799		See testimony.	
393	DLCLengthDesignLimit	Feet	12,000	15,999		See testimony.	
394	DLCLengthHardLimit	Feet	18,000	16,799		See testimony.	
395	DLCLineMinimumLimit	Lines	10	1,800		See testimony.	
396	NumberNodesPerRing	Nodes	4	8		USF Order. Docket No. 980696-TP. Order No. PSC-99-0068-FOF-TP.	484
397							
398	**Network Rules**						
399	Rule		Value	Value			Page
400	AA24/26GaugeXover	Feet	12,000	16,800		See testimony.	
401	CSA24/26GaugeXover	Feet	9,000	16,800		See testimony.	
402	DesignPairsPerHU	Pairs	2.0	1.5		USF Order. Docket No. 980696-TP. Order No. PSC-99-0068-FOF-TP.	458
403	MinimumFOSize	Strands	12	6		Input in the BSTLM.	
404	MinimumPairsPerBusiness	Pairs	6	3		USF Order. Docket No. 980696-TP. Order No. PSC-99-0068-FOF-TP.	129
405							
406	**DLC/ONU-Other**						
407	**COT Fiber Termination**						
408	Plant Type	Size	Value	Value			
409	Fiber Terminating Frame	24	[redacted]	$ 266.00		BellSouth's inputs are $133 per 12 strand, applied this cost-per strand	
410	Fiber Terminating Frame	48	[redacted]	$ 532.00		BellSouth's inputs are $133 per 12 strand, applied this cost-per strand	
411	Fiber Terminating Frame	72	[redacted]	$ 798.00		BellSouth's inputs are $133 per 12 strand, applied this cost-per strand	
412	Fiber Terminating Frame	96	[redacted]	$ 1,064.00		BellSouth's inputs are $133 per 12 strand, applied this cost-per strand	
413	Fiber Terminating Frame	144	[redacted]	$ 1,596.00		BellSouth's inputs are $133 per 12 strand, applied this cost-per strand	
414	Fiber Terminating Frame	216	[redacted]	$ 2,394.00		BellSouth's inputs are $133 per 12 strand, applied this cost-per strand	
415							
416	**DLC Vendor Mix**						
417	DLC Type	Vendor	Value	Value			
418	Integrated	Vendor "A"	42.0%	0.0%		See testimony.	
419	Universal	Vendor "A"	42.0%	0.0%		See testimony	
420	Integrated	Vendor "B"	58.0%	100.0%		See testimony.	
421	Universal	Vendor "B"	58.0%	100.0%		See testimony	
422							
423	**SONET Terminals-Other**						
424	**Vendor Mix**						
425	Terminal	Vendor	Value	Value			
426	OC-1	Vendor "A"	60.0%	100.0%		See testimony.	
427	OC-3	Vendor "A"	60.0%	100.0%		See testimony.	
428	OC-12	Vendor "A"	60.0%	100.0%		See testimony.	
429	OC-48	Vendor "A"	60.0%	100.0%		See testimony.	
430	OC-1	Vendor "B"	40.0%	0.0%		See testimony.	
431	OC-3	Vendor "B"	40.0%	0.0%		See testimony.	
432	OC-12	Vendor "B"	40.0%	0.0%		See testimony.	
433	OC-48	Vendor "B"	40.0%	0.0%		See testimony.	