with any necessary supporting documentation, within 60 days from the date of release of this order. AT&T and WorldCom may file rebuttal testimony, along with any necessary supporting documentation, within 81 days from the date of release of this order.

698. We direct the parties to apply the rates that we order in this proceeding, except as otherwise required by the true-up provisions discussed above, in the manner and time frame required by the terms of the parties' interconnection agreements, or in no case later than the effective date of the Bureau's forthcoming order addressing the parties' compliance filings for recurring charges for non-loop UNEs and for all NRCs. We note, however, that as part of its application for section 271 authority in Virginia, Verizon stated that it would make the switching rates established in this proceeding effective as of August 1, 2002.[1792] We expect Verizon to abide by this commitment. Except as specified above, this order is effective immediately.

XIV. ORDERING CLAUSES

699. Accordingly, IT IS ORDERED that, pursuant to Section 252 of the Communications Act of 1934, as amended, and Sections 0.91, 0.291 and 51.807 of the Commission's rules, 47 U.S.C. § 252 and 47 C.F.R. §§ 0.91, 0.291, 51.807, the issues presented for arbitration are determined as set forth in this Order, effective as specified *supra* in section XIII.

700. IT IS FURTHER ORDERED that the Verizon NRCM Motion is hereby GRANTED; the Verizon New Evidence Filing is hereby DENIED; the Verizon Motion to Re-open the Record is hereby DENIED; and the Verizon Supplemental Proffer is hereby DENIED.

701. IT IS FURTHER ORDERED that Verizon Virginia, Inc. SHALL SUBMIT a compliance filing consistent with paragraphs 695 and 697 of this Order, and that AT&T Communications of Virginia, Inc. and WorldCom, Inc. MAY SUBMIT a rebuttal filing consistent with paragraphs 695 and 697 of this Order.

702. IT IS FURTHER ORDERED that AT&T Communications of Virginia, Inc. and WorldCom, Inc. SHALL SUBMIT a compliance filing consistent with paragraph 696 of this

[1792] *Application by Verizon Virginia Inc., Verizon Long Distance Virginia, Inc., Verizon Enterprise Solutions Virginia Inc., Verizon Global Networks Inc., and Verizon Select Services of Virginia Inc., for Authorization to Provide In-Region, InterLATA Services in Virginia*, WC 02-214, Memorandum Opinion and Order, 17 FCC Rcd 21880 at 21945-46, para. 114 (2002) ("Verizon states that it has agreed to make any switching rates set during the Virginia Arbitration Proceeding effective as of August 1, 2002, the date of its Virginia section 271 application.").

Order, and that Verizon Virginia, Inc. MAY SUBMIT a rebuttal filing consistent with paragraph 696 of this Order.

By Order of the Bureau,

William F. Maher, Jr.
Chief, Wireline Competition Bureau

APPENDIX A
Depreciation – Asset Lives and Salvage Percentages

APPENDIX A
Depreciation – Asset Lives and Salvage Percentages

	Depreciation Rate Category	ATT/WCOM PROPOSAL[1] (YEARS)	VZ PROPOSAL[2] (YEARS)	BUREAU DECISION PROJECTION LIFE RANGE (YEARS)	BUREAU DECISION FUTURE NET SALVAGE[2] (PERCENT)
1	MOTOR VEHICLES	*7.5*	*8.0*	7.5	15.0
2	GARAGE WORK EQUIPMENT	*18.5*	*N/A*	12.0	-5.58[3]
3	OTHER WORK EQUIPMENT	*12.0*	*10.0*	12.0	0.0
4	BUILDINGS	*60.0*	*30.0*	46.93[3]	2.0
5	FURNITURE	*15.0*	*12.0*	15.0	0.0
6	OFFICE SUPPORT EQUIPMENT	*10.0*	*10.0*	10.0	0.0
7	CO COMMUNICATIONS EQUIPMENT	*11.4*	*8.0*	7.0	0.0
8	GENERAL PUPOSE COMPUTERS	*7.0*	*5.0*	6.0	3.0
9	DIGITAL SWITCHING	*17.5*	*10.0*	12.0	2.0
10	OPERATOR SYSTEMS	*15.0*	*10.0*	8.0	0.0
11	RADIO SYSTEMS	*9.0*	*5.0*	9.0	-5.0
12	CIRCUIT EQUIPMENT - DIGITAL	*11.5*	*9.0*	11.0	1.0
13	PUBLIC TELEPHONE	*11.8*	*8.0*	7.0	0.0
14	OTHER TERMINAL EQUIPMENT	*9.5*	*8.0*	5.0	0.0
15	POLES	*30.0*	*30.0*	30.0	-90.0
16	AERIAL CABLE - METALLIC	*23.0*	*17.0*	20.0	-10.0
17	AERIAL CABLE - NON-METALLIC	*25.0*	*20.0*	25.0	-10.0
18	UNDERGROUND CABLE - METALLIC	*25.0*	*17.0*	25.0	-10.0
19	UNDERGROUND CABLE - NON-METALLIC	*25.0*	*20.0*	25.0	-10.0
20	BURIED CABLE - METALLIC	*21.0*	*17.0*	20.0	-5.0
21	BURIED CABLE - NON-METALLIC	*25.0*	*20.0*	25.0	-10.0
22	SUBMARINE CABLE	*25.0*	*17.0*	25.0	-5.0
23	INTRABLDG NETWORK CBL - METALLIC	*24.0*	*17.0*	20.0	-5.0
24	INTRABLDG NETWORK CBL - NON-METALLIC	*30.0*	*20.0*	25.0	-10.0
25	CONDUIT SYSTEMS	*50.0*	*50.0*	50.0	-10.0

Footnote 1: AT&T/WorldCom Ex. 9 (Lee Rebuttal), Attach 1.

Footnote 2: Verizon Ex. 106 (Sovereign Direct), Attach. A.

Footnote 3: *Inputs Order*, App. A, Input Values, Part 3: Capital Costs.

APPENDIX B
Plant Specific Expense Ratios

APPENDIX B
Plant Specific Expense Ratios

Verizon - Virginia
1999 Investment and Expense

Industry Maintenance Ratios
Source: ARMIS 43-03 Report and

(a)	(b)	(c)	1999 Investment	1999 Expense	Ratio	1997 C/B	1998 C/B	1999 Current	**1999 Ratio**
6110	2112-16	Network Support Investment	121,573	1,792	0.014740	1.1092	1.0213	124,163	**0.014433**
6120	2121-24	General Support Investment	584,890	105,369	0.1801518	1.5607	1.4917	872,480	**0.120769**
6212	2212	COE (Digital)	1,399,844	40,717	0.0290868	0.8835	0.9012	1,261,539	**0.032276**
6232	2232	Circuit - DDS	84,119	1,081	0.0128508	0.99	0.9703	81,621	**0.013376**
6232	2232	Circuit - other than DDS	1,602,546	20,594	0.0128508	0.9609	0.9602	1,538,765	**0.013376**
6411	2411	Poles	83,826	12,836	0.1531267	2.416	2.3879	200,168	**0.064126**
6421	2421	Aerial Cable - metallic	426,093	49,487	0.1161413	1.5262	1.6178	689,333	**0.071790**
6421	2421	Aerial Cable - fiber	80,559	416	0.0051639	0.8575	0.8777	70,707	**0.005883**
6422	2422	Underground Cable - metallic	266,552	9,215	0.0345711	1.6937	1.6412	437,465	**0.021065**
6422	2422	Underground Cable - fiber	156,255	1,176	0.0075262	0.8176	0.831	129,848	**0.009057**
6423	2423	Buried Cable - metallic	1,172,630	110,773	0.0944654	1.375	1.368	1,604,158	**0.069054**
6423	2423	Buried Cable - fiber	625,461	718	0.001148	0.9521	0.9676	605,196	**0.001186**
6441	2441	Conduit Systems	358,257	2,483	0.0069308	1.8787	1.8049	646,618	**0.003840**

APPENDIX C

Vendor Discount Weights for Estimating Other End-Office Switch Investment

APPENDIX C
Vendor Discount Weights for Estimating Other End-Office Switch Investment

Year	Installed Lines	Additions	PV of Additions
0	1.0000	1.0000	1.0000
1	1.0000	0.0000	0.0000
2	1.0506	0.0506	0.0397
3	1.0506	0.0000	0.0000
4	1.1038	0.0532	0.0327
5	1.1038	0.0000	0.0000
6	1.1597	0.0559	0.0269
7	1.1597	0.0000	0.0000
8	1.2184	0.0587	0.0222
9	1.2184	0.0000	0.0000
10	1.2801	0.0617	0.0183
11	1.2801	0.0000	0.0000
12	1.2801	0.0000	0.0000

Assumptions	
growth rate	0.0250
cost of capital	0.1295
periods	12
initial growth year	2

PV Installed Initial Lines	1.0000
PV Installed Growth Lines	0.1397
New Discount Weight	0.88
Growth Discount Weight	0.12

APPENDIX D

Vendor Discount Weights for Estimating Other Tandem Switch Investment and *End-Office Switch Trunk Port and SS7 Link Investment*

APPENDIX D

Vendor Discount Weights for Estimating Other Tandem Switch Investment and *End-Office Switch Trunk Port and SS7 Link Investment*

Year	Installed Trunks	Additions	PV of Additions
0	1.0000	1.0000	1.0000
1	1.0000	0.0000	0.0000
2	1.0609	0.0609	0.0477
3	1.0609	0.0000	0.0000
4	1.1255	0.0646	0.0397
5	1.1255	0.0000	0.0000
6	1.1941	0.0685	0.0330
7	1.1941	0.0000	0.0000
8	1.2668	0.0727	0.0275
9	1.2668	0.0000	0.0000
10	1.3439	0.0771	0.0228
11	1.3439	0.0000	0.0000
12	1.3439	0.0000	0.0000

Assumptions	
growth rate	0.0300
cost of capital	0.1295
periods	12
initial growth year	2

PV Installed Initial Trunks	1.0000
PV Installed Growth Trunks	0.1707
New Discount Weight	0.85
Growth Discount Weight	0.15

APPENDIX E
UNE Loop Rates

APPENDIX E
UNE Loop Rates

Unbundled Loop Type	Recurring Rate
2 Wire Basic Unbundled Loop - Density Cell 1	$11.89
2 Wire Basic Unbundled Loop - Density Cell 2	$15.26
2 Wire Basic Unbundled Loop - Density Cell 3	$28.43
2 Wire Basic Unbundled Loop - Statewide Average	$14.43
4 Wire Basic Unbundled Loop - Density Cell 1	$20.08
4 Wire Basic Unbundled Loop - Density Cell 2	$26.03
4 Wire Basic Unbundled Loop - Density Cell 3	$49.06
4 Wire Basic Unbundled Loop - Statewide Average	$24.53
2 Wire Customer Specified Signaling - Density Cell 1	$16.76
2 Wire Customer Specified Signaling - Density Cell 2	$19.69
2 Wire Customer Specified Signaling - Density Cell 3	$32.98
2 Wire Customer Specified Signaling - Statewide Average	$19.19
2 Wire xDSL loop - Density Cell 1	$11.89
2 Wire xDSL loop - Density Cell 2	$15.26
2 Wire xDSL loop - Density Cell 3	$28.43
2 Wire xDSL loop - Statewide Average	$14.43
4 Wire Customer Specified Signaling - Density Cell 1	$20.08
4 Wire Customer Specified Signaling - Density Cell 2	$26.03
4 Wire Customer Specified Signaling - Density Cell 3	$49.06
4 Wire Customer Specified Signaling - Statewide Average	$24.53
ISDN BRI - Density Cell 1	$14.15
ISDN BRI - Density Cell 2	$17.09
ISDN BRI - Density Cell 3	$30.42
ISDN BRI - Statewide Average	$16.59
Digital 4 Wire (56 & 64 Kbps) - Density Cell 1	$13.15
Digital 4 Wire (56 & 64 Kbps) - Density Cell 2	$16.94
Digital 4 Wire (56 & 64 Kbps) - Density Cell 3	$31.56
Digital 4 Wire (56 & 64 Kbps) - Statewide Average	$15.97
DS-1/ISDN PRI Loop - Density Cell 1	$51.13
DS-1/ISDN PRI Loop - Density Cell 2	$65.62
DS-1/ISDN PRI Loop - Density Cell 3	$122.25
DS-1/ISDN PRI Loop - Statewide Average	$62.05
DS-3 Loop - Statewide Average	$595.96
Off Premise Extension Unbundled Loop - Density Cell 1	$11.89
Off Premise Extension Unbundled Loop - Density Cell 2	$15.26
Off Premise Extension Unbundled Loop - Density Cell 3	$28.43
Off Premise Extension Unbundled Loop - Statewide Average	$14.43

APPENDIX F
MSM Loop Costs, Component and Total

APPENDIX F
MSM Loop Costs, Component and Total

Summary of Loop Rates by TELRIC Cell ID

2-Wire Loop Rates

Cell ID	Lines	NID	Distribution	Concentration	Feeder	Total Loop
Cell 1	2778463	$0.54	$6.49	$4.15	$0.71	$11.89
Cell 2	470068	$0.54	$8.70	$5.09	$0.93	$15.26
Cell 3	475804	$0.60	$17.59	$7.53	$2.71	$28.43
Average	3724335	$0.54	$8.19	$4.70	$0.99	$14.43

4-Wire Loop Rates

Cell ID	Lines	NID	Distribution	Concentration	Feeder	Total Loop
Cell 1	2778463	$0.57	$12.99	$5.81	$0.71	$20.08
Cell 2	470068	$0.57	$17.41	$7.13	$0.93	$26.03
Cell 3	475804	$0.63	$35.18	$10.54	$2.71	$49.06
Average	3724335	$0.57	$16.38	$6.58	$0.99	$24.53

APPENDIX G
MSM Loop Input Modifications

APPENDIX G
MSM Loop Input Modifications – HCPM Inputs

All Modifications to MSM Inputs are Highlighted in Gray Throughout this Appendix G

Cluster Inputs		
Values	**Description**	**Comments**
150	Raster_Size	
12000	Distance_Limit	
1800	Line_Limit	
90	Line_Fill	
113	Block_Divide_Factor	
1	Cluster_Algorithm	
4	Optimization_Method	
1000	Maximum_populated_cells	
1	Use_hcpm.mdb	
1	True-up_line_counts	

APPENDIX G
MSM Loop Input Modifications – HCPM Inputs

Feeder / Distribution Inputs		
Value	**Variable Name**	**Comments**
0.5	max_drop_length	
0.5	user_lambda	
12	copper_gauge_xover	
12	max_copper_distance	
1.25	MaxCopperPenalty	
12	copper_t1_xover	
0	t1_fiber_xover	
1.25	t1_redundancy_factor	
24	copper_placement_depth	
36	fiber_placement_depth	
3	CriticalWaterDepth	
1.3	WaterFactor	
12	MinSlopeTrigger	
1.10	MinSlopeFactor	
30	MaxSlopeTrigger	
1.05	MaxSlopeFactor	
1.20	CombSlopeFactor	
0.0000%	pct_ds1	
0.00%	pct_lsa	
24	ChannelsPerT1System	
2	PairsPerT1System	
4	FibersPerTerminal	
2016	CapacityF2016	
1344	CapacityF1344	
672	CapacityF672	
96	CapacityF96	
24	CapacityF24	
96	CapacityT96	
24	CapacityT24	
10	lines_per_bus	
1.00	DistRoadFactor	
1.00	FiberFillFactor	
1	DistanceType	
1.00	FeederRoadFactor	
2	Max_SAIs	Maximum number of SAI's placed in a cluster

APPENDIX G
MSM Loop Input Modifications – HCPM Inputs

Distribution Plant Mix				
Density	UG	Buried	Aerial	Comments
0	0.83%	64.11%	35.06%	
5	0.83%	64.11%	35.06%	
100	0.83%	64.11%	35.06%	
200	1.22%	63.86%	34.92%	
650	1.22%	63.86%	34.92%	
850	27.88%	46.62%	25.50%	
2550	27.88%	45.55%	26.57%	
5000	27.88%	26.57%	45.55%	
10000	27.88%	4.01%	68.11%	

Copper Feeder Plant Mix				
Density	UG	Buried	Aerial	Comments
0	11.06%	56.17%	32.77%	
5	11.06%	56.17%	32.77%	
100	11.06%	56.17%	32.77%	
200	48.91%	32.27%	18.82%	
650	48.91%	32.27%	18.82%	
850	67.48%	20.54%	11.98%	
2550	67.48%	18.29%	14.23%	
5000	67.48%	18.97%	13.55%	
10000	67.48%	5.42%	27.10%	

APPENDIX G
MSM Loop Input Modifications – HCPM Inputs

Fiber Feeder Plant Mix				
Density	UG	Buried	Aerial	Comments
0	11.06%	37.45%	51.49%	
5	11.06%	37.45%	51.49%	
100	11.06%	37.45%	51.49%	
200	48.91%	21.51%	29.58%	
650	48.91%	21.51%	29.58%	
850	67.48%	13.69%	18.83%	
2550	67.48%	14.23%	18.29%	
5000	67.48%	13.55%	18.97%	
10000	67.48%	5.42%	27.10%	

Sharing				
Density	UG	Buried	Aerial	Comments
0	100.00%	33.00%	50.00%	
5	97.00%	33.00%	50.00%	
100	97.00%	33.00%	50.00%	
200	50.00%	33.00%	50.00%	
650	50.00%	33.00%	50.00%	
850	50.00%	33.00%	50.00%	
2550	50.00%	33.00%	35.00%	
5000	50.00%	33.00%	35.00%	
10000	50.00%	33.00%	35.00%	

APPENDIX G
MSM Loop Input Modifications – HCPM Inputs

Annual Charge Factors		
Annual Factors	**Variable**	**Comments**
0.194565	ac_ugd_cop	
0.251054	ac_bur_cop	
0.256290	ac_aer_cop	
0.182557	ac_ugd_fib	
0.174686	ac_bur_fib	
0.179383	ac_aer_fib	
0.155340	ac_ugd_struc	
0.153340	ac_bur_struc	
0.256959	ac_aer_struc	
0.155340	ac_manhole	
0.232876	ac_t1_term	
0.232876	ac_fib_term	
0.232876	ac_fdi	
0.175383	ac_fib_splice	

DLC and Misc. Costs		
Value	**Variable**	**Comments**
$ 560.00	cost_per_drop_kf	
$ 39.50	nid_cost	
$ 720.00	duct_cost_per_kf	
$ 152,617.43	a2016	
$ 74.98	b2016	
$ 107,224.92	a1344	
$ 74.98	b1344	
$ 97,443.38	a672	
$ 74.98	b672	
$ 23,848.20	a96	
$ 87.30	b96	
$ 19,881.39	a24	
$ 87.30	b24	
$ 23,848.20	ac96	
$ 87.30	bc96	
$ 19,881.39	ac24	
$ 87.30	bc24	
$ 11,000.00	site_prep_cost	
$ -	fiber_splice_cost	

APPENDIX G
MSM Loop Input Modifications – Line Counts

Wire Center	HOUSEHOLDS	BUSLINES	RESLINES	SPECIAL	PUBLIC	SLBUS
ALXNVAAD	25632.62	26168.77075	31912.17075	0	335.2838571	728.112064
ALXNVAAX	22752.16	41910.36973	30899.22736	0	563.8865237	1037.628274
ALXNVABA	34936.13	22488.69477	40625.42211	0	379.2114156	486.0351188
ALXNVABR	9324.84	5413.7786	10968.90518	0	113.8530896	141.4013582
ALXNVACN	18927.25	13402.43957	21018.54065	0	209.7765123	286.7775862
ALXNVAFR	14088.09	13401.52385	24163.60783	0	285.0809678	391.2303136
ALXNVAMV	19661.43	8076.164348	23155.1368	0	241.1533282	212.1783791
APLCVAAP	1289.45	386.6211475	1665.387523	0	8.964792978	23.41518441
ARTNVAAR	35601.84	57541.59925	50138.38214	0	818.4870819	1045.755833
ARTNVACK	22676.04	12120.62212	27170.29658	0	396.2445952	264.4471133
ARTNVACY	3154.88	20179.07888	3354.831653	0	718.0812223	102.1601124
ARTNVAFC	27019.34	21047.57386	35896.84889	0	328.1120389	766.1140485
ASBNVAAS	6180.15	8139.626188	20075.56276	0	137.1616	233.7858769
ASLDVAAS	3520.83	7597.425421	6039.986931	0	181.0891585	195.6144102
BCHNVABH	1294.97	554.4072983	1926.372789	0	17.92958596	116.0203287
BCKNVABC	2380.25	239.3623152	2765.267621	0	4.48243701	0
BDFRVABD	7499.14	3260.970612	9617.767673	0	111.1636274	94.40212932
BEVLVABV	2250.71	1595.957118	4594.72727	0	34.96276555	51.62763826
BGISVABI	983.54	289.5819696	1051.105668	0	12.55074259	30.10786804
BKBGVABB	1366.14	472.8292195	1903.358497	0	7.171818174	44.99045324
BLBGVABB	15544.75	8044.968197	20363.31968	0	194.5363885	229.2746866
BLMTVABM	1153.55	355.6635796	1447.733761	0	1.792974804	12.6772001
BOYCVABY	1536.21	458.8859531	1894.652012	0	11.65425518	33.99488572
BSGPVABG	3444.69	1810.034382	5015.812794	0	58.27127592	35.58207112
BTHIVABT	16640.85	7240.338049	25384.71239	0	122.8178826	382.0644578
CALVVACA	1876.07	572.4618026	2531.497544	0	12.55074259	54.21205642
CCVLVACH	1157.4	291.9145118	1847.520623	0	8.068305576	109.7043138
CGVLVACL	1121.27	114.5687999	943.4079292	0	5.378924412	0
CHCYVACC	1639.99	788.6141808	2497.25232	0	11.65425518	6.41083534
CHESVACR	11400.04	9092.113296	15960.34383	0	290.4598112	296.1461487
CHHMVACH	3489.41	1807.633978	4106.318875	0	81.57978629	30.7232057
CHSKVACD	16177.86	8120.607976	22967.75863	0	162.2630852	311.7064142
CHSKVADC	14360.74	7173.296909	16689.44671	0	168.5384159	300.8609169
CHSKVAGU	14518.19	6150.765209	14266.79978	0	244.7392778	200.5163306
CLHGVACO	11421.87	11638.27325	14105.39774	0	227.7061793	405.3910436
CLNCVACL	1482.92	328.2046393	2202.701288	0	11.65425518	0
CLPPVACU	6475.46	6552.526436	8978.878182	0	136.2651126	198.6487901
CLPPVAGR	2107.22	850.591701	4499.32502	0	8.964792978	122.5721504

APPENDIX G
MSM Loop Input Modifications – Line Counts

Wire Center	HOUSEHOLDS	BUSLINES	RESLINES	SPECIAL	PUBLIC	SLBUS
CLPPVALI	396.4	476.0795167	1207.974009	0	8.068305576	17.24276909
CLPPVARV	1421.09	590.4791734	3218.836393	0	8.068305576	43.19346818
CLVRVACL	1821.89	211.0814244	2289.23689	0	17.92958596	33.06671512
CLWDVACW	2255.45	1268.154078	2753.512088	0	28.68735374	122.8507633
CMLDVACU	1359.31	602.4956742	2139.414313	0	15.24020479	6.301206932
CNCRVACN	1856.27	415.5324727	2100.337032	0	10.75776778	66.49143357
CNCTVACT	1861.04	918.2647609	3529.537614	0	44.82404593	53.04285266
CNVIVACT	36175.04	32657.41397	37451.8186	0	438.3791789	875.9065877
COBNVACB	2359.95	911.648774	3970.492806	0	54.68532631	41.25611894
CPCHVACC	1715.39	906.0793955	2100.911794	0	43.92755853	73.02098117
CRBGVACB	9238.51	6575.391496	12006.01517	0	191.8469263	228.665073
CRVIVACV	1581.36	656.5767508	1787.142262	0	26.89445998	155.5996681
CRVLVACV	757.29	177.6329398	971.1150533	0	4.48243701	12.35615436
DANTVADA	746.81	181.3214126	784.4758072	0	1.792974804	0
DAVLVADA	17752.85	10890.29429	21285.90981	0	453.6193027	281.0042382
DAVLVAFP	4347.92	1878.855518	6829.694782	0	70.8220185	39.41545673
DAVLVAWE	1824.03	396.6013387	2096.83765	0	8.964792978	35.00518429
DBLNVADU	3740.63	1947.530533	4888.887341	0	96.81991004	91.75561743
DCVLVADV	1298.17	153.109683	1925.368445	0	6.275330772	0
DNWDVADW	1835.72	750.256366	2385.000693	0	24.20499777	31.05482852
DRVRVADR	1214.94	1348.055485	1636.750879	0	24.033999	27.52780516
DVPTVADP	1348.35	99.09535385	1311.666005	0	1.792974804	0
ETVLVAEV	939.92	511.6616007	1503.97274	0	14.34371739	16.74141511
EXMRVAEX	3367.31	2215.173739	4958.128256	0	63.65011929	79.75584872
FIFEVAFI	1613.68	264.3143714	2063.611752	0	6.275330772	43.71809175
FLCHVAMF	21483.38	35242.17998	29836.5561	0	368.4536478	571.6046329
FRBGVAFB	17915.93	19271.0133	22805.70608	0	424.0354615	684.8406987
FRBGVALH	9032.12	8735.553499	15693.80331	0	239.3604344	291.4341182
FRFXVABF	31965.18	18489.75676	34228.66061	0	323.6296019	587.973859
FRFXVAFF	19708.72	40905.13742	27376.76398	0	627.536643	751.3392252
GCLDVAGO	1380.92	1366.937696	3430.384988	0	33.16979075	35.7652414
GNBOVAGA	1412.32	374.3802674	2169.713448	0	17.03309855	27.018985
GNWDVAGW	1204.49	348.0959533	1810.497539	0	12.55074259	129.6016832
GOVLVAGV	2482.62	999.0962702	3822.134772	0	35.85925295	77.56838245
GRFLVAGF	4988.98	5259.835548	8792.342237	0	37.65222776	250.7351007
GVTNVAGR	12905.91	6564.56661	18134.97821	0	163.1594915	269.4386278
HLBOVAHB	518.51	303.9580272	1240.896332	0	4.48243701	23.95486478
HMPNVAAB	20528.73	12768.00739	23209.04295	0	422.2424867	357.7747349
HMPNVADC	16019.73	5871.096219	18824.74044	0	167.6419285	94.30905094

APPENDIX G
MSM Loop Input Modifications – Line Counts

Wire Center	HOUSEHOLDS	BUSLINES	RESLINES	SPECIAL	PUBLIC	SLBUS
HMPNVAQN	14810.75	8049.445572	16640.01413	0	374.7290596	291.9668301
HMPNVAWD	12886.93	2054.270565	15317.60885	0	61.85714448	128.3957707
HNKRVAHK	1298.35	450.2741322	2215.589872	0	16.13669219	0
HPWLVAHW	14008.71	7266.506321	19149.09113	0	222.3272549	207.5950157
HRNDVADU	673.38	3605.356648	3275.99782	0	41.23809632	59.9643747
HRNDVAHE	27214.74	45186.87014	25846.68202	0	455.4122775	832.5050619
HRNDVAST	24980.96	17421.23761	23939.65412	0	259.0829952	692.3259173
HRWDVAHW	4429.79	2252.624939	7045.663253	0	30.48032854	174.8433733
HYSIVAHY	1467.84	329.6235112	1418.115107	0	17.92958596	0
JNVLVAJV	1705.06	737.7134048	3066.751622	0	33.16979075	30.0422901
LBNNVALB	2838.86	2425.413718	3912.7072	0	68.1325563	67.6063831
LBNNVARD	3294.1	189.0372016	1333.075226	0	9.86128038	0
LOUSVALU	2707.72	1371.332077	3803.499595	0	27.79094738	57.85978303
LRTNVAGU	7138.47	6013.761542	5557.02351	0	77.09734928	153.4696914
LSBGVALB	11035.56	13729.1999	19676.82343	0	237.5674596	413.3936685
LVTNVALN	1621.65	948.6024775	2808.469486	0	29.58384114	0
LVVLVALV	1654.99	306.3995563	2083.115307	0	8.068305576	28.87619724
LYBGVACH	14182.94	19112.88605	17517.12615	0	417.7601308	398.485325
LYBGVACV	7701.42	2656.954692	8568.275451	0	51.0993767	85.30521134
LYBGVAMH	2467.22	892.0890623	3427.454318	0	39.44512152	27.79161018
LYBGVANL	6185.41	2541.124837	8662.276161	0	34.96276555	220.6412939
LYBGVAOF	3037.79	3807.859022	4644.859127	0	64.54660669	98.84139543
LYBGVATM	12351.1	7513.10661	12990.94266	0	216.0519241	185.1936141
LYBGVAYB	1932.42	1019.405429	3593.950568	0	32.27330335	14.92402249
MCHVVAMV	13495.37	7918.019823	18759.91317	0	149.7123426	346.7534091
MCKYVAMK	907.22	340.4590731	1225.543885	0	16.13669219	29.11424394
MCLNVALV	22105.12	72597.08789	33113.09871	0	640.983873	958.2111413
MDBGVAMI	2313.78	1657.131347	2359.162661	0	35.85925295	101.8399377
MDLTVAMD	13556.35	15273.01979	19268.56227	0	189.1574641	609.2572002
MDSNVAMA	2923.17	1240.917846	2976.772383	0	27.79094738	0
MNKNVAMN	2231.88	2256.86995	3278.790756	0	32.27330335	89.61556141
MNRLVAML	1880.77	710.541321	3365.737886	0	25.10148517	0
MRSHVAMA	2565.86	1160.62895	4639.044318	0	21.51553556	60.78204583
NLFRVANF	505.27	501.2475043	1684.453679	0	10.75776778	5.34043402
NRFLVABL	5878.78	12053.97218	7284.985885	0	274.323119	200.9168911
NRFLVABS	17928.46	27889.15404	21089.80626	0	785.3172912	486.6069038
NRFLVAGS	24212.39	6551.936477	25369.04231	0	312.8718341	56.67477585
NRFLVAOD	138	5274.566045	11.06416243	0	36.75574036	251.0384764

APPENDIX G
MSM Loop Input Modifications – Line Counts

Wire Center	HOUSEHOLDS	BUSLINES	RESLINES	SPECIAL	PUBLIC	SLBUS
NRFLVAOV	1493.53	9694.657151	2064.399165	0	172.8402912	20.16465857
NRFLVASP	16002.24	12843.67511	18614.4255	0	306.5965033	272.4254731
NRFLVAWC	11568.7	21202.98944	14171.82637	0	971.7852931	193.5104407
NRTNVANO	1785.69	3494.63024	3491.705806	0	77.99383668	87.49305091
NRWSVANA	2272.73	595.143608	2599.124734	0	28.68735374	23.59126182
NWNWVAHU	13538.47	8020.926655	13960.17745	0	488.5820682	92.73754452
NWNWVAHV	20331.31	19769.80944	18899.46876	0	262.6689448	530.7448437
NWNWVAJF	32844.17	13578.94346	36310.74533	0	439.2756663	509.3358218
NWNWVAND	6479.66	4715.024852	7782.298526	0	131.7826756	179.5403471
NWNWVAYK	6292.94	2633.237882	7246.345912	0	423.1389741	64.98475847
ONNCVAON	4019.83	2818.395838	5213.13036	0	83.37276109	129.4232415
ORNGVAOR	3794.45	2519.78643	5804.642309	0	147.9193678	76.59454373
PCVLVAPV	3360.75	2394.020666	6918.703274	0	41.23809632	122.0599704
PLSKVAPU	6614.62	3340.688302	8264.423722	0	92.33755407	107.1975439
PNGPVAPG	3466.08	1355.75837	4034.157341	0	41.23809632	59.73279869
PNRVVAPR	1440.23	264.1081875	1524.789331	0	16.13669219	98.33170422
PONDVAPO	1166.76	497.1731214	2274.857983	0	26.89445998	0
PRBGVAPB	2187.02	1215.699078	3117.242426	0	42.13458373	67.64396287
PRFRVAPF	1662.73	1609.530813	2711.39274	0	51.0993767	66.25649778
PRKSVAPK	1740.03	674.5370288	2718.943281	0	19.72256076	78.33914109
PTBGVACD	2371.37	641.5008191	3239.461459	0	10.75776778	64.76301293
PTBGVAPB	24295.53	13085.95417	26008.34789	0	952.0627323	452.5384762
PTMOVAHF	11353.44	6107.270528	13599.53906	0	306.5965033	226.75174
PTMOVAHS	16523.6	11205.49189	17715.63177	0	695.6691993	263.7120679
PWHTVAPW	4287.85	2285.533502	7258.495756	0	44.82404593	145.4706751
QNTNVAQN	2171.57	771.7087733	3324.576536	0	17.03309855	76.04590394
RCMDVACG	15661.89	9017.224543	17932.99145	0	255.4970456	122.0094493
RCMDVAGK	15612.68	7397.181137	18629.71913	0	117.4390392	329.0146368
RCMDVAGR	13108.09	56508.68074	13854.21218	0	588.9879279	494.1805966
RCMDVAGY	4954.71	4435.644575	11446.65759	0	54.68532631	307.56032
RCMDVAHL	21353.2	10488.13415	17720.79253	0	299.4246041	289.5995533
RCMDVAHR	24111.31	14628.42314	24265.99805	0	271.6337378	397.2186876
RCMDVAHS	4958.68	7055.249812	5702.29862	0	99.50937224	179.4414202
RCMDVAIT	16556.82	9753.511835	18406.2862	0	134.4721378	366.4783096
RCMDVAPE	17996.08	21393.94756	24008.73282	0	193.6399011	430.5092636
RCMDVAPS	12352.69	19513.086	14240.25279	0	199.9152319	416.8787568
RCMDVARA	10044.45	9414.057316	11535.95188	0	286.8738615	190.6853627
RCMDVASN	12216.57	4723.161085	11710.73248	0	196.3292823	178.3964039

APPENDIX G
MSM Loop Input Modifications – Line Counts

Wire Center	HOUSEHOLDS	BUSLINES	RESLINES	SPECIAL	PUBLIC	SLBUS
RCMDVASR	22342.78	32944.16071	23754.99741	0	395.3481078	665.7819058
RCMDVATC	2417.32	2679.594629	3264.145873	0	34.96276555	64.30658047
RDFRVARA	9009.48	8673.590739	11482.37824	0	173.020853	236.4391083
RKVLVARK	2090.54	599.6697203	2078.788309	0	19.72256076	38.42295256
RMTNVARE	3502.89	1352.609262	5628.136309	0	55.58181371	79.06199173
RNGLVARG	2857.82	543.1741292	3127.885754	0	33.16979075	14.66867914
RONKVABK	16531.89	13236.26575	19288.66041	0	383.6938526	333.3175206
RONKVABS	3474.95	1350.430081	5124.038111	0	21.51553556	68.56516503
RONKVACS	18007.73	11866.56031	22378.65936	0	233.0850226	329.8681456
RONKVACV	2665.47	1525.265567	3201.852074	0	25.10148517	44.59188367
RONKVAGC	3235.66	985.5844025	4385.15051	0	25.99797257	53.50413814
RONKVALK	25445.76	23331.98983	29843.66421	0	677.7395323	583.0108404
RSHLVALE	2252.16	336.6793446	2134.830644	0	19.72256076	0
RSTNVAFM	17587.06	17361.04314	18570.86031	0	112.9566022	294.682653
RSTNVALF	311.07	1168.038573	58.38651803	0	4.48243701	15.7059804
SALMVAFL	1820.67	847.3254364	2546.716631	0	33.16979075	21.40678203
SALMVAMC	1161.31	159.6505673	1655.245902	0	8.964792978	8.968499688
SALMVASA	10460.1	9025.962525	13408.86615	0	282.3915056	182.5580526
SFFLVASK	11106.29	9945.472373	17360.02683	0	368.4536478	312.3346932
SHVLVASW	1520.57	448.401303	2714.512609	0	38.54871516	27.6361892
SNMTVASM	2851.97	1135.370542	7025.175921	0	50.20297034	165.4213032
SNTNVASS	9168.55	3805.857711	11183.81868	0	75.30437447	223.370556
SPFDVASP	29773.56	16880.69587	32566.04769	0	234.8779974	571.6251649
SPTSVASP	3182.58	1558.105155	4863.086907	0	46.61702074	84.85164091
SRVLVASP	1005.47	804.9932206	1371.516974	0	11.65425518	299.7117473
STCHVASC	708.16	128.5967307	398.1081785	0	1.792974804	0
STCYVASC	5812.42	3702.120203	8620.844276	0	79.78681148	220.6583417
STDRVASD	3624.03	1557.009623	5221.546394	0	64.54660669	119.7124791
STPLVASP	2270.65	775.1164239	2866.005308	0	42.13458373	9.812426885
STTNVAST	12216.9	8058.55229	15137.14885	0	235.7744848	262.1419303
STTNVAVE	3109.58	2083.677344	3039.369663	0	59.16776332	38.10103577
SWCKVASC	1451.9	92.31347296	1094.226103	0	1.792974804	0
SWVLVASV	7330.79	1879.522436	9416.310539	0	42.13458373	148.8188835
THPLVATP	667.06	431.6928889	838.1668871	0	8.964792978	0
TMVLVATV	3092.62	1570.427821	3933.902189	0	63.65011929	94.70239418
TNGRVATG	269.09	63.1899297	327.5181186	0	1.792974804	0
TOANVATO	3569.43	1165.278531	4380.097241	0	35.85925295	57.34810084
UNVLVAUV	1925.55	814.3905084	4562.457696	0	19.72256076	93.52298664

APPENDIX G
MSM Loop Input Modifications – Line Counts

Wire Center	HOUSEHOLDS	BUSLINES	RESLINES	SPECIAL	PUBLIC	SLBUS
UPVLVAUP	329.88	460.9983864	906.7006104	0	6.275330772	41.66539004
VARNVAVR	2798.09	751.4818651	3848.338452	0	15.24020479	36.11067665
VINNVAVN	17635.94	14273.97392	24069.21579	0	160.4701104	420.3603609
VRBHVACC	23323.97	22761.80793	24359.15104	0	278.805556	534.8142851
VRBHVACT	5725.96	1615.199895	5663.147448	0	24.20499777	84.82600702
VRBHVAGN	11244.48	6399.509866	13984.56992	0	122.8178826	215.8508685
VRBHVAIL	15569.62	4687.794375	16376.498	0	92.33755407	252.5777539
VRBHVAIR	15615.36	14273.50604	16898.32112	0	236.6709722	366.2926506
VRBHVAPT	27827.28	18227.65397	28799.03951	0	224.1202297	592.9738352
VRBHVARC	12836.83	12264.62842	13793.66808	0	265.358326	194.7441025
VRBHVASR	7489.01	2253.459515	9110.223232	0	50.20297034	117.4998767
VRBHVAVB	21744.33	14686.73605	24175.97488	0	679.5325071	578.0332627
WHOKVAWO	1351.86	383.7034738	2213.20651	0	8.068305576	52.63719022
WHVLVAWH	1249.64	287.3352058	1391.309027	0	4.48243701	24.63578039
WISEVAWI	4431.32	2247.108197	4343.533613	0	61.85714448	49.11887739
WLBGVAJP	14455.18	16716.12586	19645.26514	0	298.0327876	403.2321977
WLBGVAWM	5502.57	17700.49738	30701.98582	0	684.9114316	404.3996593
WNCHVANM	1885.36	381.0111077	3027.667083	0	8.068305576	38.45468382
WNCHVAWC	18217.69	16245.44602	26808.94085	0	490.375043	412.6832615
WNTRVAWG	324.02	136.471544	1718.243635	0	14.34371739	0
WRTNVAWR	8394.49	9195.598761	13292.62144	0	134.4721378	287.7435855
WSPNVAWP	1447.16	1194.422312	2098.539506	0	94.13052887	49.75126283
WTFRVAWT	1299.29	336.4315712	1837.255692	0	1.792974804	22.95551661
WVRLVAWV	1407.12	956.7260854	1948.943167	0	32.27330335	12.05713386

APPENDIX G
MSM Loop Input Modifications – 1996 Actuals

Actuals for 1996 ($000s)

		Investments	Expenses	Calculated Factor			
Plant-Specific Operations Expenses							
TPIS - General Support							
2111	Land	$ 21,346	$ 589	0.0276			0.0276
2112	Motor Vehicles	$ 70,576	$ 1,948	0.0276			0.0276
2113	Aircraft	$ 0	$ 0	0.0276			0.0276
2114	Special Purpose Vehicles	$ 52,643	$ 1,453	0.0276			0.0276
2115	Garage Work Equipment	$ 0	$ 0	0.0276			0.0276
2116	Other Work Equipment	$ 0	$ 0	0.0276			0.0276
2121	Buildings	$ 423,616	$ 38,380	0.0906	Land & Bldg Exp Applied to Bldgs		0.0906
2122	Furniture	$ 1,225	$ 111	0.0906			0.0906
2123	Office Equipment	$ 6,199	$ 562	0.0906			0.0906
2124	General Purpose Computers	$ 163,220	$ 14,788	0.0906			0.0906
2110	Total Land & Support Assets	$ 738,825	$ 57,830	0.0783			0
TPIS - Central Office Switching							
2211	Analog Electronic Switching	$ 37,928	$ 2,116	0.0323			0.0558
2212	Digital Electronic Switching	$ 1,368,627	$ 2,116	0.0323	5.58%	NET CO Switch Factor	0.0558
2210	Total Central Office Switching	$ 1,406,555	$ 4,233	0.0323			
2220	Operator Systems	$ 16,359	$ 3,139	0.0000			
TPIS - Central Office Transmission							
2231	Satellite & Earth Station Facilities						0.0204
2231	Other Radio Facilities						0.0171
2231	Radio Systems						0.0130
2232	Circuit Equipment	$ 2,033,696	$ 40,674	0.0134	2.00%	Alternative factor	0.0200
2230	Total Central Office Transmission	$ 2,033,696	$ 40,674	0.0000			0.0200
TPIS - Information Orig/Term							
2311	Station Apparatus	$ -	$ -	0.0000			
2321	Customer Premises Wiring	$ -	$ -	0.0000			
2341	Large Private Branch Exchange	$ -	$ -	0.0000			
2351	Public Telephone Terminal Equipment	$ -	$ -	0.0000			
2362	Other Terminal Equipment	$ 111,923	$ -	0.0000			
2310	Total Information Orig/Term	$ 111,923	$ -	0.0000			
TPIS - Cable & Wire Facilities					**Alternative Cable Maintenance Factors**		
2411	Poles	$ 85,048	$ 1,863	0.0641	Fiber	Copper	0.0219
2421	Aerial Cable	$ 530,973	$ 35,522	0.0000	0.0059	0.0718	0.0669
2422	Underground Cable	$ 439,514	$ 9,230	0.0000	0.0091	0.0211	0.0210
2423	Buried Cable	$ 1,308,448	$ 58,357	0.0000	0.0012	0.0691	0.0446
2424	Submarine Cable			0.0000			
2425	Deep Sea Cable			0.0000			
2426	Intrabuilding Network Cable			0.0000			
2431	Aerial Wire			0.0000			
2441	Conduit Systems	$ 365,941	$ 2,122	0.0038			0.0058
2410	Total Cable & Wire Facilities	$ 2,729,924	$ 107,094	0.0392			
240	Total TPIS (before amortizable assets)	$ 6,298,457	$ 212,969	0.0338			

APPENDIX G
MSM Loop Input Modifications – 1996 Actuals

Plant Non-Specific Operations Expenses

		Expenses	Investment	Factor		
6512	Provisioning Expenses	$ -	$ 6,298,457	-		
6531	Power Expenses	$ -	$ 6,298,457	-	0.00%	all
6532	Network Administration	$ -	$ 6,298,457	-	0.00%	switching, interoffice
6533	Testing	$ -	$ 6,298,457	-	0.00%	all
6534	Plant Operations Administration	$ -	$ 6,298,457	-	0.00%	all
6535	Engineering	$ -	$ 6,298,457	-	0.00%	all
6540	Access Expense					
6530	Total Network Operations Expenses (Including Provisioning Expenses)	$ 0	$ 6,298,457	0.0000		

per line network operations	(=total ARMIS 6530/total lines)
total lines (from net. invest. inputs)	3,724,335
annual net ops per line	$ 0.00

Network Support Factor Calculation

		Expenses	Cable & Wire Inv	Factor
2112	Motor Vehicles	$ 1,948		
2113	Aircraft	$ 0		
2114	Special Purpose Vehicles	$ 1,453		
2115	Garage Work Equipment	$ 0		
2116	Other Work Equipment	$ 0		
	Aircraft & Special Purpose Vehicles	$ 3,401	$ 2,729,924	0.0012

Customer Operations Expenses

		Expenses	Net Revenues	Factor		
6611	Product Management *	$ -	$ 1	0.00000		0
6612	Sales *	$ -	$ 1	0.00000		0
6613	Product Advertising	$ -	$ 1	0.00000		0
6610	Total Marketing Expenses	$ -		0.00000		
6621	Call Completion Service	$ -	$ 1	0.00000		0
6622	Number Services	$ -	$ 1	0.00000		0
6623	Customer Services	$ -	$ 1	0.00000		0
6620	Total Services Expenses	$ -		0.00000		
	Billing/bill inquiry (per line/month)	$ -				
	Service order processing fraction of 6623	-				
	Directory listing (per line/month)	$ -				
700	Total Customer Operations Expenses	$ -	$ 1	0.00000	0.00%	

APPENDIX G
MSM Loop Input Modifications – 1996 Actuals

Corporate Operations Expenses

		Expenses	Revenues	Factor		
6711	Executive	$ -	$ 1	0.000000		0
6712	Planning	$ -	$ 1	0.000000		0
6710	Total Executive & Planning	$ -	$ 1	0.000000		
6721	Accounting & Finance	$ -	$ 1	-		0
6722	External Relations	$ -	$ 1	-		0
6723	Human Resources	$ -	$ 1	-		0
6724	Information Management	$ -	$ 1	-		0
6725	Legal	$ -	$ 1	-		0
6726	Procurement	$ -	$ 1	-		0
6727	Research & Development	$ -	$ 1	-		0
6728	Other General & Administrative	$ -	$ 1	-		0
6720	Total General & Administrative	$ -	$ 1	-		0
710	Total Corporate Operations Expense	$ -	$ 1	0.080	0.00%	
720	Total Operating Expenses note: does not include dep/amort	$ 212,969	$ 1			

0.00%	Total Operations General Support Allocator
100.00%	"Office Worker" General Support Alllocator

APPENDIX G
MSM Loop Input Modifications – 1996 Actuals

Misc Expenses Calculation	2122 Furniture	2123 Ofc Equpt	2124 GP Comptr	2112 Motor Vehicles		2121 Buildings	2115 Grg Wk Eq	2116 Other Wk Eq
Investment	$ 1,225	$ 6,199	$ 163,220	$ 70,576		$ 211,808	$ 0	$ 0
Investment/TPIS	0.00019	0.00098	0.02591	0.01121		0.03363	0.00000	0.00000
Expense	$ 111	$ 562	$ 14,788	$ 1,948		$ 19,190	$ 0	$ 0
Expense Factor	0.09060	0.09060	0.09060	0.02760		0.09060	0.02760	0.02760
Model TPIS	$ 2,980,944	$ 2,980,944	$ 2,980,944	$ 2,980,944	$ 2,980,944	$ 2,980,944	$ 2,980,944	$ 2,980,944
Calculated Investment	$ 580	$ 2,934	$ 77,249	$ 33,402		$ 100,245	$ 0	$ 0
Calculated Expense	$ 53	$ 266	$ 6,999	$ 922		$ 9,082	$ 0	$ 0
Subtotal (Ss)	$ 16,399,279							
Total Misc Expense	$ 16,399,279							

Other Taxes & Uncollectibles Calculation

		Expenses	Net Revenues	Factor
7230	Operating State & Local Income Tax	$ 32,264	$ (99,029)	0.0000
7240	Operating Other Taxes	$ 66,765	$ (99,029)	0.0500
5300	Uncollectible Revenues	$ 32,968	$ 1	32968.0000
	retail			0.0193
	wholesale			0.0038

Ratio of Net Plant to TPIS

TPIS	$ 6,298,457
Net Plant	$ 6,298,457
Ratio	100.00%
Model Investment	$ 2,980,944
Model % of Net Plant	47%
Model % of TPIS	47%

APPENDIX G
MSM Loop Input Modifications – Expense Inputs

scenario_id	Default	MSM Direct	MSM Surrebuttal	FCC
cost_of_debt	0.088	0.0786	0.0786	0.0786
debt_fraction	0.442	0.345	0.345	0.2
cost_of_equity	0.131907	0.1042	0.1042	0.1422
avg_trunk_util	0.3	0.3	0.3	0.3
tax_rate	0.3925	0.3925	0.3925	0.3925
corp_overhead_fact	0	0.08	0.08	0.08
other_taxes_fact	0.05	0.05	0.05	0.05
bill_inquiry_per_line	0	0	0	0
dir_listing_per_line	0	0	0	0
fwd_look_net_op_fact	0.5	0.5	0.5	0.5
alt_co_switch_fact	0.0269	0.0269	0.0269	0.0269
alt_ckt_equip_fact	0.0153	0.0153	0.0153	0.0153
EO_non_port_cost_fract	0.7	0.7	0.23	0.23
per_line_monthly_LNP	0	0	0	0
carrier_carrier_cust_svc	1.69	1.69	1.69	1.69
NID_exp_per_line	1	1	1	1
DS0_DS1_crossover	12.4	12.4	12.4	12.4
DS1_DS3_crossover	9.9	9.9	9.9	9.9
avg_lines_per_bus_loc	4	4	4	4
dist_arial_0	1	1	1	1
dist_arial_5	1	1	1	1
dist_arial_100	1	1	1	1
dist_arial_200	1	1	1	1
dist_arial_650	1	1	1	1
dist_arial_850	1	1	1	1
dist_arial_2550	1	1	1	1
dist_arial_5000	1	1	1	1
dist_arial_10000	1	1	1	1
dist_buried_0	1	1	1	1
dist_buried_5	1	1	1	1
dist_buried_100	1	1	1	1
dist_buried_200	1	1	1	1
dist_buried_650	1	1	1	1
dist_buried_850	1	1	1	1
dist_buried_2550	1	1	1	1
dist_buried_5000	1	1	1	1
dist_buried_10000	1	1	1	1
dist_ug_0	1	1	1	1
dist_ug_5	1	1	1	1

APPENDIX G
MSM Loop Input Modifications – Expense Inputs

scenario_id	Default	MSM Direct	MSM Surrebuttal	FCC
dist_ug_100	1	1	1	1
dist_ug_200	1	1	1	1
dist_ug_650	1	1	1	1
dist_ug_850	1	1	1	1
dist_ug_2550	1	1	1	1
dist_ug_5000	1	1	1	1
dist_ug_10000	1	1	1	1
fdr_arial_0	1	1	1	1
fdr_arial_5	1	1	1	1
fdr_arial_100	1	1	1	1
fdr_arial_200	1	1	1	1
fdr_arial_650	1	1	1	1
fdr_arial_850	1	1	1	1
fdr_arial_2550	1	1	1	1
fdr_arial_5000	1	1	1	1
fdr_arial_10000	1	1	1	1
fdr_ug_0	1	1	1	1
fdr_ug_5	1	1	1	1
fdr_ug_100	1	1	1	1
fdr_ug_200	1	1	1	1
fdr_ug_650	1	1	1	1
fdr_ug_850	1	1	1	1
fdr_ug_2550	1	1	1	1
fdr_ug_5000	1	1	1	1
fdr_ug_10000	1	1	1	1
fdr_buried_0	1	1	1	1
fdr_buried_5	1	1	1	1
fdr_buried_100	1	1	1	1
fdr_buried_200	1	1	1	1
fdr_buried_650	1	1	1	1
fdr_buried_850	1	1	1	1
fdr_buried_2550	1	1	1	1
fdr_buried_5000	1	1	1	1
fdr_buried_10000	1	1	1	1
motor_vehicles	8.24	7.5	7.5	7.5
garage_work_equip	12.22	18.5	18.5	12
other_work_equip	13.04	12	12	12
buildings	46.93	60	60	46.93
furniture	15.92	15	15	15

APPENDIX G
MSM Loop Input Modifications – Expense Inputs

scenario_id	Default	MSM Direct	MSM Surrebuttal	FCC
office_support_equip	10.78	10	10	10
company_comm_equip	7.4	11.4	11.4	7
general_purpose_computer	6.12	7	7	6
digital_electronic_switching	16.17	17.5	17.5	12
operator_systems	9.41	15	15	8
digital_ckt_equip	10.24	11.5	11.5	11
public_phone_term_equip	7.6	11.8	11.8	7
poles	30.25	30	30	30
arial_cable_metal	20.61	23	23	20
arial_cable_non_metal	26.14	25	25	25
ug_cable_metal	25	25	25	25
ug_cable_non_metal	26.45	25	25	25
buried_metal	21.57	21	21	20
buried_cable_non_metal	25.91	25	25	25
intrabldg_cable_metal	18.18	24	24	20
intrabldg_cable_non_metal	26.11	30	30	25
conduit_systems	56.19	50	50	50
motor_vehicles_salv	0.1038	0.1	0.1	0.15
garage_work_equip_salv	-0.0558	0.01	0.01	-0.0558
other_work_equip_salv	0.0169	0	0	0
buildings_salv	0.0164	0.04	0.04	0.02
furniture_salv	0.0402	0	0	0
office_support_equip_salv	0.0412	0.12	0.12	0
company_comm_equip_salv	0.0252	0.08	0.08	0
general_purpose_computer_salv	0.0229	0.07	0.07	0.03
digital_electronic_switching_salv	0.0157	0.01	0.01	0.02
operator_systems_salv	-0.0041	0	0	0
digital_ckt_equip_salv	-0.0062	0	0	0.01
public_phone_term_equip_salv	0.0512	0.1	0.1	0
poles_salv	-0.8998	-0.43	-0.43	-0.9
arial_cable_metal_salv	-0.2303	-0.17	-0.17	-0.1
arial_cable_non_metal_salv	-0.1753	-0.25	-0.25	-0.1
ug_cable_metal_salv	-0.1797	0.02	0.02	-0.1
ug_cable_non_metal_salv	-0.1458	-0.2	-0.2	-0.1
buried_metal_salv	-0.0839	-0.04	-0.04	-0.05
buried_cable_non_metal_salv	-0.0691	-0.1	-0.1	-0.1
intrabldg_cable_metal_salv	-0.1569	-0.2	-0.2	-0.05
intrabldg_cable_non_metal_salv	-0.1043	-0.07	-0.07	-0.1
conduit_systems_salv	-0.0995	-0.1	-0.1	-0.1

APPENDIX G
MSM Loop Input Modifications – Expense Inputs

scenario_id	Default	MSM Direct	MSM Surrebuttal	FCC
pct_furniture_cap_costs	1	1	1	1
pct_furniture_exp	1	1	1	1
pct_off_eqpt_cap_costs	1	1	1	1
pct_off_eqpt_exp	1	1	1	1
pct_computer_cap_costs	1	1	1	1
pct_computer_exp	1	1	1	1
pct_vehicle_cap_costs	1	1	1	1
pct_vehicle_exp	1	1	1	1
pct_bldgs_cap_costs	1	1	1	1
pct_bldgs_exp	1	1	1	1
pct_garage_eqpt_cap_costs	1	1	1	1
pct_garage_eqpt_exp	1	1	1	1
pct_other_eqpt_cap_costs	1	1	1	1
pct_other_eqpt_exp	1	1	1	1
pct_ntwk_op	1	1	1	1
pct_other_tax	1	1	1	1
pct_var_ohead	1	1	1	1

APPENDIX H
List of Exhibits Cited

APPENDIX H
List of Exhibits Cited

Verizon Exhibits:

Exhibit	Description
100	Cost Study
100P	Cost Study (confidential version)
101	Shelanski Direct
102	Gordon Direct
104	Vander Weide Direct
105	Lacey Direct
106	Sovereign Direct
107	Recurring Cost Panel
107P	Recurring Cost Panel (confidential version)
108	Tardiff Rebuttal
109	Murphy Rebuttal
109P	Murphy Rebuttal (confidential version)
111	Hausman Rebuttal
112	Vander Weide Rebuttal
114	Sovereign Rebuttal
115	West Rebuttal
116	NRC Panel Rebuttal
118	Vander Weide Surrebuttal
121	Minion Surrebuttal
122	Recurring Cost Panel Surrebuttal
122P	Recurring Cost Panel Surrebuttal (confidential version)
123	Garfield Surrebuttal
124	NRC Panel Surrebuttal
125	Matt Supplemental Surrebuttal
125P	Matt Supplemental Surrebuttal (confidential version)
139	Errata to Ex. 100 and Ex. 107
140	Errata to Cost Study
146	AT&T/WorldCom Response to VZ-VA 9-22
161	Matt Second Supplemental Surrebuttal
161P	Matt Second Supplemental Surrebuttal (confidential version)
162	Tardiff Supplemental Rebuttal
163	Murphy Supplemental Rebuttal
168	Errata on Matt Supplemental Surrebuttal
171	Updated Calculations
179	Errata to Recurring Cost Panel Surrebuttal
180	Errata to Ex. 100
186	Verizon response to record request no. 6 (requested Oct. 24, 2001)
192	Verizon response to record request no. 12 (requested Oct. 25, 2001)
204	MSM Re-run
205	Verizon response to record request no. 23 (requested Oct. 30, 2001)

APPENDIX H

List of Exhibits Cited

212P	Verizon response to record request no. 28 (requested Nov. 28, 2001) (confidential version)
213P	Verizon response to record request no. 29 (requested Nov. 28, 2001) (confidential version)
216P	Verizon response to record request no. 32 (requested Nov. 28, 2001) (confidential version)
217P	Verizon response to record request no. 33 (requested Nov. 28, 2001) (confidential version)
218P	Verizon response to record request no. 34 (requested Nov. 28, 2001) (confidential version)
219P	Verizon response to record request no. 35 (requested Nov. 28, 2001) (confidential version)
223	Verizon response to record request no. 39 (requested Nov. 29, 2001)
224	Verizon response to record request no. 40 (requested Nov. 29, 2001)
226P	Verizon response to record request no. 42 (requested Nov. 29, 2001) (confidential version)
231	Verizon response to record request no. 47 (requested Nov. 29, 2001)

AT&T/WorldCom Exhibits:

Exhibit	Description
1	Pitkin Direct
2	Walsh Direct
3	Lee Direct
4	Pitts Direct
5	Hirshleifer Direct
6	Riolo Direct
7	Turner Direct
8	Murray Direct
9	Lee Rebuttal
10	Hirshleifer Rebuttal
11	Murphy Rebuttal
12	Recurring Cost Panel Rebuttal
12P	Recurring Cost Panel Rebuttal (confidential version)
13	NRC Panel Rebuttal
14	Pitkin Surrebuttal
15	Baranowski Surrebuttal
16	Pitts Surrebuttal
17	Hirshleifer Surrebuttal
18	Riolo Surrebuttal
18P	Riolo Surrebuttal (confidential version)
20	Murphy Surrebuttal
21	NRC Panel Surrebuttal

APPENDIX H
List of Exhibits Cited

23	Cost Study
24	Pitts Supplemental Surrebuttal
24P	Pitts Supplemental Surrebuttal (confidential version)

AT&T Exhibits:

Exhibit	Description
4	Kirchberger Direct
13	Talbott Direct
14	Kirchberger Rebuttal
117P	GTE Network Planning: Planning Analysis Report, Infrastructure Provisioning Guidelines, PAR-074, Revision 1 (March 1997) (confidential version)
120	NYNEX Technical Document, Unbundling Loops in TSI (Time Slot Interchanger) Equipped Digital Loop Carrier Systems (1997)
121	Bell Atlantic Fundamental Planning, Guideline FP-G-97-005, Issue No. 1 (1997)
122	Telcordia Notes on the Network, Section 12
123	Time Slot Interchange Applications in Remote Digital Terminals
124	NYNEX Technical Document Library, Loop Technologies Application Guidelines

WorldCom Exhibits:

Exhibit	Description
6	Goldfarb Direct
116	US West Communications Inc., GR-303 Deployment and Loop Unbundling (1998)
117	SBC, GR-303 Deployment Issues – An ILEC Perspective (1998)
118	Bell Atlantic, Loop Unbundling with a GR-303 Platform, Bellcore GR-303 Integrated Access Symposium (1998)
119P	Bell Atlantic Network Planning Guideline, NP-G-97-027, Issue No. 1 (April 1999) (confidential version)
120P	Verizon Network Planning guideline, NP-G-99-021, Issue 1.0, Litespan-2000 Application Guidelines (Nov. 2000) (confidential version)

APPENDIX I
Frequently Used Acronyms and Abbreviated Terms

APPENDIX I
Frequently Used Acronyms and Abbreviated Terms

Acronym/Abbreviation	Term
ACF	annual cost factor
ADM	add/drop multiplexer
ARMIS	Automated Reporting Management Information System
AT&T	AT&T Communications of Virginia, Inc.
AT&T/WorldCom	AT&T and WorldCom
Bureau	Wireline Competition Bureau
BHAR	busy hour to annual MOU ratio
BHTD	busy hour to busy day MOU ratio
CAPM	Capital Asset Pricing Model
CC/BC	current-cost-to-book-cost
CCS	hundred call seconds
CSS	customer specified signaling
COT	central office terminal
CSA	carrier serving area
DA	distribution area
DCF	discounted cash flow
DCPR	detailed continuing property record
DCS	digital cross-connects
DDS	digital data services
DEM	dial equipment minute
DIP	dedicated inside plant
DLC	digital loop carrier
DOP	dedicated outside plant
DSLAM	digital subscriber line access multiplexer
DUF	daily usage file
EF&I	engineer, furnish & install
EPHC	equivalent POTS half call
FDI	feeder distribution interface
GAAP	Generally Accepted Accounting Principles
IDLC	integrated digital loop carrier
ISDN	integrated services digital network
IXC	interexchange carrier
LEC	local exchange carrier
LNP	Local Number Portability
LCAM	Loop Cost Analysis Model
LFACS	Loop Facility Assignment and Control System
MDF	main distribution frame
MLQ	mechanized loop qualification
MLT	mechanized loop test
MOU	minute-of-use
MSM	Modified Synthesis Model
MST	minimum spanning tree

APPENDIX I
Frequently Used Acronyms and Abbreviated Terms

NGDLC	next generation digital loop carrier
NID	network interface device
NRC	non-recurring charge
OSS	operations support systems
OS/DA	operator services and directory assistance
RT	remote terminal
RTU	right-to-use
RUS	rural utilities service
S&P	Standard & Poor's
SAI	serving area interface
SM	Synthesis Model
SCIS	Telcordia Switching Cost Information System
SCIS/MO	SCIS/Model Office
SCIS/IN	SCIS/Intelligent Network
SS7	signaling system 7
Telcordia	Telcordia Technologies, Inc.
1996 Act	Telecommunications Act of 1996
TELRIC	total element long-run incremental cost
UAF	utilization adjustment factor
UDLC	universal digital loop carrier
UNE	unbundled network element
Verizon	Verizon Virginia, Inc.
VRUC	vintage retirement unit cost
Virginia Commission	Virginia State Corporation Commission
WACC	weighted average cost of capital
WorldCom	WorldCom, Inc.
WTS	Wideband Test System
xDSL	digital subscriber line technology