TRANSMITTAL NO. 200

QWEST CORPORATION

TARIFF F.C.C. NO. 1

ACCESS SERVICE

DESCRIPTION AND JUSTIFICATION

QWEST ATM AND FRAME RELAY SERVICE CHANGES

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1. Introduction and Description

This filing is being made by Qwest Corporation (Qwest) in its Tariff F.C.C. No. 1, Access Service, Section 8, Advanced Communications Networks (ACN) to offer ATM and Frame Relay Service (FRS) customers with an existing Fixed Period Rate Plan that has expired or is within three months of the expiration date the ability to subscribe to a new one year or greater Fixed Period Rate Plan and receive a discount on the current Fixed Period Rate Plan Monthly Recurring tariff rates and a reduced Termination Liability Assessment (TLA) Percent.

Under the terms of the discount, the following percentages would apply:

FRS Service Renewal Discount

Discounted Rate Elements	**Discount** %
• Network-To-Network Information Transfer (NNIT):	
- 56 kbps up to 1.544 Mbps	5%
- 44.736 Mbps	10%
• User-To-Network Information Transfer (UNIT):	
- 56 kbps up to 1.544 Mbps	5%
- 44.736 Mbps	10%
• Central Office Connecting Channel COCC):	
- 56 kbps up to 1.544 Mbps	5%
- 44.736 Mbps	10%

ATM Service Renewal Discount

Discounted Rate Elements	**Discount** %
• ATM Ports:	
- 1.544 Mbps[1]	5%
- 44.736 Mbps to 622 Mbps	10%
• Cell Transfer:	
- 1.544 Mbps[1]	5%
- 44.736 Mbps to 622 Mbps	10%
• Central Office Connecting Channel COCC):	
- Up to 1.544 Mbps[1]	5%
- Up to 45, 155, or 622 Mbps	10%

In addition to the above, a new minimum service period will not apply. The Termination Liability and Waiver Policy will apply to the new Pricing plan but with a 15% TLA in lieu of 25% for FRS and a 20% TLA in lieu of 40% for ATM.

ATM Service is a connection-oriented communications service that uses Asynchronous Transfer Mode (ATM) Technology. This service provides customers with high-speed, low-delay information transfer capacity, which supports applications that require near-real-time mixed media (data, video, image, voice) communications among multiple locations.

Frame Relay Service, employing digital technology, provides high speed access connections and throughput to interstate service providers or provides high speed throughput to intraLATA interstate Local Area Networks, as well as host access capabilities.

Frame Relay and ATM Services are excluded from price caps[1].

The rate plan changes contained in this filing are being added in order to offer customers an incentive to stay with Qwest.

2.   Rate Development

The Qwest Frame Relay service rate discounts were developed utilizing a market based pricing process including proper price positioning with other Qwest and competitors services. The Pricing Worksheet contains a summary of the current and proposed rates.

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[1]CC Docket No. 87-313, <u>Second Report And Order</u>, Released October 4, 1990, Par.195 "Air-ground service and packet-switched service were not subject to scrutiny as part of our investigation of LEC productivity, and should therefore be excluded [from price cap regulation]."

3.   Demand and Revenue Impacts

3.1   Demand Impacts

Qwest projects that with this renewal plan it will be able to retain an additional 2,248 FRS circuits and an additional 79 ATM circuits. The demand is for a 12 month period from the effective date of this filing.

There are no cross-elastic or complementary demand impacts expected as a result of this filing.

3.2   Revenue Impacts

As a result of this filing, Qwest expects a total interstate revenue increase to Qwest's FRS Service of approximately $7,256,544 and $1,235,244 for Qwest's ATM Service for the first twelve months following the effective date of this filing. There are no cross-elastic or complementary revenue impacts expected as a result of this filing.

4.   Unit Costs

4.1   Overview

This section describes how Qwest developed regional unit costs in support of the Qwest FRS and ATM related Services affected by this filing. This unit cost section describes the process used to develop the recurring unit costs and provides a description of the Cost Workpapers.

The unit costs developed in this study reflect 2003 cost levels for FRS and 2001 cost levels for ATM. They were developed using an incremental or "bottoms-up" cost methodology. Under this methodology, costs are determined by adding together all of the necessary equipment and/or labor expenses associated with providing the service on a forward looking basis. These costs depict the economic unit cost of offering the service.

4.2   Development of Recurring Unit Costs

Recurring unit costs are ongoing costs associated with the provisioning of a service. Recurring costs are directly related to the amount of the investment in equipment required to provide a service as well as the amount of labor and administrative time required to install, maintain, repair, monitor and track a service. The installed investment costs include, the price of the equipment, initial engineering labor costs, installation labor costs and miscellaneous minor material costs associated with the equipment installation.

Capital costs are covered through the use of factors which, when applied to investment, produce the annual costs associated with depreciation, earnings and income tax. Depreciation is applied by account code, reflecting the different account lives of the various types of equipment and plant used to provide services. The earnings or "cost of money" factor represents the return that Qwest must pay its investors for the use of their capital. Finally, income tax is the expense associated with taxes that will be incurred on the income earned on the new service.

Cost factors are applied to the unit investments of a service in order to develop annual capital and operating costs. The annual capital costs reflect the annual costs

associated with recovery of an investment in equipment needed to provide a service. The factor used, and the amount of the annual capital costs, is based on their estimated economic life of the equipment. Capital costs include items such as depreciation, income tax and "cost of money" (the earnings Qwest must receive in order to pay stockholders a return on their investment in the company). The annual operating costs provide for the recovery of annual administrative, maintenance and other associated costs, caused by the existence and use of a service. The annual capital and operating costs are divided by twelve to produce a monthly cost for the service.

4.3   Description of Pricing Worksheets, Cost Study and Workpapers

The FRS and ATM Pricing Worksheets provide a summary of the costs and corresponding rates with the proposed discount. These worksheets demonstrate that the discounted rates will be above cost.

The recurring unit costs were developed at a regional level. The recurring unit costs are displayed in the Frame Relay Cost Study and Study Workpapers 1 through 19 This Cost Study and Workpapers display the total unit investment, the capital costs and operating expenses, the total annual direct unit cost, the total monthly direct unit cost and the total direct unit cost divided by the total unit investment.

5. Workpapers

FRS Pricing Worksheets

ATM Pricing Worksheet

Frame Relay Economic Lives Cost Study

ATM Workpapers 1 – 19 - Recurring Unit Costs

FRS Pricing Worksheets

Recurring Prices

User - Network Information Transfer (UNIT)

56/64 Kbps

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% Addln Discount	2 Year (****2)	Proposed 2 Year w/5% Addln Discount	3 Year (****3)	Proposed 3 Year w/5% Addln Discount	4 Year (****4)	Proposed 4 Year w/5% Addln Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% Addln Discount
1 PVC	17TA*	$14.54	$ 39.28	$ 37.32	$ 35.45	$ 36.83	$ 34.99	$ 36.33	$ 34.51	$ 35.84	$ 34.05	$ 35.35	$ 33.58
2 PVC's	17TB*	$2.66	$ 44.53	$ 42.30	$ 40.19	$ 41.75	$ 39.66	$ 41.19	$ 39.13	$ 40.63	$ 38.60	$ 40.08	$ 38.08
3 PVC's	17TC*	$2.66	$ 47.79	$ 45.40	$ 43.13	$ 44.80	$ 42.56	$ 44.21	$ 42.00	$ 43.61	$ 41.43	$ 43.01	$ 40.86
4 PVC's	17TD*	$2.66	$ 51.06	$ 48.51	$ 46.08	$ 47.87	$ 45.48	$ 47.23	$ 44.87	$ 46.59	$ 44.26	$ 45.95	$ 43.65
5 PVC's	17TE*	$2.66	$ 54.29	$ 51.58	$ 49.00	$ 50.90	$ 48.36	$ 50.22	$ 47.71	$ 49.54	$ 47.06	$ 48.86	$ 46.42
6-14 PVC's	17TG*	$0.00	$ 1.24	$ 1.18	$ 1.12	$ 1.16	$ 1.10	$ 1.15	$ 1.09	$ 1.13	$ 1.07	$ 1.12	$ 1.06
15-24 PVC's	17TH*	$0.00	$ 0.27	$ 0.26	$ 0.25	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.24	$ 0.23
25 + PVC's	17TJ*	$0.00	$ 0.25	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24

Recurring Prices

112/128 Kbps (4-Wire)

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% Addln Discount	2 Year (****2)	Proposed 2 Year w/5% Addln Discount	3 Year (****3)	Proposed 3 Year w/5% Addln Discount	4 Year (****4)	Proposed 4 Year w/5% Addln Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% Addln Discount
1 PVC	17TA*	$68.57	$ 120.00	$ 114.00	$ 108.30	$ 112.50	$ 106.88	$ 111.00	$ 105.45	$ 109.50	$ 104.03	$ 108.00	$ 102.60
2 PVC's	17TB*	$2.66	$ 123.00	$ 116.85	$ 111.01	$ 115.30	$ 109.54	$ 113.80	$ 108.11	$ 112.25	$ 106.64	$ 110.70	$ 105.17
3 PVC's	17TC*	$2.66	$ 126.00	$ 119.70	$ 113.72	$ 118.15	$ 112.24	$ 116.55	$ 110.72	$ 115.00	$ 109.25	$ 113.40	$ 107.73
4 PVC's	17TD*	$2.66	$ 129.00	$ 122.55	$ 116.42	$ 120.95	$ 114.90	$ 119.35	$ 113.38	$ 117.70	$ 111.82	$ 116.10	$ 110.30
5 PVC's	17TE*	$2.66	$ 132.00	$ 125.40	$ 119.13	$ 123.75	$ 117.56	$ 122.10	$ 116.00	$ 120.45	$ 114.43	$ 118.80	$ 112.86
6-14 PVC's	17TG*	$0.01	$ 1.20	$ 1.15	$ 1.09	$ 1.15	$ 1.09	$ 1.10	$ 1.05	$ 1.10	$ 1.05	$ 1.10	$ 1.05
15-24 PVC's	17TH*	$0.00	$ 0.85	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.75	$ 0.71
25 + PVC's	17TJ*	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43

FRS Pricing Worksheets

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount
224/256 Kbps													
1 PVC	**17TA***	$73.63	$ 160.00	$ 152.00	$ 144.40	$ 150.00	$ 142.50	$ 148.00	$ 140.60	$ 146.00	$ 138.70	$ 144.00	$ 136.80
2 PVC's	**17TB***	$2.66	$ 166.00	$ 157.70	$ 149.82	$ 155.65	$ 147.87	$ 153.55	$ 145.87	$ 151.50	$ 143.93	$ 149.40	$ 141.93
3 PVC's	**17TC***	$2.66	$ 172.00	$ 163.40	$ 155.23	$ 161.25	$ 153.19	$ 159.10	$ 151.15	$ 156.95	$ 149.10	$ 154.80	$ 147.06
4 PVC's	**17TD***	$2.66	$ 178.00	$ 169.10	$ 160.65	$ 166.90	$ 158.56	$ 164.65	$ 156.42	$ 162.45	$ 154.33	$ 160.20	$ 152.19
5 PVC's	**17TE***	$2.66	$ 184.00	$ 174.80	$ 166.06	$ 172.50	$ 163.88	$ 170.20	$ 161.69	$ 167.90	$ 159.51	$ 165.60	$ 157.32
6-14 PVC's	**17TG***	$0.01	$ 2.35	$ 2.25	$ 2.14	$ 2.20	$ 2.09	$ 2.15	$ 2.04	$ 2.15	$ 2.04	$ 2.10	$ 2.00
15-24 PVC's	**17TH***	$0.00	$ 1.65	$ 1.55	$ 1.47	$ 1.55	$ 1.47	$ 1.55	$ 1.47	$ 1.50	$ 1.43	$ 1.50	$ 1.43
25 + PVC's	**17TJ***	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43
336/384 Kbps													
1 PVC	**17TA***	$78.70	$ 200.00	$ 190.00	$ 180.50	$ 187.50	$ 178.13	$ 185.00	$ 175.75	$ 182.50	$ 173.38	$ 180.00	$ 171.00
2 PVC's	**17TB***	$2.66	$ 208.75	$ 198.30	$ 188.39	$ 195.70	$ 185.92	$ 193.10	$ 183.45	$ 190.50	$ 180.98	$ 187.90	$ 178.51
3 PVC's	**17TC***	$2.66	$ 217.50	$ 206.65	$ 196.32	$ 203.90	$ 193.71	$ 201.20	$ 191.14	$ 198.45	$ 188.53	$ 195.75	$ 185.96
4 PVC's	**17TD***	$2.66	$ 226.25	$ 214.95	$ 204.20	$ 212.10	$ 201.50	$ 209.30	$ 198.84	$ 206.45	$ 196.13	$ 203.65	$ 193.47
5 PVC's	**17TE***	$2.66	$ 235.00	$ 223.25	$ 212.09	$ 220.30	$ 209.29	$ 217.40	$ 206.53	$ 214.45	$ 203.73	$ 211.50	$ 200.93
6-14 PVC's	**17TG***	$0.01	$ 3.50	$ 3.35	$ 3.18	$ 3.30	$ 3.14	$ 3.25	$ 3.09	$ 3.20	$ 3.04	$ 3.15	$ 2.99
15-24 PVC's	**17TH***	$0.00	$ 2.50	$ 2.40	$ 2.28	$ 2.35	$ 2.23	$ 2.30	$ 2.19	$ 2.30	$ 2.19	$ 2.25	$ 2.14
25 + PVC's	**17TJ***	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43
448/512 Kbps													
1 PVC	**17TA***	$83.77	$ 235.00	$ 223.25	$ 212.09	$ 220.30	$ 209.29	$ 217.40	$ 206.53	$ 214.45	$ 203.73	$ 211.50	$ 200.93
2 PVC's	**17TB***	$2.66	$ 244.50	$ 232.30	$ 220.69	$ 229.20	$ 217.74	$ 226.15	$ 214.84	$ 223.10	$ 211.95	$ 220.05	$ 209.05
3 PVC's	**17TC***	$2.66	$ 254.00	$ 241.30	$ 229.24	$ 238.15	$ 226.24	$ 234.95	$ 223.20	$ 231.80	$ 220.21	$ 228.60	$ 217.17
4 PVC's	**17TD***	$2.66	$ 263.50	$ 250.35	$ 237.83	$ 247.05	$ 234.70	$ 243.75	$ 231.56	$ 240.45	$ 228.43	$ 237.15	$ 225.29
5 PVC's	**17TE***	$2.66	$ 273.00	$ 259.35	$ 246.38	$ 255.95	$ 243.15	$ 252.55	$ 239.92	$ 249.10	$ 236.65	$ 245.70	$ 233.42
6-14 PVC's	**17TG***	$0.01	$ 3.75	$ 3.55	$ 3.37	$ 3.50	$ 3.33	$ 3.45	$ 3.28	$ 3.40	$ 3.23	$ 3.40	$ 3.23
15-24 PVC's	**17TH***	$0.00	$ 2.50	$ 2.40	$ 2.28	$ 2.35	$ 2.23	$ 2.30	$ 2.19	$ 2.30	$ 2.19	$ 2.25	$ 2.14
25 + PVC's	**17TJ***	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43

FRS Pricing Worksheets

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/10% AddIn Discount	2 Year (****2)	Proposed 2 Year w/10% AddIn Discount	3 Year (****3)	Proposed 3 Year w/10% AddIn Discount	4 Year (****4)	Proposed 4 Year w/10% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/10% AddIn Discount
672/768 Kbps													
1 PVC	17TA*	$93.90	$ 310.00	$ 294.50	$ 279.78	$ 290.65	$ 276.12	$ 286.75	$ 272.41	$ 282.90	$ 268.76	$ 279.00	$ 265.05
2 PVC's	17TB*	$2.66	$ 324.00	$ 307.80	$ 292.41	$ 303.75	$ 288.56	$ 299.70	$ 284.72	$ 295.65	$ 280.87	$ 291.60	$ 277.02
3 PVC's	17TC*	$2.66	$ 338.00	$ 321.10	$ 305.05	$ 316.90	$ 301.06	$ 312.65	$ 297.02	$ 308.45	$ 293.03	$ 304.20	$ 288.99
4 PVC's	17TD*	$2.66	$ 352.00	$ 334.40	$ 317.68	$ 330.00	$ 313.50	$ 325.60	$ 309.32	$ 321.20	$ 305.14	$ 316.80	$ 300.96
5 PVC's	17TE*	$2.66	$ 366.00	$ 347.70	$ 330.32	$ 343.15	$ 325.99	$ 338.55	$ 321.62	$ 334.00	$ 317.30	$ 329.40	$ 312.93
6-14 PVC's	17TG*	$2.66	$ 4.00	$ 3.80	$ 3.61	$ 3.75	$ 3.56	$ 3.70	$ 3.52	$ 3.65	$ 3.47	$ 3.60	$ 3.42
15-24 PVC's	17TH*	$0.01	$ 2.75	$ 2.60	$ 2.47	$ 2.60	$ 2.47	$ 2.55	$ 2.42	$ 2.50	$ 2.38	$ 2.50	$ 2.38
25 + PVC's	17TJ*	$0.00	$ 0.85	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.75	$ 0.71
1.544 Mbps													
1 PVC	17TA*	$72.82	$ 240.00	$ 228.00	$ 216.60	$ 225.00	$ 213.75	$ 222.00	$ 210.90	$ 219.00	$ 208.05	$ 216.00	$ 205.20
2 PVC's	17TB*	$2.66	$ 277.00	$ 263.15	$ 249.99	$ 259.70	$ 246.72	$ 256.25	$ 243.44	$ 252.75	$ 240.11	$ 249.30	$ 236.84
3 PVC's	17TC*	$2.66	$ 314.00	$ 298.30	$ 283.39	$ 294.40	$ 279.68	$ 290.45	$ 275.93	$ 286.55	$ 272.22	$ 282.60	$ 268.47
4 PVC's	17TD*	$2.66	$ 351.00	$ 333.45	$ 316.78	$ 329.05	$ 312.60	$ 324.70	$ 308.47	$ 320.30	$ 304.29	$ 315.90	$ 300.11
5 PVC's	17TE*	$2.66	$ 388.00	$ 368.60	$ 350.17	$ 363.75	$ 345.56	$ 358.90	$ 340.96	$ 354.05	$ 336.35	$ 349.20	$ 331.74
6-14 PVC's	17TG*	$2.66	$ 19.00	$ 18.05	$ 17.15	$ 17.80	$ 16.91	$ 17.60	$ 16.72	$ 17.35	$ 16.48	$ 17.10	$ 16.25
15-24 PVC's	17TH*	$0.01	$ 5.00	$ 4.75	$ 4.51	$ 4.70	$ 4.47	$ 4.65	$ 4.42	$ 4.55	$ 4.32	$ 4.50	$ 4.28
25 + PVC's	17TJ*	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/10% AddIn Discount	2 Year (****2)	Proposed 2 Year w/10% AddIn Discount	3 Year (****3)	Proposed 3 Year w/10% AddIn Discount	4 Year (****4)	Proposed 4 Year w/10% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/10% AddIn Discount
DS3 UNIT													
1 PVC	17TU*	$1,581.35	$ 3,800.00	$ 3,610.00	$ 3,249.00	$ 3,562.50	$ 3,206.25	$ 3,515.00	$ 3,163.50	$ 3,467.50	$ 3,120.75	$ 3,420.00	$ 3,078.00
2-50 PVC's	17TV*	$2.66	$ 30.00	$ 28.50	$ 25.65	$ 28.13	$ 25.32	$ 27.75	$ 24.98	$ 27.38	$ 24.64	$ 27.00	$ 24.30
51-140 PVC's	17TW*	$2.66	$ 8.00	$ 7.60	$ 6.84	$ 7.50	$ 6.75	$ 7.40	$ 6.66	$ 7.30	$ 6.57	$ 7.20	$ 6.48
141-240 PVC's	17TY*	$0.02	$ 4.00	$ 3.80	$ 3.42	$ 3.75	$ 3.38	$ 3.70	$ 3.33	$ 3.65	$ 3.29	$ 3.60	$ 3.24
241-500 PVC's	17TZ*	$0.01	$ 2.00	$ 1.90	$ 1.71	$ 1.88	$ 1.69	$ 1.85	$ 1.67	$ 1.83	$ 1.65	$ 1.80	$ 1.62

FRS Pricing Worksheets

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount

Network - Network Information Transfer (NNIT)

56/64 Kbps

Rate Elements	USOC	FCC Costs	Monthly	1 Year	Proposed 1 Year w/5% AddIn Discount	2 Year	Proposed 2 Year w/5% AddIn Discount	3 Year	Proposed 3 Year w/5% AddIn Discount	4 Year	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year	Proposed 5/6/7 Year w/5% AddIn Discount
1 PVC	17TA*	$9.25	$ 38.00	$ 36.10	$ 34.30	$ 35.65	$ 33.87	$ 35.15	$ 33.39	$ 34.70	$ 32.97	$ 34.20	$ 32.49
2 PVC's	17TB*	$2.66	$ 42.35	$ 40.25	$ 38.24	$ 39.70	$ 37.72	$ 39.15	$ 37.19	$ 38.65	$ 36.72	$ 38.10	$ 36.20
3 PVC's	17TC*	$2.66	$ 46.70	$ 44.35	$ 42.13	$ 43.80	$ 41.61	$ 43.20	$ 41.04	$ 42.60	$ 40.47	$ 42.05	$ 39.95
4 PVC's	17TD*	$2.66	$ 51.05	$ 48.50	$ 46.08	$ 47.85	$ 45.46	$ 47.20	$ 44.84	$ 46.60	$ 44.27	$ 45.95	$ 43.65
5 PVC's	17TE*	$2.66	$ 55.40	$ 52.65	$ 50.02	$ 51.95	$ 49.35	$ 51.25	$ 48.69	$ 50.55	$ 48.02	$ 49.85	$ 47.36
6-14 PVC's	17TG*	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43
15-24 PVC's	17TH*	$0.00	$ 0.30	$ 0.30	$ 0.29	$ 0.30	$ 0.29	$ 0.30	$ 0.29	$ 0.25	$ 0.24	$ 0.25	$ 0.24
25 + PVC's	17TJ*	$0.00	$ 0.25	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24	$ 0.25	$ 0.24

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount

112/128 Kbps (4-Wire)

Rate Elements	USOC	FCC Costs	Monthly	1 Year	Proposed 1 Year w/5% AddIn Discount	2 Year	Proposed 2 Year w/5% AddIn Discount	3 Year	Proposed 3 Year w/5% AddIn Discount	4 Year	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year	Proposed 5/6/7 Year w/5% AddIn Discount
1 PVC	17TA*	$53.26	$ 85.00	$ 80.75	$ 76.71	$ 79.70	$ 75.72	$ 78.65	$ 74.72	$ 77.55	$ 73.67	$ 76.50	$ 72.68
2 PVC's	17TB*	$2.66	$ 88.00	$ 83.60	$ 79.42	$ 82.50	$ 78.38	$ 81.40	$ 77.33	$ 80.30	$ 76.29	$ 79.20	$ 75.24
3 PVC's	17TC*	$2.66	$ 91.00	$ 86.45	$ 82.13	$ 85.30	$ 81.04	$ 84.20	$ 79.99	$ 83.05	$ 78.90	$ 81.90	$ 77.81
4 PVC's	17TD*	$2.66	$ 94.00	$ 89.30	$ 84.84	$ 88.15	$ 83.74	$ 86.95	$ 82.60	$ 85.80	$ 81.51	$ 84.60	$ 80.37
5 PVC's	17TE*	$2.66	$ 97.00	$ 92.15	$ 87.54	$ 90.95	$ 86.40	$ 89.75	$ 85.26	$ 88.50	$ 84.08	$ 87.30	$ 82.94
6-14 PVC's	17TG*	$0.01	$ 1.20	$ 1.15	$ 1.09	$ 1.15	$ 1.09	$ 1.10	$ 1.05	$ 1.10	$ 1.05	$ 1.10	$ 1.05
15-24 PVC's	17TH*	$0.00	$ 0.85	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.80	$ 0.76	$ 0.75	$ 0.71
25 + PVC's	17TJ*	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43

FRS Pricing Worksheets

224/256 Kbps

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount
1 PVC	17TA*	$58.32	$125.00	$118.75	$112.81	$117.20	$111.34	$115.65	$109.87	$114.05	$108.35	$112.50	$106.88
2 PVC's	17TB*	$2.66	$131.00	$124.45	$118.23	$122.80	$116.66	$121.20	$115.14	$119.55	$113.57	$117.90	$112.01
3 PVC's	17TC*	$2.66	$137.00	$130.15	$123.64	$128.45	$122.03	$126.75	$120.41	$125.00	$118.75	$123.30	$117.14
4 PVC's	17TD*	$2.66	$143.00	$135.85	$129.06	$134.05	$127.35	$132.30	$125.69	$130.50	$123.98	$128.70	$122.27
5 PVC's	17TE*	$2.66	$149.00	$141.55	$134.47	$139.70	$132.72	$137.85	$130.96	$135.95	$129.15	$134.10	$127.40
6-14 PVC's	17TG*	$0.01	$2.35	$2.25	$2.14	$2.20	$2.09	$2.15	$2.04	$2.15	$2.04	$2.10	$2.00
15-24 PVC's	17TH*	$0.00	$1.65	$1.55	$1.47	$1.55	$1.47	$1.55	$1.47	$1.50	$1.43	$1.50	$1.43
25 + PVC's	17TJ*	$0.00	$0.50	$0.50	$0.48	$0.45	$0.43	$0.45	$0.43	$0.45	$0.43	$0.45	$0.43

Recurring Prices

336/384 Kbps

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount
1 PVC	17TA*	$63.39	$170.00	$161.50	$153.43	$159.40	$151.43	$157.25	$149.39	$155.15	$147.39	$153.00	$145.35
2 PVC's	17TB*	$2.66	$178.75	$169.80	$161.31	$167.60	$159.22	$165.35	$157.08	$163.10	$154.95	$160.90	$152.86
3 PVC's	17TC*	$2.66	$187.50	$178.15	$169.24	$175.80	$167.01	$173.45	$164.78	$171.10	$162.55	$168.75	$160.31
4 PVC's	17TD*	$2.66	$196.25	$186.45	$177.13	$184.00	$174.80	$181.55	$172.47	$179.10	$170.15	$176.65	$167.82
5 PVC's	17TE*	$2.66	$205.00	$194.75	$185.01	$192.20	$182.59	$189.65	$180.17	$187.05	$177.70	$184.50	$175.28
6-14 PVC's	17TG*	$0.01	$3.50	$3.35	$3.18	$3.30	$3.14	$3.25	$3.09	$3.20	$3.04	$3.15	$2.99
15-24 PVC's	17TH*	$0.00	$2.50	$2.40	$2.28	$2.35	$2.23	$2.30	$2.19	$2.30	$2.19	$2.25	$2.14
25 + PVC's	17TJ*	$0.00	$0.50	$0.50	$0.48	$0.45	$0.43	$0.45	$0.43	$0.45	$0.43	$0.45	$0.43

448/512 Kbps

Rate Elements	USOC	FCC Costs	Monthly	1 Year	Proposed 1 Year	2 Year	Proposed 2 Year	3 Year	Proposed 3 Year	4 Year	Proposed 4 Year	5/6/7 Year	Proposed 5/6/7 Year
1 PVC	17TA*	$68.46	$205.00	$194.75	$185.01	$192.20	$182.59	$189.65	$180.17	$187.05	$177.70	$184.50	$175.28
2 PVC's	17TB*	$2.66	$214.50	$203.80	$193.61	$201.10	$191.05	$198.40	$188.48	$195.75	$185.96	$193.05	$183.40
3 PVC's	17TC*	$2.66	$224.00	$212.80	$202.16	$210.00	$199.50	$207.20	$196.84	$204.40	$194.18	$201.60	$191.52
4 PVC's	17TD*	$2.66	$233.50	$221.85	$210.76	$218.90	$207.96	$216.00	$205.20	$213.05	$202.40	$210.15	$199.64
5 PVC's	17TE*	$2.66	$243.00	$230.85	$219.31	$227.80	$216.41	$224.80	$213.56	$221.75	$210.66	$218.70	$207.77
6-14 PVC's	17TG*	$0.01	$3.75	$3.55	$3.37	$3.50	$3.33	$3.45	$3.28	$3.40	$3.23	$3.40	$3.23
15-24 PVC's	17TH*	$0.00	$2.50	$2.40	$2.28	$2.35	$2.23	$2.30	$2.19	$2.30	$2.19	$2.25	$2.14
25 + PVC's	17TJ*	$0.00	$0.50	$0.50	$0.48	$0.45	$0.43	$0.45	$0.43	$0.45	$0.43	$0.45	$0.43

FRS Pricing Worksheets

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount
672/768 Kbps													
1 PVC	**17TA***	$72.88	$ 280.00	$ 266.00	$ 252.70	$ 262.50	$ 249.38	$ 259.00	$ 246.05	$ 255.50	$ 242.73	$ 252.00	$ 239.40
2 PVC's	**17TB***	$2.66	$ 293.00	$ 278.35	$ 264.43	$ 274.70	$ 260.97	$ 271.05	$ 257.50	$ 267.35	$ 253.98	$ 263.70	$ 250.52
3 PVC's	**17TC***	$2.66	$ 306.00	$ 290.70	$ 276.17	$ 286.90	$ 272.56	$ 283.05	$ 268.90	$ 279.25	$ 265.29	$ 275.40	$ 261.63
4 PVC's	**17TD***	$2.66	$ 319.00	$ 303.05	$ 287.90	$ 299.05	$ 284.10	$ 295.10	$ 280.35	$ 291.10	$ 276.55	$ 287.10	$ 272.75
5 PVC's	**17TE***	$2.66	$ 332.00	$ 315.40	$ 299.63	$ 311.25	$ 295.69	$ 307.10	$ 291.75	$ 302.95	$ 287.80	$ 298.80	$ 283.86
6-14 PVC's	**17TG***	$2.66	$ 3.75	$ 3.55	$ 3.37	$ 3.50	$ 3.33	$ 3.45	$ 3.28	$ 3.40	$ 3.23	$ 3.40	$ 3.23
15-24 PVC's	**17TH***	$0.01	$ 2.50	$ 2.40	$ 2.28	$ 2.35	$ 2.23	$ 2.30	$ 2.19	$ 2.30	$ 2.19	$ 2.25	$ 2.14
25 + PVC's	**17TJ***	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% AddIn Discount	2 Year (****2)	Proposed 2 Year w/5% AddIn Discount	3 Year (****3)	Proposed 3 Year w/5% AddIn Discount	4 Year (****4)	Proposed 4 Year w/5% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% AddIn Discount
1.544 Mbps													
1 PVC	**17TA***	$57.51	$ 210.00	$ 199.50	$ 189.53	$ 196.90	$ 187.06	$ 194.25	$ 184.54	$ 191.65	$ 182.07	$ 189.00	$ 179.55
2 PVC's	**17TB***	$2.66	$ 247.00	$ 234.65	$ 222.92	$ 231.55	$ 219.97	$ 228.50	$ 217.08	$ 225.40	$ 214.13	$ 222.30	$ 211.19
3 PVC's	**17TC***	$2.66	$ 284.00	$ 269.80	$ 256.31	$ 266.25	$ 252.94	$ 262.70	$ 249.57	$ 259.15	$ 246.19	$ 255.60	$ 242.82
4 PVC's	**17TD***	$2.66	$ 321.00	$ 304.95	$ 289.70	$ 300.95	$ 285.90	$ 296.95	$ 282.10	$ 292.90	$ 278.26	$ 288.90	$ 274.46
5 PVC's	**17TE***	$2.66	$ 358.00	$ 340.10	$ 323.10	$ 335.65	$ 318.87	$ 331.15	$ 314.59	$ 326.70	$ 310.37	$ 322.20	$ 306.09
6-14 PVC's	**17TG***	$2.66	$ 19.00	$ 18.05	$ 17.15	$ 17.80	$ 16.91	$ 17.60	$ 16.72	$ 17.35	$ 16.48	$ 17.10	$ 16.25
15-24 PVC's	**17TH***	$0.01	$ 5.00	$ 4.75	$ 4.51	$ 4.70	$ 4.47	$ 4.65	$ 4.42	$ 4.55	$ 4.32	$ 4.50	$ 4.28
25 + PVC's	**17TJ***	$0.00	$ 0.50	$ 0.50	$ 0.48	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43	$ 0.45	$ 0.43

FRS Pricing Worksheets

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/10% AddIn Discount	2 Year (****2)	Proposed 2 Year w/10% AddIn Discount	3 Year (****3)	Proposed 3 Year w/10% AddIn Discount	4 Year (****4)	Proposed 4 Year w/10% AddIn Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/10% AddIn Discount
DS3 UNIT													
1 PVC	**17TU***	$1,581.35	$ 3,800.00	$ 3,610.00	$ 3,249.00	$ 3,562.50	$ 3,206.25	$ 3,515.00	$ 3,163.50	$ 3,467.50	$ 3,120.75	$ 3,420.00	$ 3,078.00
2-50 PVC's	**17TV***	$2.66	$ 30.00	$ 28.50	$ 25.65	$ 28.13	$ 25.32	$ 27.75	$ 24.98	$ 27.38	$ 24.64	$ 27.00	$ 24.30
51-140 PVC's	**17TW***	$2.66	$ 8.00	$ 7.60	$ 6.84	$ 7.50	$ 6.75	$ 7.40	$ 6.66	$ 7.30	$ 6.57	$ 7.20	$ 6.48
141-240 PVC's	**17TY***	$0.02	$ 4.00	$ 3.80	$ 3.42	$ 3.75	$ 3.38	$ 3.70	$ 3.33	$ 3.65	$ 3.29	$ 3.60	$ 3.24
241-500 PVC's	**17TZ***	$0.01	$ 2.00	$ 1.90	$ 1.71	$ 1.88	$ 1.69	$ 1.85	$ 1.67	$ 1.83	$ 1.65	$ 1.80	$ 1.62

Invalid

FRS Pricing Worksheets

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/5% Addln Discount	2 Year (****2)	Proposed 2 Year w/5% Addln Discount	3 Year (****3)	Proposed 3 Year w/5% Addln Discount	4 Year (****4)	Proposed 4 Year w/5% Addln Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/5% Addln Discount
Optional Features, Enhancements													
Central Office Connection Channel (COCC)													
Up to 1.544M	**CU5*R**	$0.30	$ 0.65	$ 0.62	$ 0.59	$ 0.62	$ 0.59	$ 0.60	$ 0.57	$ 0.60	$ 0.57	$ 0.59	$ 0.56

Recurring Prices

Rate Elements	USOC	FCC Costs	Monthly (****M)	1 Year (****1)	Proposed 1 Year w/10% Addln Discount	2 Year (****2)	Proposed 2 Year w/10% Addln Discount	3 Year (****3)	Proposed 3 Year w/10% Addln Discount	4 Year (****4)	Proposed 4 Year w/10% Addln Discount	5/6/7 Year (****5/6/7)	Proposed 5/6/7 Year w/10% Addln Discount
44.736M (DS3)	**CU5*R**	$4.34	$ 10.00	$ 9.50	$ 8.55	$ 9.38	$ 8.44	$ 9.25	$ 8.33	$ 9.13	$ 8.22	$ 9.00	$ 8.10

	A	C	D	E	F	G	H	I	J	K	L	M	N
1	6/21/04 - ATM Service FCC Costs/Current Rates Plus Discounted Rates Under Contract Renewal Discounts program Effective 7/16/04												
2	Rate Element	Discounts at 5% for 1.544Mbps and 10% for 45Mbps and above											
3	*PORT (per port)*	FCC 2001 Costs	MRC USOC	1 Yr MRC	1 Yr MRC w/Discount	2 Yr MRC	2 Yr MRC w/Discount	3 Yr MRC	3 Yr MRC w/Discount	4 Yr MRC	4 Yr MRC w/Discount	5 Yr MRC	5 Yr MRC w/Discount
4	1.544Mbps	$ 144.12	C3TXn	$ 228.00	$ 216.60	$ 216.00	$ 205.20	$ 204.00	$ 193.80	$ 199.20	$ 189.24	$ 192.00	$ 182.40
5	45Mbps	$ 247.66	C3TXn	$ 570.00	$ 513.00	$ 540.00	$ 486.00	$ 510.00	$ 459.00	$ 498.00	$ 448.20	$ 480.00	$ 432.00
6	155Mbps	$ 371.59	C3TXn	$ 1,035.50	$ 931.95	$ 981.00	$ 882.90	$ 926.50	$ 833.85	$ 904.70	$ 814.23	$ 872.00	$ 784.80
7	622Mbps	$ 563.65	C3TXn	$ 2,375.00	$ 2,137.50	$ 2,250.00	$ 2,025.00	$ 2,125.00	$ 1,912.50	$ 2,075.00	$ 1,867.50	$ 2,000.00	$ 1,800.00
8	*BANDWIDTH (Cell Transfer) - Simplex*	Cell Transfer renewal discounts depend on the port speed (DS1 5%, DS3+ 10%). For the purposes of displaying											
9		Cell Transfer discounted rates below, a 10% discount is applied.											
10	Constant Bit Rate (CBR)												
11	64kbps increments	$ 1.13	CTNSn	$ 3.04	$ 2.74	$ 2.88	$ 2.59	$ 2.72	$ 2.45	$ 2.66	$ 2.39	$ 2.56	$ 2.30
12	75kbps increments	$ 1.30	CTNWn	$ 3.53	$ 3.18	$ 3.34	$ 3.01	$ 3.16	$ 2.84	$ 3.08	$ 2.77	$ 2.97	$ 2.67
13	1Mbps increments	$ 25.84	CTNUn	$ 42.75	$ 38.48	$ 40.50	$ 36.45	$ 38.25	$ 34.43	$ 37.35	$ 33.62	$ 36.00	$ 32.40
14	1.787Mbps total bandwidth	$ 46.14	CTNYn	$ 76.39	$ 68.75	$ 72.37	$ 65.13	$ 68.35		$ 66.74	$ 60.07	$ 64.33	$ 57.90
15	Variable Bit Rate-real time (VBR-rt)												
16	64kbps increments	$ 0.65	CTNLn	$ 2.58	$ 2.33	$ 2.45	$ 2.20	$ 2.31	$ 2.08	$ 2.26	$ 2.03	$ 2.18	$ 1.96
17	1Mbps increments	$ 14.66	CTNMn	$ 36.34	$ 32.70	$ 34.43	$ 30.98	$ 32.51	$ 29.26	$ 31.75	$ 28.57	$ 30.60	$ 27.54
18	Variable Bit Rate-non-real time (VBR-nrt)												
19	64kbps increments	$ 0.41	CTNRn	$ 2.28	$ 2.05	$ 2.16	$ 1.94	$ 2.04	$ 1.84	$ 1.99	$ 1.79	$ 1.92	$ 1.73
20	1Mbps increments	$ 9.71	CTNVn	$ 32.06	$ 28.86	$ 30.38	$ 27.34	$ 28.69	$ 25.82	$ 28.01	$ 25.21	$ 27.00	$ 24.30
21	Available Bit Rate (ABR)												
22	64kbps increments	$ 0.31	CTNOn	$ 1.52	$ 1.37	$ 1.44	$ 1.30	$ 1.36	$ 1.22	$ 1.33	$ 1.20	$ 1.28	$ 1.15
23	1Mbps increments	$ 7.20	CTNPn	$ 21.38	$ 19.24	$ 20.25	$ 18.23	$ 19.13	$ 17.21	$ 18.68	$ 16.81	$ 18.00	$ 16.20
24	Unspecified Bit Rate (UBR)												
25	64kbps increments	$ 0.24	CTUEn	$ 1.06	$ 0.96	$ 1.01	$ 0.91	$ 0.95	$ 0.86	$ 0.93	$ 0.84	$ 0.90	$ 0.81
26	1Mbps increments	$ 5.71	CTUCn	$ 14.96	$ 13.47	$ 14.18	$ 12.76	$ 13.39	$ 12.05	$ 13.07	$ 11.77	$ 12.60	$ 11.34
27	*CENTRAL OFFICE CONNECTING CHANNEL (COCC)*												
28	Up to 1.544Mbps Port (per COCC)	$ 0.29	CFN2n	$ 0.95	$ 0.90	$ 0.90	$ 0.86	$ 0.85	$ 0.81	$ 0.83	$ 0.79	$ 0.80	$ 0.76
29	Up to 45Mbps (per COCC)	$ 4.22	CFN2n	$ 14.25	$ 12.83	$ 13.50	$ 12.15	$ 12.75	$ 11.48	$ 12.45	$ 11.21	$ 12.00	$ 10.80
30	Up to OCn-155Mbps, 622 Mbps (per COCC)	$ 4.18	CFN2n	$ 14.25	$ 12.83	$ 13.50	$ 12.15	$ 12.75	$ 11.48	$ 12.45	$ 11.21	$ 12.00	$ 10.80

WORKPAPERS

FCC

Frame Relay

ECONOMIC LIVES

COST STUDY

April 22, 2003

MSEA

Market Services And Economic Analysis Organizations

TABLE OF CONTENTS

ITEM

A. PURPOSE, SCOPE, AND APPLICATION

The purpose of this study is to estimate the long run incremental costs incurred by
QWEST in provisioning this service.

This study includes all recurring costs directly assigned with this service. Costs provided
in this study are intended as input for management decision making and cost support for
commission filings.

B. DESCRIPTION OF SERVICE

Frame Relay Service (FRS) is a QWEST service that employs a "fast packet" technology,
that allows higher access and provides higher throughput than the current Digipac packet
network. FRS will be offered on a Permanent Virtual Circuit (PVC) basis. PVC's are logical
circuits that define a specific path for all frames to follow between any two devices.

FRS-PVC will enable users to allocate a circuit's bandwidth to applications as needed, rather
than assigning fixed channels to specific applications. This provides the user with logically
multiplexed channels rather than a fixed number of physically multiplexed channels, by
utilizing statistical multiplexing. To utilize FRS-PVC, Customer Provided Equipment (CPE)
is required and is sold separately from the FRS network service.

FRS provides customers with the ability to define multiple PVC's for flexible connectivity
implemented over statistically multiplexed digital access lines to a shared high performance fast
packet network. Each PVC can carry bursts of data up to the full port speed which are offered at
variant speeds between 56 kbps and 44.736 mbps. Customers will also have the ability
to access a QWEST FRS port connection at fractional speeds of 112 Kbps, 224 Kbps,
256 Kbps, 336 Kbps, 384 Kbps, 448 Kbps, 512 Kbps, 672 Kbps, and 768 Kbps. Customers will
be able to send data to any prearranged location without any call set-up because PVC's are
established in software tables at subscription and require no signaling to set-up or clear them.
The packet switch examines a 11-bit Data Link Connection Identifier (DLCI) to determine the
frames destination and then sets up the connection between switches. The DLCI creates a
PVC that mimics a leased line between devices.

C. STUDY METHODOLOGY

Costs for this service is calculated through the use of a program developed by QWEST.
The Retail model converts installed investments to LRIC monthly costs by applying
appropriate Investment and Expense factors to the installed investments.

D. DESCRIPTION OF LONG RUN INCREMENTAL COSTS

Long Run Incremental Cost (LRIC) is the method QWEST Communications uses to estimate product and service costs. It provides a measurement of costs over a period of time long enough to fully adjust to changes of output (including changes in the size of facilities, levels of investment, etc.) in order to optimally accommodate this change. This methodology is forward looking in nature (i.e. LRIC uses the latest technology costs or replacement costs.) Since LRIC is forward looking, it does *not* measure historic investment decisions of the corporation.

The QWEST LRIC format disaggregates the cost results on a unitized basis into the components shown below:

Total Direct Costs--Total direct costs are the forward-looking costs that are caused by offering the service in the long run. These costs would not be incurred if the service was not offered. Total Direct Costs reflect the per-unit forward-looking cost associated with providing the entire service in the most efficient manner, holding constant the production of all other services produced by the firm. In a recurring cost study, Total Direct Costs include the capital costs (e.g., depreciation, cost of money, income taxes) and maintenance costs associated with the investment required to provision a service, along with other service-specific costs such as product management expense. In a nonrecurring cost study, Total Direct Costs include the one-time labor expenses associated with establishing or changing service, along with other service-specific costs such as product management expense. Total Direct Costs are sometimes referred to as the Total Service Long Run Incremental Cost (TSLRIC) of a service.

Network Support Costs--Include network administration and engineering costs. These costs are not directly associated with a single service, but are generally caused by the provision of a group of services. These costs are sometimes categorized as shared or group-related costs.

Total Direct plus Network Support Costs--Represent the sum of the Total Direct Costs and the Network Support Costs associated with a service. This measure is similar to what is sometimes referred to as "TSLRIC plus Shared" cost.

Directly Attributable Costs--Include various costs such as accounting and finance expenses and the cost of computer systems. These costs are not directly associated with a single service or a specific service group. However, these costs vary with the provision of network elements or the network functions that are used to produce services and service groups.

Total Direct plus Network Support plus Directly Attributable Costs--Represent the sum of Total Direct Costs, Network Support Costs and Directly Attributable Costs.

Common Costs--Are associated with the enterprise as a whole. These costs do vary based on the total size of the firm, but do not vary based on the size of a particular service or service group. These costs are avoidable only with the elimination of the entire firm, and are sometimes referred to as *general overhead costs* .

Fully Allocated Costs -- Represent the sum of "Common costs" and the "Total Direct plus Network Support plus Directly Attributable Costs."

E. STUDY ASSUMPTIONS

1. All costs displayed are at a 2003 cost level.

2. We consider all equipment and facilities to be forward looking equipment.

3. Port investments use the CBX 500 platforms.

4. PVC's are developed so that all PVC's are equal. This is based on Frame Switching Model.

5. DS0 circuits are comprised of 60% Copper Loops and 40% Digital Loop Carriers

6. For the DS1 access link, Channelized DS3 configuration the M1/3 is used 55% of the time, and the 3/1 DCS is used 45% of the time.

7. The occurrence of the 10 port DS1 configuration is 32.5% and the occurrence of the Channelized DS3 configuration is 67.5%.

8. For Backhaul, it was assumed that 17% of customers would be backhauled over a DS0 and 10% would be backhauled over a DS1. An 80% utilization factor was applied to compensate for capacity planning.

9. It was assumed that an average mileage amount of 91 miles would be used for the Internodal mileage amount.

10. 54% of customers will use Internodal Transport, and an 80% utilization factor for Capacity planning was also applied to Internodal transport.

11. It was assumed that the investments for the Fractional port speeds of 112 kbps, 224 kbps, 256 kbps, 336 kbps, 384 kbps, 448 kbps, 512 kbps, 672 kbps, and 768 kbps, would be calculated as multiples of the 56 kbps port investments (multiples 2,4,6,8 and 12).

12. Average PVC amounts were based off of actual average PVC amounts calculated by the Network Engineer.

Study Name	*Frame Relay*	
Study Requester		
Type of Study	*Retail Costs*	
Study ID	*7621*	
Cost Factor Group	*Business, Centrex, Private Line, PBX, ISDN, ACS*	
Study Applications		
Completion Date	*April 22, 2003*	
Cost Analyst	*Paul Massara*	
Study Review	**Reviewer**	**Date**
		April 22, 2003
Models Used	**Model**	**Version**
	Retail Cost Program	*2.07*
	Cost Factor Databases	*02EC01S*
	Cost Factors Model (TSLRIC)	*02V1*
Cost Factors Used	**Factor**	**Effective Date**
	Capital Recovery	*02/02*
	Maintenance	*02/02*
	Ad Valorem	*02/02*
	COE Land & Bldg	*02/02*
	Commercial Factors	*02/02*
	Billing & Collection (PL)	*01/01*
	Network Support Factors	*02/02*
	Directly Attributable Factors	*02/02*
	Common	*02/02*
	Cost Of Money	*10.9%*
Inflation		
Major Cost Drivers		

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Parameter File: C:\Quick Cost Runs\Frame Relay - FCC.xls, Sheet "WINPC3 Parameters"
State(s): QW
Database Vintage: 02EC01S
Factors For: Business, Centrex, Private Line, PBX, ISDN, ACS
Report Type: Expanded - FCC Format
Decimal Places: 4
Costs Format: Annual
Group Totals: Yes
ACF Input: C:\Quick Cost Runs\Frame Relay - FCC.xls, Sheet "WINPC3 ACF Inputs"
ACF Output: C:\Quick Cost Runs\Frame Relay - FCC.xls, Sheet "WINPC3 ACF Outputs"
Investment: C:\Quick Cost Runs\Frame Relay - FCC.xls, Sheet "WINPC3 Investments"
Output: C:\Quick Cost Runs\Frame Relay - FCC.xls, Sheet "WINPC3 Output"

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: Channel Performance - Digital Data Service

RECURRING COST

	Costs
A. Total Unit Investment	**$712.02**
B. Capital Costs	
Depreciation	$89.43
Cost Of Money	$30.10
Income Tax Expense	$16.07
C. Operating Expenses	
Maintenance	$15.67
Ad Valorem	$4.68
Administrative	$25.91
Business Fees	$0.65
D. Total Annual Direct Unit Cost (B + C)	**$182.52**
E. Total Monthly Direct Unit Cost (D / 12)	**$15.21**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.256**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: Digital Circuit Equipment - DS0 COCC

RECURRING COST

	Costs
A. Total Unit Investment	**$15.59**
**B. Capital Costs**	
Depreciation	**$1.81**
Cost Of Money	**$0.66**
Income Tax Expense	**$0.35**
**C. Operating Expenses**	
Maintenance	**$0.16**
Ad Valorem	**$0.10**
Administrative	**$0.51**
Business Fees	**$0.01**
D. Total Annual Direct Unit Cost (B + C)	**$3.62**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.30**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.232**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: Digital Circuit Equipment - DS1 COCC

RECURRING COST

	Costs
A. Total Unit Investment	**$15.59**
B. Capital Costs	
Depreciation	**$1.81**
Cost Of Money	**$0.66**
Income Tax Expense	**$0.35**
C. Operating Expenses	
Maintenance	**$0.16**
Ad Valorem	**$0.10**
Administrative	**$0.51**
Business Fees	**$0.01**
D. Total Annual Direct Unit Cost (B + C)	**$3.62**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.30**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.232**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: Digital Circuit Equipment - DS3 COCC

RECURRING COST

	Costs
A. Total Unit Investment	**$224.39**
B. Capital Costs	
Depreciation	$26.05
Cost Of Money	$9.51
Income Tax Expense	$5.08
C. Operating Expenses	
Maintenance	$2.36
Ad Valorem	$1.47
Administrative	$7.39
Business Fees	$0.18
D. Total Annual Direct Unit Cost (B + C)	**$52.04**
E. Total Monthly Direct Unit Cost (D / 12)	**$4.34**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.232**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: 56 kbps Frame Relay Port

RECURRING COST

	Costs
A. Total Unit Investment	**$72.72**
B. Capital Costs	
Depreciation	$8.44
Cost Of Money	$3.08
Income Tax Expense	$1.65
C. Operating Expenses	
Maintenance	$0.99
Ad Valorem	$0.48
Administrative	$2.43
Business Fees	$0.06
D. Total Annual Direct Unit Cost (B + C)	**$17.13**
E. Total Monthly Direct Unit Cost (D / 12)	**$1.43**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.236**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: 1.544 kbps Frame Relay Port

RECURRING COST

	Costs
A. Total Unit Investment	**$1,238.44**
B. Capital Costs	
Depreciation	**$143.76**
Cost Of Money	**$52.49**
Income Tax Expense	**$28.02**
C. Operating Expenses	
Maintenance	**$16.93**
Ad Valorem	**$8.14**
Administrative	**$41.43**
Business Fees	**$1.04**
D. Total Annual Direct Unit Cost (B + C)	**$291.80**
E. Total Monthly Direct Unit Cost (D / 12)	**$24.32**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.236**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: 44.736 Mbps Frame Relay Port

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RECURRING COST

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	Costs
A. Total Unit Investment	**$11,416.37**
B. Capital Costs	
Depreciation	**$1,325.21**
Cost Of Money	**$483.86**
Income Tax Expense	**$258.31**
C. Operating Expenses	
Maintenance	**$156.06**
Ad Valorem	**$75.04**
Administrative	**$381.91**
Business Fees	**$9.55**
D. Total Annual Direct Unit Cost (B + C)	**$2,689.94**
E. Total Monthly Direct Unit Cost (D / 12)	**$224.16**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.236**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: Frame Relay Permanent Virtual Circuit

RECURRING COST

	Costs
A. Total Unit Investment	**$138.00**
B. Capital Costs	
Depreciation	$16.02
Cost Of Money	$5.85
Income Tax Expense	$3.12
C. Operating Expenses	
Maintenance	$1.89
Ad Valorem	$0.91
Administrative	$4.62
Business Fees	$0.12
D. Total Annual Direct Unit Cost (B + C)	**$32.52**
E. Total Monthly Direct Unit Cost (D / 12)	**$2.71**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.236**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DCS 1/0 DS1 Port

RECURRING COST

	Costs
A. Total Unit Investment	**$929.52**
B. Capital Costs	
Depreciation	$107.90
Cost Of Money	$39.40
Income Tax Expense	$21.03
C. Operating Expenses	
Maintenance	$17.97
Ad Valorem	$6.11
Administrative	$31.97
Business Fees	$0.80
D. Total Annual Direct Unit Cost (B + C)	**$225.18**
E. Total Monthly Direct Unit Cost (D / 12)	**$18.76**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DCS 1/0 DS0 Port

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RECURRING COST

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	Costs
A. Total Unit Investment	**$38.73**
B. Capital Costs	
Depreciation	**$4.50**
Cost Of Money	**$1.64**
Income Tax Expense	**$0.88**
C. Operating Expenses	
Maintenance	**$0.75**
Ad Valorem	**$0.25**
Administrative	**$1.33**
Business Fees	**$0.03**
D. Total Annual Direct Unit Cost (B + C)	**$9.38**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.78**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DSX - 1 Cross Connect Pannel

RECURRING COST

	Costs
A. Total Unit Investment	**$16.04**
B. Capital Costs	
Depreciation	**$1.86**
Cost Of Money	**$0.68**
Income Tax Expense	**$0.36**
C. Operating Expenses	
Maintenance	**$0.31**
Ad Valorem	**$0.11**
Administrative	**$0.55**
Business Fees	**$0.01**
D. Total Annual Direct Unit Cost (B + C)	**$3.89**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.32**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DSX - 3 Cross Connect Pannel

RECURRING COST

	Costs
A. Total Unit Investment	**$247.43**
**B. Capital Costs**	
Depreciation	**$28.72**
Cost Of Money	**$10.49**
Income Tax Expense	**$5.60**
**C. Operating Expenses**	
Maintenance	**$4.78**
Ad Valorem	**$1.63**
Administrative	**$8.51**
Business Fees	**$0.21**
D. Total Annual Direct Unit Cost (B + C)	**$59.94**
E. Total Monthly Direct Unit Cost (D / 12)	**$5.00**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: M 1/3 Per DS1

RECURRING COST

	Costs
A. Total Unit Investment	**$93.26**
B. Capital Costs	
Depreciation	$10.83
Cost Of Money	$3.95
Income Tax Expense	$2.11
C. Operating Expenses	
Maintenance	$1.80
Ad Valorem	$0.61
Administrative	$3.21
Business Fees	$0.08
D. Total Annual Direct Unit Cost (B + C)	**$22.59**
E. Total Monthly Direct Unit Cost (D / 12)	**$1.88**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: M 1/3 Per DS3

RECURRING COST

	Costs
A. Total Unit Investment	**$2,611.25**
B. Capital Costs	
Depreciation	$303.11
Cost Of Money	$110.67
Income Tax Expense	$59.08
C. Operating Expenses	
Maintenance	$50.49
Ad Valorem	$17.16
Administrative	$89.81
Business Fees	$2.25
D. Total Annual Direct Unit Cost (B + C)	**$632.58**
E. Total Monthly Direct Unit Cost (D / 12)	**$52.71**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: 3/1 DCS Per DS1

RECURRING COST

	Costs
A. Total Unit Investment	**$277.54**
**B. Capital Costs**	
Depreciation	**$32.22**
Cost Of Money	**$11.76**
Income Tax Expense	**$6.28**
**C. Operating Expenses**	
Maintenance	**$5.37**
Ad Valorem	**$1.82**
Administrative	**$9.55**
Business Fees	**$0.24**
D. Total Annual Direct Unit Cost (B + C)	**$67.23**
E. Total Monthly Direct Unit Cost (D / 12)	**$5.60**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: 3/1 DCS Per DS3

RECURRING COST

	Costs
A. Total Unit Investment	**$3,427.71**
B. Capital Costs	
Depreciation	**$397.89**
Cost Of Money	**$145.28**
Income Tax Expense	**$77.56**
C. Operating Expenses	
Maintenance	**$66.27**
Ad Valorem	**$22.53**
Administrative	**$117.89**
Business Fees	**$2.95**
D. Total Annual Direct Unit Cost (B + C)	**$830.37**
E. Total Monthly Direct Unit Cost (D / 12)	**$69.20**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: Network Access Channel

RECURRING COST

	Costs
A. Total Unit Investment	**$2,165.43**
B. Capital Costs	
Depreciation	$152.00
Cost Of Money	$128.55
Income Tax Expense	$68.63
C. Operating Expenses	
Maintenance	$100.61
Ad Valorem	$15.93
Administrative	$77.38
Business Fees	$1.94
D. Total Annual Direct Unit Cost (B + C)	**$545.04**
E. Total Monthly Direct Unit Cost (D / 12)	**$45.42**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.252**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS0 Over 8 to 25 Fixed

RECURRING COST

	Costs
A. Total Unit Investment	**$1,059.11**
B. Capital Costs	
Depreciation	$122.94
Cost Of Money	$44.89
Income Tax Expense	$23.96
C. Operating Expenses	
Maintenance	$20.48
Ad Valorem	$6.96
Administrative	$36.43
Business Fees	$0.91
D. Total Annual Direct Unit Cost (B + C)	**$256.57**
E. Total Monthly Direct Unit Cost (D / 12)	**$21.38**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS0 Over 8 to 25 Per Air Mile

RECURRING COST

	Costs
A. Total Unit Investment	**$8.19**
B. Capital Costs	
Depreciation	$0.72
Cost Of Money	$0.42
Income Tax Expense	$0.22
C. Operating Expenses	
Maintenance	$0.13
Ad Valorem	$0.06
Administrative	$0.26
Business Fees	$0.01
D. Total Annual Direct Unit Cost (B + C)	**$1.82**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.15**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.222**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: D4 Channel Bank

RECURRING COST

	Costs
A. Total Unit Investment	**$12,001.52**
B. Capital Costs	
Depreciation	$1,393.13
Cost Of Money	$508.66
Income Tax Expense	$271.55
C. Operating Expenses	
Maintenance	$126.07
Ad Valorem	$78.88
Administrative	$395.17
Business Fees	$9.89
D. Total Annual Direct Unit Cost (B + C)	**$2,783.36**
E. Total Monthly Direct Unit Cost (D / 12)	**$231.95**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.232**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS1 Channel Termination

RECURRING COST

	Costs
A. Total Unit Investment	**$4,058.30**
B. Capital Costs	
Depreciation	$395.48
Cost Of Money	$202.34
Income Tax Expense	$108.02
C. Operating Expenses	
Maintenance	$71.80
Ad Valorem	$28.84
Administrative	$134.00
Business Fees	$3.35
D. Total Annual Direct Unit Cost (B + C)	**$943.84**
E. Total Monthly Direct Unit Cost (D / 12)	**$78.65**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.233**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS1 Over 8 to 25 Band - Fixed

RECURRING COST

	Costs
A. Total Unit Investment	**$1,907.41**
B. Capital Costs	
Depreciation	**$221.41**
Cost Of Money	**$80.84**
Income Tax Expense	**$43.16**
C. Operating Expenses	
Maintenance	**$36.88**
Ad Valorem	**$12.54**
Administrative	**$65.60**
Business Fees	**$1.64**
D. Total Annual Direct Unit Cost (B + C)	**$462.07**
E. Total Monthly Direct Unit Cost (D / 12)	**$38.51**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS1 Over 8 to 25 Band - Variable

RECURRING COST

	Costs
A. Total Unit Investment	**$193.44**
B. Capital Costs	
Depreciation	**$16.72**
Cost Of Money	**$9.98**
Income Tax Expense	**$5.33**
C. Operating Expenses	
Maintenance	**$3.04**
Ad Valorem	**$1.34**
Administrative	**$6.05**
Business Fees	**$0.15**
D. Total Annual Direct Unit Cost (B + C)	**$42.61**
E. Total Monthly Direct Unit Cost (D / 12)	**$3.55**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.220**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS3 Over 50 Band - Fixed

RECURRING COST

	Costs
A. Total Unit Investment	**$13,789.76**
B. Capital Costs	
Depreciation	**$1,600.71**
Cost Of Money	**$584.46**
Income Tax Expense	**$312.02**
C. Operating Expenses	
Maintenance	**$266.62**
Ad Valorem	**$90.64**
Administrative	**$474.29**
Business Fees	**$11.86**
D. Total Annual Direct Unit Cost (B + C)	**$3,340.59**
E. Total Monthly Direct Unit Cost (D / 12)	**$278.38**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: DS3 Over 50 Band - Variable

RECURRING COST

	Costs
A. Total Unit Investment	**$1,177.31**
B. Capital Costs	
Depreciation	**$96.43**
Cost Of Money	**$64.12**
Income Tax Expense	**$34.23**
C. Operating Expenses	
Maintenance	**$18.49**
Ad Valorem	**$8.37**
Administrative	**$36.83**
Business Fees	**$0.92**
D. Total Annual Direct Unit Cost (B + C)	**$259.38**
E. Total Monthly Direct Unit Cost (D / 12)	**$21.61**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.220**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: OC3 Over 50 Band - Fixed

RECURRING COST

	Costs
A. Total Unit Investment	**$22,734.54**
B. Capital Costs	
Depreciation	**$2,639.02**
Cost Of Money	**$963.57**
Income Tax Expense	**$514.41**
C. Operating Expenses	
Maintenance	**$439.56**
Ad Valorem	**$149.43**
Administrative	**$781.94**
Business Fees	**$19.56**
D. Total Annual Direct Unit Cost (B + C)	**$5,507.48**
E. Total Monthly Direct Unit Cost (D / 12)	**$458.96**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.242**

Study: Frame Relay
Date: 04-22-2003
RCP Version: 2.07

Jurisdiction: QWEST
Rate Element: OC3 Over 50 Band - Variable

RECURRING COST

	Costs
A. Total Unit Investment	**$4,865.62**
B. Capital Costs	
Depreciation	**$301.68**
Cost Of Money	**$299.09**
Income Tax Expense	**$159.67**
C. Operating Expenses	
Maintenance	**$66.07**
Ad Valorem	**$36.12**
Administrative	**$143.33**
Business Fees	**$3.59**
D. Total Annual Direct Unit Cost (B + C)	**$1,009.55**
E. Total Monthly Direct Unit Cost (D / 12)	**$84.13**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.207**

Frame Relay

FCC

2003

April 22, 2003

Price Floor Summary

Rate Element	Price Floor
56 kbps. Access Link	$ 60.6292
1.544 Mbps. Access Link	$ 78.6531
56 kbps. Stand Alone Access Link	$ 60.6292
1.544 Mbps. Stand Alone Access Link	$ 78.6531
56 kbps. UNIT with 1 PVC	$ 14.5407
Additional 56 kbps. UNIT PVC's (2-5)	$ 2.6554
Additional 56 kbps. UNIT PVC's (6-14)	$ 0.0039
Additional 56 kbps. UNIT PVC's (15-24)	$ 0.0018
Additional 56 kbps. UNIT PVC's (25-30)	$ 0.0029
112 kbps. UNIT	$ 68.5652
Additional 112 kbps. UNIT PVC's (2-5)	$ 2.6554
Additional 112 kbps. UNIT PVC's (6-14)	$ 0.0063
Additional 112 kbps. UNIT PVC's (15-24)	$ 0.0028
Additional 112 kbps. UNIT PVC's (25-40)	$ 0.0018
224 or 256 kbps. UNIT	$ 73.6321
Additional 224 or 256 kbps.UNIT PVC's (2-5)	$ 2.6554
Additional 224 or 256 kbps.UNIT PVC's (6-14)	$ 0.0063
Additional 224 or 256 kbps.UNIT PVC's (15-24)	$ 0.0028
Additional 224 or 256 kbps.UNIT PVC's (25-80)	$ 0.0005
336 or 384 kbps.UNIT	$ 78.6990
Additional 336 or 384 kbps.UNIT PVC's (2-5)	$ 2.6554
Additional 336 or 384 kbps.UNIT PVC's (6-14)	$ 0.0063
Additional 336 or 384 kbps.UNIT PVC's (15-24)	$ 0.0028
Additional 336 or 384 kbps.UNIT PVC's (25-120)	$ 0.0003
448 or 512 kbps. UNIT	$ 83.7659
Additional 448 or 512 kbps.UNIT PVC's (2-5)	$ 2.6554
Additional 448 or 512 kbps.UNIT PVC's (6-14)	$ 0.0063
Additional 448 or 512 kbps.UNIT PVC's (15-24)	$ 0.0028
Additional 448 or 512 kbps.UNIT PVC's (25-125)	$ 0.0003
672 or 768 kbps. UNIT	$ 93.8996
Additional 672 or 768 kbps. UNIT PVC's (2-14)	$ 2.6554
Additional 672 or 768 kbps. UNIT PVC's (15-24)	$ 0.0057
Additional 672 or 768 kbps. UNIT PVC's (25-125)	$ 0.0006
1.544 Mbps UNIT	$ 72.8179
Additional 1.544 Mbps. UNIT PVC's (2-14)	$ 2.6554
Additional 1.544 Mbps. UNIT PVC's (15-24)	$ 0.0103
Additional 1.544 kbps. UNIT PVC's (25-125)	$ 0.0010

44.736 Mbps UNIT	$	1,581.3452
Additional 44.736 Mbps. UNIT PVC's (2-140)	$	2.6554
Additional 44.736 Mbps. UNIT PVC's (141-240)	$	0.0225
Additional 44.736 Mbps. UNIT PVC's (241-500)	$	0.0087
56 kbps. NNIT with 1 PVC	$	9.2495
Additional 56 kbps. NNIT PVC's (2-5)	$	2.6554
Additional 56 kbps. NNIT PVC's (6-14)	$	0.0039
Additional 56 kbps. NNIT PVC's (15-24)	$	0.0018
Additional 56 kbps. NNIT PVC's (25-30)	$	0.0029
112 kbps. NNIT	$	53.2578
Additional 112 kbps. NNIT PVC's (2-5)	$	2.6554
Additional 112 kbps. NNIT PVC's (6-14)	$	0.0063
Additional 112 kbps. NNIT PVC's (15-24)	$	0.0028
Additional 112 kbps. NNIT PVC's (25-40)	$	0.0018
224 or 256 kbps NNIT	$	58.3246
Additional 224 or 256 kbps. NNIT PVC's (2-5)	$	2.6554
Additional 224 or 256 kbps. NNIT PVC's (6-14)	$	0.0063
Additional 224 or 256 kbps. NNIT PVC's (15-25)	$	0.0028
Additional 224 or 256 kbps. NNIT PVC's (25-80)	$	0.0005
336 or 384 kbps NNIT	$	63.3915
Additional 336 or 384 kbps. NNIT PVC's (2-5)	$	2.6554
Additional 336 or 384 kbps. NNIT PVC's (6-14)	$	0.0063
Additional 336 or 384 kbps. NNIT PVC's (15-24)	$	0.0028
Additional 336 or 384 kbps. NNIT PVC's (25-120)	$	0.0003
448 or 512 kbps NNIT	$	68.4584
Additional 448 or 512 kbps. NNIT PVC's (2-5)	$	2.6554
Additional 448 or 512 kbps. NNIT PVC's (6-14)	$	0.0063
Additional 448 or 512 kbps. NNIT PVC's (15-24)	$	0.0028
Additional 448 or 512 kbps. NNIT PVC's (25-125)	$	0.0003
672 or 768 kbps NNIT	$	72.8806
Additional 672 or 768 kbps. NNIT PVC's (2-14)	$	2.6554
Additional 672 or 768 kbps. NNIT PVC's (15-24)	$	0.0057
Additional 672 or 768 kbps. NNIT PVC's (25-125)	$	0.0006
1.544 Mbps NNIT	$	57.5105
Additional 1.544 Mbps. NNIT PVC's (2-14)	$	2.6554
Additional 1.544 Mbps. NNIT PVC's (15-24)	$	0.0103
Additional 1.544 Mbps. NNIT PVC's (25-125)	$	0.0010
44.736 Mbps NNIT	$	1,581.3452
Additional 44.736 Mbps. NNIT PVC's (2-140)	$	2.6554
Additional 44.736 Mbps. NNIT PVC's (141-240)	$	0.0225
Additional 44.736 Mbps. NNIT PVC's (241-500)	$	0.0087
56 kbps Central Office Connecting Channel	$	0.3013
1.544 kbps Central Office Connecting Channel	$	0.3013
44.736 Mbps Central Office Connecting Channel	$	4.3367

Service	Frame Relay
Jurisdiction	FCC
State Abbreviation	QW
Cost Year	2003
Study Date	April 22, 2003

Investments in these sections need to be checked and changed.
These investments should not change from State to State.

Section A

Network Access Channel - 4 Wire Investments
Source: Loop Model Output

Description	Acct. Code	Total Direct Category 1 & 2
POLES	1C	$ 29.58
AR CABLE (Aerial Cable Metallic)	52C	$ 49.72
C WIRE (Aerial Cable)	3C	$ 1.36
AZNDUIT (Conduit System	4C	$ 151.31
UG CABLE (Undergound Cable Metallic	5C	$ 106.63
BUR CABLE (Buried Cable Metallic)	45C	$ 1,012.36
BLD CABLE (Intrabuilding Cable Exchange Metallic)	62C	$ 28.39
UG F O (Undergound Cable Nonmetallic)	85C	$ 11.68
PAIR GAIN (Circuit Equipment - Pair Gain Digital)	257C	$ 255.61
BUR F O (Buried Cable Nonmetallic)	845C	$ 244.35
BURIED DROP	35C	$ 145.05
AERIAL DROP	42C	$ 23.95
MDF/ OSP (Digital Electronic Switching)	377C	$ 60.23

Section B

Channel Performance - Digital Data Service
Source: Loop Model Output

Channel Performance	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
Analog Circuit Equipment	57C	$ 139.13	0.75	$ 139.88
Digital Pair Gain Equipment	257C	$ 291.32	2.69	$ 294.01
Digital Circuit Equipment	357C	$ 187.25	1.73	$ 188.98

Section C

Central Office Connecting Channel (COCC)
Source: Loop Model Output

COCC	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
Digital Circuit Equipment - DS0 COCC	257C	$ 13.64	$ -	$ 13.64
Digital Circuit Equipment - DS1 COCC	257C	$ 13.64	$ -	$ 13.64
Digital Circuit Equipment - DS3 COCC	257C	$ 196.29	$ -	$ 196.29

Section D

DS0 Transport
Source: Transport Model

DS0 Over 8 to 25 Fixed	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
SONET - (WC)	357CS	$ 53.52	$ -	$ 53.52
NON - SONET (WC)	357C	$ 872.58	$ 0.40	$ 872.98
DS0 Over 8 to 25 Per Air Mile				
SONET - (WC)	357CS	$ 3.64	$ -	$ 3.64
NON - SONET (WC)	357C	$ 0.66	$ 0.03	$ 0.69
CONDUIT SYSTEMS	4C	$ 0.76	$ 0.68	$ 1.44
UNDERGROUND CABLE NONMETALLIC	85C	$ 0.50	$ 0.45	$ 0.94
BURIED CABLE NONMETALLIC	845C	$ 0.45	$ 0.40	$ 0.85

Section E

D4 Channel Bank
Source: Loop Model Output

D4 Channel Bank	Acct. Code	Total Direct Category 1 & 2
CIRCUIT-DIGITAL	257C	$ 10,498.82

Utilization Factor for D4 Channel Bank
Source: Product Manager

Utilization Factor = 80%

Section F

DS1 Channel Termination
Source: Loop Model Output

Description	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
CIRCUIT-OTHER DIGITAL	357C	$ 268.87	$ -	$ 268.87
CIRCUIT-DIGITAL	257C	$ 869.81	$ 1.92	$ 871.73
CIRCUIT-DIGITAL -PREMISES	257CP	$ 582.63	$ 4.49	$ 587.12
CIRCUIT-DIGITAL SONET	257CS	$ 395.51	$ -	$ 395.51
CIRCUIT-DIGITAL SONET-PREMISES	257CSP	$ 637.67	$ 4.68	$ 642.35
POLES	1C	$ 6.09	$ -	$ 6.09
C WIRE	3C	$ 0.30	$ -	$ 0.30
CONDUIT SYSTEMS	4C	$ 244.51	$ -	$ 244.51
UNDERGROUND CABLE METALLIC	5C	$ 118.19	$ -	$ 118.19
BURIED DROP	35C	$ 23.96	$ -	$ 23.96
AERIAL DROP	42C	$ 4.09	$ -	$ 4.09
BURIED CABLE METALLIC	45C	$ 277.47	$ -	$ 277.47
AERIAL CABLE METALLIC	52C	$ 10.53	$ -	$ 10.53
INTRABUILDING CABLE METALLIC	62C	$ 60.24	$ -	$ 60.24
UNDERGROUND CABLE NONMETALLIC	85C	$ 89.77	$ -	$ 89.77
BURIED CABLE NONMETALLIC	845C	$ 235.52	$ -	$ 235.52
INTRABUILDING CABLE NONMETALLIC	862C	$ 2.19	$ -	$ 2.19

Section G

DS1 Transport
Source: Transport Model

	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
DS1 Over 8 to 25 Band - Fixed				
SONET - (WC)	357CS	$ 664.68	$ -	$ 664.68
NON - SONET (WC)	357C	$ 997.64	$ 6.27	$ 1,003.91
DS1 Over 8 to 25 Band - Variable				
SONET - (WC)	357CS	$ 95.22	$ -	$ 95.22
NON - SONET (WC)	357C	$ 6.52	$ 1.09	$ 7.60
CONDUIT SYSTEMS	4C	$ 21.79	$ 19.44	$ 41.24
UNDERGROUND CABLE NONMETALLIC	85C	$ 8.86	$ 7.90	$ 16.76
BURIED CABLE NONMETALLIC	845C	$ 9.47	$ 8.45	$ 17.91

Section H

Frame Relay Ports
Source: Frame Relay Switching Model

	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
56 kbps Frame Relay Port	377C	$ 51.49	$ -	$ 51.49
1.544 kbps Frame Relay Port	377C	$ 876.88	$ -	$ 876.88
44.736 Mbps Frame Relay Port	377C	$ 8,083.37	$ -	$ 8,083.37

Section I

Frame Relay Permanent Virtual Circuit
Source: Frame Relay Switching Model

PVC	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
Digital Switching Equipment	377C	$ 97.71	$ -	$ 97.71

Section J

DCS 1/0
Source: Capacity Provisioning Planner

DCS 1/0	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
DCS 1/0 DS1 Port	357C	$ 658.15	0	$ 658.15
DCS 1/0 DS0 Port	357C	$ 27.42	0	$ 27.42

Section K

Voice Circuits Assumptions
Source: General Knowledge

# of DS0's per DS1 =	24
# of DS1's per DS3 =	28
# of DS0's per DS3 =	672
# of DS1's per OC3 =	84

Section L

DSX - 1 Cross Connect Pannel
Source: Capacity Provisioning Planner

DSX - 1 per Port	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
DSX - 1	357C	$ 14.03	0	$ 14.03

Section M

Copper vs. Digital Loop Carrier Configuration Assumption
Source: Dave Workman - Loop Model

Occurrence of Copper Loop	=	60%
Occurrence of Digital Loop Carrier (DLC)	=	40%

Section N

Occurrence of Central Offices with DCS 1/0
Source: Capacity Provisioning Planner

Central Office D4 Termination	=	24%
Central Office DSX - 1 Termination	=	76%

Section O

DSX - 3 Cross Connect Pannel
Source: Capacity Provisioning Planner

DSX - 3 per Port	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
DSX - 3	357C	$ 216.45	$ -	$ 216.45

Section P

M 1/3
Source: Capacity Provisioning Planner

M 1/3 inv. Per Port	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
M 1/3 Per DS1	357C	$ 81.58	$ -	$ 81.58
M 1/3 Per DS3	357C	$ 2,284.30	$ -	$ 2,284.30

Section Q

3/1 DCS - Digital Cross Connect
Source: Capacity Provisioning Planner

3/1 DCS inv. per Port	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
3/1 DCS Per DS1	357C	$ 242.79	$ -	$ 242.79
3/1 DCS Per DS3	357C	$ 2,998.53	$ -	$ 2,998.53

Section R

Weighting between M13 & 3/1 DCS use in DS1 Configurations
Source: Capacity Provisioning Planner

	Percentage of Use
M 1/3	55%
3/1 DCS	45%

Section S

Weighting between DS1 & Channelized DS3 Configurations
Source: Capacity Provisioning Planner

	Percentage of Occurrence
DS1	32.5%
Channelized DS3	67.5%

Section T

Average Internodal Mileage Assumption
Source: Capacity Provisioning Planner

	Miles
Average Internodal Mileage =	91

Section U

DS3 Transport
Source: Transport Model

	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
DS3 Over 50 Band - Fixed				
SONET - (WC)	357CS	$ 10,469.52	$ -	$ 10,469.52
NON - SONET (WC)	357C	$ 1,519.96	$ 73.68	$ 1,593.64
DS3 Over 50 Band - Variable				
SONET - (WC)	357CS	$ 343.64	$ -	$ 343.64
NON - SONET (WC)	357C	$ 95.12	$ 1.07	$ 96.19
CONDUIT SYSTEMS	4C	$ 41.89	$ 37.37	$ 79.26
UNDERGROUND CABLE NONMETALLIC	85C	$ 17.02	$ 15.18	$ 32.20
BURIED CABLE NONMETALLIC	845C	$ 297.57	$ 265.49	$ 563.07

Section V

OC3 Transport
Source: Transport Model

	Acct. Code	Total Direct Category 1	Total Direct Category 2	Total Direct Category 1 & 2
OC3 Over 50 Band - Fixed				
SONET - (WC)	357CS	$ 19,154.44	$ -	$ 19,154.44
NON - SONET (WC)	357C	$ 247.58	$ 485.95	$ 733.53
OC3 Over 50 Band - Variable				
SONET - (WC)	357CS	$ 389.57	$ -	$ 389.57
NON - SONET (WC)	357C	$ 8.35	$ 7.45	$ 15.80
CONDUIT SYSTEMS	4C	$ 280.81	$ 250.54	$ 531.35
UNDERGROUND CABLE NONMETALLIC	85C	$ 114.10	$ 101.80	$ 215.90
BURIED CABLE NONMETALLIC	845C	$ 1,931.62	$ 1,723.37	$ 3,654.99

Section W

Transport Assumptions
Source: Capacity Provisioning Planner

	% of Occurrence
Customers who use Internodal Transport =	54%

	Utilization %
Utilization or Fill Factor =	80%

Section X

Average PVC Amounts per Access Rate
Source: Network Engineer

PVC Access Rate		Average PVC Amount
56 kbps.	=	1.3
112 kbps.	=	2.1
224/256 kbps.	=	2.1
336/384 kbps.	=	2.1
448/512 kbps.	=	2.1
672/768 kbps.	=	2.1
1.544 Mbps.	=	3.8
44.736 Mbps	=	83.1

Section Y

Backhaul Mileage Assumptions
Source: Capacity Provisioning Planner

		Average Mileage
Metro Configuraiton	=	22.78

		Configuration Occurrence
DS0 Backhaul Occurance	=	17%

Inputs

DS1 Backhaul Occurance   =   10%

Section Z

PVC Tiered Weightings
Source: Cost Analyst

56 / 64 kbps. PVC		Weightings %
	1 - 5	98%
	6 - 14	1%
	15 - 24	1%
	25 - 30	1%
112 / 128 kbps. PVC		
	1 - 5	98%
	6 - 14	1%
	15 - 24	1%
	25 - 40	1%
224 / 256 kbps. PVC		
	1 - 5	98%
	6 - 14	1%
	15 - 24	1%
	25 - 80	1%
336 / 384 kbps. PVC		
	1 - 5	98%
	6 - 14	1%
	15 - 24	1%
	25 - 120	1%
448 / 512 kbps. PVC		
	1 - 5	98%
	6 - 14	1%
	15 - 24	1%
	25 - 125	1%
672 / 768 kbps. PVC		
	1 - 14	98%
	15 - 24	1%
	25 - 125	1%
1.544 Mbps. PVC		
	1 - 14	98%
	15 - 24	1%
	25 - 125	1%
44.736 Mbps. PVC		
	1 - 140	98%
	141 - 240	1%
	241 - 500	1%

Frame Relay

FCC

2003

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<div style="background-color:green; text-align:center;">**DS0 Multiplexing Calculations**</div>

1. D4 Channel Bank Costs from WINPC3 Output Tab

D4 Channel Bank	$	231.95

2. Voice Circuits Assumptions from Input Tab, Sec. K

# of DS0's per DS1 =   24

3. Calculation of D4 Channel Bank Costs per DS0

	SGAT Cost		DS0's in DS1		Cost per DS0
D4 Channel Bank	$ 231.95	/	24	= $	9.66

4. DSX-1 Costs from WINPC3 Outputs Tab

DSX - 1 Cost per Port			# of DS1 Ports		DCS 1/0 Cost
DSX-1 Port	$ 0.32	x	2	= $	0.65

5. DCS 1/0 Costs from WINPC3 Outputs Tab

			# of DS1 Ports				DS0's in DS1	Cost per DS0
DCS DS1 Port	$	18.76 x	2	= $	37.53		24	$ 1.56

6. Occurrence of Central Offices with DSX-1 vs. D4 Terminations from Input Tab, Sec. N

Copper Loop & DLC

Central Office D4 Termination	=	24%
Central Office DSX - 1 Termination	=	76%

9. Development of DS0 Multiplexing Equipment

	D4 Channel Bank Cost Per DS0		DCS 1/0 Cost Per DS0		DSX - 1 Cost Per DS0		Config. Totals	D4 vs DSX-1 Termination		Weighted Configuration
Central Office D4 Termination	$ 9.66	+	$ -	+	$ 0.32	= $	9.99	24%	= $	2.40
Central Office DSX - 1 Termination	$ -	+	$ 1.56	+	$ 0.65	= $	2.21	76%	= $	1.68
							Total		**$**	**4.08**

Frame Relay

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2003

April 22, 2003

<div style="background-color:#00FF00; text-align:center; font-weight:bold;">DS1 Multiplexing Calculations</div>

DS1 Configuration

1. DSX - 1 Cost from WINPC3 Output Tab

DSX - 1 Cost per Port

DSX - 1	$	0.32

2. Calculation of Total DSX - 1 Cost

	Cost		Ports Needed		Total DSX - 1 Cost.
DSX - 1	$ 0.32	x	1	= $	0.32

Channelized DS3 Configuration

1. DSX - 1 Costs from WINPC3 Output Tab

DSX - 1 Cost per Port

DSX - 1	$	0.32

2. DSX - 3 Cost from WINPC3 Output Tab

DSX - 3 Cost per Port

DSX - 3	$	4.995

3. Voice Circuit Assumptions from Input Tab, Sec. K

# of DS1's per DS3 =   28

4. Calculation of Total DSX - 3 Cost

	Cost		Ports Needed		DSX - 3 Cost	DS1's per DS3		Total DSX - 3 Cost per DS1
DSX - 3	$ 4.995	x	2	= $	9.99	28	= $	0.36

5. M 1/3 Cost from WINPC3 Outputs Tab

M 1/3 Cost Per Port	Total Monthly Direct Unit Cost
Per DS1	$ 1.88
Per DS3	$ 52.71

6. 3/1 DCS Cost from WINPC3 Output Tab

3/1 DCS Cost Per Port	Total Monthly Direct Unit Cost
Per DS1	$ 5.60
Per DS3	$ 69.20

7. Calculation of Total M 1/3 Cost per DS1

Need	Cost		DS1's per DS3		Cost per DS1
DS1 Port	$ 1.88			= $	1.88
DS3 Port per DS1	$ 52.71	/	28	= $	1.88

Total M 1/3 Inv per DS1 =   # $ 3.77

8. Calculation of Total 3/1 DCS Inv per DS1

Need	Cost		DS1's per DS3		Cost per DS1
DS1 Port	$ 5.60			= $	5.60
DS3 Port	$ 69.20	/	28	= $	2.47
			Total 3/1 DCS Cost per DS1 = $		8.07

9. Weightings of M1/3 and 3/1DCS in DS1 Configurations from Inputs Tab, Sec. R

Description	% of Occurrence
M 1/3	55%
3/1 DCS	45%

10. Calculation of Weighted M1/3 & 3/1 DCS Cost per DS1

Description	Cost		% of Occurrence		Weighted Cost
Total M 1/3 Cost per DS1	$ 3.77	x	55%	= $	2.07
Total 3/1 DCS Cost per DS1	$ 8.07	x	45%	= $	3.63
			Total Weighted Cost = $		5.70

11. Calculation of Channleized DS3 Configuration Cost

DSX - 1 Cost		Weighted M/13 & 3/1 DCS Inv per DS1		DSX - 3 Cost per DS1		Total Channelized DS3 Config Cost per DS1
$ 0.32	+ $	5.70	+ $	0.36	= $	6.38

DS1 Multiplexing Costs

1. Weighting of DS1 and Channelized DS3 Configurations from Input Tab, Sec. S

	Percentage of Occurrence
DS1	33%
Channelized DS3	68%

2. Calculation of DS1 Multiplexing Costs

Description	Total Cost		% of Occurrence		Weighted Total Cost
DS1	$ 0.32	x	33%	= $	0.11
Channelized DS3	$ 6.38	x	68%	= $	4.31
			Total DS1 Multiplexing Costs = $		4.42

Frame Relay

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<div style="background-color: #00FF00">

Fractional Multiplexing Calculations

</div>

1. DCS 1/0 Costs from WINPC3 Output Tab

DS1 Port	Cost
DS1 Port	$ 18.76
DS0 Port	$ 0.78

2. DSX -1 Costs from WINPC3 Output Tab

DSX - 1 Cost per Port			#of Ports for Fixed Cost		Total Fixed Cost
DSX - 1	$	0.32 x	2	= $	0.65

			# of Ports for Variable Costs		Total Variable Cost
DSX - 1	$	0.32 x	1	= $	0.32

3. Development of Fixed Multiplexing Costs

1/0 DCS DS1 Port Cost		DSX-1 Port Cost		Total Fixed Multiplexing Cost
$ 18.76	+	$ 0.65	= $	19.41

4. Development of Variable Multiplexing Costs

1/0 DCS DS0 Port Costs		DSX-1 Port Cost		Variable Multiplexing Investments
$ 0.78	+	$ 0.32	= $	1.11

5. Number of DS0 channels needed for Fractional Service

Fractional Speed		Number of channels
112	=	2
224/256	=	4
336/384	=	6
448/512	=	8
672/768	=	12

6. Development of Variable Multiplexing Costs for Fractional Services

Fractional Speed	Number of channels		Variable Multiplexing Cost		Fractional Service Variable Multiplexing Investments
112	2	x	$ 1.11	= $	2.21
224/256	4	x	$ 1.11	= $	4.42
336/384	6	x	$ 1.11	= $	6.63
448/512	8	x	$ 1.11	= $	8.84
672/768	12	x	$ 1.11	= $	13.27

7. Development of Total Fractional Multiplexing Costs

Fractional Speed	Fixed Multiplexing Costs		Variable Multiplexing Costs		Total Fractional Multiplexing Costs
112	$ 19.41	+	$ 2.21	= $	21.62
224/256	$ 19.41	+	$ 4.42	= $	23.83
336/384	$ 19.41	+	$ 6.63	= $	26.05
448/512	$ 19.41	+	$ 8.84	= $	28.26
672/768	$ 19.41	+	$ 13.27	= $	32.68

Frame Relay

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<div style="background-color:green">**Backhaul Calculations**</div>

1. Backhaul Mileage Assumption from Input Tab, Sec. Y

	Miles
Average Mileage Amt.	23

	Configuration Occurrence
DS0 Backhaul Occurance	17%
DS1 Backhaul Occurance	10%

2. Calculate Weighted Average Backhaul Mileage Amount

DS0 Transport Cost from WINPC3 Output Tab

Description	Total DS0 Transport Cost		Miles		Total
DS0 Over 8 to 25 Fixed	$ 21.38				
DS0 Over 8 to 25 Per Air Mile	$ 0.15	x	23	= $	3.45
DS0 Over 8 to 25 Fixed	$ 21.38				
DS0 Over 8 to 25 Per Air Mile	$ 3.45				
	$ **24.83**				

Backhaul

DS1 Transport Costs from WINPC3 Output Tab

Description	Total DS1 Transport Cost					
				Miles		**Total**
DS1 Over 8 to 25 Fixed	$ 38.51					
DS1 Over 8 to 25 Per Air Mile	$ 3.55	x	$	22.78	= $	80.89
DS1 Over 8 to 25 Fixed	$ 38.51					
DS1 Over 8 to 25 Per Air Mile	$ 80.89					
	$ **119.40**					

3. Transport Usage Assumptions from Input Tab, Sec. Y

	% of Occurrence
Customers who use DS0 Backhaul Transport =	17%
Customers who use DS1 Backhaul Transport =	10%
	Utilization %
Utilization or Fill Factor =	80%

4. Calculation of DS0 Backhaul Costs

Description	Total Cost		Customer Usage		Utilization %		Total Adusted Backhaul Costs
Over 8 to 25 Band	$ 24.83	x	17%	/	80%	= $	5.29

5. Calculation of DS1 Backhaul Costs

Description	Total Cost		Customer Usage		Utilization %		Total Adusted Backhaul Costs
Over 8 to 25 Band	$ 119.40	x	10%	/	80%	= $	15.31

Frame Relay

FCC

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Internodal Calculations

1. Internodal Average Mileage Assumption from Input Tab, Sec. T

Average Internodal Mileage = 91

2. DS3 Transport Cost from WINPC3 Output Tab

Description	Cost
DS3 Over 50 Band - Fixed	$ 278.38

Description	Total DS3 Transport Cost		Miles		Total
DS3 Over 50 Band - Fixed	$ 278.38				
DS3 Over 50 Band - Variable	$ 21.61	x	91	$	1,966.95
DS3 Over 50 Band - Fixed	$ 278.38				
DS3 Over 50 Band - Variable	$ 1,966.95				
	$ 2,245.33				

3. OC3 Transport Cost from WINPC3 Output Tab

Description	Cost
OC3 Over 50 Band - Fixed	$ 458.96

NOTICE

Internodal

OC3 Over 50 Band - Variable $ 84.13

4. Transport Usage Assumptions from Input Tab, Sec. W

	% of Occurrence
Customers who use Internodal Transport =	54%

	Utilization %
Utilization or Fill Factor =	80%

5. Voice Circuit Assumptions from Input Tab, Sec. K

# of DS1's per OC3 =	84
# of DS1's per DS3 =	28
# of DS0's per DS3 =	672

6. Calculation of DS3 Transport Costs

Description	Cost	Total Cost
DS3 Over 50 Band - Fixed	$ 2,245.33	$ 2,245.33

7. Calculation of Fixed and Variable OC3 Transport Costs

Description	Cost	Average Mileage	
OC3 Over 50 Band - Fixed	$ 458.96		$ 458.96
OC3 Over 50 Band - Variable	$ 84.13	91	$ 7,655.79
			$ 8,114.75

8. Internodal Transport Occurance

Call Path	Occurance	Internodal Transport Cost
IntraNode - Customer Port to Customer Port	46%	$ -
Node to Node via 100% DS3	45%	$ 1,010.40
Node to Node via 60.6% DS3 & 33.3% OC3	9%	$ 344.13
		$ 1,354.53

9. Development of DS0 and DS1 level Transport Costs

	Total Transport Costs	DS1 Voice Circuit Assumption	DS0 Voice Circuit Assumption	Customers who use Internodal Transport	DS1 and DS0 level Transport Costs
DS1					
	$ 1,354.53	28		54%	$ 26.12
DS0					
	$ 1,354.53		672	54%	$ 1.09

Frame Relay

FCC

2003

April 22, 2003

Port Investment Builder Worksheet

1. Port Investments from Input Tab

	Acct Code	Investment
56 kbps Frame Relay Port	377C	$ 51.49
1.544 kbps Frame Relay Port	377C	$ 876.88
44.736 Mbps Frame Relay Port	377C	$ 8,083.37
DCS 1/0 DS1 Port	357C	$ 658.15
DCS 1/0 DS0 Port	357C	$ 27.42

2. Development of Port Investments using Investment Builder

INVESTMENT BUILDER

State: FCC

Equipment Item: Frame Relay Port Investment

Account Code: 377C

56 kbps Port		Factor	Amount		Source / Description
1.	Material		$	51.49	EF&I Investment provided by Frame Relay Modeler, for a 56 kbps.Port
2.	USWC Installation		$	-	If Vendor installed, show "0" as Amount. If USWC installed, show estimate of USWC dollars.
3.	USWC Engineering		$	-	If Vendor engineered, show "0" as Amount. If USWC engineered, show estimate of USWC dollars.
4.	Other		$	-	If Vendor provided, show "0" as Amount. If USWC, show estimate of USWC dollars.
5.	Total EFI Investment		$	51.49	*Sum of Lines 1 - 4*
6.	Loading for Power	0.0511	$	2.63	*Ln5 x Factor*
7.	Loading for Sales Tax	0.0482	$	2.61	*(Ln5+Ln6) x Factor*
8.	Loading for Telco Engineering and Installation *Acct. 377C only*	0.1105	$	6.27	*(Ln5+Ln6+Ln7) x Factor. Show "0" if USWC Engineering and Installation is shown on Lines 2 and 3. <u>Use only with account 377C</u>.*
9.	Loading for Interest During Construction	0.0097	$	0.62	*((Ln5+Ln6+Ln7+Ln8) / (1 - Factor)) x Factor.*
10.	Loading for Transportation	0.0000	$	-	*Ln1 x Ln10*
11.	Loading for Warehousing	0.0000	$	-	*Ln1 x Ln11*
12.	Total Loaded Investment		$	63.62	*Sum of Lines 5 - 11*

1.544 Mbps Port	Factor	Amount	Source / Description
1. Material		$ 876.88	EF&I Investment provided by Frame Relay Modeler, for a 1.544 Mbps. Port.
2. USWC Installation		$ -	If Vendor installed, show "0" as Amount. If USWC installed, show estimate of USWC dollars.
3. USWC Engineering		$ -	If Vendor engineered, show "0" as Amount. If USWC engineered, show estimate of USWC dollars.
4. Other		$ -	If Vendor provided, show "0" as Amount. If USWC, show estimate of USWC dollars.
5. Total EFI Investment		$ 876.88	Sum of Lines 1 - 4
6. Loading for Power	0.0511	$ 44.81	Ln5 x Factor
7. Loading for Sales Tax	0.0482	$ 44.43	(Ln5+Ln6) x Factor
8. Loading for Telco Engineering and Installation _Acct. 377C only_	0.1105	$ 106.76	(Ln5+Ln6+Ln7) x Factor. Show "0" if USWC Engineering and Installation is shown on Lines 2 and 3. _Use only with account 377C_.
9. Loading for Interest During Construction	0.0097	$ 10.51	((Ln5+Ln6+Ln7+Ln8) / (1 - Factor)) x Factor.
10. Loading for Transportation	0.0000	$ -	Ln1 x Ln10
11. Loading for Warehousing	0.0000	$ -	Ln1 x Ln11
12. Total Loaded Investment		$ 1,083.38	Sum of Lines 5 - 11

44.736 Mbps. Port	Factor	Amount	Source / Description
1. Material		$ 8,083.37	EF&I Investment provided by Frame Relay Modeler, for a 44.736 Mbps. Port.
2. USWC Installation		$ -	If Vendor installed, show "0" as Amount. If USWC installed, show estimate of USWC dollars.
3. USWC Engineering		$ -	If Vendor engineered, show "0" as Amount. If USWC engineered, show estimate of USWC dollars.
4. Other		$ -	If Vendor provided, show "0" as Amount. If USWC, show estimate of USWC dollars.
5. Total EFI Investment		$ 8,083.37	Sum of Lines 1 - 4
6. Loading for Power	0.0511	$ 413.06	Ln5 x Factor
7. Loading for Sales Tax	0.0482	$ 409.53	(Ln5+Ln6) x Factor
8. Loading for Telco Engineering and Installation _Acct. 377C only_	0.1105	$ 984.11	(Ln5+Ln6+Ln7) x Factor. Show "0" if USWC Engineering and Installation is shown on Lines 2 and 3. _Use only with account 377C_.
9. Loading for Interest During Construction	0.0097	$ 96.87	((Ln5+Ln6+Ln7+Ln8) / (1 - Factor)) x Factor.
10. Loading for Transportation	0.0000	$ -	Ln1 x Ln10
11. Loading for Warehousing	0.0000	$ -	Ln1 x Ln11
12. Total Loaded Investment		$ 9,986.94	Sum of Lines 5 - 11

2. Development of DCS 1/0 Investments using Investment Builder

		Factor	Amount	
DCS 1/0 DS1 Port				*Source / Description*
1.	Material		$ 658.15	EF&I Investment provided by Capacity Provisioning Planner, for a DCS 1/0 DS0 Port
2.	USWC Installation		$ -	If Vendor installed, show "0" as Amount. If USWC installed, show estimate of USWC dollars.
3.	USWC Engineering		$ -	If Vendor engineered, show "0" as Amount. If USWC engineered, show estimate of USWC dollars.
4.	Other		$ -	If Vendor provided, show "0" as Amount. If USWC, show estimate of USWC dollars.
5.	Total EFI Investment		$ 658.15	*Sum of Lines 1 - 4*
6.	Loading for Power	0.0511	$ 33.63	*Ln5 x Factor*
7.	Loading for Sales Tax	0.0482	$ 33.34	*(Ln5+Ln6) x Factor*
8.	Loading for Telco Engineering and Installation *Acct. 377C only*	0.1105	$ 80.13	*(Ln5+Ln6+Ln7) x Factor. Show "0" if USWC Engineering and Installation is shown on Lines 2 and 3. Use only with account 377C.*
9.	Loading for Interest During Construction	0.0097	$ 7.89	*((Ln5+Ln6+Ln7+Ln8) / (1 - Factor)) x Factor.*
10.	Loading for Transportation	0.0000	$ -	*Ln1 x Ln10*
11.	Loading for Warehousing	0.0000	$ -	*Ln1 x Ln11*
12.	Total Loaded Investment		$ 813.14	*Sum of Lines 5 - 11*

Port Inv. Builder

		Factor	Amount	Source / Description
DCS 1/0 DS0 Port				
1.	Material		$ 27.42	EF&I Investment provided by Capacity Provisioning Planner, for a DCS 1/0 DS1 Port.
2.	USWC Installation		$ -	If Vendor installed, show "0" as Amount. If USWC installed, show estimate of USWC dollars.
3.	USWC Engineering		$ -	If Vendor engineered, show "0" as Amount. If USWC engineered, show estimate of USWC dollars.
4.	Other		$ -	If Vendor provided, show "0" as Amount. If USWC, show estimate of USWC dollars.
5.	Total EFI Investment		$ 27.42	*Sum of Lines 1 - 4*
6.	Loading for Power	0.0511	$ 1.40	*Ln5 x Factor*
7.	Loading for Sales Tax	0.0482	$ 1.39	*(Ln5+Ln6) x Factor*
8.	Loading for Telco Engineering and Installation *Acct. 377C only*	0.1105	$ 3.34	*(Ln5+Ln6+Ln7) x Factor. Show "0" if USWC Engineering and Installation is shown on Lines 2 and 3. <u>Use only with account 377C</u>.*
9.	Loading for Interest During Construction	0.0097	$ 0.33	*((Ln5+Ln6+Ln7+Ln8) / (1 - Factor)) x Factor.*
10.	Loading for Transportation	0.0000	$ -	*Ln1 x Ln10*
11.	Loading for Warehousing	0.0000	$ -	*Ln1 x Ln11*
12.	Total Loaded Investment		$ 33.88	*Sum of Lines 5 - 11*

Frame Relay

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2003

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<div style="background-color: #00ff00; text-align: center;">

Port Calculations

</div>

1. 56 kbps. Port Costs from WINPC3 Output Tab

56 kbps Frame Relay Port   377C $ 1.43

2. Assumption for Fractional access levels in Frame Relay Service

Fractional Service is offered in the following multiples of 56/64 kbps: 2, 4, 6, 8, and 12

3. Development of Fractional Service Port Cost

	56 kbps Port		Mulitple of 56 kbps		Fractional Service Totals
112 kbps =	$	1.43 X	2	= $	2.86
224 or 256 kbps. =	$	1.43 X	4	= $	5.71
336 or 384 kbps. =	$	1.43 X	6	= $	8.57
448 or 512 kbps. =	$	1.43 X	8	= $	11.42
672 or 768 kbps. =	$	1.43 X	12	= $	17.13

NOTICE

Ports

Ports

4. Fractional Service Port Cost

	Acct. Code	Port Cost Total	
112 kbps. Port	377C	$	2.86
224/256 kbps. Port	377C	$	5.71
336/384 kbps. Port	377C	$	8.57
448/512 kbps. Port	377C	$	11.42
672/768 kbps. Port	377C	$	17.13

6. 1.544 Port Costs from WINPC3 Output Tab

1.544 kbps Frame Relay Port	$	24.32
44.736 Mbps Frame Relay Port	$	224.16

Frame Relay

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PVC Investment Builder Worksheet

1. PVC Investments from Inputs Tab

	Acct Code	Investment
PVC	377C	$ 97.71

2. Development of PVC Investments using Investment Builder

INVESTMENT BUILDER

State: FCC

Equipment Item: PVC Investment

Account Code: 377C

		Factor	*Amount*	*Source / Description*
1.	Material		$ 97.71	EF&I Investments provided by Frame Relay Modeler for a PVC.
2.	USWC Installation		$ -	If Vendor installed, show "0" as Amount. If USWC installed, show estimate of USWC dollars.
3.	USWC Engineering		$ -	If Vendor engineered, show "0" as Amount. If USWC engineered, show estimate of USWC dollars.
4.	Other		$ -	If Vendor provided, show "0" as Amount. If USWC, show estimate of USWC dollars.
5.	Total EFI Investment		$ 97.71	*Sum of Lines 1 - 4*
6.	Loading for Power	0.0511	$ 4.99	*Ln5 x Factor*
7.	Loading for Sales Tax	0.0482	$ 4.95	*(Ln5+Ln6) x Factor*
8.	Loading for Telco Engineering and Installation *Acct. 377C only*	0.1105	$ 11.90	*(Ln5+Ln6+Ln7) x Factor. Show "0" if USWC Engineering and Installation is shown on Lines 2 and 3. Use only with account 377C .*
9.	Loading for Interest During Construction	0.0097	$ 1.17	*((Ln5+Ln6+Ln7+Ln8) / (1 - Factor)) x Factor.*
10.	Loading for Transportation	0.0000	$ -	*Ln1 x Ln10*
11.	Loading for Warehousing	0.0000	$ -	*Ln1 x Ln11*
12.	Total Loaded Investment		$ 120.72	*Sum of Lines 5 - 11*

PVC

Frame Relay

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PVC Calculations

1. PVC Costs from WINPC3 Output Tab

	Cost
PVC	$ 2.71

2. Average PVC Amounts per Access Rate from Input Tab, Sec. X

PVC Access Rate		**Avg. PVC Amounts**
56 kbps.	=	1.3
112 kbps.	=	2.1
224/256 kbps.	=	2.1
336/384 kbps.	=	2.1
448/512 kbps.	=	2.1
672/768 kbps.	=	2.1
1.544 Mbps.	=	3.8
44.736 Mbps	=	83.1

3. PVC Tiered Weightings from Input Tab, Sec. Z

56 / 64 kbps. PVC	Weightings %
1 - 5	98.0%
6 - 14	1.0%
15 - 24	0.5%
25 - 30	0.5%
112 kbps. PVC	
1 - 5	98.0%
6 - 14	1.0%
15 - 24	0.5%
25 - 40	0.5%
224 / 256 kbps. PVC	
1 - 5	98.0%
6 - 14	1.0%
15 - 24	0.5%
25 - 80	0.5%
336 / 384 kbps. PVC	
1 - 5	98.0%
6 - 14	1.0%
15 - 24	0.5%
25 - 120	0.5%
448 / 512 kbps. PVC	
1 - 5	98.0%
6 - 14	1.0%
15 - 24	0.5%
25 - 125	0.5%
672 / 768 kbps. PVC	
1 - 14	98.0%
15 - 24	1.0%
25 - 125	1.0%
1.544 Mbps. PVC	
1 - 14	98.0%
15 - 24	1.0%
25 - 125	1.0%
44.736 Mbps. PVC	
1 - 50	98.0%
141 - 240	1.0%
241 - 500	1.0%

PVC

4. Development of 56 kbps.PVC Costs

56 Kbps PVCs

		COST
Cost per PVC	$	2.71
Avg PVC Amount		1.3
Total Cost	$	3.52

	%	% per pvc	**Cost per each add'l PVC**
PVC 1-5 (5)	98.0%	75.38%	$ 2.66
PVC 6-14 (9)	1.0%	0.11%	$ 0.0039
PVC 15-24 (10)	0.5%	0.05%	$ 0.0018
PVC 25-30 (6)	0.5%	0.08%	$ 0.0029
	100%		

5. Development of 112 kbps. PVC Costs

112 Kbps PVCs

		COST
Cost per PVC	$	2.71
Avg PVC Amount		2.1
Total Cost	$	5.69

	%	% per pvc	**Cost per each add'l PVC**
PVC 1-5 (5)	98.0%	46.67%	$ 2.66
PVC 6-14 (9)	1.0%	0.11%	$ 0.0063
PVC 15-24 (10)	0.5%	0.05%	$ 0.0028
PVC 25-40 (16)	0.5%	0.03%	$ 0.0018
	100%		

PVC

6. Development of 224/256 kbps. PVC Costs

224/256 Kbps PVCs

		COST
Cost per PVC	$	2.71
Avg PVC Amount		2.1
Total Cost	$	5.69

	%	% per pvc	**Cost per each add'l PVC**
PVC 1-5 (5)	98.0%	46.67%	$ 2.66
PVC 6-14 (9)	1.0%	0.11%	$ 0.0063
PVC 15-24 (10)	0.5%	0.05%	$ 0.0028
PVC 25-80 (56)	0.5%	0.01%	$ 0.0005
	100%		

7. Development of 336/384 kbps. PVC Costs

336/384 Kbps PVCs

		COST
Cost per PVC	$	2.71
Avg PVC Amount		2.1
Total Cost	$	5.69

	%	% per pvc	**Cost per each add'l PVC**
PVC 1-5 (5)	98.0%	46.67%	$ 2.66
PVC 6-14 (9)	1.0%	0.11%	$ 0.0063
PVC 15-24 (10)	0.5%	0.05%	$ 0.0028
PVC 25-120 (96)	0.5%	0.01%	$ 0.0003
	100%		

PVC

8. Development of 448/512 kbps. PVC Costs

448/512 Kbps PVCs

			COST
Cost per PVC		$	2.71
Avg PVC Amount			2.1
Total Cost		$	5.69

	%	% per pvc	**Cost per each add'l PVC**
PVC 1-5 (5)	98.0%	46.67%	$ 2.66
PVC 6-14 (9)	1.0%	0.11%	$ 0.0063
PVC 15-24 (10)	0.5%	0.05%	$ 0.0028
PVC 25-125 (101)	0.5%	0.00%	$ 0.0003
	100%		

9. Development of 672/768 kbps. PVC Costs

672/768 Kbps PVCs

			COST
Cost per PVC		$	2.71
Avg PVC Amount			2.1
Total Cost		$	5.69

	%	% per pvc	**Cost per each add'l PVC**
PVC 1 -14 (15)	98.0%	46.67%	$ 2.66
PVC 15-24 (10)	1.0%	0.10%	$ 0.0057
PVC 25-125 (101)	1.0%	0.01%	$ 0.0006
	100%		

PVC

10. Development of 1.544 Mbps. PVC Costs

1.544 Mbps PVCs

		COST	
Cost per PVC		$	2.71
Avg PVC Amount			3.8
Total Cost		$	10.30

	%	% per pvc	**Cost per each add'l PVC**	
PVC 1 -14 (15)	98%	25.79%	$	2.66
PVC 15-24 (10)	1%	0.10%	$	0.01
PVC 25-125 (101)	1%	0.01%	$	0.00
	100%			

11. Development of 44.736 Mbps. PVC Costs

44.736 Mbps PVCs

		COST	
Cost per PVC		$	2.71
Avg PVC Amount			83.1
Total Cost		$	225.17

	%	% per pvc	**Cost per each add'l PVC**	
PVC 1 -140 (140)	98.0%	1.18%	$	2.66
PVC 141-240 (100)	1.0%	0.01%	$	0.0225
PVC 241-500 (260)	1.0%	0.00%	$	0.0087
	100%			

Frame Relay

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2003

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SUMMARY OF COSTS

Rate Element 1

56 kbps. Access Link
USOC:

	4-Wire Network Access Channel	Channel Performance	TOTAL 56 kbps. Access Link
	A	B	C
	from: WINPC3 Outputs	*from: WINPC3 Output Tab*	*Price Floor*

Description
56 kbps. Access Link

$ 45.42	$ 15.21	**$ 60.63**

Rate Element 2

1.544 Mbps. Access Link
USOC :

	DS1 Channel Termination	TOTAL 1.544 Mbps. Access Link
	A	B
	from: WINPC3 Outputs	*Price Floor*

Description
1.544 Mbps. Access Link

$ 78.65	**$ 78.65**

Rate Element 3

56 kbps. Stand Alone Access Link
USOC:

	4-Wire Network Access Channel	Channel Performance	TOTAL 56 kbps. Access Link
	A	B	C
	from: WINPC3 Outputs	*from: WINPC3 Output Tab*	*Price Floor*

Description
56 kbps. Stand Alone Access Link

$ 45.42	$ 15.21	**$ 60.63**

Rate Element 4

1.544 Mbps. Stand Alone Access Link
USOC :

	DS1 Channel Termination	TOTAL 1.544 Mbps. Access Link
	A	B
	from: WINPC3 Outputs	Price Floor

Description
1.544 Mbps. Stand Alone Access Link $ 78.65 $ **78.65**

Rate Element 5

56 kbps. UNIT with 1 PVC
USOC :

	56 kbps. Port	56 kbps PVC	Multiplexing Equipment	DS0 Backhaul	DS0 Internodal	Total 56 kbps. UNIT with 1 PVC
	A	B	C	D	E	F
	from: WINPC3 Output Tab	from: PVC Tab, #4	from: DS0 Multiplexing Equip. Tab, #12	from: Backhaul Tab, #4	from: Internodal Tab, #9	Price Floor

Description
56 kbps. UNIT with 1 PVC $ 1.43 $ 2.66 $ 4.08 $ 5.29 $ 1.09 $ **14.54**

Rate Element 6

Additional 56 kbps. UNIT PVC's (2-5)
USOC :

	56 kbps PVC	Total Addt. 56 kbps. UNIT PVC's (2-5)
	A	B
	from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. UNIT PVC's (2-5) $ 2.66 $ **2.66**

Rate Element 7

Additional 56 kbps. UNIT PVC's (6-14)
USOC :

	56 kbps PVC	Total Addt. 56 kbps. UNIT PVC's (6-14)
	A	B
	from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. UNIT PVC's (6-14) $ 0.0039 $ **0.0039**

Rate Element 8

Additional 56 kbps. UNIT PVC's (15-24)
USOC :

	56 kbps PVC	Total Addt. 56 kbps. UNIT PVC's (15-24)
	A	B
	from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. UNIT PVC's (15-24) $ 0.0018 $ **0.0018**

Rate Element 9

Additional 56 kbps. UNIT PVC's (25-30)
USOC :

	56 kbps PVC	Total Addt. 56 kbps. UNIT PVC's (25-30)
	A	B
	from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. UNIT PVC's (25-30) $ 0.0029 $ **0.0029**

Rate Element 10

112 kbps. UNIT
USOC :

112 kbps. Port	112 kbps. PVC	Fractional Multiplexing	DS1 Backhaul	DS1 Internodal	Total 112 kbps. UNIT
A	B	C	D	E	E
from: Ports Tab, #4	*from: PVC Tab, #5*	*from: Fractional Multiplexing Tab, #7*	*from: Backhaul Tab, #5*	*from: Internodal Tab, #9*	*Price Floor*

Description
112 kbps. UNIT

$ 2.86	$ 2.66	$ 21.62	$ 15.31	$ 26.12	$ **68.57**

Rate Element 11

Additional 112 kbps. UNIT PVC's (2-5)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. UNIT PVC's (2-5)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. UNIT PVC's (2-5)

$ 2.66	$ **2.66**

Rate Element 12

Additional 112 kbps. UNIT PVC's (6-14)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. UNIT PVC's (6-14)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. UNIT PVC's (6-14)

$ 0.01	$ **0.01**

Rate Element 13

Additional 112 kbps. UNIT PVC's (15-24)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. UNIT PVC's (15-24)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. UNIT PVC's (15-24)

$ 0.0028	$ **0.0028**

Rate Element 14

Additional 112 kbps. UNIT PVC's (25-40)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. UNIT PVC's (25-40)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. UNIT PVC's (25-40)

$ 0.0018	$ **0.0018**

Rate Element 15

224 or 256 kbps. UNIT
USOC :

224 or 256 kbps. Port	224 or 256 kbps. PVC	Fractional Multiplexing	DS1 Backhaul	DS1 Internodal	Total 224 or 256 kbps. UNIT
A	B	C	D	E	E
from: Ports Tab, #4	*from: PVC Tab, #6*	*from: Fractional Multiplexing Tab, #7*	*from: Backhaul Tab, #5*	*from: Internodal Tab, #9*	*Price Floor*

Description
224 or 256 kbps. UNIT

$ 5.71	$ 2.66	$ 23.83	$ 15.31	$ 26.12	$ 73.63

Rate Element 16

Additional 224 or 256 kbps.UNIT PVC's (2-5)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps UNIT PVCs (2-5)
A	B
from: PVC Tab, #6	*Price Floor*

Description
Additional 224 or 256 kbps.UNIT PVC's (2-5)

$ 2.66	$ 2.66

Rate Element 17

Additional 224 or 256 kbps.UNIT PVC's (6-14)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps UNIT PVCs (6-14)
A	B
from: PVC Tab, #6	*Price Floor*

Description
Additional 224 or 256 kbps.UNIT PVC's (6-14)

$ 0.01	$ 0.01

Rate Element 18

Additional 224 or 256 kbps.UNIT PVC's (15-24)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps UNIT PVCs (15-24)
A	B
from: PVC Tab, #6	*Price Floor*

Description
Additional 224 or 256 kbps.UNIT PVC's (15-24)

$ 0.0028	$ 0.0028

Rate Element 19

Additional 224 or 256 kbps.UNIT PVC's (25-80)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps UNIT PVCs (25-80)
A	B
from: PVC Tab, #6	*Price Floor*

Description
Additional 224 or 256 kbps.UNIT PVC's (25-80)

$ 0.0005	$ 0.0005

Rate Element 20

336 or 384 kbps.UNIT
USOC :

	336 or 384 kbps. Port	336 or 384 kbps. PVC	Fractional Multiplexing	DS1 Backhaul	DS1 Internodal	Total 336 or 384 kbps. UNIT
	A	B	C	D	E	E
	from: Ports Tab, #4	from: PVC Tab, #7	from: Fractional Multiplexing Tab, #7	from: Backhaul Tab, #5	from: Internodal Tab, #9	Price Floor
Description						
336 or 384 kbps.UNIT	$ 8.57	$ 2.66	$ 26.05	$ 15.31	$ 26.12	$ 78.70

Rate Element 21

Additional 336 or 384 kbps.UNIT PVC's (2-5)
USOC :

	336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. UNIT PVCs (2-5)
	A	B
	from: PVC Tab, #7	Price Floor
Description		
Additional 336 or 384 kbps.UNIT PVC's (2-5)	$ 2.66	$ 2.66

Rate Element 22

Additional 336 or 384 kbps.UNIT PVC's (6-14)
USOC :

	336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. UNIT PVCs (6-14)
	A	B
	from: PVC Tab, #7	Price Floor
Description		
Additional 336 or 384 kbps.UNIT PVC's (6-14)	$ 0.01	$ 0.01

Rate Element 23

Additional 336 or 384 kbps.UNIT PVC's (15-24)
USOC :

	336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. UNIT PVCs (15-24)
	A	B
	from: PVC Tab, #7	Price Floor
Description		
Additional 336 or 384 kbps.UNIT PVC's (15-24)	$ 0.0028	$ 0.0028

Rate Element 24

Additional 336 or 384 kbps.UNIT PVC's (25-120)
USOC :

	336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. UNIT PVCs (25-120)
	A	B
	from: PVC Tab, #7	Price Floor
Description		
Additional 336 or 384 kbps.UNIT PVC's (25-120)	$ 0.0003	$ 0.0003

Rate Element 25

448 or 512 kbps. UNIT
USOC :

448 or 512 kbps. Port	448 or 512 kbps. PVC	Fractional Multiplexing	DS1 Backhaul	DS1 Internodal	Total 448 or 512 kbps. UNIT
A	B	C	D	E	E
from: Ports Tab, #4	*from: PVC Tab, #8*	*from: Fractional Multiplexing Tab, #7*	*from: Backhaul Tab, #5*	*from: Internodal Tab, #9*	*Price Floor*

Description
448 or 512 kbps. UNIT

| $ 11.42 | $ 2.66 | $ 28.26 | $ 15.31 | $ 26.12 | $ 83.77 |

Rate Element 26

 Additional 448 or 512 kbps.UNIT PVC's (2-5)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. UNIT PVCs (2-5)
A	B
from: PVC Tab, #8	*Price Floor*

Description
Additional 448 or 512 kbps.UNIT PVC's (2-5)

| $ 2.66 | $ 2.66 |

Rate Element 27

Additional 448 or 512 kbps.UNIT PVC's (6-14)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. UNIT PVCs (6-14)
A	B
from: PVC Tab, #8	*Price Floor*

Description
Additional 448 or 512 kbps.UNIT PVC's (6-14)

| $ 0.01 | $ 0.01 |

Rate Element 28

Additional 448 or 512 kbps.UNIT PVC's (15-24)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. UNIT PVCs (15-24)
A	B
from: PVC Tab, #8	*Price Floor*

Description
Additional 448 or 512 kbps.UNIT PVC's (15-24)

| $ 0.0028 | $ 0.0028 |

Rate Element 29

Additional 448 or 512 kbps.UNIT PVC's (25-125)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. UNIT PVCs (25-125)
A	B
from: PVC Tab, #8	*Price Floor*

Description
Additional 448 or 512 kbps.UNIT PVC's (25-125)

| $ 0.0003 | $ 0.0003 |

Rate Element 30

672 or 768 kbps. UNIT
USOC :

672 or 768 kbps. Port	672 or 768 kbps PVC	Fractional Multiplexing	DS1 Backhaul	DS1 Internodal	Total 672 or 768 kbps. UNIT
A	B	C	D	E	F
from: Ports Tab, #4	from: PVC Tab, #9	from: Fractional Multiplexing Tab, #7	from: Backhaul Tab, #5	from: Internodal Tab, #9	Price Floor

Description
672 or 768 kbps. UNIT

$ 17.13	$ 2.66	$ 32.68	$ 15.31	$ 26.12	$ 93.90

Rate Element 31

Additional 672 or 768 kbps. UNIT PVC's (2-14)
USOC :

672 or 768 kbps PVC	Total Addt. 672 or 768 kbps UNIT PVCs (2-14)
A	B
from: PVC Tab, #9	Price Floor

Description
Additional 672 or 768 kbps. UNIT PVC's (2-14)

$ 2.66	$ 2.66

Rate Element 32

Additional 672 or 768 kbps. UNIT PVC's (15-24)
USOC :

672 or 768 kbps PVC	Total Addt. 672 or 768 kbps UNIT PVCs (15-24)
A	B
from: PVC Tab, #9	Price Floor

Description
Additional 672 or 768 kbps. UNIT PVC's (15-24)

$ 0.0057	$ 0.0057

Rate Element 33

Additional 672 or 768 kbps. UNIT PVC's (25-125)
USOC :

672 or 768 kbps PVC	Total Addt. 672 or 768 kbps UNIT PVCs (25-125)
A	B
from: PVC Tab, #9	Price Floor

Description
Additional 672 or 768 kbps. UNIT PVC's (25-125)

$ 0.0006	$ 0.0006

Rate Element 34

1.544 Mbps UNIT
USOC :

1.544 Mbps Port	1.544 Mbps. PVC	DS1 Multiplexing Equipment	DS1 Backhaul	DS1 Internodal	Total 1.544 Mbps UNIT
A	B	C	D	E	F
from: WINPC3 Output Tab	from: PVC Tab, #10	from: DS1 Multiplexing Tab, DS1 Multiplexing Investments #2	from: Backhaul Tab, #5	from: Internodal Tab, #9	Price Floor

Description
1.544 Mbps UNIT

$ 24.32	$ 2.66	$ 4.42	$ 15.31	$ 26.12	$ 72.82

Rate Element 35

Additional 1.544 Mbps. UNIT PVC's (2-14)
USOC :

1.544 Mbps. PVC	Total Addt. 1.544 Mbps. UNIT PVC's (2-14)
A	B
from: PVC Tab, #10	*Price Floor*

Description
Additional 1.544 Mbps. UNIT PVC's (2-14)

$ 2.66 $ 2.66

Rate Element 36

Additional 1.544 Mbps. UNIT PVC's (15-24)
USOC :

1.544 Mbps. PVC	Total Addt. 1.544 Mbps. UNIT PVC's (15-24)
A	B
from: PVC Tab, #10	*Price Floor*

Description
Additional 1.544 Mbps. UNIT PVC's (15-24)

$ 0.0103 $ 0.0103

Rate Element 37

Additional 1.544 kbps. UNIT PVC's (25-125)
USOC :

1.544 Mbps. PVC	Total Addt. 1.544 Mbps. UNIT PVC's (25-125)
A	B
from: PVC Tab, #10	*Price Floor*

Description
Additional 1.544 kbps. UNIT PVC's (25-125)

$ 0.00102 $ 0.00102

Rate Element 38

44.736 Mbps UNIT
USOC :

44.736 Mbps. Port	44.736 Mbps. PVC	DS3 Internodal	Total 44.736 Mbps. UNIT
A	B	D	E
from: WINPC3 Output Tab	*from: PVC Tab, #11*	*from: Internodal Tab, #8*	*Price Floor*

Description
44.736 Mbps UNIT

$ 224.16 $ 2.66 $ 1,354.53 $ 1,581.35

Rate Element 39

Additional 44.736 Mbps. UNIT PVC's (2-140)
USOC :

44.736 Mbps. PVC	Total Addt. 44.736 Mbps. UNIT PVCs (2-50)
A	B
from: PVC Tab, #11	*Price Floor*

Description
Additional 44.736 Mbps. UNIT PVC's (2-140)

$ 2.66 $ 2.66

Rate Element 40

Additional 44.736 Mbps. UNIT PVC's (141-240)
USOC :

44.736 Mbps. PVC	Total Addt. 44.736 Mbps. UNIT PVCs (141-240)
A	B
from: PVC Tab, #11	*Price Floor*

Description
Additional 44.736 Mbps. UNIT PVC's (141-240)

$ 0.02 $ 0.02

Rate Element 41

Additional 44.736 Mbps. UNIT PVC's (241-500)
USOC :

44.736 Mbps. PVC	Total Addt. 44.736 Mbps. UNIT PVCs (241-500)
A	B
from: PVC Tab, #11	*Price Floor*

Description
Additional 44.736 Mbps. UNIT PVC's (241-500)

$ 0.01 $ 0.01

Rate Element 42

56 kbps. NNIT with 1 PVC
USOC :

56 kbps. Port	56 kbps PVC	Multiplexing Equipment	DS0 Internodal	Total 56 kbps. NNIT with 1 PVC
A	B	C	D	E
from: WINPC3 Output Tab	from: PVC Tab, #4	from: DS0 Multiplexing Equip. Tab, #12	from: Internodal Tab, #9	Price Floor

Description
56 kbps. NNIT with 1 PVC

$ 1.43 $ 2.66 $ 4.08 $ 1.09 **$ 9.25**

Rate Element 43

Additional 56 kbps. NNIT PVC's (2-5)
USOC :

56 kbps PVC	Total Addt. 56 kbps. NNIT PVC's (2-5)
A	B
from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. NNIT PVC's (2-5)

$ 2.66 **$ 2.66**

Rate Element 44

Additional 56 kbps. NNIT PVC's (6-14)
USOC :

56 kbps PVC	Total Addt. 56 kbps. NNIT PVC's (6-14)
A	B
from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. NNIT PVC's (6-14)

$ 0.00 **$ 0.00**

Rate Element 45

Additional 56 kbps. NNIT PVC's (15-24)
USOC :

56 kbps PVC	Total Addt. 56 kbps. NNIT PVC's (15-24)
A	B
from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. NNIT PVC's (15-24)

$ 0.0018 **$ 0.0018**

Rate Element 46

Additional 56 kbps. NNIT PVC's (25-30)
USOC :

56 kbps PVC	Total Addt. 56 kbps. NNIT PVC's (25-30)
A	B
from: PVC Tab, #4	Price Floor

Description
Additional 56 kbps. NNIT PVC's (25-30)

$ 0.0029 **$ 0.0029**

Rate Element 47

112 kbps. NNIT
USOC :

112 kbps. Port	112 kbps. PVC	Fractional Multiplexing	DS1 Internodal	Total 112 kbps. NNIT
A	B	C	D	E
from: Ports Tab, #4	*from: PVC Tab, #5*	*from: Fractional Multiplexing Tab, #7*	*from: Internodal Tab, #9*	*to: WINPC3 Investments Tab*

Description
112 kbps. NNIT $ 2.86 $ 2.66 $ 21.62 $ 26.12 $ **53.26**

Rate Element 48

Additional 112 kbps. NNIT PVC's (2-5)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. NNIT PVC's (2-5)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. NNIT PVC's (2-5) $ 2.66 $ **2.66**

Rate Element 49

Additional 112 kbps. NNIT PVC's (6-14)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. NNIT PVC's (6-14)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. NNIT PVC's (6-14) $ 0.01 $ **0.01**

Rate Element 50

Additional 112 kbps. NNIT PVC's (15-24)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. NNIT PVC's (15-24)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. NNIT PVC's (15-24) $ 0.0028 $ **0.0028**

Rate Element 51

Additional 112 kbps. NNIT PVC's (25-40)
USOC :

112 kbps. PVC	Total Addt. 112 kbps. NNIT PVC's (25-40)
A	B
from: PVC Tab, #5	*Price Floor*

Description
Additional 112 kbps. NNIT PVC's (25-40) $ 0.0018 $ **0.0018**

Rate Element 52

224 or 256 kbps NNIT
USOC :

224 or 256 kbps. Port	224 or 256 kbps. PVC	Fractional Multiplexing	DS1 Internodal	Total 224 or 256 kbps. NNIT
A	B	C	C	D
from: Ports Tab, #4	from: PVC Tab, #6	from: Fractional Multiplexing Tab, #7	from: Internodal Tab, #9	Price Floor

Description
224 or 256 kbps NNIT

$ 5.71	$ 2.66	$ 23.83	$ 26.12	$ 58.32

Rate Element 53

Additional 224 or 256 kbps. NNIT PVC's (2-5)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps NNIT PVCs (2-5)
A	B
from: PVC Tab, #6	Price Floor

Description
Additional 224 or 256 kbps. NNIT PVC's (2-5)

$ 2.66	$ 2.66

Rate Element 54

Additional 224 or 256 kbps. NNIT PVC's (6-14)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps NNIT PVCs (6-14)
A	B
from: PVC Tab, #6	Price Floor

Description
Additional 224 or 256 kbps. NNIT PVC's (6-14)

$ 0.01	$ 0.01

Rate Element 55

Additional 224 or 256 kbps. NNIT PVC's (15-25)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps NNIT PVCs (15-24)
A	B
from: PVC Tab, #6	Price Floor

Description
Additional 224 or 256 kbps. NNIT PVC's (15-25)

$ 0.0028	$ 0.0028

Rate Element 56

Additional 224 or 256 kbps. NNIT PVC's (25-80)
USOC :

224 or 256 kbps. PVC	Total Addt. 224 or 256 kbps NNIT PVCs (25-80)
A	B
from: PVC Tab, #6	Price Floor

Description
Additional 224 or 256 kbps. NNIT PVC's (25-80)

$ 0.0005	$ 0.0005

Rate Element 57

336 or 384 kbps NNIT
USOC :

336 or 384 kbps. Port	336 or 384 kbps. PVC	Fractional Multiplexing	DS1 Internodal	Total 336 or 384 NNIT
A	B	C	C	D
from: Ports Tab, #4	from: PVC Tab, #7	from: Fractional Multiplexing Tab, #7	from: Internodal Tab, #9	Price Floor

Description
336 or 384 kbps NNIT

$ 8.57	$ 2.66	$ 26.05	$ 26.12	$ 63.39

Rate Element 58

Additional 336 or 384 kbps. NNIT PVC's (2-5)
USOC :

336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. NNIT PVCs (2-5)
A	B
from: PVC Tab, #7	Price Floor

Description
Additional 336 or 384 kbps. NNIT PVC's (2-5)

$ 2.66	$ 2.66

Rate Element 59

Additional 336 or 384 kbps. NNIT PVC's (6-14)
USOC :

336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. NNIT PVCs (6-14)
A	B
from: PVC Tab, #7	Price Floor

Description
Additional 336 or 384 kbps. NNIT PVC's (6-14)

$ 0.01	$ 0.01

Rate Element 60

Additional 336 or 384 kbps. NNIT PVC's (15-24)
USOC :

336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. NNIT PVCs (15-24)
A	B
from: PVC Tab, #7	Price Floor

Description
Additional 336 or 384 kbps. NNIT PVC's (15-24)

$ 0.0028	$ 0.0028

Rate Element 61

Additional 336 or 384 kbps. NNIT PVC's (25-120)
USOC :

336 or 384 kbps. PVC	Total Addt. 336 or 384 kbps. NNIT PVCs (25-120)
A	B
from: PVC Tab, #7	Price Floor

Description
Additional 336 or 384 kbps. NNIT PVC's (25-120)

$ 0.0003	$ 0.0003

Rate Element 62

448 or 512 kbps NNIT
USOC :

448 or 512 kbps. Port	448 or 512 kbps. PVC	Fractional Multiplexing	DS1 Internodal	Total 448 or 512 kbps. NNIT
A	B	C	C	D
from: Ports Tab, #4	from: PVC Tab, #8	from: Fractional Multiplexing Tab, #7	from: Internodal Tab, #9	Price Floor

Description
448 or 512 kbps NNIT

$ 11.42	$ 2.66	$ 28.26	$ 26.12	$ 68.46

Rate Element 63

Additional 448 or 512 kbps. NNIT PVC's (2-5)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. NNIT PVCs (2-5)
A	B
from: PVC Tab, #8	Price Floor

Description
Additional 448 or 512 kbps. NNIT PVC's (2-5)

$ 2.66	$ 2.66

Rate Element 64

Additional 448 or 512 kbps. NNIT PVC's (6-14)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. NNIT PVCs (6-14)
A	B
from: PVC Tab, #8	Price Floor

Description
Additional 448 or 512 kbps. NNIT PVC's (6-14)

$ 0.01	$ 0.01

Rate Element 65

Additional 448 or 512 kbps. NNIT PVC's (15-24)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. NNIT PVCs (15-24)
A	B
from: PVC Tab, #8	Price Floor

Description
Additional 448 or 512 kbps. NNIT PVC's (15-24)

$ 0.0028	$ 0.0028

Rate Element 66

Additional 448 or 512 kbps. NNIT PVC's (25-125)
USOC :

448 or 512 kbps. PVC	Total Addt. 448 or 512 kbps. NNIT PVCs (25-125)
A	B
from: PVC Tab, #8	Price Floor

Description
Additional 448 or 512 kbps. NNIT PVC's (25-125)

$ 0.0003	$ 0.0003

Summary

Rate Element 67

672 or 768 kbps NNIT
USOC :

672 or 768 kbps. Port	672 or 768 kbps PVC	Fractional Multiplexing	DS1 Internodal	Total 672 or 768 kbps. NNIT
A	B	C	C	D
from: Ports Tab, #4	from: PVC Tab, #9	from: Fractional Multiplexing Tab, #7	from: Internodal Tab, #9	Price Floor

Description
672 or 768 kbps NNIT

$ 11.42	$ 2.66	$ 32.68	$ 26.12	$ 72.88

Rate Element 68

Additional 672 or 768 kbps. NNIT PVC's (2-14)
USOC :

672 or 768 kbps PVC	Total Addt. 672 or 768 kbps NNIT PVCs (2-14)
A	B
from: PVC Tab, #9	Price Floor

Description
Additional 672 or 768 kbps. NNIT PVC's (2-14)

$ 2.66	$ 2.66

Rate Element 69

Additional 672 or 768 kbps. NNIT PVC's (15-24)
USOC :

672 or 768 kbps PVC	Total Addt. 672 or 768 kbps NNIT PVCs (15-24)
A	B
from: PVC Tab, #9	Price Floor

Description
Additional 672 or 768 kbps. NNIT PVC's (15-24)

$ 0.0057	$ 0.0057

Rate Element 70

Additional 672 or 768 kbps. NNIT PVC's (25-125)
USOC :

672 or 768 kbps PVC	Total Addt. 672 or 768 kbps NNIT PVCs (25-125)
A	B
from: PVC Tab, #9	Price Floor

Description
Additional 672 or 768 kbps. NNIT PVC's (25-125)

$ 0.0006	$ 0.0006

Rate Element 71

1.544 Mbps NNIT
USOC :

1.544 Mbps Port	1.544 Mbps. PVC	DS1 Multiplexing Equipment	DS1 Internodal	Total 1.544 Mbps NNIT
A	B	C	D	E
from: WINPC3 Output Tab	*from: PVC Tab, #10*	*from: DS1 Multiplexing Tab, DS1 Multiplexing Investments #2*	*from: Internodal Tab, #9*	*Price Floor*

Description
1.544 Mbps NNIT

$ 24.32	$ 2.66	$ 4.42	$ 26.12	$ 57.51

Rate Element 72

Additional 1.544 Mbps. NNIT PVC's (2-14)
USOC :

1.544 Mbps. PVC	Total Addt. 1.544 Mbps. NNIT PVC's (2-14)
A	B
from: PVC Tab, #10	*Price Floor*

Description
Additional 1.544 Mbps. NNIT PVC's (2-14)

$ 2.66	$ 2.66

Rate Element 73

Additional 1.544 Mbps. NNIT PVC's (15-24)
USOC :

1.544 Mbps. PVC	Total Addt. 1.544 Mbps. NNIT PVC's (15-24)
A	B
from: PVC Tab, #10	*Price Floor*

Description
Additional 1.544 Mbps. NNIT PVC's (15-24)

$ 0.01	$ 0.01

Rate Element 74

Additional 1.544 Mbps. NNIT PVC's (25-125)
USOC :

1.544 Mbps. PVC	Total Addt. 1.544 Mbps. NNIT PVC's (25-125)
A	B
from: PVC Tab, #10	*Price Floor*

Description
Additional 1.544 Mbps. NNIT PVC's (25-125)

$ 0.0010	$ 0.0010

Rate Element 75

44.736 Mbps NNIT
USOC :

44.736 Mbps. Port	44.736 Mbps. PVC	DS3 Internodal	Total 44.736 Mbps. NNIT
A	B	C	D
from: WINPC3 Output Tab	from: PVC Tab, #11	from: Internodal Tab, #8	Price Floor

Description
44.736 Mbps NNIT

$ 224.16	$ 2.66	$ 1,354.53	$ 1,581.35

Rate Element 76

Additional 44.736 Mbps. NNIT PVC's (2-140)
USOC :

44.736 Mbps. PVC	Total Addt. 44.736 Mbps. NNIT PVCs (2-50)
A	B
from: PVC Tab, #11	Price Floor

Description
Additional 44.736 Mbps. NNIT PVC's (2-140)

$ 2.66	$ 2.66

Rate Element 77

Additional 44.736 Mbps. NNIT PVC's (141-240)
USOC :

44.736 Mbps. PVC	Total Addt. 44.736 Mbps. NNIT PVCs (141-240)
A	B
from: PVC Tab, #11	Price Floor

Description
Additional 44.736 Mbps. NNIT PVC's (141-240)

$ 0.02	$ 0.02

Rate Element 78

Additional 44.736 Mbps. NNIT PVC's (241-500)
USOC :

44.736 Mbps. PVC	Total Addt. 44.736 Mbps. NNIT PVCs (241-500)
A	B
from: PVC Tab, #11	Price Floor

Description
Additional 44.736 Mbps. NNIT PVC's (241-500)

$ 0.01	$ 0.01

Rate Element 79

56 kbps Central Office Connecting Channel
USOC :

56 kbps. COCC	Total 56 kbps. COCC
A	B
from: WINPC3 Output Tab	Price Floor

Description		
56 kbps Central Office Connecting Channel	$ 0.30	$ 0.30

Rate Element 80

1.544 kbps Central Office Connecting Channel
USOC :

1.544 Mbps. COCC	Total 1.544 Mbps. COCC
A	B
from: WINPC3 Output Tab	Price Floor

Description		
1.544 kbps Central Office Connecting Channel	$ 0.30	$ 0.30

Rate Element 81

44.736 Mbps Central Office Connecting Channel
USOC :

44.736 Mbps. COCC	Total 44.736 Mbps. COCC
A	B
from: WINPC3 Output Tab	Price Floor

Description		
44.736 Mbps Central Office Connecting Channel	$ 4.34	$ 4.34

	A	B	C	D	E	F	G	H
1	Investment							
2	STUDY	Frame Relay						
3	DATE	April 22, 2003						
4	PRODUCT	BUSINESS						
5	GROUP	Channel Performance - Digital Data Service						
6	LOADED	QW	139.88	0.	0.	57C	Analog Circuit Equipment	
7	LOADED	QW	294.01	0.	0.	257C	Digital Pair Gain Equipment	
8	LOADED	QW	188.98	0.	0.	357C	Digital Circuit Equipment	
9	GROUP	Digital Circuit Equipment - DS0 COCC						
10	LOADED	QW	13.6386	0.	0.	257C	Digital Circuit Equipment - DS0 COCC	
11	GROUP	Digital Circuit Equipment - DS1 COCC						
12	LOADED	QW	13.6386	0.	0.	257C	Digital Circuit Equipment - DS1 COCC	
13	GROUP	Digital Circuit Equipment - DS3 COCC						
14	LOADED	QW	196.2948133333	0.	0.	257C	Digital Circuit Equipment - DS3 COCC	
15	GROUP	56 kbps Frame Relay Port						
16	LOADED	QW	63.6154885971	0.	0.	377C	56 kbps Frame Relay Port	
17	GROUP	1.544 kbps Frame Relay Port						
18	LOADED	QW	1,083.3783189171	0.	0.	377C	1.544 kbps Frame Relay Port	
19	GROUP	44.736 Mbps Frame Relay Port						
20	LOADED	QW	9,986.9398341678	0.	0.	377C	44.736 Mbps Frame Relay Port	
21	GROUP	Frame Relay Permanent Virtual Circuit						
22	LOADED	QW	120.7199337896	0.	0.	377C	Digital Switching Equipment	
23	GROUP	DCS 1/0 DS1 Port						
24	LOADED	QW	813.1391303203	0.	0.	357C	DCS 1/0 DS1 Port	
25	GROUP	DCS 1/0 DS0 Port						
26	LOADED	QW	33.877193578	0.	0.	357C	DCS 1/0 DS0 Port	
27	GROUP	DSX - 1 Cross Connect Pannel						
28	LOADED	QW	14.03	0.	0.	357C	DSX - 1	
29	GROUP	DSX - 3 Cross Connect Pannel						
30	LOADED	QW	216.45	0.	0.	357C	DSX - 3	
31	GROUP	M 1/3 Per DS1						
32	LOADED	QW	81.58	0.	0.	357C	M 1/3 Per DS1	
33	GROUP	M 1/3 Per DS3						
34	LOADED	QW	2,284.3	0.	0.	357C	M 1/3 Per DS3	
35	GROUP	3/1 DCS Per DS1						
36	LOADED	QW	242.79	0.	0.	357C	3/1 DCS Per DS1	
37	GROUP	3/1 DCS Per DS3						
38	LOADED	QW	2,998.53	0.	0.	357C	3/1 DCS Per DS3	

	A	B	C	D	E	F	G	H
39	GROUP	Network Access Channel						
40	LOADED	QW	29.5810820706	0.	0.	1C	POLES	
41	LOADED	QW	49.7233100186	0.	0.	52C	AR CABLE (Aerial Cable Metallic)	
42	LOADED	QW	1.3603444319	0.	0.	3C	C WIRE (Aerial Cable)	
43	LOADED	QW	151.3136026395	0.	0.	4C	AZNDUIT (Conduit System	
44	LOADED	QW	106.6260068555	0.	0.	5C	UG CABLE (Undergound Cable Metallic	
45	LOADED	QW	1,012.3558406363	0.	0.	45C	BUR CABLE (Buried Cable Metallic)	
46	LOADED	QW	28.3871035884	0.	0.	62C	BLD CABLE (Intrabuilding Cable Exchange Metallic)	
47	LOADED	QW	11.6766381934	0.	0.	85C	UG F O (Undergound Cable Nonmetallic)	
48	LOADED	QW	255.6058368895	0.	0.	257C	PAIR GAIN (Circuit Equipment - Pair Gain Digital)	
49	LOADED	QW	244.3542776982	0.	0.	845C	BUR F O (Buried Cable Nonmetallic)	
50	LOADED	QW	145.0548500149	0.	0.	35C	BURIED DROP	
51	LOADED	QW	23.9519311257	0.	0.	42C	AERIAL DROP	
52	LOADED	QW	60.2288475037	0.	0.	377C	MDF/ OSP (Digital Electronic Switching)	
53	GROUP	DS0 Over 8 to 25 Fixed						
54	LOADED	QW	53.5180826355	0.	0.	357CS	SONET - (WC)	
55	LOADED	QW	872.9782786014	0.	0.	357C	NON - SONET (WC)	
56	GROUP	DS0 Over 8 to 25 Per Air Mile						
57	LOADED	QW	3.6424928758	0.	0.	357CS	SONET - (WC)	
58	LOADED	QW	0.6881946158	0.	0.	357C	NON - SONET (WC)	
59	LOADED	QW	1.4437723118	0.	0.	4C	CONDUIT SYSTEMS	
60	LOADED	QW	0.9444547557	0.	0.	85C	UNDERGROUND CABLE NONMETALLIC	
61	LOADED	QW	0.8496089164	0.	0.	845C	BURIED CABLE NONMETALLIC	
62	GROUP	D4 Channel Bank						
63	LOADED	QW	10,498.8194635032	0.	0.	257C	CIRCUIT-DIGITAL	
64	GROUP	DS1 Channel Termination						
65	LOADED	QW	268.8688424439	0.	0.	357C	CIRCUIT-OTHER DIGITAL	
66	LOADED	QW	871.7267736263	0.	0.	257C	CIRCUIT-DIGITAL	
67	LOADED	QW	587.1195617131	0.	0.	257CP	CIRCUIT-DIGITAL -PREMISES	
68	LOADED	QW	395.5143307369	0.	0.	257CS	CIRCUIT-DIGITAL SONET	
69	LOADED	QW	642.348697443	0.	0.	257CSP	CIRCUIT-DIGITAL SONET-PREMISES	
70	LOADED	QW	6.0926639022	0.	0.	1C	POLES	
71	LOADED	QW	0.2981319717	0.	0.	3C	C WIRE	
72	LOADED	QW	244.5085403559	0.	0.	4C	CONDUIT SYSTEMS	
73	LOADED	QW	118.1914075287	0.	0.	5C	UNDERGROUND CABLE METALLIC	
74	LOADED	QW	23.9586367776	0.	0.	35C	BURIED DROP	
75	LOADED	QW	4.0931316504	0.	0.	42C	AERIAL DROP	
76	LOADED	QW	277.465599887	0.	0.	45C	BURIED CABLE METALLIC	
77	LOADED	QW	10.5317067399	0.	0.	52C	AERIAL CABLE METALLIC	
78	LOADED	QW	60.2369172865	0.	0.	62C	INTRABUILDING CABLE METALLIC	
79	LOADED	QW	89.7680331572	0.	0.	85C	UNDERGROUND CABLE NONMETALLIC	
80	LOADED	QW	235.5181274872	0.	0.	845C	BURIED CABLE NONMETALLIC	

	A	B	C	D	E	F	G	H
81	LOADED	QW	2.1940037993	0.	0.	862C	INTRABUILDING CABLE NONMETALLIC	

	A	B	C	D	E	F	G	H
82	GROUP	DS1 Over 8 to 25 Band - Fixed						
83	LOADED	QW	664.6819180483	0.	0.	357CS	SONET - (WC)	
84	LOADED	QW	1,003.9070013035	0.	0.	357C	NON - SONET (WC)	
85	GROUP	DS1 Over 8 to 25 Band - Variable						
86	LOADED	QW	95.2184232687	0.	0.	357CS	SONET - (WC)	
87	LOADED	QW	7.6026218894	0.	0.	357C	NON - SONET (WC)	
88	LOADED	QW	41.2372712	0.	0.	4C	CONDUIT SYSTEMS	
89	LOADED	QW	16.7556236233	0.	0.	85C	UNDERGROUND CABLE NONMETALLIC	
90	LOADED	QW	17.9114925504	0.	0.	845C	BURIED CABLE NONMETALLIC	
91	GROUP	DS3 Over 50 Band - Fixed						
92	LOADED	QW	10,469.5179421635	0.	0.	357CS	SONET - (WC)	
93	LOADED	QW	1,593.6380101819	0.	0.	357C	NON - SONET (WC)	
94	GROUP	DS3 Over 50 Band - Variable						
95	LOADED	QW	343.6413297884	0.	0.	357CS	SONET - (WC)	
96	LOADED	QW	96.192552737	0.	0.	357C	NON - SONET (WC)	
97	LOADED	QW	79.2573831924	0.	0.	4C	CONDUIT SYSTEMS	
98	LOADED	QW	32.2040436599	0.	0.	85C	UNDERGROUND CABLE NONMETALLIC	
99	LOADED	QW	563.0654017412	0.	0.	845C	BURIED CABLE NONMETALLIC	
100	GROUP	OC3 Over 50 Band - Fixed						
101	LOADED	QW	19,154.4431480643	0.	0.	357CS	SONET - (WC)	
102	LOADED	QW	733.5317001244	0.	0.	357C	NON - SONET (WC)	
103	GROUP	OC3 Over 50 Band - Variable						
104	LOADED	QW	389.5662848867	0.	0.	357CS	SONET - (WC)	
105	LOADED	QW	15.8002141205	0.	0.	357C	NON - SONET (WC)	
106	LOADED	QW	531.3460434684	0.	0.	4C	CONDUIT SYSTEMS	
107	LOADED	QW	215.8977560591	0.	0.	85C	UNDERGROUND CABLE NONMETALLIC	
108	LOADED	QW	3,654.9912041652	0.	0.	845C	BURIED CABLE NONMETALLIC	

	A	B
1	Parameter	
2	QW	
3	4	
4	4	
5	Annual	1
6	Yes	
7	No	
8		
9	2	
10	7621	

WINPC3 ACF Inputs

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ACFIN												
2	02EC01S												
3	377C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	RTU-SWIT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF
4	20C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
5	110C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
6	257C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF	NTWKOP
7	357C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF	NTWKOP
8	57C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF	NTWKOP
9	1C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
10	52C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
11	42C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
12	5C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
13	85C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
14	45C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
15	35C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
16	845C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
17	62C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
18	862C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
19	3C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
20	4C	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
21	357CS	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF	NTWKOP
22	257CS	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF	NTWKOP
23	257CP	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST
24	257CSP	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	ADVAL	PRODMAN	SALESEXP	ADVER	BF	NTWKOP	NTWKST	GENLST

WINPC3 ACF Inputs

	N	O	P	Q	R	S	T	U	V	W	X
1											
2											
3	NTWKOP	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC
4	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
5	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
6	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN		INFOR	COMMON	BC
7	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN		INFOR	COMMON	BC
8	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN		INFOR	COMMON	BC
9	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
10	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
11	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
12	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
13	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
14	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
15	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
16	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
17	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
18	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
19	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
20	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
21	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN		INFOR	COMMON	BC
22	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN		INFOR	COMMON	BC
23	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			
24	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC			

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	ACFOUT	Factors For: Business, Centrex, Private Line, PBX, ISDN, ACS											
2	*-Run Done With Database Vintage: 02EC01S, Dated: 03/22/02*												
3	*-Retail Cost Program Data Base released 02/02 (02EC01S).*												
4	*-Factors loaded from Factors Model (Expense Module), Version 02V1.*												
5	*-CAPITAL RECOVERY factors released 02/02 and based on 10.9% Cost*												
6	*Of Money. 1-10 year factors developed for all states.*												
7	*-MAINTENANCE factors released 02/02.*												
8	*-RTU factors released 02/01.*												
9	*-AD VALOREM Tax released 02/02.*												
10	*-COMMERCIAL expense factors released 02/02.*												
11	*-NETWORK SUPPORT expense factors released 02/02.*												
12	*-COMMON Expense released 02/02.*												
13	*-TOTAL INSTALLED FACTORS (TIF) released 01/01.*												
14	*-POWER investment factors released 01/01.*												
15	*-SALES TAX released 01/01.*												
16	*-TELCO Engineering factors released 01/01.*												
17	*-INTEREST DURING CONSTRUCTION released 01/01.*												
18	*-LAND AND BUILDING factors released 02/02.*												
19	*-DIRECTLY ATTRIBUTABLE expense factors released 02/02.*												
20	*-SALES EXPENSE factor released 02/02.*												
21	*-PRODUCT MANAGEMENT factor released 02/02.*												
22	*-BILLING & COLLECTION factor released 01/01.*												
23	*-PROVISIONING factors released 01/01.*												
24	*-TELEPHONE PLANT INDEX released 01/01.*												
25	*-STRUCTURE RATIO released 01/01.*												
26													
27													
28													
29													
30													
31													
32													
33													

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
34														
35														
36														
37														
38	State:	Qwest												
39														
40	ACCOUNTS	DEPR-AVG	COM-AVG	IT-AVG	MTNC-TOT	RTU-SWIT	ADVAL	BLDG	LAND	PRODMAN	SALESEXP	ADVER	BF	NTWKOP
41	377C	0.107280	0.048450	0.025865	0.015626	0.000000	0.007513	0.137716	0.005415	0.021791	0.063916	0.006139	0.004137	0.051520
42	20C	0.000000	0.103288	0.055141	0.018462	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
43	110C	0.032826	0.077251	0.041241	0.018462	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
44	257C	0.107280	0.048450	0.025865	0.012008	0.000000	0.007513	0.137716	0.005415	0.021791	0.063916	0.006139	0.004137	0.051520
45	357C	0.107280	0.048450	0.025865	0.022102	0.000000	0.007513	0.137716	0.005415	0.021791	0.063916	0.006139	0.004137	0.051520
46	57C	0.155745	0.047912	0.025578	0.056929	0.000000	0.007513	0.137716	0.005415	0.021791	0.063916	0.006139	0.004137	0.051520
47	1C	0.086750	0.049140	0.026234	0.008839	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
48	52C	0.096134	0.057421	0.030655	0.129003	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
49	42C	0.096134	0.057421	0.030655	0.129003	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
50	5C	0.085041	0.060920	0.032523	0.034650	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
51	85C	0.065383	0.061108	0.032623	0.012973	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
52	45C	0.060834	0.062796	0.033524	0.066337	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
53	35C	0.060834	0.062796	0.033524	0.066337	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
54	845C	0.060834	0.062796	0.033524	0.013789	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
55	62C	0.062540	0.062163	0.033186	0.059641	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
56	862C	0.064246	0.061530	0.032848	0.013662	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
57	3C	0.226250	0.072351	0.038625	0.026059	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
58	4C	0.021498	0.069148	0.036915	0.007357	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
59	357CS	0.107280	0.048450	0.025865	0.022102	0.000000	0.007513	0.137716	0.005415	0.021791	0.063916	0.006139	0.004137	0.051520
60	257CS	0.107280	0.048450	0.025865	0.012008	0.000000	0.007513	0.137716	0.005415	0.021791	0.063916	0.006139	0.004137	0.051520
61	257CP	0.107280	0.048450	0.025865	0.012008	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520
62	257CSP	0.107280	0.048450	0.025865	0.012008	0.000000	0.007513	0.000000	0.000000	0.021791	0.063916	0.006139	0.004137	0.051520

WINPC3 ACF Outputs

	O	P	Q	R	S	T	U	V	W	X
34										
35										
36										
37										
38										
39										
40	NTWKST	GENLST	COMPTR	UNCOLL	ACCNT	HREXP	INTAN	INFOR	COMMON	BC
41	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
42	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
43	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
44	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
45	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
46	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
47	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
48	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
49	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
50	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
51	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
52	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
53	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
54	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
55	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
56	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
57	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
58	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
59	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
60	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
61	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596
62	0.017457	0.087898	0.052189	0.013437	0.007888	0.009005	0.000401	0.086258	0.066319	0.004596

Model Definitions

INVESTMENT: An investment is the amount of capital used to purchase equipment and material to provide a service.

ENGINEERED FURNISHED & INSTALLED (EF&I): An Engineered, Furnished and Installed investment includes installation by the Vendor: An EF&I investment includes a dollar amount for the equipment, material, engineering, furnishing (delivery and/or supply) and installation.

TOTAL INSTALLED INVESTMENT (TII): A TII investment includes a dollar amount for equipment, material, engineering, furnishing & installation as well as a dollar amount (if applicable) for Power, Sales Tax, Telco labor and Interest During Construction (IDC).

EXPENSE: An expense is the amount of non-capitalized dollars associated with the provision of a product or service.

INFLATION: Inflation is an increase in the amount of an investment from a base year to the study year. Inflation results from increases in the cost of money, material, or any other items impacting the value of an investment. The model can apply inflation to EF&I or Total Installed investments.

LOADING FACTORS: Loading factors applied to an EF&I investment provide the additional dollar amounts to bring an EF&I investment to the Total Installed Investment level.

POWER: The power factor estimates the investment required for Central Office back up power equipment (used for EF&I Central Office Equipment [COE] accounts only).

SALES TAX: The sales tax factor provides the amount of sales tax paid on vendor provided material and equipment (used for all accounts).

TELCO: The TELCO factor develops the dollar amount of Qwest engineering and labor involved with vendor installation (used for EF&I accounts only).

INTEREST DURING CONSTRUCTION: The interest during construction factor estimates the amount of interest that accrues on construction dollar amounts until completion (used with all accounts).

LAND & BUILDING: The land and building factors applied to a Total Installed Central Office equipment investment recovers the investment in Central Office land and buildings. Annual cost factors are applicable to the land and building investments (used with COE accounts only).

ANNUAL COST FACTORS: Annual cost factors identify the annual costs associated with Total Installed Investments. There are two types of Annual Cost Factors (Investment based and Expense based). Annual cost factors are appropriate for use with all accounts.

INVESTMENT BASED FACTORS: Investment based annual cost factors applied to a Total Installed Investment identify annual costs directly related to the use of an investment.

MAINTENANCE COSTS: Maintenance costs represent the cost of upkeep, trunk and line testing, rearrangements and changes.

CAPITAL COSTS (CAPCOST): Capital costs are annual or monthly costs associated with recovery of a total installed investment.

AD VALOREM TAX: The ad valorem factor estimates the annual "property tax" applicable to an investment.

EXPENSE BASED FACTORS: These factors applied to an expense created by the Investment Based Factors will identify additional expenses resulting from the provision of a service.

SALES EXPENSE: The sales expense factor determines the amount of expense associated with making a sale. It develops the relevant expense pertaining to the cost of a sale up to the "hand shake" as well as a portion of capital costs. We divide this expense by total direct cost.

PRODUCT MANAGEMENT EXPENSE: The product management factor develops the amount of expense associated with managing the products of the business. This expense includes all expense relevant to Product Management, as well as a portion of capital costs. We divide this expense by total direct cost.

ADMINISTRATION: The administration expense factor develops the administration expense associated with COE, Outside Plant (OSP), and coin services.

SALES COMPENSATION EXPENSE: The sales compensation factor develops the amount of sales compensation resulting from successfully completing a business sale. This is a revenue based factor that includes compensation for business sales only. We divide sales compensation by total business revenues.

RIGHT TO USE FEES: The right to use (RTU) fees factor estimates the software expense associated with the purchase of analog and digital switches.

BUSINESS FEES: The business fees factor develops a dollar amount associated with state fees and taxes assessed on the aggregate revenue of those states that impose such fees and taxes.

COMMON: Common calculates expenses common to the firm.

ATM Workpapers

Jurisdiction: QWEST
Rate Element: 1.544 MBPS FIXED RATE, PER PORT

RECURRING COST

	Costs
A. Total Unit Investment	**$6,421.66**
B. Capital Costs	
Depreciation	**$745.90**
Cost Of Money	**$345.86**
Income Tax Expense	**$191.79**
C. Operating Expenses	
Maintenance	**$160.18**
Ad Valorem	**$39.68**
Administrative	**$225.15**
Business Fees	**$20.92**
D. Total Annual Direct Unit Cost (B + C)	**$1,729.48**
E. Total Monthly Direct Unit Cost (D / 12)	**$144.12**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.269**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: 45 MBPS FIXED RATE, PER PORT

	RECURRING COST
	Costs
A. Total Unit Investment	**$11,034.84**
B. Capital Costs	
Depreciation	**$1,281.74**
Cost Of Money	**$594.32**
Income Tax Expense	**$329.57**
C. Operating Expenses	
Maintenance	**$275.25**
Ad Valorem	**$68.18**
Administrative	**$386.90**
Business Fees	**$35.94**
D. Total Annual Direct Unit Cost (B + C)	**$2,971.91**
E. Total Monthly Direct Unit Cost (D / 12)	**$247.66**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.269**

ATM Workpapers

Workpaper: 3

Jurisdiction: QWEST
Rate Element: 155 MBPS FIXED RATE, PER PORT

RECURRING COST

	Costs
A. Total Unit Investment	**$16,556.64**
B. Capital Costs	
Depreciation	**$1,923.12**
Cost Of Money	**$891.72**
Income Tax Expense	**$494.49**
C. Operating Expenses	
Maintenance	**$412.99**
Ad Valorem	**$102.30**
Administrative	**$580.50**
Business Fees	**$53.93**
D. Total Annual Direct Unit Cost (B + C)	**$4,459.04**
E. Total Monthly Direct Unit Cost (D / 12)	**$371.59**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.269**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: 622 MBPS FIXED RATE, PER PORT

RECURRING COST

	Costs
A. Total Unit Investment	**$25,114.19**
B. Capital Costs	
Depreciation	**$2,917.11**
Cost Of Money	**$1,352.62**
Income Tax Expense	**$750.07**
C. Operating Expenses	
Maintenance	**$626.45**
Ad Valorem	**$155.17**
Administrative	**$880.54**
Business Fees	**$81.80**
D. Total Annual Direct Unit Cost (B + C)	**$6,763.76**
E. Total Monthly Direct Unit Cost (D / 12)	**$563.65**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.269**

ATM Workpapers

Jurisdiction: QWEST

Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. CONSTANT BIT RATE (CBR) PER 64 KB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$53.22**
B. Capital Costs	
Depreciation	$5.12
Cost Of Money	$3.26
Income Tax Expense	$1.81
C. Operating Expenses	
Maintenance	$1.10
Ad Valorem	$0.34
Administrative	$1.77
Business Fees	$0.16
D. Total Annual Direct Unit Cost (B + C)	**$13.56**
E. Total Monthly Direct Unit Cost (D / 12)	**$1.13**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.255**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. CONSTANT BIT RATE (CBR) PER 1 MB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$1,213.50**
B. Capital Costs	
Depreciation	$118.34
Cost Of Money	$73.72
Income Tax Expense	$40.88
C. Operating Expenses	
Maintenance	$25.37
Ad Valorem	$7.65
Administrative	$40.37
Business Fees	$3.75
D. Total Annual Direct Unit Cost (B + C)	**$310.09**
E. Total Monthly Direct Unit Cost (D / 12)	**$25.84**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.256**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. CONSTANT BIT RATE (CBR) PER 1.787 MB/S

	RECURRING COST
	Costs
A. Total Unit Investment	**$2,166.59**
**B. Capital Costs**	
Depreciation	**$211.36**
Cost Of Money	**$131.60**
Income Tax Expense	**$72.98**
**C. Operating Expenses**	
Maintenance	**$45.31**
Ad Valorem	**$13.65**
Administrative	**$72.08**
Business Fees	**$6.70**
D. Total Annual Direct Unit Cost (B + C)	**$553.68**
E. Total Monthly Direct Unit Cost (D / 12)	**$46.14**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.256**

ATM Workpapers

Workpaper: 8

Jurisdiction: QWEST

Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. CONSTANT BIT RATE (CBR) PER 75 KB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$61.28**
B. Capital Costs	
Depreciation	**$5.90**
Cost Of Money	**$3.76**
Income Tax Expense	**$2.08**
C. Operating Expenses	
Maintenance	**$1.27**
Ad Valorem	**$0.39**
Administrative	**$2.03**
Business Fees	**$0.19**
D. Total Annual Direct Unit Cost (B + C)	**$15.61**
E. Total Monthly Direct Unit Cost (D / 12)	**$1.30**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.255**

ATM Workpapers

Jurisdiction: QWEST

Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. VARIABLE BIT RATE REAL-TIME (VBR-rt) PER 64 KB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$30.88**
B. Capital Costs	
Depreciation	$2.93
Cost Of Money	$1.90
Income Tax Expense	$1.06
C. Operating Expenses	
Maintenance	$0.63
Ad Valorem	$0.20
Administrative	$1.02
Business Fees	$0.09
D. Total Annual Direct Unit Cost (B + C)	**$7.83**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.65**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.253**

ATM Workpapers

Jurisdiction: QWEST

Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. VARIABLE BIT RATE REAL TIME (VBR-rt) PER 1 MB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$684.05**
B. Capital Costs	
Depreciation	**$68.15**
Cost Of Money	**$41.03**
Income Tax Expense	**$22.75**
C. Operating Expenses	
Maintenance	**$14.61**
Ad Valorem	**$4.30**
Administrative	**$22.89**
Business Fees	**$2.13**
D. Total Annual Direct Unit Cost (B + C)	**$175.86**
E. Total Monthly Direct Unit Cost (D / 12)	**$14.66**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.257**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. VARIABLE BIT RATE NON-REAL-TIME (VBR-nrt) PER 64 KB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$19.15**
B. Capital Costs	
Depreciation	**$1.96**
Cost Of Money	**$1.13**
Income Tax Expense	**$0.63**
C. Operating Expenses	
Maintenance	**$0.42**
Ad Valorem	**$0.12**
Administrative	**$0.65**
Business Fees	**$0.06**
D. Total Annual Direct Unit Cost (B + C)	**$4.96**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.41**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.259**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. VARIABLE BIT RATE NON_REAL-TIME (VBR-nrt) PER 1 MB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$447.96**
B. Capital Costs	
Depreciation	$46.38
Cost Of Money	$26.22
Income Tax Expense	$14.54
C. Operating Expenses	
Maintenance	$9.95
Ad Valorem	$2.81
Administrative	$15.16
Business Fees	$1.41
D. Total Annual Direct Unit Cost (B + C)	**$116.46**
E. Total Monthly Direct Unit Cost (D / 12)	**$9.71**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.260**

ATM Workpapers

Jurisdiction: QWEST

Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. AVAILABLE BIT RATE (ABR) PER 64 KB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$14.11**
B. Capital Costs	
Depreciation	**$1.46**
Cost Of Money	**$0.83**
Income Tax Expense	**$0.46**
C. Operating Expenses	
Maintenance	**$0.31**
Ad Valorem	**$0.09**
Administrative	**$0.48**
Business Fees	**$0.04**
D. Total Annual Direct Unit Cost (B + C)	**$3.67**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.31**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.260**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. AVAILABLE BIT RATE (ABR) PER 1 MB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$331.09**
B. Capital Costs	
Depreciation	**$34.69**
Cost Of Money	**$19.23**
Income Tax Expense	**$10.66**
C. Operating Expenses	
Maintenance	**$7.44**
Ad Valorem	**$2.07**
Administrative	**$11.25**
Business Fees	**$1.04**
D. Total Annual Direct Unit Cost (B + C)	**$86.38**
E. Total Monthly Direct Unit Cost (D / 12)	**$7.20**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.261**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. UNSPECIFIED BIT RATE (UBR) PER 64 KB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$11.03**
B. Capital Costs	
Depreciation	**$1.18**
Cost Of Money	**$0.63**
Income Tax Expense	**$0.35**
C. Operating Expenses	
Maintenance	**$0.25**
Ad Valorem	**$0.07**
Administrative	**$0.38**
Business Fees	**$0.03**
D. Total Annual Direct Unit Cost (B + C)	**$2.89**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.24**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.262**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: PEAK CELL RATE SERVICE (PCRS) IE. UNSPECIFIED BIT RATE (UBR) PER 1 MB/S

RECURRING COST

	Costs
A. Total Unit Investment	**$260.49**
B. Capital Costs	
Depreciation	**$28.00**
Cost Of Money	**$14.87**
Income Tax Expense	**$8.24**
C. Operating Expenses	
Maintenance	**$6.01**
Ad Valorem	**$1.62**
Administrative	**$8.92**
Business Fees	**$0.83**
D. Total Annual Direct Unit Cost (B + C)	**$68.48**
E. Total Monthly Direct Unit Cost (D / 12)	**$5.71**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.263**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: Central Office Connecting Channels Per DS1

RECURRING COST

	Costs
A. Total Unit Investment	**$12.78**
B. Capital Costs	
Depreciation	**$1.54**
Cost Of Money	**$0.69**
Income Tax Expense	**$0.38**
C. Operating Expenses	
Maintenance	**$0.33**
Ad Valorem	**$0.08**
Administrative	**$0.46**
Business Fees	**$0.04**
D. Total Annual Direct Unit Cost (B + C)	**$3.52**
E. Total Monthly Direct Unit Cost (D / 12)	**$0.29**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.275**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: Central Office Connecting Channels Per DS3

RECURRING COST

	Costs
A. Total Unit Investment	**$183.98**
B. Capital Costs	
Depreciation	**$22.24**
Cost Of Money	**$9.87**
Income Tax Expense	**$5.47**
C. Operating Expenses	
Maintenance	**$4.72**
Ad Valorem	**$1.14**
Administrative	**$6.59**
Business Fees	**$0.61**
D. Total Annual Direct Unit Cost (B + C)	**$50.64**
E. Total Monthly Direct Unit Cost (D / 12)	**$4.22**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.275**

ATM Workpapers

Jurisdiction: QWEST
Rate Element: Central Office Connecting Channels Per OCN

RECURRING COST

	Costs
A. Total Unit Investment	**$182.28**
B. Capital Costs	
Depreciation	**$22.03**
Cost Of Money	**$9.78**
Income Tax Expense	**$5.42**
C. Operating Expenses	
Maintenance	**$4.68**
Ad Valorem	**$1.13**
Administrative	**$6.53**
Business Fees	**$0.61**
D. Total Annual Direct Unit Cost (B + C)	**$50.18**
E. Total Monthly Direct Unit Cost (D / 12)	**$4.18**
F. Total Annual Direct Unit Cost / Total Unit Investment (D / A)	**0.275**