> DOCKET No. $93058 \mathrm{ft}-T_{2}$
> REOUEST TO ESTABLISH DOCKET Date June 16, 1993

1. Division Name/Staff Name_Drew/Reith
2. OPR CMU
3. $O C R$ $\qquad$
4. Suggested Docket Title Request for approval of tariff filing to provide an additional enhancement to its switched Data Service offering by GTE Florida, Incorporated (T-93-336, filed 6-11-93).
5. Suggested Docket Mailing List (attach separate sheet if necessary)
A. Parties (provide names of regulated companies; provide names and addresses of nonregulated companies; provide names, addresses, and affiliation (i.e., attorney, company liaison officer, or custoner) of individuals)

GTE Florido
$\qquad$
$\qquad$
B. Interested Persons/Companies (Provide names, complete mailing addresses, and affiliation. Use abbreviation from list below if Interested Persons should include all regulated companies in one or more industries.)
$\qquad$
$\qquad$
$\qquad$
$\qquad$

| Investor-Owned Electrics | REGULAJED INDUSTRIES |  |  |
| :---: | :---: | :---: | :---: |
|  | E | Local Exchange Telephone Cos. | (Ti) |
| Electric Cooperatives | (E | Interexchange Telephone Cos. | (II) |
| Municipal Electrics | (E | Coin-Operated Telephone Cos. | (IC) |
| Gas Utilities | (GU) | Shared Tenant Telephone Cos. | (TS) |
| Wastewater Utilities | (SU) | Alternate Access Vendors | (TA) |
| Water Utilities | (WU) |  |  |

6. Check One:
$\qquad$ Documentation attached.
$x \times x \times x x$ Documentation will be provided with recommendation.

## T-93-335

Mr. Walter D'Haeseleer, Director Division of Communications Florida Public Service Commission 101 East Gaines Street
Tallahassee, Florida 32399-0865

## GTE Telephone Operations South Area

One Tampa City Center 616 Post Office Box 110, MC 616
Tampa, Florida 33601-0110
June 9, 1993

Dear Mr. D'Haeseleer:
Enclosed are four (4) copies of the following pages from our General Services Tariff:

## Index

32nd Revised Index Page 4

## Section A10

Dst Revised Contents Page 2
Original Pages 72 through 77
This proposed tariff filing offers a new service entitled Frame Relay Service (FRS). Frame Relay Service is a "fast packet" network service that permits the transmission of data at speeds from 56 Kbps to 1.544 Mbps using Permanent Virtual Connections (PVCs). PVCs are logical circuits that define a specific one -way path for data sent by the customer to another location. These circults are virtual because they are established in software tables and do not tie up capacity when not in use. This also allows multiple PVCs to be defined over a single access line, thereby providing a single access line the capability to transmit data to multiple destinations. This capability represents a significant advantage over traditional point-to-point arrangements.

It would be appreciated if you would handle this filing with the Commissioners and members of the Staff, as appropriate, for approval.

Acknowledgement, date of receipt, and authority number of this filing are requested. A duplicate letter of transmittal is enclosed for this purpose.

Sincerely,
MibuScolui
Beverly Y. Menard Regional Director External Affairs (FL)

## BYM: ko

Enclc suras

## RECEIVED

FRAME RELAY
TABLE OF CONTENTS
EXHIBIT A ..... Page

1) Product Description ..... 1
II) Limitations and Special Conditions ..... 2
III) Customer Benefits / Impact ..... 2
IV) Market Assessment / Product Strategy ..... 2
V) Forecast Methodology ..... 2
VI) Pricing Methodology ..... 3
VII) Rate Structure ..... 3
Frame Relay Service Diagram ..... 4
EXHIBIT B Rate Development - Frame Relay Access Line
EXHIBIT C Rate Development - Frame Relay Port
EXHIBIT D Rate Development - Frame Relay PVC
EXHIBITE Frame Relay - Equipment Cost Analysis
EXHIBITF Forecast and Interoffice Transport Analysis - 1.544 Mbps
EXHIBIT G Forecast and Interoffice Transport Analysis - 56 Kbps
EXHIBITH Contribution Analysis
EXHIBITI GTE Levelized Annuity Pricing Program (LAPP)

$$
T-93-335
$$

EXHIBIT A

## II) Limitations and Special Conditions:

GTE Florida plans to make Frame Relay Service available throughout the Tampa Market Area upon approval of this tariff filing.

The customer must provide information regarding intended use of the service sufficient to permit the Telephone Company to furnish and maintain the service ordered and assure that tariff regulations are followed.

## III) Customer Benefits/Impact:

Frame Relay Service will offer customers:

- Reduced network costs
- Bandwidth sharing
- Reduced network complexity
- Improved performance

The ability to link multiple destinations and share bandwidth over a single access line will significantly reduce network osts and simplify the network for the customer. Because of the reduced overhead and processing performed by Frame Relay switched as compared to X. 25 packet switches, throughput is increased and delay is reduced for users of FRS.

## IV) Market Assessment / Product Strategy:

The proliferation of PCs and workstations, the growing number of computer applications requiring high speed communications, and the availability of error-free high speed transmission lines have created a demand for new methods of wide area networking. This demand is for a data transmission service that provides high speed, low delay, and resource sharing. Frame Relay Service addresses these requirements.

Frame Relay Service provides a cost effective and efficient means to connect Local Area Networks (LANs) and provide remote to host communications. The variable length frames are ideal for transporting the "bursty" data traffic from these sources.

The target markets for Frame Relay Service are small, medium, and large customers with a need to interconnect multiple locations at higher speeds, some of whom are currently served ty digital private line facilities. The following industries appear to be strong target market segments: finance, health care, aerospace, retail, utilities, government (Federal and State), transportation, insurance, wholesale, professional business services, education, and discrete manufacturing.

## v) Eorecasting Methodology:

Market research consisted of secondary research performed by GTE and primary research Derformed by Quantum Electronic Database (QED), an independent market research and torecasting firm whose data forecasts were purchased by GTE. The QED forecasts were expressed in terms of a nationwide demand for Frame Relay in the 1990's. These numbers were then analyzed and brought down to a state and central office level by GTE's Demand Analysis and Forecasting department.

## VI) Pricing Methodology:

As is shown on the attached cost support, the prices proposed by GTE for Frame Relay Service provide contribution over the long run incremental cost of the service.

## VII) Rate Structure:

Frame Relay Service includes the following rate elements:
Frame Relay Access Line:
The Frame Relay Access Line provides the dedicated digital connection from the customer premise to the Frame Relay network.

## Frame Relay Port:

The Frame Relay Port provides the switching capability of the Frame Relay network. The first PVC is included in this rate element Under this offering, the customer can be connected through the switching system anywhere within the Tampa Market Area. Initially only the 56 Kbps and 1.544 Mbps access classes will be offered.

PVC
PVCs are logical circuits that define a specific one-way path for data sent by the customer to another location. Multiple PVCs may be assigned to a single Frame Relay Port, allowing the capability to transmit data to numerous destinations.

## T-93-335

## EXHIBIT B <br> RATE DEVELOPMENT FRAME RELAY ACCESS LINE

The following pages detail the rate development for the Frame Relay Access Line. The proposed rates and margin of contribution are shown on page 1. A cost analysis is shown on page 2.

FRAME RELAY
EXHIBIT B
ACCESS LINE
RATE DEVELOPMENT


## EXHIBIT C

RATE DEVELOPMENT FRAME RELAY PORT

The following pages detail the rate development for a Frame Relay Port - 1.544 Mbps . The proposed rates and margin of contribution are shown on page 1. A cost analysis is shown on pages 2 through 6 . The total resource investments were submitted to the LAPP (EXHIBIT I) to determine a monthly revenue requirement.

FRAME RELAY
EXHIBIT C
PORT - 1.544 MBPS
RATE DEVELOPMENT

Frame Relay Port 56 Kbps

|  | NON-RECURRING |  |  | MONTHLY RECURRING |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Costs | Margin | Proposed Charge | Costs | Margin | Proposed Charge |
| Frame Relay Port 1.544 Mbps | \$3168 | 57.82\% | \$50.00 | S358.33 | $11.63 \%$ | \$400.00 |
| Frame Relay Port 56 Kbps | \$3168 | 57.82\% | \$50.00 | \$38.08 | $83.84 \%$ | \$70.00 |

NON-RECURRING
Costs Margin Proposed

11
12
13
14 15

RAME RELAY
TRANSPORT FACILITIES
AVERAGE TRANSPORT FACILITY LENGTH (2) ..... 6.37 Miles (END OFFICE TO FRAME RELAY NODE) MONTHLY COST PER MILE PER DS1 (1) ..... $\$ 5.33$
TOTAL MONTHLY TRANSPORT COST PER DS1 ..... $\$ 33.95$
MONTHLY FIXED COST PER DSI ..... 53664
AVERAGE TRANSPORT FACILITY LENGTH (2) ..... 18.49 Miles (NODE TO NODE)
MONTHLY COST PER MILE PER DS1 (1) ..... $\$ 5.33$
TOTAL MONTHLY TRANSPORT COST PER DS1 ..... S98.55
MONTHLY FIXED COST PER DS1 ..... $\mathbf{\$ 3 6 . 6 4}$
TOTAL. MONTHLY REVENUE REQUIREMENT ..... \$358.33
PROPOSED MONTHLY RECURRING CHARGE ..... $\$ 400.00$
NOTES:

1) As filed in the GTE Florida Private Line Cost Study in Docket \#91-0967-TL and approved in Order \#PSC-92-0401-FOF-TL.
2) Refer to Exhibit F

FRAME RELAY


1) Refer to Exhibit $E$

FRAME RELAY
PORT
NON-RECURRING CHARGE COST ANALYSIS

1 FRAME RELAY SERVICE ESTABLISHMENT COSTS
2Time (Hrs)
5 Configure Frame Relay Port ..... 0.40
Assign PVC to Frame Relay Port ..... 0.20
Verify PVC ..... 0.10
Verify Frame Relay Port ..... 0.10
Generate Report ..... 0.15
10Total0.95
Central Office Technician Labor Rate ..... $\$ 3335$ per Hour
Labor Cost ..... $\$ 31.68$
PROPOSED FRAME RELAY PORT NO $V-$ RECURRING CHARGE ..... $\$ 50.00$

## EXHIBIT D

 RATE DEVELOPMENT FRAME RELAY PVCThe following pages detail the rate development for a Frame Relay PVC. The proposed rates and margin of contribution are shown on page 1. A cost analysis is shown on page 2 . The total resource investments were submitted to the LAPP (EXHIBIT I) to determine a monthly revenue requirement.

## FRAME RELAY

PVC
COST ANALYSIS


## EXHIBIT E <br> FRAME RELAY EQUIPMENT COST ANALYSIS

The following pages detail the cost analysis for Frame Relay Equipment. The bandwidth and utilization factor development is shown on page 8.

## FRAME RELAY

## DATAKIT

## COST ANALYSIS



## SPARES

QTY UNIT COST XTD COST

| MCID143A1 - FRAME RELAY CIRCUIT PACK | 1 | \$10,612.00 | \$10,612.00 |
| :---: | :---: | :---: | :---: |
| CFD1 - CHANNELIZED I/O BOARD | 1 | \$6,328.00 | \$6,328.00 |
| AWJ24-4V.35 I/O BOARD | 1 | \$520.00 | \$520.00 |
| ASP1 - CIRCUIT PACK | 1 | \$616.00 | \$616.00 |
| ASP2 - CIRCUIT PACK | 1 | \$495.20 | \$495.20 |
| TN1001B - CIRCUIT PACK | 1 | \$1,356.80 | \$1,356.80 |
| TN1003 - CIRCUIT PACK | 1 | \$1,156.80 | \$1,156.80 |
| TN2092-CIRCUIT PACK | 1 | \$6,003.00 | \$6,003.00 |
| AWJ9 - CIRCUIT PACK | 1 | \$522.40 | \$522.40 |
| TN1011C - CIRCUIT PACK | 1 | \$3,024.00 | \$3,024.00 |
| AWJ4 - CIRCUIT PACK | 1 | \$147.20 | \$147.20 |
| TN2109B - CIRCUIT PACK | 1 | \$6,875.00 | \$6,875.00 |
| CHF1 - FAN POWER ASSEMBLY | 1 | \$100.00 | \$100.00 |
| FAN | 1 | \$36.00 | \$36.00 |
| AIR FILTER | 2 | \$9.80 | \$19.60 |
| AWJ16 - CIRCUIT PACK | 1 | \$564.00 | \$564.00 |
| SUBTOTAL - SPARES: |  |  | S38,376.00 |

FRAME RELAY

| STARKEEPER II NMS | QTY UNIT COST XTD COST |  |  |
| :---: | :---: | :---: | :---: |
| STARKEEPER II NMS R4.1 SYSTEM ON HP720 | 1 | \$35,770.00 | \$35,770.00 |
| ADDITIONAL 16 MB RAM | 1 | \$2,033.00 | \$2,033.00 |
| HP-UX DOCUMENTATION | 1 | \$908.00 | \$908.00 |
| NETWORK MONITOR MEDIA AND DOC. | 1 | \$0.00 | \$0.00 |
| NETWORK BUILDER MEDIA AND DOC. | 1 | \$0.00 | \$0.00 |
| PERFORMANCE REPORTER MEDIA AND DOC | 1 | \$0.00 | \$0.00 |
| SUBTOTAL - EQUIPMENT: |  |  | \$38,711.00 |
| NMS 4.1 GRAPHICS SYSTEM RTU LICENSE | 1 | \$5,000.00 | \$5,000.00 |
| NMS 4.1 NETWORK MONITOR RTU LICENSE | 1 | \$5,000.00 | \$5,000.00 |
| NMS 4.1 NETWORK BUILDER RTU LICENSE | 1 | \$5,000.00 | \$5,000.00 |
| NMS 4.1 NETWORK REPORTER RTU LICENSE | 1 | \$5,000.00 | \$5,000.00 |
| SUBTOTAL - RTU FEES: |  |  | \$20,000.00 |
| STARTUP - TASK MANAGER | 1 | \$2,800.00 | \$2,800.00 |
| STARTUP - NETWORK MONITOR | 1 | \$1,600.00 | \$1,600.00 |
| STARTUP - NETWORK BUILDER | 1 | \$900.00 | \$900.00 |
| STARTUP - PERFORMANCE REPORTER | 1 | \$900.00 | \$900.00 |
| ENGINEERING - STARKEEPER II | 1 | \$1,466.00 | \$1,466.00 |
| NETWORK/SUPPORT SERVICE | 1 | \$300,000.00 | \$300,000.00 |
| SUBTOTAL - VENDOR E/I |  |  | \$307,666.00 |

FRAME RELAY


FRAME RELAY
exhibite
BNS-2000
COST ANALYSIS


## FRAME RELAY <br> BANDWIDTH AND UTILIZATION FACTOR FACTOR DEVELOPMENT

| DATAKIT BACKPLANE BANDWIDTH |  | = | 5.68 Mbps |
| :---: | :---: | :---: | :---: |
| DSO BANDWITH |  | - | 56 Kbps |
| AVERAGE LINE UTILIZATION |  | $=$ | 25\% |
| DSO BANDWIDTH FACTOR | $\{(\mathrm{L} 1) /(\mathrm{L} 2 \cdot \mathrm{~L} 3)\}$ | $=$ | 405.71 |
| BNS-2000 FULL BACKPLANE BANDWIDTH |  | = | 200 Mbps |
| DS1 BANDWITH |  | $=$ | 1.54 Kbps |
| AVERAGE LINE UTILIZATION |  | = | 25\% |
| DS1 BANDWIDTH FACTOR | \{(L9) / (L10 ${ }^{\text {- L11) }\}}$ | $=$ | 519.48 |
| \% INTERNODE TRAFFIC (DS |  | $=$ | 50\% |
| INTERNODE FACTOR (DS0) | (L3 ${ }^{\circ} \mathrm{L17}$ ) | $=$ | 0.125 |

FRAME RELAY
FORECAST - 1.544 MBPS
FLORIDA
LATA: 952


FRAME RELAY

## CENTRAL OFFICE DEPLOYMENT

 INTEROFFICE TRANSPORT DISTANCE
## LATA: 952

CLEARWATER MAIN NODE

|  |  | A-MILES TO <br> FRAME RELAY WEIGHTED |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CENTRAL OFFICE |  | VLLI | VERT | HOR | NODE DISTANCE |

FRAMERELAY
CENTRAL OFFICE DEPLOYMENT INTEROFFICE TRANSPORT DISTANCE
LATA: 952
SARASOTA MAIN NODE

| CENTRAL OFFICE | CLLI | VERT | HOR | A-MILES TO FRAME RELAY NODE | ITED <br> NCE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ANNA MARIA | ANMRFLXATIH | 8282 | 1142 | 15.90 | 0.03 |
| BRANDENTON BAY | BRBAFLXA75H | 8282 | 1114 | 7.91 | 0.13 |
| BRANDENTON MAIN | BRTNFLXX744 | 8269 | 1117 | 11.46 | 0.21 |
| ENGLEWOOD | ENWDFLXA47H | 8439 | 1023 | 50.20 | 0.26 |
| LONGBOAT | LGBKFLXA38H | 8297 | 1117 | 7.27 | 0.03 |
| MYAKKA. MAIN | MYCYFLXA32H | 8256 | 1032 | 23.51 | 0.00 |
| NORTH PORT | NRPTFLXA42H | 8322 | 1013 | 26.81 | 0.06 |
| OSPREY | OSPRFLXA96H | 8317 | 1069 | 10.12 | 0.02 |
| PALMA SOLA | PLSLFLXA79H | 8271 | 1131 | 14.30 | 0.10 |
| PALMETTO | PLMTFLXA72H | 8256 | 1121 | 15.52 | 0.14 |
| PARRISH | PRSHFLXARSA | 8240 | 1101 | 18.16 | 0.01 |
| SARASOTA MAIN | SRSTFLXA9SH | 8297 | 1094 | 0.00 | 0.00 ** |
| SARASOTA NORTHSIDE | SRSTFLXAK01 | 8296 | 1094 | 0.32 | 0.00 |
| SARASOTA SOUTHSIDE | SRSTFLAXXX | 8306 | 1094 | 2.85 | 0.05 |
| SARASOTA SPRINGS | SSPRGFLXA37H | 8290 | 1078 | 5.52 | 0.05 |
| SIESTA KEY | SEKIFLXA34H | 8310 | 1088 | 4.53 | 0.01 |
| ST. ARMANDS KEY | SARKFLXARSA | 8303 | 1099 | 2.47 | 0.01 |
| VENICE MAIN | VENCFLXA48H | 8332 | 1053 | 17.06 | 0.22 |
| VENICE SOUTH | VENCFLXS49F | 8337 | 1041 | 21.00 | 0.08 |
|  |  |  | Subtotal |  | 139 |
| C.O. LOCATION OF FRAME RELAY NODE |  | ** |  |  |  |

## FRAME RELAY

CENTRAL OFFICE DEPLOYMENT
INTEROFFICE TRANSPORT DISTANCE
LATA: 952
ST. PETERSBURG MAIN NODE

|  |  | A-MILES TO <br> FRAME RELAY WEIGHTED |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CENTRAL OFFICE |  |  | VERT | HOR | NODE DISTANCE |

FRAME RELAY

T-93-335<br>EXHIBITF

CENTRAL OFFICE DEPLOYMENT
INTEROFFICE TRANSPORT DISTANCE
LATA: 952
WINTERHAVEN NODE

C.O. LOCATION OF FRAME RELAY NODE

FRAME RELAY
CENTRAL OFFICE FORECAST
FLORIDA
LATA: 952

1 2

| CENTRAL OFFICE | YEAR |  |  |  |  | LEVELIZED FORECAST |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 |  |
|  |  |  |  |  |  |  |
| CLEARWATER MAIN | 3 | 7 | 15 | 19 | 21 | 11.979 |
| COUNTRYSIDE | 2 | 5 | 10 | 13 | 15 | 8.2788 |
| DUNEDIN | 1 | 2 | 3 | 4 | 4 | 2.6291 |
| HUDSON | 1 | 2 | 4 | 5 | 6 | 33248 |
| INDIAN ROCKS | 1 | 1 | 1 | 2 | 2 | 1.3379 |
| LARGO | 1 | 3 | 6 | 8 | 9 | 4.954 |
| MOON LAKE | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| NEW PORT RICHEY | 1 | 4 | 9 | 11 | 12 | 6.7809 |
| PINELLAS | 3 | 7 | 15 | 19 | 21 | 11.979 |
| SEVEN SPRINGS | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| ST. GEORGE | 1 | 3 | 6 | 7 | 8 | 4.6161 |
| TARPON SPRINGS | 1 | 2 | 5 | 5 | 7 | 3.6826 |
| BRADLEY | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| HIGHLANDS | 1 | 4 | 7 | 8 | 9 | 5.3716 |
| LAKELAND EAST | 1 | 3 | 6 | 7 | 7 | 4.4561 |
| LAKELAND MAIN | 3 | 7 | 15 | 18 | 21 | 11.801 |
| LAKELAND NORTH | 1 | , | 2 | 3 | 3 | 1.8736 |
| MULBERRY | 1 | 1 | 2 | 3 | 3 | 1.8736 |
| PINECREST | 0 | 1 | 1 | 0 | 0 | 0.4176 |
| PLANT CITY MAIN | 1 | 3 | 7 | 8 | 9 | 5.1518 |
| ZEPHYRHILLS | 1 | 2 | 3 | 3 | 4 | 2.4512 |
| ANNA MARIA | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| BRANDENTON BAY | 1 | 4 | 8 | 10 | 10 | 6.0852 |
| BRANDENTON MAIN | 1 | 4 | 8 | 11 | 12 | 6.5831 |
| ENGLEWOOD | 1 | 1 | 2 | 3 | 3 | 1.8736 |
| LONGBOAT | 1 | 1 | 1 | 2 | 2 | 1.3379 |
| MYAKKA MAIN | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTH PORT | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| OSPREY | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| PALMA SOLA | 1 | 2 | 3 | 4 | 4 | 2.6291 |
| PALMETTO | 1 | 2 | 4 | 5 | 6 | 3.3248 |
| PARRISH | 0 | 0 | 1 | 0 | 0 | 0.1978 |
| SARASOTA MAIN | 3 | 5 | 12 | 16 | 19 | 10.093 |
| SARASOTA NORTHSIDE | 1 | 3 | 5 | 7 | 8 | 4.4183 |
| SARASOTA SOUTHSIDE | 1 | 4 | 8 | 10 | 11 | 6.2452 |
| SARASOTA SPRINGS | 1 | 2 | 4 | 5 | 5 | 3.1648 |
| SIESTA KEY | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| ST. ARMANDS KEY | 0 | 1 | 1 | 1 | 1 | 0.7556 |
| VENICE MAIN | 1 | 3 | 6 | 7 | 8 | 4.6161 |
| VENICE SOUTH | 1 | 1 | 1 | 2 | 2 | 1.3379 |

FRAME RELAY
CENTRAL OFFICE DEPLOYMENT INTEROFFICE TRANSPORT DISTANCE LATA: 952

|  |  | A-MILES TO <br> FRAME RELAY WEIGHTED |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CENTRAL OFFICE | CLLI | VERT | HOR | NODE DISTANCE |  |

## EXHIBIT G <br> FRAME RELAY <br> FORECAST AND <br> INTEROFFICE TRANSPORT ANALYSIS

The following pages detail the forecast and interoffice transport analysis for Frame Relay Service - 56 Kbps for the first five years.

FRAME RELAY

## T-98-98. 35

CENTRAL OFFICE DEPLOYMENT
INTEROFFICE TRANSPORT DISTANCE
LATA: 952
CLEARWATER MAIN NODE

| 1 |  |  | A-MILES TO <br> 2 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | FRAMERELAY WEIGHTED |  |  |

## T-93-335

FRAME RELAY
CENTRAL OFFICE DEPLOYMENT INTEROFFICE TRANSPORT DISTANCE LATA: 952
LAKELAND MAIN NODE


FRAMERELAY
CENTRAL OFFICE DEPLOYMENT INTEROFFICE TRANSPORT DISTANCE
LATA: 952
ST. PETERSBURG MAIN NODE

|  |  | A-MILES TO <br> FRAME RELAY WEIGHITED |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CENTRAL OFFICE | CLLI | VERT | HOR | NODE DISTANCE |  |

FRAME RELAY
CENTRAL OFFICE DEPLOYMENT
INTEROFFICE TRANSPORT DISTANCE
LATA: 952
TAMPA MAIN NODE

| CENTRAL OFFICE | CLLI | VERT | HOR | A-MILES TO FRAME RELAY | $\begin{aligned} & \text { HTED } \\ & \text { NCE } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ALAFIA | ALFAFLXA67H | 8183 | 1122 | 8.64 | 0.03 |
| BAYSHORE | BYSHFLXA84H | 8194 | 1140 | 7.30 | 0.00 |
| BEACH PARK | BHPKFLXA28H | 8180 | 1157 | 4.05 | 0.17 |
| BRANDON | BRNDFLXA68H | 8157 | 1116 | 10.89 | 0.17 |
| CARROLWOOD | CRWDFLXA96H | 8151 | 1169 | 9.62 | 0.19 |
| HYDE PARK | HYPKFL XADS0 | 8175 | 1148 | 1.00 | 0.02 |
| KEYSTONE | KYSTFL XA92H | 8154 | 1185 | 13.30 | 0.02 |
| LAND O' LAKES | LNLKFLXA99H | 8116 | 1183 | 21.05 | 0.03 |
| LUTZ | LUTZFL XA94H | 8134 | 1169 | 13.89 | 0.04 |
| OLDSMAR | OLDSFLXA85H | 8175 | 1186 | 12.37 | 0.10 |
| RUSKIN | RSKNFLXA64H | 8214 | 1118 | 16.14 | 0.05 |
| SEMINOLE | SMNLFLXA23F | 8164 | 1152 | 2.98 | 0.03 |
| SULPHUR SPRINGS | SLSPFLXA93H | 8159 | 1156 | 5.00 | 0.09 |
| SWEETWATER | SWTHFLXA88H | 8174 | 1170 | 730 | 0.25 |
| TAMPA EAST | TAMPFEXE62H | 8160 | 1135 | 5.37 | 0.22 |
| TAMPA MAIN | TAMPFLXX22H | 8172 | 1147 | 0.00 | $0.01{ }^{\text {². }}$ |
| TAMPA WESTSIDE | WSSDFLXA87H | 8175 | 1156 | 3.00 | 0.15 |
| TEMPLE TERRACE | TMTR L XADSO | 8150 | 1145 | 6.99 | 0.06 |
| THONOTOSASSA | THNTFLXA986 | 8136 | 1132 | 12.33 | 0.02 |
| UNIVERSITY | UNVRFLXA97H | 8150 | 1153 | 7.21 | 0.10 |
| WALLCRAFT | WLCRFLXA83F | 8185 | 1148 | 4.12 | 0.05 |
| WESLEY CHAPEL | WLCHFLXASTH | 8110 | 1159 | 19.97 | 0.03 |
| WIMAUMA | WIMMFLXA63H | 8205 | 1101 | 17.90 | 0.06 |
| YBOR | YBCTFLXA24F | 8169 | 1145 | 1.14 | 0.02 |
|  |  |  | Subtotal |  | 1.87 |


| CENTRAL OFFICE | CLLI | VERT | HOR | A-MILES TO FRAME RELAY | $\begin{aligned} & \text { HTED } \\ & \text { NCE } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ALAFIA | ALFAFLXA67H | 8183 | 1122 | 8.64 | 0.03 |
| BAYSHORE | BYSHFLXA84H | 8194 | 1140 | 7.30 | 0.00 |
| BEACH PARK | BHPKFLXA28H | 8180 | 1157 | 4.05 | 0.17 |
| BRANDON | BRNDFLXA68H | 8157 | 1116 | 10.89 | 0.17 |
| CARROLWOOD | CRWDFLXA96H | 8151 | 1169 | 9.62 | 0.19 |
| HYDE PARK | HYPKFL XADS0 | 8175 | 1148 | 1.00 | 0.02 |
| KEYSTONE | KYSTFL XA92H | 8154 | 1185 | 13.30 | 0.02 |
| LAND O' LAKES | LNLKFLXA99H | 8116 | 1183 | 21.05 | 0.03 |
| LUTZ | LUTZFL XA94H | 8134 | 1169 | 13.89 | 0.04 |
| OLDSMAR | OLDSFLXA85H | 8175 | 1186 | 12.37 | 0.10 |
| RUSKIN | RSKNFLXA64H | 8214 | 1118 | 16.14 | 0.05 |
| SEMINOLE | SMNLFLXA23F | 8164 | 1152 | 2.98 | 0.03 |
| SULPHUR SPRINGS | SLSPFLXA93H | 8159 | 1156 | 5.00 | 0.09 |
| SWEETWATER | SWTHFLXA88H | 8174 | 1170 | 730 | 0.25 |
| TAMPA EAST | TAMPFEXE62H | 8160 | 1135 | 5.37 | 0.22 |
| TAMPA MAIN | TAMPFLXX22H | 8172 | 1147 | 0.00 | $0.01{ }^{\text {². }}$ |
| TAMPA WESTSIDE | WSSDFLXA87H | 8175 | 1156 | 3.00 | 0.15 |
| TEMPLE TERRACE | TMTR L XADSO | 8150 | 1145 | 6.99 | 0.06 |
| THONOTOSASSA | THNTFLXA986 | 8136 | 1132 | 12.33 | 0.02 |
| UNIVERSITY | UNVRFLXA97H | 8150 | 1153 | 7.21 | 0.10 |
| WALLCRAFT | WLCRFLXA83F | 8185 | 1148 | 4.12 | 0.05 |
| WESLEY CHAPEL | WLCHFLXASTH | 8110 | 1159 | 19.97 | 0.03 |
| WIMAUMA | WIMMFLXA63H | 8205 | 1101 | 17.90 | 0.06 |
| YBOR | YBCTFLXA24F | 8169 | 1145 | 1.14 | 0.02 |
|  |  |  | Subtotal |  | 1.87 |

BEACH PARK
BRANDON
CARROLWOOD
HYDE PARK
KEYSTONE
LAND O' LAKES
LUTZ
OLDSMAR
RUSKIN
SEMINOLE
SULPHUR SPRINGS
SWEETWATER
TAMPA EAST
TAMPA MAIN
TAMPA WESTSIDE
TEMPLE TERRACE
THONOTOSASSA
UNIVERSITY
WALLCRAFT
WESLEY CHAPEL
WIMAUMA
YBOR

FRAME RELAY
CENTRAL OFFICE FORECAST
FLORIDA
LATA: 952

| 1 |  | YEAR |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 |  |  |  |  |  |  | LEVELIZED |
| 3 | CENTRAL OFFICE | 1 | 2 | 3 | 4 | 5 | FORECAST |
| 4 |  |  |  |  |  |  | ------ |
| 5 | CLEARWATER MAIN | 23 | 55 | 122 | 153 | 169 | 96.192 |
| 6 | COUNTRYSIDE | 12 | 39 | 81 | 104 | 120 | 65.294 |
| 7 | DUNEDIN | 4 | 12 | 22 | 29 | 31 | 18.103 |
| 8 | HUDSON | 4 | 12 | 29 | 37 | 44 | 22.998 |
| 9 | INDIAN ROCKS | 4 | 4 | 11 | 14 | 16 | 9.091 |
| 10 | LARGO | 8 | 24 | 48 | 63 | 70 | 39.171 |
| 11 | MOON LAKE | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 12 | NEW PORT RICHEY | 8 | 32 | 70 | 89 | 99 | 54.564 |
| 13 | PINELLAS | 23 | 55 | 122 | 153 | 167 | 95.871 |
| 14 | SEVEN SPRINGS | 0 | 4 | 7 | 6 | 8 | 4.6156 |
| 15 | ST. GEORGE | 8 | 20 | 44 | 55 | 63 | 34.953 |
| 16 | TARPON SPRINGS | 4 | 16 | 37 | 43 | 52 | 27.811 |
| 17 |  |  |  |  |  |  |  |
| 18 | BRADLEY | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 19 | HIGHLANDS | 8 | 28 | 55 | 66 | 73 | 42.45 |
| 20 | LAKELAND EAST | 8 | 20 | 44 | 55 | 57 | 33.99 |
| 21 | LAKELAND MAIN | 23 | 55 | 118 | 147 | 164 | 93.529 |
| 22 | LAKELAND NORTH | 4 | 8 | 18 | 23 | 26 | 14.562 |
| 23 | MULBERRY | 4 | 8 | 18 | 23 | 26 | 14.562 |
| 24 | PINECREST | 0 | 4 | 4 | 3 | 3 | 2.6856 |
| 25 | PLANT CITY MAIN | 8 | 24 | 52 | 63 | 68 | 39.641 |
| 26 | ZEPHYRHILLS | 4 | 12 | 22 | 26 | 29 | 17.247 |
| 27 |  |  |  |  |  |  |  |
| 28 | ANNA MARIA | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 29 | BRANDENTON BAY | 8 | 28 | 63 | 78 | 83 | 47.774 |
| 30 | BRANDENTON MAIN | 8 | 32 | 66 | 84 | 96 | 52.4 |
| 31 | ENGLEWOOD | 4 | 8 | 18 | 23 | 26 | 14.562 |
| 32 | LONGBOAT | 4 | 4 | 7 | 12 | 13 | 7.4622 |
| 33 | MYAKKA MAIN | 0 | 0 | 0 | 0 | 3 | 0.4812 |
| 3.4 | NORTH PORT | 0 | 4 | 7 | 6 | 8 | 4.6156 |
| 35 | OSPREY | 0 | 4 | 7 | 6 | 8 | 4.6156 |
| 36 | PALMA SOLA | 4 | 12 | 22 | 29 | 31 | 18.103 |
| 37 | PALMETTO | 4 | 12 | 29 | 37 | 42 | 22.677 |
| 38 | PARRISH | 0 | 0 | 4 | 3 | 3 | 1.8069 |
| 39 | SARASOTA MAIN | 18 | 43 | 99 | 130 | 148 | 80.32 |
| 40 | SARASOTA NORTHSIDE | 8 | 20 | 44 | 55 | 60 | 34.471 |
| 41 | SARASOTA SOUTHSIDE | 8 | 32 | 63 | 81 | 89 | 50.15 |
| 42 | SARASOTA SPRINGS | 4 | 12 | 29 | 37 | 42 | 22.677 |
| 43 | SIESTA KEY | 0 | 4 | 4 | 6 | 8 | 4.0221 |
| 44 | ST. ARMANDS KEY | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 45 | VENICE MAIN | 8 | 20 | 44 | 55 | 60 | 34.471 |
| 46 | VENICE SOUTH | 4 | 8 | 11 | 17 | 18 | 10.8 '5 |

Continued

| 51 | BAYOU | 8 | 24 | 52 | 63 | 68 | 39.641 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 52 | FEATHER SOUND | 12 | 32 | 70 | 87 | 94 | 54.381 |
| 53 | GANDY | 8 | 24 | 48 | 63 | 68 | 38.85 |
| 54 | LEALMAN | 8 | 28 | 59 | 75 | 83 | 46.448 |
| 55 | NORTH GULF BEACH | 8 | 28 | 55 | 69 | 76 | 43.465 |
| 56 | PASADENA | 12 | 39 | 81 | 104 | 117 | 64.813 |
| 57 | SKYWAY | 8 | 28 | 59 | 72 | 78 | 45.112 |
| 58 | SOUTH GULF BEACH | 4 | 8 | 15 | 23 | 23 | 13.487 |
| 59 | ST. PETERSBURG MAIN | 23 | 47 | 111 | 141 | 156 | 88.035 |
| 60 | ST. PETERSBURG SOUTH | 4 | 8 | 11 | 17 | 18 | 10.825 |
| 61 |  |  |  |  |  |  |  |
| 62 | ALAFIA | 4 | 4 | 11 | 14 | 13 | 8.6098 |
| 63 | BAYSHORE | 0 | 0 | 0 | 3 | 3 | 1.0156 |
| 64 | BEACH PARK | 27 | 71 | 155 | 190 | 211 | 12054 |
| 65 | BRANDON | 8 | 28 | 55 | 69 | 78 | 43.786 |
| 66 | CARROLWOOD | 8 | 32 | 74 | 92 | 102 | 56.37 |
| 67 | HYDE PARK | 8 | 28 | 55 | 69 | 78 | 43.786 |
| 68 | KEYSTONE | 0 | 4 | 7 | 6 | 8 | 4.6156 |
| 69 | LAND O' LAKES | 0 | 4 | 4 | 6 | 8 | 4.0221 |
| 70 | LUTZ | 4 | 4 | 7 | 12 | 13 | 7.4622 |
| 71 | OLDSMAR | 4 | 12 | 29 | 35 | 39 | 21.84 |
| 72 | RUSKIN | 4 | 4 | 11 | 14 | 13 | 8.6098 |
| 73 | SEMINOLE | 4 | 16 | 29 | 37 | 44 | 23.877 |
| 74 | SULPHUR SPRINGS | 8 | 28 | 63 | 81 | 89 | 49.271 |
| 75 | SWEETWATER | 23 | 55 | 122 | 150 | 164 | 94.855 |
| 76 | TAMPA EAST | 27 | 67 | 144 | 179 | 198 | 113.44 |
| 77 | TAMPA MAIN | 27 | 71 | 158 | 202 | 224 | 12536 |
| 78 | TAMPA WESTSIDE | 31 | 83 | 180 | 228 | 250 | 142.12 |
| 79 | TEMPLE TERRACE | 4 | 12 | 29 | 37 | 42 | 22.677 |
| 80 | THONOTOSASSA | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 81 | UNIVERSITY | 8 | 24 | 48 | 63 | 68 | 38.85 |
| 82 | WALLCRAFT | 8 | 20 | 41 | 52 | 57 | 32.862 |
| 83 | WESLEY CHAPEL | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 84 | WIMAUMA | 4 | 4 | 11 | 14 | 18 | 9.4119 |
| 85 | YBOR | 8 | 32 | 70 | 84 | 94 | 52.871 |
| 86 |  |  |  |  |  |  |  |
| 87 | alturas | 0 | 0 | 4 | 3 | 3 |  |
| 88 | AUBURNDALE | 4 | 16 | 37 | 43 | 47 | 27.009 |
| 89 | BABSON PARK | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 90 | BARTOW MAIN | 8 | 20 | 41 | 49 | 52 | 31.526 |
| 91 | CYPRESS GARDENS | 4 | 4 | 11 | 12 | 13 | 8.2535 |
| 92 | DUNDEE | 0 | 4 | 7 | 6 | 8 | 4.6156 |
| 93 | FROSTPROOF | 0 | 4 | 7 | 9 | 10 | 5.4708 |
| 94 | HAINES CITY MAIN | 4 | 12 | 22 | 29 | 31 | 18.103 |
| 95 | HAINES CITY NORTH | 0 | 4 | 4 | 6 | 5 | 3.5409 |
| 96 | INDIAN LAKE MAIN | 0 | 0 | 0 | 0 | 0 | 0 |
| 97 | LAKE ALFRED | 0 | 4 | 7 | 6 | 8 | 4.6156 |
| 98 | LAKE WALES EAST | 0 | 0 | 4 | 3 | 3 | 1.8069 |
| 99 | LAKE WALES MAIN | 4 | 12 | 26 | 35 | 39 | 21.246 |
| 100 | POINCIANA | 0 | 0 | 0 | 0 | 0 | 0 |
| 101 | POLK CITY | 0 | 0 | 4 | 3 | 3 | 1.8069 |
| 102 | WINTER HAVEN | 8 | 28 | 55 | 72 | 81 | 44.802 |
| 103 |  |  |  |  |  |  |  |
| 104 |  | 517 | 469 | 3123 | 3924 | 4349 | 2809.5 |

## EXHIBIT H

CONTRIBUTION ANALYSIS
The following pages detail the Contribution Analysis for Frame Relay Service. A summary of the margin of contribution for each proposed rate element is detailed in the rate development exhibit for that element. A contribution analysis summary based on the forecast for the first five years of service is provided on page 1 with details for each rate element shown on page 2. The following calculations were used:
Annualized Monthly Recurring Revenue $=\quad($ Year N Forecast $) *$ Monthly Recurring Charge $)$

Annualized Monthly Recurring Cost $=$

Annualized Non-Recurring Cost $=$
\% Contribution $($ Margin $)=$
Annualized Non-Recurring Revenue $=$

Annualized Non-Recurring Revenue $=$
(Year N Forecast) * (Monthly Recurring Cost) * (12 Months)
\{(Year N Forecast) - (Year N-1 Forecast) ${ }^{*}$ (Non-Recurring Charge)
$\{($ Year N Forecast) - (Year N-1 Forecast) $\}$ (Non-Recurring Investment)
\{(Revenue) - (Cost) \} / (Cost)

FRAME RELAY
1
TOTAL REVENUE
(Recurring and Non-Recurring)
6 TOTAL COSTS
(Recurring and Non-Recurring
8
9
10
\% CONTRIBUTION
CONTRIBUTION
(Margin)

14 15

```
Year 1
Year 2
Year 3
Year 4
Year 5
\(\begin{array}{lllll}\$ 1,929,613 & \$ 4,947,178 & \$ 9,957,922 & \$ 11,707,644 & \$ 12,678,326\end{array}\)Year 1\$4,947,178\$9,957,9211,707,644,12,478,326
```

$\begin{array}{lllll}\mathbf{\$ 1 , 2 7 0 , 3 1 1} & \mathbf{\$ 3}, 141,591 & \mathbf{\$ 6 , 2 0 4 , 4 7 6} & \mathbf{\$ 7 , 0 6 5 , 3 4 4} & \mathbf{\$ 7 , 5 6 0 , 7 3 2}\end{array}$
S659,302 \$1,805,587 \$3,753,446 54,642,300 ..... $\$ 5,117,594$
$51.90 \% \quad 57.47 \% \quad 60.50 \% \quad 65.71 \% \quad 67.69 \%$

FRAME RELAY

## REVENUE:

## RECURRING:

Frame Relay Access - 1544 Mbps
Frame Relay Access - 56 Kbps
Frame Relay Port - 1.544 Mbps
Frame Relay Port - 56 Kbps
Frame Relay PVC
TOTAL

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| \$194,400 | \$496,800 | \$962,400 | \$1,197,600 | \$1,322,400 |
| \$403,260 | \$1,145,820 | \$2,435,940 | \$3,060,720 | 53,392,220 |
| \$388,800 | \$993,600 | \$1,924,800 | \$2,395,200 | \$2,644,800 |
| \$434,280 | \$1,233,960 | \$2,623,320 | \$3,296,160 | \$3,653,160 |
| \$177,540 | \$489,180 | \$1,014,180 | \$1,271,100 | S1,407,420 |
| \$1,598,280 | 54,359,360 | \$8,960,640 | \$11,220,780 | \$12,420,000 |
| S56,133 | 587,318 | \$134,442 | \$67,914 | \$36,036 |
| $\$ 175,780$ | \$323,680 | S562,360 | \$272,340 | \$144,500 |
| S4,050 | \$6,300 | \$9,700 | 54,900 | \$2,600 |
| S25,850 | \$47,600 | \$82,700 | \$40050 | \$21,250 |
| \$69,520 | \$122,920 | \$208,080 | \$101,660 | S53,940 |
| \$331,333 | \$587,818 | 5997,282 | S486,864 | \$258,326 |

NON-RECURRING:
Frame Relay Access - 1544 Mbps
Frame Relay Access -56 Kbps
Frame Relay Port - 1.544 Mbps
Frame Relay Port - 56 Kbps
Frame Relay PVC
TOTAL

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| \$194,400 | S496,800 | \$962,400 | \$1,197,600 | \$1,322,400 |
| \$403,260 | \$1,145,820 | \$2,435,940 | \$3,060,720 | 53,392,220 |
| \$388,800 | \$993,600 | \$1,924,800 | \$2,395,200 | \$2,644,800 |
| \$434,280 | \$1,233,960 | \$2,623,320 | \$3,296,160 | \$3,653,160 |
| \$177,540 | \$489,180 | \$1,014,180 | \$1,271,100 | S1,407,420 |
| \$1,598,280 | \$4,359,360 | \$8,960,640 | \$11,220,780 | \$12,420,000 |
| S56,133 | 587,318 | \$134,442 | \$67,914 | \$36,036 |
| \$175,780 | \$323,680 | S562,360 | \$272,340 | \$144,500 |
| S4,050 | \$6,300 | \$9,700 | \$4,900 | \$2,600 |
| \$25850 | \$47,500 | \$82,700 | \$40,050 | \$21,250 |
| S69,520 | \$122,920 | \$208,080 | \$101,660 | S53,940 |
| \$331,333 | \$587,818 | \$997,282 | S486,864 | \$258,326 |

COSTS:

```
RECURRING:
    Frame Relay Access - 1544 Mbps
    Frame Relay Access - 56Kbpo
    Frame Relay Port - 1.544 Mbps
    Frame Relay Port - 56 Kbps
    Frame Relay PVC
RECURRING:
```


# Frame Relay Access - 1.544 Mbps <br> Frame Relay Access - 56 Kbpo <br> Frame Relay Port - 1.544 Mbps <br> Frame Relay PVC 

TOTAL
NON-RECURRING:
Frame Relay Access - 1.544 Mbps
Frame Relay Access - 56 Kbps
Frame Relay Port - 1.544 Mbps
Frame Relay Port - 56 Kbps
Frame Relay PVC

TOTAL
NON-RECURRING:
Frame Relay Access - 1.544 Mbps

Year 1 Year 2 Year $3 \quad$ Year $4 \quad$ Year 5

| \$148,376 | \$379,183 | \$734,552 | \$914,068 | \$1,009,322 |
| :---: | :---: | :---: | :---: | :---: |
| \$203,491 | \$578,198 | \$1,229,213 | \$1,544,486 | \$1,711,766 |
| \$348,297 | \$890,092 | \$1,724,284 | \$2,145,680 | \$2,369,278 |
| \$236,248 | \$671,274 | \$1,427,086 | \$1,793,111 | \$1,987,319 |
| \$30,867 | \$85,443 | \$177,831 | \$222,968 | S246,917 |
| \$967,279 | \$2,604,190 | S5,292,966 | \$6,620,314 | 57,324,602 |


| \$56,133 | \$87,318 | \$134,442 | \$67,914 | 536,036 |
| :---: | :---: | :---: | :---: | :---: |
| \$175,780 | \$323,680 | \$562,360 | \$272,340 | \$144,500 |
| \$2,566 | \$3,992 | \$6,146 | \$3,105 | \$1,647 |
| \$16,379 | \$30,159 | \$52,399 | \$25,376 | \$13,464 |
| \$52,175 | \$92,251 | \$156,164 | \$76,296 | \$40,482 |
| \$303,032 | \$537,401 | \$911,511 | \$445,030 | \$236,129 |

## T-93-335

## EXHIBIT I

LEVELIZED ANNUITY PRICING PROGRAM (LAPP)

The financial and operational parameters used in in LAPP are shown on page 1. The LAPP outputs used in the rate development are detailed in pages 2 through 4.

# $T-93-335$ 

EXHIBIT I
GTE LEVELIZED NNWUITY PRICIMG PROGRNH
Version Release 2.0
state:
Levelized Unit Costs and Pricing
LEVELI2ED UWIT COST:

G. INCREMENTAL COST
PRICING:

1. Total Engineering $\mathbf{t}$ Installation Cost ..... 8171.63
2. Engineering $t$ Installation Units ..... 1.0000
3. ENGINEERING 2 IWSTALLATION COST PER UNIT $(1) /(2)$ ..... $\$ 171.43$

4. PROPOSED NON-RECURRING CHARGE (NRC) ..... $\$ 0.00$
5. Present Value from Annuity factor ..... 0.0139
6. Proposed MRC Per Unit Expressed as an Annuity (6)*(5) ..... $\$ 0.00$
7. IMCREMEMTAL MOWTHLY RECURRIMG CHARGE (G)-(6) ..... $\$ 151.81$
File: FRNHEDS:

## GTE LEVELIzED ANMUITY PRICIMG PROGRNH

EXHIBIT I
Version Relesse 2.0
$06 / 23 / 93$
Levelized Unit Costs and Pricing

## Study: Frame - DSO

## LEVELIzED UWIT COST:

| Contract Period $=$ | (a) | (b) | Annuitized |
| :---: | :---: | :---: | :---: |
| 120 Months | Annuitized | Amuitized | Cost Per Unit |
|  | Cost | Units | (a)/ (b) |
| A. Depreciation | 87.97 | 0.9734 | $\$ 8.19$ |
| B. Return | \$7.86 | 0.9734 | 28.05 |
| C. Income Tax | \$0.84 | 0.9734 | \$0.86 |
| D. Plant Specific Cost | 59.85 | 0.9734 | \$10.12 |
| E. Direct Administration Cost | 85.19 | 0.9734 | 55.33 |
| F. Gross Receipts tax on (A to E) | 20.73 | 0.9734 | \$0.75 |
| C. INCREMEMTAL COST |  |  | 533.31 |

PRICING:

3. ENGIMEERING 2 imstallation Cost per unit (1)/(2) 836.01
4. PROPOSED NOW-RECURRING CHARGE (NRC) $\quad \mathbf{3 0 . 0 0}$
5. Present value from Anoulty factor 0.0139
6. Proposed WRC Per Unit Expressed as an Arnuity (6)*(5) $\$ 0.00$
7. INCREMENTAL MOWTMLY RECURRIMG CHARGE (G)-(6) $\$ 33.31$

# GTE LEVELIZED ANMUITY PRICIMG PROGRNH 

## State: FLORIDA

Version Release 2.0
$04 / 23 / 93$
Levelized Unit Costs and Pricing
Study: Frane - PVC
File: FRAKEPVG

LEVELIZED UNIT COST:
$\qquad$

Contract Period = 120 Months
(a) Cost
(b)

Arruitized Units

Annuitized
Cost Per Unit
(a) / (b)
A. Depreciation
B. Return
C. Income Tax
D. Plant specific Cost
E. Direct Adninistration Cost
F. Gross Receipts Tax on (A to E)
80.18
$\$ 0.17$
$\$ 0.02$
80.21
80.13
$\$ 0.02$
0.9736
0.9736
0.9736
0.9736
0.9736
0.9734
50.18
$\$ 0.18$
$\$ 0.02$
30.22
$\$ 0.13$
$\$ 0.02$
G. INCREMEMTAL COST

## PRICING:

1. Total Engineering installation Cost ..... $\$ 19.43$
2. Engineering $t$ Instaltation Units ..... 1.0000
3. ENGINEERING 4 INSTALLATION COST PER UMIT (1)/(2) ..... $\$ 19.43$
4. PROPOSED MOM-RECURRIMG CMARGE (NRC) ..... $\$ 0.00$
5. Present Value fron Amulty factor ..... 0.0139
6. Proposed NRC Per Unit Expressed as an Amnuity (6)*(5) ..... $\$ 0.00$
7. IWCREMENTAL HOWTKLY RECURRING CHARGE (G)-(6) ..... $\$ 0.74$

## COMTEMTS



## .1 General

a. Frame Relay Service (FRS) is a "fast packet network service that permits the transmission of data at speeds from 56 kbps to 1.546 mbps using Permanent Virtual Circuits (PVCs).
b. Permanent Virtual Circuits (PVCs) are logical circuits that define a specific one-way path for data sent by the customer to another location. These circuits are virtual because they are established in softuare tables and do not tie up capacity when not in use. This also allows multiple PVCs to be defined over a single access line, thereby providing o single access line the capability to transmit data to multiple destinations.
c. In the operation of Frane Relay Service, Customer Premises Equipment (CPE), such as routers, encapsulate arriving data into variable length frames. These frames contain information identifying which PVC in the network should be used to forward the frame to the proper destination. The CPE then sends the frame into the Frane Relay network, The frame Relay. switch reads identifying information and routes the frame to the proper destimation based on a pre-established PVC.
d. The statistical multiplexing Frame Relay switches are able to provide shared network resources to end users of this service.
e. Frame Relay Service conforms to Consultative Committee for International Telearaph and Telephone (CCITT) and American National Standards Institute (AMSI) standards set forth in technical publications listed in this tariff under Reference to. Technical Publications.
f. Frame Relay Service, as provided for in this Tariff section, is offered for intralata use only.
g. The regutations and rates specified herein are in addition to the applicable regulations and rates specified in other sections-of this Tariff.
h. The rates and charges set forth for Frame Relay Service provide for the furnishing of service. where suitable facilities are available.

## . 2 Regulations

a. Explanation of Terms

Customer Designated Location (CDL) - The geographic location designated by the custoner at Which an access component of the customer's service is first considered to enter the Company's network.

Frame - A sequence of contiguous bits delimited by begiming and ending flag sequences.
Frame Relay Access Line (FRAL). Frame Relay Access Lines provide access to the Frame Relay Service (FRS) Network, connecting customer facilities at the Network Interface with a corresponding frame Relay Port,
Local Area Network (LAM) - A network permitting the interconnection and intersommnication of a group of computers, primarily for the sharing of resources such as date storage devices and printers.
Logical Channel - A communications channel through the network that ollous simultaneous transmission of sequenced data packets through the network.
Metwork Interface (M1) - The point at which a customer's date transmission first enters the network supporting Frape Reloy service is the Metwork Interface (M1). It is the point of interconnection between Company communications facilities and customer terainal equignent.

## . 2 Regulations (Continued)

d. Frame Relay is provided to the customer in the form of the Frame Relay Access line and the Permanent Virtual Connection (PVC). The Frame Relay Access line forms the local access component which provides the customer access to the custaner's serving central office and a primary address associated specifically with that custoner. The Logical link consists of the Frane Relay network and the interoffice transport and facilitíes from the customer's serving Central Office to the Frame Relay Office(s).
e. GTE Florida does not undertake to originate data, but offers the use of its service components, where available, to customers for the purpose of transporting customer-originated data.

## . 3 Obtigations of the Custamer

a. The customer's frame Relay compatible terminal equipment has the responsibility for error correction. Frame Relay Service (FRS) nodes may discard frames with errors and may discard frames when the network supporting fRS is in a state of congestion.
b. Where Irame Relay Service is available for use in connection with communications systems or equipment provided by a customer or user, the operating characteristics of such systems or equipment shall be such as not to interfere with any services offered by GTE Florida. Such use is subject to the further provisions that the equipment provided by the custamer or user does not endanger the safety of GTE Florida employees or the public; damage, harm, require change in or alteration of the equipment or other services of GIE Florida; interfere with the proper operation of GTE Florida's equipment or otherwise injure the public in its use of GiE Florida services. Upon notice fron GTE Florida that the equipment provided by the customer or user is causing, or is likely to cause, such hazard or interference, the customer shall take such steps as shall be necessary to remove or prevent such hazard or interference.
c. The customer, upon request, shall furnilh such information as may be required to permit GTE Florida to design and maintain the Frame Relay Service it offers and to assure that the service arrangement is in compliance with the regulations contained herein.
d. It shall be the responsibility of the custaner to ensure the continuing campatibility of the customer-provided equipment that is used in conjunction with the Frame Relay service. The CPE shall be in compliance with rulas and regulations as specified in section ATS of this tariff:
e. The customer shall be responsible for obtaining permission for GTE Florida agents or employees to enter the premises of the customer of any reasonable hour for the purpose of installing. inspecting, repairing, or, upon termination of the service, removing the service components of GTE Florida.
f. The customer shall be responsible for the payment of a nonrecurring Trouble isolation charge as found in section $\mathbf{A 1 5 . 4}$ of this tariff for each repair visit to a premises of the custamer or the premises of any other customer where the service difficulty or trouble results from the use of equipment or service components provided by the custoner.
g. The Custoner may only use a Frame Relay Access Line with frame Relay Service.

## . 4 Obligations of the Telephone Conpary.

a. The responsibility of GTE Florida shall be limited to furnishing network equipment suitable for frame Relay service and to the ainintenance and operation of such equipment in a amner proper for such service. Subject to this responsibility. GTE FToride shall not be responsible for the through transmission of signals generated by the customer-provided equipment or system, or for the quality of, or defects in, such transmission or the reception of signels by such equipment or systems.
b. GTE Florida shall not be responsible for installation, operation or maintenance of any terminal equipment, data unit or commenications system provided by a customer or user. GTE florida is not responsible for adapting frame Relay Service to the technological requirenents of any specific customer equipment.
c. When a customer orders a Permanent Virtual Connection (PVC) which is relayed to other Local Exchange Carriers, Interexchange Carriers or other Frame Relay networks, GTE Florida will provide advisory assistance as a part of the establishment of this PVC.

## A10.8 FRNE RELAY SERVICE (Cont iruued)

## .4 Obligations of the Telephone Conpary (Continued)

d. GTE Florida shall not be responsible to the custoner or user if changes in any of the equipment, operations or procedures of GTE Florida used in the provision of Frame Relay service render any facilities provided by the customer or user obsolete or require modification or alteration of such equipment or system or otherwise affect its use or performance, provided GTE Florida has met any applicable information disclosure requirements otherwise required by law.
e. GTE Florida undertakes the responsibility to maintain and repair the service which it furnishes. Wetwork equipment installed by GTE florida on the customer's premises shall be and remain the property of GIE Florida. The custoner or user may not rearrange, disconnect, remove, attempt to repair, remote test, or interface with any network equipment installed by GTE Florida without prior written consent by GTE Florida.
f. GTE Florida, by written notice to the customer, may immediately discontinue the furnishing of Frame Relay Service without incurring liability upon nonpayment of any sum due to GIE florida or a violation of any condition governing the furnishing of service.
g. GTE Florida has the service responsibility up to and including the network interface.

## . 5 Rates and Charges

a. The minimum contract period for Frame Relay Service is six months.
b. After the minimum contract period lapses, Frame Relay Service may be maintained on a month-tomonth basis.
c. A subsequent order to add Frame Relay Access Line(s) and/or Port Connection and Switching to an existing installation will be for a minimum contract period of six months.
d. A customer may access frame kolay Service (FRS) via a Frame Relay Access Line or via Companyprovided, digital, private line facilities. if a customer utilizes private line facilities, or private line transport with a Frame Relay Access line, to access FRS, the associated regulations, rates and charges for such private line facilities shall apply in addition to the rates and charges associated with the FRS elements.
e. A customer utilizing private line facilities to access FRS would not incur a nonrecurring charge, or monthly rate for a Frame Relay Access line, but would incur all other monthly rates and nonrecurring charges normally associated with the ordering, installation and provisioning of Frame Relay Service.
f. The total number of Frame Relay Permanent Virtual Connections (FR-PVCs) purchased determines the rate category for all FR-PVCs. For example, if 15 FR-PVCs are subscribed, then all PVCs will be rated at the monthly rate for 11 to 20 PVCs since 15 falls into that range.
9. When a customer subsequently orders additional $F R$-PVCs, the sum total of all FR-PVCs subscribed to by the Customer shall be used to determine the customer's FR-PVC monthly rate category for all FR-PVCs then subscribed,
h. When a customer orders additional PVCs or changes PVC assignments on a given FRS port after the initial port installation, the Frame Relay PVC nonrecurring charge shall apply.
i. Service Rearrangements
(1.) Service rearrangements are changes to existing (installed) services wich do not result in a change in the physical location of the network interface. (Changes in the physical location of the network interface are treated as moves and are described and charged fo: os set forth herein.)
(a.) Additions to Service
(.1) With the exception of Frame Relay Permanent Virtual Connections (PYGs). when service elements are added to an existing service, the added elements must meet the minimum period requirements associated with the service to wich they are added.
C.2) When PVCs are added to an existing Frame Relay Service, the minimum period for the added PVCs is one month.

## A10.8 FRNE RELAY SERVICE (Continued)

. 5 Rates end Charges, (Cont inued)
i. Service Rearrangements (Continued)

## (1.) (Continued)

## (c.) Administrative Changes

(.1) Adninistrative changes to existing service will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name, i.e., the customer or record does not change but rather the customer of record changes its name, e.g., XYZ Compeny to XYZ Commulications.
- Change of customer premises address when the change of oddress is not a result of a physical relocation of facilities,
- Change in billing data (name, address, or contact name or telephone
- Change of customer contact name or telephone number, and
- Change of customer service element identification.
j. Rate Elements
(.1) Frame Relay Access Line (FRAL)

A nonrecurring charge and monthly rate, both based on the speed of the port connection (f.e., 56 Kbps or 1.544 Mbps ), apply per port for each physical connection to the network supporting Frame Relay Service (FRS).
(.2) Frame Relay Port (FRP)

A monthly rate, besed on the speed of the port connection (i.e., 56 Kbps or 1.544 Mbps ) and the number of unidirectional pVCs assigned to the port, applies per port for esch Frame Relay Access Line or digital private line connection to the network supporting FRS.
(.3) Frame Relay PVC (FR-PVC)
(.a) A nonrecurring charge and a monthly rate apply for each unidirectional PVC. A monthly rate based on the speed of the port connection (i.e., 56 Kbps or 1.566 Mbps) and the number of unidirectional PVCs assigned to the port, applies per port.
(.b) A nonrecurring charge applies for each subsequent order of PVC(s) to be added to PVC assignment(s) changed on an existing FRS.

| (.1) |  |  | Nonrecurring. <br> Charge | GSEC | $\begin{aligned} & \text { Monthly } \\ & \text { Rote } \\ & \hline \end{aligned}$ | GSEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Frome Relay Access Line (FRAL), per FRAL |  |  |  |  |  |
|  | (.b) | 56 Kbpe FRAL 1.546 MGps FRAL | $\begin{array}{r} \$ 340.00 \\ 693.00 \end{array}$ | FRAL56NRC FRALTIMRC | $\begin{array}{r} \$ 65.00 \\ 200.00 \\ \hline \end{array}$ | $\begin{aligned} & \text { FRAL56 } \\ & \text { FRALT1 } \end{aligned}$ |
| (.2) | Frame | Relay Port (FRP), per FRP | 50.0050.00 | FRPRTMRC | 70.00400.00 | $\begin{aligned} & \text { FRPRT56 } \\ & \text { FRPRTTI } \end{aligned}$ |
|  | (.a) | 56 Kbps FRP |  |  |  |  |
|  | (.b) | 1.546 Mbps FRP |  | FRPRTMRC | 400.00 |  |

(.3) Frame Relay Permanent Virtual Connection
(PVC), per PVC

| (.a) 1 to 10 PVCs | 20.00 | FRPYCMRC | 5.00 | ERPVC10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| (.b) 11 to 20 PVCs | 20.00 | FRPVCNRC | 4.00 | FRPVC20 |
| (.c) 21 or more PVCs | 20.00 | FRPVCMRC | 3.00 | FRPVCOV20 |

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