

**Qwest Corporation**  
**PRICE LIST**

**ADVANCED COMMUNICATIONS  
SERVICES  
UTAH**

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**1. APPLICATION AND REFERENCE**

**1.6 EXPLANATION OF ABBREVIATIONS**

- |        |   |  |
|--------|---|--|
| ACS    | - | Advanced Communications Services                                 |
| ANSI   | - | American National Standards Institute                            |
| ATM    | - | Asynchronous Transfer Mode                                       |
| BC     | - | Business Class   |
| bps    | - | Bits per second  |
| BWP    | - | Bandwidth Profile  |
| CCITT  | - | The International Telegraph and Telephone Consultative Committee |
| CIR    | - | Committed Information Rate                                       |
| CNM    | - | Customer Network Management                                      |
| COCC   | - | Central Office Connecting Channel                                |
| CoS    | - | Class of Service   |
| CRS    | - | Cell Relay Service   |
| DE     | - | Discard Eligibility  |
| DSL    | - | Digital Subscriber Line  |
| ENNI   | - | External Network-to-Network Interface                            |
| EVC    | - | Ethernet Virtual Connection                                      |
| F.C.C. | - | Federal Communications Commission                                |
| FDDI   | - | Fiber Distributed Data Interface                                 |
| FRS    | - | Frame Relay Service  |
| GD     | - | Guaranteed Data  |
| IEEE   | - | Institute of Electrical and Electronic Engineers                 |
| kbps   | - | Kilobits per second  |
| LAN    | - | Local Area Network   |
| LATA   | - | Local Access and Transport Area                                  |
| LSS    | - | LAN Switching Services   |

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.1 DESCRIPTION**

**11.1.1 GENERAL**

Metro Optical Ethernet (MOE) Service is a flexible, easy-to-use transport service that uses established Ethernet transport technology. MOE allows customers to connect multiple enterprise locations within a service area using native Ethernet protocol. MOE is available over two distinct designs: Customer Premises and Central Office. (T)  
(C)

Customer Premises MOE supports transmission speeds as low as 1 Mbps and up to 1 Gbps in increments of 10 Mbps from 10 to 100 Mbps, and in increments of 100 Mbps from 100 to 1,000 Mbps. Central Office MOE supports transmission speeds of 100 Mbps, 600 Mbps and 1,000 Mbps. (C)

A MOE customer may request Special Facilities Routing (i.e., Diversity and Avoidance) as set forth in the Access Service Tariff, Section 11.

Technical Specifications for MOE Service are delineated in Qwest Corporation Technical Publication PUB 77411, listed in this Tariff under Reference to Technical Publications.

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.1 DESCRIPTION**

**11.1.2 SERVICE ELEMENTS(Cont'd)**

D. Bandwidth Profile (BWP)

The Bandwidth Profile (BWP) is provisioned over the MOE Port in two distinct designs: (T)

- Customer Premises Bandwidth Profile is the standard MOE offering which uses the native Ethernet protocol to connect multiple enterprise locations with the customer's premises.
- Central Office Bandwidth Profile is a MOE offering that originates and terminates in the same central office for use with SST, GeoMax and SHNS Ethernet Ports.

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**11.2 GENERAL TERMS AND CONDITIONS**

In addition to the terms and conditions in Section 2 and Section 3 of this Tariff, the terms and conditions in this section also apply for MOE

- A. The provisioning of MOE contemplates the use of existing facilities. There may be occasions when MOE is not available due to facilities limitations, or when it may be necessary to construct facilities. If Special Construction is involved, the regulations as set forth in Section 3.6, preceding will apply.
- B. For MOE, the Company will secure equipment space furnished by the customer under the terms of 2.3.4. This space must be accessible exclusively to the Company, as if the Company is the lessee.

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.3 RATE ELEMENTS**

**A. MOE Port**

A nonrecurring charge applies per new MOE Port. A nonrecurring charge for a MOE Port will also be assessed when an electrical port is changing to an optical port or an optical port is changing to an electrical port. There will be no charge if a customer goes from one electrical port to another electrical port or from one optical port to another optical port. Customers may choose to connect to an electrical 10/100 port or an electrical or optical 1,000 Mbps port on the Company network.

**B. Bandwidth Profile (BWP)**

A monthly rate is assessed per Bandwidth Profile (BWP) subscribed to and the term plan chosen as set forth in 11.4.A, following. Customers may subscribe to one of the following:

**1. Customer Premises Bandwidth**

- 10 Mbps Ports: 1 Mbps, 3 Mbps, 5 Mbps, 7 Mbps and 10 Mbps
- 100 Mbps Ports: 1 Mbps, 3 Mbps, 5 Mbps, 7 Mbps, 10 Mbps, 20 Mbps, 30 Mbps, 40 Mbps, 50 Mbps, 60 Mbps, 70 Mbps, 80 Mbps, 90 Mbps and 100 Mbps
- 1,000 Mbps Ports: 10 Mbps, 20 Mbps, 30 Mbps, 40 Mbps, 50 Mbps, 60 Mbps, 70 Mbps, 80 Mbps, 90 Mbps, 100 Mbps, 200 Mbps, 300 Mbps, 400 Mbps, 500 Mbps, 600 Mbps, 700 Mbps, 800 Mbps, 900 Mbps and 1,000 Mbps

**2. Central Office Bandwidth**

- 1,000 Mbps Ports: 100 Mbps, 600 Mbps and 1,000 Mbps

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.3 RATE ELEMENTS (Cont'd)**

C. Central Office Connecting Channel (COCC) (T)

The Central Office Connecting Channel (COCC) rate is comprised of a monthly recurring rate and a nonrecurring rate per connection. This rate will apply when a MOE Bandwidth Port connects to another service.

D. Optional Features (T)

1. Multiple Ethernet Virtual Connections (EVCs) or Operator Virtual Connections (OVCs).

Each MOE Port provided by the Company will come standard with the capability to provide one Ethernet Virtual Connection (EVC) or Operator Virtual Connection (OVC) at no additional charge. An OVC is associated with an ENNI port type. Customers may order more than one EVC or OVC per port, but for each additional EVC or OVC, the Company will bill a monthly EVC or OVC charge per port that the EVC or OVC terminate on, at rates set forth in 11.D.E, following. (T)

2. Quality of Service (QoS)

Quality of Service (QoS) allows customers to prioritize their traffic managed through the Company's MOE Service. QoS supports two different Classes of Service management options set forth below:

- Committed Information Rate (CIR) Class of Service or
- Priority Class of Service

Customers must choose the Class of Service management option that will support their Metro Ethernet Network (MEN) requirements. The MOE Service Technical Publication PUB 77411 has specific details to assist in this decision.

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.3 RATE ELEMENTS**

D. Optional Features

2. Quality of Service (QoS) (Cont'd)

(T)

a. Committed Information Rate (CIR) Class of Service offers three options ordered on a per Mbps basis. CIR bandwidths include:

- 1 Mbps through 10 Mbps in 1 Mbps increments
- 10 Mbps through 100 Mbps in 10 Mbps increments
- 100 Mbps through 1000 Mbps in 100 Mbps increments
- CIR bandwidths greater than 1000 Mbps are available on an Individual Case Basis (ICB)

Class of Service defines performance characteristics of the network that manages business applications designating with the following classes:

- Real Time (RT): Supports enterprise applications with the highest prioritization that require low frame delay, minimal frame loss and requires low jitter. Applications include voice, video and Telepresence.
  - Guaranteed Data (GD): Supports high priority enterprise application with tolerance for frame delay, frame loss and jitter. Applications include interactive services such as web conferencing, CCTV, video and voice.
  - Business Class (BC): Supports enterprise data applications with greater tolerance for frame delay, frame loss and jitter. BC is the baseline class for serving MOE so there are no additional charges for associated CIR bandwidth. Ordering procedures for BC is assigned for remaining CIR within the Bandwidth Profile.
- b. Priority Class of Service QoS for MOE allows customers to prioritize their traffic in four levels which are: Priority 1, Priority 2, Priority 3 and Priority 4 with preset templates based on percent allocation for class by the Bandwidth Profile (BWP). The four classes of service or priority levels uses are described below:

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**11.3 RATE ELEMENTS**

D. Optional Features

2. Quality of Service (QoS)

b. (Cont'd)

(T)

- Priority 1 – This Quality of Service class of service supports VoIP (Voice over Internet Protocol) and other near real time applications. A Quality of Service Guarantee is provided in 3, following.
- Priority 2 – This Quality of Service class of service supports interactive Video applications.
- Priority 3 - This Quality of Service class of service supports business data applications.
- Priority 4 - This Quality of Service is the default for all other traffic that is not defined in Priorities 1, 2 or 3 above. Priority 4 traffic will have the lowest priority on the network.

In all Quality of Service options, at least 3 Mbps or 5 Mbps of the Bandwidth Profile will be Priority 1 traffic. Priority 1 traffic is ordered in 3 Mbps or 5 Mbps increments and customers may order multiples of Quality of Service at monthly and Pricing Plan rates set forth in 11.5.D.2, following. The 3 Mbps increment of Priority 1 traffic option is only available for 3 Mbps, 5 Mbps and 7 Mbps Bandwidth Profiles. The 5 Mbps increment of Priority 1 traffic is available for 5 Mbps Bandwidth Profiles and higher.

(T)

Each individual Quality of Service reserves either 3 Mbps or 5 Mbps of the Bandwidth Profile for Priority 1 traffic. Customers may order multiple increments, but 3 Mbps and 5 Mbps increments may not be combined. For example: if a customer orders 4 increments of 5 Mbps of Quality of Service the customer would receive 20 Mbps of the Bandwidth Profile for Priority 1 traffic. In addition to the Priority 1 traffic, customers must specify the traffic percentage levels for Priorities 2, 3 and 4 for the remainder of the Bandwidth using the templates are described below:

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.3 RATE ELEMENTS**

- D. Optional Features
- 2. Quality of Service (QoS)
- b. (Cont'd)

(T)

When Quality of Service is ordered 8 different options or templates will be available. Each template specifies how the remaining Bandwidth Profile will be distributed to Priorities 2, 3 and 4 as set forth in the 8 templates, below:

	<u>Priority 2</u>	<u>Priority 3</u>	<u>Priority 4</u>
Template 1	20%	40%	40%
Template 2	25%	35%	40%
Template 3	30%	30%	40%
Template 4	35%	25%	40%
Template 5	40%	20%	40%
Template 6	45%	15%	40%
Template 7	50%	10%	40%
Template 8	55%	5%	40%

Quality of Service comes with a service guarantee for every 3 or 5 megabit increment of Priority 1 traffic. The SLA credit will be based on a specific calendar month's performance as set forth in Section 2.4.4.B.1, preceding.



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**11. METRO OPTICAL ETHERNET (MOE)**

**11.3 RATE ELEMENTS**

D. Optional Features (Cont'd)

(T)

3. Protect Routing

Protect Routing provides added reliability to MOE transported over fiber optic facilities. Protect Routing provides a separate facility path for the protection system between the serving wire center and the Company point of termination located in the same building as the customers designated premises when the customer or building owner provide the structure for diverse entrance facilities into the building. The Company will bill a monthly Protect Routing Charge as set forth in 11.5.D, following.

(T)

This added protection is provided by ensuring that backup electronics and two physically separate facility paths are used in the provisioning of the service. One primary (or working) service path is established between the serving wire center and the customer designated premises. In addition, a protect path is provisioned between the customer designated premises and the serving wire center via a Company designated alternate route. In the event that the working facility or electronics fail or the service performance becomes impaired, the facility automatically switches to the service protect path in order to maintain a near continuous flow of information between locations.

Protect Routing comes with a service guarantee should the continuity between the customer designated premises and serving wire center fail as set forth in Section 2.4.4.B.1, preceding.

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.5 RATES AND CHARGES**  
B. Bandwidth Profile(Cont'd)

(D)

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**11.5 RATES AND CHARGES**  
B. Bandwidth Profile(Cont'd)

(D)

(D)

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.5 RATES AND CHARGES**

C. Central Office Connecting Channel (COCC)

- Monthly

<b>NONRECURRING CHARGE</b>	<b>MONTHLY RATE</b>
\$30.00	\$10.00

(D)

(D)

(T)

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.5 RATES AND CHARGES (Cont'd)**

D. Optional Features

(T)

1. Ethernet Virtual Connections (EVC) or Operator Virtual Connections (OVC)

**MONTHLY  
RATE**

- Monthly:  
per EVC or OVC  
per port \$50.00

2. Quality of Service (QoS)

a. Committed Information Rate (CIR)

Class of Service (CoS)

- Per EVC or OVC  
per port

(1) Real Time

- 1 Mbps 18.00
- 2 Mbps 26.00
- 3 Mbps 34.00
- 4 Mbps 42.00
- 5 Mbps 50.00
- 6 Mbps 58.00
- 7 Mbps 66.00
- 8 Mbps 74.00
- 9 Mbps 82.00
- 10 Mbps 90.00

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**11.5 RATES AND CHARGES**

D. Optional Features

2. Quality of Service (QoS)

a. Committed Information Rate (CIR)

Class of Service (CoS)

(1) Real Time (Cont'd)

(T)

	<b>MONTHLY RATE</b>
• 20 Mbps	\$110.00
• 30 Mbps	130.00
• 40 Mbps	150.00
• 50 Mbps	170.00
• 60 Mbps	190.00
• 70 Mbps	210.00
• 80 Mbps	230.00
• 90 Mbps	250.00
• 100 Mbps	270.00
• 200 Mbps	344.00
• 300 Mbps	418.00
• 400 Mbps	492.00
• 500 Mbps	566.00

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**11.5 RATES AND CHARGES**

D. Optional Features

2. Quality of Service (QoS)

a. Committed Information Rate (CIR)

Class of Service (CoS)

(1) Real Time (Cont'd)

(T)

	<b>MONTHLY RATE</b>
• 600 Mbps	\$640.00
• 700 Mbps	714.00
• 800 Mbps	788.00
• 900 Mbps	862.00
• 1000 Mbps	936.00
(2) Guaranteed Data	
• 1 Mbps	11.00
• 2 Mbps	16.00
• 3 Mbps	20.00
• 4 Mbps	25.00
• 5 Mbps	30.00
• 6 Mbps	35.00
• 7 Mbps	40.00
• 8 Mbps	44.00
• 9 Mbps	49.00
• 10 Mbps	54.00

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**11.5 RATES AND CHARGES**

D. Optional Features

2. Quality of Service (QoS)

a. Committed Information Rate (CIR)

Class of Service (CoS)

(2) Guaranteed Data (Cont'd)

(T)

	<b>MONTHLY RATE</b>
• 20 Mbps	\$ 66.00
• 30 Mbps	78.00
• 40 Mbps	90.00
• 50 Mbps	102.00
• 60 Mbps	114.00
• 70 Mbps	126.00
• 80 Mbps	138.00
• 90 Mbps	150.00
• 100 Mbps	162.00
• 200 Mbps	206.00
• 300 Mbps	251.00
• 400 Mbps	295.00
• 500 Mbps	340.00



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**11. METRO OPTICAL ETHERNET (MOE)**

**11.5 RATES AND CHARGES**

- D. Optional Features (T)
2. Quality of Service (QoS)
    - a. Committed Information Rate (CIR)  
Class of Service (CoS)
      - (2) Guaranteed Data (Cont'd)

	<b>MONTHLY RATE</b>
• 600 Mbps	\$384.00
• 700 Mbps	428.00
• 800 Mbps	473.00
• 900 Mbps	517.00
• 1000 Mbps	562.00

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.5 RATES AND CHARGES**

- D. Optional Features (T)  
2. Quality of Service (QoS) (Cont'd)  
b. Priority Class of Service

	<b>MONTHLY RATE</b>
(1) Per 3 Mbps of Priority 1 Traffic [1]; per EVC, per port	
• Monthly	\$40.00
• 12 Months	35.00
• 24 Months	30.00
• 36 Months	25.00
• 60 Months	20.00
(2) Per 5 Mbps of Priority 1 Traffic; per EVC, per port	
• Monthly	65.00
• 12 Months	55.00
• 24 Months	50.00
• 36 Months	40.00
• 60 Months	35.00
	<b>NONRECURRING CHARGE</b>
(3) Per Change to an Existing Template [2];	
• per Template	\$175.00

[1] 3 Mbps of Priority 1 is only available for 3 Mbps, 5 Mbps and 7 Mbps Bandwidth Profiles.

[2] When the initial order is placed for Quality of Service, a Nonrecurring Charge (NRC) per Template will not apply. However, an NRC will apply any time an existing template is changed.

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**11. METRO OPTICAL ETHERNET (MOE)**

**11.5 RATES AND CHARGES**

D. Optional Features(Cont'd)

(T)

3. Protect Routing

	<b>MONTHLY RATE</b>
a. Per 10/100 Mbps, MOE Port	
• Monthly	\$1,200.00
• 12 Months	1,100.00
• 24 Months	1,050.00
• 36 Months	950.00
• 60 Months	900.00
b. Per 1,000 Mbps, MOE Port	
• Monthly	1,500.00
• 12 Months	1,400.00
• 24 Months	1,350.00
• 36 Months	1,250.00
• 60 Months	1,200.00