

ACCESS SERVICE

19. Wavelength Point-to-Point Service

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.1 General Description(A) Basic Service Description

Wavelength Service is a Special Access Service that provides high volume optical transport utilizing multiplexing technology in a point-to-point circuit configuration. Multiple data signals are transmitted over the same fiber-optic cable at the time, using different wavelengths of light, in order to increase the amount of information that can be transferred. Each wavelength represents a transmission channel in the Wavelength system and is protocol independent of every other channel in the system. Rates and charges for Special Access Service are set forth in Section 7.5. Wavelength Service allows customers to combine their multiple data signals so they may be amplified and transported over one network. Wavelength Service provides dedicated capacity over a single pair of fiber in two directions that increases capacity without limiting customer-required data interfaces.

The following regulations will apply to Wavelength Service:

- (1) Wavelength Point-to-Point Service is available with a one-year minimum period, under 12-month, 24-month, 36-month, 48-month, 60-month and 84-month OPP as described in Section 7.4.9. When a service is discontinued prior to the expiration of the minimum period, termination charges are applicable for the remaining portion of the minimum period.
- (2) Installation will not begin until the customer has accepted the proposal by the Telephone Company.

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.1 General Description (Cont'd)

(B) Service Provisioning

(2) Manner of Provisioning

Point-to-Point Service provides a customer a dedicated custom network. The network is in a architecture designed to provide increased reliability and functionality connecting multiple customer-designated locations and specified Telephone Company central Offices.

Customer provided equipment (CPE) must deliver the data signals for the Wavelength Service transport within the technical specifications for the subscribed data service. Technical specifications can be found in the Telcordia Technical Reference Publications and the following:

- ANSI X379.3, Fibre Channel (also includes FICON[™] and ISC^T)
- ANSI/IEEE 802.3, Fast Ethernet
- IEEE 802.3x and z, Gigabit Ethernet

(N)

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19. Wavelength Point-to-Point Service (Cont'd) (N)

19.1 General Description (Cont'd)

(B) Service Provisioning (Cont'd)

(3) Limitations

- (a) Optical amplifiers and/or regenerators may have to be added to a Wavelength Service subsequent to the initial installation.
- (b) When any additional services are added, such installations may cause a service interruption to existing unprotected channels, or a protection switch on protected channels.
- (c) Services with time-delay sensitive protocols have facility length limitations and may affect the design/availability of Wavelength Service. The Telephone Company will work cooperatively with the customer to determine if the desired services can operate between the customers designated premises. These services will not be available on Wavelengths nor between nodes where facility length limitations exceed the service specifications described in Sections 21.3(B)(1) & (2).
- (d) Neither electrical interfaces nor optical multiplexing are available with Wavelength Service.
- (e) Channel protection may not be available for all interface types.
- (f) A protective channel provides protection for a single channel toward the network. It does not protect the channel against failure towards the customer interface. Protection reduces the maximum individual channel capacity of the system.

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.1 General Description (Cont'd)(B) Service Provisioning (Cont'd)(4) Allowance for Service Interruptions

An interruption of service will start when an inoperative service is reported to the Telephone Company and end when the service is operative. In any month, as a result of an interruption, the total credit per rate element of the interrupted service may not exceed 100 percent of the monthly charge for that particular rate element as described in Section 2.4.4.

Any protected service interruptions greater than 2 consecutive seconds as a result of a failure on the protected portion of the circuit will result in a credit equal to one month's bill for the individual port-to-port connection involved. If the interruption occurs on an unprotected portion of the circuit, no credit shall be allowed for an interruption of less than thirty (30) minutes. The customer shall be credited for an interruption of 30 minutes or more at the rate of 1/1440 of the monthly charges for the facility or service for each period of 30 minutes or major fraction thereof that the interruption continues.

The minimum configuration would be two ports either at a serving wire center or at a customer premises site. If the ports are not in a serving wire center, a central office management site for monitoring is required. An optical amplifier located at a serving wire center can be used as a monitoring site.

A combination of these configurations may be used in a network design depending on the customer's traffic pattern.

Wavelength Point-to-Point Service configuration would be a port or ports at a customer premise site connecting through a Company central office to another customer premise site.

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

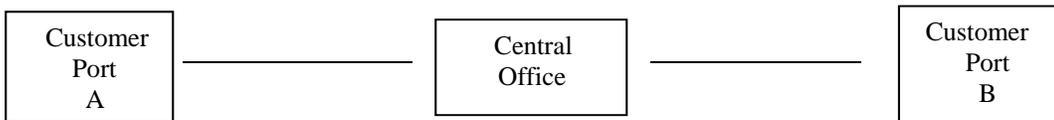
(N)

19.1 General Description (Cont'd)

(B) Service Provisioning (Cont'd)

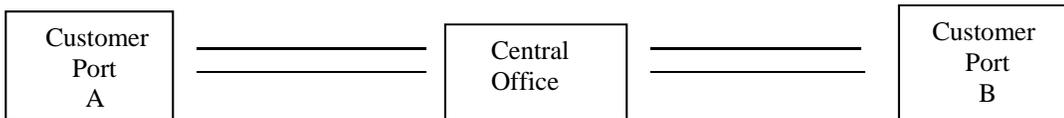
CBET Point-to-Point Wavelength Service

UNPROTECTED



CBET Point-to-Point Wavelength Service

PROTECTED



(C) Responsibility of The Telephone Company

The Telephone Company will provision and maintain Wavelength Service for the customer up to and including the Network Interface (NI).

(D) Responsibility of Customer

The customer is responsible for providing the compatible CPE to be used for the connection to the Wavelength Service.

(E) Service Rearrangements

Service rearrangements are provisioning changes to existing (installed) services which do not result in either a change in the minimum period requirements or a change in the physical location of the point of termination at a customer premises. See Section 13.3.11.

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.2 Route Diversity

Wavelength Service is configured with diversely routed fiber whenever possible. Unprotected channels will be lost in the event of a fiber path failure on which the circuit is assigned. Equipment interfaces towards the customer are not protected.

Routing of fiber may be diversified from the customer premises to their serving wire center or alternate serving wire center as determined by the Telephone Company, and where facilities are available, to ensure that loop fibers follow separate paths to the serving wire center or alternate serving wire center. Special construction costs may be incurred to ensure diverse routing of the fiber. In addition, IOF (interoffice facility) fiber paths may be diversified to ensure that at any serving wire center drop node, the fibers do not egress and ingress at the same location. In cases where the serving wire center does not have multiple entrance fiber facilities, the section of the fiber from the manhole closest to the serving wire center will be routed within the same duct structure.

At the customer's request, additional protection to the customer premises nodes can be provided via dual entrance facilities. This special request will cause the customer to incur special construction cost. Without this special request, diverse fiber is provided to the manhole closest to the customer premises. The customer or building owner is responsible for providing the conduit.

In the case where dual entrance facilities are not established at the customer premises, collapsed facilities from the customer premises to the building equipment location are not diverse.

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.3 Rate Regulations

(A) Rate Elements

There are two basic rate elements which apply to Wavelength Service. The Port/per circuit termination can be located at either a customer premises or the Telephone Company Central Office.

(1) Customer Premises Port/Per circuit termination

Provides for the termination of service at the customer's premises and presents the various selected ports to the customer. Applies per customer designated premises.

(2) Central Office Port/Per circuit termination

Provides for the termination of service at a Telephone Company Serving Wire Center. Applies per Node at the Telephone Company Serving Wire Center.

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.3 Rate Regulations (Cont'd)(B) Wavelength Connection Capacity

Wavelength Service offers the following port interfaces:

(1) IBM Protocols:

FICON™ (1.0625 and 2.125 Gbps) - A higher-speed evolution of ESCON™, enabling 1 Gbps connectivity among mainframes, storage devices and peripherals. FICON™ is limited to a maximum distance of 100 km and actual data throughput is distance sensitive.

ISC™ (1.0625 Gbps) - Inter-System Coupling. This protocol is used with IBM GDPS™ architecture for multiple-location host processors. ISC™ is limited to a maximum distance of 40 km.

(2) Other Protocols:

Fibre Channel (1.0625 and 2.125 Gbps) - an industry standard protocol used to interconnect Storage Area Networks (SANs). Fibre Channel is limited to a maximum distance of 100 km and actual throughput is distance sensitive.

Gigabit Ethernet - a version of Ethernet that allows data transmission rates of 1 Gbps.

10 Gigabit Ethernet - a version of Ethernet that allows data transmission rates of 10 Gbps.

10 Gigabit Ethernet (WAN-PHY) - a version of Ethernet that allows data transmission rates of 9.953 Gbps with a WAN-PHY only interface.

10 Gigabit Ethernet (LAN-PHY)- a version of Ethernet that allows data transmission rates of 10.3125 Gbps with a LAN-PHY only interface.

SONET OC-192/192c - provides a fiber-based 9953.28 Mbps synchronous optical full duplex data transmission capability. (N)

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19. Wavelength Point-to-Point Service (Cont'd)

(N)

19.3 Rate Regulations (Cont'd)(C) Term Pricing Plan

The rates and charges set forth for Wavelength Service provide for the furnishing of service where suitable facilities are available. Where special construction of facilities is necessary, special construction charges may apply.

If Customer cancels, in whole or in part, any requested addition, rearrangement, relocation or other modification to Wavelength service prior to completion thereof, Customer will reimburse CBET for the actual expenses incurred by CBET in connection with such modification prior to CBET's receipt of notice of cancellation; provided, however, the amount of such reimbursement will not exceed the service, construction, installation, termination and other charges for which Customer would have otherwise been responsible.

Wavelength Service is available for a minimum term of 12 months or under a term payment plan of 12, 24, 36, 48, 60, or 84 months. If a Customer terminates a service, without cause, prior to the expiration of the term, the Customer will pay to CBET a termination charge equal to all remaining amounts due or to become due, including but not limited to all monthly charges for which Customer would have been responsible if the Customer had not terminated prior to the end of the applicable 12, 24, 36, 48, or 60-month term payment plan as shown in Section 7.4.9.

If Customer removes one or more ports from service prior to the expiration of the term hereof, Customer will pay to CBET a termination charge equal to all monthly charges for such element(s) for which Customer would have been responsible had Customer not removed such port(s).

(N)

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19. Wavelength Point-to-Point Service (Cont'd)

19.3 Rate Regulations (Cont'd)

(C) Term Pricing Plan (Cont'd)

Upon completion of the term payment plan contract the customer may renew their contract at the current, tariffed rates. If customer does not renew their contract prior to the expiration date and does not select to discontinue Wavelength Service, CBET will furnish Wavelength Service to the Customer as specified in the contract on a month-to-month basis at the current, monthly tariffed rates (which will be subject to company initiated rate changes).

If customer elects a new term payment plan, prior to the expiration of their current contract, the monthly charges will be adjusted to the current tariffed rates in effect at the time of renewal. There will be no credits or refunds made to the Customer for payments made under the previous contract term, but nonrecurring charges will not be reapplied. If Customer reduces the number of ports in service, then termination charges will be applied for the removed service. Customer may not elect a term payment plan that is shorter than the remainder of the current term payment plan.

(D) Wavelength Service Expedite Charge

(N)

When placing an Access Order for service(s) for which standard intervals exist, a customer may request a service date that is prior to the standard interval service date.

The customer may also request an earlier service date on a pending standard or negotiated interval Access Order. If the Telephone Company agrees to provide service on an expedited basis, subject to limitations of personnel and material, an Expedited Order Charge will apply.

	<u>USOC</u>	<u>Rate</u>	
Expedite, per Order	CX4WX	\$ 2,100.00	(N)

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19 Wavelength Point-to-Point Service (Cont'd)

(N)

19.4 Rates and Charges Cont'd)

(A) Ports Point-to Point Service

Per Port/Per circuit termination location

<u>USOC</u>	<u>12 Month</u>	<u>24 Month</u>	<u>36 Month</u>	<u>48 Month</u>	<u>60 Month</u>	<u>84 Month</u>
FICON TM /ISC TM ESCON TM (1.0625 Gbps)						
- protected channel						
PROAD	5,250.00	5,092.50	4,882.50	4,725.00	4,620.00	2,900.00
- unprotected channel						
UNPAD	2,625.00	2,546.25	2,441.25	2,362.50	2,310.00	1,450.00
FICON TM /ESCON TM (2.125 Gbps)						
- protected channel						
PROBD	5,916.66	5,735.00	5,506.66	5,325.00	5,190.00	3,650.00
- unprotected channel						
UNPBD	2,958.33	2,867.50	2,753.33	2,662.50	2,595.00	1,825.00
Fibre Channel (1.0625 Gbps)						
- protected channel						
PROCD	5,250.00	5,092.50	4,882.50	4,725.00	4,620.00	2,900.00
- unprotected channel						
UNPCD	2,625.00	2,546.25	2,441.25	2,362.50	2,310.00	1,450.00
Fibre Channel (2.125 Gbps)						
- protected channel						
PRODD	5,916.66	5,735.00	5,506.66	5,325.00	5,190.00	3,650.00
- unprotected channel						
UNPDD	2,958.33	2,867.50	2,753.33	2,662.50	2,595.00	1,825.00
SONET OC-192/OC-192c						
- protected channel						
PROED	11,250.00	10,875.00	10,500.00	10,125.00	9,750.00	7,000.00
- unprotected channel						
UNPED	5,625.00	5,437.50	5,250.00	5,062.50	4,875.00	3,500.00 (N)

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19 Wavelength Point-to-Point Service (Cont'd)19.4 Rates and Charges Cont'd)(A) Ports Point-to Point Service (Cont'd)

Per Port/Per circuit termination location

	<u>USOC</u>	<u>12 Month</u>	<u>24 Month</u>	<u>36 Month</u>	<u>48 Month</u>	<u>60 Month</u>	<u>84 Month</u>	
1 Gbps Ethernet								
- protected channel								
PROFD	5,250.00	5,092.50	4,882.50	4,725.00	4,620.00	4,620.00	2,900.00	
- unprotected channel								
UNPFD	2,625.00	2,546.25	2,441.25	2,362.50	2,310.00	2,310.00	1,450.00	
10 Gbps Ethernet								
- protected channel								
PROGD	11,250.00	10,875.00	10,500.00	10,125.00	9,750.00	9,750.00	7,000.00	
- unprotected channel								
UNPGD	5,625.00	5,437.50	5,250.00	5,062.50	4,875.00	4,875.00	3,500.00	
40 Gbps OC768 & OTU3/STM 256								
- protected channel								(N)
PROHD	45,000.00	35,000.00	26,250.00	25,326.00	24,350.00	24,350.00	17,500.00	
- unprotected channel								
UNPHD	22,500.00	17,500.00	13,125.00	12,663.00	12,175.00	12,175.00	8,750.00	
100 Gbps Ethernet								
- protected channel								
PROJD	99,500.00	55,000.00	39,400.00	38,000.00	36,500.00	36,500.00	26,250.00	
- unprotected channel								
UNPJD	49,750.00	27,500.00	19,700.00	19,000.00	18,250.00	18,250.00	13,125.00	(N)

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