

COMMONWEALTH OF PUERTO RICO
PUERTO RICO TELECOMMUNICATIONS REGULATORY BOARD

BLACKBURN TECHNOLOGIES LLC's TARIFF

GENERAL INFORMATION

CHECK PAGE

The pages of this tariff are effective as of the date shown at the bottom of the respective page(s).

Page	1	Original
Page	2	Original
Page	3	Original
Page	4	Original
Page	5	Original
Page	6	Original
Page	7	Original
Page	8	Original
Page	9	Original
Page	10	Original

TABLE OF CONTENTS

	Page
CHECK PAGE	2
TABLE OF CONTENTS.....	3
TRANSPORT SERVICE.....	4
1. General.....	4
2. Definitions.....	4
3. Service Description.....	4
4. Terms and Conditions.....	5
5. Limitations.....	6
6. Types of Rates and Charges.....	6
7. Rates and Charges.....	7
8. Term Pricing Plan.....	7
9. Special Pricing Arrangements.....	8
10. Service Level Agreement.....	9

OPTICAL TRANSPORT SERVICE

1. General

1.1. Transport Service provides high capacity optical transport capabilities utilizing a point-to-point topology delivered via optical or wireless facilities.

2. Definitions

2.1. The following definitions apply only to Transport Service:

- A. Availability - The relative amount of time that a service is "usable" by a customer, represented as a percentage over any calendar month.
- B. Channel - An electrical or photonic (in the case of fiber optic-based transmission systems) communications path between two or more points of termination.
- C. Gigabit Per Second (Gbps) - The speed with which the data is being transferred in the network, where one Gbps is equal to the transfer rate of 1,000 million bits of data in 1 second.
- D. Network Element (NE) - A hardware only or combined hardware/software-based system that is primarily designed to directly perform a telecommunications function. For digital transmission surveillance, an NE is the part of network equipment where a transport entity (e.g., line or path) is terminated and monitored.
- E. Network Interface (NI) - The point of demarcation on the customer's premises at which Qwest's responsibility for the provisioning and maintenance of service ends.
- F. Optical Transport Network (OTN) - The transport network defined by the ITU-T which is composed of a set of optical network elements connected by optical fiber links, able to provide functionality of transport, multiplexing, routing, management, supervision and survivability of optical channels carrying client signals.
- G. Transparent - In communication systems, that property which allows transmission of signals without changing the electrical characteristics or coding beyond the specified limits of the system design.
- H. Wavelength Division Multiplexing (WDM) - A technology that allows two or more optical signals with different wavelengths to be simultaneously transmitted in the same direction over one fiber, and then separated by wavelength at the distant end.

3. Service Description

3.1. Transport Service provides high volume optical transport capabilities utilizing a point-to-point topology, delivered over a wave division multiplexing network. Multiple data signals are transmitted over the same fiber optic cable at the same time, using different wavelengths of light, in order to increase the amount of information that can be transferred.

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TRANSPORT SERVICE (CONT'D)

- 3.2. Each wavelength represents a transmission channel in the wavelength system and is protocol independent of every other channel in the system. The Transport Service provides the capability for customers to subscribe to individual transport and bit-rate-specific Wavelength Channels.
 - 3.3. An optical channel consists of two wavelengths, used to deliver bi-directional communications. Transponders at end locations are connected directly to Blackburn's DWDM optical layer and provide an open interface to customer network elements, thereby achieving virtual fiber connectivity between the customer's locations.
 - 3.4. The service is available at capacities of 2.5 and 10 Gbps per wavelength.
 - 3.5. The service can be purchased in either protected or unprotected solution configurations. Under the protected mode configuration, one initial active wavelength is provisioned over a single fiber pair, with an additional fiber pair to offer service resilience. In the event of a fiber break the service will automatically switch to the standby fiber route typically within 50 milliseconds.
 - 3.6. The service is protocol independent and allows the transport of a vast assortment of protocols.
 - 3.7. Neither electrical interfaces nor optical add/drop multiplexing are available with the Transport Service.
4. Terms and Conditions
- 4.1. The Transport Service provides physical layer transport only. Blackburn assumes no responsibility for the signals generated by the customer, for the quality or defects in such signals, for the reception of signals by the customer, or address signaling to the extent addressing is performed by the customer. Error detection and correction of data generated by the customer is the customer's responsibility.
 - 4.2. The customer is responsible to ensure that customer provided CPE meets any applicable technical requirements or limitations for the protocol used for the connection to the Transport Service.
 - 4.3. Allowance for Service Interruptions: An interruption of service will start when an inoperative service is reported to the Blackburn 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 6.1.
 - 4.4. Obligations of the Customer - The Customer is responsible for arranging access to its Premises at times mutually agreeable to Company and the Customer when required for installation, repair, maintenance, inspection or removal of equipment associated with the provision of Company services.

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TRANSPORT SERVICE (CONT'D)**5. Limitations**

- 5.1. Service is offered subject to the availability of the necessary facilities and/or equipment and subject to the provisions of this published price list. The Company may decline applications for service to or from a location where the necessary facilities or equipment are not available, or are not available on an economically feasible basis, in the best business judgment of the Company.
- 5.2. The Company shall not be liable for any failure of performance hereunder if such failure is due to any cause or causes beyond the reasonable control of the Company. Such causes shall include, without limitation, acts of God, fire, explosion, vandalism, cable cut, storm or other similar occurrence, any law, order, regulation, direction, action or request of the United States government or of any other government or of any civil or military authority, national emergencies, insurrections, riots, wars, strikes, lockouts or work stoppages or other labor difficulties, supplier failures, shortages, breaches or delays, or preemption of existing service to restore service in compliance with the FCC's Rules and Regulations.

6. Types of Rates and Charges

6.1. The follow rates categories are applicable to Transport Service:

A. Wavelength Channel Recurring Monthly Rates

A monthly recurring charge is made for each Local End, which includes the initial active wavelength, that apply each month or fraction thereof that Transport Service is provided. For billing purposes, each month is considered to have thirty (30) days.

After the first active wavelength that is supplied as standard service, both a connection and annual rental charge apply to additional wavelengths for each Local End. The number of additional wavelengths supported per system is subject to survey and is dependent upon fiber route availability.

B. Nonrecurring Charges

Nonrecurring charges (NRCs) are one-time charges that apply for specific work activity. The types of nonrecurring charges that apply to Transport Service are:

i. Activation and Provisioning

A fixed connection charge is made for each of the service's "Local Ends" (i.e. from each of the Customer's sites to the nearest Blackburn Transport Service point of presence). This charge includes the initial active wavelength that is provided as standard for this service.

TRANSPORT SERVICE (CONT'D)

ii. Service Configuration

Service configuration provides the Customer the ability to request modifications to a specific service connection subsequent to the establishment of the connection. Such modifications are changes to a Customer's service that do not involve the termination of the service at the Customer's premise (i.e. upgrades/downgrades of connection speeds that do not result in physical equipment changes).

- 6.2. The rates and charges set forth provide for the furnishing of service only where facilities presently exist. In locations where the service is not available, special construction charges will apply.

7. Rates and Charges

Wavelength Channels	Activation Charge	Monthly Rate
2.5 Gbps Wavelength Transport Unprotected	\$1,500.00	\$15,275
10 Gbps Wavelength Transport Unprotected	\$1,500.00	\$31,800
Channel Network Protection	\$750.00	\$1,000.00
Service Configuration Charge	\$1,500.00	

8. Term Pricing Plan

- 8.1. Minimum Period - The minimum period for which services are provided and for which rates and charges are applicable is one (1) year for services set forth in this Tariff unless otherwise specified. When a service is discontinued prior to the expiration of the minimum period, charges are applicable, whether the service is used or not.
- 8.2. Transport Service is available on a monthly basis with a one-year minimum term, or under a three (3) or five (5) year term payment plan, for which corresponding discount rates are applicable. 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.
- 8.3. 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 elect to discontinue Transport Service, Blackburn will furnish Transport 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).

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TRANSPORT SERVICE (CONT'D)

- 8.4. 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.

Wavelength Channels	36 Month Commitment	60 Month Commitment
2.5 Gbps Wavelength Transport Unprotected	\$13,000	\$11,450
10 Gbps Wavelength Transport Unprotected	\$27,050	\$23,850
Channel Network Protection	\$850	\$750

9. Special Pricing Arrangements

- 9.1. In lieu of the rates set forth in this Tariff, rates and charges for Blackburn's services may be established at negotiated rates on an Individual Case Basis (ICB), taking into account the nature of the facilities and services, the costs of construction and operation, the volume of traffic, the length of service commitment by the customer, and use of facilities by other customers. Such agreements shall be considered Special Pricing Arrangements, the terms of which will be set forth in individual customer contracts. However, unless otherwise specified, the terms, conditions, obligations and regulation set forth in this tariff shall be binding on Company and Customer. Specialized rates or charges will be made available to similarly situated customers on a non-discriminatory basis.

TRANSPORT SERVICE (CONT'D)**10. Service Level Agreement**

The following SLA agreement terms apply:

10.1. Performance

- A. Blackburn has designed its network to have BLACKBURN guarantees 99.97% network uptime over a 12-month period (excludes scheduled maintenance activity).

10.2. Performance Monitoring and Reporting

- A. The Company will be responsible for performing monitoring up to a demarcation point between Company facilities and other facilities.
- B. The Customer, at its expense, may provide surveillance equipment connected to the Customer's side of the Circuit demarcation point, which will provide Customer surveillance system operations with the capability to perform surveillance of the bypass system to the End-User Premises.
- C. The Company will sectionalize faults occurring within the system localized to Customer system elements as follows: Company Transmission equipment on the End-User Premises; equipment between Company and Customer facilities; and Company equipment at the Customer's facilities.

10.3. Maintenance and Repair

- A. Any maintenance required on the Company's system, on Company or Customer End User Premises, shall be performed by the Company or its designated contractor(s) at no additional cost to the Customer.
- B. The Company shall perform all maintenance functions on its system and facilities from the End-User Premises to the demarcation point at Customer facilities twenty-four (24) hours per day, seven (7) days per week. This includes only trouble maintenance (service restoration) functions. Company scheduled maintenance will be performed during specified Customer maintenance windows.
- C. Any maintenance or service function performed by the Company on the system which will or could affect service provided by Customer End-Users will be coordinated and scheduled as practical and feasible for the Carrier.
- D. Point of Contact - The Company shall maintain a twenty-four (24) hours a day, seven (7) days a week point-of-contact for the Customer to report to the Company any interruptions or failure in service.

TRANSPORT SERVICE (CONT'D)

- 10.4. Credit Allowance for Service Interruptions
- A. If the customer experiences Network Unavailability in excess of one (1) hour during a calendar month may receive Service Credit as follows:
- Network Unavailability equal to or greater than four (4) hours, but less than sixteen (16) hours, in a calendar month: twenty-four (24) hours Service Credit.
 - Network Unavailability equal to or greater than sixteen (16) hours, but less than twenty-four (24) hours in a calendar month: seven (7) days Service Credit.
 - Network Unavailability equal to or greater than twenty-four (24) hours in a calendar month: thirty (30) days Service Credit.
- B. Unless the customer has been notified of Network Unavailability by BLACKBURN, the customer should notify BLACKBURN Network Operations Center of such Network Unavailability promptly during such Network event.
- C. Each Customer must promptly report any problems and request that a Trouble Ticket be opened and must provide reasonable assistance in diagnosing any problem with the Service, including, without limitation, providing BLACKBURN support personnel access to the Customer premises, providing support personnel remote access to Customer's hardware, and providing assistance via telephone, fax or email.
- D. Service downtime is calculated commencing at the time at which Customer contacts BLACKBURN to report a Service problem and a Trouble Ticket is opened.