

BOARD OF COUNTY COMMISSIONERS

DATE: July 21, 2015
AGENDA ITEM NO. 20

Consent Agenda ☐

Regular Agenda ☒

Public Hearing ☐

 **County Administrator's Signature:**

Subject:

Approval of Purchase Authorization – Dedicated Enterprise-Wide Internet Access Services
Contract No. 145-0320-G(RW)

Department:

Business Technology Services / Purchasing

Staff Member Responsible:

Martin Rose, Director / Joe Lauro, Director

Recommended Action:

I RECOMMEND THE BOARD OF COUNTY COMMISSIONERS APPROVE THE PURCHASE AUTHORIZATION WITH TW TELECOM HOLDINGS, INC., LITTLETON, COLORADO, FOR DEDICATED ENTERPRISE WIDE INTERNET ACCESS SERVICES.

Summary Explanation/Background:

The purpose of this purchase authorization is to provide for annual requirements of internet access service in support of the Board of County Commissioners, all independent agencies and Constitutional Officers throughout the Business Technology Services' (BTS) Enterprise Network Service.

This purchase authorization will provide BTS a mechanism to continue supporting existing services which include: plan changes; implementation of metro-e services; location modifications and backup services to the Bright House Network. This purchase authorization reflects updates to certain County locations, the addition of metro-e services throughout Utilities supervisory control and data acquisition (SCADA) locations, an increase of internet bandwidth and will be sized to accommodate future growth.

The current requirements for internet access services are being acquired through General Services Administration (GSA) Schedule 70. The use of this agreement enables the County to leverage cost savings through GSA's economy of scale.

Pricing, terms and conditions of this purchase authorization request are per GSA Schedule 70, Information Technology Contract No. GS-35F-0426R, effective through March 17, 2020

Fiscal Impact/Cost/Revenue Summary:

Estimated fifty-five (55) month expenditure: \$ 2,500,000.00

Funding is derived from the BTS Operating Budget.

Exhibits/Attachments:

Contract Review
GSA Pricing



**PURCHASING DEPARTMENT
CONTRACT REVIEW TRANSMITTAL**

CATS
NO.: 47376

PROJECT: Dedicated Enterprise-Wide Internet Access Services

CONTRACT NUMBER: 145-0320-G (RW)

TYPE: ☒ Purchase Contract ☐ Other: ☐ Construction-Less than \$100,000 ☐ One Time

In accordance with the policy guide for Contract Administration, the attached documents are submitted for review and comment.

Upon completion of review, complete Contract Review Transmittal and forward to next Review Authority listed. Please indicate suggested changes by revising, in RED, the appropriate section of the document reflecting the exact wording of the change.

RISK MANAGEMENT: Please enter required liability coverage

PRODUCT ONLY ☐

Estimated 60-month expenditure not to exceed: \$2,000,000.00

	REVIEW AUTHORITY	REVIEW DATE	REVIEW SIGNATURE	COMMENTS (Attach Separate page if necessary)	COMMENTS INCORPORATED
1.	Purchasing Dept. J. Lauro, Director C. Mancuso, Asst. Director		<i>[Signature]</i>		
2.	Requesting Dept. M. Rose, CIO G. Carro, Manager <i>R. Sullivan, Mgr.</i> M. Buccigrossi, Contract Coordinator	<i>5/29</i> <i>4/8 MRE</i> <i>4/8 not available - MRE</i> <i>5/29</i>	<i>[Signature]</i> <i>MRE</i>	<i>see attachments to CM 3</i>	<i>Add from 3</i>
Using Dept please provide below information:					
A. <input type="checkbox"/> Yes, funding for this project is using grant funding. <input type="checkbox"/> No, funding for this project is not using grant funding. <i>memo</i> If grant funding is being used you must provide Purchasing with the exact clauses that need to be on attached document.					
B. <i>10-12-015 MRE</i> Initial and Date Funding is available for this project. Provide title of funding source <i>375 Operating Budget</i>					
3.	BCC Finance Attn: Cassandra Williams <i>Ross AD</i>	<i>6/10/15</i>	<i>R. Adun</i>	<i>SEE ATTACHES</i>	
4.	Risk Management Director Attn: Virginia E. Holscher <i>put 6-11-15</i> (Check applicable box at right)				HIGH RISK NOT HIGH RISK
5.	Legal Attn: Miles Belknap	<i>6/26/15</i>	<i>MB</i>	<i>BSA</i> <i>will discuss orders pages w/ purchasing</i>	
6.	Asst. County Administrator Attn: Paul Sacco				

RETURN ALL DOCUMENTS TO PURCHASING

Make all inquiries to:	Rianner Woodard, Procurement Analyst	at Extension 4-3149
In order to meet the following schedule, please return your requirements to Purchasing by: June 12, 2015		

TENTATIVE DATE: BCC Agenda Meeting of July 21, 2015



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CONTRACT REVIEW TRANSMITTAL**

CATS
NO.: 47376

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Using Dept please provide below information: A. <input type="checkbox"/> Yes, funding for this project is using grant funding. <input type="checkbox"/> No, funding for this project is not using grant funding. If grant funding is being used you must provide Purchasing with the exact clauses that need to be on attached document. B. <input checked="" type="checkbox"/> Partial and Date Funding is available for this project. Provide title of funding source <u>BTS Operating Budget</u>				
3. <u>BCC Finance</u> Attn: Cassandra Williams	6/10/15	R. Adin	See ATTACHED	
4. <u>Risk Management Director</u> Attn: Virginia E. Holscher (Check applicable box at right)	6-26-15	GW	Sect C Ins. Reg. ADDED TO CATS # 47376 - Return HC to RISK if LEGAL Reviewer's change agreement or if Scope of Serv. of work changes. GW White	HIGH RISK NOT HIGH RISK
5. <u>Legal</u> Attn: Miles Belknap				
6. <u>Asst. County Administrator</u> Attn: Paul Sacco				

RETURN ALL DOCUMENTS TO PURCHASING

Make all inquiries to:	Blanner Woodard, Procurement Analyst	at Extension 4-3140
In order to meet the following schedule, please return your requirements to Purchasing by: June 12, 2015		

TENTATIVE DATE: BCC Agenda Meeting of July 21, 2015



IT SCHEDULE 70
Contract

tw telecom holdings inc.

Authorized Information
Technology
Schedule Pricelist

Pricelist current through Modification 0139 dated January 23, 2015





**Authorized Federal Supply Service
Information Technology Schedule Pricelist
General Purpose Commercial Information Technology
Equipment, Software, and Services**

General Description

tw telecom holdings inc. is a leading provider of managed voice, Internet and data networking solutions to a wide range of business customers and organizations throughout the United States, and to our customers' global locations. As one of the three largest providers of Business Ethernet in the nation, we connect more commercial buildings to our national fiber network than any other competitive provider. We provide managed network services, specializing in Business Ethernet, IP VPN, Converged services, Internet access, transport data networking, voice, VoIP, and security to enterprise, large organizations and communications services companies alike. **tw telecom** operates in 75 U.S. metropolitan markets that have high concentrations of medium and large-sized businesses. Our fiber network covers over 30,000 route miles, directly connecting over 20,300 buildings served entirely by our facilities ("on-net"). We are expanding our footprint within existing markets by connecting our network into additional buildings. We continue to expand our Internet Protocol (IP) backbone data networking capability between markets supporting end-to-end Ethernet and Virtual Private Network (VPN) connections for customers. We have selectively interconnected existing service areas within regional clusters with fiber optic facilities that we own or lease. In addition, we provide inter-city switched services between our markets that offer our customers a virtual presence in a remote city. Our SONET-based networks include 100% fiber optic, fully redundant, self-healing digital rings. Diverse routing is standard on most of our metro services. With **tw telecom**, you will experience the highest quality voice, data and video communications transmission possible. Our innovative National Operations Centers, located in Denver, CO and O'Fallon, MO, monitor all of our networks for reliability and performance 24x7x365. As a leading provider of integrated and converged network solutions, **tw telecom** delivers overall economic value, quality, service and improved business productivity to our customers.

Special Item Number 132-52 Electronic Commerce Services

FPDS Code D304 Internet Access Services

FPDS Code D399 Other Data Transmission Services, Not Elsewhere Classified

Note 1: All non-professional labor categories must be incidental to and used solely to support hardware, software and/or professional services, and cannot be purchased separately.

Note 2: Offerors and Agencies are advised that the Group 70 – Information Technology Schedule is not to be used as a means to procure services which properly fall under the Brooks Act. These services include, but are not limited to, architectural, engineering, mapping, cartographic production, remote sensing, geographic information systems, and related services. FAR 36.6 distinguishes between mapping services of an A/E nature and mapping services which are not connected nor incidental to the traditionally accepted A/E Services.

Note 3: This solicitation is not intended to solicit for the reselling of IT Professional Services, except for the provision of implementation, maintenance, integration, or training services in direct support of a product. Under such circumstances the services must be performance by the publisher or manufacturer or one of their authorized agents.

tw telecom holdings inc.
10475 Park Meadows Drive
Littleton, Colorado 80124
Phone: 303-566-1000/Fax: 303-566-1011
E-mail: kathy.gatchis@twtelecom.com

Contract Number:	GS-35F-0426R
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Period Covered by Contract:	March 18, 2005 – March 17, 2020
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Products and ordering information in this Authorized FSS Information Technology Schedule Pricelist are also available on the GSA Advantage! System (<http://www.gsaaadvantage.gov>).

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Information for Ordering Activities

Applicable To All Special Item Numbers

SPECIAL NOTICE TO AGENCIES: Small Business Participation

SBA strongly supports the participation of small business concerns in the Federal Acquisition Service. To enhance Small Business Participation SBA policy allows agencies to include in their procurement base and goals, the dollar value of orders expected to be placed against the Federal Supply Schedules, and to report accomplishments against these goals.

For orders exceeding the micro-purchase threshold, FAR 8.404 requires agencies to consider the catalogs/pricelists of at least three schedule contractors or consider reasonably available information by using the GSA Advantage!™ on-line shopping service (www.gsadvantage.gov). The catalogs/pricelists, GSA Advantage!™ and the Federal Acquisition Service Home Page (www.fss.gsa.gov) contain information on a broad array of products and services offered by small business concerns.

This information should be used as a tool to assist ordering activities in meeting or exceeding established small business goals. It should also be used as a tool to assist in including small, small disadvantaged, and women-owned small businesses among those considered when selecting pricelists for a best value determination.

For orders exceeding the micro-purchase threshold, customers are to give preference to small business concerns when two or more items at the same delivered price will satisfy their requirement.

1. Geographic Scope of Contract:

Domestic delivery is delivery within the 48 contiguous states, Alaska, Hawaii, Puerto Rico, Washington, DC, and U.S. Territories. Domestic delivery also includes a port or consolidation point, within the aforementioned areas, for orders received from overseas activities.

Overseas delivery is delivery to points outside of the 48 contiguous states, Washington, DC, Alaska, Hawaii, Puerto Rico, and U.S. Territories.

Offerors are requested to check one of the following boxes:

- ☐ The Geographic Scope of Contract will be domestic and overseas delivery.
- ☐ The Geographic Scope of Contract will be overseas delivery only.
- ☒ The Geographic Scope of Contract will be domestic delivery only.

2. Contractor's Ordering Address and Payment Information:

Agencies should address all orders to the following address:

tw telecom holdings inc.
10475 Park Meadows Drive
Littleton, Colorado 80124

Agencies should address all payments to the following address:

tw telecom holdings inc.
Box 172567
Denver, CO 80217-2567

Contractors must accept the credit card for payments equal to or less than the micro-purchase threshold for oral or written orders under this contract. The Contractor and the ordering agency may agree to use the credit card for dollar amounts



over the micro-purchase threshold. (See GSAR 552.232-79 Payment by Credit Card). In addition, bank account information for wire transfer payments will be shown on the invoice.

The following telephone number(s) can be used by ordering activities to obtain technical and/or ordering assistance:

Ordering Assistance

Telephone: 888-329-0668

Fax: 303-566-6060

Technical Assistance

Telephone: 888-329-0668

Fax: 303-566-6060

3. Liability for Injury or Damage

The Contractor shall not be liable for any injury to ordering activity personnel or damage to ordering activity property arising from the use of equipment maintained by the Contractor, unless such injury or damage is due to the fault or negligence of the Contractor.

4. Statistical Data for Government Ordering Office Completion of Standard Form 279:

Block 9: G. Order/Modification Under Federal Schedule

Block 16: Data Universal Numbering System (DUNS) Number: 869502971

Block 30: Type of Contractor - C, Large Business

Block 31: Woman-Owned Small Business - No

Block 36: Contractor's Taxpayer Identification Number (TIN) 133699930

4a. CAGE Code: 1XG80

4b. Contractor has registered with the Central Contractor Registration Database.

5. FOB: Destination

6. Delivery Schedule

- a. TIME OF DELIVERY: The Contractor shall deliver to destination within the number of calendar days after receipt of order (ARO), as set forth below:

SPECIAL ITEM NUMBER	DELIVERY TIME (DAYS ARO)
132-52	TBD by TWTC and Ordering Activity

- b. URGENT REQUIREMENTS: When the Federal Supply Schedule contract delivery period does not meet the bona fide urgent delivery requirements of an ordering activity, ordering activities are encouraged, if time permits, to contact the Contractor for the purpose of obtaining accelerated delivery. The Contractor shall reply to the inquiry within 3 workdays after receipt. (Telephonic replies shall be confirmed by the Contractor in writing.) If the Contractor offers an accelerated delivery time acceptable to the ordering activity, any order(s) placed pursuant to the agreed upon accelerated delivery time frame shall be delivered within this shorter delivery time and in accordance with all other terms and conditions of the contract.

7. Discounts:

Prices shown are NET Prices; Basic Discounts have been deducted.

- a. Prompt payment: 0% 30 days from receipt of invoice or date of acceptance, whichever is later.
- b. Quantity -- None
- c. Dollar Volume -- None
- d. Government Educational Institutions -- Government Educational Institutions are offered the same discounts as all other Government customers.
- e. Other -- None

8. Trade Agreements Act of 1979, as Amended:

All items are U.S. made end products, designated country end products, Caribbean Basin country end products, or Free Trade Agreement Canadian end products, as defined in the Trade Agreements Act of 1979, as amended.

9. Statement Concerning Availability of Export Packing: N/A

10. Small Requirements:

The minimum dollar value of orders to be issued is \$100.

11. Maximum Order: (All dollar amounts are exclusive of any discount for prompt payment.)

The Maximum Order value for the following Special Item Numbers (SINs) is \$500,000.

Special Item Number 132-52, Electronic Commerce Services.

12. Ordering Procedures for Federal Supply Schedule Contracts

Ordering activities shall use the ordering procedures of Federal Acquisition Regulation (FAR) 8.405 when placing an order or establishing a BPA for supplies or services. These procedures apply to all schedules.

- a. FAR 8.405-1 Ordering procedures for supplies, and services not requiring a statement of work.
- b. FAR 8.405-2 Ordering procedures for services requiring a statement of work.

13. Federal Information Technology/Telecommunication Standards Requirements:

Ordering activities acquiring products from this Schedule must comply with the provisions of the Federal Standards Program, as appropriate (reference: NIST Federal Standards Index). Inquiries to determine whether or not specific products listed herein comply with Federal Information Processing Standards (FIPS) or Federal Telecommunication Standards (FED-STDS), which are cited by ordering activities, shall be responded to promptly by the Contractor.

13.1 Federal Information Processing Standards Publications (FIPS PUBS):

Information Technology products under this Schedule that do not conform to Federal Information Processing Standards (FIPS) should not be acquired unless a waiver has been granted in accordance with the applicable "FIPS Publication." Federal Information Processing Standards Publications (FIPS PUBS) are issued by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), pursuant to National Security Act. Information concerning their availability and applicability should be obtained from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. FIPS PUBS include voluntary standards when these are adopted for Federal use. Individual orders for FIPS PUBS should be referred to the NTIS Sales Office, and orders for

subscription service should be referred to the NTIS Subscription Officer, both at the above address, or telephone number (703) 487-4650.

13.2 Federal Telecommunication Standards (FED-STDS):

Telecommunication products under this Schedule that do not conform to Federal Telecommunication Standards (FED-STDS) should not be acquired unless a waiver has been granted in accordance with the applicable "FED-STD." Federal Telecommunication Standards are issued by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST), pursuant to National Security Act. Ordering information and information concerning the availability of FED-STDS should be obtained from the GSA, Federal Acquisition Service, Specification Section, 470 East L'Enfant Plaza, Suite 8100, SW, Washington, DC 20407, telephone number (202) 619-8925. Please include a self-addressed mailing label when requesting information by mail. Information concerning their applicability can be obtained by writing or calling the U.S. Department of Commerce, National Institute of Standards and Technology, Gaithersburg, MD 20899, telephone number (301) 975-2833.

14. Contractor Tasks / Special Requirements (C-FSS-370) (Nov 2003).

- a. Security Clearances: The Contractor may be required to obtain/possess varying levels of security clearances in the performance of orders issued under this contract. All costs associated with obtaining/possessing such security clearances should be factored into the price offered under the Multiple Award Schedule.
- b. Travel: The Contractor may be required to travel in performance of orders issued under this contract. Allowable travel and per diem charges are governed by Pub .L. 99-234 and FAR Part 31, and are reimbursable by the ordering agency or can be priced as a fixed price item on orders placed under the Multiple Award Schedule. Travel in performance of a task order will only be reimbursable to the extent authorized by the ordering agency. The Industrial Funding Fee does NOT apply to travel and per diem charges.
- c. Certifications, Licenses and Accreditations: As a commercial practice, the Contractor may be required to obtain/possess any variety of certifications, licenses and accreditations for specific FSC/service code classifications offered. All costs associated with obtaining/ possessing such certifications, licenses and accreditations should be factored into the price offered under the Multiple Award Schedule program.
- d. Insurance: As a commercial practice, the Contractor may be required to obtain/possess insurance coverage for specific FSC/service code classifications offered. All costs associated with obtaining/possessing such insurance should be factored into the price offered under the Multiple Award Schedule program.
- e. Personnel: The Contractor may be required to provide key personnel, resumes or skill category descriptions in the performance of orders issued under this contract. Ordering activities may require agency approval of additions or replacements to key personnel.
- f. Organizational Conflicts of Interest: Where there may be an organizational conflict of interest as determined by the ordering agency, the Contractor's participation in such order may be restricted in accordance with FAR Part 9.5.
- g. Documentation/Standards: The Contractor may be requested to provide products or services in accordance with rules, regulations, OMB orders, standards and documentation as specified by the agency's order.
- h. Data/Deliverable Requirements: Any required data/deliverables at the ordering level will be as specified or negotiated in the agency's order.
- i. Government-Furnished Property: As specified by the agency's order, the Government may provide property, equipment, materials or resources as necessary.

- j. Availability of Funds: Many Government agencies' operating funds are appropriated for a specific fiscal year. Funds may not be presently available for any orders placed under the contract or any option year. The Government's obligation on orders placed under this contract is contingent upon the availability of appropriated funds from which payment for ordering purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are available to the ordering Contracting Officer.

15. Contract Administration for Ordering Activities

Any ordering activity, with respect to any one or more delivery orders placed by it under this contract, may exercise the same rights of termination as might the GSA Contracting Officer under provisions of FAR 52.212-4, paragraphs (l) Termination for the ordering activity's convenience, and (m) Termination for Cause (See 52.212-4)

16. GSA Advantage!

GSA Advantage! is an on-line, interactive electronic information and ordering system that provides on-line access to vendors' schedule prices with ordering information. GSA Advantage! will allow the user to perform various searches across all contracts including, but not limited to:

1. Manufacturer;
2. Manufacturer's Part Number; and
3. Product categories.

Agencies can browse GSA Advantage! by accessing the Internet World Wide Web utilizing a browser (ex.: Netscape). The Internet address is <http://www.gsaadvantage.gov>.

17. Purchase of Open Market Items

NOTE: Open Market Items are also known as incidental items, non-contract items, non-Schedule items, and items not on a Federal Supply Schedule contract. ODCs (Other Direct Costs) are not part of this contract and should be treated at open market purchases. Ordering Activities procuring open market items must follow FAR 8.402(f).

For administrative convenience, an ordering activity contracting officer may add items not on the Federal Supply Multiple Award Schedule (MAS) -- referred to as open market items -- to a Federal Supply Schedule blanket purchase agreement (BPA) or an individual task or delivery order, **only if-**

1. All applicable acquisition regulations pertaining to the purchase of the items not on the Federal Supply Schedule have been followed (e.g., publicizing (Part 5), competition requirements (Part 6), acquisition of commercial items (Part 12), contracting methods (Parts 13, 14, and 15), and small business programs (Part 19));
2. The ordering activity contracting officer has determined the price for the items not on the Federal Supply Schedule is fair and reasonable;
3. The items are clearly labeled on the order as items not on the Federal Supply Schedule; and
4. All clauses applicable to items not on the Federal Supply Schedule are included in the order.

18. Contractor Commitments, Warranties and Representations

- a. For the purpose of this contract, commitments, warranties and representations include, in addition to those agreed to for the entire schedule contract:
 1. Time of delivery/installation quotations for individual orders;

2. Technical representations and/or warranties of products concerning performance, total system performance and/or configuration, physical, design and/or functional characteristics and capabilities of a product/equipment/ service/software package submitted in response to requirements which result in orders under this schedule contract.
3. Any representations and/or warranties concerning the products made in any literature, description, drawings and/or specifications furnished by the Contractor.

b. The above is not intended to encompass items not currently covered by the GSA Schedule contract.

19. Overseas Activities

The terms and conditions of this contract shall apply to all orders for installation, maintenance and repair of equipment in areas listed in the pricelist outside the 48 contiguous states and the District of Columbia, except as indicated below:

Not applicable

Upon request of the Contractor, the ordering activity may provide the Contractor with logistics support, as available, in accordance with all applicable ordering activity regulations. Such ordering activity support will be provided on a reimbursable basis, and will only be provided to the Contractor's technical personnel whose services are exclusively required for the fulfillment of the terms and conditions of this contract.

20. Blanket Purchase Agreements (BPAs)

The use of BPAs under any schedule contract to fill repetitive needs for supplies or services is allowable. BPAs may be established with one or more schedule contractors. The number of BPAs to be established is within the discretion of the ordering activity establishing the BPA and should be based on a strategy that is expected to maximize the effectiveness of the BPA(s). Ordering activities shall follow FAR 8.405-3 when creating and implementing BPA(s).

21. Contractor Team Arrangements

Contractors participating in contractor team arrangements must abide by all terms and conditions of their respective contracts. This includes compliance with Clauses 552.238-74, Industrial Funding Fee and Sales Reporting, i.e., each contractor (team member) must report sales and remit the IFF for all products and services provided under its individual contract.

22. Installation, Deinstallation, Reinstallation

The Davis-Bacon Act (40 U.S.C. 276a-276a-7) provides that contracts in excess of \$2,000 to which the United States or the District of Columbia is a party for construction, alteration, or repair (including painting and decorating) of public buildings or public works with the United States, shall contain a clause that no laborer or mechanic employed directly upon the site of the work shall receive less than the prevailing wage rates as determined by the Secretary of Labor. The requirements of the Davis-Bacon Act do not apply if the construction work is incidental to the furnishing of supplies, equipment, or services. For example, the requirements do not apply to simple installation or alteration of a public building or public work that is incidental to furnishing supplies or equipment under a supply contract. However, if the construction, alteration or repair is segregable and exceeds \$2,000, then the requirements of the Davis-Bacon Act applies.

The ordering activity issuing the task order against this contract will be responsible for proper administration and enforcement of the Federal labor standards covered by the Davis-Bacon Act. The proper Davis-Bacon wage determination will be issued by the ordering activity at the time a request for quotations is made for applicable construction classified installation, deinstallation, and reinstallation services under SIN 132-8.

23. Section 508 Compliance

If applicable, Section 508 compliance information on the supplies and services in this contract are available in Electronic and Information Technology (EIT) at the following:

Not applicable to this offer.

The EIT standard can be found at: www.Section508.gov/.

24. Prime Contractor Ordering from Federal Supply Schedules

Prime Contractors (on cost reimbursement contracts) placing orders under Federal Supply Schedules, on behalf of an ordering activity, shall follow the terms of the applicable schedule and authorization and include with each order –

- a. A copy of the authorization from the ordering activity with whom the contractor has the prime contract (unless a copy was previously furnished to the Federal Supply Schedule contractor); and
- b. The following statement:

This order is placed under written authorization from _____ dated _____. In the event of any inconsistency between the terms and conditions of this order and those of your Federal Supply Schedule contract, the latter will govern.

25. Insurance—Work On A Government Installation (JAN 1997)(FAR 52.228-5)

- a. The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.
- b. Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective—
 1. For such period as the laws of the State in which this contract is to be performed prescribe; or
 2. Until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.
- c. The Contractor shall insert the substance of this clause, including this paragraph c, in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

26. SOFTWARE INTEROPERABILITY.

Offerors are encouraged to identify within their software items any component interfaces that support open standard interoperability. An item's interface may be identified as interoperable on the basis of participation in a Government agency-sponsored program or in an independent organization program. Interfaces may be identified by reference to an interface registered in the component registry located at <http://www.core.gov>.

27. ADVANCE PAYMENTS

A payment under this contract to provide a service or deliver an article for the United States Government may not be more than the value of the service already provided or the article already delivered. Advance or pre-payment is not authorized or allowed under this contract. (31 U.S.C. 3324).

Terms and Conditions Applicable to Electronic Commerce (EC) Services

(Special Item Number 132-52)

1. Scope

- a. The prices, terms and conditions stated under Special Item Number 132-52 Electronic Commerce (EC) Services apply exclusively to EC Services within the scope of this Information Technology Schedule.
- b. The Contractor shall provide services at the Contractor's facility and/or at the ordering activity location, as agreed to by the Contractor and the ordering activity.

2. Performance Incentives I-FSS-60 (April 2000)

- a. Performance incentives may be agreed upon between the Contractor and the ordering activity on individual fixed price orders or Blanket Purchase Agreements under this contract.
- b. The ordering activity must establish a maximum performance incentive price for the services and/or total solutions on individual orders or Blanket Purchase Agreements.
- c. Incentives should be designed to relate results achieved by the contractor to specified targets. To the maximum extent practicable, ordering activities shall consider establishing incentives where performance is critical to the ordering activity's mission and incentives are likely to motivate the contractor. Incentives shall be based on objectively measurable tasks.

3. Order

- a. Agencies may use written orders, EDI orders, blanket purchase agreements, individual purchase orders, or task orders for ordering services under this contract. Blanket Purchase Agreements shall not extend beyond the end of the contract period; all services and delivery shall be made and the contract terms and conditions shall continue in effect until the completion of the order. Orders for tasks which extend beyond the fiscal year for which funds are available shall include FAR 52.232-19 (Deviation – May 2003) Availability of Funds for the Next Fiscal Year. The purchase order shall specify the availability of funds and the period for which funds are available.
- b. All task orders are subject to the terms and conditions of the contract. In the event of conflict between a task order and the contract, the contract will take precedence.

4. Performance of Services

- a. The Contractor shall commence performance of services on the date agreed to by the Contractor and the ordering activity.
- b. The Contractor agrees to render services only during normal working hours, unless otherwise agreed to by the Contractor and the ordering activity.
- c. The ordering activity should include the criteria for satisfactory completion for each task in the Statement of Work or Delivery Order. Services shall be completed in a good and workmanlike manner.
- d. Any Contractor travel required in the performance of EC Services must comply with the Federal Travel Regulation or Joint Travel Regulations, as applicable, in effect on the date(s) the travel is performed. Established Federal Government per diem rates will apply to all Contractor travel. Contractors cannot use GSA city pair contracts.

5. Stop-Work Order (FAR 52-242-15) (AUG 1989)

- a. The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either:
 - 1. Cancel the stop-work order; or
 - 2. Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.
- b. If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if:
 - 1. The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
 - 2. The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.
- c. If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

6. Inspection of Services

The Inspection of Services –Fixed Price (AUG 1996) (Deviation – May 2003) clause at FAR 52.246-4 applies to firm-fixed price orders placed under this contract. The Inspection – Time and Materials and Labor-Hour (JAN 1986) (Deviation – May 2003) clause at FAR 52.246-6 applies to time-and-materials and labor-hour orders placed under this contract.

7. Responsibilities of the Contractor

The Contractor shall comply with all laws, ordinances, and regulations (Federal, State, City, or otherwise) covering work of this character. If the end product of a task order is software, then FAR 52.227-14 (Deviation – May 2003) Rights in Data - General, may apply.

8. Responsibilities of the Ordering Activity

Subject to security regulations, the ordering activity shall permit Contractor access to all facilities necessary to perform the requisite EC Services.

9. Independent Contractor

All EC Services performed by the Contractor under the terms of this contract shall be as an independent Contractor, and not as an agent or employee of the ordering activity.

10. Organizational Conflicts of Interest

- a. Definitions.

"Contractor" means the person, firm, unincorporated association, joint venture, partnership, or corporation that is a party to this contract.

"Contractor and its affiliates" and "Contractor or its affiliates" refers to the Contractor, its chief executives, directors, officers, subsidiaries, affiliates, subcontractors at any tier, and consultants and any joint venture involving the Contractor, any entity into or with which the Contractor subsequently merges or affiliates, or any other successor or assignee of the Contractor.

An "Organizational conflict of interest" exists when the nature of the work to be performed under a proposed ordering activity contract, without some restriction on ordering activities by the Contractor and its affiliates, may either (i) result in an unfair competitive advantage to the Contractor or its affiliates or (ii) impair the Contractor's or its affiliates' objectivity in performing contract work.

- b. To avoid an organizational or financial conflict of interest and to avoid prejudicing the best interests of the ordering activity, ordering activities may place restrictions on the Contractors, its affiliates, chief executives, directors, subsidiaries and subcontractors at any tier when placing orders against schedule contracts. Such restrictions shall be consistent with FAR 9.505 and shall be designed to avoid, neutralize, or mitigate organizational conflicts of interest that might otherwise exist in situations related to individual orders placed against the schedule contract. Examples of situations, which may require restrictions, are provided at FAR 9.508.

11. Invoices

The Contractor, upon completion of the work ordered, shall submit invoices for EC services. Progress payments may be authorized by the ordering activity on individual orders if appropriate. Progress payments shall be based upon completion of defined milestones or interim products. Invoices shall be submitted monthly for recurring services performed during the preceding month.

12. Payments

For firm-fixed price orders the ordering activity shall pay the Contractor, upon submission of proper invoices or vouchers, the prices stipulated in this contract for service rendered and accepted. Progress payments shall be made only when authorized by the order. For time-and-materials orders, the Payments under Time-and-Materials and Labor-Hour Contracts at FAR 52.212-4 (OCT 2008) (ALTERNATE I – OCT 2008) (DEVIATION I – FEB 2007) applies to time-and-materials orders placed under this contract. For labor-hour orders, the Payment under Time-and-Materials and Labor-Hour Contracts at FAR 52.212-4 (OCT 2008) (ALTERNATE I – OCT 2008) (DEVIATION I – FEB 2007) applies to labor-hour orders placed under this contract. 52.216-31(Feb 2007) Time-and-Materials/Labor-Hour Proposal Requirements—Commercial Item Acquisition. As prescribed in 16.601(e)(3), insert the following provision:

13. Incidental Support Costs

Incidental support costs are available outside the scope of this contract. The costs will be negotiated separately with the ordering activity in accordance with the guidelines set forth in the FAR.

14. Approval of Subcontracts

The ordering activity may require that the Contractor receive, from the ordering activity's Contracting Officer, written consent before placing any subcontract for furnishing any of the work called for in a task order.

Additional Terms and Conditions

Authorized Use: The Contractor ("TWTC") offers all services ("Services") subject to availability; provided, however, if an order ("Service Order") has been accepted by TWTC, TWTC will provide Services for the term of such Service Order. All use of the Services and TWTC's network shall comply with TWTC's Acceptable Use Policy ("AUP") which is made a part of any Service Order. TWTC reserves the right to amend the AUP effective upon posting to its web site or other notice to the ordering activity without effect on any other terms of this Agreement. The ordering activity may use Services only for authorized and lawful purposes. TWTC has the right to limit the manner in which any portion of its network and facilities ("Network") is used to protect the technical integrity of the Network. TWTC does not undertake to transmit messages, but offers the use of its Service when available. TWTC is not liable or responsible for content, errors in transmission or failure to establish connections.

Equipment, Installation and Interconnection: Other than the facilities, termination equipment or other devices provided by the ordering activity, and unless otherwise provided elsewhere in this Agreement or any attachments hereto, TWTC will pay for, provide, install, maintain, operate, control and own any equipment, cable or facilities connected to the Network ("System Equipment"), which equipment at all times remains TWTC's personal property, regardless of where located or attached. TWTC may change, replace or remove the System Equipment, regardless of where located, so long as the basic technical parameters of the Service are not altered, and this Agreement constitutes the ordering activity's consent to such change, replacement or removal. The ordering activity may not rearrange or move or disconnect the System Equipment, and is responsible for any damage to or loss of System Equipment caused by the ordering activity's negligence or willful misconduct or that of its end users. TWTC has no obligation to install, maintain or repair any equipment owned or provided by the ordering activity, except as may be specifically provided herein. If the ordering activity's or end user's equipment is incompatible with Service, the ordering activity is responsible for any special interface equipment or facilities necessary to ensure compatibility. If, in responding to a the ordering activity-initiated service call, TWTC reasonably determines that the cause of such service call is a failure, malfunction or inadequacy of the ordering activity-provided equipment or software, the ordering activity will pay TWTC for such service call at TWTC's then prevailing rates.

Access: TWTC requires an ordering activity contact who can be reached 7x24. TWTC may require access to the ordering activity's premises to install and maintain the Service and System Equipment necessary for the provision of Service. The ordering activity must provide, or cause its end users to provide, at no cost to TWTC, reasonable access, space, power and environmental conditioning as applicable to the particular installation, and must use, and cause its end users to use, commercially reasonable efforts to obtain any necessary consents or rights of way from third parties.

Installation: Upon completing installation, TWTC will notify the ordering activity that Service has been installed, tested by TWTC and is available for the ordering activity's use ("Service Date"). Unless the ordering activity notifies TWTC by fax or in writing by close of business on the Service Date that Service is not operational, the term of the Service Order will begin and billing will commence. If the ordering activity so notifies TWTC, TWTC will work to correct any compliance issues. If TWTC does not find a defect in service, TWTC will notify the ordering activity, and the Service Date will remain unchanged.

Force Majeure: Neither party is liable for any failure of performance if such failure is due to any cause or causes beyond such party's reasonable control, including without limitation, acts of God, fire, explosion, vandalism, acts of terrorism, cable cut, adverse weather conditions, governmental action, labor difficulties and supplier failures. Either party's invocation of this clause shall not relieve the ordering activity of its obligation to pay for any Services actually provided up to the ordering activity's demarcation point. In the event such failure continues for 10 days, the other party may terminate the affected portion of the Services, upon no less than 30 days prior written notice.

FSS Information Technology Schedule

Product Descriptions and Pricelist

tw telecom holdings inc. provides its suite of Internet, Multipoint and Point-to-Point Solutions to Ordering Activities under this Contract. Specific GSA pricing may be found following each service description.

Service Description
Internet Solutions
Internet Services
Managed Security Service
MPLS Solutions
IPVPN Services
Ethernet Solutions
NLAN, SNLAN, Elite NLAN
Extended NLAN
E-Line Services
eLynk Services
Finished Ethernet
Transport Solutions
Local Transport
Wavelength Services
Voice Solutions
SIP/Enterprise SIP Trunking
FlexVoice
Voice T1
Telecom Service Priority

PRICING NOTES: The pricing offered under this Contract assumes that the service is On-Net.* Pricing is not valid if any of the following exceptions apply.

- 1) Outside Plant construction is required;
- 2) Additional equipment is required to deliver service;
- 3) A new platform of equipment needs to be used due to the discontinuation of current equipment;
- 4) Resell applications (applications where the customer of record and the actual service location differ or situations where TWTC may be required to support multiple end-user entities);
- 5) Any product under development that has not been announced as generally available (GA).

Ask your sales representative about available promotions.

*"On-Net Service" means a Service that is provisioned entirely on **tw telecom's** network. "Off-Net Service" means a Service that is not provisioned entirely on **tw telecom's** network in that either the origination or termination point of the Service (or both) is/are on telecommunication facilities that are operated by another telecommunication provider(s). Any Off-Net Service required to provision Service to a particular location will be priced separately (open market).

Internet Solutions

Internet Services Description

TWTC offers a comprehensive suite of high-quality, high-speed Internet options -- Ethernet connections from 10Mbps ports to 10Gbps ports, as well as traditional connections (TDM) from T1 to OC48. Internet Services are high capacity, full duplex, Internet Protocol ("IP") Services connecting the Customer's network to TWTC's Internet backbone. Internet Services are comprised of two service elements -- Internet Access (bandwidth) and Internet Transport (port)..

Ethernet Internet Services

Ethernet 10 Mbps - 2 Mbps to 10 Mbps in 2 Mbps increments

Ethernet 100 Mbps - 2 Mbps to 10 Mbps in 2 Mbps increments, 10 Mbps to 100 Mbps in 5 Mbps increments

Ethernet 1Gbps - 50 Mbps to 100 Mbps in 10 Mbps increments, 100 Mbps to 250 Mbps in 25 Mbps increments, 250 Mbps to 1 Gbps in 50 Mbps increments

Ethernet 10Gbps - 1 Gbps to 10 Gbps in 500 Mbps increments

Traditional Internet Services

T1 - 1.5 Mbps

NxT1 - multiple bonded T1s - 3 Mbps to 12 Mbps, in 1.5 Mbps increments

DS3 - 2 Mbps to 10 Mbps in 2 Mbps increments, 10 Mbps to 45 Mbps in 5 Mbps increments

OC3 - 35 Mbps to 95 Mbps in 10 Mbps increments, 100 Mbps to 150 Mbps in 25 Mbps increments, plus 155 Mbps

OC12 - 125 Mbps to 250 Mbps in 25 Mbps increments, 250 Mbps to 600 Mbps in 50 Mbps increments, plus 622 Mbps

OC48 - 1 Gbps, 1.5 Gbps, 2 Gbps, 2.488 Gbps

Note: Not all services available in all markets. Burstable service is available in most markets. Burstable bandwidth minimums may vary.

Available Features:

- Primary DNS (for up to 10 domains)
- Secondary DNS available at no charge (up to 50 domains)
- IP address space with proper justification
- 24x7 trouble shooting (excludes Customer's equipment)
- Online bandwidth utilization reports
- Backup mail-exchange (MX service)
- BGP peering

Available Services at an additional charge:

- Managed Router Service
- Managed Firewall
- DDoS
- Shared Web/E-mail Hosting

Additional Terms and Conditions

Usage. Customer will not originate the transmission of or store material in violation of any Federal or state laws or regulations, including, but not limited to, obscenity, indecency, defamation or infringement of trademark or copyright. Customer shall comply with TWTC's IP policy at <http://www.twtelecom.com/support-information/customer-resources/product-resources/ip-addressing-policy/> and Acceptable Use Policy at <http://www.twtelecom.com/support-information/legal-information/acceptable-use-policy/>; either may be reasonably modified from time to time.

Service Level Agreement

Network Availability

tw telecom ("TWTC")'s Internet Services will be available to Customer at least 99.99% of the time in a calendar month ("Network Availability"). Network unavailability occurs during a Service Outage. Upon Customer's request, TWTC shall issue credits for each Service Outage, calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

Network Latency

TWTC measures network latency with respect to average round-trip transmission on its Network each month. Network latency calculations for Internet Services provided in the continental United States are made between designated points of presence ("POPs") within the continental United States and, for Hawaii, are made between its POPs in Hawaii and its POPs on the west coast of the continental United States (collectively "Network Latency"). Upon Customer's request, TWTC shall issue credits for TWTC's failure to meet the Network Latency metrics specified below, and such credits will be calculated by multiplying the percentage specified in the table below multiplied by the MRC for the non-performing Service.

Network Latency Metrics (continental United States)	Network Latency Metrics (Hawaii to continental United States - west coast)	Percentage Credits
0.00 to 45.00 ms	0.00 to 75.00 ms	No Credit
45.01 to 55.00 ms	75.01 to 85.00 ms	5% of the MRC
55.01 to 60.00 ms	85.01 to 90.00 ms	10% of the MRC
60.01 to 65.00 ms	90.01 to 95.00 ms	15% of the MRC
65.01 to 70.00 ms	95.01 to 100.00 ms	20% of the MRC
70.01 to 75.00 ms	100.01 to 105.00 ms	35% of the MRC
75.01 ms or greater	105.01 ms or greater	50% of the MRC

Packet Delivery

TWTC measures packet delivery on its Network on a monthly basis. Packet Delivery is determined by averaging sample measurements taken each calendar month between TWTC's designated POPs. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Packet Delivery metrics specified in the table below, and such credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing Service.

Average Packet Delivery Metrics (continental United States)	Percentage Credits
99.9% or greater	No Credit
99.5% to 99.8%	10% of the MRC
99% to 99.4%	20% of the MRC
98% to 98.9%	30% of the MRC
97% to 97.9%	40% of the MRC
Less than 97%	50% of the MRC

General Terms Applicable to Service Level Agreement

Customer shall report problems with its Services by contacting TWTC's Customer & Network Reliability Center ("CNRC") at 1-800-829-0420. TWTC will open a trouble ticket and provide a trouble ticket number for tracking purposes. For the purpose of determining the applicable credit, a Service Outage begins when the Customer reports the Service Outage to TWTC's CNRC and ends when the Service is restored. Credits are provided to Customer only upon request by Customer. The resources, equipment and methodology used to measure service level metrics are determined by TWTC in its sole discretion.

Service Outages and failures to meet the performance objectives herein do not include outages and failures caused by the equipment, acts or omissions of Customer or its End Users, Force Majeure events, fiber cuts caused by third-parties, failure of elements of the Internet outside of TWTC's control or outages occurring during scheduled or emergency maintenance. The duration of a Service Outage does not include any time during which TWTC is denied access to the premises necessary to restore the Service.

The remedies set forth in this Service Level Agreement are Customer's sole and exclusive remedies if there are Service Outages and/or failures to meet the performance objectives in this Service Level Agreement. Credits issued during any calendar month, for any reason(s), will not exceed the MRC associated with the troubled Service.

Performance Metrics Available at TWTC's Website

Monthly Network Latency and Packet Delivery averages may be viewed at:
www.twtelecom.com/performance/ip_network_overview_performance.html

Internet Pricing

Tier 1 Markets

This pricing is applicable in the following markets:

Atlanta
Baltimore
Inland Empire
Jersey City
Los Angeles
Manhattan
Oakland
Orange County
Portland
San Francisco
Seattle
Washington, DC

Internet T1 and Bonded T1

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$127	\$114	\$108	\$102
3	\$146	\$131	\$124	\$117
4.5	\$171	\$154	\$146	\$137
6	\$196	\$177	\$168	\$157

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
T1-1.5M	\$60	\$54	\$51	\$48
2xT1-3M	\$120	\$109	\$102	\$96
3xT1-4.5M	\$180	\$163	\$152	\$144
4xT1-6M	\$240	\$217	\$203	\$192

Off-net priced under separate contract

Tier 1 Internet Pricing (Cont.)

Internet DS-3

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$127	\$114	\$108	\$102
4	\$162	\$146	\$138	\$130
6	\$196	\$177	\$168	\$157
8	\$232	\$209	\$196	\$185
10	\$267	\$240	\$227	\$213
15	\$327	\$295	\$278	\$262
20	\$387	\$349	\$329	\$309
25	\$448	\$403	\$380	\$359
30	\$508	\$457	\$431	\$406
35	\$565	\$509	\$481	\$452
40	\$626	\$563	\$531	\$500
45	\$685	\$618	\$582	\$549

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
DS-3	\$229	\$207	\$195	\$183

Off-net priced under separate contract

Internet OC-3

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
35	\$565	\$509	\$481	\$452
45	\$685	\$618	\$582	\$549
55	\$775	\$697	\$658	\$620
65	\$835	\$752	\$709	\$668
75	\$895	\$805	\$761	\$716
85	\$956	\$860	\$812	\$765
95	\$1,016	\$914	\$863	\$812
100	\$1,045	\$940	\$888	\$835
125	\$1,217	\$1,095	\$1,034	\$973
150	\$1,386	\$1,247	\$1,178	\$1,108
155	\$1,422	\$1,280	\$1,208	\$1,137

Tier 1 Internet Pricing (Cont.)

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
OC-3	\$645	\$581	\$549	\$516

Off-net priced under separate contract

Internet OC-12

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
125	\$1,217	\$1,095	\$1,034	\$973
150	\$1,386	\$1,247	\$1,178	\$1,108
175	\$1,559	\$1,403	\$1,325	\$1,247
200	\$1,732	\$1,559	\$1,472	\$1,385
225	\$1,901	\$1,711	\$1,616	\$1,520
250	\$2,074	\$1,866	\$1,762	\$1,658
300	\$2,388	\$2,149	\$2,029	\$1,910
350	\$2,705	\$2,434	\$2,299	\$2,164
400	\$3,019	\$2,716	\$2,566	\$2,415
450	\$3,336	\$3,003	\$2,836	\$2,669
500	\$3,650	\$3,286	\$3,102	\$2,920
550	\$3,742	\$3,368	\$3,180	\$2,993
600	\$3,834	\$3,450	\$3,258	\$3,067
622	\$3,872	\$3,485	\$3,292	\$3,097

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
OC-12	\$1,238	\$1,114	\$1,052	\$990

Off-net priced under separate contract

Internet - Ethernet 10Mbps Port

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$127	\$114	\$108	\$102
4	\$162	\$146	\$138	\$130
6	\$196	\$177	\$168	\$157
8	\$232	\$209	\$196	\$185
10	\$267	\$240	\$227	\$213

Tier 1 Internet Pricing (Cont.)

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
10 Mbps Ethernet	\$229	\$207	\$195	\$183

Off-net priced under separate contract

Internet – Fast Ethernet 100Mbps Port

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$127	\$114	\$108	\$102
4	\$162	\$146	\$138	\$130
6	\$196	\$177	\$168	\$157
8	\$232	\$209	\$196	\$185
10	\$267	\$240	\$227	\$213
15	\$327	\$295	\$278	\$262
20	\$387	\$349	\$329	\$309
25	\$448	\$403	\$380	\$359
30	\$508	\$457	\$431	\$406
35	\$565	\$509	\$481	\$452
40	\$626	\$563	\$531	\$500
45	\$685	\$618	\$582	\$549
50	\$747	\$671	\$634	\$596
55	\$775	\$697	\$658	\$620
60	\$806	\$725	\$685	\$645
65	\$835	\$752	\$709	\$668
70	\$866	\$780	\$737	\$693
75	\$895	\$805	\$761	\$716
80	\$924	\$831	\$785	\$740
85	\$956	\$860	\$812	\$765
90	\$984	\$886	\$836	\$787
95	\$1,016	\$914	\$863	\$812
100	\$1,045	\$940	\$888	\$835

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
100 Mbps Ethernet	\$229	\$207	\$195	\$183

Off-net priced under separate contract

Tier 1 Internet Pricing (Cont.)

Internet – Gigabit Ethernet 1Gbps Port

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
50	\$747	\$671	\$634	\$596
60	\$806	\$725	\$685	\$645
70	\$866	\$780	\$737	\$693
80	\$924	\$831	\$785	\$740
90	\$984	\$886	\$836	\$787
100	\$1,045	\$940	\$888	\$835
125	\$1,217	\$1,095	\$1,034	\$973
150	\$1,386	\$1,247	\$1,178	\$1,108
175	\$1,559	\$1,403	\$1,325	\$1,247
200	\$1,732	\$1,559	\$1,472	\$1,385
225	\$1,901	\$1,711	\$1,616	\$1,520
250	\$2,074	\$1,866	\$1,762	\$1,658
300	\$2,388	\$2,149	\$2,029	\$1,910
350	\$2,705	\$2,434	\$2,299	\$2,164
400	\$3,019	\$2,716	\$2,566	\$2,415
450	\$3,336	\$3,003	\$2,836	\$2,669
500	\$3,650	\$3,286	\$3,102	\$2,920
550	\$3,742	\$3,368	\$3,180	\$2,993
600	\$3,834	\$3,450	\$3,258	\$3,067
650	\$3,925	\$3,532	\$3,336	\$3,140
700	\$4,017	\$3,615	\$3,415	\$3,213
750	\$4,109	\$3,698	\$3,492	\$3,287
800	\$4,196	\$3,777	\$3,568	\$3,357
850	\$4,288	\$3,859	\$3,645	\$3,431
900	\$4,380	\$3,942	\$3,723	\$3,504
950	\$4,472	\$4,024	\$3,801	\$3,577
1000	\$4,563	\$4,107	\$3,879	\$3,650

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1 Gbps Ethernet	\$353	\$317	\$300	\$282

Off-net priced under separate contract

Tier 1 Internet Pricing (Cont.)

Internet – Gigabit Ethernet 10Gbps Port

Internet Access Pricing

Gbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1	\$4,563	\$4,107	\$3,879	\$3,650
1.5	\$6,171	\$5,555	\$5,246	\$4,937
2	\$7,779	\$7,002	\$6,613	\$6,224
2.5	\$9,387	\$8,448	\$7,980	\$7,510
3	\$10,995	\$9,896	\$9,346	\$8,796
3.5	\$12,601	\$11,340	\$10,710	\$10,080
4	\$14,209	\$12,788	\$12,077	\$11,366
4.5	\$15,817	\$14,235	\$13,444	\$12,653
5	\$17,425	\$15,683	\$14,810	\$13,940
5.5	\$19,033	\$17,129	\$16,177	\$15,226
6	\$20,641	\$18,576	\$17,545	\$16,512
6.5	\$22,249	\$20,024	\$18,911	\$17,798
7	\$23,857	\$21,471	\$20,278	\$19,085
7.5	\$25,465	\$22,919	\$21,644	\$20,372
8	\$27,069	\$24,362	\$23,009	\$21,655
8.5	\$28,677	\$25,810	\$24,376	\$22,942
9	\$30,285	\$27,256	\$25,742	\$24,228
9.5	\$31,893	\$28,704	\$27,109	\$25,514
10	\$33,501	\$30,151	\$28,477	\$26,801

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
10 Gbps Ethernet	\$529	\$476	\$450	\$423

Off-net priced under separate contract

Tier 2 Markets

This pricing is applicable in the following markets:

Albany	Denver	Miami
Albuquerque	El Paso	Milwaukee
Amarillo	Fayetteville	Minneapolis
Austin	Fort Lauderdale	Mobile
Bakersfield	Fort Worth	Montgomery
Baton Rouge	Fresno	Nashville
Binghamton	Greensboro	New Orleans
Birmingham	Greenville	Orlando
Boise	Honolulu	Phoenix
Charleston, SC	Houston	Raleigh
Charlotte	Indianapolis	Rochester
Chattanooga	Jackson	San Antonio
Chicago	Jacksonville	San Diego
Cincinnati	Kansas City	San Luis Obispo
Colorado Springs	Lafayette	Santa Barbara
Columbia	Lake Charles	Shreveport
Columbus, GA	Las Vegas	Spartanburg
Columbus, OH	Lexington	Spokane
Corpus Christi	Little Rock	Tampa
Dallas	Louisville	Tucson
Dayton	Memphis	Tulsa

Internet T1 and Bonded T1

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$141	\$127	\$120	\$113
3	\$162	\$146	\$138	\$130
4.5	\$190	\$171	\$162	\$152
6	\$219	\$196	\$186	\$175

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
T1-1.5M	\$60	\$54	\$51	\$48
2xT1-3M	\$120	\$109	\$102	\$96
3xT1-4.5M	\$180	\$163	\$152	\$144
4xT1-6M	\$240	\$217	\$203	\$192

Off-net priced under separate contract

Tier 2 Internet Pricing (Cont.)

Internet DS-3

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$141	\$127	\$120	\$113
4	\$180	\$162	\$153	\$144
6	\$219	\$196	\$186	\$175
8	\$258	\$232	\$219	\$206
10	\$296	\$267	\$252	\$237
15	\$364	\$327	\$309	\$290
20	\$430	\$387	\$366	\$345
25	\$498	\$448	\$422	\$398
30	\$564	\$508	\$480	\$451
35	\$628	\$565	\$534	\$502
40	\$695	\$626	\$590	\$556
45	\$762	\$685	\$648	\$610

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
DS-3	\$229	\$207	\$195	\$183

Off-net priced under separate contract

Internet OC-3

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
35	\$628	\$565	\$534	\$502
45	\$762	\$685	\$648	\$610
55	\$860	\$775	\$731	\$688
65	\$928	\$835	\$789	\$742
75	\$994	\$895	\$845	\$796
85	\$1,062	\$956	\$902	\$849
95	\$1,128	\$1,016	\$959	\$903
100	\$1,161	\$1,045	\$986	\$928
125	\$1,312	\$1,181	\$1,115	\$1,050
150	\$1,464	\$1,318	\$1,244	\$1,171
155	\$1,495	\$1,346	\$1,271	\$1,196

Tier 2 Internet Pricing (Cont.)

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
OC-3	\$645	\$581	\$549	\$516

Off-net priced under separate contract

Internet OC-12

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
125	\$1,312	\$1,181	\$1,115	\$1,050
150	\$1,464	\$1,318	\$1,244	\$1,171
175	\$1,619	\$1,457	\$1,376	\$1,295
200	\$1,770	\$1,593	\$1,505	\$1,417
225	\$1,922	\$1,730	\$1,633	\$1,538
250	\$2,074	\$1,866	\$1,762	\$1,658
300	\$2,388	\$2,149	\$2,029	\$1,910
350	\$2,705	\$2,434	\$2,299	\$2,164
400	\$3,019	\$2,716	\$2,566	\$2,415
450	\$3,336	\$3,003	\$2,836	\$2,669
500	\$3,650	\$3,286	\$3,102	\$2,920
550	\$3,742	\$3,368	\$3,180	\$2,993
600	\$3,834	\$3,450	\$3,258	\$3,067
622	\$3,872	\$3,485	\$3,292	\$3,097

Internet Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
OC-12	\$1,238	\$1,114	\$1,052	\$990

Off-net priced under separate contract

Internet – Ethernet 10 Mbps Port

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$141	\$127	\$120	\$113
4	\$180	\$162	\$153	\$144
6	\$219	\$196	\$186	\$175
8	\$258	\$232	\$219	\$206
10	\$296	\$267	\$252	\$237

Tier 2 Internet Pricing (Cont.)

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
10 Mbps Ethernet	\$229	\$207	\$195	\$183

Off-net priced under separate contract

Internet – Fast Ethernet 100 Mbps Port

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$141	\$127	\$120	\$113
4	\$180	\$162	\$153	\$144
6	\$219	\$196	\$186	\$175
8	\$258	\$232	\$219	\$206
10	\$296	\$267	\$252	\$237
15	\$364	\$327	\$309	\$290
20	\$430	\$387	\$366	\$345
25	\$498	\$448	\$422	\$398
30	\$564	\$508	\$480	\$451
35	\$628	\$565	\$534	\$502
40	\$695	\$626	\$590	\$556
45	\$762	\$685	\$648	\$610
50	\$829	\$747	\$704	\$663
55	\$860	\$775	\$731	\$688
60	\$896	\$806	\$762	\$716
65	\$928	\$835	\$789	\$742
70	\$963	\$866	\$818	\$770
75	\$994	\$895	\$845	\$796
80	\$1,027	\$924	\$873	\$821
85	\$1,062	\$956	\$902	\$849
90	\$1,093	\$984	\$930	\$875
95	\$1,128	\$1,016	\$959	\$903
100	\$1,161	\$1,045	\$986	\$928

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
100 Mbps Ethernet	\$229	\$207	\$195	\$183

Off-net priced under separate contract

Tier 2 Internet Pricing (Cont.)

Internet – Gigabit Ethernet 1 Gbps Port

Internet Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
50	\$829	\$747	\$704	\$663
60	\$896	\$806	\$762	\$716
70	\$963	\$866	\$818	\$770
80	\$1,027	\$924	\$873	\$821
90	\$1,093	\$984	\$930	\$875
100	\$1,161	\$1,045	\$986	\$928
125	\$1,312	\$1,181	\$1,115	\$1,050
150	\$1,464	\$1,318	\$1,244	\$1,171
175	\$1,619	\$1,457	\$1,376	\$1,295
200	\$1,770	\$1,593	\$1,505	\$1,417
225	\$1,922	\$1,730	\$1,633	\$1,538
250	\$2,074	\$1,866	\$1,762	\$1,658
300	\$2,388	\$2,149	\$2,029	\$1,910
350	\$2,705	\$2,434	\$2,299	\$2,164
400	\$3,019	\$2,716	\$2,566	\$2,415
450	\$3,336	\$3,003	\$2,836	\$2,669
500	\$3,650	\$3,286	\$3,102	\$2,920
550	\$3,742	\$3,368	\$3,180	\$2,993
600	\$3,834	\$3,450	\$3,258	\$3,067
650	\$3,925	\$3,532	\$3,336	\$3,140
700	\$4,017	\$3,615	\$3,415	\$3,213
750	\$4,109	\$3,698	\$3,492	\$3,287
800	\$4,196	\$3,777	\$3,568	\$3,357
850	\$4,288	\$3,859	\$3,645	\$3,431
900	\$4,380	\$3,942	\$3,723	\$3,504
950	\$4,472	\$4,024	\$3,801	\$3,577
1000	\$4,563	\$4,107	\$3,879	\$3,650

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1 Gbps Ethernet	\$353	\$317	\$300	\$282

Off-net priced under separate contract

Tier 2 Internet Pricing (Cont.)

Internet – Gigabit Ethernet 10 Gbps Port

Internet Access Pricing

Gbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1	\$4,563	\$4,107	\$3,879	\$3,650
1.5	\$6,171	\$5,555	\$5,246	\$4,937
2	\$7,779	\$7,002	\$6,613	\$6,224
2.5	\$9,387	\$8,448	\$7,980	\$7,510
3	\$10,995	\$9,896	\$9,346	\$8,796
3.5	\$12,601	\$11,340	\$10,710	\$10,080
4	\$14,209	\$12,788	\$12,077	\$11,366
4.5	\$15,817	\$14,235	\$13,444	\$12,653
5	\$17,425	\$15,683	\$14,810	\$13,940
5.5	\$19,033	\$17,129	\$16,177	\$15,226
6	\$20,641	\$18,576	\$17,545	\$16,512
6.5	\$22,249	\$20,024	\$18,911	\$17,798
7	\$23,857	\$21,471	\$20,278	\$19,085
7.5	\$25,465	\$22,919	\$21,644	\$20,372
8	\$27,069	\$24,362	\$23,009	\$21,655
8.5	\$28,677	\$25,810	\$24,376	\$22,942
9	\$30,285	\$27,256	\$25,742	\$24,228
9.5	\$31,893	\$28,704	\$27,109	\$25,514
10	\$33,501	\$30,151	\$28,477	\$26,801

Internet Transport Pricing – On-net

Port	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
10 Gbps Ethernet	\$529	\$476	\$450	\$423

Off-net priced under separate contract

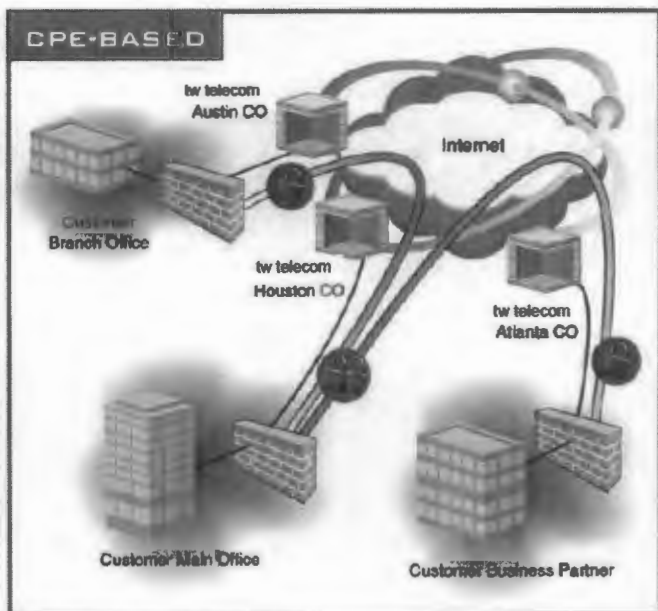
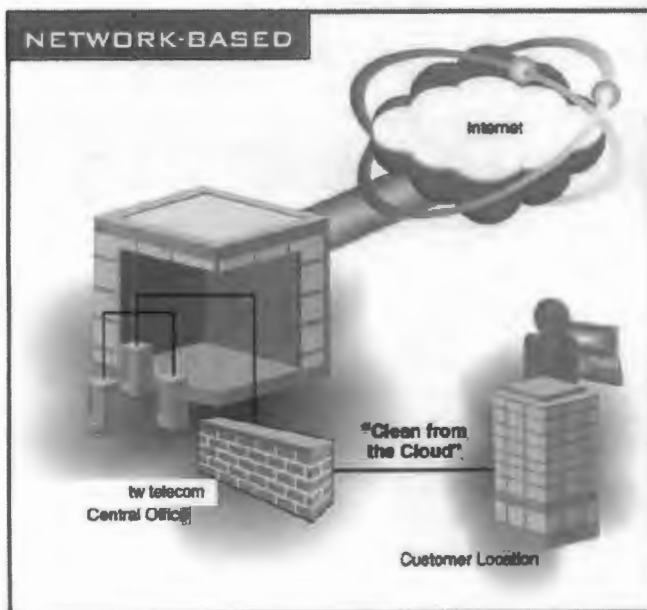
Managed Security Services (MSS)

Managed Security Services are available in the following two formats. This offering must be purchased in conjunction with a **tw telecom** Internet solution and becomes contractually co-terminus with the customer's underlying Internet connectivity (Managed Security Service is not available as a stand-alone service):

- A Network-Based Managed Firewall/Secure IP Virtual Private Network (VPN) Service
 - A security device resides within **tw telecom's** IP POP providing Layer 3 Stateful (protects all 65,535 IP ports) Packet Inspection Firewall (L3SPI) and IP Sec VPN (DES, 3DES or AES) functionality. This solution provides cloud-based data encryption and removes "unauthorized" traffic from the customer's metropolitan network, thus providing a clear-pipe and increasing the usability of the local circuit. This assists in the mitigation of DOS and DDOS attacks, where connectivity is "cleaned" prior to flooding the customer's metropolitan infrastructure.
- A CPE-Based Managed Firewall/Secure IP VPN Service
 - A **tw telecom** security device resides at the customer's premise providing L3SPI (protects all 65,535 IP ports) and IP Sec VPN (DES, 3DES or AES) functionality. This solution provides premise-to-premise data encryption.

Each Managed Security Service solution provides the customer with:

- Monthly Managed Firewall/Secure IP VPN
- Carrier-class solution, scalable with customer's increasing Internet bandwidth requirements
- Customized configurations to satisfy individual customer security requirements
- A comprehensive list of available features and customizable options



MSS Pricing

Pricing for Premium Level Service – by Bandwidth & Per Location

Internet Bandwidth	MRC (Network & CPE)
0 - 2.0 Mbps	\$95
2.1 - 5.0 Mbps	\$124
5.1 - 10 Mbps	\$211
11 - 25 Mbps	\$263
26 - 50 Mbps	\$287
51 - 100 Mbps	\$383
101 - 155 Mbps	\$479
156 - 250 Mbps	\$574

Premium Level Service

Features

- 8 Free Instances of Policy Change Per Month
- Monthly Executive Report
- 7x24x365 Monitoring and Response
- Initial Security Consultation
- First MSS Consulting Fee: Waived

Pricing for Business Level Service – by Bandwidth & Per Location

Internet Bandwidth	MRC (Network & CPE)
0 - 2.0 Mbps	\$72
2.1 - 5.0 Mbps	\$96
5.1 - 10 Mbps	\$158
11 - 25 Mbps	\$215
26 - 50 Mbps	\$239
51 - 100 Mbps	\$335
101 - 155 Mbps	\$383
156 - 250 Mbps	\$479

Business Level Service

Features

- 2 Free Instances of Policy Change Per Month
- 7x24x365 Monitoring and Response
- Initial Security Consultation
- Monthly Executive Report available (open market).

MSS Pricing (pricing does not include underlying Internet connectivity) Pricing is for ON-NET solutions only.

MPLS Solutions

IP VPN Services

Service Description

TWTC's IP VPN Service (Layer 3 Internet Protocol (IP) Virtual Private Network) provides the features and flexibility of an IP network while offloading the complexity of IP routing to TWTC. TWTC's IP VPN Service is fully compliant with the industry's RFC 4364 (formerly known as 2547) BGP/MPLS VPN recommendation. TWTC's IP VPN Service allows its customers to prioritize and to keep the data it is transmitting across TWTC's next generation network separate and private from other data traffic.

Class of Service ("CoS") is available as a value add-on service to TWTC's IP VPN Service. CoS provides customers with the ability to prioritize multiple applications that are competing for the same network resources. CoS provides several levels or "classes" of differentiated service and essentially controls Network and system resources in order to achieve a more predictable flow of the customer's priority traffic across the Network. TWTC offers five levels of CoS priority (listed in descending order of priority): Realtime; Interactive; Mission Critical; Priority and Best Effort. Each CoS level represents traffic with similar network performance requirements for packet delay, jitter, latency and network availability.

TWTC will provide Customer with free access to a website portal named *My Service* that tracks Network performance between any two TWTC designated points of presence ("POPs") on TWTC's Network. *My Service* also provides average Network performance measurements that can be utilized for determining TWTC's performance in accordance with this Service Level Agreement ("SLA"). Network performance measurements between any two POPs on TWTC's Network may not correlate to the Network Average used to determine compliance with this SLA because measurements between POPs are used to calculate the Network Average.

Service Level Agreement

Network Availability

TWTC's IP VPN Services that are provisioned within the continental United States and Hawaii will be available to Customer at least 99.99% of the time during each calendar month. A Service is unavailable during any period of time that it experiences a Service Outage. Upon Customer's request, TWTC shall issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

Network Average Latency

TWTC measures network latency with respect to average round-trip transmission on its Network each month. Network latency calculations for IP VPN Services provided in the continental United States are made between designated points of presence ("POPs") within the continental United States and, for Hawaii, are made between its POPs in Hawaii and its

POPs on the west coast of the continental United States (collectively "Network Latency"). Upon Customer's request, TWTC shall issue credits for TWTC's failure to meet the Network Latency metrics specified below, and such credits will be calculated by multiplying the percentage specified in the table below for the contracted CoS by the MRC for the non-performing Service. The credits specified below are not cumulative and, in any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest affected CoS level for the non-performing Service.

Network Average Latency						
		CoS Designation – Percentage Credits				
Network Latency (within continental United States)	Network Latency (from west coast U.S. to Hawaii)	Realtime	Interactive	Mission Critical	Priority	Best Effort & Basic IP VPN/Converged
0.00 to 45.00 ms	0.00 to 75.00 ms	No Credit	No Credit	No Credit	No Credit	No Credit
45.01 to 50.00 ms	75.01 to 80.00 ms	10%	5%	No Credit	No Credit	No Credit
50.01 to 60.00 ms	80.01 to 90.00 ms	15%	10%	No Credit	No Credit	No Credit
60.01 to 65.00 ms	90.01 to 95.00 ms	20%	15%	No Credit	No Credit	No Credit
65.01 to 70.00 ms	95.01 to 100.00 ms	30%	25%	20%	10%	No Credit
70.01 to 75.00 ms	100.01 to 105.00 ms	40%	35%	25%	15%	No Credit
75.01 ms or greater	105.01 ms or greater	50%	45%	30%	20%	10%

Average Packet Delivery (as measured between TWTC's Designated POPs)

Average packet delivery metrics for TWTC's Domestic IP VPN Services vary depending on the CoS designated by Customer and are specified in the table below. Upon Customer's request, TWTC shall issue credits for TWTC's failure to meet the applicable average packet delivery metric and such credits will be calculated by multiplying the percentages specified in the table below for the contracted CoS by the MRCs associated with the non-performing Service. For Services provided within the continental United States, average packet delivery is determined by averaging sample measurements taken each calendar month at TWTC's POPs in the continental United States; for Services provided in Hawaii, average packet delivery is determined by averaging sample measurements taken each calendar month between TWTC's POPs in Honolulu, HI and TWTC's POPs on the west coast of the continental United States. The credits specified below are not cumulative and, in any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest affected CoS level for the non-performing Service.

Average Packet Delivery					
	CoS Designation – Percentage Credits				
IP VPN (Average Packet Delivery)	Realtime	Interactive	Mission Critical	Priority	Best Effort
99.9	No Credit	No Credit	No Credit	No Credit	No Credit
99.5 – 99.8	10%	5%	No Credit	No Credit	No Credit
99 – 99.4	20%	15%	No Credit	No Credit	No Credit
98 – 99.9	30%	20%	15%	No Credit	No Credit
97 – 98.9	40%	25%	20%	15%	No Credit
Less than 97	50%	40%	25%	20%	10%

Network Jitter

TWTC's network jitter metric only applies to IP VPN Services for which the Customer has selected either the Realtime or Interactive CoS. "Network Jitter" means the average variation in delay for packet transfers between TWTC's designated POPs during each calendar month. For Services provided within the continental United States, measurements are taken at TWTC's POPs in the continental United States; for Services provided in Hawaii, between TWTC's POPs in Honolulu, HI and TWTC's POPs on the west coast of the continental United States. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Network Jitter metrics specified in the table below, and such credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing Service. The credits specified below are not cumulative and, in any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest affected CoS level for the non-performing Service.

Average Network Jitter (one way)						
		CoS Designation – Percentage Credits				
Continental United States	Hawaii	Realtime	Interactive	Mission Critical	Priority	Best Effort
1 ms or less	1 ms or less	No Credit	No Credit	No Credit	No Credit	No Credit
1.1 ms to 2.0 ms	1.1 ms to 2.0 ms	5%	No Credit	No Credit	No Credit	No Credit
2.1 ms to 4.0 ms	2.1 ms to 4.0 ms	10%	5%	No Credit	No Credit	No Credit
4.1 ms to 5.0 ms	4.1 ms to 5.0 ms	15%	10%	No Credit	No Credit	No Credit
5.1 ms to 6.5 ms	5.1 ms to 6.5 ms	20%	15%	10%	No Credit	No Credit
6.6 ms to 7.5 ms	6.6 ms to 7.5 ms	30%	20%	15%	No Credit	No Credit
7.6 ms to 10.0 ms	7.6 ms to 10.0 ms	40%	30%	25%	15%	No Credit

General Terms Applicable to Service Level Agreement

Customer shall report problems with its Services by contacting TWTC's Customer & Network Reliability Center ("CNRC") at 1-800-829-0420. TWTC will open a trouble ticket and provide a trouble ticket number for tracking purposes. For the purpose of determining the applicable credit, a Service Outage begins when the Customer reports the Service Outage to TWTC's CNRC and ends when the Service is restored. Credits are provided to Customer only upon request by Customer. The resources, equipment and methodology used to measure service level metrics are determined by TWTC in its sole discretion.

Service Outages and failures to meet the performance objectives herein do not include outages and failures caused by the equipment, acts or omissions of Customer or its End Users, Force Majeure events, fiber cuts caused by third-parties, failure of elements of the Internet outside of TWTC's control or outages occurring during scheduled or emergency maintenance. The duration of a Service Outage does not include any time during which TWTC is denied access to the premises necessary to restore the Service.

The remedies set forth in this Service Level Agreement are Customer's sole and exclusive remedies if there are Service Outages and/or failures to meet the performance objectives in this Service Level Agreement. Credits issued during any calendar month, for any reason(s), will not exceed the MRC associated with the troubled Service.

Performance Metrics Available at TWTC's Website

Monthly Network Latency and Packet Delivery averages may be viewed at:
www.twtelecom.com/performance/ip_network_overview_performance.html

IP VPN Pricing

IP VPN Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$154	\$138	\$130	\$123
2	\$154	\$138	\$130	\$123
3	\$183	\$164	\$156	\$146
4	\$215	\$194	\$183	\$172
4.5	\$230	\$207	\$195	\$184
6	\$274	\$247	\$233	\$219
7.5	\$318	\$287	\$271	\$255
8	\$336	\$302	\$285	\$269
9	\$365	\$329	\$311	\$292
10	\$395	\$355	\$336	\$316
10.5	\$402	\$362	\$342	\$322
12	\$425	\$382	\$361	\$340
15	\$444	\$400	\$378	\$355
18	\$465	\$419	\$395	\$372
20	\$508	\$457	\$431	\$406
21	\$522	\$470	\$443	\$417
24	\$543	\$489	\$461	\$434
25	\$564	\$508	\$479	\$451
27	\$585	\$527	\$497	\$468
30	\$607	\$546	\$515	\$485
33	\$628	\$565	\$533	\$502
35	\$649	\$584	\$551	\$519
36	\$670	\$603	\$569	\$536
39	\$691	\$622	\$587	\$553
40	\$712	\$641	\$605	\$569
42	\$734	\$660	\$623	\$586
45	\$755	\$679	\$641	\$603
50	\$776	\$698	\$659	\$620
55	\$797	\$717	\$677	\$637
60	\$818	\$736	\$695	\$654
65	\$839	\$755	\$713	\$671
70	\$860	\$774	\$731	\$688
75	\$882	\$793	\$749	\$705
80	\$903	\$812	\$767	\$722
85	\$931	\$838	\$791	\$744
90	\$952	\$857	\$809	\$761

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
95	\$963	\$866	\$818	\$770
100	\$970	\$873	\$824	\$776
105	\$1,002	\$901	\$851	\$801
115	\$1,067	\$960	\$907	\$853
125	\$1,132	\$1,019	\$962	\$906
135	\$1,195	\$1,076	\$1,016	\$956
145	\$1,261	\$1,135	\$1,072	\$1,009
150	\$1,292	\$1,163	\$1,098	\$1,034
155	\$1,326	\$1,193	\$1,127	\$1,061
175	\$1,455	\$1,309	\$1,236	\$1,164
200	\$1,455	\$1,310	\$1,237	\$1,164
225	\$1,600	\$1,440	\$1,360	\$1,280
250	\$1,746	\$1,571	\$1,484	\$1,396
300	\$1,968	\$1,771	\$1,673	\$1,574
350	\$2,190	\$1,971	\$1,861	\$1,752
400	\$2,412	\$2,171	\$2,050	\$1,930
450	\$2,634	\$2,371	\$2,239	\$2,107
500	\$2,856	\$2,571	\$2,428	\$2,285
550	\$2,968	\$2,671	\$2,523	\$2,374
600	\$3,079	\$2,771	\$2,617	\$2,463
622	\$3,128	\$2,815	\$2,659	\$2,502
650	\$3,190	\$2,871	\$2,711	\$2,552
700	\$3,301	\$2,971	\$2,806	\$2,641
750	\$3,412	\$3,071	\$2,900	\$2,729
800	\$3,523	\$3,171	\$2,994	\$2,818
850	\$3,634	\$3,271	\$3,089	\$2,907
900	\$3,745	\$3,371	\$3,183	\$2,996
950	\$3,856	\$3,471	\$3,278	\$3,085
1,000	\$3,967	\$3,571	\$3,372	\$3,174

IP VPN Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
T1-1.5M	\$60	\$54	\$51	\$48
DS-3	\$229	\$207	\$195	\$183
OC-3	\$645	\$581	\$549	\$516
OC-12	\$1,238	\$1,114	\$1,052	\$990
10/100 Mbps Ethernet	\$229	\$207	\$195	\$183
1 Gbps Ethernet	\$494	\$444	\$420	\$395

Off-net priced under separate contract

IP VPN Class of Service

CoS Realtime

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$35	\$35	\$35	\$35
2	\$35	\$35	\$35	\$35
3	\$35	\$35	\$35	\$35
4	\$53	\$53	\$53	\$53
4.5	\$53	\$53	\$53	\$53
6	\$53	\$53	\$53	\$53
7.5	\$53	\$53	\$53	\$53
8	\$53	\$53	\$53	\$53
9	\$85	\$85	\$85	\$85
10	\$85	\$85	\$85	\$85
10.5	\$85	\$85	\$85	\$85
12	\$85	\$85	\$85	\$85
15	\$134	\$121	\$114	\$107
18	\$147	\$132	\$125	\$117
20	\$155	\$140	\$132	\$124
21	\$159	\$143	\$136	\$128
24	\$172	\$155	\$146	\$138
25	\$176	\$159	\$150	\$141
27	\$185	\$166	\$157	\$148
30	\$197	\$178	\$168	\$158
33	\$210	\$189	\$179	\$168
35	\$219	\$197	\$186	\$175
36	\$223	\$201	\$189	\$178
39	\$236	\$212	\$200	\$188
40	\$240	\$216	\$204	\$192
42	\$248	\$223	\$211	\$199
45	\$261	\$235	\$222	\$209
50	\$282	\$254	\$240	\$226
55	\$293	\$263	\$249	\$234
60	\$303	\$273	\$258	\$243
65	\$314	\$283	\$267	\$251
70	\$324	\$292	\$276	\$260
75	\$335	\$302	\$285	\$268
80	\$346	\$311	\$294	\$276
85	\$356	\$321	\$303	\$285
90	\$367	\$330	\$312	\$293
95	\$377	\$340	\$321	\$302

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
100	\$388	\$349	\$330	\$310
105	\$401	\$361	\$341	\$320
115	\$427	\$384	\$363	\$341
125	\$453	\$408	\$385	\$362
135	\$478	\$430	\$407	\$383
145	\$504	\$454	\$429	\$403
150	\$517	\$465	\$439	\$414
155	\$530	\$477	\$451	\$424
175	\$582	\$524	\$495	\$465
200	\$647	\$582	\$550	\$517
225	\$711	\$640	\$604	\$569
250	\$776	\$698	\$659	\$621
300	\$875	\$787	\$743	\$700
350	\$973	\$876	\$827	\$779
400	\$1,072	\$965	\$911	\$858
450	\$1,171	\$1,054	\$995	\$937
500	\$1,270	\$1,143	\$1,079	\$1,016
550	\$1,319	\$1,187	\$1,121	\$1,055
600	\$1,368	\$1,231	\$1,163	\$1,095
622	\$1,390	\$1,251	\$1,182	\$1,112
650	\$1,418	\$1,276	\$1,205	\$1,134
700	\$1,467	\$1,320	\$1,247	\$1,174
750	\$1,516	\$1,365	\$1,289	\$1,213
800	\$1,566	\$1,409	\$1,331	\$1,253
850	\$1,615	\$1,454	\$1,373	\$1,292
900	\$1,664	\$1,498	\$1,415	\$1,332
950	\$1,714	\$1,542	\$1,457	\$1,371
1,000	\$1,763	\$1,587	\$1,499	\$1,411

CoS Interactive

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$35	\$35	\$35	\$35
2	\$35	\$35	\$35	\$35
3	\$35	\$35	\$35	\$35
4	\$53	\$53	\$53	\$53
4.5	\$53	\$53	\$53	\$53
6	\$53	\$53	\$53	\$53
7.5	\$53	\$53	\$53	\$53
8	\$53	\$53	\$53	\$53

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
9	\$85	\$85	\$85	\$85
10	\$85	\$85	\$85	\$85
10.5	\$85	\$85	\$85	\$85
12	\$85	\$85	\$85	\$85
15	\$67	\$60	\$57	\$54
18	\$73	\$66	\$62	\$59
20	\$78	\$70	\$66	\$62
21	\$80	\$72	\$68	\$64
24	\$86	\$77	\$73	\$69
25	\$88	\$79	\$75	\$71
27	\$92	\$83	\$79	\$74
30	\$99	\$89	\$84	\$79
33	\$105	\$95	\$89	\$84
35	\$109	\$98	\$93	\$87
36	\$111	\$100	\$95	\$89
39	\$118	\$106	\$100	\$94
40	\$120	\$108	\$102	\$96
42	\$124	\$112	\$106	\$99
45	\$130	\$117	\$111	\$104
50	\$141	\$127	\$120	\$113
55	\$146	\$132	\$124	\$117
60	\$152	\$136	\$129	\$121
65	\$157	\$141	\$133	\$126
70	\$162	\$146	\$138	\$130
75	\$168	\$151	\$142	\$134
80	\$173	\$156	\$147	\$138
85	\$178	\$160	\$151	\$142
90	\$183	\$165	\$156	\$147
95	\$189	\$170	\$160	\$151
100	\$194	\$175	\$165	\$155
105	\$200	\$180	\$170	\$160
115	\$213	\$192	\$181	\$171
125	\$226	\$204	\$192	\$181
135	\$239	\$215	\$203	\$191
145	\$252	\$227	\$214	\$202
150	\$258	\$233	\$220	\$207
155	\$265	\$239	\$225	\$212
175	\$291	\$262	\$247	\$233
200	\$323	\$291	\$275	\$259
225	\$355	\$320	\$302	\$284

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
250	\$388	\$349	\$330	\$310
300	\$437	\$394	\$372	\$350
350	\$487	\$438	\$414	\$389
400	\$536	\$482	\$456	\$429
450	\$585	\$527	\$498	\$468
500	\$635	\$571	\$540	\$508
550	\$659	\$594	\$561	\$528
600	\$684	\$616	\$582	\$547
622	\$695	\$626	\$591	\$556
650	\$709	\$638	\$603	\$567
700	\$734	\$660	\$623	\$587
750	\$758	\$682	\$644	\$607
800	\$783	\$705	\$665	\$626
850	\$808	\$727	\$686	\$646
900	\$832	\$749	\$707	\$666
950	\$857	\$771	\$728	\$686
1,000	\$882	\$793	\$749	\$705

IP VPN Pricing

IP VPN Access Pricing

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$154	\$138	\$130	\$123
2	\$154	\$138	\$130	\$123
3	\$183	\$164	\$156	\$146
4	\$215	\$194	\$183	\$172
4.5	\$230	\$207	\$195	\$184
6	\$274	\$247	\$233	\$219
7.5	\$318	\$287	\$271	\$255
8	\$336	\$302	\$285	\$269
9	\$365	\$329	\$311	\$292
10	\$395	\$355	\$336	\$316
10.5	\$402	\$362	\$342	\$322
12	\$425	\$382	\$361	\$340
15	\$444	\$400	\$378	\$355
18	\$465	\$419	\$395	\$372
20	\$508	\$457	\$431	\$406
21	\$522	\$470	\$443	\$417
24	\$543	\$489	\$461	\$434
25	\$564	\$508	\$479	\$451
27	\$585	\$527	\$497	\$468
30	\$607	\$546	\$515	\$485
33	\$628	\$565	\$533	\$502
35	\$649	\$584	\$551	\$519
36	\$670	\$603	\$569	\$536
39	\$691	\$622	\$587	\$553
40	\$712	\$641	\$605	\$569
42	\$734	\$660	\$623	\$586
45	\$755	\$679	\$641	\$603
50	\$776	\$698	\$659	\$620
55	\$797	\$717	\$677	\$637
60	\$818	\$736	\$695	\$654
65	\$839	\$755	\$713	\$671
70	\$860	\$774	\$731	\$688
75	\$882	\$793	\$749	\$705
80	\$903	\$812	\$767	\$722
85	\$931	\$838	\$791	\$744
90	\$952	\$857	\$809	\$761

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
95	\$963	\$866	\$818	\$770
100	\$970	\$873	\$824	\$776
105	\$1,002	\$901	\$851	\$801
115	\$1,067	\$960	\$907	\$853
125	\$1,132	\$1,019	\$962	\$906
135	\$1,195	\$1,076	\$1,016	\$956
145	\$1,261	\$1,135	\$1,072	\$1,009
150	\$1,292	\$1,163	\$1,098	\$1,034
155	\$1,326	\$1,193	\$1,127	\$1,061
175	\$1,455	\$1,309	\$1,236	\$1,164
200	\$1,455	\$1,310	\$1,237	\$1,164
225	\$1,600	\$1,440	\$1,360	\$1,280
250	\$1,746	\$1,571	\$1,484	\$1,396
300	\$1,968	\$1,771	\$1,673	\$1,574
350	\$2,190	\$1,971	\$1,861	\$1,752
400	\$2,412	\$2,171	\$2,050	\$1,930
450	\$2,634	\$2,371	\$2,239	\$2,107
500	\$2,856	\$2,571	\$2,428	\$2,285
550	\$2,968	\$2,671	\$2,523	\$2,374
600	\$3,079	\$2,771	\$2,617	\$2,463
622	\$3,128	\$2,815	\$2,659	\$2,502
650	\$3,190	\$2,871	\$2,711	\$2,552
700	\$3,301	\$2,971	\$2,806	\$2,641
750	\$3,412	\$3,071	\$2,900	\$2,729
800	\$3,523	\$3,171	\$2,994	\$2,818
850	\$3,634	\$3,271	\$3,089	\$2,907
900	\$3,745	\$3,371	\$3,183	\$2,996
950	\$3,856	\$3,471	\$3,278	\$3,085
1,000	\$3,967	\$3,571	\$3,372	\$3,174

IP VPN Transport Pricing – On-net

Circuit	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
T1-1.5M	\$60	\$54	\$51	\$48
DS-3	\$229	\$207	\$195	\$183
OC-3	\$645	\$581	\$549	\$516
OC-12	\$1,238	\$1,114	\$1,052	\$990
10/100 Mbps Ethernet	\$229	\$207	\$195	\$183
1 Gbps Ethernet	\$494	\$444	\$420	\$395

Off-net priced under separate contract

IP VPN Class of Service

CoS Realtime

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$35	\$35	\$35	\$35
2	\$35	\$35	\$35	\$35
3	\$35	\$35	\$35	\$35
4	\$53	\$53	\$53	\$53
4.5	\$53	\$53	\$53	\$53
6	\$53	\$53	\$53	\$53
7.5	\$53	\$53	\$53	\$53
8	\$53	\$53	\$53	\$53
9	\$85	\$85	\$85	\$85
10	\$85	\$85	\$85	\$85
10.5	\$85	\$85	\$85	\$85
12	\$85	\$85	\$85	\$85
15	\$134	\$121	\$114	\$107
18	\$147	\$132	\$125	\$117
20	\$155	\$140	\$132	\$124
21	\$159	\$143	\$136	\$128
24	\$172	\$155	\$146	\$138
25	\$176	\$159	\$150	\$141
27	\$185	\$166	\$157	\$148
30	\$197	\$178	\$168	\$158
33	\$210	\$189	\$179	\$168
35	\$219	\$197	\$186	\$175
36	\$223	\$201	\$189	\$178
39	\$236	\$212	\$200	\$188
40	\$240	\$216	\$204	\$192
42	\$248	\$223	\$211	\$199
45	\$261	\$235	\$222	\$209
50	\$282	\$254	\$240	\$226
55	\$293	\$263	\$249	\$234
60	\$303	\$273	\$258	\$243
65	\$314	\$283	\$267	\$251
70	\$324	\$292	\$276	\$260
75	\$335	\$302	\$285	\$268
80	\$346	\$311	\$294	\$276
85	\$356	\$321	\$303	\$285
90	\$367	\$330	\$312	\$293
95	\$377	\$340	\$321	\$302

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
100	\$388	\$349	\$330	\$310
105	\$401	\$361	\$341	\$320
115	\$427	\$384	\$363	\$341
125	\$453	\$408	\$385	\$362
135	\$478	\$430	\$407	\$383
145	\$504	\$454	\$429	\$403
150	\$517	\$465	\$439	\$414
155	\$530	\$477	\$451	\$424
175	\$582	\$524	\$495	\$465
200	\$647	\$582	\$550	\$517
225	\$711	\$640	\$604	\$569
250	\$776	\$698	\$659	\$621
300	\$875	\$787	\$743	\$700
350	\$973	\$876	\$827	\$779
400	\$1,072	\$965	\$911	\$858
450	\$1,171	\$1,054	\$995	\$937
500	\$1,270	\$1,143	\$1,079	\$1,016
550	\$1,319	\$1,187	\$1,121	\$1,055
600	\$1,368	\$1,231	\$1,163	\$1,095
622	\$1,390	\$1,251	\$1,182	\$1,112
650	\$1,418	\$1,276	\$1,205	\$1,134
700	\$1,467	\$1,320	\$1,247	\$1,174
750	\$1,516	\$1,365	\$1,289	\$1,213
800	\$1,566	\$1,409	\$1,331	\$1,253
850	\$1,615	\$1,454	\$1,373	\$1,292
900	\$1,664	\$1,498	\$1,415	\$1,332
950	\$1,714	\$1,542	\$1,457	\$1,371
1,000	\$1,763	\$1,587	\$1,499	\$1,411

CoS Interactive

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
1.5	\$35	\$35	\$35	\$35
2	\$35	\$35	\$35	\$35
3	\$35	\$35	\$35	\$35
4	\$53	\$53	\$53	\$53
4.5	\$53	\$53	\$53	\$53
6	\$53	\$53	\$53	\$53
7.5	\$53	\$53	\$53	\$53
8	\$53	\$53	\$53	\$53

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
9	\$85	\$85	\$85	\$85
10	\$85	\$85	\$85	\$85
10.5	\$85	\$85	\$85	\$85
12	\$85	\$85	\$85	\$85
15	\$67	\$60	\$57	\$54
18	\$73	\$66	\$62	\$59
20	\$78	\$70	\$66	\$62
21	\$80	\$72	\$68	\$64
24	\$86	\$77	\$73	\$69
25	\$88	\$79	\$75	\$71
27	\$92	\$83	\$79	\$74
30	\$99	\$89	\$84	\$79
33	\$105	\$95	\$89	\$84
35	\$109	\$98	\$93	\$87
36	\$111	\$100	\$95	\$89
39	\$118	\$106	\$100	\$94
40	\$120	\$108	\$102	\$96
42	\$124	\$112	\$106	\$99
45	\$130	\$117	\$111	\$104
50	\$141	\$127	\$120	\$113
55	\$146	\$132	\$124	\$117
60	\$152	\$136	\$129	\$121
65	\$157	\$141	\$133	\$126
70	\$162	\$146	\$138	\$130
75	\$168	\$151	\$142	\$134
80	\$173	\$156	\$147	\$138
85	\$178	\$160	\$151	\$142
90	\$183	\$165	\$156	\$147
95	\$189	\$170	\$160	\$151
100	\$194	\$175	\$165	\$155
105	\$200	\$180	\$170	\$160
115	\$213	\$192	\$181	\$171
125	\$226	\$204	\$192	\$181
135	\$239	\$215	\$203	\$191
145	\$252	\$227	\$214	\$202
150	\$258	\$233	\$220	\$207
155	\$265	\$239	\$225	\$212
175	\$291	\$262	\$247	\$233
200	\$323	\$291	\$275	\$259
225	\$355	\$320	\$302	\$284

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
250	\$388	\$349	\$330	\$310
300	\$437	\$394	\$372	\$350
350	\$487	\$438	\$414	\$389
400	\$536	\$482	\$456	\$429
450	\$585	\$527	\$498	\$468
500	\$635	\$571	\$540	\$508
550	\$659	\$594	\$561	\$528
600	\$684	\$616	\$582	\$547
622	\$695	\$626	\$591	\$556
650	\$709	\$638	\$603	\$567
700	\$734	\$660	\$623	\$587
750	\$758	\$682	\$644	\$607
800	\$783	\$705	\$665	\$626
850	\$808	\$727	\$686	\$646
900	\$832	\$749	\$707	\$666
950	\$857	\$771	\$728	\$686
1,000	\$882	\$793	\$749	\$705

Ethernet Solutions

Ethernet Service Descriptions

Ethernet Services utilize Ethernet technology to transport data and are offered with the following Ethernet ports: (1) 10/100 Mbps Ethernet port where (a) the 10 Mbps Ethernet service provides a physical IEEE-compliant (IEEE 802.3) 10Base-T (twisted pair), RJ-45 interface to the customer (transmission speed is available at a maximum of 10 Mbps which is equal to the line rate of the 10Base-T interface); and (b) the 100 Mbps Ethernet (Fast Ethernet) service provides a physical IEEE-compliant 100Base-TX (twisted pair) RJ-45 interface to the customer (transmission speed is available at a maximum of 100 Mbps, which is equal to the line rate of the 100Base-TX interface); (2) 1000 Mbps Ethernet port – Gigabit Ethernet where the 1000 Mbps Ethernet (Gigabit Ethernet) service provides an IEEE-compliant physical interface of either 1000Base-SX (multimode fiber), or 1000Base-LX (single mode fiber) interface to the customer; and (3) 10000 Mbps Ethernet port – 10 Gigabit Ethernet where the 10000 Mbps Ethernet (10Gigabit Ethernet) service provides an IEEE-compliant physical interface of either 10GBase-SR (multimode fiber), or 10GBase-LR (single mode fiber) interface to the customer.

For the purposes of the Service Level Agreement (“SLA”) below, an Ethernet Service is “Protected” if it is ordered on a ring-protected route. If there is an interruption on the ring, the traffic is automatically re-routed in the opposite direction on the ring until the normal condition is restored.

Enterprise Switched NLAN Services

Enterprise Switched NLAN Services (“Enterprise SNLAN”) are switched Ethernet services that incorporate data switching technology through the use of Ethernet switches in the TWTC Network. Enterprise SNLAN conforms to Metro Ethernet Forum (“MEF”) E-LAN standards and provides customers with access to TWTC’s shared, oversubscribed metro Ethernet infrastructure through Ethernet ports that are unique to each customer and its locations. Each location has a port and a bandwidth component for ordering and billing purposes. The Enterprise SNLAN Service will accept and carry tagged and untagged Ethernet traffic. If a customer requires individual tag service from TWTC, it shall use the VLAN identifications assigned by TWTC. Enterprise SNLAN Services may be ordered with Class of Service (“CoS”) as described below. If purchased without CoS, the “Best Effort” classification in the SLA below would apply to them.

Additional Features:

- Any-to-any connectivity
- TWTC differentiates customer traffic on the shared infrastructure through unique logical connections for each customer
- Metro area solution
- Various bandwidth increments are offered over 100M, 1000M and 10G End User Ethernet ports
- Port-based pricing
- Full port line rate to the Customer
- Full-duplex service
- Ethernet ring topology
- REP and RSTP spanning tree network restoration protocols (Sub-second convergence and failover time)
- Limited oversubscription of network bandwidth

Elite NLAN Services (Point-to-Point Configuration)

Elite NLAN Services are dedicated point-to-point, transparent Ethernet services that conform to MEF “EPL” standards. The Services provide a dedicated point-to-point DWDM or SONET-protected transport solution between customers’ locations. The Services are available in bandwidth increments of 10 Mbps, 100 Mbps, 622 Mbps (GigE port but with a limited bandwidth of 622M), 1000 Mbps (GigE), and 10 Gbps. The Services are provisioned on TWTC’s fiber infrastructure to provide Ethernet LAN-to-LAN connectivity over the metro area, and each location includes a port and a bandwidth component for ordering and billing purposes.

Additional Features:

- Dedicated Point-to-Point connectivity and bandwidth between two Customer locations
- Customer has access to full bandwidth of the port (no bandwidth increments)
- Full-duplex services
- DWDM or SONET-Protected service (hybrid SONET platform)
- Tagged or untagged Customer Ethernet traffic

Extended NLAN Services

Extended NLAN Services ("ENLAN") are fully meshed, inter-market Ethernet Services provisioned on TWTC's Network and provide a managed end-to-end solution. ENLAN Services conform to E-LAN MEF standards, encapsulating Customer traffic using layer 2 tunnels. An Ethernet connection will be established between TWTC's central office Ethernet switch and an aggregation router to transport Ethernet frames across TWTC's Network.

ENLAN is provisioned on diverse and redundant paths, meaning that if there is an interruption on one of the paths, the ENLAN traffic will be automatically re-routed onto a secondary path until the primary path is restored. Enterprise SNLAN Services are required on each end of the ENLAN Service, and are priced separately.

ENLAN may be ordered with CoS, as described below; and would be then considered a "premium" service. If purchased without CoS, the service would be considered a basic service, and the "Best Effort" classification in the SLA below would apply.

E-Line Services

E-Line is a point-to-point Layer 2 Ethernet service between any two IEEE-compliant User Network Interfaces ("UNIs"). These UNIs may be connected with other IEEE-compliant UNIs at a variety of speed intervals, regardless of the platform or device that enables them.

The E-Line service is comprised of a UNI at each site combined with Ethernet Virtual Connections ("EVC") between UNIs that create a point-to-point or hub and spoke network topology. Each UNI and EVC is priced separately. E-Line may be ordered as: (a) a port-based private line with limited but dedicated line rate speeds (a/k/a/ Ethernet Private Line or "EPL," which is available with a protected or unprotected configuration); (b) a transparent oversubscribed service between two UNIs (a/k/a/ Ethernet Virtual Private Line or "EVPL," which is only available in a protected configuration); or (c) a multiplexed VLAN-based solution with dedicated or shared EVCs that span between UNIs, and is available at a variety of speed intervals (this service also may be referred to as EVPL, which is only available in a protected configuration).

The multiplexed E-Line service provisioned with three or more locations is commonly referred to as point to multipoint or, because of its architecture, may be referred to as "VLAN-based" point-to-point. The multiplexed E-Line service utilizes a "hub and spoke" topology, where several VLAN-based services (the "spokes") aggregate into a single multiplex UNI or NNI (the "hub"). The UNI or NNI is available as a 100M, 1G, or 10G Ethernet port and may be ordered as a transparent or multiplexed interface. EVCs are available in shared or dedicated bandwidth increments from 2Mbps to 10Gbps. The UNI conforms to MEF standards, and the terminology and configurable options associated with the multiplexed E-Line Services typically follow MEF standards.

eLynksm Services

A. eLynk Virtual Connectionsm to a Cloud Provider ("eVC") and eLynk Interconnectionsm to a Cloud Provider ("eLynk Interconnection")

- eVC is a point-to-point Layer 2 Ethernet or Data service offered between two IEEE-compliant User Network Interfaces (each a "UNI"). One UNI is purchased by Customer and located on Customer's premises and the other UNI (the "eLynk Interfacesm") is located at the premises of, and/or controlled by, a specific application provider or data center ("Cloud Provider").

- eLink Interconnection is a point-to-point Layer 2 Ethernet or Data service offered between two eLink Interfaces. Customer is solely responsible for ensuring its ability to conform to each applicable Cloud Provider's specifications for eVC and eLink Interconnection Services.

The eVC and eLink Interconnection is available in various bandwidth increments ranging between 2Mbps to 10Gbps and may be ordered with shared or dedicated bandwidth classifications. The UNI is available as a 100Mbps, 1Gbps, or 10Gbps Ethernet port and must be ordered as a multiplexed interface. TWTC will install a Network Interface Device (NID) at the premise of each UNI. The eLink Interface is available as a 1Gbps or 10Gbps Ethernet port and may be ordered with a single or dual hand-off. A dual hand-off is provisioned using LACP protocol, in an active/standby configuration. eVCs may be ordered as multiplexed VLAN-based solution with dedicated or shared EVPLs that span between an eLink interface and a multiplexed UNI or between two eLink interfaces, which is available at a variety of capacities. The available configuration options for eVC and eLink Interconnection Services may vary as directed by the applicable Cloud Provider(s). For the purposes of the Service Level Agreement ("SLA") below, an eVC and eLink Interconnection is "Protected" if it is ordered on a ring-protected route. If there is an interruption on the ring, the traffic is automatically re-routed in the opposite direction on the ring until the normal condition is restored.

TWTC's ability to provide eVC or eLink Interconnection Services depends, and is conditioned, on the relevant Cloud Provider(s) and TWTC completing an underlying agreement and an onboarding process. TWTC is not responsible for the technical interoperation of the Cloud Provider's services with the eVC or eLink Interconnection Service at any layer other than the physical and Ethernet interconnection. Customer will separately contract with Cloud Provider for its services and Customer's contractual relationship with the Cloud Provider is completely independent from Customer's contractual relationship with TWTC. TWTC is not a representative or agent of Cloud Provider, nor is TWTC responsible for Cloud Provider's performance of its obligations to Customer, or for Cloud Provider's acts or omissions. TWTC is not responsible to maintain, bill or pay for any service provided to Customer by the Cloud Provider. Similarly, Cloud Provider is not responsible to maintain or pay for the eVC or eLink Interconnection Service.

B. eLink Interfacesm

eLink Interface is an IEEE compliant User Network Interface ("UNI") that conforms to MEF standards. eLink Interface is designed to be ordered by Customers who are application providers or data centers, situated at their premises and connected via an eVC with an IEEE-compliant UNI ordered from TWTC by third party end users who are customers of both TWTC and Customer (collectively "e-Link End Users" and individually "eLink End User") to create a point-to-point Layer 2 Ethernet service between the two UNIs at a variety of speed intervals. An eLink Interface also may be connected via an eLink Interconnection to another eLink Interface situated at a third party Cloud Provider's premises to provide connectivity between Customer and the Cloud Provider. For the purposes of the Service Level Agreement ("SLA") below, an eLink Interface is "Protected" if it is ordered on a ring-protected route. If there is an interruption on the ring, the traffic is automatically re-routed in the opposite direction on the ring until the normal condition is restored.

TWTC shall notify Customer when an eLink End User desires to connect to the eLink Interface on Customer's premises. Upon receipt of such notice, Customer will notify TWTC of its intent to accept or deny the requested connection. If Customer accepts the requested connection, TWTC and Customer shall work together in good faith to exchange information and consents necessary to enable the eLink End User to make the desired connection. TWTC will enter into a separate contract with all eLink End Users for services provided by TWTC and Customer will enter into a separate contract with all eLink End Users for services provided by Customer.

eLink Services - Dedicated or Shared Bandwidth

Customers may order eLink Services with either dedicated or shared bandwidth. For the eLink services with dedicated bandwidth are classified under the remedy tables as "Realtime" services; and those with shared bandwidth are classified as "Best Effort" services. The eLink Interface is not eligible for the Network Latency, Packet Delivery and Network Jitter service level metrics in Sections IV (B), (C) and (D) below.

Service Level Agreement – NLAN and E-Line Services

A. Availability

Protected Elite NLAN and E-Line Services. These services will be available at least 99.999% of the time in a calendar month. The Service is unavailable during any period of time that it experiences a Service Outage. Upon Customer's request, TWTC will issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 1 minute (99.999% availability)	No Credit
1 minute up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

Protected Enterprise SNLAN and ENLAN Services. These Services will be available at least 99.99% of the time in a calendar month. The Service is unavailable during any period of time it experiences a Service Outage. Upon Customer's request, TWTC will issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

All Unprotected Services. Unprotected Services will be available at least 99.9% of the time in a calendar month. The Service is unavailable during any period of time it experiences a Service Outage. Upon Customer's request, TWTC will issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 45 minutes (99.9% availability)	No Credit
45 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

B. Network Latency – Continental United States and Hawaii

TWTC measures "Network Latency" with respect to average round-trip transmission on its Network each calendar month. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Network Latency metrics specified below if the failure is service impacting to the Customer. Such credits will be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service. The credits specified below are not cumulative and, for any calendar month, Customer is only entitled to one credit specified in the table below based on the highest affected contracted-for CoS level for the non-performing Service.

Network Latency						
		Classification Designation – Percentage Credits				
Continental United States	Hawaii	Realtime (Dedicated Bandwidth)	Interactive	Mission Critical	Priority	Best Effort (Shared Bandwidth) & Basic Services
45.00 milliseconds ("ms") or less	75.00 ms or less	No Credit	No Credit	No Credit	No Credit	No Credit
45.01 to 50.00 ms	75.01 to 80.00 ms	10%	5%	No Credit	No Credit	No Credit
50.01 to 60.00 ms	80.01 to 90.00 ms	15%	10%	No Credit	No Credit	No Credit
60.01 to 65.00 ms	90.01 to 95.00 ms	20%	15%	No Credit	No Credit	No Credit
65.01 to 70.00 ms	95.01 to 100.00 ms	30%	25%	20%	10%	No Credit
70.01 to 75.00 ms	100.01 to 105.00	40%	35%	25%	15%	No Credit
75.01 ms or greater	105.01 or greater	50%	45%	30%	20%	10%

C. Packet Delivery

TWTC measures packet delivery on its Network on a monthly basis. Packet Delivery is determined by averaging sample measurements taken each calendar month between TWTC's designated POPs. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Packet Delivery metrics specified in the table below if such failure is service impacting to the Customer. Such credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing Services. The credits specified below are not cumulative and, for any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest contracted-for CoS level for the non-performing Service.

Packet Delivery					
		Classification Designation – Percentage Credits			
Within Continental U.S. and from Continental U.S. to Hawaii	Realtime (Dedicated Bandwidth)	Interactive	Mission Critical	Priority	Best Effort (Shared Bandwidth) & Basic Services
99.9% or greater	No Credit	No Credit	No Credit	No Credit	No Credit
99.5% to 99.8%	10%	5%	No Credit	No Credit	No Credit
99% to 99.4%	20%	15%	No Credit	No Credit	No Credit
98% to 98.9%	30%	20%	15%	No Credit	No Credit
97% to 97.9%	40%	25%	20%	15%	No Credit
Less than 97%	50%	40%	25%	20%	10%

D. Network Jitter – Continental United States and Hawaii

TWTC's Network Jitter metric only applies to Services for which the Customer has selected either the Realtime or Interactive CoS. "Network Jitter" means the average variation in delay for packet transfers between TWTC's designated

points of presence ("POPs") during a calendar month, as further described below in the section titled "Measurements." Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Network Jitter metrics specified in the table below if the failure is service impacting to the Customer. Credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing Service. The credits specified below are not cumulative and, for any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest contracted-for CoS level for the non-performing Service.

Network Jitter (one way)						
		Classification Designation – Percentage Credits				
Continental United States	Hawaii	Realtime (Dedicated Bandwidth)	Interactive	Mission Critical	Priority	Best Effort (Shared Bandwidth) & Basic Services
1 ms or less	1 ms or less	No Credit	No Credit	No Credit	No Credit	No Credit
1.1 ms to 2.0 ms	1.1 ms to 2.0 ms	5%	No Credit	No Credit	No Credit	No Credit
2.1 ms to 4.0 ms	2.1 ms to 4.0 ms	10%	5%	No Credit	No Credit	No Credit
4.1 ms to 5.0 ms	4.1 ms to 5.0 ms	15%	10%	No Credit	No Credit	No Credit
5.1 ms to 6.5 ms	5.1 ms to 6.5 ms	20%	15%	10%	No Credit	No Credit
6.6 ms to 7.5 ms	6.6 ms to 7.5 ms	30%	20%	15%	No Credit	No Credit
7.6 ms to 10.0 ms	7.6 ms to 10.0 ms	40%	30%	25%	15%	No Credit
10.1 ms or greater	10.1 ms or greater	50%	40%	30%	20%	10%

E. Measurements

All latency, packet delivery and jitter measurements are measured by averaging sample measurements taken during the calendar month. For Services provided within the continental United States, measurements are taken at TWTC's POPs in the continental United States; for Services provided in Hawaii, between TWTC's POPs in Honolulu, HI and TWTC's POPs on the west coast of the continental United States. Performance metrics are available at TWTC's online customer portal at <https://customerportal.twtelecom.com/> or upon Customer's request.

General Terms Applicable to Service Level Agreement

Customer shall report problems with its Services by contacting TWTC's Customer & Network Reliability Center ("CNRC") at 1-800-829-0420. TWTC will open a trouble ticket and provide a trouble ticket number for tracking purposes. For the purpose of determining the applicable credit, a Service Outage begins when the Customer reports the Service Outage to TWTC's CNRC and ends when the Service is restored. Credits are provided to Customer only upon request by Customer. The resources, equipment and methodology used to measure service level metrics are determined by TWTC in its sole discretion.

Service Outages and failures to meet the performance objectives herein do not include outages and failures caused by the equipment, acts or omissions of Customer or its End Users, Force Majeure events, fiber cuts caused by third-parties, failure of elements of the Internet outside of TWTC's control or outages occurring during scheduled or emergency maintenance. The duration of a Service Outage does not include any time during which TWTC is denied access to the premises necessary to restore the Service.

The remedies set forth in this Service Level Agreement are Customer's sole and exclusive remedies if there are Service Outages and/or failures to meet the performance objectives in this Service Level Agreement. Credits issued during any calendar month, for any reason(s), will not exceed the MRC associated with the troubled Service.

Performance Metrics Available at TWTC's Website

Monthly Network Latency and Packet Delivery averages may be viewed at: www.twtelecom.com/performance/ip_network_overview_performance.html

Service Level Agreement – eLynk Services

A. Availability

Protected eLynk. These services will be available at least 99.999% of the time in a calendar month. The Service is unavailable during any period of time that it experiences a Service Outage. Upon Customer's request, TWTC will issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 1 minute (99.999% availability)	No Credit
1 minute up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

Unprotected eLynk. These Services will be available at least 99.9% of the time in a calendar month. The Service is unavailable during any period of time it experiences a Service Outage. Upon Customer's request, TWTC shall issue credit for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 45 minutes (99.9% availability)	No Credit
45 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

B. Network Latency – Continental United States and Hawaii

TWTC measures "Network Latency" with respect to average round-trip transmission on its Network each calendar month. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Network Latency metrics specified below if the failure is service impacting to the Customer. Such credits will be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service. The credits specified below are not cumulative and, for any calendar month, Customer is only entitled to one credit specified in the table below based on the highest affected contracted-for Dedicated or Shared level for the non-performing Service.

Network Latency						
		Classification Designation- Percentage Credits				
Continental United States	Hawaii	Real-time (Dedicated Bandwidth)	Interactive	Mission Critical	Priority	Best Effort (Shared Bandwidth)
45.00 milliseconds ("ms") or less	75.00 ms or less	No Credit	N/A	N/A	N/A	No Credit
45.01 to 50.00 ms	75.01 to 80.00 ms	10%	N/A	N/A	N/A	No Credit
50.01 to 60.00 ms	80.01 to 90.00 ms	15%	N/A	N/A	N/A	No Credit
60.01 to 65.00 ms	90.01 to 95.00 ms	20%	N/A	N/A	N/A	No Credit
65.01 to 70.00 ms	95.01 to 100.00 ms	30%	N/A	N/A	N/A	No Credit

70.01 to 75.00 ms	100.01 to 105.00	40%	N/A	N/A	N/A	No Credit
75.01 ms or greater	105.01 or greater	50%	N/A	N/A	N/A	10%

C. Packet Delivery

TWTC measures packet delivery on its Network on a monthly basis. Packet Delivery is determined by averaging sample measurements taken each calendar month between TWTC's designated POPs. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Packet Delivery metrics specified in the table below if such failure is service impacting to the Customer. Such credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing Services. The credits specified below are not cumulative and, for any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest contracted-for Dedicated or Shared level for the non-performing Service.

Packet Delivery					
		Classification Design – Percentage Credits			
Within Continental U.S. and from Continental U.S. to Hawaii	Dedicated Bandwidth	Interactive	Mission Critical	Priority	Best Effort (Shared Bandwidth)
99.9% or greater	No Credit	N/A	N/A	N/A	No Credit
99.5% to 99.8%	10%	N/A	N/A	N/A	No Credit
99% to 99.4%	20%	N/A	N/A	N/A	No Credit
98% to 98.9%	30%	N/A	N/A	N/A	No Credit
97% to 97.9%	40%	N/A	N/A	N/A	No Credit
Less than 97%	50%	N/A	N/A	N/A	10%

D. Network Jitter – Continental United States and Hawaii

"Network Jitter" means the average variation in delay for packet transfers between TWTC's designated points of presence ("POPs") during a calendar month, as further described below in the section titled "Measurements." Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Network Jitter metrics specified in the table below if the failure is service impacting to the Customer. Credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing Service. The credits specified below are not cumulative and, for any calendar month, Customer shall only be entitled to one credit specified in the table below based on the highest contracted-for Dedicated or Shared level for the non-performing Service.

Network Jitter (one way)						
		Classification Designation – Percentage Credits				
Continental United States	Hawaii	Dedicated Bandwidth	Interactive	Mission Critical	Priority	Best Effort (Shared Bandwidth)
1 ms or less	1 ms or less	No Credit	N/A	N/A	N/A	No Credit
1.1 ms to 2.0 ms	1.1 ms to 2.0 ms	5%	N/A	N/A	N/A	No Credit
2.1 ms to 4.0 ms	2.1 ms to 4.0 ms	10%	N/A	N/A	N/A	No Credit
4.1 ms to 5.0 ms	4.1 ms to 5.0 ms	15%	N/A	N/A	N/A	No Credit
5.1 ms to 6.5 ms	5.1 ms to 6.5 ms	20%	N/A	N/A	N/A	No Credit
6.6 ms to 7.5 ms	6.6 ms to 7.5 ms	30%	N/A	N/A	N/A	No Credit
7.6 ms to 10.0 ms	7.6 ms to 10.0 ms	40%	N/A	N/A	N/A	No Credit
10.1 ms or greater	10.1 ms or greater	50%	N/A	N/A	N/A	10%

E. Measurements

All latency, packet delivery and jitter measurements are measured by averaging sample measurements taken during the calendar month. For Services provided within the continental United States, measurements are taken at TWTC's POPs in the continental United States; for Services provided in Hawaii, between TWTC's POPs in Honolulu, HI and TWTC's POPs on the west coast of the continental United States. Performance metrics are available at TWTC's online customer portal at <https://customerportal.twtelecom.com/> or upon Customer's request.

Enhanced Management Service Descriptions

Enhanced Management provides Customer with the ability to track the performance of eLink Services through the "My Service" portion of TWTC's website portal. The portal provides Customer with visibility to Frame Delay (Latency), Frame Delivery (Packet Delivery) and Frame Delay Variation (Jitter) performance metrics between the service location and TWTC's nearest POP, and also between the two TWTC POPs associated with the services. Enhanced Management also includes interactive network performance management functionality (collectively "Thresholds and Alerts"). Thresholds and Alerts is accessible via MyService and allows Customer to select performance/utilization thresholds and notification parameters based on the reported data that can be utilized for purposes of network planning, resource optimization and troubleshooting. THRESHOLDS AND ALERTS ARE PROVIDED "AS IS" WITH NO EXPRESS OR IMPLIED WARRANTY. The Service Order for the eLink service will include a separate line item for the Enhanced Management feature if ordered by Customer. TWTC provides an Enhanced Management SLA that entitles Customer to credits if TWTC fails to meet the Frame Delay, Frame Delivery and Frame Delay Variation metrics described below ("Enhanced Management SLA"), but is not available for all service locations. If eLink Services are being provided to a location where the Enhanced Management SLA is available, and Customer orders Enhanced Management, the Service Order will include a notation "Enhanced Management SLA" with respect to those services. Enhanced Management SLA credits are issued in addition to other credits that Customer may be eligible for under Section IV above.

For the Frame Delay, Frame Delivery and Frame Delay Variation service level metrics in Sections V (A), (B) and (C) below, eLink Service with shared bandwidth is classified under the remedy tables as "Best Effort" services. TWTC's failure to meet any of the Frame Delay, Frame Delivery and/or Frame Delay Variation standards contained in the Enhanced SLA shall not constitute a "Service Outage" for purposes of the applicable SLA or the Agreement. Credits are only issued if requested by Customer, and such requests must be submitted to TWTC within thirty (30) days of the end of the calendar month in which TWTC failed to meet the applicable metric.

A. Enhanced Frame Delay (Latency)

TWTC measures Frame Delay with respect to average round-trip transmission each month between TWTC's CPE located at Customer's premises and TWTC's nearest POP ("Site to POP Frame Delay (Latency)") and with respect to average round-trip transmission between any two TWTC POPs associated with Customer's Enhanced eLink Services ("POP to POP Frame Delay (Latency)"). Upon Customer's request, TWTC will issue credits for TWTC's failure to meet such Frame Delay metrics specified in the tables below in any calendar month, and such credits will be equal to five percent (5%) of the monthly recurring Service fee for the applicable non-performing Enhanced eLink Service site.

Enhanced Site to POP Frame Delay (Latency)*				
Enhanced Management: eLink Service Standard				
For Bandwidth from 0Mbps to 15Mbps (Round Trip)				
Realtime (Dedicated)	Interactive	Mission Critical	Priority	Best Effort (no CoS)
20 ms	N/A	N/A	N/A	25 ms
For Bandwidth from 16Mbps and Above (Round Trip)				
9 ms	N/A	N/A	N/A	13 ms

Enhanced POP to POP Frame Delay (Latency) (Round Trip) *				
Enhanced Management: POP to POP Service Standard				
Realtime (Dedicated)	Interactive	Mission Critical	Priority	Best Effort (no CoS)
Value in Table *	N/A	N/A	N/A	Value in Table + 5 ms

Table refers to the POP to POP Frame Delay (Latency) Table contained in Appendix 1 for eLynk Services.

B. Enhanced Frame Delivery (Packet Delivery)

TWTC measures Frame Delivery as an average each month between TWTC's CPE located at Customer's premises and TWTC's nearest POP ("Site to POP Frame Delivery (Packet Delivery)") and between any two TWTC POPs associated with Customer's Enhanced eLynk Services ("POP to POP Frame Delivery (Packet Delivery)"). Upon Customer's request, TWTC will issue credits for TWTC's failure to meet such Frame Delivery metrics specified in the tables below in any calendar month, and such credits will be equal to five percent (5%) of the monthly recurring Service fee for the applicable non-performing Enhanced eLynk Service site.

Enhanced Site to POP Frame Delivery (Packet Delivery) *				
Enhanced Management: eLynk Service Standard				
For Bandwidth from 0Mbps to 15Mbps (Round Trip)				
Realtime (Dedicated)	Interactive	Mission Critical	Priority	Best Effort (no CoS)
99.9%	N/A	N/A	N/A	99.5%
For Bandwidth from 16Mbps and Above (Round Trip)				
99.95%	N/A	N/A	N/A	99.55%

C. Enhanced Frame Delay Variation (Jitter)

Frame Delay Variation is the average variation in delay for packet transfers during each calendar month between TWTC's CPE located at Customer's premises and TWTC's nearest POP ("Site to POP Frame Delay Variation (Jitter)") and between any two TWTC POPs associated with Customer's Enhanced eLynk Services ("POP to POP Frame Delay Variation (Jitter)"). For eLynk Services, Frame Delay Variation only applies to Best Effort. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Site to POP Frame Delay Variation (Jitter) or the POP to POP Frame Delay Variation (Jitter) metrics specified in the tables below in any calendar month, and such credits will be equal to five percent (5%) of the monthly recurring Service fee for the applicable non-performing Enhanced eLynk service site.

Enhanced Site to POP Frame Delay Variation (Jitter) *				
Enhanced Management: eLynk Service Standard				
For Bandwidth from 0Mbps to 15Mbps (One Way)				
Realtime (Dedicated)	Interactive	Mission Critical	Priority	Best Effort (no CoS)
3 ms	N/A	NA	NA	5 ms
For Bandwidth from 16Mbps and Above (One Way)				
2 ms	N/A	NA	NA	4 ms

Enhanced POP to POP Frame Delay Variation (Jitter) (One Way) ***Enhanced Management: POP to POP Service Standard**

Realtime (Dedicated)	Interactive	Mission Critical	Priority	Best Effort (no CoS)
2 ms	N/A	NA	NA	5 ms

D. Measurement of Enhanced Frame Delay (Latency), Frame Delivery (Packet Delivery) and Frame Delay Variation (Jitter)

The measurement of Frame Delay, Frame Delivery and Frame Delay Variation excludes the duration of Service Outages, scheduled or emergency maintenance, outages of TWTC's data collection engine, performance issues caused by Customer's equipment or the acts or omissions of Customer or its end users, and fiber cuts caused by third parties or Customer failures to release the applicable Enhanced eLynk Services to TWTC for testing. The Enhanced SLA shall not apply to any site for any calendar month if TWTC's measurement of Frame Delay, Frame Delivery and Frame Delay Variation does not include at least twenty five percent (25%) of the duration of any calendar month. Credits provided for the applicable metric are not cumulative and, in any calendar month, Customer shall only be entitled to one credit per metric per Enhanced eLynk Service site. All measurements are based on the average of the metrics for that calendar month.

(Service Level Agreement – Enhanced eLink Services - Domestic Only)

POP to POP Frame Delay (Latency) SLA Real-Time Values (ms)	Albany	Albuquerque	Ashburn	Atlanta	Austin	Boise	Charlotte	Chicago	Cincinnati	Colorado Springs	Columbia	Columbus	Dallas	Dayton	Denver	Fresno	FT. Lauderdale	FT. Worth	Greensboro	Honolulu	Houston	Indianapolis	Inland Empire	Jacksonville	Kansas City
Albany																									
Albuquerque	75																								
Ashburn	18	67																							
Atlanta	42	40	36																						
Austin	59	37	55	27																					
Boise	105	39	96	75	53																				
Charlotte	35	48	25	14	33	73																			
Chicago	30	50	39	28	34	62	35																		
Cincinnati	27	53	32	23	42	85	32	15																	
Colorado Springs	61	41	66	40	28	55	46	34	41																
Columbia	40	46	28	11	33	79	10	31	32	46															
Columbus	24	57	28	31	44	68	30	23	9	50	34														
Dallas	55	22	47	23	10	54	27	31	37	24	28	40													
Dayton	25	58	30	30	45	89	32	23	7	50	34	7	41												
Denver	53	37	64	37	24	63	43	32	30	8	43	36	20	40											
Fresno	62	38	68	70	47	32	76	64	72	37	78	81	50	80	34										
FT. Lauderdale	60	69	46	28	45	84	26	50	50	65	33	56	46	65	83	91									
FT. Worth	54	23	53	23	9	54	28	30	38	24	29	30	6	41	21	51	47								
Greensboro	36	48	21	17	35	81	6	37	34	47	12	28	30	30	45	76	31	30							
Honolulu	196	92	157	135	102	98	136	131	138	134	130	141	115	142	101	70	146	110	140						
Houston	56	33	47	29	12	56	28	37	44	26	32	46	10	40	25	49	37	11	30	108					
Indianapolis	30	53	38	25	36	86	30	19	6	38	26	15	32	18	27	68	44	35	32	137	41				
Inland Empire	99	31	62	64	38	30	70	72	80	63	70	82	44	83	41	12	52	45	72	88	47	77			
Jacksonville	52	53	44	14	27	81	23	35	33	48	19	42	22	40	47	80	18	32	35	136	35	29	74		
Kansas City	40	33	50	36	24	83	44	16	23	49	42	32	21	23	40	73	62	20	47	134	36	21	69	46	
Las Vegas	87	23	79	54	35	21	57	63	67	50	56	70	33	71	48	16	76	55	60	75	37	84	13	62	57
Lexington	30	50	35	29	36	81	34	29	13	48	33	12	34	14	36	77	52	33	34	135	37	15	75	43	30
Little Rock	84	34	55	28	20	86	34	41	44	35	33	51	23	52	32	63	51	19	38	122	22	41	58	36	31
Los Angeles	95	36	93	63	43	31	89	70	78	62	69	81	43	82	48	11	83	44	71	84	36	75	6	73	75
Manhattan	10	72	13	38	59	101	28	30	24	62	32	20	52	22	56	62	53	54	55	158	52	30	96	48	40
Memphis	42	36	47	25	24	71	33	26	20	58	31	25	19	25	34	66	49	20	35	126	29	17	60	34	34
Milwaukee	32	62	43	32	37	81	36	8	16	33	35	26	44	26	30	82	54	33	43	151	49	28	78	38	19
Minnetonka	40	58	50	43	44	72	56	14	25	25	50	32	37	33	22	53	82	30	40	121	44	36	61	45	25
Nashville	36	44	42	33	32	77	39	17	15	48	40	18	28	19	37	72	52	28	39	135	32	12	69	44	28
Oakland	57	40	63	66	49	28	71	59	67	53	72	60	46	60	30	9	92	47	74	72	52	63	16	76	69
Orange County	99	31	89	64	35	30	70	72	79	63	70	82	44	83	41	12	74	45	72	86	37	77	7	74	69
Orlando	50	62	36	25	42	87	19	49	47	69	23	45	42	47	57	85	15	43	22	148	37	42	83	16	57
Phoenix	80	17	72	45	26	27	50	57	58	42	51	64	27	65	42	24	66	29	53	78	30	57	16	56	51
Portland	102	48	109	82	63	15	87	75	83	48	58	92	61	92	45	23	107	62	90	86	67	79	29	82	84
Raleigh	26	52	15	20	40	62	11	36	28	51	16	32	33	34	48	82	35	34	3	141	34	34	78	30	50
Rochester	30	80	36	40	48	103	43	19	33	46	43	25	65	31	48	81	64	44	48	147	57	24	104	50	29
San Antonio	61	36	52	32	8	53	31	37	45	31	38	48	14	50	20	40	42	12	34	80	9	43	34	38	28
San Diego	97	32	89	67	34	31	61	73	76	46	68	83	48	84	43	14	73	39	89	86	35	75	8	73	68
San Francisco	67	39	93	66	47	26	72	60	67	33	72	85	53	80	31	10	92	54	74	74	52	64	15	77	71
Seattle	90	52	102	76	62	18	80	66	75	41	61	82	55	81	38	26	101	55	83	83	61	57	33	85	78
Tampa	52	58	42	19	38	54	22	40	43	54	25	45	34	45	60	80	14	37	26	136	39	25	77	11	50
Tucson	84	21	75	50	25	35	55	58	64	51	55	67	31	56	47	23	62	30	58	76	27	60	17	59	50
Tulsa	47	31	50	31	17	64	39	22	30	32	37	36	14	38	29	60	56	15	36	116	19	27	54	40	12

POP to POP Frame Delay (Latency) SLA Real-Time Values (ms)	Las Vegas	Lexington	Little Rock	Los Angeles	Manhattan	Memphis	Milwaukee	Minnetonka	Nashville	Oakland	Orange County	Orlando	Phoenix	Portland	Raleigh	Rochester	San Antonio	San Diego	San Francisco	Seattle	Tampa	Tucson	Tulsa
Las Vegas																							
Lexington	63																						
Little Rock	47	44																					
Los Angeles	12	73	57																				
Manhattan	83	27	51	95																			
Memphis	50	20	9	59	38																		
Milwaukee	74	23	45	69	33	28																	
Minnetonka	67	33	52	60	39	33	13																
Nashville	58	12	37	68	33	10	21	28															
Oakland	22	79	59	15	88	62	58	49	68														
Orange County	13	75	58	6	93	60	70	61	69	15													
Orlando	71	49	49	85	43	48	52	59	50	85	71												
Phoenix	11	57	40	18	76	43	67	63	51	28	19	64											
Portland	29	91	75	29	104	77	73	64	83	19	30	100	35										
Raleigh	64	31	39	75	29	36	43	51	37	78	76	25	57	93									
Rochester	92	35	57	87	31	40	22	28	36	75	100	57	85	90	41								
San Antonio	32	40	23	35	57	26	41	47	36	44	33	42	26	59	38	57							
San Diego	15	76	56	8	92	62	72	63	69	18	7	69	18	31	72	98	31						
San Francisco	22	83	67	15	89	69	58	49	74	6	17	86	27	19	78	75	44	17					
Seattle	32	79	68	32	97	71	67	57	76	22	33	94	39	9	87	83	64	34	22				
Tampa	66	43	42	78	46	40	44	52	42	80	72	12	59	96	29	56	32	63	81	90			
Tucson	15	59	43	18	80	45	72	66	54	27	16	60	9	39	61	89	22	14	26	43	53		
Tulsa	44	32	24	53	47	28	25	31	33	56	54	50	37	71	42	36	20	52	63	66	46	39	

* Based on Average Calendar Monthly Metrics

Ethernet Services Pricing

Port

Port Speed Mbps	1-Yr	2-Yr	MRC	3-Yr	5-Yr
10/100	\$229	\$207		\$195	\$183
1000	\$353	\$317		\$300	\$282
10000	\$529	\$476		\$450	\$423

(Prices are per Service per One Port)

(One Port is required for each location where NLAN service is offered)

Elite NLAN

Mbps	1-Yr	2-Yr	MRC	3-Yr	5-Yr
10	\$423	\$381		\$360	\$339
100	\$1,016	\$914		\$863	\$812
600	\$1,975	\$1,777		\$1,679	\$1,580
1000	\$2,469	\$2,222		\$2,098	\$1,975
10000	\$7,758	\$6,982		\$6,594	\$6,207

Basic Enterprise SNLAN

Mbps	1-Yr	2-Yr	MRC	3-Yr	5-Yr
2	\$35	\$32		\$30	\$28
4	\$71	\$63		\$60	\$56
6	\$106	\$95		\$90	\$85
8	\$141	\$127		\$120	\$113
10	\$176	\$159		\$150	\$141
15	\$199	\$179		\$170	\$160
20	\$223	\$200		\$189	\$178
25	\$246	\$221		\$209	\$197
30	\$269	\$242		\$228	\$215
35	\$292	\$263		\$248	\$234
40	\$315	\$284		\$268	\$252
45	\$338	\$304		\$287	\$271
50	\$361	\$325		\$307	\$289
55	\$384	\$346		\$327	\$308
60	\$408	\$367		\$346	\$326
65	\$431	\$388		\$366	\$344
70	\$454	\$408		\$386	\$363
75	\$477	\$429		\$405	\$381
80	\$500	\$450		\$425	\$400

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
85	\$523	\$471	\$445	\$418
90	\$546	\$492	\$464	\$437
95	\$569	\$512	\$484	\$455
100	\$592	\$533	\$504	\$474
150	\$628	\$566	\$534	\$503
200	\$664	\$598	\$565	\$532
250	\$700	\$630	\$595	\$560
300	\$736	\$663	\$626	\$589
350	\$772	\$695	\$656	\$618
400	\$808	\$727	\$687	\$647
450	\$844	\$760	\$718	\$675
500	\$880	\$792	\$748	\$704
550	\$916	\$825	\$779	\$733
600	\$952	\$857	\$809	\$762
650	\$988	\$889	\$840	\$790
700	\$1,024	\$922	\$870	\$819
750	\$1,060	\$954	\$901	\$848
800	\$1,096	\$986	\$932	\$877
850	\$1,132	\$1,019	\$962	\$906
900	\$1,168	\$1,051	\$993	\$934
950	\$1,204	\$1,084	\$1,023	\$963
1000	\$1,234	\$1,111	\$1,049	\$987
2000	\$2,257	\$2,031	\$1,918	\$1,806
3000	\$2,634	\$2,370	\$2,239	\$2,107
4000	\$3,010	\$2,709	\$2,559	\$2,408
5000	\$3,387	\$3,048	\$2,879	\$2,709
6000	\$3,763	\$3,387	\$3,199	\$3,011

VLAN Tag

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
Each	\$12	\$12	\$12	\$12

Basic ENLAN

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
2	\$176	\$159	\$150	\$141
4	\$203	\$182	\$172	\$162
6	\$229	\$206	\$195	\$183
8	\$256	\$230	\$217	\$205
10	\$282	\$254	\$240	\$226
15	\$302	\$272	\$256	\$241
20	\$321	\$289	\$273	\$257
25	\$341	\$307	\$290	\$273
30	\$360	\$324	\$306	\$288
35	\$380	\$342	\$323	\$304
40	\$400	\$360	\$340	\$320
45	\$419	\$377	\$356	\$335
50	\$439	\$395	\$373	\$351
55	\$458	\$413	\$390	\$367
60	\$478	\$430	\$406	\$382
65	\$498	\$448	\$423	\$398
70	\$517	\$465	\$440	\$414
75	\$537	\$483	\$456	\$429
80	\$556	\$501	\$473	\$445
85	\$576	\$518	\$490	\$461
90	\$596	\$536	\$506	\$476
95	\$615	\$554	\$523	\$492
100	\$635	\$571	\$540	\$508
125	\$741	\$666	\$629	\$592
150	\$846	\$762	\$719	\$677
175	\$952	\$857	\$809	\$762
200	\$1,058	\$952	\$899	\$846
225	\$1,164	\$1,047	\$989	\$931
250	\$1,270	\$1,143	\$1,079	\$1,016
275	\$1,340	\$1,206	\$1,139	\$1,072
300	\$1,411	\$1,270	\$1,199	\$1,128
325	\$1,481	\$1,333	\$1,259	\$1,185
350	\$1,552	\$1,396	\$1,319	\$1,241
375	\$1,622	\$1,460	\$1,379	\$1,298
400	\$1,693	\$1,523	\$1,439	\$1,354
425	\$1,763	\$1,587	\$1,499	\$1,411
450	\$1,834	\$1,650	\$1,559	\$1,467
475	\$1,904	\$1,714	\$1,619	\$1,523
500	\$1,975	\$1,777	\$1,679	\$1,580

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
525	\$2,045	\$1,841	\$1,739	\$1,636
550	\$2,116	\$1,904	\$1,798	\$1,693
575	\$2,186	\$1,968	\$1,858	\$1,749
600	\$2,257	\$2,031	\$1,918	\$1,806
625	\$2,327	\$2,095	\$1,978	\$1,862
650	\$2,398	\$2,158	\$2,038	\$1,918
675	\$2,469	\$2,222	\$2,098	\$1,975
700	\$2,539	\$2,285	\$2,158	\$2,031
725	\$2,610	\$2,349	\$2,218	\$2,088
750	\$2,680	\$2,412	\$2,278	\$2,144
775	\$2,729	\$2,457	\$2,320	\$2,184
800	\$2,779	\$2,501	\$2,362	\$2,223
825	\$2,828	\$2,545	\$2,404	\$2,263
850	\$2,878	\$2,590	\$2,446	\$2,302
875	\$2,927	\$2,634	\$2,488	\$2,342
900	\$2,976	\$2,679	\$2,530	\$2,381
925	\$3,026	\$2,723	\$2,572	\$2,421
950	\$3,075	\$2,768	\$2,614	\$2,460
975	\$3,124	\$2,812	\$2,656	\$2,500
1000	\$3,174	\$2,856	\$2,698	\$2,539

E-Line

UNI - Shared & Dedicated					
Port Type	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Transparent	100	\$229	\$206	\$195	\$183
Transparent	1000	\$353	\$317	\$300	\$282
Transparent	10000	\$529	\$476	\$450	\$423
Multiplexed	100	\$229	\$206	\$195	\$183
Multiplexed	1000	\$353	\$317	\$300	\$282
Multiplexed	10000	\$529	\$476	\$450	\$423

Metro EPL EVCs

EPL EVC - Dedicated Metro Unprotected					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Unprotected	100	\$1,763	\$1,587	\$1,499	\$1,411
Unprotected	1000	\$5,290	\$4,761	\$4,496	\$4,232

EPL EVC - Dedicated Network Protected

MRC

Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Protected	100	\$2,292	\$2,063	\$1,948	\$1,834
Protected	1000	\$6,877	\$6,189	\$5,845	\$5,501

Metro EVPL EVC/OVC

EVPL EVC/OVC - Shared Metro

MRC

Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Shared Metro	2	\$53	\$48	\$45	\$42
Shared Metro	4	\$84	\$76	\$71	\$67
Shared Metro	6	\$115	\$103	\$98	\$92
Shared Metro	8	\$146	\$131	\$124	\$117
Shared Metro	10	\$176	\$159	\$150	\$141
Shared Metro	15	\$206	\$185	\$175	\$165
Shared Metro	20	\$236	\$212	\$200	\$188
Shared Metro	25	\$265	\$239	\$225	\$212
Shared Metro	30	\$295	\$265	\$251	\$236
Shared Metro	35	\$324	\$292	\$276	\$260
Shared Metro	40	\$354	\$319	\$301	\$283
Shared Metro	45	\$384	\$345	\$326	\$307
Shared Metro	50	\$413	\$372	\$351	\$331
Shared Metro	55	\$443	\$399	\$376	\$354
Shared Metro	60	\$473	\$425	\$402	\$378
Shared Metro	65	\$502	\$452	\$427	\$402
Shared Metro	70	\$532	\$479	\$452	\$425
Shared Metro	75	\$561	\$505	\$477	\$449
Shared Metro	80	\$591	\$532	\$502	\$473
Shared Metro	85	\$621	\$559	\$528	\$497
Shared Metro	90	\$650	\$585	\$553	\$520
Shared Metro	95	\$680	\$612	\$578	\$544
Shared Metro	100	\$705	\$635	\$599	\$564
Shared Metro	150	\$784	\$706	\$667	\$627
Shared Metro	200	\$863	\$777	\$734	\$691
Shared Metro	250	\$942	\$848	\$801	\$754
Shared Metro	300	\$1,021	\$919	\$868	\$817
Shared Metro	350	\$1,100	\$990	\$935	\$880
Shared Metro	400	\$1,179	\$1,061	\$1,002	\$943
Shared Metro	450	\$1,258	\$1,132	\$1,070	\$1,007
Shared Metro	500	\$1,337	\$1,204	\$1,137	\$1,070

EVPL EVC/OVC - Shared Metro					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Shared Metro	550	\$1,416	\$1,275	\$1,204	\$1,133
Shared Metro	600	\$1,495	\$1,346	\$1,271	\$1,196
Shared Metro	650	\$1,574	\$1,417	\$1,338	\$1,259
Shared Metro	700	\$1,653	\$1,488	\$1,405	\$1,323
Shared Metro	750	\$1,732	\$1,559	\$1,472	\$1,386
Shared Metro	800	\$1,811	\$1,630	\$1,540	\$1,449
Shared Metro	850	\$1,890	\$1,701	\$1,607	\$1,512
Shared Metro	900	\$1,969	\$1,772	\$1,674	\$1,575
Shared Metro	950	\$2,048	\$1,843	\$1,741	\$1,639
Shared Metro	1000	\$2,116	\$1,904	\$1,798	\$1,693
Shared Metro	2000	\$2,821	\$2,539	\$2,398	\$2,257
Shared Metro	3000	\$3,526	\$3,174	\$2,997	\$2,821
Shared Metro	4000	\$4,232	\$3,809	\$3,597	\$3,385
Shared Metro	5000	\$4,937	\$4,443	\$4,196	\$3,950
Shared Metro	6000	\$5,642	\$5,078	\$4,796	\$4,514

EVPL EVC/OVC - Dedicated Metro					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Dedicated Metro	2	\$176	\$159	\$150	\$141
Dedicated Metro	4	\$221	\$199	\$188	\$177
Dedicated Metro	6	\$265	\$239	\$225	\$212
Dedicated Metro	8	\$310	\$279	\$263	\$248
Dedicated Metro	10	\$353	\$317	\$300	\$282
Dedicated Metro	15	\$412	\$371	\$350	\$330
Dedicated Metro	20	\$471	\$424	\$400	\$377
Dedicated Metro	25	\$530	\$477	\$451	\$424
Dedicated Metro	30	\$590	\$531	\$501	\$472
Dedicated Metro	35	\$649	\$584	\$552	\$519
Dedicated Metro	40	\$708	\$637	\$602	\$566
Dedicated Metro	45	\$767	\$691	\$652	\$614
Dedicated Metro	50	\$827	\$744	\$703	\$661
Dedicated Metro	55	\$886	\$797	\$753	\$709
Dedicated Metro	60	\$945	\$851	\$803	\$756
Dedicated Metro	65	\$1,004	\$904	\$854	\$803
Dedicated Metro	70	\$1,064	\$957	\$904	\$851
Dedicated Metro	75	\$1,123	\$1,011	\$954	\$898
Dedicated Metro	80	\$1,182	\$1,064	\$1,005	\$946
Dedicated Metro	85	\$1,241	\$1,117	\$1,055	\$993

EVPL EVC/OVC - Dedicated Metro					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Dedicated Metro	90	\$1,301	\$1,170	\$1,105	\$1,040
Dedicated Metro	95	\$1,360	\$1,224	\$1,156	\$1,088
Dedicated Metro	100	\$1,411	\$1,270	\$1,199	\$1,128
Dedicated Metro	150	\$1,528	\$1,376	\$1,299	\$1,223
Dedicated Metro	200	\$1,646	\$1,482	\$1,399	\$1,317
Dedicated Metro	250	\$1,764	\$1,588	\$1,499	\$1,411
Dedicated Metro	300	\$1,882	\$1,694	\$1,599	\$1,505
Dedicated Metro	350	\$1,999	\$1,800	\$1,700	\$1,600
Dedicated Metro	400	\$2,117	\$1,906	\$1,800	\$1,694
Dedicated Metro	450	\$2,235	\$2,012	\$1,900	\$1,788
Dedicated Metro	500	\$2,353	\$2,118	\$2,000	\$1,882
Dedicated Metro	550	\$2,471	\$2,224	\$2,100	\$1,977
Dedicated Metro	600	\$2,588	\$2,330	\$2,200	\$2,071
Dedicated Metro	650	\$2,706	\$2,436	\$2,300	\$2,165
Dedicated Metro	700	\$2,824	\$2,542	\$2,400	\$2,259
Dedicated Metro	750	\$2,942	\$2,648	\$2,500	\$2,353
Dedicated Metro	800	\$3,060	\$2,754	\$2,601	\$2,448
Dedicated Metro	850	\$3,177	\$2,860	\$2,701	\$2,542
Dedicated Metro	900	\$3,295	\$2,966	\$2,801	\$2,636
Dedicated Metro	950	\$3,413	\$3,072	\$2,901	\$2,730
Dedicated Metro	1000	\$3,526	\$3,174	\$2,997	\$2,821
Dedicated Metro	2000	\$4,546	\$4,091	\$3,864	\$3,636
Dedicated Metro	3000	\$5,565	\$5,008	\$4,730	\$4,452
Dedicated Metro	4000	\$6,584	\$5,925	\$5,596	\$5,267
Dedicated Metro	5000	\$7,603	\$6,843	\$6,463	\$6,082
Dedicated Metro	6000	\$8,622	\$7,760	\$7,329	\$6,898

Intra Region EPL EVC

EPL EVC – Dedicated Intra-Region Unprotected					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Unprotected	100	\$2,821	\$2,539	\$2,398	\$2,257
Unprotected	1000	\$7,053	\$6,348	\$5,995	\$5,642

EPL EVC - Dedicated Intra Region Network Protected					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Protected	100	\$3,668	\$3,301	\$3,117	\$2,934
Protected	1000	\$9,169	\$8,252	\$7,793	\$7,335

Inter Region EPL EVC

EPL EVC - Dedicated Inter Unprotected					
MRC					
Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Unprotected	100	\$3,526	\$3,174	\$2,997	\$2,821
Unprotected	1000	\$10,579	\$9,521	\$8,992	\$8,463

EPL EVC - Dedicated Inter Network Protected					
MRC					
Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Protected	100	\$4,584	\$4,126	\$3,897	\$3,668
Protected	1000	\$13,753	\$12,378	\$11,690	\$11,003

Intra/Inter Region EVPL EVC/OVC

EVPL EVC/OVC - Shared Intra/Inter Region					
MRC					
Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Shared	2	\$508	\$457	\$432	\$406
Shared	4	\$610	\$549	\$519	\$488
Shared	6	\$712	\$641	\$605	\$570
Shared	8	\$815	\$733	\$692	\$652
Shared	10	\$917	\$825	\$779	\$734
Shared	15	\$944	\$850	\$803	\$756
Shared	20	\$972	\$875	\$826	\$778
Shared	25	\$999	\$899	\$849	\$800
Shared	30	\$1,027	\$924	\$873	\$822
Shared	35	\$1,054	\$949	\$896	\$844
Shared	40	\$1,082	\$974	\$920	\$866
Shared	45	\$1,109	\$998	\$943	\$888
Shared	50	\$1,137	\$1,023	\$966	\$910
Shared	55	\$1,164	\$1,048	\$990	\$932
Shared	60	\$1,192	\$1,073	\$1,013	\$954
Shared	65	\$1,219	\$1,098	\$1,037	\$976
Shared	70	\$1,247	\$1,122	\$1,060	\$998
Shared	75	\$1,274	\$1,147	\$1,083	\$1,020
Shared	80	\$1,302	\$1,172	\$1,107	\$1,042
Shared	85	\$1,329	\$1,197	\$1,130	\$1,064
Shared	90	\$1,357	\$1,221	\$1,153	\$1,086
Shared	95	\$1,384	\$1,246	\$1,177	\$1,108
Shared	100	\$1,411	\$1,270	\$1,199	\$1,128
Shared	150	\$1,528	\$1,376	\$1,299	\$1,223

EVPL EVC/OVC - Shared Intra/Inter Region					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Shared	200	\$1,646	\$1,482	\$1,399	\$1,317
Shared	250	\$1,764	\$1,588	\$1,499	\$1,411
Shared	300	\$1,882	\$1,694	\$1,599	\$1,505
Shared	350	\$1,999	\$1,800	\$1,700	\$1,600
Shared	400	\$2,117	\$1,906	\$1,800	\$1,694
Shared	450	\$2,235	\$2,012	\$1,900	\$1,788
Shared	500	\$2,353	\$2,118	\$2,000	\$1,882
Shared	550	\$2,471	\$2,224	\$2,100	\$1,977
Shared	600	\$2,588	\$2,330	\$2,200	\$2,071
Shared	650	\$2,706	\$2,436	\$2,300	\$2,165
Shared	700	\$2,824	\$2,542	\$2,400	\$2,259
Shared	750	\$2,942	\$2,648	\$2,500	\$2,353
Shared	800	\$3,060	\$2,754	\$2,601	\$2,448
Shared	850	\$3,177	\$2,860	\$2,701	\$2,542
Shared	900	\$3,295	\$2,966	\$2,801	\$2,636
Shared	950	\$3,413	\$3,072	\$2,901	\$2,730
Shared	1000	\$3,526	\$3,174	\$2,997	\$2,821
Shared	2000	\$4,702	\$4,232	\$3,997	\$3,762
Shared	3000	\$5,878	\$5,290	\$4,996	\$4,702
Shared	4000	\$7,054	\$6,348	\$5,996	\$5,643
Shared	5000	\$8,229	\$7,406	\$6,995	\$6,583
Shared	6000	\$9,405	\$8,465	\$7,994	\$7,524

EVPL EVC/OVC - Dedicated Inter/Intra Region					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Dedicated	2	\$635	\$571	\$540	\$508
Dedicated	4	\$741	\$666	\$629	\$592
Dedicated	6	\$846	\$762	\$719	\$677
Dedicated	8	\$952	\$857	\$809	\$762
Dedicated	10	\$1,058	\$952	\$899	\$846
Dedicated	15	\$1,137	\$1,023	\$966	\$910
Dedicated	20	\$1,216	\$1,094	\$1,034	\$973
Dedicated	25	\$1,295	\$1,165	\$1,101	\$1,036
Dedicated	30	\$1,374	\$1,237	\$1,168	\$1,099
Dedicated	35	\$1,453	\$1,308	\$1,235	\$1,162
Dedicated	40	\$1,532	\$1,379	\$1,302	\$1,226
Dedicated	45	\$1,611	\$1,450	\$1,369	\$1,289

EVPL EVC/OVC - Dedicated Inter/Intra Region					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Dedicated	50	\$1,690	\$1,521	\$1,436	\$1,352
Dedicated	55	\$1,769	\$1,592	\$1,504	\$1,415
Dedicated	60	\$1,848	\$1,663	\$1,571	\$1,478
Dedicated	65	\$1,927	\$1,734	\$1,638	\$1,541
Dedicated	70	\$2,006	\$1,805	\$1,705	\$1,605
Dedicated	75	\$2,085	\$1,876	\$1,772	\$1,668
Dedicated	80	\$2,164	\$1,947	\$1,839	\$1,731
Dedicated	85	\$2,243	\$2,019	\$1,906	\$1,794
Dedicated	90	\$2,322	\$2,090	\$1,974	\$1,857
Dedicated	95	\$2,401	\$2,161	\$2,041	\$1,921
Dedicated	100	\$2,469	\$2,222	\$2,098	\$1,975
Dedicated	150	\$2,684	\$2,416	\$2,282	\$2,147
Dedicated	200	\$2,900	\$2,610	\$2,465	\$2,320
Dedicated	250	\$3,116	\$2,804	\$2,649	\$2,493
Dedicated	300	\$3,332	\$2,999	\$2,832	\$2,665
Dedicated	350	\$3,548	\$3,193	\$3,015	\$2,838
Dedicated	400	\$3,763	\$3,387	\$3,199	\$3,011
Dedicated	450	\$3,979	\$3,581	\$3,382	\$3,183
Dedicated	500	\$4,195	\$3,776	\$3,566	\$3,356
Dedicated	550	\$4,411	\$3,970	\$3,749	\$3,529
Dedicated	600	\$4,627	\$4,164	\$3,933	\$3,701
Dedicated	650	\$4,843	\$4,358	\$4,116	\$3,874
Dedicated	700	\$5,058	\$4,553	\$4,300	\$4,047
Dedicated	750	\$5,274	\$4,747	\$4,483	\$4,219
Dedicated	800	\$5,490	\$4,941	\$4,666	\$4,392
Dedicated	850	\$5,706	\$5,135	\$4,850	\$4,565
Dedicated	900	\$5,922	\$5,329	\$5,033	\$4,737
Dedicated	950	\$6,137	\$5,524	\$5,217	\$4,910
Dedicated	1000	\$6,348	\$5,713	\$5,395	\$5,078
Dedicated	2000	\$7,994	\$7,194	\$6,795	\$6,395
Dedicated	3000	\$9,640	\$8,676	\$8,194	\$7,712
Dedicated	4000	\$11,286	\$10,157	\$9,593	\$9,029
Dedicated	5000	\$12,932	\$11,639	\$10,992	\$10,346
Dedicated	6000	\$14,578	\$13,121	\$12,392	\$11,663

eLynk

eLynk Interface					
Port Type	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Single	1000	\$705	\$635	\$564	\$494
Dual	1000	\$846	\$762	\$677	\$592
Single	10000	\$1,763	\$1,587	\$1,411	\$1,234
Dual	10000	\$2,116	\$1,904	\$1,693	\$1,481

eLynk UNI					
Port Type	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Multiplexed	100	\$229	\$206	\$195	\$183
Multiplexed	1000	\$353	\$317	\$300	\$282
Multiplexed	10000	\$529	\$476	\$450	\$423

eLynk Virtual Connection and Interconnection

eLynk Virtual Connection and Interconnection - Shared					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Shared Metro	2	\$141	\$127	\$113	\$99
Shared Metro	4	\$194	\$175	\$155	\$136
Shared Metro	6	\$247	\$222	\$197	\$173
Shared Metro	8	\$300	\$270	\$240	\$210
Shared Metro	10	\$353	\$317	\$282	\$247
Shared Metro	15	\$392	\$353	\$314	\$274
Shared Metro	20	\$432	\$389	\$346	\$302
Shared Metro	25	\$471	\$424	\$377	\$330
Shared Metro	30	\$511	\$460	\$408	\$358
Shared Metro	35	\$550	\$495	\$440	\$385
Shared Metro	40	\$590	\$530	\$472	\$413
Shared Metro	45	\$629	\$566	\$504	\$440
Shared Metro	50	\$669	\$602	\$535	\$468
Shared Metro	55	\$708	\$637	\$566	\$496
Shared Metro	60	\$748	\$673	\$598	\$523
Shared Metro	65	\$787	\$708	\$630	\$551
Shared Metro	70	\$827	\$744	\$661	\$579
Shared Metro	75	\$866	\$779	\$693	\$606
Shared Metro	80	\$906	\$815	\$724	\$634
Shared Metro	85	\$945	\$851	\$756	\$662
Shared Metro	90	\$985	\$886	\$788	\$689

eLynk Virtual Connection and Interconnection - Shared					
MRC					
Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Shared Metro	95	\$1,024	\$922	\$819	\$717
Shared Metro	100	\$1,058	\$952	\$846	\$741
Shared Metro	150	\$1,117	\$1,005	\$894	\$782
Shared Metro	200	\$1,176	\$1,059	\$941	\$823
Shared Metro	250	\$1,236	\$1,112	\$989	\$865
Shared Metro	300	\$1,295	\$1,165	\$1,036	\$906
Shared Metro	350	\$1,354	\$1,219	\$1,083	\$948
Shared Metro	400	\$1,413	\$1,272	\$1,131	\$989
Shared Metro	450	\$1,473	\$1,325	\$1,178	\$1,031
Shared Metro	500	\$1,532	\$1,379	\$1,226	\$1,072
Shared Metro	550	\$1,591	\$1,432	\$1,273	\$1,114
Shared Metro	600	\$1,650	\$1,485	\$1,320	\$1,155
Shared Metro	650	\$1,710	\$1,539	\$1,368	\$1,197
Shared Metro	700	\$1,769	\$1,592	\$1,415	\$1,238
Shared Metro	750	\$1,828	\$1,645	\$1,462	\$1,280
Shared Metro	800	\$1,887	\$1,699	\$1,510	\$1,321
Shared Metro	850	\$1,947	\$1,752	\$1,557	\$1,363
Shared Metro	900	\$2,006	\$1,805	\$1,605	\$1,404
Shared Metro	950	\$2,065	\$1,859	\$1,652	\$1,446
Shared Metro	1000	\$2,116	\$1,904	\$1,693	\$1,481
Shared Metro	2000	\$3,448	\$3,103	\$2,759	\$2,414
Shared Metro	3000	\$4,780	\$4,302	\$3,824	\$3,346
Shared Metro	4000	\$6,113	\$5,501	\$4,890	\$4,279
Shared Metro	5000	\$7,445	\$6,701	\$5,956	\$5,212
Shared Metro	6000	\$8,777	\$7,900	\$7,022	\$6,144

eLynk Virtual Connection and Interconnection - Dedicated					
MRC					
Connection	Mbps	1-Yr	2-Yr	3-Yr	5-Yr
Dedicated Metro	2	\$212	\$190	\$169	\$148
Dedicated Metro	4	\$282	\$254	\$226	\$197
Dedicated Metro	6	\$353	\$317	\$282	\$247
Dedicated Metro	8	\$423	\$381	\$339	\$296
Dedicated Metro	10	\$494	\$444	\$395	\$346
Dedicated Metro	15	\$545	\$491	\$436	\$382
Dedicated Metro	20	\$597	\$537	\$477	\$418
Dedicated Metro	25	\$648	\$583	\$518	\$454
Dedicated Metro	30	\$700	\$630	\$560	\$489

eLink Virtual Connection and Interconnection - Dedicated					
Connection	Mbps	MRC			
		1-Yr	2-Yr	3-Yr	5-Yr
Dedicated Metro	35	\$751	\$676	\$601	\$526
Dedicated Metro	40	\$803	\$722	\$642	\$562
Dedicated Metro	45	\$854	\$769	\$683	\$598
Dedicated Metro	50	\$906	\$815	\$724	\$634
Dedicated Metro	55	\$957	\$861	\$766	\$670
Dedicated Metro	60	\$1,009	\$908	\$807	\$706
Dedicated Metro	65	\$1,060	\$954	\$848	\$742
Dedicated Metro	70	\$1,112	\$1,000	\$889	\$778
Dedicated Metro	75	\$1,163	\$1,047	\$930	\$814
Dedicated Metro	80	\$1,215	\$1,093	\$972	\$850
Dedicated Metro	85	\$1,266	\$1,139	\$1,013	\$887
Dedicated Metro	90	\$1,317	\$1,186	\$1,054	\$923
Dedicated Metro	95	\$1,369	\$1,232	\$1,095	\$958
Dedicated Metro	100	\$1,411	\$1,270	\$1,128	\$987
Dedicated Metro	150	\$1,509	\$1,358	\$1,207	\$1,057
Dedicated Metro	200	\$1,608	\$1,447	\$1,286	\$1,126
Dedicated Metro	250	\$1,707	\$1,536	\$1,365	\$1,195
Dedicated Metro	300	\$1,806	\$1,625	\$1,444	\$1,264
Dedicated Metro	350	\$1,904	\$1,714	\$1,523	\$1,333
Dedicated Metro	400	\$2,003	\$1,803	\$1,602	\$1,402
Dedicated Metro	450	\$2,102	\$1,892	\$1,681	\$1,471
Dedicated Metro	500	\$2,201	\$1,980	\$1,760	\$1,540
Dedicated Metro	550	\$2,299	\$2,069	\$1,839	\$1,609
Dedicated Metro	600	\$2,398	\$2,158	\$1,918	\$1,679
Dedicated Metro	650	\$2,497	\$2,247	\$1,997	\$1,748
Dedicated Metro	700	\$2,595	\$2,336	\$2,076	\$1,817
Dedicated Metro	750	\$2,694	\$2,425	\$2,155	\$1,886
Dedicated Metro	800	\$2,793	\$2,514	\$2,234	\$1,955
Dedicated Metro	850	\$2,892	\$2,603	\$2,313	\$2,024
Dedicated Metro	900	\$2,990	\$2,691	\$2,392	\$2,093
Dedicated Metro	950	\$3,089	\$2,780	\$2,471	\$2,162
Dedicated Metro	1000	\$3,174	\$2,856	\$2,539	\$2,222
Dedicated Metro	2000	\$4,780	\$4,302	\$3,824	\$3,346
Dedicated Metro	3000	\$6,387	\$5,748	\$5,110	\$4,471
Dedicated Metro	4000	\$7,994	\$7,194	\$6,395	\$5,596
Dedicated Metro	5000	\$9,600	\$8,640	\$7,680	\$6,720
Dedicated Metro	6000	\$11,207	\$10,086	\$8,966	\$7,845

Finished Ethernet (Off Net Access)*

Mbps	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
10	\$804	\$637	\$610	\$582
50	\$1,009	\$920	\$876	\$831
100	\$1,347	\$1,225	\$1,164	\$1,097
200	\$2,050	\$1,901	\$1,829	\$2,147
500	\$2,837	\$2,610	\$2,494	\$2,383
1000	\$3,539	\$3,389	\$3,241	\$3,091

*Only available at select locations. Check with your tw telecom sales representative to determine availability. Open market special construction charges may apply.

Transport Solutions

Dedicated Transport Services

DS1 SERVICE

DS1 Service is a dedicated, high capacity, full duplex channel with a line speed of 1.544 Mbps isochronous serial data having a line signal format of either Alternate Mark Inversion or Binary 8 Zero Substitution and either Superframe (D4) or Extended Superframe formats. DS1 Service has the equivalent capacity of 24 Voice Grade Services or 24 DS0 Services. AMI can support 24 each 56 Kbps channels and B8ZS can support 24 each 64Kbps channels.

DS3 SERVICE

DS3 Service is a dedicated, high capacity, full duplex channel with a line speed of 44.736 Mbps isochronous serial data having a line code of bipolar with three zero substitution (B3ZS). DS3 Service has the equivalent capacity of 28 DS1 Services at 1.544 Mbps or 672 Voice Grade Services or 672 DS0 Services at 56/64 Kbps and is available: Data / Voice; Clear Channel; and/or Channelized

OC-3 SERVICE

OC-3 Service is a high capacity channel for the full duplex, synchronous, optical transmission of digital data based on the Synchronous Optical Network (SONET) standard at a rate of 155.52 Mbps. OC-3 Service may be configured with one OC-3c (concatenated), or with combinations of asynchronous DS3 or DS1 (VT1.5) payload mapping. An OC-3C service is a concatenated, high capacity, clear channel for synchronous, optical transmission of digital data based on the SONET standard rate of 155.52 Mbps.

OC-12 SERVICE

OC-12 Service is a high capacity channel for the full duplex, synchronous, optical transmission of digital data based on the Synchronous Optical Network (SONET) standard at a rate of 622.08 Mbps. OC-12 Service may be configured with up to 4 OC-3's, or up to 12 asynchronous DS3 payload mapping. DS1 payload mapping can be accommodated via a subtended OC-3 add-drop multiplexer. OC-12C service is a concatenated, high capacity, clear channel, for synchronous, optical transmission of digital data based on a SONET standard rate of 622 Mbps.

OC-12C SERVICE

OC-12C service is a concatenated, high capacity, clear channel, for synchronous, optical transmission of digital data based on the SONET standard rate of 622.08 Mbps.

OC-48 SERVICE

OC-48 Service is a high capacity channel for the full duplex, synchronous, optical transmission of digital data based on the Synchronous Optical Network (SONET) standard at a rate of 2.488 Gbps. OC-48 Service may be configured with up to 4 OC-12's, up to 16 OC-3's, or up to 48 asynchronous DS3 payload mapping. DS1 payload mapping can be accommodated via a subtended OC-3 add-drop multiplexer.

WAVELENGTH SERVICE

The Optical Wavelength service dedicates a single, private, secure, point-to-point, bi-direction, non-multiplexed 2.5G, 10G, 40G or 100G WDM wavelength transmission path for customer data. Wavelength services are delivered over optical fiber and can be configured to accept and deliver data transmission frames that support SONET, SDH, Ethernet or Optical Transport Unit (OTU). 10G Wavelength service can be configured to support Ethernet WANPHY or LANPHY interfaces. The Wavelength service provides a. The Wavelength service utilizes equipment that supports the industry recognized DWDM and CWDM standards. Each circuit constitutes an entire wavelength channel of a multi-channel DWDM system. Standard wavelengths are offered as a 2-fiber hand-off to the Customer with Service Provider providing either a "Linear- Unprotected" pathway across the Network or with a diverse, "Network Protected" pathway.

Service Level Agreement

Availability - Dedicated Transport Services

Dedicated but non-private DSn and OCn Transport Services will be available to Customer at least 99.99% of each calendar month Network Availability. Network unavailability occurs during a Service Outage. Upon Customer's request, TWTC shall issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
Over 24 hours	50% of the MRC

General Terms Applicable to Service Level Agreement

Customer shall report problems with its Services by contacting TWTC's Customer & Network Reliability Center ("CNRC") at 1-800-829-0420. TWTC will open a trouble ticket and provide a trouble ticket number for tracking purposes. For the purpose of determining the applicable credit, a Service Outage begins when the Customer reports the Service Outage to TWTC's CNRC and ends when the Service is restored. Credits are provided to Customer only upon request by Customer. The resources, equipment and methodology used to measure service level metrics are determined by TWTC in its sole discretion.

Service Outages and failures to meet the performance objectives herein do not include outages and failures caused by the equipment, acts or omissions of Customer or its End Users, Force Majeure events, fiber cuts caused by third-parties, failure of elements of the Internet outside of TWTC's control or outages occurring during scheduled or emergency maintenance. The duration of a Service Outage does not include any time during which TWTC is denied access to the premises necessary to restore the Service.

The remedies set forth in this Service Level Agreement are Customer's sole and exclusive remedies if there are Service Outages and/or failures to meet the performance objectives in this Service Level Agreement. Credits issued during any calendar month, for any reason(s), will not exceed the MRC associated with the troubled Service.

Performance Metrics Available at TWTC's Website

Monthly Network Latency and Packet Delivery averages may be viewed at:
www.twtelecom.com/performance/ip_network_overview_performance.html

Transport Service Pricing

Point-to-Point Metro Transport

PREM-PREM						
Service Capacity	1-Yr	2-Yr	MRC		5-Yr	
			3-Yr			
DS-1	\$157	\$141	\$133		\$126	
DS-3 (Clear Channel)	\$1,008	\$907	\$857		\$806	
OC-3 (2 fiber)	\$1,871	\$1,683	\$1,590		\$1,496	
OC-3 (4 fiber)	\$2,431	\$2,188	\$2,067		\$1,945	
OC-12 (2 fiber)	\$5,626	\$5,064	\$4,782		\$4,501	
OC-12 (4 fiber)	\$7,314	\$6,583	\$6,217		\$5,851	
OC-48 (2 fiber)	\$15,582	\$14,024	\$13,245		\$12,466	
OC-48 (4 fiber)	\$20,257	\$18,231	\$17,218		\$16,205	

POP-PREM				
Service Capacity	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
DS-1	\$132	\$119	\$112	\$105
DS-3 (Clear Channel)	\$827	\$744	\$703	\$661
OC-3 (2 fiber)	\$1,317	\$1,185	\$1,119	\$1,053
OC-3 (4 fiber)	\$1,712	\$1,541	\$1,455	\$1,370
OC-12 (2 fiber)	\$3,860	\$3,474	\$3,281	\$3,088
OC-12 (4 fiber)	\$5,018	\$4,516	\$4,265	\$4,014
OC-48 (2 fiber)	\$10,580	\$9,522	\$8,993	\$8,464
OC-48 (4 fiber)	\$13,754	\$12,379	\$11,691	\$11,003

POP-POP				
Service Capacity	MRC			
	1-Yr	2-Yr	3-Yr	5-Yr
DS-1	\$132	\$119	\$112	\$106
DS-3 (Clear Channel)	\$452	\$406	\$384	\$361
OC-3 (2 fiber)	\$1,122	\$1,010	\$954	\$898
OC-3 (4 fiber)	\$1,459	\$1,313	\$1,240	\$1,167
OC-12 (2 fiber)	\$2,898	\$2,608	\$2,463	\$2,318
OC-12 (4 fiber)	\$3,767	\$3,390	\$3,202	\$3,013
OC-48 (2 fiber)	\$8,461	\$7,615	\$7,192	\$6,769
OC-48 (4 fiber)	\$10,999	\$9,899	\$9,349	\$8,800

Pricing based on available capacity
Off-net priced under separate contract

Point to Multipoint Transport

ENTRANCE FACILITY				
Service Capacity	1-Yr	2-Yr	MRC 3-Yr	5-Yr
DS-3 (Clear Channel)	N/A	\$416	\$374	\$353
OC-3 (2 fiber)	N/A	\$831	\$748	\$707
OC-3 (4 fiber)	N/A	\$1,081	\$973	\$919
OC-12 (2 fiber)	N/A	\$2,267	\$2,040	\$1,927
OC-12 (4 fiber)	N/A	\$2,947	\$2,652	\$2,505
OC-48 (2 fiber)	N/A	\$6,801	\$6,121	\$5,781
OC-48 (4 fiber)	N/A	\$8,841	\$7,957	\$7,515

END LINKS				
Service Capacity	1-Yr	2-Yr	MRC 3-Yr	5-Yr
DS-1	\$60	\$54	\$51	\$48
DS-3 (Clear Channel)	\$378	\$340	\$321	\$302
OC-3 (2 fiber)	\$602	\$542	\$512	\$482
OC-3 (4 fiber)	\$783	\$705	\$665	\$626
OC-12 (2 fiber)	\$1,765	\$1,589	\$1,500	\$1,412
OC-12 (4 fiber)	\$2,295	\$2,065	\$1,950	\$1,836
OC-48 (2 fiber)	\$4,839	\$4,355	\$4,113	\$3,871
OC-48 (4 fiber)	\$6,290	\$5,661	\$5,347	\$5,032

Pricing based on available capacity
Off-net priced under separate contract

Metro Wavelength

Service Capacity	1-Yr	2-Yr	MRC 3-Yr	5-Yr
2.5G Linear Unprotected	\$2,010	\$1,809	\$1,709	\$1,608
2.5G Network Protected	\$2,513	\$2,264	\$2,135	\$2,010
10G Linear Unprotected	\$3,518	\$3,168	\$2,991	\$2,814
10G Network Protected	\$4,398	\$3,958	\$3,738	\$3,518
40G Linear Unprotected	\$13,319	\$11,989	\$11,323	\$10,653
40G Network Protected	\$16,650	\$14,985	\$14,152	\$13,319
100G Linear Unprotected	\$32,664	\$29,400	\$27,763	\$26,131
100G Network Protected	\$40,828	\$36,746	\$34,703	\$32,664

Regional Network Wavelength

Span 1 - (A and Z < 600 miles)				
MRC				
Service Capacity	1-Yr	2-Yr	3-Yr	5-Yr
2.5G Linear Unprotected	\$3,350	\$3,015	\$2,915	\$2,680
2.5G Network Protected	\$4,188	\$3,771	\$3,642	\$3,350
10G Linear Unprotected	\$4,901	\$4,411	\$4,263	\$3,921
10G Network Protected	\$6,126	\$5,513	\$5,331	\$4,901

Span 2 - (A and Z >= 600 miles)				
MRC				
Service Capacity	1-Yr	2-Yr	3-Yr	5-Yr
2.5G Linear Unprotected	\$3,781	\$3,403	\$3,290	\$3,025
2.5G Network Protected	\$4,728	\$4,255	\$4,111	\$3,781
10G Linear Unprotected	\$5,456	\$4,910	\$4,747	\$4,365
10G Network Protected	\$6,820	\$6,140	\$5,935	\$5,456

Pricing based on available capacity

Off-net priced under separate contract

Long Haul Regional Network Wavelength pricing above applies to circuits whose A and Z locations are located in different tw telecom markets/LATAs that are inter-connected by a tw telecom Regional Fiber Network.

Span 1 pricing applies if A and Z location distance is <600 miles; Span 2 pricing applies if A and Z location distance is >=600 miles.

LATA	MARKET	LATA	MARKET
West Regional Network		Atlantic Coast Regional Network	
552	Dallas	422	Charlotte
558	Austin	424	Greensboro
560	Houston	426	Raleigh
566	San Antonio	949	Fayetteville
652	Boise		
656	Denver	East Regional Network	
658	Colorado Springs	132	Manhattan
660	Salt Lake City	224	Jersey City
666	Phoenix	228	Philadelphia
668	Tucson	236	Baltimore/Dc
672	Portland	238	Baltimore/Dc
674	Seattle		
721	Las Vegas	Florida Network Markets	
722	Oakland / San Francisco	458	Orlando
726	Sacramento		
728	Fresno	Midwest Network Markets	
730	Inland Empire / Los Angeles / Orange County	324	Columbus
732	San Diego	328	Dayton
734	Bakersfield	336	Indianapolis
		922	Cincinnati

Voice Solutions

Managed SIP Services: SIP Trunking & Enterprise SIP Trunking

Service Overview

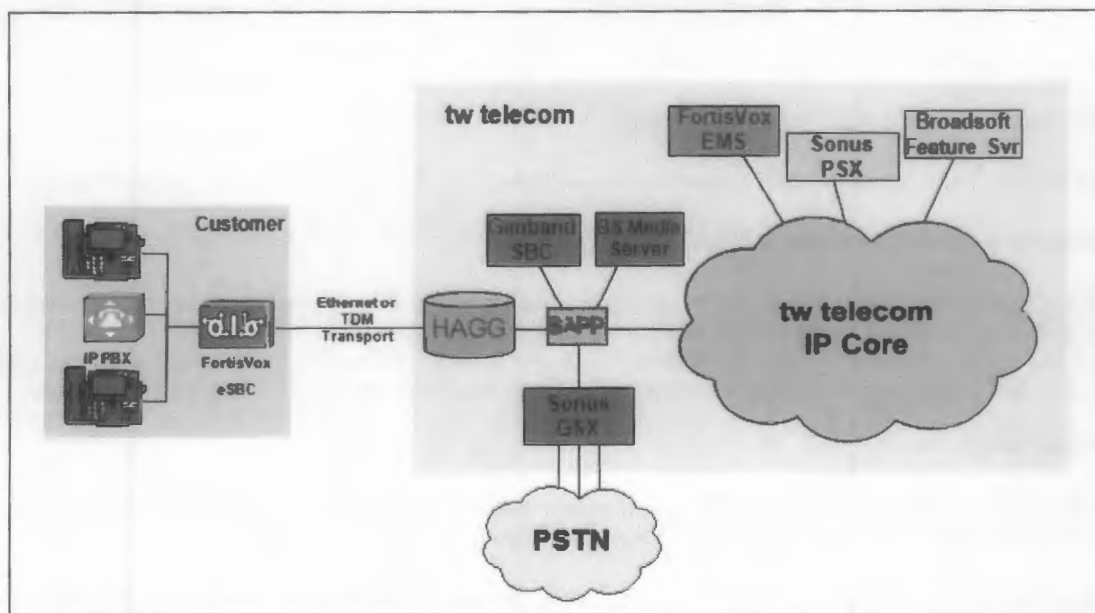
tw telecom's Managed SIP Services product suite, including both the SIP Trunking and Enterprise SIP Trunking products, provides customers with a fully managed VoIP solution. Both trunking products include the placement of a CPE-based, fully managed Enterprise Session Border Controller (eSBC) which allows a standardized architectural environment, provides signaling normalization, and supports additional testing and security capabilities. The SIP Trunking product is designed for businesses requiring trunking for one or a few independent locations each having their own IP-PBX to take advantage of SIP's increased functionality and cost savings. Enterprise SIP Trunking provides additional redundancy by allowing customers to share a single set of SIP call paths across two IP-PBX locations as well as providing both inbound and outbound business continuity/disaster routing (BC/DR) capabilities.

By placing a managed eSBC tw telecom is able to interoperate with the top IP-PBX and SBCs in the marketplace by normalizing the SIP signaling between the tw telecom WAN and the customer LAN. The eSBC also acts as a physical demarcation point between the two networks.

This solution allows TWTC to provide a consistently architected SIP Trunking solution despite customers having varying telephony equipment.

A. Diagram: Standard Architecture

The following diagram depicts the standard architecture for the SIP Trunking offer:



B. Core Infrastructure

- Consistent call flows for all SIP Trunking customers
- Consistent Provisioning
- Consistent Customer Experience (features, portal metrics)

C. Managed eSBC

- Provides demarcation and test point at the application layer
- Signaling Normalization and Protocol Interworking at the edge
- Supports multiple IP-PBXs vendors/models/releases

Service Offering

A. SIP Trunking Simultaneous Call Paths

SIP Trunking service is sold in 5, 10 or 25 call path increments depending on the total volume of call paths purchased at the site. The minimum number of call paths supported per service location is 25 and the maximum is 2000. The Call Path increments are defined as follows:

Call Path Volume Purchased (by site)	Call Path Increments
25 - 475	Sold in increments of 5 call paths
500 - 950	Sold in increments of 10 call paths
1000 - 2000	Sold in increments of 25 call paths

B. Transport

Customers will be required to purchase the applicable transport to support the number of call paths purchased.

- On-Net Transport options
 - Ethernet (standard)
 - TDM (non-standard option available via ICB)
- Off-Net Transport options
 - TDM (standard)
 - Finished Ethernet is NOT currently available

Refer to additional details, including bandwidth requirements and transport configurations, in the sections below.

C. Enterprise Session Border Controller (eSBC)

Each service location purchasing SIP Trunking will require the placement of a TWTC managed Enterprise Session Border Controller (eSBC) provided to the customer at no additional charge. TWTC uses Genband's Qflex (FKA TekVizion's FortisVox) eSBC for its SIP Trunking product. There are 3 eSBC models available and are placed based on the total number of call paths purchased at a particular site. Refer to additional details in the sections below.

D. Managed Router (MR)

All services provided via TDM transport will require the placement of a Managed Router to convert TDM transport to Ethernet. When required there is no additional charge for the Managed Router.

TWTC currently uses the Adtran Netvana router for the SIP Trunking product with the models contingent upon the specific TDM Transport selected. Refer to the following site for the specific model requirements by TDM WAN Interface:

A Managed Router is not required for SIP Trunking services provided via Ethernet Transport.

E. 9-1-1 Support

TWTC's SIP Trunking will utilize Intrado's V9-1-1 service which utilizes their I-2 database. This service enables TWTC to provision customer's name and location data for accurate and diverse routing of Emergency Calls originating from TWTC's VoIP network to the most geographically appropriate Public Safety Answering Point (PSAP). TWTC is able to provision and register Customer location data by means of a near real-time provisioning interface into Intrado systems that are connected to the existing 9-1-1 infrastructure. Should an issue arise with identifying the customer's location, the 9-1-1 call will default to Intrado's Emergency Call Relay Center (ECRC).

TWTC has diverse connectivity to Intrado in both Longmont, CO and Miami, FL. The following document available on TWTC's external website identifies the standard 911 practices for all voice services:

<http://www.twtelecom.com/PDFs/Legal/Regulatory-Center/General-Notifications/e911-Disclosure-and-Acknowledgement/>

F. Battery Back-Up

TWTC does not provide or offer battery back-up with its SIP Trunking service offering. Customers are encouraged to install a reliable power source on their premise for increased safety and reliability for all of their telephony services. If customers do not have reliable back-up power systems for premise equipment (including routers, switches, server, and PBX systems), then the customer will lose their connection for all services – voice, data, and internet.

Enterprise Session Border Controller (eSBC)

For all SIP Trunking applications tw telecom will place a managed Qflex (formerly FortisVox) eSBC which is provided by Genband (formerly TekVizion). Genband's Qflex eSBC provides the following functionality:

- Enables a software based eSBC provided on an off-the-shelf Server
- Acts as a Back to Back User Agent (B2BUA) by terminating each leg of the call and originating a new SIP message based on proprietary IP-PBX and carrier specific SIP.
- Normalizes the signaling between the WAN and the LAN and provides protocol interworking allowing support of various customer IP PBXs and SBCs.
- Provides remote monitoring features (test call, loop-back test, call traces)
- Provides software based DTMF conversion (RFC2833/SIP-Info to In-band G.711)

A. Supported IP-PBXs and SBCs

The eSBC supports the major IP-PBX's and SBCs available in the market place today. Each profile is built and tested for a particular make, model and release of a device. tw telecom has chosen to implement its SIP Trunking product in phases each supporting specific IP-PBX/SBCs releases. To purchase tw telecom's SIP Trunking, the managed eSBC must interface with one of the supported IP-PBXs or SBCs (make, model, and release).

Support for new makes, models, and releases will be prioritized and added over time based on market need. In addition, older releases of a particular device may be removed from support over time as they become obsolete. Removal of releases will be coordinated with the customer to minimize service disruptions.

B. Security

tw telecom uses several security methods to minimize the threat of fraud on the network. First, the SBC setups an intelligent B2BUA "Back to Back User Agent" service that hides the customers IP address from the remainder of the network. In addition, the SBC only allows valid call flows from a customer's IP-PBX to the tw telecoms network. Each call that is originated or terminated to the SBC is authenticated with the core of tw telecoms network and any unnecessary or fraudulent IP traffic is actively identified and blocked.

Service Level Agreement

A. Network Availability

SIP Trunking that is provisioned within the continental United States and in Hawaii will be available to Customer at least 99.99% of the time during each calendar month. SIP Trunking service is unavailable during any period of time that it experiences a Service Outage. Upon Customer's request, TWTC shall issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing SIP Trunking Service.

Duration of Service Outage	Percentage Credit
Up to 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

B. Network Average Latency

TWTC measures network latency with respect to average round-trip transmission on its Network each month. Network latency calculations for SIP Trunking service provided in the continental United States are made between designated points of presence ("POPs") within the continental United States and, for Hawaii, are made between its POPs in Hawaii and its POPs on the west coast of the continental United States (collectively "Network Latency"). Upon Customer's request, TWTC shall issue credits for TWTC's failure to meet the Network Latency metrics specified below, and such credits will be calculated by multiplying the percentage specified in the table below multiplied by the MRC for the non-performing SIP Trunking Service. The credits specified below are not cumulative and, in any calendar month, Customer shall only be entitled to one credit specified in the table below.

Network Average Latency		
Network Average Latency – (within continental United States)	Network Average Latency (between continental United States and Hawaii)	Credit
0.00 - 45.00 ms	0.00 – 75.00 ms	No Credit
45.01 – 50.00 ms	75.01 – 80.00 ms	10%
50.01 - 60.00 ms	80.01 – 90.00 ms	15%
60.01 - 65.00 ms	90.01.01 – 95.00 ms	20%
65.01 - 70.00 ms	95.01 – 100.00 ms	30%
70.01 - 75.00 ms	100.01 – 105.00 ms	40%
75.01 ms or greater	105.01 ms or greater	50%

C. Average Packet Delivery

TWTC measures packet delivery on its Network on a monthly basis. Packet Delivery is determined by averaging sample measurements taken each calendar month between TWTC's designated POPs within the continental United States. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Packet Delivery metrics specified in the table below, and such credits are calculated by multiplying the percentages specified in the table below for the contracted CoS by the MRC associated with the non-

performing SIP Trunking Service. The credits specified below are not cumulative and, in any calendar month, Customer shall only be entitled to one credit specified in the table below.

Average Packet Delivery	
<i>Average Packet Delivery (within the continental U.S.)</i>	<i>Percentage Credit</i>
99.9+	No Credit
99.5 - 99.8	10%
99 - 99.4	20%
98 - 98.9	30%
97 - 97.9	40%
less than 97	50%

D. Network Jitter

"Network Jitter" means the average variation in delay for packet transfers between TWTC's designated POPs during each calendar month. For SIP Trunking Services provided within the continental United States, measurements are taken at TWTC's POPs in the continental United States; for Services provided in Hawaii, between TWTC's POPs in Honolulu, HI and TWTC's POPs on the west coast of the continental United States. Upon Customer's request, TWTC will issue credits for TWTC's failure to meet the Network Jitter metrics specified in the table below, and such credits will be calculated by multiplying the percentage specified in the table by the MRC for the non-performing SIP Trunking Service. The credits specified below are not cumulative and, in any calendar month, Customer shall only be entitled to one credit specified in the table below.

Network Jitter		
<i>Continental United States</i>	<i>Hawaii</i>	<i>Percentage Credit</i>
0.5 ms	1 ms	No Credit
.51 ms - 2.0 ms	1.1 ms - 2.0 ms	5%
2.1 ms - 4.0 ms	2.1 ms - 4.0 ms	10%
4.1 ms - 5.0 ms	4.1 ms - 5.0 ms	15%
5.1 ms - 6.5 ms	5.1 ms - 6.5 ms	20%
6.6 ms - 7.5 ms	6.6 ms - 7.5 ms	30%
7.5 ms - 10.0 ms	7.5 ms - 10.0 ms	40%
>10.0 ms	>10.0 ms	50%

SIP and Enterprise SIP Trunking Pricing:

SIP Transport Services

Port Type	Bandwidth	MRC
T-1	1.5M	\$ 60
DS-3	45M	\$229
Ethernet	100M	\$229
Ethernet	1G	\$494

SIP - Call Path Pricing

Simultaneous Call Paths	Bandwidth	MRC	Simultaneous Call Paths	Bandwidth	MRC
25	3M	\$419	550	55 M	\$7,681
50	6 M	\$838	600	60 M	\$8,379
75	8 M	\$1,257	650	65 M	\$9,077
100	10 M	\$1,676	700	70 M	\$9,775
125	15 M	\$1,978	750	75 M	\$10,474
150	15 M	\$2,374	800	80 M	\$11,172
175	20 M	\$2,770	850	85 M	\$11,870
200	20 M	\$3,165	900	90 M	\$12,568
225	25 M	\$3,561	950	95 M	\$13,266
250	25 M	\$3,957	1000	100 M	\$13,965
275	30 M	\$4,096	1100	125 M	\$14,081
300	30 M	\$4,469	1200	125 M	\$15,361
325	35 M	\$4,841	1300	150 M	\$16,641
350	35 M	\$5,214	1400	150 M	\$17,921
375	40 M	\$5,586	1500	150 M	\$19,202
400	40 M	\$5,958	1600	175 M	\$20,482
425	45 M	\$6,331	1700	175 M	\$21,762
450	45 M	\$6,703	1800	200 M	\$23,042
475	50 M	\$7,075	1900	200 M	\$24,322
500	50 M	\$7,448	2000	200 M	\$25,602

Enterprise SIP - Call Path Pricing

Simultaneous Call Paths	Bandwidth	MRC	Simultaneous Call Paths	Bandwidth	MRC
25	3M	\$461	550	55 M	\$8,449
50	6 M	\$922	600	60 M	\$9,217
75	8 M	\$1,383	650	65 M	\$9,985
100	10 M	\$1,843	700	70 M	\$10,753
125	15 M	\$2,176	750	75 M	\$11,521
150	15 M	\$2,611	800	80 M	\$12,289
175	20 M	\$3,047	850	85 M	\$13,057
200	20 M	\$3,482	900	90 M	\$13,825
225	25 M	\$3,917	950	95 M	\$14,593
250	25 M	\$4,352	1000	100 M	\$15,361
275	30 M	\$4,506	1100	125 M	\$15,489
300	30 M	\$4,916	1200	125 M	\$16,897
325	35 M	\$5,325	1300	150 M	\$18,305
350	35 M	\$5,735	1400	150 M	\$19,714
375	40 M	\$6,144	1500	150 M	\$21,122
400	40 M	\$6,554	1600	175 M	\$22,530
425	45 M	\$6,964	1700	175 M	\$23,938
450	45 M	\$7,373	1800	200 M	\$25,346
475	50 M	\$7,783	1900	200 M	\$26,754
500	50 M	\$8,193	2000	200 M	\$28,162

FlexVoicesm

Product Summary

FlexVoice allows a customer to select digital channels and/or analog lines across a single IP access connection. Digital trunks or PRI channels and/or analog business lines, can be configured based upon the number of simultaneous calls paths required. This makes the offer flexible and customizable to meet a customer's unique needs and requirements.

The service provides customers with digital connectivity and/or business lines for both incoming and outgoing access to the PSTN. It is provisioned using NxT1 or Ethernet and is sold in DS0 level increments (call paths). tw telecom places a channel bank/ Integrated Access Device (IAD) at the customer premise. The IAD takes the IP voice from the WAN and converts it into TDM voice (PRI, Digital Trunks, or Business Lines). FlexVoice is a flat rated product, meaning customers pay a monthly charge for the service and calls made within the local calling area are included at no additional charge. Measure rated service is also available in Manhattan, New Jersey, and California markets. FlexVoice will be sold with a minimum monthly recurring charge, but no minimum call path requirements.

Standard Features

- **Calling Name Delivery** - Allows the **tw telecom** customer to receive calling party name information for Caller Identification purposes. The customer's equipment must be National ISDN 2 compatible and the service is contingent upon the Calling Party's name being populated in the national database.
- **Calling Number Delivery** - Allows the **tw telecom** customer to receive calling party information for Caller Identification purposes. Contingent upon Calling Party's carrier transmitting calling number.
- **Calling Name and Number Transmission** - Allows the **tw telecom** customer to send their name and number to called parties for Identification purposes. **tw telecom** will transmit the telephone number the customer PBX/CPE sends to our switch. Customer may choose to have **tw telecom** override this telephone number with a single telephone number. The customer can also choose to have their name and number blocked.
- **Long Distance Flexcall** (free LD minutes) – Provides free LD minutes if the customers selects TWTC as their long distance provider. Free minutes are applied based on the number of call paths the customer purchases. Customer can select to forego the free LD minutes in lieu of customer LD rates (available only via approved ICB)
- **Proactive Monitoring and Auto Ticketing** - The **tw telecom** NOC proactively monitors the availability of all Managed CPE (i.e. Managed Routers/IADs) seven (7) days a week, 24 hours per day, to identify faults within the boundaries of the managed service.
- **Bill Restriction** Allows customers to restrict incoming calls from being billed to their phone number. Restrictions may be applied to Collect Calls and/or Third Party billed calls. Available on both FlexVoice Lines and trunks. Voice services provided in VOOM markets are required to restrict both Collect Calls and Third Party billed calls.
- **Call Blocking** - Allows customers to restrict dialing access to various discretionary and/or premium-rated services, which are often prefixed by 900, 971, 974, 976, and 700. Certain markets, such as Manhattan, have additional NPA or NPA/NXX combinations available for blocking as well. Available on both FlexVoice Lines and trunks. Voice services provided in VOOM markets are required to restrict calls to all discretionary and premium-rated services, which are often prefixed by 900, 971, 974, 976, and 700.
- **Individual Telephone Numbers (ITNs)** - 100 Free per service location. Additional ITN's @ standard rates
- **Toll Restriction** - Allows customers to restrict dialing access to calls that would otherwise generate toll charges for the customer. The following call types can be restricted. Available on both FlexVoice Lines and Trunks.
 - 1+ restricts all 1+ toll calls
 - IntraLATA 0+/1+ restricts all IntraLATA toll calls
 - InterLATA 0+/1+ restricts all InterLATA toll calls
 - 01 restricts all operator-assisted international calls
 - 011 restricts all direct-dialed international calls
 - 411 restricts all calls to local directory assistance
 - 555 restricts all calls to long distance directory assistance

- **Caller ID Blocking** - Allows a customer's telephone number and name from being displayed on a called party's Caller ID equipment. Available on both FlexVoice Lines and Trunks.
- **Hunting** - Allows a customer to set up groups of lines, referred to as a hunt group. Hunt groups are a series of lines organized in such a way that if the first line is busy the next line in the group is then rung. This continuous hunting of lines is done until a free line is found or all lines within the hunt group are busy. Available on FlexVoice Lines.
- **Directory Listings** - A Local Main Listing includes the name, designation, address and telephone number of the Customer. It generally consists of the primary customer information associated with a telephone number: name, street address, community and the telephone number itself. The subscriber may elect to omit some of this information from their listing. The only name permitted in a main listing is the legitimate name of the subscriber. Available on both FlexVoice Lines and Trunks.
- **Additional listings** - (including foreign listings) are available at an additional charge in select (i.e., non-VOOM) markets.
- **Voice Mail** - Allows customers to capture messages in circumstances where employees are unavailable or the line is busy. Available on FlexVoice Lines. Customer is eligible for one Voice Mail box per FlexVoice Line ordered.
Refer to: http://marketing.ad.twtelecom.com/Product_info/IPVoicemail/Documents/IPVoicemail-ProductSummary.doc
and http://marketing.ad.twtelecom.com/Product_info/IPVoicemail/Documents/IPVoicemail-CheatSheet.doc

Service Level Agreement

Domestic IP VPN Services Converged Services and FlexVoicesm

Network Availability

TWTC's IP VPN Services, Converged Services and FlexVoicessm that are provisioned within the continental United States and Hawaii will be available to Customer at least 99.99% of the time during each calendar month. A Service is unavailable during any period of time that it experiences a Service Outage. Upon Customer's request, TWTC shall issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the table below by the MRC for the non-performing Service.

Duration of Service Outage	Percentage Credit
Less than 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

FlexVoiceSM Services Pricing

FlexVoice is available in two local usage types:

Flat – Customers pay a MRC for each call path on FlexVoice and all calls made within the local calling area are included at no additional charge (available in all markets) .

Measured – an option only available in California markets, Manhattan and New Jersey - Customers pay a lower MRC charge for the call paths and each call made within the local calling area is charged an additional per minute (or fraction thereof) for each local call.

Flat Rated Service		Measure Rated Service
Tier 1	Tier 2	
Atlanta, GA	Albany, NY	Bakersfield, CA
Baltimore, MD	Albuquerque, NM	Fresno, CA
Boise, ID	Austin, TX	Los Angeles, CA
Buffalo, NY	Bakersfield, CA	Orange County, CA
Charleston, SC	Baton Rouge, LA	Riverside/Ontario, CA
Charlotte, NC	Binghamton, NY	San Diego, CA
Chicago, IL	Birmingham, AL	San Francisco, CA
Cincinnati, OH	Columbus, OH	San Luis Obispo, CA
Colorado Springs, CO	Dallas, TX	Santa Barbara, CA
Columbia, SC	El Pas, TX	Walnut Creek, CA
Columbus, GA	Fresno, CA	
Dayton, OH	Ft. Worth, TX	Jersey City, NJ
Denver, CO	Houston, TX	Manhattan, NY
Ft. Lauderdale, FL	Indianapolis, IN	
Greensboro, NC	Jackson, MS	
Greenville, XC	Jacksonville, FL	
Honolulu, HI	Jersey City, NJ	
Kansas City, KS	Lafayette, LA	
Kansas City, MO	Lake Charles, LA	
Las Vegas, NV	Little Rock, AR	
Lexington, KY	Los Angeles, CA	
Miami, FL	Louisville, KY	
Milwaukee, WI	Manhattan, NY	
Nashville, TN	Memphis, TN	
Northern Virginia, VA	Minneapolis, MN	
Orlando/Daytona Beach, FL	Mobile, AL	
Phoenix, AZ	Montgomery, AL	
Portland, OR	New Orleans, LA	
Raleigh/Fayetteville, NC	Orange County, CA	
Rochester, NY	Riverside/Ontario, CA	
Seattle, WA	San Antonio, TX	
Spartanburg, SC	San Diego, CA	
Spokane, WA	San Francisco, CA	
Syracuse, NY	San Luis Obispo, CA	
Tampa, FL	Santa Barbara, CA	
Tulsa, OK	Shreveport, LA	
Washington, DC	Stockton, CA	
	Tucson, AZ	
	Tunica, MS	
	Walnut Creek, CA	

Simultaneous Call Paths	T-1s Req	Flat Rated Tier One	Flat Rated Tier Two	Measure Rated
1-10	1	\$282	\$317	\$229
11-15	1	\$300	\$346	\$244
16-20	2	\$317	\$376	\$260
20-25	2	\$335	\$406	\$275
26-30	2	\$402	\$487	\$330
31-35	2	\$469	\$568	\$385
36-40	3	\$536	\$649	\$440
41-45	3	\$603	\$730	\$495
46-50	3	\$677	\$811	\$550

Local Measured Service rates

All California Markets

	Zone 1 & 2			Zone 3		
	Initial Minute	Additional Minute	Equivalent Minute	Initial Minute	Additional Minute	Equivalent Minute
Day	\$0.0248	\$0.0144	\$0.0165	\$0.0450	\$0.0200	\$0.0250
Evening	\$0.017	\$0.008	\$0.0098	\$0.0420	\$0.0150	\$0.0204
Night/Weekend	\$0.012	\$0.007	\$0.0080	\$0.0300	\$0.0180	\$0.0204

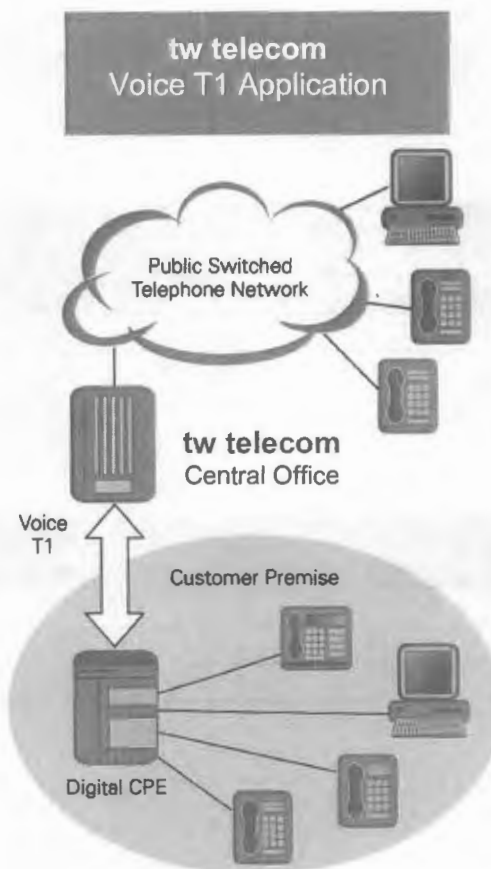
Manhattan, NY and New Jersey

	Initial Minute	Additional Minute	Equivalent Minute*
Day	0.0227	0.0111	\$0.0134
Evening	0.0136	0.0067	\$0.0081
Night/Weekend	0.0079	0.0039	\$0.0047

Voice T1

Product Summary

Voice T1 is a traditional TDM based digital voice circuit which provides businesses connectivity to the Public Switched Telephone Network (PSTN) through **tw telecom's** national fiber network. It is installed in 24 channel or trunk increments and can be provisioned with either in-band (Digital Trunk or CAS) or out-of-band (ISDN PRI) signaling and configured as inward, outward or two-way service. For each Voice T1 purchased Customers also receive 6,500 minutes of **tw telecom** Domestic Long Distance service at their service location. These Long Distance MOUs may be used for 1+ and/or 8xx traffic.



Standard Switch Features

- **Call by Call** - Allows the **tw telecom** customer to define a ratio of inbound and outbound trunks that will always be available on a dynamic basis to prevent blockage. Requires ISDN PRI Signaling.
- **Calling Name Delivery** - Allows the **tw telecom** customer to receive calling party name information for Caller Identification purposes. The customer's equipment must be National ISDN 2 compatible and the service is contingent upon the Calling Party's name being populated in the national database.
- **Calling Number Delivery** - Allows the **tw telecom** customer to receive calling party information for Caller Identification purposes. Contingent upon Calling Party's carrier transmitting calling number.
- **Calling Name and Number Transmission** - Allows the **tw telecom** customer to send their name and number to called parties for Identification purposes. **tw telecom** will transmit the telephone number the customer PBX/CPE

sends to our switch. Customer may choose to have **tw telecom** override this telephone number with a single telephone number. The customer can also choose to have their name and number blocked.

Optional Features

- **Two B Channel Transfer** - Allows the customer to receive a call on one B-channel and transfer it back out on a second B-channel. When the transferred call connects, both of the customer's B-channels are then released and available for either making or receiving another call. Requires ISDN PRI signaling
- **911 Calling Party Number Management** - Allows customers to transmit their DID number, instead of their BTN, to the PSAP when making a 911 call. Customers can then use publicly available software to provide a more granular level of addressing, such as floor and cubicle numbers.
- **CARE Calling Party Number Management** – Allows customers to transmit their DID number, instead of their BTN, to their long distance provider when making long distance calls. This enables the customer's long distance provider to bill their charges at a DID level for accounting or call tracking purposes.

Service Level Agreement

Switched Services will be available to Customer 99.99% of the time in a calendar month ("Network Availability") and is defined as the time the TWTC's Network is available for processing a telephone call. Upon Customer's request, TWTC will credit Customer's invoice for each Service Outage lasting five minutes or longer. Service Outage credits will be calculated as a percentage of the MRC for the non-performing Service as follows:

Duration of Service Outage	Percentage Credit
Less than 5 minutes (99.99% availability)	No Credit
5 minutes up to 4 hours	5% of the MRC
4 hours up to 8 hours	10% of the MRC
8 hours up to 12 hours	15% of the MRC
12 hours up to 16 hours	20% of the MRC
16 hours up to 24 hours	35% of the MRC
24 hours or greater	50% of the MRC

Voice T-1 Pricing

Voice T1 is available in three local usage types:

Flat – Customers pay a MRC for the Voice T1 facility and all calls made within the local calling area are included at no additional charge (Available in all markets with the exception of California, Manhattan, and Jersey City).

Measured – an option available only in California markets, Manhattan and New Jersey - Customers pay a MRC for the Voice T1 facility and each call made within the local calling area is charged in addition on a per minute (or fraction thereof) basis.

Flat Rated Service		Measure Rated Service
Tier 1	Tier 2	
Atlanta, GA	Albany, NY	Bakersfield, CA
Baltimore, MD	Albuquerque, NM	Fresno, CA
Boise, ID	Austin, TX	Los Angeles, CA
Buffalo, NY	Bakersfield, CA	Orange County, CA
Charleston, SC	Baton Rouge, LA	Riverside/Ontario, CA
Charlotte, NC	Binghamton, NY	San Diego, CA
Chicago, IL	Birmingham, AL	San Francisco, CA
Cincinnati, OH	Columbus, OH	San Luis Obispo, CA
Colorado Springs, CO	Dallas, TX	Santa Barbara, CA
Columbia, SC	El Pas, TX	Walnut Creek, CA
Columbus, GA	Fresno, CA	
Dayton, OH	Ft. Worth, TX	Jersey City, NJ
Denver, CO	Houston, TX	Manhattan, NY
Ft. Lauderdale, FL	Indianapolis, IN	
Greensboro, NC	Jackson, MS	
Greenville, XC	Jacksonville, FL	
Honolulu, HI	Jersey City, NJ	
Kansas City, KS	Lafayette, LA	
Kansas City, MO	Lake Charles, LA	
Las Vegas, NV	Little Rock, AR	
Lexington, KY	Los Angeles, CA	
Miami, FL	Louisville, KY	
Milwaukee, WI	Manhattan, NY	
Nashville, TN	Memphis, TN	
Northern Virginia, VA	Minneapolis, MN	
Orlando/Daytona Beach, FL	Mobile, AL	
Phoenix, AZ	Montgomery, AL	
Portland, OR	New Orleans, LA	
Raleigh/Fayetteville, NC	Orange County, CA	
Rochester, NY	Riverside/Ontario, CA	
Seattle, WA	San Antonio, TX	
Spartanburg, SC	San Diego, CA	
Spokane, WA	San Francisco, CA	
Syracuse, NY	San Luis Obispo, CA	
Tampa, FL	Santa Barbara, CA	
Tulsa, OK	Shreveport, LA	
Washington, DC	Stockton, CA	
	Tucson, AZ	
	Tunica, MS	
	Walnut Creek, CA	

Voice T-1 Monthly rates

Description	MRC
Flat Tier One Pricing	\$335
Flat Tier Two Pricing	\$406
Measured Service Pricing	\$275

Local Measured Service rates

All California Markets

	Zone 1 & 2			Zone 3		
	Initial Minute	Additional Minute	Equivalent Minute	Initial Minute	Additional Minute	Equivalent Minute
Day	\$0.0248	\$0.0144	\$0.0165	\$0.0450	\$0.0200	\$0.0250
Evening	\$0.017	\$0.008	\$0.0098	\$0.0420	\$0.0150	\$0.0204
Night/Weekend	\$0.012	\$0.007	\$0.0080	\$0.0300	\$0.0180	\$0.0204

Manhattan, NY and New Jersey

	Initial Minute	Additional Minute	Equivalent Minute*
Day	0.0227	0.0111	\$0.0134
Evening	0.0136	0.0067	\$0.0081
Night/Weekend	0.0079	0.0039	\$0.0047

Feature Pricing

Description		MRC
DID Number Assignment and Maintenance – nonrecurring charge	Per Number	\$0.35
DID Number Block Assignment and Maintenance - MRC	First Block of 100	\$0.00
DID Number Block Assignment and Maintenance - MRC	Per Block of 100	\$10.58
Premium Feature Package	Per Line	\$5.29
Remote Call Forwarding	Per Call Path	\$8.46
IP Voicemail - NRC	Per Mail Box	\$7.05
IP Voicemail - MRC	Per Mail Box	\$4.90
Auto Reroute	Per 6 Call Paths	\$7.05

Additional Voice Terms

Customer may not use the Services to provide voice content related services including, without limitation, chat lines. If Customer breaches this provision, TWTC may immediately terminate or suspend the Services and collect applicable early termination charges. Customer shall notify TWTC immediately if it breaches this provision. Customer shall indemnify, defend and hold TWTC harmless from all claims, demands, costs, damages, losses, liabilities and expenses of any nature arising from Customer's breach of this provision, including any costs and attorneys' fees incurred by TWTC.

Customer shall not use the voice Services as a substitute for carrier interconnection or switched access services and must immediately notify TWTC if it does so. If Customer uses the voice Services to support prepaid calling card calls, such use is subject to the requirements outlined in FCC Order 06-79 (June 30, 2006). Customer shall remit all intrastate or interstate access charges directly to the appropriate carrier. TWTC may disconnect Services if Customer violates this provision and fails to cure the violation within ten days following written notice from TWTC. Customer must indemnify, defend and hold TWTC harmless from all claims, demands, damages and expenses arising from or related to Customer's breach of this provision, including all costs and attorneys' fees incurred by TWTC. TWTC does not support resale of switched services to end users including, but not limited to, support for E911 addressing, local number portability, calling name delivery, end user billing, and directory listings unless special arrangements are agreed to in writing by TWTC.

Voice Services provided herein are not designed for but may be compatible with remote metering, supervisory control and alarm signaling. To the extent Customer uses the voice Services to facilitate remote metering, supervisory control and alarm signaling purposes, Customer is solely responsible for ensuring compatibility.

Important E911 Disclosure and Acknowledgement

TWTC provides access to the Enhanced 911 ("E911") system that sends a caller's telephone number and location to an emergency dispatcher (called a Public Safety Answering Point "PSAP"). In order to work successfully, the system relies on the correct input of numbers and addresses into centralized databases.

With the introduction of Internet Protocol or "IP" based voice services, including the use of virtual telephone numbers, it is critical that TWTC's customers ("Customer") understand and acknowledge the items below.

Take note that E911 access may not be available, or may be limited, as follows:

1. **Emergency Responders Will Not Be Able to Locate Individual End User Stations Unless Customer Takes Additional Steps.** Except for calls that originate from Remote Telephone Numbers (RTNs), or as explained below if a Customer re-routes calls, TWTC will advise emergency responders only of the main street address where TWTC has actually installed the voice service. For all calls that originate from RTNs, TWTC will advise emergency responders only of the street address shown on the applicable Service Order, at which the Customer has indicated to TWTC in writing that Customer will physically use the telephone number. RTNs are telephone numbers that a customer uses at a location which is physically different from the street address where the trunk service to which the numbers terminate has been installed.

The proper functioning of E911 services depends on correct identification of the service location from which calls are originated, which is programmed into equipment at the site through which calls are routed. During the provisioning process Customer and TWTC jointly will assign and program locations and routes for 911 calling. After installation, if Customer wishes to reroute outbound calls through equipment at a site different from the original programming, or originates calls from a location not disclosed to TWTC, in order for E911 Services to correctly work, Customer must first make arrangements with TWTC to re-program the equipment at the new site to correctly identify the location associated with the affected telephone numbers.

TWTC cannot identify, control or track the location of individual end-user stations beyond the demarcation point between TWTC's Network and the Customer's equipment. TWTC also cannot see the Customer's method of connecting end-user stations beyond the demarcation point. As a result, emergency authorities will be unable to identify or locate individual end-user stations unless the Customer takes the following steps. If the Customer wants emergency responders to know the location of individual end users, then: (a) for traditional voice services

and Direct SIP, the Customer must purchase commercially available Private Switch/Automatic Location Identification ("PS/ALI") software and Customer must also arrange in writing with TWTC to obtain a special E911 feature; and (b).for Converged Voice, SIP Trunking, or Enterprise SIP Trunking (but not Direct SIP) services, the Customer must first arrange in writing with TWTC to obtain a special E911 feature and for TWTC to update the 911 database .

2. **Emergency Responders Will Only Be Able to Locate Calls From Telephone Numbers Assigned by TWTC.** TWTC's Services are configured to transmit to PSAPs the main physical address only for telephone numbers that TWTC has assigned to the Service. Unless otherwise agreed in writing, the physical location of callers from other telephone numbers will not be sent to emergency responders.
3. **Do not call 911 from Foreign Exchange Services.** TWTC's Network does not support dialing 911 from foreign exchange services (including BES, EES, ISS, Virtual Reach, Local Reach or VTN) and E911 will not properly operate from these services. Should the customer attempt to use these services to reach 911, even calls that may complete will not be directed to a PSAP in a location capable of responding to the emergency.
4. **Moving or Disabling Equipment May Block E911 Calls.** If you move the equipment used to provide service (IAD or other device) to a location other than the service address you identified when service was first installed without telling us, or if you disable or damage the equipment, E911 calls may not be directed to a PSAP capable of responding to the emergency condition.
5. **Power Outage May Prevent E911 Calls.** If a power failure occurs that lasts longer than the life of the backup battery in or attached to the equipment on your premises used to provide service, E911 access will not work and you will not be able to reach emergency responders.

YOU SHOULD OBTAIN A BACKUP MEANS OF CONTACTING E911 SERVICES AND INFORM YOUR USERS HOW TO DO SO.

TWTC has no liability or responsibility whatsoever for inaccuracies in the E911 database associated with Customer provided information, and TWTC is not responsible for Customer's inability to access emergency services, except to the extent caused by TWTC's gross negligence or willful misconduct. Customer hereby waives and releases TWTC for any and all claims that it has or may have against TWTC now or at any time in the future for damages or compensation of any kind that arise from, or in any manner relate to, voice services not having the functionality to provide access to E911 services. Customer further agrees to indemnify and hold TWTC harmless for any claims that are asserted against TWTC that arise from or in any manner relate to voice services not having functionality to provide access to E911 services.

DEPENDING UPON CUSTOMER'S DESIRED E911 ARRANGEMENT, ONE OF THE FOLLOWING ADDENDA WILL APPLY:

Non-Standard 911 Addendum (BTN Replacement)

Except as revised herein, all other terms and conditions of the Service Order(s) remain in full force and effect. If there is a conflict between this Addendum and the Service Order, the terms of this Addendum shall prevail.

For the following Billing Telephone Numbers ("BTNs"), TWTC agrees to input the following physical address(es) in the 911 database on behalf of Customer instead of the physical address where TWTC is delivering services.

Billing Telephone Number	Physical Service Address	Address to be placed in 9-1-1 database

Except as provided above, the provisions of the following Access to Emergency Services paragraph apply:

Access to Emergency Services: Customer acknowledges and understands that in the event 911 is dialed all voice services are configured to provide only the Customer's Billing Telephone Number ("BTN") and the physical service address for the BTN to emergency response organizations (911/E911 or Public Safety Answering Point "PSAP"). Calls to 911 that originate on Intercity Switched Service ("ISS") and Local Reach Service will be completely blocked. Calls to 911 that originate on Expanded Exchange Service ("EES"), or from locations other than the Customer's physical service address associated with the BTN, will not be directed to a PSAP capable of responding to the emergency condition. Additionally, TWTC cannot identify, control or track the location of individual end-user stations, or the method of connecting end-user stations configured by Customer. Neither TWTC nor its affiliates are responsible for providing end user location information to the E911 system. If Customer uses any form of private switch/automatic location identification ("PS/ALI") capability to identify individual stations from which E911 calls originate, Customer must first arrange in writing with TWTC to obtain a special E911 feature or else emergency authorities will not be able to identify individual station locations. TWTC has no liability or responsibility whatsoever for inaccuracies in the 911 database associated with Customer-provided information, and in no event will TWTC be liable for Customer's inability to access emergency services, unless such inability was caused by the gross negligence or willful misconduct of TWTC.

The accuracy of the information in the 911 database is limited to the information that the Customer provides to TWTC on this and any subsequent addendum(s). Customer is responsible for notifying TWTC of any subsequent changes in 911 number and/or location association and executing a subsequent addendum documenting such changes. After execution and submission to TWTC of such addendum, TWTC shall contact customer to provide a due date for completion of the requested change.

Monthly Recurring Charge:

Non-Recurring Charge:

Non-Standard 911 Addendum (CPN Customer Managed)

Except as revised herein, all other terms and conditions of the Service Order(s) remain in full force and effect. If there is a conflict between this Addendum and the Service Order, the terms of this Addendum shall prevail.

Customer will program their equipment to transmit Customer's individual end user station numbers when making a 911 call. TWTC will program their switch to transmit Customer's individual end user station numbers, as provided by Customer's equipment, for termination to the 911 Public Safety Answering Point ("PSAP"). Customer will utilize a third party provided private switch/automatic location identification ("PS/ALI") software that interfaces with the host ALI database. Should the Customer's equipment transmit an individual end user station number not assigned to the account by tw telecom, TWTC will provide only the Customer's Billing Telephone Number ("BTN") and the physical address for the BTN to emergency response organizations (911/E911 or PSAP).

The North American Numbering Plan Administration ("NANPA") administers the assignment of telephone numbers to geographically defined rate centers. If Customer assigns a TWTC telephone number to a physical location that is not within a rate center associated with the main service address, Customer acknowledges and understands that 911 calls made from such telephone number will not route to the serving PSAP.

Except as provided above, the provisions of the following Access to Emergency Services paragraph apply:

Access to Emergency Services: Customer acknowledges and understands that in the event 911 is dialed all voice services are configured to provide only the Customer's Billing Telephone Number ("BTN") and the physical service address for the BTN to emergency response organizations (911/E911 or Public Safety Answering Point "PSAP"). Calls to 911 that originate on Intercity Switched Service ("ISS") and Local Reach Service will be completely blocked. Calls to 911 that originate on Expanded Exchange Service ("EES"), or from locations other than the Customer's physical service address associated with the BTN, will not be directed to a PSAP capable of responding to the emergency condition. Additionally, TWTC cannot identify, control or track the location of individual end-user stations, or the method of connecting end-user stations configured by Customer. Neither TWTC nor its affiliates are responsible for providing end user location information to the E911 system. If Customer uses any form of private switch/automatic location identification ("PS/ALI").

The accuracy of the information in the 911 database is limited to the information that the Customer provides to TWTC on this and any subsequent addendum(s). Customer is responsible for notifying TWTC of any subsequent changes in 911 number and/or location association and executing a subsequent addendum documenting such changes. After execution and submission to TWTC of such addendum, TWTC shall contact customer to provide a due date for completion of the requested change.

Monthly Recurring Charge:

Non-Recurring Charge:

Non-Standard 911 Addendum (tw telecom Managed)

Except as revised herein, all other terms and conditions of the Service Order(s) remain in full force and effect. If there is a conflict between this Addendum and the Service Order, the terms of this Addendum shall prevail.

Customer's equipment must be programmed to transmit Customer's Individual End User station numbers when making a 911 call. Should the Customer's equipment transmit an Individual End User Station number not identified above or in a subsequent addendum TWTC will provide only the Customer's Billing Telephone Number ("BTN") and the physical address for the BTN to emergency response organizations (911/E911 or Public Safety Answering Point "PSAP").

TWTC offers private switch/automatic location identification ("PS/ALI") service on an individual case basis for limited quantities of telephone numbers and addresses.

For the following Individual End User station numbers, TWTC agrees to input the following physical address(es) in the 911 database on behalf of Customer instead of the physical address where TWTC is delivering services.

Billing Telephone Number	Physical Service Address	Address to be placed in 9-1-1 database

Except as provided above, the provisions of the following Access to Emergency Services paragraph apply:

Access to Emergency Services: Customer acknowledges and understands that in the event 911 is dialed all voice services are configured to provide only the Customer's Billing Telephone Number ("BTN") and the physical service address for the BTN to emergency response organizations (911/E911 or Public Safety Answering Point "PSAP"). Calls to 911 that originate on Intercity Switched Service ("ISS") and Local Reach Service will be completely blocked. Calls to 911 that originate on Expanded Exchange Service ("EES"), or from locations other than the Customer's physical service address associated with the BTN, will not be directed to a PSAP capable of responding to the emergency condition. Additionally, TWTC cannot identify, control or track the location of individual end-user stations, or the method of connecting end-user stations configured by Customer. Neither TWTC nor its affiliates are responsible for providing end user location information to the E911 system. If Customer uses any form of private switch/automatic location identification ("PS/ALI").

The accuracy of the information in the 911 database is limited to the information that the Customer provides to TWTC on this and any subsequent addendum(s). Customer is responsible for notifying TWTC of any subsequent changes in 911 number and/or location association and executing a subsequent addendum documenting such changes. After execution and submission to TWTC of such addendum, TWTC shall contact customer to provide a due date for completion of the requested change.

Monthly Recurring Charge:

Non-Recurring Charge:

Telecommunications Service Priority (TSP) Program

What is the TSP program?

It is a Federal program developed to identify and prioritize telecommunications services that support NS/EP missions.

What does TSP status provide?

tw telecom gives priority response to customers with TSP authorizations when they request telephone service installations and restorations.

What kinds of services are eligible for TSP status?

Telecommunications services that are used to maintain a state of readiness or respond to and manage any event, or crisis, which causes or could cause injury or harm to the population, damage or loss to property, or degrades or threatens the NS/EP posture of the United States are eligible.

tw telecom CANNOT determine your eligibility for this service.

How do I find out if my organization is eligible?

For assistance and information on all Office of Emergency Communications Priority Telecommunications programs, contact the DHS Priority Telecommunications Service Center toll free at 866-627-2255 (Washington D.C. metro area, please use 703-760-2255) or email gwids@saic.com.

Then what do I do?

Provide your TSP certification information to **tw telecom**. We will then be able to provide you with priority status.

Description	NRC	MRC
TSP Restoration	\$201.51	\$3.78

USA Commitment to Promote Small Business Participation Procurement Programs

Preamble

tw telecom holdings inc. provides commercial products and services to ordering activities. We are committed to promoting participation of small, small disadvantaged and women-owned small businesses in our contracts. We pledge to provide opportunities to the small business community through reselling opportunities, mentor-protégé programs, joint ventures, teaming arrangements, and subcontracting.

Commitment

To actively seek and partner with small businesses.

To identify, qualify, mentor and develop small, small disadvantaged and women-owned small businesses by purchasing from these businesses whenever practical.

To develop and promote company policy initiatives that demonstrate our support for awarding contracts and subcontracts to small business concerns.

To undertake significant efforts to determine the potential of small, small disadvantaged and women-owned small business to supply products and services to our company.

To insure procurement opportunities are designed to permit the maximum possible participation of small, small disadvantaged, and women-owned small businesses.

To attend business opportunity workshops, minority business enterprise seminars, trade fairs, procurement conferences, etc., to identify and increase small businesses with whom to partner.

To publicize in our marketing publications our interest in meeting small businesses that may be interested in subcontracting opportunities.

We signify our commitment to work in partnership with small, small disadvantaged and women-owned small businesses to promote and increase their participation in ordering activity contracts. To accelerate potential opportunities please contact

Mr. Ken Folderauer, President
Phone: 301-361-3525
Fax: 720-225-6072
Email: ken.folderauer@twtelecom.com

Suggested Format for Blanket Purchase Agreements (BPAs)

**Best Value
Blanket Purchase Agreement
Federal Supply Schedule
(Insert Customer Name)**

In the spirit of the Federal Acquisition Streamlining Act (ordering activity)____ and ____ (Contractor)____ enter into a cooperative agreement to further reduce the administrative costs of acquiring commercial items from the General Services Administration (GSA) Federal Supply Schedule Contract(s) _____.

Federal Supply Schedule contract BPAs eliminate contracting and open market costs such as: search for sources; the development of technical documents, solicitations and the evaluation of offers. Teaming Arrangements are permitted with Federal Supply Schedule Contractors in accordance with Federal Acquisition Regulation (FAR) 9.6.

This BPA will further decrease costs, reduce paperwork, and save time by eliminating the need for repetitive, individual purchases from the schedule contract. The end result is to create a purchasing mechanism for the ordering activity that works better and costs less.

Signatures

Agency

Date

Contractor

Date

BPA NUMBER _____

**(Customer Name)
Suggested Format For Blanket Purchase Agreement**

Pursuant to GSA Federal Supply Schedule Contract Number(s) _____, Blanket Purchase Agreements, the Contractor agrees to the following terms of a Blanket Purchase Agreement (BPA) EXCLUSIVELY WITH (ordering activity):

1. The following contract items can be ordered under this BPA. All orders placed against this BPA are subject to the terms and conditions of the contract, except as noted below:

Model Number/Part Number

***Special BPA Discount/Price**

2. Delivery:

Destination

Delivery Schedule/Dates

3. The ordering activity estimates, but does not guarantee, that the volume of purchases through this agreement will be _____.
4. This BPA does not obligate any funds.
5. This BPA expires on _____ or at the end of the contract period, whichever is earlier.
6. The following office(s) is hereby authorized to place orders under this BPA:

Office	Point of Contact
_____	_____
_____	_____

7. Orders will be placed against this BPA via Electronic Data Interchange (EDI), FAX, or paper.
8. Unless otherwise agreed to, all deliveries under this BPA must be accompanied by delivery tickets or sales slips that must contain the following information as a minimum:
- a. Name of Contractor;
 - b. Contract Number;
 - c. BPA Number;
 - d. Model Number or National Stock Number (NSN);
 - e. Purchase Order Number;
 - f. Date of Purchase;
 - g. Quantity, Unit Price, and Extension of Each Item (unit prices and extensions need not be shown when incompatible with the use of automated systems; provided, that the invoice is itemized to show the information); and
 - h. Date of Shipment.
 - i. The requirements of a proper invoice are specified in the Federal Supply Schedule contract. Invoices will be submitted to the address specified within the purchase order transmission issued against this BPA.
 - j. The terms and conditions included in this BPA apply to all purchases made pursuant to it. In the event of an inconsistency between the provisions of this BPA and the Contractor's invoice, the provisions of this BPA will take precedence.

Contractor Team Arrangements

Basic Guidelines for Using "Contractor Team Arrangements"

Federal Supply Schedule Contractors may use "Contractor Team Arrangements" (see FAR 9.6) to provide solutions when responding to a ordering activity requirements.

These Team Arrangements can be included under a Blanket Purchase Agreement (BPA). BPAs are permitted under all Federal Supply Schedule contracts.

Orders under a Team Arrangement are subject to terms and conditions of the Federal Supply Schedule Contract.

Participation in a Team Arrangement is limited to Federal Supply Schedule Contractors.

Customers should refer to FAR 9.6 for specific details on Team Arrangements.

Here is a general outline on how it works:

- The customer identifies their requirements.
- Federal Supply Schedule Contractors may individually meet the customers' needs, or –
- Federal Supply Schedule Contractors may individually submit a Schedules "Team Solution" to meet the customer's requirement.
- Customers make a best value selection.

Service and Distribution Points

tw telecom holdings inc.
10475 Park Meadows Drive
Littleton, Colorado 80124

Phone: 303-566-1000
Fax: 303-566-1011

Web site: <http://www.twtelecom.com>

Participating Dealers

Not applicable. **tw telecom holdings inc.** does not have specific dealers or resellers identified to perform on the contract awarded under this solicitation.