

## **Service Attachment 6 Ethernet Line (“E-Line”)**

**This Service Attachment** (the “Service Attachment”), is between **tw telecom holdings inc.** (“Vendor”) having an office at 10475 Park Meadows Drive, Littleton, CO 80124, and the State of Ohio, Department of Administrative Services, Office of Information Technology (“the State”), having its principal place of business at 1320 Arthur E. Adams Drive, 3rd Floor, Columbus, OH 43221 (jointly referred hereto as the “Parties”), and it is effective as of the date signed by the State. It amends that certain Master Service Agreement between the Parties, including Service Attachments 1-5, dated September 22, 2009 (as renewed by letter dated May 20, 2011).

WHEREAS, VENDOR desires to include additional services and the corresponding general provisions thereof; and

WHEREAS, the above named Parties desire to execute this Service Attachment to said Agreement;

NOW THEREFORE, in accordance with the Agreement, and in consideration of the conditions and covenants contained herein, the Parties mutually agree as follows:

1. The Addition of Service Attachment 6 – Ethernet Line (“E-Line”) Services.
2. All other terms and conditions of the Master Service Agreement not otherwise supplemented and/or amended shall remain unchanged and in full force and effect.

This Service Attachment provides the Subscribing Entity(s) with the ability to purchase E-Line Services from Vendor.

Additional Information regarding these services has been included in an Appendix located at the end of this document.

- Appendix 1: Service Level Agreement Information

### **1 Service Overview**

This section provides an overview of the 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.

### **2 Description of Service**

This section provides a description for the E-Line Services outlined in Section 1.

The E-Line service is comprised of a UNI at each site combined with Ethernet Virtual Connections (“EVC”) between UNIs to be used to create a point to point or hub and spoke network topology. Each UNI and EVC are priced and invoiced separately, although pricing in the service attachment is shown as bundled UNI and EVC. ELINE may be ordered as; (a) 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 (b) 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 resembles a “hub and spoke” topology, where the “hub” has several VLAN-based services aggregating into a single multiplex UNI or NNI.

### **3 Standard Service Features**

This section provides an outline of the standard E-Line Service features which are included as part of the monthly recurring charge as outlined in Section 5 of this Service Attachment.

The UNI is available as a 100M, 1G, or 10G Ethernet port and may be ordered as a transparent or multiplexed interface. The EVC is available in various bandwidth increments from 2M to 10G. The UNI conforms to Metro Ethernet Forum standards, and the terminology and configurable options typically follow these standards.

### **4 Fee Structure**

This section provides the following information for the E-Line Services options:

- Pricing for E-Line Service
- Installation Charge Information
- Disconnection Service Charge Information
- Service Call Information

#### **Pricing – Ethernet E-Line Service**

**Ethernet Line: Ethernet Virtual Private Line Service**

**Metro Point to Point Ethernet Virtual Private Line**

	<u>12 Mo</u>	<u>36 Mo</u>	<u>60 Mo</u>	<u>NRC</u>
10 Meg	\$720.00	\$612.00	\$576.00	\$0.00
20 Meg	\$788.00	\$670.00	\$630.00	\$0.00
40 Meg	\$922.00	\$784.00	\$738.00	\$0.00
50 Meg	\$990.00	\$842.00	\$792.00	\$0.00
100 Meg	\$1,320.00	\$1,122.00	\$1,056.00	\$0.00

All point to point EVPL pricing not shown above will be quoted on an individual case basis.

**Cincinnati and Dayton to Columbus Long Haul Point to Point Ethernet Virtual Private Line**

	<u>12 Mo</u>	<u>36 Mo</u>	<u>60 Mo</u>	<u>NRC</u>
10 Meg	\$1,560.00	\$1,326.00	\$1,248.00	\$0.00
20 Meg	\$1,623.00	\$1,380.00	\$1,298.00	\$0.00
40 Meg	\$1,747.00	\$1,485.00	\$1,398.00	\$0.00
50 Meg	\$1,810.00	\$1,538.00	\$1,448.00	\$0.00
100 Meg	\$2,120.00	\$1,802.00	\$1,696.00	\$0.00

All EVPL pricing not shown above will be quoted on an individual case basis.

**Metro Point to Multipoint Ethernet Virtual Private Line**

**Ethernet Virtual Private Line Hub Pricing**

	<u>12 Mo</u>	<u>36 Mo</u>	<u>60 Mo</u>	<u>NRC</u>
100 Meg	\$400.00	\$340.00	\$320.00	\$0.00
1 Gig	\$680.00	\$578.00	\$544.00	\$0.00
10 Gig	ICB	ICB	ICB	

**Metro Ethernet Virtual Private Line Multipoint (Bandwidth and UNI)**

	<u>12 Mo</u>	<u>36 Mo</u>	<u>60 Mo</u>	<u>NRC</u>
10 Meg	\$460.00	\$391.00	\$368.00	\$0.00
20 Meg	\$528.00	\$449.00	\$422.00	\$0.00
40 Meg	\$662.00	\$563.00	\$530.00	\$0.00
50 Meg	\$728.00	\$620.00	\$584.00	\$0.00
100 Meg	\$1,060.00	\$902.00	\$848.00	\$0.00

All EVPL pricing not shown above will be quoted on an individual case basis.

**Intermarket (Cincinnati and Dayton) Ethernet Private Line Multipoint to Columbus (Bandwidth and UNI)**

	<u>12 Mo</u>	<u>36 Mo</u>	<u>60 Mo</u>	<u>NRC</u>
10 Meg	\$1,300.00	\$1,105.00	\$1,040.00	\$0.00
20 Meg	\$1,363.00	\$1,158.00	\$1,090.00	\$0.00
40 Meg	\$1,488.00	\$1,265.00	\$1,190.00	\$0.00
50 Meg	\$1,550.00	\$1,318.00	\$1,240.00	\$0.00
100 Meg	\$1,860.00	\$1,581.00	\$1,488.00	\$0.00

All EVPL pricing not shown above will be quoted on an individual case basis.

**Protected and Unprotected Dedicated ELINE services over Ethernet, DWDM or SONET is ICB only.**

**Installation Charge / NRC** - Has been waived for existing On-Net buildings. Vendor reserves the right to increase the total monthly cost and/or charge installation in the event that a fiber build is involved to reach the desired building.

**Month-to-Month Continuation**

The above services will continue to be available to the Subscribing Entity on a month to month basis after completion of the initial term of the service at the MRC quoted or the then-current MRC for the same duration as the initial service term. This MRC will then apply for the duration of this MSA and this Service attachment, or any renewal thereof, until either the Vendor or the Subscribing Entity terminates the applicable order upon thirty days' written notice.

### **Modification Charge**

If a Subscribing Entity requests modification(s) to a pending TSR Order prior to the In-Service Date, then Vendor will submit a revised Service Quote for the Subscribing Entity(s) approval which may contain, in addition to the requested modification(s), a modification charge not to exceed the Actual Costs the Vendor will incur.

### **Order Cancellation Information - Prior to In-Service Date**

This section applies when a TSR order is cancelled prior to the In-Service Date. Note: This only applies to Service Orders placed through the TSR system and does not apply to Service Quotes.

If a Subscribing Entity cancels a TSR Order before Vendor has completed installation of the Service, the Subscribing Entity must reimburse Vendor for its Actual Costs. If the Subscribing Entity cancels a TSR Order after the Service has been installed, the Disconnection Service Charges set forth below will apply. All requests by a Subscribing Entity to cancel a pending TSR Order are effective only if provided in writing.

### **Disconnection Service Charge Information – After In-Service Date**

If the Subscribing Entity has lawfully appropriated funds to pay for the Disconnection Charge described in this section, the Subscribing Entity may cancel an order for convenience. The Subscribing Entity(s) shall remain liable for charges accrued but unpaid as of the disconnection date. Additionally, should the State or any Subscribing Entity terminate any order for services for convenience, or for reasons other than permitted under Sections 1.5, 1.19, 7 and 8.1(b) in the MSA or nonrenewal of the MSA or this Service Attachment under 6.1 or 6.2 of the MSA, or should Vendor terminate any order for services pursuant to Section 8.2(a) in the MSA, the Subscribing Entity shall pay to Vendor from funds properly appropriated therefore fifty percent (50%) of all monthly recurring charges for the remainder of the Service Term applicable to the disconnected service(s).

### **Service Calls**

If Vendor responds to a service call initiated by the Subscribing Entity(s), and Vendor and the Subscribing Entity(s) mutually agree that the cause of the problem is not due to Vendor's Network or Equipment, but is due to the Subscribing Entity(s) equipment or facilities, the Subscribing Entity(s) must compensate Vendor for the service call on a time and materials basis at Vendor's then applicable reasonable rates.

## 5 Service Specific Terms and Conditions

### Service Availability

Vendor offers all Services subject to availability and has the right to accept or reject a TSR submitted by the Subscribing Entity(s) in accordance with Section 5.1 (A) of the Agreement.

### Ordering Process

The Ordering Process for the services contained in this Service Attachment is comprised of the following two (2) steps:

- **Step 1 – Service Quote** – The Subscribing Entity(s) will submit through the TSR system a request for a Service Quote.
- **Step 2 – Service Order** – The Subscribing Entity(s) will review the Service Quotes with the State. The order for service will then be placed with the selected vendor through the TSR system.

### Service Quote

The Service Quote that will contain the following information:

- **Description of Proposed Service** – Will include the following documentation:
  - **Service Description** – A narrative providing a detailed description of the proposed service.
  - **Network Diagram** – To provide a graphical representation of the proposed service.
- **Monthly Recurring Charge (“MRC”)** – Identified per port
- **Installation Charges / NRC** – Note: These charges have been waived.
- **Build Out Charges** – These are the costs associated with the design, engineering, labor and materials required to extend Vendor’s Network and the Service to the agreed termination point on Subscribing Entity’s premises in order to deliver the service. Vendor will provide the Subscribing Entity(s) with the following two (2) payment options:
  - **Lump Sum** – The amount will be paid as a one time charge.
  - **Monthly** – The amount spread over the initial term of the service as a monthly charge. Note: This charge will not apply to any renewal of service.
- **Expedite Charges** – These are the quoted costs associated with expediting the installation of a Service which may include a per circuit charge for On-Net Services and/or third party charges for Off-Net Services. Note: Vendor reserves the right to determine if it can accommodate an expedite installation request.

The Subscribing Entity(s) will not be responsible for any costs not identified in the Service Quote.

### Service Order – Timeframes

Once the Service Order has been placed via the TSR system, Vendor will commit to working the order(s) within the following timeframes.

- **On-Net Services** – Within one (1) business day of receiving a TSR order for Service, Vendor will review the order for accuracy and completeness. Once verified, Vendor will provide the Subscribing Entity(s) with the following:
  - A design layout record within four business days, and

- A Firm Order Commitment (“FOC”) within five business days.
- **Off-Net Service** – The design layout record and FOC will be provided on a case by case basis.

**Requests to Delay Installation**

The Subscribing Entity(s) may request to delay installation for up to thirty (30) days following the original FOC due date for no charge if Vendor is notified of the request in writing at least three business days prior to the original FOC due date.

If the Subscribing Entity(s) submits its request to delay installation less than three days prior to the original FOC due date, Vendor may impose an Installation Delay Charge. This Installation Delay Charge will be based on the service MRC prorated from the original FOC date to the new installation date.

**Acceptance of Service**

Vendor will notify the Subscribing Entity(s) by e-mail to the primary service contact identified in the TSR when the Service has been successfully installed and is available for the Subscribing Entity(s) use (“Bill Date”). Unless the Subscribing Entity(s) notifies Vendor by the close of business on the Bill Date that the Service is not operational, the Service Term will commence. The Subscribing Entity(s) also has thirty days following the Bill Date to conduct additional testing of the Services. If such testing indicates that the Service is not operating properly, and the Subscribing Entity(s) notifies Vendor by contacting the Vendor Account Team shown in the TSR and reasonably identifies the problem, Vendor will work with the Subscribing Entity(s) to remedy the problem. If Vendor and the Subscribing Entity(s) mutually agree that the problem is due to Vendor’s Network or Vendor Equipment or third-party telecommunications facilities arranged by Vendor on Vendor’s side of the demarcation point, then the Subscribing Entity(s) will be credited for the MRCs associated with the Service from the Bill Date through the date that the Service is made operational. If Vendor and the Subscribing Entity(s) mutually agree that the problem is not being caused by Vendor’s Network, Vendor Equipment, or third-party telecommunications facilities arranged by Vendor on Vendor’s side of the demarcation point, the Bill Date will remain unchanged. Vendor is not responsible for testing failures resulting from problems with the Subscribing Entity(s) equipment.

**Technology Upgrades**

After the first twelve (12) full months of service under a service order, the Subscribing Entity(s) have the option anytime during the Agreement period to submit to the Vendor a new service order for an upgrade to a new technology or new service offering, for a new service term, without incurring termination charges as more specifically outlined, and under the conditions contained in, the individual Service Attachments. In no case will the fees under the Service Attachments increase as a result of any such negotiation before the 2013 renewal of this Agreement, should this Agreement be renewed beyond the State’s 2013 biennium. The upgrade will require a new service order.

**Vendor Equipment**

Vendor will own and control all Vendor Equipment that is used to provide this service, which will remain Vendor’s personal property regardless of where located or attached. Vendor may upgrade, replace or remove Vendor Equipment, regardless of where located, so long as the Services continue to perform. The Subscribing Entity(s) may not alter, move or disconnect Vendor Equipment and is responsible for any damage to, or loss of, Vendor Equipment caused

by the Subscribing Entity(s) breach of this provision or as the result of the Subscribing Entity(s) or its End User's negligence or willful misconduct. Vendor has no obligation to install, maintain or repair any equipment owned or provided by the Subscribing Entity(s).

**Subscribing Entity(s) Equipment**

The Subscribing Entity(s) is responsible for any special interface equipment or facilities necessary to achieve compatibility with the service.

**Access**

Vendor may require access to the Subscribing Entity(s) premises to install and maintain the Services and Vendor Equipment. Subject to Vendor's compliance with the Subscribing Entity(s) safety and security rules under Section 3.15 of the Agreement, Vendor shall not be liable for delays in installation, maintenance or repair arising from a Subscribing Entity's delay in availability or providing access. The Subscribing Entity(s) also must provide reasonable access rights and/or rights of way from third parties, space, power and environmental conditioning as may be required for installation of and maintaining Vendor Equipment at the Subscribing Entity(s) premises.

**No Letter of Authorization or Carrier Facility Assignment**

No Subscribing Entity intends to, or will, connect the Services to facilities that it does not own or lease. As a result, Vendor will not require a Letter of Authorization or Carrier Facility Assignment.

**Scheduled Maintenance**

Vendor will monitor its Network and Equipment 24 hours per day, 7 days per week. Scheduled Maintenance will be performed between the hours of midnight and 6:00 a.m. (local time where the maintenance is being performed) unless another time is agreed to in writing by Vendor and the Subscribing Entity(s). Vendor will endeavor to provide the Subscribing Entity(s) with at least five business days notice before performing Scheduled Maintenance unless a shorter notice period is required under the circumstances.

**Emergency Maintenance**

If Vendor has to perform maintenance outside of the Scheduled Maintenance window set forth above, then Vendor will provide as much prior notice to the Subscribing Entity(s) as is practicable under the circumstances by e-mail to the primary service contact for the Subscribing Entity listed in the applicable TSR.

**6 Service Level Agreement Information**

This section provides the following information regarding the Service Level Agreement ("SLA") provided by Vendor for the E-Line Services as described herein.

- SLA Recap
- Description of Outages
- SLA credits

Please refer to Appendix 1 for the complete SLA.

**SLA Recap**

The Vendor SLA for E-Line Services is comprised of the following:

- Service Availability

### **Reporting Service Outages**

The Subscribing Entity(s) must contact Vendor's Customer Network Reliability Center ("CNRC") at 800-829-0420 or log into the Vendor portal: <https://customerportal.twtelecom.com/> to report a Service Outage, and Vendor will open a trouble ticket and provide the Subscribing Entity(s) with a trouble ticket number for tracking purposes.

### **Duration of Service Outages**

A Service Outage begins when the Subscribing Entity contacts the Vendor to report the problem or the Vendor identifies the problem internally, and a trouble ticket is opened. The Service Outage ends when the service is restored. The closing of the trouble ticket will occur by agreement of the Parties, which will not be withheld unreasonably. The duration of the Service Outage will be calculated as the elapsed time between the time the trouble ticket is opened and the service is restored. Service Outages and failures to meet the performance objectives identified in the applicable service level agreements do not include outages and failures caused by the Subscribing Entity(s) equipment, acts or omissions of Subscribing Entity(s) or its End Users, Force Majeure events, fiber cuts caused by third-parties not acting for or under the control of Vendor, or outages occurring during Scheduled or Emergency Maintenance. Subject to the Vendor's obligations under Section 3.15 of the MSA, the duration of the Service Outage also does not include any time during which Vendor is not allowed access to the premises necessary to restore the Service.

### **Application of Outage Credits**

A Service Outage begins when the Subscribing Entity contacts the Vendor to report the problem or the Vendor identifies the problem internally, and a trouble ticket is opened. The Service Outage ends when the service is restored.

## **7 Reporting Requirements**

This section provides a description of the reports required from a state level perspective by the State, which includes Monthly Expenditure and Quarterly Inventory reports. Reports shall be submitted to the State in an electronic format within a month of the ending period of the report. Information on reporting options available to the Subscribing Entity(s) may be obtained from the account team.

### **Monthly Expenditure Report**

To facilitate reporting continuity, all services purchased under this Service Attachment will be put on the same month end billing cycle. Reports will be provided to the State on a monthly basis for each service provided hereunder. At a minimum, these reports will contain totals for the following data elements:

- Monthly Recurring Charges
- Non Recurring Charges
- Taxes, Surcharges, and Governmental Fees
- Credits
- Grand Total Expenditure

This information will then be recapped in the following reporting hierarchy:

<i>Level 0</i>	Entire Contract					
<i>Level 1</i>	Executive Branch	Legislative Branch	Judicial Branch	Cooperative Purchasing		
<i>Level 2</i>	ABC's* Contract Mandatory	ABC's Contract Optional		Higher Education	K-12 & Libraries	Cooperative Purchasing Members
<i>Level 3</i>	Individual ABC			Individual Colleges & Universities	Individual School Districts & Libraries	Individual Co-op Members
<i>Level 4</i>	Division or Work Group Level					
<i>Level 5</i>	Account Level					
<i>Level 6</i>	BTN Level**					

\* Agencies, Boards and Commissions

\*\* Billing Telephone Number

### Quarterly Inventory Report

The Vendor will provide the State with an inventory of all active services purchased under this Service Attachment for the quarter. At a minimum, this report will contain totals for the following data elements:

- Master Account Number
- Subscribing Entity Account Number
- Subscribing Entity Name
- Begin Service Date
- End Service Date
- Circuit Count by Service
- Circuit Count by Commitment Term
- Service Location
- TSR Number

### **SLA Performance Report**

The Vendor will provide the State and the Subscribing Entity(s) with a monthly report detailing its SLA performance. At a minimum, this report will contain performance results for the following SLA criteria:

- Service Availability

## **8 Definitions**

**“Affected Service(s)”** mean physical or virtual circuits that are operationally integrated because they are operated on, or are dependent upon, the same equipment or circuitry.

**“Actual Costs”** means the reasonable time and materials actually incurred and documented by Vendor in engineering and installing a Service cancelled or modified by the Subscribing Entity, and includes any third-party charges assessed against Vendor as a result of such cancellation.

**“Chronic Trouble Service”** means a physical or virtual circuit that has experienced two or more Service Outages within a thirty-day period and the cause of each such trouble is determined to be in Vendor’s Network.

**“Customer Network and Reliability Center” or “CNRC”** means Vendor’s network operating center which the Subscribing Entity(s) must contact to report any problems with the Services. The CNRC can be reached at 800-829-0420.

**“FOC”** means the firm order confirmation that Vendor provides to the Subscribing Entity(s) establishing the date that Vendor will install the Services.

**“In-Service Date”** means the date Service has been successfully installed, tested and is made available for the Subscribing Entity by Vendor.

**“IP Ingress”** means the Vendor-defined entry point into Vendor’s IP backbone. This point is the ingress port on the router located at the Vendor IP backbone network edge.

**“Installation Charge(s)”** means the costs, other than Build-Out Charges (as defined above), associated with the labor and materials required to delivery Service(s) to the required location on the Subscribing Entity’s premises.

**“Layer 2”** means the Data Link layer of the commonly-referenced multiayered communication model, Open Systems Interconnection (“OSI”).

**“Metropolitan Area”** means a Vendor metropolitan Service Area. Vendor reserves the right to select the Metro Network to provide the service.

**“MRC”** means the monthly recurring charge associated with a Service.

**“NRC”** means the non-recurring charge associated with a Service.

**“Off-Net Service”** means a Service that is not provisioned entirely on Vendor’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). Off-Net Services are priced on an individual case basis ("ICB").

**"On-Net Services"** means Services that are provisioned entirely on Vendor's Network.

**"PTP"** means Point-to-Point

**"Service(s)"** means telecommunications services provided by Vendor pursuant to this Service Attachment in the form of physical or virtual circuit(s) connecting individual locations to one another or to a network.

**"Service Order"** means an order from a Subscribing Entity through the TSR system containing the information required by Section 5 of this Service Attachment and identifying the Service being requested, quantity of circuits, A & Z locations, protocols, Service Term, requested start of service date and any other information reasonably necessary to describe the requested Service.

**"Service Outage"** means either; (a) a complete loss of transmit or receive capability for a Service and such inoperability is caused by Vendor's Equipment or Network, or (b) a material non-compliance with a specific performance metric in a service level agreement and such non-compliance is caused by Vendor's Equipment or Network.

**"Service Quote"** means the document containing the information described in Section 5 of this Service Attachment that is submitted by Vendor in response to a request from a Subscribing Entity.

**"Service Term"** means the committed service duration for a particular Service as set forth in the applicable Service Order, including any renewal periods.

**"TSR"** means Technology Service Request

**"Vendor Equipment"** means the telecommunications equipment, cable and facilities installed, operated and controlled by Vendor for provision of the Services to the Subscribing Entity(s).

**"Vendor's Network" or "Network"** means those telecommunication facilities operated by Vendor or its Local Entities, and excludes any telecommunication facilities that are operated by other telecommunication providers.

## Appendix 1

### SERVICE LEVEL AGREEMENT

#### **9 Appendix 1 – Service Level Agreement**

Appendix 1 provides the detailed information regarding the Vendor Service Level Agreement (“SLA”) for the Services described in this Service Attachment.

#### **Reporting Service Outages**

The Subscribing Entity(s) must contact Vendor’s Customer Network Reliability Center (“CNRC”) at 800-829-0420 or log into the Vendor portal: <https://customerportal.twtelecom.com/> to report a Service Outage, and Vendor will open a trouble ticket and provide the Subscribing Entity(s) with a trouble ticket number for tracking purposes.

#### **Duration of Service Outages**

A Service Outage begins when the Subscribing Entity contacts the Vendor to report the problem or the Vendor identifies the problem internally, and a trouble ticket is opened. The Service Outage ends when the service is restored. The closing of the trouble ticket will occur by agreement of the Parties, which will not be withheld unreasonably. The duration of the Service Outage will be calculated as the elapsed time between the time the trouble ticket is opened and the service is restored. Service Outages and failures to meet the performance objectives identified in the applicable service level agreements do not include outages and failures caused by the equipment, acts or omissions of the Subscribing Entity(s) or its End Users, Force Majeure events, fiber cuts caused by third-parties not acting for or under the control of Vendor, or outages occurring during Scheduled or Emergency Maintenance. Subject to Vendor’s obligations under Section 3.15 of the MSA, the duration of the Service Outage also does not include any time during which Vendor is not allowed access to the premises necessary to restore the Service.

#### **Application of Outage Credits**

A Service Outage begins when Subscribing Entity(s) contacts the Vendor to report the problem or the Vendor identifies the problem internally, and a trouble ticket is opened. The Service Outage ends when the service is restored.

#### **Credits – for Service Outage**

If there is a Service Outage, credits will be issued to a Subscribing Entity(s) as set forth below. Credits are calculated as a percentage of the MRC for the Service that experienced the outage.

**Network Availability**

Vendor's Protected E-Line Service will be available to the Subscribing Entity at least 99.999% of the total time in a calendar month. An E-Line Service is "Protected" if it is provisioned on a diverse ring-protected route not only in each of the metro markets, but also between those markets. If there is an interruption on the ring, the traffic on the Protected EVC is automatically re-routed in the opposite direction on the ring until the normal condition is restored. Vendor's unprotected E-Line Service will have Network Availability of 99.9% of the total time in a calendar month.

An E-Line Service is unavailable during any period of time that it experiences a Service Outage. Upon The Subscribing Entity's request, Vendor shall issue credits for each Service Outage, and such credits shall be calculated by multiplying the percentage specified in the applicable table below by the MRC for the non-performing Service:

<b>Protected E-Line Service</b>	
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

<b>Unprotected E-Line Service</b>	
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

**Network Latency**

**Network Latency – Continental United States and Hawaii**

Vendor measures network latency with respect to average round-trip transmission on its Network each month. Network latency calculations for E-Line 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 The Subscribing Entity’s request, Vendor shall issue credits for Vendor’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.

<b>AVERAGE NETWORK LATENCY</b>		
<b>Network Latency</b>  (Continental U.S.)	<b>Hawaii Network Latency</b>	<b>Credit</b>
0.00 - 45.00 ms	0.00 - 75.00 ms	No Credit
45.01 - 50.00 ms	75.01 – 80.00 ms	No Credit
50.01 - 60.00 ms	80.01 – 90.00 ms	No Credit
60.01 - 65.00 ms	90.01 – 95.00 ms	No Credit
65.01 - 70.00 ms	95.01 – 100.00 ms	No Credit
70.01 - 75.00 ms	100.01 – 105.00 ms	No Credit
75.01 ms or greater	105.01 ms or greater	10%

**Packet Delivery**

Vendor measures packet delivery on its Network on a monthly basis. Packet Delivery is determined by averaging sample measurements taken each calendar month between Vendor’s designated POPs. Upon The Subscribing Entity’s request, Vendor will issue credits for Vendor’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.

<b>Average Packet Delivery – E-Line</b>	
<b>Average Packet Delivery Percentages:</b>	<b>Credit</b>
=>99.9%	No Credit
99.5% - 99.8%	No Credit
99% – 99.4%	No Credit
98% – 98.9%	No Credit
97% – 97.9%	No Credit
< 96%	10%

**Chronic Outage**

If a Service Outage occurs on a Chronic Trouble Service within thirty days following the second Service Outage, or if The Subscribing Entity experiences one continuous Service Outage lasting longer than seven (7) days (provided Vendor has been given adequate access to all premises necessary for repair), Subscribing Entity may terminate the Affected Service without termination liability, but the Subscribing Entity shall be responsible for charges accrued prior to the termination date, less any applicable Service Outage credits. Subscribing Entity must provide Vendor with written notice by no later than thirty days following the last qualifying service Outage that it is terminating the Affected Service.

**Methods**

The resources, equipment and methodology used to measure performance with respect to the service level metrics are determined by Vendor in its discretion.

**Maximum Credit**

Credits issued during any calendar month will not exceed the monthly recurring charge associated with the Affected Service that experienced the Service Outage(s).

In Witness Whereof, the Parties have executed this Service Attachment, which is effective on the date the State's duly authorized representative signs it on behalf of the State, ("Effective Date").

**SIGNATURE PAGE TO FOLLOW**

**VENDOR**

**STATE OF OHIO,  
DEPARTMENT OF  
ADMINISTRATIVE  
SERVICES**

*Robert Miracle*

*Stuart R. Davis*

Signature

Signature

*Robert Miracle*

*Stuart R. Davis*

Printed Name

Printed Name

*VP/GM*

*State Chief Information Officer/*

Title

Title

*Assistant Director*

*3/14/12*

*3/28/12*

Date

Effective Date

Federal Tax ID