

## State of Texas DIR - Service Level Agreements

### General Terms Applicable to Service Level Agreement

For the purpose of determining the applicable credit, a Service Outage begins when the trouble ticket is opened and closes when the Service is properly restored. Credits are provided upon request. The resources and equipment used to measure service level metrics are determined by TWTC.

Service Outages and failures to meet the performance objectives herein do not include outages and failures caused by the equipment of or, acts or omissions of, Customer or its end users, Force Majeure Events (as defined below), or outages occurring during scheduled or emergency maintenance windows provided that TWTC notified Customer in advance of any such scheduled or emergency maintenance. Standard maintenance windows are based on the time zone of a city's location.

Force Majeure events, as defined in Section 3.03 of the Terms and Conditions of the Contract such as, but not limited to, an earthquake, hurricane, flood, fire, storms, tornadoes, explosion, lightning, power surges or failure, fiber cuts (limited to the local loop or last mile), strikes or labor disputes.

Standard Maintenance window for Central Standard Time (CST) is Monday –Friday 12:00 am - 6:00 am. Standard Maintenance windows should be verified at : <http://info.twtelecom.net/info.php?id=1>. 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.

SLA's credits and terms are applicable to all components of the Service including local loops.

### Additional Provisions

Credits issued during any calendar month for any and all SLA violations may not exceed the monthly recurring charge ("MRC") associated with the non-performing Service per site.

### Chronic Trouble Services

If two Service Outages have occurred on a particular Service during a 30-day period, and a third Service Outage occurs within thirty days following the second Service Outage, Customer may terminate the applicable Service without early termination liability provided that Customer supplies TWTC with a written termination notice no later than thirty days following the third Service Outage.

### Customer's Responsibility

- Customers with CoS are responsible for correctly marking (DSCP) all packets. CoS customers with Managed CPE (e.g. managed router, managed IAD) may choose to either have the fully managed CPE mark packets based on customer requirements or to mark traffic on their LAN.
- Customer is responsible for Queuing/Rate-Shaping CoS traffic so that it does not exceed the contracted 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](http://www.twtelecom.com/performance/ip_network_overview_performance.html)

## Mean Time to Restore (MTTR)

TWTC will provide a Mean-Time-To-Repair (MTTR) interval of four (4) hours for all Services. Credits for failure to meet the MTTR have been included in the Availability SLA matrix below.

## Availability

TWTC's Services will be available to Customer at least 99.99% of the time in a calendar month ("Network Availability") or Customer will receive service outage credits per the table below. A service outage is defined as the inability to transmit and receive data for Data Services, or the inability to process a telephone call for Voice Services. Network non-availability is defined as the duration of time in a calendar month that a Service experiences a Service Outage. Credits are based upon a percentage of the monthly recurring charge MRC for the non-performing Service as follows:

Availability	
<i>Per Service Outage</i>	<i>Percentage Credit</i>
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	25% of the MRC
8 hours up to 16 hours	50% of the MRC
16 hours or greater	100% of the MRC

Availability SLA is applicable to:

1. Voice Services
  - a. Business Line
  - b. PBX Trunk
  - c. PRI
  - d. IP Telephone
  - e. Inbound LD
  - f. Outbound LD
  - g. Circuit Switched Digital
2. Data Services to include
  - a. Internet Services (including Small Office/Home Office (SOHO))
  - b. MPLS/IP VPN Service provisioned within the 48 contiguous United States
  - c. Transport Services (includes Private Line)
  - d. Metro and Long Haul Ethernet Services

## Network Latency

TWTC's Services will have an average round-trip transmission of 50 milliseconds or less within a given calendar month between TWTC designated IP core routers in the forty-eight contiguous United States ("Network Latency Objective"). If TWTC fails to meet the Network Latency Objective, credits will be calculated per the table below. Credits are based upon a percentage of the MRC for the non-performing Service as follows:

<b>Network Average Latency</b>	
<i>Average Latency Standard</i>	<i>Percentage Credit</i>
0 to 50.00 milliseconds ("ms")	No Credit
50.01 to 60.00 ms	20%
60.01 to 65.00 ms	30%
65.01 to 70.00 ms	40%
70.01 to 75.00 ms	50%
75.01 to 80.00 ms	75%
80.01 ms or greater	100%

1. Network Latency SLA is applicable to Internet (including SOHO), Long Haul Ethernet and MPLS/IP VPN Services.
2. Optimum TCP throughput may require adjustments to the default TCP stack settings.
3. Network Latency is determined by averaging sample measurements taken in the 48 Contiguous United States during the most recent full calendar month between TWTC designated IP core routers.
4. TWTC is currently working towards end to end latency measurement and expect to implement this ability for Ethernet Services in early 2012. At that time, TWTC will update the applicable SLA's. Until this occurs, TWTC will work with the last mile provider and customer to resolve latency issues during trouble situations or service impairments reported by customer.

## Packet Delivery

TWTC's Services will have packet delivery of at least 99.9% during any calendar month ("Packet Delivery Objective"). If TWTC fails to meet the Packet Delivery Objective, credits will be calculated per the table below. Credits are based upon a percentage of MRC for the non-performing Service as follows:

<b>Average Packet Delivery</b>	
<i>Domestic Packet Delivery Percentages</i>	<i>Percentage Credits</i>
99.9+	No Credit
99.5 - 99.8	10%
99 - 99.4	20%
98 - 98.9	30%
97 - 97.9	40%
96 - 96.9	50%
95 - 95.9	75%
Below 95	100%

### Notes:

1. Packet Delivery SLA is applicable to Internet (including SOHO), IP VPN, ENLAN and Converged Services
2. Packet Delivery is determined by averaging sample measurements taken in the 48 Contiguous United States during the most recent full calendar month between TWTC designated IP core routers.

- TWTC is currently working towards end to end packet delivery measurement and expect to implement this ability for Ethernet Services in early 2012. At that time, TWTC will update the applicable SLA's. Until this occurs, TWTC will work with last mile provider and customer to resolve packet delivery issues during trouble situations or service impairments reported by customer.

### Network Jitter

TWTC's Realtime CoS will have an average one-way jitter measurement of .5 ms or less during any given calendar month ("Realtime Jitter Objective"). TWTC's Interactive CoS will have an average one-way jitter measurement of 2 ms or less during any given calendar month ("Interactive Jitter Objective"). If TWTC fails to meet the applicable Jitter objective, credits will be calculated per the table below. Credits are based upon a percentage of the MRC for the non-performing Service as follows:

Network Jitter		
	CoS Designation – Percentage Credits	
48 Contiguous States	Realtime	Interactive
0.5 ms	No Credit	No Credit
.51 ms - 2.0 ms	10%	No Credit
2.1 ms - 4.0 ms	20%	10%
4.1 ms - 5.0 ms	30%	20%
5.1 ms - 6.5 ms	40%	30%
6.6 ms - 7.5 ms	50%	40%
7.5 ms - 10.0 ms	75%	65%
>10.1 ms	100%	90%

- TWTC's Jitter SLA is applicable to IP VPN and Converged Services.
- Jitter is determined by averaging sample measurements taken in the 48 Contiguous United States during the most recent full calendar month between TWTC designated IP core routers.
- TWTC is currently working towards end to end jitter measurement and expect to implement this ability for Ethernet Services in early 2012. At that time, TWTC will update the applicable SLA's. Until this occurs, TWTC will work with last mile provider and customer to resolve jitter issues during trouble situations or service impairments reported by customer.