

DAS MASTER AGREEMENT NUMBER: **B-03-012**

DAS APPROVAL DATE: **7/29/15**

**VENDOR NAME: AT&T Corporation**

**SERVICE/PRODUCT NAME: AT&T VPN (AVPN) Service**

**SERVICE/PRODUCT DESCRIPTION:**

AT&T VPN Service is a network-based Multiprotocol Label Switching (MPLS) service that uses Internet Protocol (IP) to deliver the attributes of a private network within the confines of a shared networking infrastructure. AT&T VPN allows you to build an application-aware VPN to link your locations and efficiently transport voice, data, and video over a single connection.

AT&T VPN allows you to establish any-to-any connectivity through a single MPLS port to each of your locations. You can have fully meshed communications without ordering additional PVCs or worrying about Committed Data Rate (CDR) at each site.

You have multiple transport and access/egress options. You can connect using Ethernet or IP MPLS ports that support point-to-point protocol (PPP), or multilink PPP (MLPPP). Because you can choose your connectivity method, you can build the right VPN solution to meet the growing and changing needs of your employees, customers, and partners.

AT&T VPN offers you three network management options. With customer-managed (the standard option) you can manage and maintain your own routers. With the AT&T-managed option, we configure, install, manage, and maintain your routers on your behalf. With the Managed CSU-probe option, you can still manage and maintain your own routers, but AT&T provides you 7x24 diagnostics of your network.

AT&T VPN enables you to choose who manages your routers on a per-site basis and then combine all your sites, both customer-managed and AT&T-managed, on a single network. And you can change from a transport-only site to an AT&T-managed router site or to an AT&T-managed CSU-probe site, and vice versa, as your requirements change.

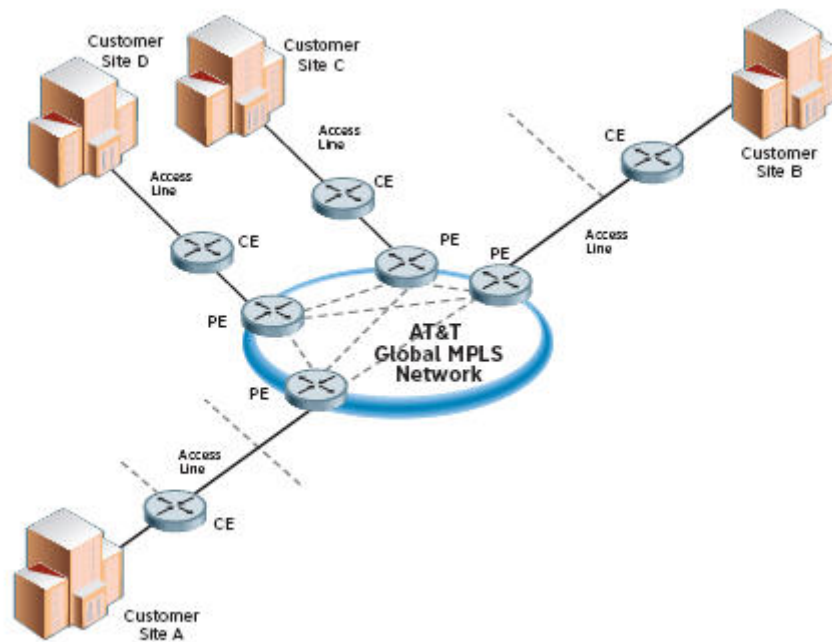
AT&T VPN provides a simple solution that combines the flexibility of IP access and the inherent security and reliability of frame relay and ATM. With the networking expertise of AT&T, you can implement new applications with reduced risk, quickly ramp up for new applications, and maximize performance through built-in security and control.

MPLS enables data transmission using standard IP routing protocols between any locations via a short, pre-determined path across the network. We use an affiliate or a local service provider to connect your data equipment to the AT&T Global Network. This connectivity allows authorized users and applications to communicate on the same VPN.

AT&T VPN uses BGP routing and MPLS label forwarding to separate traffic. AT&T VPN enforces strict traffic separation by assigning a unique virtual routing and forwarding table to each of your VPNs. The result is a fully protected VPN that provides data integrity and data privacy equal to that of traditional frame relay and ATM networks.

AT&T VPN transport-only service uses an IPv4/IPv6 dual-stack port to support IPv6 addressing requirements. Dual stack allows IPv4 and IPv6 to coexist on the same port. This enables you to smoothly transition from an IPv4 to a 128-bit IPv6. IPv6 offers improved support for security, enhanced support for mobile devices, and auto-configuration and "plug and play" support. It also reduces the dependency on network address translation (NAT) and enables more end-to-end applications.

AT&T VPN transports traffic across the MPLS-enabled AT&T Global Network. The network uses standard IP routing protocols to transport traffic between locations via the optimal path based on the latency between network endpoints. Using label switching technology, MPLS attaches a label to each packet as it enters the network. This label uniquely identifies that packet as belonging to a specific MPLS VPN. When the packet reaches its destination, MPLS removes the label and returns the packet to its original state. The process is seamless to your users.



AT&T VPN Service gives you these features:

- MPLS technology**—AT&T VPN employs MPLS technology to transport data between locations. MPLS allows you to classify traffic based on applications and your bandwidth and latency needs. By classifying traffic, you can segregate and prioritize critical applications and latency-sensitive traffic like voice and video. AT&T VPN uses label switching and multiprotocol BGP to separate your VPN traffic from other VPNs and the Internet. This technology provides data integrity and privacy equal to frame relay, ATM, and private line service.
- IP-based disaster recovery**—AT&T VPN provides you with dynamic IP disaster recovery via external Border Gateway Protocol (eBGP). eBGP allows load balancing across six discrete Customer Edge-Provider Edge (CE-PE) connections. Because AT&T VPN runs on the IP/MPLS network, it also supports several redundancy options for carrying primary and backup routes. Network-based load balancing and IP routing simplify backup and recovery from disasters. With dynamic load balancing and redundant routing, your data reliably travels through the network.
- Any-to-any connectivity**—AT&T VPN enables communication between any two sites in your VPN, so it eliminates the need for tandem routing and defined virtual channels between sites. As your business grows, you can easily add sites to the VPN, and AT&T will manage the IP core capacity to accommodate the additional connections. In addition, packets take a more direct route to their destinations instead of passing through the hub, reducing hub traffic and, since it requires less bandwidth and equipment at the hub.
- Service Level Agreements (SLAs)**—We provide industry-leading SLAs that cover delay, throughput, availability, time-to-repair, and service installation time. Our AT&T VPN site availability SLA objective is 100%. With our agreements, you can trust that your critical data is quickly and reliably transmitted.
- Network management options**—AT&T VPN allows you to choose between two management options on a per-site basis: transport and managed. You can manage your own VPN routers on your premises or have AT&T manage and maintain them. As your management requirements change, you can change transport sites to managed router sites, and vice versa. In addition, you can combine transport and managed sites in a single network, allowing you to choose the option that offers the best cost and resource value on a site-by-site basis.
- Access choices**—You can connect using Ethernet or IP MPLS ports that support point-to-point protocol (PPP), or multilink PPP (MLPPP). You can choose the fastest and most efficient access method to serve your needs.
- Load balancing**—AT&T VPN supports both BGP and static routing. Using the BGP multipath option, you can enable and disable load sharing across multiple AT&T VPN ports as your needs require. Efficient load balancing helps to improve your network performance and reliability.
- Network diagnostics and help desk support**—AT&T's networking experts in our Network

Operation Centers provide proactive 24x7 monitoring of your network connection. In addition, we offer help desk support on a 24x7 basis. As a result, we diagnose your service and identify and correct service issues quickly, so you can trust that your network will always perform at its optimum level.

AT&T offers these advantages:

- **Data Network Strength**—AT&T understands data transport—we own and operate wireline, wireless, and IP data networks, including one of the world's most advanced and powerful IP backbones. Our networks offer local, national, and global coverage. With the wide reach and reliability of our global data network, we're able to provide dependable VPN services, so you can focus on your business.
- **Security**—AT&T has one of the most comprehensive security portfolios in the industry. We build in robust security measures at every network layer to help reduce the risk of outages and intrusions. Our AT&T VPN service offers you the level of security you expect from our traditional ATM and frame relay services and extends that security to your IP-VPN environment.
- **Performance**—You expect communication services that work, and we can deliver. We've made substantial investments each year to improve our technology infrastructure so that we can provide superior performance. This high-performing infrastructure allows us to easily integrate your data, voice, and video traffic on a single IP network. And, our global IP/MPLS network provides world-class performance with high availability, low latency, and low loss.
- **Support**—Getting straight answers to your questions is important. That's why we give you an experienced, professional account team that knows your business and can recommend the best solutions. Your AT&T account team will develop an AT&T VPN solution that can handle your critical data, voice, and video applications.
- **Reliability**—AT&T is one of the strongest, most dependable communication providers in the industry. We monitor our network to identify and correct service issues quickly. And, we offer a suite of diversity options to help meet your disaster recovery needs and keep your communication system running smoothly, even under extreme conditions.
- **Complete Solutions**—AT&T offers a wide range of solutions. We can work with a variety of communication products and can assess your needs to identify potential solutions. Our network design consultants can design an AT&T VPN network that integrates your legacy and client/server applications with a single network backbone.
- **Experience and Expertise**—With more than 100 years of experience, AT&T draws on its expertise to champion innovation and develop comprehensive, reliable solutions. We've used that experience to build one of the world's best networks for your voice, data, and video services, and we'll continue to improve that network by deploying new technologies.
- **Financial Stability**—You can rely on us to be your service provider—now and in the future. AT&T has a strong balance sheet and a history of prudent financial management. You can count on us to deliver the service you need today and to continue to support your growing business and technology needs.

## **SERVICE LEVELS:**

### **Service Level Agreements**

#### **General SLA Terms**

AT&T has established performance objectives for the Service. While AT&T does not guarantee performance objectives, AT&T will provide credits to an eligible Customer when a performance objective is not met. If a SLA states that a Customer is eligible for a SLA credit, this means that the Customer is eligible subject to the terms, definitions and any exclusions or limitations stated herein.

#### **Definitions**

Covered Service Monthly Charges means:

- the monthly charges for an affected MPLS Port at the Customer Site,
- the monthly charges for Optional Features associated with the MPLS Port at an

impacted Customer Site, including charges for affected features such as Class of Service, Managed Router, or Managed CSU-Probe, but excludes Virtual Network Internet Connection charges.

**SLA Eligibility Table**

Customer eligibility for Service Level Agreements shall be determined by the Service Component type, Management Option, and in some cases the type of access for a Site as described in the SLA Eligibility Tables.

<b>SLA Eligibility Table</b>			
<b>Table 1 Eligibility for On Time Provisioning, Site Availability/ Time to Restore and Network SLAs</b>			
<b>SLA</b>	<b>Site Management Option</b>		
	<b>Transport</b>	<b>Managed CSU-Probe</b>	<b>Managed Router</b>
On Time Provisioning – New Starts	Yes	Yes	Yes
On Time Provisioning - Moves, Adds, Changes Physical	Yes	Yes	Yes
On Time Provisioning - Moves, Adds, Changes Logical	No	No	No
Site Availability / Time to Restore	Yes	Yes	Yes
Network Latency, Network Data Delivery, Network Jitter	Yes	Yes	Yes

<b>SLA Eligibility Table</b>				
<b>Table 2 Eligibility for MPLS Port-to-MPLS-Port, MPLS Site-to-MPLS Site SLAs</b>				
<b>Site 1 – Management Option</b>	<b>Site 2 – Management Option</b>			
	<b>Transport</b>	<b>Managed CSU-Probe</b>	<b>Managed Router</b>	<b>Managed Router and Managed CSU-Probe*</b>
Transport	Port to Port	Port to Port	Port to Port	Port to Port
Managed CSU-Probe	Port to Port	Managed CSU-Probe Site to Site	Port to Port	Managed CSU-Probe Site to Site
Managed Router	Port to Port	Port to Port	Managed Router Site to Site	Managed Router Site to Site
Managed Router and Managed CSU-Probe	Port to Port	Managed CSU-Probe Site to Site	Managed Router Site to Site	Managed Router Site to Site

**Definitions and Notes:**

“Port to Port” means the Transport MPLS Port-to-MPLS Port Latency and Transport -MPLS Port Data Delivery SLAs are applicable to both Site 1 and Site 2.

“Managed CSU-Probe Site to Site” means Managed CSU-Probe MPLS Site-to-MPLS Site Latency and MPLS Site-to-MPLS Site Data Delivery SLAs applicable to both Site 1 and Site 2.

“Managed Router Site to Site” means MPLS Site-to-MPLS Site Latency, MPLS Site-to-MPLS Site Data Delivery and MPLS Site-to-MPLS Site Jitter SLAs applicable to Site 1 and Site 2 (if Site 1 and Site 2 are a Qualified Pair).

\*Managed CSU-Probe MPLS Site-to-MPLS Site Latency and Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery SLAs do not apply to Managed CSU-Probe Sites or Site pairs not included in the single applicable VPN designated by Customer for such SLAs.

## SLA Exclusions and Limitations

AT&T is not responsible for failure to meet an SLA resulting from:

- negligent conduct or misuse by Customer or users of the Service;
- failure or deficient performance of power, equipment, inside wiring, services or systems not provided by AT&T;
- at sites supported by Managed CPE, failure of (including failure by Customer to order, provision or support) the dedicated analog line connected to the Managed CPE for out-of-band management and testing. However this exclusion does not apply to Latency, Data Delivery, or Jitter SLAs during periods when both sites in the site pair are available and meet the requirements in the General SLA Terms;
- At sites where customer has chosen Customer Self-Installation Option, delays in provisioning due to CPE equipment not being assembled on time or correctly by the applicable Due Date;
- Customer requested or caused delays or Customer's election to not release a Service Component for testing and/or repair;
- service interruptions, deficiencies, degradations or delays:
  - due to access lines or CPE not provided by AT&T;
  - due to use of the NetFlow Feature on the AT&T VPN Managed Router;
  - during any period in which AT&T or its agents are not provided access to the premises where access lines associated with the Service are terminated or AT&T CPE is located;
  - during any period when a Service Component is removed from service by AT&T for maintenance or upgrade of the Service or a Service Component during a scheduled maintenance window or upon prior notice by AT&T,
  - during any period when a Service Component is removed from service by AT&T for replacement, rearrangement, or for the implementation of a Customer order;

SLAs do not apply if Customer and AT&T agree to another remedy for the same interruption, deficiency, degradation, or delay affecting the Service Component subject to the SLA.

For all SLA claims, if the same occurrence causes AT&T to fail to meet more than one SLA applicable to a Customer Site, Customer is eligible to receive a credit under only one SLA. Additionally, Customer may receive:

- Only one credit in any calendar month for a failure by AT&T to meet any of the Network Latency, Network Data Delivery and Network Jitter SLA.
- Credits for an affected Customer Site in a given month totaling no more than the total Covered Service Monthly Charges for the Site that month.

### **Validation of Managed Router MPLS Site-to-MPLS Site Latency, MPLS Site-to-MPLS Site Data Delivery, and MPLS Site-to-MPLS Site Jitter SLA Claims**

Validation of the first three (3) MPLS Site-to-MPLS Site Latency, the first three (3) MPLS Site-to-MPLS Site Data Delivery, or the first three (3) MPLS Site-to-MPLS Site Jitter SLA claim requests for the same Qualifying Pair during a six (6) month rolling period will be based on the average monthly performance metrics reported in the "Average" column of the Customer's Site to Site reports. Beginning with the fourth MPLS Site-to-MPLS Site Latency, or the fourth MPLS Site-to-MPLS Site Data Delivery, or the fourth MPLS Site-to-MPLS Site Jitter SLA claim request for the same Qualified Pair in a rolling six (6) month period, AT&T will base validation of these claims on the monthly metrics published in the "Adjusted" column in these reports.

The metrics published in the Customer's Site to Site reports in the "Average" column reflect all MPLS Port utilization measured during a month. The metrics published in the Customer's Site to Site reports in the "Adjusted" column eliminate measurements taken during periods of Port utilization at excess levels, which can impact Latency, Data Delivery and Jitter measurements.

For MPLS Port sizes less than 512k, utilization above 50% will be eliminated from reported results. For MPLS Port sizes 512k and greater, utilization levels above 70% will be eliminated from reported results.

### **Claims Process**

In order for a Customer to be eligible to receive a credit under a SLA:

- The credit request must be submitted by the end of the month following the month in which the provisioning was completed or the performance objective failure occurred.
- A trouble ticket must be opened with respect to the trouble or service deficiency causing AT&T to miss a performance objective; except that trouble tickets need not be opened for Customer to be eligible for SLA credits under Network Latency, Network Data Delivery, and Network Jitter SLAs, and On-Time Provisioning SLAs. Customer is required to open a trouble ticket in order to be eligible for SLA credits for the:
  - MPLS Port Data Delivery SLA;
  - MPLS Port -to-MPLS Port Latency SLA;
  - Managed Router and or Managed CSU-Probe MPLS Site-to-MPLS Site Latency SLA;
  - Managed Router and or Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery SLA;
  - Managed Router MPLS Site-to-MPLS Site Jitter SLA; and
  - Site Availability/Time to Restore (Trouble tickets related to Site Availability/Time to Restore service deficiencies will be opened by AT&T at Sites where Customer has ordered the Managed Router and or Managed CSU-Probe Feature).

### **Use of Alternate Service**

If Customer elects to use another means of communications during the period of interruption, Customer must pay the charges for the alternative service used.

### **On-Time Provisioning SLA**

The performance objective for the On-Time Provisioning SLA is to complete installation of new Service at a Site, including AT&T-provided access lines, by the applicable Due Date. If AT&T does not meet this performance objective, Customer is eligible to:

- Receive a credit equal to one month of the discounted Covered Monthly Charges for the Site that was not installed on time.
- Moves
- Add the Managed Router feature to existing Service
- Add router cards to router
- Resiliency
- Disconnect router or router/port

For Service with Managed CSU-Probe, On-Time Provisioning SLA applies to the following physical MACDs:

The On-Time Provisioning SLA also applies to Customer change orders. Customer shall receive a credit of 50% of the Non-Recurring charges for Ports, PVCs, COS Packages, or CIR changes.

For Service with Managed Router, the On-Time Provisioning SLA applies to the following physical MACDs:

- Add Managed CSU-Probe to a Site.
- Disconnect managed CSU-Probe from a Site.

The performance objective is to complete the above-listed physical MACDs by the applicable



Due Date. If AT&T does not meet this performance objective, Customer is eligible to receive a credit equal to 50% of the one-time charge for the physical MACD.

If AT&T agrees to expedite an order for a Service Component, the On-Time Provisioning SLA applies to the original Due Date provided by AT&T, not the expedited date.

### **Latency**

AT&T provides Latency SLAs for Network Latency, MPLS Port-to-MPLS Port Latency, and MPLS Managed Router and Managed CSU-Probe MPLS Site-to-MPLS Site Latency.

### **Network Latency SLA**

The performance objectives for the Network Latency SLA are for the Network Latency to be no greater than the latencies set forth in the Network Latency Performance Objectives Table.

If AT&T does not meet this performance objective in a given calendar month, Customer is eligible for a Network Latency SLA credit equal to 1/30th of Customer's total discounted Covered Monthly Charges for the affected Sites for that month.

"Network Latency" is a monthly measure of the AT&T network-wide delay within the Region, which is the average interval of time it takes during the applicable calendar month for test packets of data to travel between selected pairs of AT&T Network Nodes within the Region. Specifically, the time it takes test packets to travel from one AT&T Network Node in a pair to another and back is measured for selected pairs of AT&T Network Nodes in the Region over the month. Latency for the month is the average of these measurements.

### **Network Latency Performance Objectives Table**

<b>Network Latency Performance Objectives Table</b>	
<b>Region</b>	<b>Performance Objectives</b>
United States*	37 ms

\*Measurements for the US Region includes Sites located within the US Mainland only but will be used to determine credits for US Sites generally (including Alaska, Hawaii, Puerto Rico and the Virgin Islands).

### **Transport MPLS Port-to-MPLS Port Latency SLA**

The performance objectives for the Transport MPLS Port-to-MPLS Port Latency SLA are to be no more than the latencies set forth by AT&T per the below Objective Table.

<b>Transport MPLS Port-to-MPLS Port Latency Performance Objectives Table</b>	
<b>Region</b>	<b>Performance Objectives</b>
United States	100 ms

If Customer reports that an MPLS Port pair does not meet the performance objective, AT&T's testing verifies that the MPLS Port pair does not meet the performance objective and AT&T fails to remedy the problem within thirty (30) calendar days, Customer is eligible for an MPLS Port-to-MPLS Port Latency SLA credit in an amount equal to 10% of Customer's discounted Covered Monthly Charges for the affected Sites.

"MPLS Port-to-MPLS Port Latency" is the interval of time it takes for a test packet to travel from the ingress MPLS Port to the egress MPLS Port and back again, measured when the MPLS Ports are not being used to transmit any other data.

## Managed Router MPLS Site-to-MPLS Site Latency SLA

The Managed Router MPLS Site-to-MPLS Site Latency SLA is available only for a Qualifying Pair. The performance objectives for the Managed Router MPLS Port-to-MPLS Port Latency SLA are to be no more than the latencies set forth by AT&T per the below Objective Table.

Managed Router MPLS Site to MPLS Site Latency Performance Objectives Table					
	COS 1	COS 2	COS 2V	COS 3	COS 4
<b>Between Port Types</b>					
T1 and T1	104 ms	108 ms	108 ms	120 ms	120 ms
T1 and NxT1	104 ms	108 ms	108 ms	120 ms	120 ms
T1 and 5Mb Ethernet	104 ms	106 ms	106 ms	112 ms	112 ms
T1 and all other Ethernet	104 ms	106 ms	106 ms	112 ms	112 ms
5Mb to 5Mb	104 ms	104 ms	104 ms	104 ms	104 ms
Between All $\geq$ 5Mb Ethernet	104 ms	104 ms	104 ms	104 ms	104 ms

Managed Router MPLS Site-to-MPLS Site Latency SLA is measured from the managed router at one Site to the managed router at the other Site in a Qualifying Pair for each class of service to which the Customer subscribes. Customers who subscribe to 4CoS are eligible for AT&T Managed Router VPN MPLS Site-to-MPLS Site Latency SLAs on Port speeds equal to 56k and greater for CoS1, CoS2, and CoS3. Customer who subscribe to 6CoS are eligible for Managed Router MPLS Site-to-MPLS Site Latency SLAs on Port speeds equal to T1/E1 and higher for CoS1, CoS2v, CoS2, CoS3 and CoS5. In order to qualify for a Managed Router MPLS Site-to-MPLS Site Latency SLA on CoS5, Customer will need to allocate a minimum of 5% bandwidth to CoS5. Managed Router MPLS Site-to-MPLS Site Latency SLA does not apply to CoS4. The monthly average Managed Router MPLS Site-to-MPLS Site Latency performance for each Qualifying Pair is compared with the Managed Router MPLS Site-to-MPLS Site Latency performance objective to determine if a Qualifying Pair meets the SLA. Managed Router MPLS Site-to-MPLS Site Latency performance objectives are subject to change if the bandwidth changes at AT&T CPE at either Qualifying Site in the Qualifying Pair.

If a Customer reports that a Qualifying Pair does not meet the Managed Router MPLS Site-to-MPLS Site Latency performance objective, and AT&T verifies the claim, the Customer is eligible for a Managed Router MPLS Site-to-MPLS Site Latency SLA credit in an amount equal to 10% of Customer's discounted Covered Monthly Charges for the affected Sites in the Qualifying Pair.

## Managed CSU-Probe MPLS Site-to-MPLS Site Latency SLA

The Managed CSU-Probe MPLS Site-to-MPLS Site Latency SLA applies to Managed CSU-Probe Sites in a single Customer-designed VPN. "Managed CSU-Probe MPLS Site-to-MPLS Site Latency" is the interval of time it takes for a test packet to travel from the ingress MPLS CSU to the egress MPLS CSU and back again, measured when the MPLS CSUs are not being used to transmit any other data.

The performance objective for the Managed CSU-Probe MPLS Site-to-MPLS Site Latency SLAs are found in the Performance Objective table below.



<b>Managed CSU-Probe MPLS Site to MPLS Site Latency Performance Objectives Table</b>	
<b>Between Port Types</b>	<b>Objective</b>
T1 and T1	120 ms
T1 and NxT1	120 ms
T1 and 5Mb Ethernet	112 ms
T1 and all other Ethernet	112 ms
5Mb to 5Mb	104 ms
Between All $\geq$ 5Mb Ethernet	104 ms

If Customer reports that a CSU-Probe-MPLS Site pair does not meet the performance objective, AT&T's testing verifies that the CSU-Probe-MPLS Site pair does not meet the performance objective and AT&T fails to remedy the problem within thirty (30) calendar days, Customer is eligible for a Managed CSU-Probe MPLS Site-to-MPLS Site Latency SLA credit in an amount equal to 10% of Customer's discounted Covered Monthly Charges for the affected MPLS Sites.

### **Network Data Delivery SLA**

The performance objectives for the Network Data Delivery SLA are for the Network Data Delivery percentages within a Region to be no less than those set forth in the Network Data Delivery Performance Objectives Table.

If AT&T does not meet this performance objective in a given calendar month, Customer is eligible for an Network Data Delivery SLA credit equal to 1/30th of Customer's total discounted Covered Monthly Charges for the Sites in the affected Region for that month.

The "Network Data Delivery Percentage" for a Region is the average Data Delivery percentage for that month for all selected pairs of AT&T Network Nodes in the Region calculated by dividing Data Received by Data Delivered and multiplying by 100.

"Data Delivered" is the number of test packets of data delivered in a month by AT&T to an ingress router at an AT&T Network Node in a Region for delivery to an egress router at another specific AT&T Network Node in the Region.

"Data Received" is the number of such test packets of data that are actually received by the egress router at the other AT&T Network Node in the Region.

### **Network Data Delivery Performance Objectives Table**

<b>Network Data Delivery Performance Objectives Table</b>	
<b>Region</b>	<b>Performance Objectives</b>
United States*	99.95%

\*Measurements for the US Region include Sites located within the US Mainland only but will be used to determine credits for US Sites generally (including Alaska, Hawaii, Puerto Rico and the Virgin Islands).

### **Transport MPLS Port Data Delivery SLA**

The performance objective for the Transport MPLS Port Data Delivery SLA is for the MPLS Port Data Delivery percentage for Customer's VPN to be no less than 99.9%. If Customer reports that MPLS Port Data Delivery does not meet the performance objective, AT&T's testing verifies that AT&T does not meet the performance objective and AT&T fails to remedy the problem within thirty (30) calendar days, Customer is eligible for a MPLS Port Data Delivery SLA credit in an amount equal to 10% of Customer's discounted Covered Monthly Charges for two of the affected Sites.

The MPLS Port Data Delivery percentage is calculated by dividing Data Received by Data Delivered during AT&T's testing and multiplying the result by 100.

“Data Delivered” is the total number of packets of data transmitted to all MPLS Ports in Customer’s VPN.

“Data Received” is the total number of packets of data received by all MPLS Ports in Customer’s VPN.

### **Managed Router MPLS Site-to-MPLS Site Data Delivery SLA**

The Managed Router MPLS Site-to-MPLS Site Data Delivery SLA is available only for a Qualifying Pair. The performance objective for the Managed Router MPLS Site-to-MPLS Site Data Delivery SLA is for the Managed Router MPLS Site-to-MPLS Site Data Delivery Percentage for a month to be no less than objective established in the table below:

<b>Managed Router MPLS Site to MPLS Site Data Delivery Performance Objectives Table</b>					
	<b>COS 1</b>	<b>COS 2</b>	<b>COS 2V</b>	<b>COS 3</b>	<b>COS 4</b>
<b>Objective:</b>	99.90%	99.90%	99.90%	99.80%	99.80%

Managed Router MPLS Site-to-MPLS Site Data Delivery SLA is measured from the managed router at one Site to the managed router at the other Site in the Qualifying Pair for each class of service. Customers who subscribe to 4CoS are eligible for Managed Router MPLS Site-to-MPLS Site Data Delivery SLAs on Port speeds equal to 56k and higher for CoS1, CoS2 and CoS3. Customers who subscribe to 6CoS are eligible for Managed Router MPLS Site-to-MPLS Site Data Delivery SLAs on Port speeds equal to T1/E1 and higher on CoS1, CoS2v, CoS2, CoS3 and CoS5. In order to qualify for a Managed Router MPLS Site-to-MPLS Site Data Delivery SLA on CoS5, Customer will need to allocate a minimum of 5% bandwidth to CoS5. Managed Router MPLS Site-to-MPLS Site Data Delivery SLA does not apply to CoS4.

The Managed Router MPLS Site-to-MPLS Site Data Delivery Percentage is the average Data Delivery Percentage for that month for a Qualifying Pair calculated by dividing Data Received by Data Delivered segregated by COS, and multiplying by 100.

- “Data Delivered” is the number of test packets of data delivered in a monthly by AT&T to an ingress router at one Qualifying Site for delivery to an egress router at the other Qualifying Site in the Qualifying Pair.
- “Data Received” is the number of such test packets of data that are actually received by the egress router at the Qualifying Site in the Qualifying Pair.

The Managed Router MPLS Site-to-MPLS Site Data Delivery Percentage for each Qualifying Pair is compared with the performance objective for each CoS ordered to determine if a Qualifying Pair meets the performance objective.

If Customer reports that AT&T did not meet the Managed Router MPLS Site-to-MPLS Site Data Delivery SLA for a Qualifying Pair during a month and AT&T verifies the claim, the Customer is eligible for the Managed Router MPLS Site-to-MPLS Site Data Delivery SLA credit in an amount equal to 10% of Customer’s discounted Covered Monthly Charges for the affected Sites in the Qualifying Pair.

### **Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery SLA**

The performance objective for the Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery SLA is for Data Delivery during a test to be at least 99.8%. Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery is measured from the Managed CSU-Probe at one Site to the Managed CSU-Probe at the other Site.

Data Delivery is calculated by dividing Data Received by Data Delivered during a test and multiplying by 100.

- “Data Delivered” is the number of test packets of data delivered by AT&T to an ingress

Managed CSU-Probe for delivery to another egress Managed CSU-Probe.

- “Data Received” is the number of test packets of data that are actually received by the egress Managed CSU-Probe.

When the Unilink feature is used by Customer to configure multiple VPNs, the Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery SLA applies only when both Sites being measured are part of the same Customer-designated VPN.

If Customer reports that Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery does not meet the performance objective, AT&T’s testing verifies that AT&T does not meet the performance objective and AT&T fails to remedy the problem within thirty (30) calendar days, Customer is eligible for a Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery SLA credit in an amount equal to 10% of Customer’s discounted Covered Monthly Charges for the two affected Sites.

Managed CSU-Probe MPLS Site-to-MPLS Site reports are not used for measurement or validation of Managed CSU-Probe MPLS Site-to-MPLS Site Data Delivery.

### **Jitter**

AT&T provides Jitter SLAs for Network Jitter and Managed Router MPLS Site-to-MPLS Site Jitter.

### **Network Jitter SLA**

The performance objective for the Network Jitter SLA is for Network Jitter in a given month to be no more than the jitter set forth in the Network Jitter Performance Objectives Table.

If AT&T does not meet this performance objective, Customer is eligible for a Network Jitter SLA credit equal to 1/30th of Customer's total discounted Covered Monthly Charges for the Sites in the affected Region for that month.

“Network Jitter” is a monthly measure of the AT&T Network-wide IP packet delay variation within the applicable Region, which is the average difference in the interval of time it takes during the applicable calendar month for selected pairs of test packets of data in data streams to travel between pairs of AT&T Network Nodes in the Region. Specifically, the difference in time it takes a selected pair of test packets in a data stream to travel from one AT&T Network Node in a pair to another is measured for selected pairs of AT&T Network Nodes in the Region over the month. One of the test packets in the selected pair will always be a packet in the data stream that takes the least time to travel from one AT&T Network Node in a pair to another. VPN Network Jitter for the month is the average of these measurements.

### **Network Jitter Performance Objectives Table**

<b>Network Jitter Performance Objectives Table</b>	
<b>Region</b>	<b>Performance Objectives</b>
United States*	1.0 ms

\*Measurements for the US Region includes Sites located within the US Mainland only but will be used to determine credits for US Sites generally (including Alaska, Hawaii, Puerto Rico and the Virgin Islands).

### **Managed Router MPLS Site-to-MPLS Site Jitter SLA**

The Managed Router MPLS Site-to-MPLS Site Jitter SLA is available only to a Qualifying Pair. The performance objectives is for the Managed Router MPLS Site-to-MPLS Site Jitter average for a month to be no more than the performance objective stated for both Sites in the Qualifying Pair as noted in the table below.

<b>Managed Router MPLS Site to MPLS Site Jitter Performance Objectives Table</b>		
	<b>COS 1</b>	<b>COS 2V</b>
<b>Between Port Types</b>		
T1 and T1	10 ms	12 ms
T1 and NxT1	10 ms	12 ms
T1 and 5Mb Ethernet	9 ms	11 ms
T1 and all other Ethernet	9 ms	11 ms
5Mb to 5Mb	8 ms	10 ms
Between All $\geq$ 5Mb Ethernet	8 ms	10 ms

Managed Router MPLS Site-to-MPLS Site Jitter refers to the variation in packet transit delay between Qualifying Sites in a Qualifying Pair and is measured one way from the managed router at one Site to the managed router at the other Site in a Qualifying Pair. The Managed Router MPLS Site-to-MPLS Site Jitter SLA is available to Customers who subscribe to 4CoS for CoS1 only on Ports at speeds of 768k and higher. Managed Router MPLS Site-to-MPLS Site Jitter SLA is available to Customers who subscribe to 6CoS for CoS1 and CoS2V on Ports at speeds of T1 and higher. The performance objectives are subject to change if the bandwidth changes at either customer edge router in the Qualifying Pair.

The monthly average Managed Router MPLS Site-to-MPLS Site Jitter performance for each Qualifying Pair is compared with the one way Managed Router MPLS Site-to-MPLS Site Jitter performance objective to determine if a Qualifying Pair meets the SLA.

If Customer reports that AT&T did not meet the Managed Router MPLS Site-to-MPLS Site Jitter performance objective for a Qualifying Pair and AT&T verifies the claim, Customer is eligible for the Managed Router MPLS Site-to-MPLS Site Jitter SLA credit in an amount equal to 10% of Customer's discounted Covered Monthly Charges for the affected Sites in the Qualifying Pair.

#### **Site Availability/Time to Restore SLA**

The performance objective for the Site Availability/Time to Restore SLA is for the AT&T VPN Site Availability to be 100%. If AT&T does not meet this performance objective, Customer is eligible for a Site Availability/Time to Restore SLA credit for each Outage equal to the Customer's total discounted Covered Monthly Charges for the affected MPLS Port, multiplied by a percentage based on the duration of (Time to Restore) the Outage, as set forth in the Site Availability/Time to Restore SLA Credit Table.

"Outage" means an occurrence within the AT&T Network (including Managed CPE) and/or the AT&T-provided access that results in the inability of Customer to transmit or receive IP packets for more than one minute.

Measurement of an Outage for SLA credit purposes begins when a trouble ticket is opened by AT&T Customer Care and Customer releases the affected Service Component(s) to AT&T (when it is necessary for AT&T to diagnose and/or restore a Service Component into use) and ends when AT&T Customer Care makes its first attempt to notify Customer that the problem has been resolved and the Service Components are restored and available for Customer to use.

For sites located outside of the United States any outage time shall exclude time that is outside of the standard operating hours of the local access provider used by AT&T for the affected Customer Site.

## Site Availability/Time to Restore SLA Credit Table

Site Availability/Time to Restore SLA Credit Table		
Time to Restore Outage		U.S. Credit
Equal To or Greater Than:	Or Less Than:	
6 hours	7 hours	25%
7 hours	8 hours	25%
8 hours	9 hours	50%
9 hours	10 hours	50%
10 hours	11 hours	50%
11 hours	12 hours	50%
12 hours	13 hours	50%
13 hours	14 hours	50%
14 hours	15 hours	50%
15 hours	16 hours	50%
16 hours	17 hours	100%
17 hours	18 hours	100%
18 hours	19 hours	100%
19 hours	20 hours	100%
20 hours	21 hours	100%
21 hours	22 hours	100%
22 hours	23 hours	100%
23 hours	24 hours	100%
24 hours	36 hours	100%
36 hours	48 hours	100%
48 hours	72 hours	100%
72 hours	>72 hours	100%

### SERVICE AVAILABILITY/LIMITATIONS:

Service is available in Connecticut.

### INSTALLATION INTERVALS:

T1, NxT1 access: \*30-40 days from receipt of order

Ethernet access: \*100-130 days from receipt of order

\*Subject to capacity and availability.

MASTER AGREEMENT NUMBER: **B-03-012** DAS APPROVAL DATE: **7/29/2015**

**VENDOR NAME: AT&T Corporation**

**SERVICE NAME: AT&T VPN (AVPN) Service**

Activity (Add, Delete, Change)	Date of Vendor Request	Date Approved By DAS	Item	Item Code	Description of Service/Equipment	Bandwidth	Unit	Non-Recurring Unit Cost	Recurring Unit Cost
Add	07/07/15	07/29/15	1		AVPN MPLS Port 1.544M/1.536M / T1 per port	1.544 Mb	Port	\$0.00	\$131.76
Add	07/07/15	07/29/15	2		AVPN MPLS Port 3.088 Mb / 2xT1 per port	3.088 Mb	Port	\$0.00	\$208.98
Add	07/07/15	07/29/15	3		AVPN MPLS Port 4.632 Mb / 3xT1 per port	4.632 Mb	Port	\$0.00	\$274.32
Add	07/07/15	07/29/15	4		AVPN MPLS Port 2 Mb / Ethernet per port	2 Mb	Port	\$0.00	\$168.48
Add	07/07/15	07/29/15	5		AVPN MPLS Port 3 Mb / Ethernet per port	3 Mb	Port	\$0.00	\$203.04
Add	07/07/15	07/29/15	6		AVPN MPLS Port 4 Mb / Ethernet per port	4 Mb	Port	\$0.00	\$236.79
Add	07/07/15	07/29/15	7		AVPN MPLS Port 5 Mb / Ethernet per port	5 Mb	Port	\$0.00	\$185.64
Add	07/07/15	07/29/15	8		AVPN MPLS Port 6 Mb / Ethernet per port	6 Mb	Port	\$0.00	\$196.86
Add	07/07/15	07/29/15	9		AVPN MPLS Port 7 Mb / Ethernet per port	7 Mb	Port	\$0.00	\$211.99
Add	07/07/15	07/29/15	10		AVPN MPLS Port 8 Mb / Ethernet per port	8 Mb	Port	\$0.00	\$229.33
Add	07/07/15	07/29/15	11		AVPN MPLS Port 9 Mb / Ethernet per port	9 Mb	Port	\$0.00	\$246.67
Add	07/07/15	07/29/15	12		AVPN MPLS Port 10 Mb / Ethernet per port	10 Mb	Port	\$0.00	\$259.42
Add	07/07/15	07/29/15	13		AVPN MPLS Port 20 Mb / Ethernet per port	20 Mb	Port	\$0.00	\$356.49
Add	07/07/15	07/29/15	14		AVPN MPLS Port 30 Mb / Ethernet per port	30 Mb	Port	\$0.00	\$473.45
Add	07/07/15	07/29/15	15		AVPN MPLS Port 40 Mb / Ethernet per port	40 Mb	Port	\$0.00	\$571.20
Add	07/07/15	07/29/15	16		AVPN MPLS Port 50 Mb / Ethernet per port	50 Mb	Port	\$0.00	\$682.04
Add	07/07/15	07/29/15	17		AVPN MPLS Port 60 Mb / Ethernet per port	60 Mb	Port	\$0.00	\$796.11
Add	07/07/15	07/29/15	18		AVPN MPLS Port 70 Mb / Ethernet per port	70 Mb	Port	\$0.00	\$902.70
Add	07/07/15	07/29/15	19		AVPN MPLS Port 80 Mb / Ethernet per port	80 Mb	Port	\$0.00	\$971.89
Add	07/07/15	07/29/15	20		AVPN MPLS Port 90 Mb / Ethernet per port	90 Mb	Port	\$0.00	\$1,059.78
Add	07/07/15	07/29/15	21		AVPN MPLS Port 100 Mb / Ethernet per port	100 Mb	Port	\$0.00	\$1,140.19
Add	07/07/15	07/29/15	22		AVPN MPLS Port 150 Mb / Ethernet per port	150 Mb	Port	\$0.00	\$1,654.44
Add	07/07/15	07/29/15	23		AVPN MPLS Port 200 Mb / Ethernet per port	200 Mb	Port	\$0.00	\$2,184.50
Add	07/07/15	07/29/15	24		AVPN MPLS Port 250 Mb / Ethernet per port	250 Mb	Port	\$0.00	\$2,570.06
Add	07/07/15	07/29/15	25		AVPN MPLS Port 300 Mb / Ethernet per port	300 Mb	Port	\$0.00	\$2,830.67
Add	07/07/15	07/29/15	26		AVPN MPLS Port 400 Mb / Ethernet per port	400 Mb	Port	\$0.00	\$3,351.55



**VENDOR NAME: AT&T Corporation**

**SERVICE NAME: AT&T VPN (AVPN) Service**

Activity (Add, Delete, Change)	Date of Vendor Request	Date Approved By DAS	Item	Item Code	Description of Service/Equipment	Bandwidth	Unit	Non-Recurring Unit Cost	Recurring Unit Cost
Add	07/07/15	07/29/15	27		AVPN MPLS Port 450 Mb / Ethernet per port	450 Mb	Port	\$0.00	\$3,611.99
Add	07/07/15	07/29/15	28		AVPN MPLS Port 500 Mb / Ethernet per port	500 Mb	Port	\$0.00	\$3,416.85
Add	07/07/15	07/29/15	29		AVPN MPLS Port 600 Mb / Ethernet per port	600 Mb	Port	\$0.00	\$3,876.00
Add	07/07/15	07/29/15	30		AVPN MPLS Port 700 Mb / Ethernet per port	700 Mb	Port	\$0.00	\$4,885.95
Add	07/07/15	07/29/15	31		AVPN MPLS Port 800 Mb / Ethernet per port	800 Mb	Port	\$0.00	\$5,334.15
Add	07/07/15	07/29/15	32		AVPN MPLS Port 900 Mb / Ethernet per port	900 Mb	Port	\$0.00	\$5,804.55
Add	07/07/15	07/29/15	33		AVPN MPLS Port 1,000 Mb / Ethernet per port	1,000 Mb	Port	\$0.00	\$6,271.20
Add	07/07/15	07/29/15	34		MPLS Managed Router-Basic (Cisco 1921, 2901, or similar) AT&T Owned and Managed		each	\$0.00	\$138.65
Add	07/07/15	07/29/15	35		MPLS Managed Router-Small (Cisco 2811, 2911, or similar) AT&T Owned and Managed		each	\$0.00	\$148.05
Add	07/07/15	07/29/15	36		MPLS Managed Router-Medium (Cisco 2921 or similar) AT&T Owned and Managed		each	\$0.00	\$183.30
Add	07/07/15	07/29/15	37		MPLS Managed Router-Large (Cisco 3925 or similar) AT&T Owned and Managed		each	\$0.00	\$347.80
Add	07/07/15	07/29/15	38		MPLS Managed Router-XLarge (Cisco 3945 or similar) AT&T Owned and Managed		each	\$0.00	\$437.10
Add	07/07/15	07/29/15	39		MPLS Managed Router-XL+ (Cisco ASR 1001 or similar) AT&T Owned and Managed		each	\$0.00	\$911.60
Add	07/07/15	07/29/15	40		MPLS Managed Router-XXL (Cisco ASR1002 or similar) AT&T Owned and Managed		each	\$0.00	\$1,126.40
Add	07/07/15	07/29/15	41		AVPN Managed CPE Feature / Gig Ethernet Card		each	\$0.00	\$28.00
Add	07/07/15	07/29/15	42		T1.5 Local Access 0-25 Miles from AT&T POP (See Note 2)	T1.5	Circuit	\$0.00	\$265.00
Add	07/07/15	07/29/15	43		T1.5 Local Access 26-50 Miles from AT&T POP (See Note 2)	T1.5	Circuit	\$0.00	\$462.00
Add	07/07/15	07/29/15	44		T1.5 Local Access 51 Miles and Over to the AT&T POP (See Note 2)	T1.5	Circuit	\$0.00	\$350.00 + \$6.50 per mile
Add	07/07/15	07/29/15	45		T1.5 Local Access for 55 Farmington Avenue, Hartford, CT	T1.5	Circuit	\$0.00	\$265.00
Add	07/07/15	07/29/15	46		5 Mb Ethernet Access Circuit (See Note 1)	5 Mbps	Circuit	\$0.00	\$563.14
Add	07/07/15	07/29/15	47		10 Mb Ethernet Access Circuit (See Note 1)	10 Mbps	Circuit	\$0.00	\$600.00
Add	07/07/15	07/29/15	48		20 Mb Ethernet Access Circuit (See Note 1)	20 Mbps	Circuit	\$0.00	\$687.98

MASTER AGREEMENT NUMBER: **B-03-012** DAS APPROVAL DATE: **7/29/2015**

**VENDOR NAME: AT&T Corporation**

**SERVICE NAME: AT&T VPN (AVPN) Service**

Activity (Add, Delete, Change)	Date of Vendor Request	Date Approved By DAS	Item	Item Code	Description of Service/Equipment	Bandwidth	Unit	Non-Recurring Unit Cost	Recurring Unit Cost
Add	07/07/15	07/29/15	49		50 Mb Ethernet Access Circuit (See Note 1)	50 Mbps	Circuit	\$0.00	\$837.43
Add	07/07/15	07/29/15	50		100 Mb Ethernet Access Circuit (See Note 1)	100 Mbps	Circuit	\$0.00	\$965.60
Add	07/07/15	07/29/15	51		150 Mb Ethernet Access Circuit (See Note 1)	150 Mbps	Circuit	\$0.00	\$2,034.04
Add	07/07/15	07/29/15	52		250 Mb Ethernet Access Circuit (See Note 1)	250 Mbps	Circuit	\$0.00	\$2,947.22
Add	07/07/15	07/29/15	53		500 Mb Ethernet Access Circuit (See Note 1)	500 Mbps	Circuit	\$0.00	\$4,171.08
Add	07/07/15	07/29/15	54		600 Mb Ethernet Access Circuit (See Note 1)	600 Mbps	Circuit	\$0.00	\$4,504.97
Add	07/07/15	07/29/15	55		1,000 Mb Ethernet Access Circuit (See Note 1)	1,000 Mbps	Circuit	\$0.00	\$5,054.88
NOTES -									

1. Further discounts can be requested (although not guaranteed) on an ICB basis for the Ethernet access circuits (Items 46-55).
2. Consult your AT&T Account Team for T1.5 access pricing specific to your location. Further discounts on T1.5 Local Access can be requested (although not guaranteed) on an ICB basis. (Items 42-44)