# **Sample SLAs for IP VPNs**

## Summaries:

## Cable & Wireless (Japan)

Network Availability	• 100%	
Packet Loss	Less than 1% between all NOCs	
Backbone Latency	<ul> <li>Less than 35ms (monthly average domestic roundtrip)</li> </ul>	
	<ul> <li>Less than 180 ms (monthly average Japan-U.S. roundtrip)</li> </ul>	
VPN Latency	Not specified	
Outage Notification Time	Less than 30 minutes between outage and customer notification	
Credits	<ul> <li>1 day of credit for 10 to 180 minutes downtime</li> </ul>	
	<ul> <li>3 days of credit for more than 180 minutes</li> </ul>	
	<ul> <li>15% of monthly charges for IP VPN service if one or more performance objectives are not met</li> </ul>	

## **PSINet**

Network Availability	• 99%	
Packet Loss	1% or less on backbone	
Backbone Latency	<ul> <li>85 ms (monthly average roundtrip in North America and Europe)</li> </ul>	
	<ul> <li>120 ms (monthly average roundtrip transatlantic)</li> </ul>	
	<ul> <li>180 ms (monthly average roundtrip Asia Pacific to North America)</li> </ul>	
VPN Latency	Not specified	
Outage Notification	Not specified	
Credits	<ul> <li>1 day per consecutive hour of unavailability, up to 7 days' credit</li> <li>1 day of credit if packet loss not met for 2 consecutive months, plus</li> <li>1 day of credit for each continuous subsequent month</li> <li>1 day of credit if latencies not met for 2 consecutive months, plus 1 day of credit for each continuous subsequent month</li> </ul>	

## **Sprint**

Network Availability	<ul> <li>100% for enhanced Broadband Metro-area SONET (BMAN)</li> <li>99.9% for (unenhanced) BMAN or traditional access</li> </ul>
Packet Loss	Not specified
Backbone Latency	70 ms (monthly average roundtrip)
VPN Latency	Not specified
Busy-free dial access	• 99.0%
Outage notification	Not specified
Credits	<ul> <li>3 day port charge credit for outages less than an hour, additional day of credit for each hour beyond the first, up to 100% of monthly port charge</li> <li>10% monthly port charge credit if latencies not met</li> <li>10% of montly port charge if busy-free access not met</li> </ul>

## **UUNet**

Network Availability	<ul> <li>99.9% (customers with 10 or more sites)</li> </ul>
	<ul> <li>99.8% (customers with 3-9 sites)</li> </ul>
Packet Loss	1% or less
Backbone Latency	<ul> <li>65 ms (roundtrip monthly average, North America and Europe)</li> </ul>
	<ul> <li>120 ms (roundtrip monthly average, Transatlantic)</li> </ul>
VPN Latency	<ul> <li>120 ms within Europe or within North America</li> </ul>
	<ul> <li>300 ms between Europe and North America</li> </ul>
Outage notification	Outages reported within 15 minutes of occurrence
Credits	<ul> <li>5 days for failure to meet VPN availability commitment</li> </ul>
	<ul> <li>1 day for failure to meet packet loss commitment (specific credits for packet loss on VPN not specified)</li> </ul>
	<ul> <li>5 days for failure to meet VPN latency commitment</li> </ul>

## Verio

Network Availability	• 99.93%	
Packet Loss	Not specified	
Backbone Latency	Not specified	
VPN Latency	Not specified	
Outage notification	15 minutes for firewall outage	
Credits	<ul> <li>1 days' credit for over 90 minutes of outage</li> </ul>	
	<ul> <li>1 additional day for each additional continuous 24-hour period of outage</li> </ul>	

## @Link (Independent VPN provider, using ATM)

Network Availability	• 99.99%
Cell Throughput	99.99% of guaranteed minimum bandwidth (Guarantees based on service tiers, ranging from 100% circuit speed to "best efforts")
Backbone Latency	80 ms average roundtrip
VPN Latency	Not specified
Outage notification	Customer responsible for notifying @Link
Credits	<ul> <li>Availability credited at 10% of monthly for 0-24 hours, 25% for 24-48 hours, 50% for 48-72 hours, 100% for more than 72 hours</li> <li>10% of monthly for affected circuit, for failure to meet throughput commitment</li> <li>10% of montly for failure to meet latency commitment</li> </ul>

## Company Descriptions of Service Level Agreements

## Cable & Wireless (Japan)

Security Services

#### 1. Performance Objectives

Cable & Wireless will use reasonable effort to meet the following criteria:

Software Diagnose and resolve a software failure or malfunction within 4 hours after Cable &

Problem: Wireless a trouble ticket\*.

Hardware Problem:

Correct a hardware problem within 10 hours after Cable & Wireless opens a trouble ticket.

Security Rule Implement an information change request required for changing security options within 4 Changes: hours after receipt of all information Cable & Wireless needs to proceed with the change.

#### 2. Performance Commitments

## 2.1 Scope of coverage

Cable & Wireless SLAs are applicable to each Security Service as follows:

	Software Problem	Hardware Problem	<b>Security Rule Changes</b>
Managed Firewall Access	0	0	О
Managed Firewall Hosting	0	0	
IP VPN-Internet Firewall-based	0	0	О
IP VPN-Internet Router-based	0	0	О

#### 2.2 Customer Credits

Cable & Wireless will issue a credit equal to 15% of the monthly charges for Managed Firewall Service and IP VPN-Internet Service if one or more of the performance objectives are not met for that month.

#### 2.3 Credit Procedures

Should the specified levels of service fail to achieve, the customer will be entitled to the credits and required to fill in and submit a credit application form within two (2) weeks of the fault occurrence.

Credits will normally be provided in the next billing cycle but may be carried over until a later billing cycle depending upon the nature of the customer contract and the timing of the fault occurrence.

<sup>\*</sup> The time when Cable & Wireless receives the customer reporting of a fault on his Security Service provided by us.

<sup>\*</sup> No more than one credit will be issued for a given monthly billing period.

#### 2.4 Other

The performance objectives do not apply to and no credits will be issued for

- 1. Outages or failures related to Cable & Wireless Internet Access Services
- 2. Testing or other operations requested by the customer
- 3. All work for maintenance or support as part of planned outages
- 4. Any problems caused by events beyond Cable & Wireless reasonable control

## **Cable & Wireless (Japan)**

Access Services

## 1. Performance Objectives

## 1.1 Network Availability

The network availability objective is 100% as calculated with the following formula: Availability

- = (Total Annual Minutes Mean Time To Restore (MTTR))/ Total Annual Minutes
- \* MTTR is the average downtime within a one-year period.

#### 1.2 Packet Loss

The packet loss objective between all Network Operations Centers (NOC) is less than 1%.

#### 1.3 Backbone Latency

Below are the objectives for the average monthly roundtrip latency for traffic within Cable & Wireless IDC's Internet network:

- Domestic Backbone Network
   The objectives for roundtrip latency between the Tokyo NOC and/or the Osaka NOC and all domestic NOCs is less than 35ms as averaged monthly.
- Japan-U.S. Backbone Network
   The objective for roundtrip latency between the Tokyo NOC and the Palo Alto NOC is less than 180ms as averaged monthly.

## 1.4 Outage Notification Time

The objective for the length of time between the service outage occurrence and notification of the trouble to the customer is less than 30 minutes.

#### 2. Performance Commitments

## 2.1 Scope of Coverage

The Cable & Wireless Internet access SLA sets out the following guarantees:

1. Internet Protocol (IP) transmission between the router located at our company's NOC and the router located on the customer's premises is possible at all times.

- 2. The router located at our company's NOC to connect the customer leased lines is available for use at all times.
- 3. Internet Protocol (IP) transmission is possible at all times between the router defined in (2) and Cable & Wireless IDC's backbone.
- \* Customer credits wouldn't be issued in case of the service outages caused by customer premises equipment, or leased lines used to support the service. This equipment includes routers or terminal adapters (TAs).

#### 2.2 Customer Credits

Length of Service Outage	Amount of Service Credit
Less than 10 minutes	None
10 minutes to 180 minutes	One-day's pro-rated portion of monthly recurring port charge
More than 180 minutes	Three-day's pro-rated portion of monthly recurring port charge

#### 2.3 Maximum Credit Allowance

A customer may receive no more than one service credit for the twenty-four(24)-hour period beginning with the opening of the trouble ticket\*, even if more than one outage occurs during that period\* (Refer to section 2.4 for the credit procedures). In addition, a customer's total credit in any contract year shall not exceed a thirty (30)-day's pro-rated portion of the monthly recurring port charge within a contract year.

\* The time when Cable & Wireless IDC receives the customer reporting of a fault on his Internet Service provided by us.

#### 2.4 Credit Procedures

In the event of credits resulting from outages exceeding 10 minutes as specified above, the customer is required to fill in and submit a credit application form within two weeks of the fault occurrence.

Credits will normally be provided in the next billing cycle but may be carried over until a later billing cycle depending upon the nature of the customer contract and the timing of the fault occurrence.

## 2.5 Other

Under no circumstances will credits be given for outages involving:

- 1. Customer premises equipment such as TAs and rental routers
- 2. Customer's leased line used for Cable & Wireless Internet Access Services
- 3. Outages associated with service installations
- 4. Testing or other operations requested by the customer
- 5. System partially down partial access router or port failure
- 6. All work for maintenance or support as part of planned outages

## **PSINet Network Availability Service Level Guarantee**

PSINet's Network Availability Service Level Guarantee ("Guarantee") is that the PSINet Network will be available 99% of the time. The PSINet Network is the combination of PSINet-operated equipment, servers, circuits, and other data transmission facilities comprising PSINet's TCP/IP wide-area network in the regions listed below. PSINet's Network Guarantee will be measured based on the number of minutes that the PSINet Network was not available as determined by PSINet based on the following conditions ("Unavailability").

North American Network Availability	99%
European Network Availability	99%

Each month's network performance statistics relating to the Guarantee shall be posted on the PSINet Customer Support Web Site (current customers only).

If PSINet determines that the Network is Unavailable for one (1) or more consecutive hours during any calendar month, PSINet, upon the customer's request, will credit the customer's monthly invoice the prorated charges of one (1) day of the PSINet service fee for each consecutive hour, up to a maximum of seven (7) days per month.

To receive the credit if this Guarantee has not been met, Customer must contact PSINet's customer service group within 30 days of the end of the month for which credit is requested.

Unavailability will not include Network unavailability of an hour or less, or any unavailability resulting from (a) Network maintenance, (b) circuits provided by telcos or other common carriers, (c) an external Internet Service Provider or an Internet exchange point, (d) acts or omissions of Customer or an authorized user, (e) behavior of Customer equipment, facilities or applications, or (f) acts of God, civil disorder, natural cataclysm or other occurrences beyond the reasonable control of PSINet.

Guarantee Coverage: Customers that register and have service in the applicable geographic region are covered for the following PSINet services: LAN-On-Demand, InterFrame, FrameConnect, the Internet access features of PSI IntraNet, InterMan, and Transit.

Customers with North American service sites are eligible for North American coverage. Customers with European service sites are eligible for European coverage.

## Packet Loss

#### **PSINet Packet Success Service Level Guarantee**

PSINet's packet success goal is based on the successful delivery of packets through the PSINet IP backbone in the regions listed below. Unsuccessful packets are deemed to be those dropped due to transmission errors or router overload before exiting the PSINet regional IP backbone.

Asia Pacific to North America	99% packet success
North American IP Backbone	99% packet success
Transatlantic IP Backbone	99% packet success

European IP Backbone	99% packet success
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PSINet's packet success Service Level Guarantee ("Guarantee") is successful delivery of packets will meet or exceed 99% between PSINet-designated IP backbone paths for the PSINet services listed below.

The measurement consists of 50 100-byte pings sent every 15 minutes. A daily average will be calculated using these 96 samples. The daily measurements will be averaged to calculate a monthly average.

Should PSINet fail to meet the Guarantee in two consecutive calendar months, Customer is entitled to a one (1) day prorated credit for the PSINet Monthly Membership Fee for the second month and an additional one (1) day prorated credit for any consecutive month in which the Guarantee is not met.

Each month's packet success performance statistics are posted on the PSINet Customer Support Web Site (current customers only).

To receive the credit if this Guarantee has not been met, Customer must contact PSINet's customer service group within 30 days of the end of the month for which credit is requested.

PSINet will not extend a credit if failure to meet the Guarantee is attributable to acts of God, civil disorder, natural cataclysm or other occurrences beyond the reasonable control of PSINet.

Guarantee Coverage: Customers that register and have service in the applicable geographic region are covered for the following PSINet services: LAN-On-Demand, InterFrame, FrameConnect, the Internet access features of PSI IntraNet, InterMAN, and Transit.

Customers with North American service sites are eligible for North American and Transatlantic coverage. Customers with European service sites are eligible for European and Transatlantic coverage.

## Latency

#### **PSINet Latency Service Level Guarantee**

PSINet's Latency Service Level Guarantee ("Guarantee") is based on an average round-trip transmission between PSINet-designated backbone POPs for the PSINet services listed below. Latency shall be measured by PSINet averaging sample measurements taken during a calendar month between such backbone POPs.

Asia Pacific to North America Latency	180 milliseconds or less
North American Latency	85 milliseconds or less
Transatlantic Latency	120 milliseconds or less
European Latency	85 milliseconds or less

Should PSINet fail to meet the Guarantee in two consecutive calendar months, Customer is entitled to a one (1) day prorated credit for the PSINet Monthly Membership Fee for the second month and an additional one (1) day prorated credit for any consecutive month in which the Guarantee is not met.

To receive the credit if this Guarantee has not been met, Customer must contact PSINet's customer service group within 30 days of the end of the month for which credit is requested.

PSINet will not extend a credit if failure to meet the Guarantee is attributable to acts of God, civil disorder, natural cataclysm or other occurrences beyond the reasonable control of PSINet.

Guarantee Coverage: Customers that register and have service in the applicable geographic region are covered for the following PSINet services: LAN-On-Demand, InterFrame, FrameConnect, the Internet access features of PSI IntraNet, InterMan, and Transit.

Customers with North American service sites are eligible for North American and Transatlantic coverage. Customers with European service sites are eligible for European and Transatlantic coverage.

## **Sprint (extended summary only)**

We understand that your business runs non-stop. That's why we back our Internet VPN Solutions with industry-leading performance guarantees and service credits. We offer a variety of service level agreements (SLAs) that give you the confidence and assurance that your Internet VPN Solutions keep pace with your business needs every step of the way.

 Dedicated access and backbone availability guarantee: Sprint guarantees 100% availability for customers with enhanced Broadband Metropolitan-area SONET Network (BMAN) access or a 99.9% availability guarantee with BMAN or traditional access.

In the unlikely event that a service outage occurs, Sprint provides up to 100 percent credit to a customer if service is unavailable. On outages of an hour or less, the customer receives a three-day, prorated monthly port charge credit. On outages over an hour, the customer receives an additional day credit for each hour the outage persists up to 100 percent of the monthly port charge.

- **Backbone delay guarantee:** Sprint guarantees a monthly average backbone delay of less than or equal to 70 ms roundtrip. In the unlikely event that Sprint does not meet this guarantee, we will credit you 10% of your monthly port charge.
- **Dial busy-free guarantee:** Sprint guarantees a minimum 99.0% busy-free dial access or Sprint will credit you 10% of your monthly dedicated port fee.

#### IP VPN Total Access Edition - Dedicated Access SLA

(The terms of this SLA, previously entitled "UUsecure VPN Total Access Edition - Dedicated Access SLA" and "UUsecure VPN Direct SLA", shall apply to UUsecure VPN Direct Customers or UUsecure Virtual Private Network Customers who have Service Level Agreements with UUNET.)

- 5. **Network Availability Guarantee:** The U.S. UUdirect Network Availability Guarantee set forth at <a href="http://www.us.uu.net/support/sla/terms/uudirect.html">http://www.us.uu.net/support/sla/terms/uudirect.html</a> will apply to each dedicated Internet access connection in the contiguous U.S. ordered as part of IP VPN Total Access Service, provided that references in that Network Availability Guarantee to credits calculated on the basis of a UUNET Monthly Fee shall mean the Monthly Fee for the dedicated Internet access connection for which that Network Availability Guarantee was not met, not the entire Monthly Fee for IP VPN Total Access Service.
- 6. **Network Latency Guarantee:** The U.S. UUdirect Network Latency Guarantee set forth at <a href="http://www.us.uu.net/support/sla/terms/uudirect.html">http://www.us.uu.net/support/sla/terms/uudirect.html</a> will apply to each dedicated Internet access connection in the contiguous U.S. ordered as part of IP VPN Total Access Service, provided that references in that Network Latency Guarantee to credits calculated on the basis of a UUNET Monthly Fee shall mean the Monthly Fee for the dedicated Internet access connection for which that Network Latency Guarantee was not met, not the entire Monthly Fee for IP VPN Total Access Service.
- 7. **Reporting Guarantee:** The U.S. UUdirect Outage Reporting Guarantee set forth at <a href="http://www.us.uu.net/support/sla/terms/uudirect.html">http://www.us.uu.net/support/sla/terms/uudirect.html</a> will apply to each dedicated Internet access connection in the contiguous U.S. ordered as part of IP VPN Total Access Service, provided that references in that Outage Reporting Guarantee to credits calculated on the basis of a UUNET Monthly Fee shall mean the Monthly Fee for the dedicated Internet access connection for which that Outage Reporting Guarantee was not met, not the entire Monthly Fee for IP VPN Total Access Service.
- 8. **Circuit Install Guarantee:** The U.S. UUdirect Circuit Install Guarantee set forth at <a href="http://www.us.uu.net/support/sla/terms/uudirect.html">http://www.us.uu.net/support/sla/terms/uudirect.html</a> will apply to each dedicated Internet access connection in the contiguous U.S. ordered as part of IP VPN Total Access Service, provided that references in that Circuit Install Guarantee to credits calculated on the basis of a UUNET Start-up Charge shall mean the Start-up Charge for the dedicated Internet access connection for which that Circuit Install Guarantee was not met, not the entire Start-up Charge for IP VPN Total Access Service.

## 9. IP VPN Dedicated Access Latency Guarantee

**Scope:** UUNET's IP VPN Dedicated Access Latency Guarantee is set as an average round trip transmission of (a) 120 milliseconds or less between Customer premise routers for an IP VPN with all of its sites in North America, (b) 120 milliseconds or less between Customer premise routers for an IP VPN with all of its sites within Europe, or (c) 300 milliseconds or less between Customer premise routers for an IP VPN if sites are located both in North America and Europe.

**Process:** Beginning in the first full calendar month after site installation, VPN Dedicated Access Latency shall be measured by averaging sample measurements taken during the calendar month between IP VPN Dedicated Access sites. Customer's IP VPN must include three or more Dedicated Access sites to qualify for UUNET's IP VPN Dedicated Access Latency Guarantee. Only sites meeting the SLA eligibility requirements set forth in the IP VPN Total Access Edition Site Order Form for the country in which the site is located will be included in this calculation. Sites outside North America or Europe shall not be included in this calculation. This IP VPN Dedicated Access Latency Guarantee is only applicable if Customer's sustained use level for each dedicated Internet access connection (as measured by UUNET) is less than or equal to 50% of the total capacity of that Customer dedicated Internet access connection. If Customer's sustained use level exceeds 50% of the total capacity of any Customer dedicated Internet access connection during any two consecutive months, Customer must place an order for a capacity upgrade within the 30 days following notice that the 50% sustained use level has been exceeded. If the upgrade is not ordered within such 30 day period, the site with the connection that exceeded the 50% sustained use level and all other IP VPN Total Access dedicated sites connected to that site shall be ineligible for this IP VPN Dedicated Access Latency Guarantee for the remainder of the Service Term.

**Remedy:** At Customer's request, directed to UUNET's designated point of contact in the 30 days following the end of the month in which UUNET failed to meet this IP VPN Dedicated Access Latency Guarantee, Customer's account shall be credited the pro-rated charges for five days of the dedicated access portion of the IP VPN Total Access Edition Monthly Fee for the month in which this IP VPN Dedicated Access Latency Guarantee was not met. No credits will be made if failure to meet this IP VPN Dedicated Access Latency Guarantee is attributable to reasons of Force Majeure (as defined in the applicable service agreement).

## 10. IP VPN Dedicated Availability Guarantee

**Scope:** UUNET's IP VPN Dedicated Access Availability Guarantee is to have the dedicated access portion of the IP VPN Total Access Service available 99.9% of the time, averaged over all eligible sites, for Customers with ten or more IP VPN Total Access dedicated sites and 99.8% of the time, averaged over all eligible sites, for Customers with three to nine IP VPN Total Access dedicated sites.

**Process:** Beginning in the first full calendar month after site installation, and at Customer's request, UUNET will calculate the IP VPN Dedicated Access Unavailability in a calendar month. IP VPN Dedicated Access Unavailability consists of the number of minutes that the dedicated access portion of the IP VPN Total Access Service, UUNETordered telco line, or the UUNET Network (as defined in the applicable Service Agreement) were unavailable to Customer through their dedicated access connection, but will not include Scheduled Maintenance (as defined in the UUdirect Network Availability Guarantee) or any unavailability resulting from (a) any Customer-ordered telco circuits, (b) Customer Equipment, applications or facilities, (c) acts or omissions of Customer or any use or user of the Service authorized by the Customer, or (d) reasons of Force Majeure (as defined in the applicable service agreement). Only sites meeting the SLA eligibility requirements set forth in the IP VPN Total Access Site Order Form for the country in which the site is located will be included in this calculation. Sites outside North America or Europe shall not be included in this calculation. This Availability Guarantee is only applicable if Customer's sustained use level for each dedicated Internet access connection (as measured by UUNET) is less than or equal to 50% of the total

capacity of that Customer connection. If Customer's sustained use level exceeds 50% of the total capacity of the Customer dedicated Internet access connection during any two consecutive months, Customer must place an order for a capacity upgrade within the 30 days following notice that the 50% sustained use level has been exceeded. If the upgrade is not ordered within such 30 day period, the connection that exceeded the 50% sustained use level and all other IP VPN Total Access dedicated sites connected to that site shall be ineligible for this IP VPN Dedicated Access Availability Guarantee for the remainder of the Service Term.

Remedy: At Customer's request, directed to UUNET's designated point of contact in the 30 days following the end of the month in which UUNET failed to meet this IP VPN Dedicated Access Availability Guarantee, Customer's account shall be credited the prorated charges for five days of the dedicated access portion of the IP VPN Total Access Monthly Fee for the month in which this IP VPN Dedicated Access Availability Guarantee was not met. No credits will be made if failure to meet this IP VPN Dedicated Access Availability Guarantee is attributable to reasons of Force Majeure (as defined in the applicable service agreement).

Network Availability / Latency / Packet Loss agreement

## **Network Latency Guarantees**

## North American Network Latency Guarantee Scope:

UUNET's North American Network Latency Guarantee is average round-trip transmissions of 65 milliseconds or less between UUNET-designated inter-regional transit backbone network routers ("Hub Routers") in North America.

#### **European Network Latency Guarantee Scope:**

UUNET's European Network Latency Guarantee is average round-trip transmissions of 65 milliseconds or less between UUNET-designated Hub Routers within Europe.

## Transatlantic Network Latency Guarantee Scope:

UUNET's Transatlantic Network Latency Guarantee is average round-trip transmissions of 120 milliseconds or less between a UUNET-designated Hub Router in the New York metropolitan area and a UUNET-designated Hub Router in the London metropolitan area.

## **Network Latency Guarantee Process:**

Latency shall be measured by averaging sample measurements taken during a calendar month between Hub Routers. Each month's Network performance statistics relating to the Network Latency Guarantees shall be posted at <a href="http://www.uu.net/customers/sla/latency.html">http://www.uu.net/customers/sla/latency.html</a>. No credits will be made if failure to meet a Network Latency Guarantee is attributable to reasons of Force Majeure (as defined in the applicable service agreement).

## **Network Latency Guarantee Remedy:**

If UUNET fails to meet any Network Latency Guarantee in any calendar month, Customer's account shall be automatically credited for that month for the pro-rated charges for one day of the UUNET Monthly Fee for the service with respect to which a Network Latency Guarantee has not been met.

#### **Network Packet Delivery Guarantee**

## **North American Network Packet Delivery Scope:**

UUNET's North American Network Packet Delivery Guarantee is packet delivery of 99% or greater between UUNET-designated Hub Routers in North America.

#### **European Network Packet Delivery Scope:**

UUNET's European Network Packet Delivery Guarantee is packet delivery of 99% or greater between UUNET-designated Hub Routers within Europe.

## **Transatlantic Network Packet Delivery Scope:**

UUNET's Transatlantic Network Packet Delivery Guarantee is packet delivery of 99% or greater between a UUNET-designated Hub Router in the New York metropolitan area and a UUNET-designated Hub Router in the London metropolitan area.

## **Packet Delivery Guarantee Process:**

Packet Delivery shall be measured by averaging sample measurements taken during a calendar month between Hub Routers. Each month's Network performance statistics relating to the Network Packet Delivery Guarantees shall be posted at

http://www.uu.net/customers/sla/latency.html
No credits will be made if failure to meet a Network Packet Delivery Guarantee is attributable to reasons of Force Majeure (as defined in the applicable service agreement).

#### **Network Packet Delivery Guarantee Remedy:**

If UUNET fails to meet any Network Packet Delivery Guarantee in a calendar month, Customer's account shall be automatically credited for that month for the pro-rated charges for one day of the UUNET Monthly Fee for the service with respect to which a Network Packet Delivery Guarantee has not been met.

#### **Service Quality**

#### 100% Service Availability Guarantee

## **Service Availability Guarantee Scope:**

UUNET's Service Availability Guarantee is to have the UUNET Network (as defined in the applicable service agreement) available 100% of the time.

#### **Scheduled Maintenance Scope:**

Scheduled Maintenance shall mean any maintenance at the UUNET hub to which Customer's circuit is connected (a) of which Customer is notified 48 hours in advance, and (b) that is performed during a standard maintenance window on Tuesdays and Thursdays from 3 AM to 6 AM local time of the UUNET hub to which Customer's circuit is connected. Notice of Scheduled Maintenance will be provided to Customer's designated point of contact by a method elected by UUNET (telephone, email, fax or pager).

#### **Service Availability Guarantee Process:**

At Customer's request, UUNET will calculate Customer's "Network Unavailability" in a calendar month. "Network Unavailability" consists of the number of minutes that the UUNET Network or a UUNET-ordered telephone company circuit in the contiguous U.S. was not available to Customer, and includes unavailability associated with any maintenance at the UUNET hub to

which Customer's circuit is connected other than Scheduled Maintenance. Outages will be counted as Network Unavailability only if UUNET notifies Customer of the outage in accordance with the Outage Reporting Guarantee set forth below or if Customer opens a trouble ticket with UUNET customer support within five days of the outage. Network unavailability will not include Scheduled Maintenance, or any unavailability resulting from (a) any Customer-ordered telephone company circuits, (b) Customer's applications, equipment, or facilities, (c) acts or omissions of Customer, or any use or user of the service authorized by Customer or (d) reasons of Force Majeure (as defined in the applicable service agreement).

## **Service Availability Guarantee Remedy:**

For each cumulative hour of Network Unavailability or fraction thereof in any calendar month, at Customer's request Customer's account shall be credited for the pro-rated charges for one day of the UUNET Monthly Fee and one day's telephone company line charges for the service with respect to which a Service Availability Guarantee has not been met.

#### **Customer Care Quality**

#### **Outage Reporting Guarantee**

## **Outage Reporting Guarantee Scope:**

UUNET's Outage Reporting Guarantee is to notify Customer within 15 minutes after UUNET's determination that Customer's service is unavailable. UUNET's standard procedure is to ping Customer's router every five minutes. If Customer's router does not respond after two consecutive five-minute ping cycles, UUNET will deem the service unavailable and will contact Customer's designated point of contact by a method elected by UUNET (telephone, email, fax or pager).

## **Outage Reporting Guarantee Process:**

The Outage Reporting Guarantee is applicable only to service provided in the contiguous United States and is applicable only if Customer completes UUNET's Customer Information Form in its entirety or registers for the Outage Reporting Guarantee by submitting the form available at <a href="http://www.us.uu.net/support/sla/sign\_up.html">http://www.us.uu.net/support/sla/sign\_up.html</a>. Customer is solely responsible for providing UUNET accurate and current contact information for Customer's designated points of contact. UUNET will be relieved of its obligations under this Outage Reporting Guarantee if UUNET's contact information for Customer is out of date or inaccurate due to Customer's action or omission or if UUNET's failure is due to reasons of Force Majeure (as defined in the applicable service agreement).

#### **Outage Reporting Guarantee Remedy:**

If UUNET fails to meet the Outage Reporting Guarantee, at Customer's request Customer's account shall be credited the pro-rated charges for one day of the UUNET Monthly Fee for the service with respect to which this Guarantee has not been met; provided, that Customer may obtain no more than one credit per day, irrespective of how often in that day UUNET failed to meet the Outage Reporting Guarantee.

## **Circuit Install Guarantee**

**Circuit Install Guarantee Scope:** UUNET's Circuit Install Guarantee is to have installation of a UUNET-ordered telephone company circuit and activation of a UUNET port completed within 40 business days for frame relay, 56K and T1 services, 60 business days for T3 services, and

within the scheduled installation date provided in writing by a UUNET Sales Manager for OC-3 or OC-12 services.

Circuit Install Guarantee Process: These dates shall be counted from the date UUNET has received all of the following from Customer: signed Service Agreement, signed price quotation or authorized purchase order, completed Customer Information Form, and (if requested by UUNET) completed credit application. The Circuit Install Guarantee is not available for Customer-ordered telephone company circuits, UUNET-ordered telephone company circuits outside the contiguous U.S., or if installation delay is attributable to Customer equipment, Customer's facility, acts or omissions of Customer, its employees or agents, Customer not passing UUNET's credit check, or reasons of Force Majeure (as defined in the applicable service agreement).

**Circuit Install Guarantee Remedy:** If UUNET determines in its reasonable commercial judgment that UUNET has failed to meet this Circuit Install Guarantee, Customer's account shall be credited 50% of UUNET's standard Start-up Charge for the service with respect to which this Guarantee has not been met.

#### Verio

IntelliSecurity Services (includes VPN services)

This IntelliSecurity Services Service Level Agreement ("SLA") applies to Customers of Verio's IntelliSecurity Services ("Services"). Verio reserves the right to amend this SLA from time to time. Amendments shall be effective upon posting of the revised policy on the Verio website located at <a href="http://home.verio.com/products/managed/security/intelsec">http://home.verio.com/products/managed/security/intelsec</a>.

This SLA provides Customer with certain rights and remedies regarding the performance by Verio of the Services utilizing the Verio Network. The "Verio Network" means the Verio owned and operated Internet Protocol (IP) routing infrastructure consisting solely of Verio measurement devices at selected Verio points of presence ("Selected POPs") and the connections between them in the forty-eight continental United States. The amount of credit available per month is subject to a cap described below.

 Security Operations Center and IntelliSecurity Services Control Panel Availability Guarantee

Verio's goal is to make the SOC and IntelliSecurity Services Control Panel available to Customer free of Outages (as defined below) 99.93% of the time. An "Outage" is an instance in which connectivity to the Verio Security Operations Center ("SOC") and/or the IntelliSecurity Services Control Panel is interrupted, but does not include interruptions arising as a result of the exceptions listed in Section 5.

Subject to Sections 5 and 6 hereof, upon Customer's request (in accordance with the procedure set forth below), Verio will issue a credit to Customer for Outages occurring during any calendar month that in the aggregate exceed ninety (90) minutes that are reported by Customer to Verio and confirmed in the Customer's monthly IntelliSecurity Services reports as provided on Customer's IntelliSecurity Services Control Panel or, in the event that Verio's measurement equipment is inoperable or faulty, that can be reasonably demonstrated by Customer to have occurred using industry standard measurement tools. Such credit will be equal to one day's worth (based on a thirty (30) day month) of the recurring monthly fees paid by Customer for the affected Services if the aggregate Outages exceed 90 minutes and one additional day's Services service fee credit for each additional cumulative twenty-four (24) hours of unavailability within the same calendar month.

## 2. Notification of Firewall Down

Verio's goal is to notify Customers if a firewall goes down within fifteen (15) minutes of the time that Verio

determines that it is unable to manage or monitor Customer's firewall. Notification will be implemented for all Customers via a posting on the InteliSecurity Services Control Panel.

Subject to Sections 5 and 6, if Verio fails to notify Customer of a down firewall within fifteen (15) minutes of Verio determining that it is unable to manage or monitor Customer's firewall, then upon Customer's request (in accordance with the procedure set forth below), Verio will issue a credit to Customer equal to one day's worth (based on a thirty (30) day month) of the recurring monthly fees paid by Customer for the affected

Services.

## 3. Security Policy Changes

Verio's goal is to begin implementation of standard policy changes within one (1) hour of validation of the policy change by Verio personnel etc, and to complete implementation of standard policy changes within twenty-four (24) hours of validation of the policy change by Verio personnel. Verio's goal is to begin implementation of emergency policy changes within one (1) hour of validation of the policy change by Verio personnel, and to complete implementation of emergency policy changes within twelve (12) hours of validation of the policy change by Verio personnel. If Verio fails to implement a standard policy change within twenty-four (24) hours of validation, or an emergency policy change within twelve (12) hours of validation, then for each occurrence after the first such occurrence, upon Customer's request (in accordance with the procedure set forth below) and subject to Sections 5 and 6, Verio will issue a credit to Customer equal to one day's worth (based on a thirty (30) day month) of the recurring monthly fees paid for the affected Services.

## 4. Hardware Replacement

In the event of a failure affecting IntelliSecurity Services Hardware provided by Verio to Customer, Verio's goal is to replace such defective Hardware within twenty-four (24) hours of Verio determining that replacement is necessary, where the Hardware is located in a Verio data center, and to ship replacement hardware within one (1) business day of Verio determining that Hardware replacement is necessary, where the Hardware is located in Customer's premises. Replacement Hardware shipped to Customer premises must be installed by Customer. Verio's goal is to complete download of configuration and test such Hardware within six (6) hours of notice from Customer that the replacement Hardware is installed.

If Verio fails to replace such defective Hardware within twenty-four (24) hours of Verio determining that replacement is necessary, where the Hardware is located in a Verio data center, or to ship replacement Hardware within one (1) business day of Verio determining that Hardware replacement is necessary, where the Hardware is located in Customer's premises, then upon Customer's request (in accordance with the procedure set forth below) and subject to Sections 5 and 6, Verio will issue a credit to Customer equal to one day's worth (based on a thirty (30) day month) of the recurring monthly fees paid for the affected Services.

#### 5. Exceptions

Customer shall not receive any credits under this SLA in connection with any failure or deficiency of the Services or Verio Network or a failure to meet an SLA that is caused by or associated with:

a. circumstances beyond Verio's reasonable control, including, without limitation, acts of any governmental body, war, insurrection, sabotage, embargo, fire, flood, strike or other labor disturbance, interruption of or delay in transportation, unavailability of or interruption or delay in telecommunications or third party services, failure of third party software or inability to obtain raw materials, supplies, or power used in or equipment needed for provision of the Service

## Level Agreement;

- b. failure of access circuits to the Verio Network, unless such failure is caused solely by Verio;
- c. failure of customer's Internet access service, unless such service is provided by Verio and failure is caused solely by Verio
- d. general third party telco failure;
- e. failure of Customer Provided Equipment used in connection with the Services;
- f. scheduled and emergency maintenance;
- g. DNS issues outside the direct control of Verio;
- h. Customer's failure to maintain Equipment provided to Customer or Customer Provided Equipment used by Customer to receive the Services, Customer's failure to install and maintain operational an analog line for out of band access (where Customer is receiving Dedicated Access ISS), and other acts or omissions of Customer or others authorized by Customer, including without limitation, any negligence, willful misconduct, or use of the Verio Network or Verio services in breach of Verio's Terms and Conditions and Acceptable Use Policy.

## 6. Credit Request and Payment Procedures

Requests for credits must be made by Customer in writing via the Customer's IntelliSecurity Services Control Panel. Each request for credit in any calendar month must be received by Verio within seven (7) days of the occurrence giving rise to the credit claim or, in the case of SLAs computed on a monthly basis, on receipt by Customer of the monthly ISS Report. Notwithstanding anything in this SLA to the contrary, the total amount credited to a Customer in connection with Security Operations Center and IntelliSecurity Services Control Panel Availability, Notification of Firewall Down, Policy Changes and Hardware Replacement in any calendar month in the aggregate will not exceed the total monthly invoice for fees payable by Customer for Services for such month.

Each valid credit will be applied to a Customer invoice within two (2) billing cycles after Verio's receipt of such request. Credits are exclusive of any applicable taxes charged to Customer or collected by Verio.

## 7. General

Except as set forth in this SLA, Verio makes no claims regarding the availability or performance of the Verio Network or the IntelliSecurity Services.

#### SERVICE LEVEL AGREEMENT

#### 1. Service Availability.

@Link is committed to providing a reliable network for its Customers. With that goal, @Link agrees to achieve a Network Availability Time objective of 99.99% for each month of Services. Network Availability is measured as the total number of hours in a billing month during which core network routes are available to exchange data between the two-network infrastructure node and points, divided by the total number of hours in a billing month. A lapse in network availability begins when Customer informs @Link of the Service non-availability and ends when Service is restored. For purposes of this measurement, the route will be measured from infrastructure port to infrastructure port and will not include customer premise equipment (CPE), but will include the local access facility. The calculation of percentage downtime is as follows:

(Total Hours in a month) - (Total PVC downtime Hours in a month)  ${^\prime}$  (Total Hours in a month)  ${^\ast}100\%$ 

#### What this means to the Customer

Availability from the Customer's perspective is a measure of how often the Customer can send and receive information at any given time of day, twenty-four (24) hours per day, seven (7) days per week.

## 2. Average Network Delay / Latency.

@Link is committed to minimizing Network Delay for its Customers. With that goal, @Link has designed its network with the following delay objectives:

Network Delay Parameters
CPE to DSLAM = 15ms
DSLAM to Distribution Node = 10ms
Average core network round trip delay = not more than 80ms

As part of this SLA, @Link agrees to achieve a Core Network Delay Time ("NDT") objective of 80 ms or less for the average core network round trip delay each month. The average core network delay is measured between the main ATM switches in the network core, which consists of all ATM switches beyond the DSLAM. The NDT is measured four (4) times every hour using a series of ATM OAM cells to determine average delay on each link between ATM switches. Measurements are averaged over a four (4) hour period to determine compliance with the stated NTD objective.

#### What this means to the Customer

Delay is a measure of how quickly data is transferred across the network. How the Customer notices delay depends on the application they are using, however, most data applications will handle some delay variance without affecting the performance of the application or the Service.

**Example:** A computer screen will paint rapidly after the initial, small (10-100 ms) transfer delay, because the data will arrive at the line speed after the initial delay has occurred. As long as @Link delivers the bandwidth guarantee, the delay should be

almost imperceptible. Applications where larger delays occur include voice and video applications. In these applications, video frames can experience jitter while a voice conversation could experience clipped speech.

## 3. Service Delivery (ATM Cell Throughput).

@Link is committed to minimizing network congestion for its Customers. With that goal, @Link agrees to achieve a Service Delivery objective of 99.99% of the Customer's Guaranteed Minimum Bandwidth (GBW) each month. The GBW is determined by each Customer's Service selection identified as follows:

@Link Classes of Service Network Throughput Parameters Platinum 100% circuit speed Gold 70% circuit speed Silver 30% circuit speed Bronze Best Effort to circuit speed

ATM cell service delivery measures are based on one (1) hour averages of ATM cell delivery throughout the month, which includes all ATM overhead associated with ATM protocol, and is defined as follows. Cells accepted into the network at the origination point of the Service (CA) are compared to the cells received at the termination point of the Service (CZ) less any cells that were accepted into the network on a non-conforming basis but dropped during congestion (CD-NC). The equation is as follows:

100%\* CZ CA - CD-NC

Origination and termination points are defined in the product specific Operating Policies and Procedures. The measurement is calculated on one (1) hour averages. Failure to meet this agreement is defined as the ATM cell service delivery metric falling below the 99.99% guarantee rate for any average one (1) hour period.

#### What this means to the Customer

The @Link throughput guarantee means two (2) things to the Customer.

- I. First, it guarantees a minimum bandwidth. This means that the Customer will always have some portion of the network for their use, guaranteed. Selection of the minimum bandwidth should be related to the applications the Customer wishes to run. This guarantee is a statement of how oversubscribed the network is. @Link will not oversubscribe in a way that jeopardizes the minimum bandwidth guarantee.
- II. Second, it guarantees that the minimum bandwidth will actually be delivered. The bandwidth offered by the Customer will be delivered to its destination 99.99% of the time, guaranteed. This guarantee is a statement about the quality of the network and @Link's ability to manage and contain congestion to avoid cell loss and /or corruption.

# 4. Exclusions for the Above Sections Pertaining to Service Availability, Average Network Delay/Latency, and Service Delivery:

The included measurements (Service Availability, Average Network Delay, and Service Delivery) do not include periods of non-availability resulting in whole or in part from one or more of the following causes:

- I. Information loss due to network downtime during @Link's scheduled maintenance windows:
- II. Any act or omission on the part of the Customer, its contractors, or any other entity over which Customer exercises control or has the right to exercise control;
- III. Customer's computer system, network, and/or access customer premise equipment;
- IV. Any access facilities not purchased from @Link;
- V. Labor strikes; other force majeure events beyond the reasonable control of @Link; or
- VI. Any act or omission on the part of any third party. @Link's determination of Network Availability shall be binding and conclusive absent manifest error.

## 5. Inside Wiring Warranty.

All @Link-provided End-User premises wiring is warranted to be free from defects for a period of thirty (30) days from the date of installation.

#### 6. Installation.

@Link is committed to keeping an appointment schedule for installation. An @Link Field Technician will arrive within two (2) hours of the scheduled installation appointment time. If the @Link Field Technician fails to arrive within two (2) hours of the scheduled appointment time, a penalty equal to 50% of the installation charges for the affected End User will be credited to the Customer.

#### 7. Service Level Differentiators:

@Link's major service delivery differentiator is as follows:

**Classes of Service:** A capability, that today, is unique to @Link's ATM based network infrastructure. Three levels of service (throughput) can be configured and guaranteed to support the more demanding Customer applications such as video, voice and real time processing. @Link markets these as Platinum, Gold and Silver levels of service. A fourth service level, Bronze, is available and is what is generally available in the market today. It does not carry a throughput guarantee.

With this unique capability @Link can set-up end to end paths through its network that allow it to

guarantee a minimum level of performance to match its Customer's requirements.

#### 8. Credits.

@Link is committed to providing a reliable network for its Customers. With that goal, @Link agrees to credit its Customer in the event it fails to meet specific network objectives as delineated in the above Sections 1, 2, and 3.

#### I. Service Availability Credit:

If @Link is unable to meet its objectives for average Network Availability in any given month, a penalty as listed below of the monthly recurring charge of the affected xDSL, DS1 or DS3 circuit will be credited to the Customer. The penalty shall be cumulative, adding each incident, within the month, in which @Link is unable to meet its objectives for average Network Availability, thereby determining the total penalty, which shall never exceed a 100% credit in any given month.

- a. 0-24hrs out of service = 10% credit of MRC
- b. 24-48 hrs out of service = 25% credit of MRC
- c. 48-72hrs out of service = 50% credit of MRC
- d. 72hrs + out of service = 100% credit of MRC

**II. Average Network Delay / Latency Credit:.**If @Link is unable to meet its objectives for average Core Network Delay in any given month, a penalty equal to 10% of the monthly recurring charge of the affected xDSL, DS1 or DS3 circuit will be credited to the Customer.

## III. Service Delivery (Throughput) Credit:

If @Link is unable to meet its objectives for average Throughput in any given month, a penalty equal to 10% of the monthly recurring charge of the affected xDSL, DS1 or DS3 circuit will be credited to the Customer.

#### 9. Credit Availability.

Service credits hereunder must be claimed within ten (10) business days of the date of the reported incident, or ten (10) days within the date a performance report was first available to the Customer, whichever is first. To be eligible for service credits, outage or impairment events must have been reported to @Link through standard trouble reporting methods. @Link will apply any qualified service credits to the Customer's next monthly invoice. To claim a credit, @Link's Customer Care Center can be reached at 1-888-375-9750. To report a service issue, @Link's Customer Care Center can be reached at 1-877-368-1972.

#### 10. Credit Limitation.

If @Link is unable to achieve more than one (1) of its objectives in the same month, Customer is entitled to receive credits pursuant to only one (1) of the applicable objectives. All network performance parameters are based on the assumption that the Customer's network is appropriately engineered (i.e. interconnect circuits are maintained within reasonable over-subscription limits). If @Link determines that the Customer's network is inappropriately configured, no credits will be given. To receive credits for performance issues, contact @Link Customer Care Center at 1-888-375-9750. To report technical problems, refer to @Link National Operations Center (or Technical Support Center at 877-368-1972).