PRIVATE IP SERVICE + GLOBAL PRIVATE IP SERVICE LEVEL AGREEMENT

1. **Service Level Agreement Summary.** The Private IP Service Level Agreement ("PIP SLA") covers Global Private IP Services (collectively, the "Service" or "Private IP Service"). The PIP SLA consists of several service level standards ("Service Level Standards"). Customer may qualify for credits when the Verizon PIP Network performance fails to meet the stated thresholds established for a Service Level Standard. The PIP SLA may also cover the transport components (not the CPE components) of the Managed Private IP Service product if offered as a part of a Managed Private IP solution. The managed service components of a Managed Private IP solution may be covered in a separate Managed Services, Service Level Agreement.

2. **Definitions of Terms.** Terms used in this document are defined in the Terms and Definitions section at the end of this document.

3. **Service Level Standard Performance Measures.** The PIP SLA Service Level Standards are:

Parameter	Access Type	Scope	U.S.	Global Tier A	Global Tier B	Global Tier C
Availability	Platinum	End-to-End	100%	100%	100%	NA
	Wireline/Wireline Dual Connection*** Gold/Silver/Bronze + Gold/Silver/Bronze	End-to-End	100%	100%	100%	NA
	Wireline/Wireless Dual Connection**** Gold/Silver/Bronze + Wireless Private Network	End-to-End	100%	NA	NA	NA
	Gold	End-to-End	99.9%	99.9%	99.9%	99.5%
	Silver	End-to-End	99.5%	99.5%	99.5%	99.0%
	Bronze	End-to-End	99.0%	99.0%	99.0%	99.0%
Time To Repair (TTR)	Platinum	End-to-End	2 Hours	4 Hours	4 Hours	NA
	Gold	End-to-End	4 Hours	5 Hours	8 Hours	8 Hours
	Silver	End-to-End	4 Hours	8 Hours	8 Hours	8 Hours
	Bronze	End-to-End	24 Hours	24 Hours	24 Hours	24 Hours
Service Installation		End-to-End	$\leqslant$1.5M** 30 Business Days $\leqslant$ 45M** 45 Business Days	100% by Customer's Due Date	100% by Customer's Due Date	100% by Customer's Due Date

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Parameter		Scope				
			Others 100% by Customer's Due Date			
Moves, Adds or Changes (MAC)		End-to-End	10 Business Days (Excluding Local Access Requests)	100% by Customer's Due Date	100% by Customer's Due Date	100% by Customer's Due Date
Core Network Transit Delay (C-NTD)*		P-Core	⩽ 36 ms	NA	NA	NA

*Core Network Transit Delay (C-NTD) is only applicable to the US P-Core Network. Measurements between distinct PE pairs are given by the Packet Transit Delay (PTD) Service Level Standard in the table below.

**Excludes any facilities builds.

***Wireline/Wireline Dual Connection: Verizon provides a second equivalent circuit for the same Customer Site that may be configured as either active or passive, and as providing either Geographic Diversity or Router Diversity, as Customer elects. If a site has Dual Connection then only Dual Connection SLA can be claimed and not the individual circuit availability SLAs. Dual Connection SLA can only be claimed if both primary and secondary circuits are down. Dual Connection SLA will be paid on both primary and secondary Port and Access MRR.

****Wireline/Wireless Dual Connection: Verizon Mobile Private Network provides wireless back-up for Private IP service. If a site has Dual Connection then only Dual Connection SLA can be claimed and not the individual circuit availability SLAs. Dual Connection SLA can only be claimed if both primary and secondary circuits are down. Dual Connection SLA will be paid on the primary (Wireline) Port and Access MRR.

Parameter	Scope	EF/COS5	AF4x/COS4	AF3x/COS3	AF2x/COS2	AF1x/COS1	BE/COS0
Packet Delivery Ratio (PDR)*	PE-to-PE	⩾ 99.995%	⩾ 99.99%	⩾ 99.99%	⩾ 99.99%	⩾ 99.99%	⩾ 99.5%
Packet Transit Delay (PTD)	PE-to-PE	See applicable Packet Transit Delay standards below					
Jitter	PE-to-PE	< 5 ms	< 15 ms	NA	NA	NA	NA
Mean Opinion Score (MOS)**	P-Core	⩾ 4.0	NA	NA	NA	NA	NA

*Packet Delivery Ratio (PDR): for Private IP Secure Cloud Interconnection ("SCI"), only BE/COS0 applies.
**Mean Opinion Score (MOS) is only applicable to the U.S., EMEA and APAC regions.

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Private IP Gateway:

Parameter	Service Type	Scope	U.S.	Global Tier A	Global Tier B	Canada, Puerto Rico, U.S. Virgin Islands
Availability	SCI*	PE-to-PE	100%	100%	100%	N/A
	Satellite Gateway**	End-to-End	99.5%	N/A	N/A	99.5%
	Private Wireless Gateway	PE-to-PE	100%	100%	N/A	N/A
Time To Repair (TTR)	SCI*	PE-to-PE	4 Hours	4 Hours	4 Hours	N/A
	Satellite Gateway**	PE-to-PE	4 Hours	N/A	N/A	4 Hours
	Private Wireless Gateway	PE-to-PE	4 Hours	4 Hours	N/A	N/A

*Private IP Secure Cloud Interconnection
**The Satellite Gateway SLA is based on Verizon's standard CPE recommendations designed to support the specified customer service parameters. The Satellite Gateway SLA for Availability is measured between Verizon's origination (Satellite earth station Hub) and Customer's destination demarcation point, as measured by Verizon.

The PIP SLA Performance Measures and exclusions are defined in detail below.

4. **Coverage Categories.** Service Level Standards vary by Class of service, Access type, Outage type and Geographic location. These Service Level Standards are defined below.

4.1 **Class of Service.** The PIP SLA class of service delivery methodology and traffic priority Class of Service are identified as follows:

Private IP Layer 3 Queue	Private IP Layer 2 Queue	Naming
EF*	COS5*	Real Time / Voice
AF4 AF41, AF42/43	COS4	Video / Priority Data
AF3 AF31, AF32/33	COS3	Mission Critical Data
AF2 AF21, AF 22/23	COS2	Transactional- Data

AF1 AF11, AF12/13	COS1	General Data
BE	COS0	General Business - Default

*The EF and COS5 queues are not designed for packets larger than 300 bytes or Bursty Traffic.

4.2 **Access Types.** The PIP SLA Service Level Standard metrics may be based on the following Access Types as indicated on the Customer's Master Service Order Form.
- Platinum
- Gold
- Silver
- Bronze

4.3 **Outage Type.** The PIP SLA defines Service disruptions as:
- Hard Outage
- Service Issue

4.3.1 The Service restoration priority determines the ranking of the repair actions against other Service Issues.

Priority Level Criteria	
Priority 1	Total loss of Service or degraded Service to the extent that it is unusable by Customer and Customer is prepared to release its Service for immediate testing
Priority 2	Degraded Service, however Customer is able to use the Service and is not prepared to release its Service for immediate testing
Priority 3	A problem with the Service that does not impact the functionality of the Service; including a single non-circuit specific quality of Service inquiry.
Priority 4	Non Service affecting requests (e.g. a Customer request for an incident report) and all other queries not covered by Priority 1 – 3 above. Scheduled maintenance

4.3.2 A Hard Outage has Priority 1 Service restoration priority with the exception of Bronze Hard outages which are handled as a Priority 2 ticket. Availability and TTR apply to Hard Outages.

4.3.3 A Service Issue has Priority 2 Service restoration priority. PTD, PDR and Jitter apply to Service Issues.

4.3.4 Priority 3 and Priority 4 issues will be addressed by Verizon. However, Priority 3 and Priority 4 issues are not eligible for SLA credits.

4.4 **Geographical Location.** The PIP SLA covers Service in all countries where PIP Service is offered, except as specified in the exclusions and limitations stated below. The PIP SLA is divided into geographic regions because Service Levels available from access Providers around the world differ between countries. The location and access method of a Customer Site will determine the applicable Service Levels. As a result of continuing expansion of the Verizon Private IP Network the listing of the Global Tier countries is dynamic and changes periodically as new countries are added. At Customer's request Verizon will confirm country status and/or provide a listing of countries that fall into these categories. The countries covered under this SLA are divided into the following categories:
- **U.S.:** Contiguous 48 United States, Hawaii and Alaska.

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- **Global Tier A:** Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Italy, Japan, Luxembourg, Netherlands, Norway, Singapore, South Korea, Spain, Sweden, Switzerland, United Kingdom.

- **Global Tier B:** Argentina, Argentina MVIC (via Telmex), Australia, Brazil, Brazil MVIC (via Embratel), Bermuda, Bulgaria, Chile, Chile MVIC (via Telmex), China, China MVIC (via China Unicom, China Telecom, China Mobile or CITIC), Colombia, Colombia MVIC (via Telmex), Costa Rica, Czech Republic, Dominican Republic, Greece, Guam, Hungary, India, Indonesia, Israel, Latvia, Malaysia, Mexico, Mexico MVIC (via TelMex, Axtel or MetroRed), Morocco, New Zealand, Panama, Peru, Peru MVIC (via TelMex), Philippines, Poland, Portugal, Puerto Rico, Romania, Russia, Slovakia, Taiwan, Thailand, Turkey, Ukraine, United Arab Emirates (UAE), and Uruguay.

- **Global Tier C:** Albania, Algeria MVIC (via CMC Networks or Tawasul), Angola MVIC (via CMC Networks or Vodacom), Anguilla, Anguilla MVIC (via C&W), Antigua and Barbuda, Antigua and Barbuda MVIC (via C&W), Argentina MVIC (via Claro), Azerbaijan, Bahamas, Bahamas MVC (via C&W), Bahrain, Bahrain MVIC (via Tawasul), Bangladesh, Barbados, Barbados MVIC (via C&W), Belarus, Belize, Belize MVIC (via C&W), Benin MVIC (via CMC Networks), Bermuda, Bermuda MVIC(via C&W), Bolivia MVIC (via Tigo), Bosnia & Herzegovina, Botswana (via CMC Networks or Vodacom), Bulgaria, Burkina Faso (via CMC Networks), Burundi MVIC (via CMC Networks), British Virgin Island, British Virgin Islands MVIC (via C&W), Cameroon MVIC (via CMC Networks or Vodacom), Cape Verdi MVIC (via CMC Networks), Cayman Islands, Cayman Islands MVIC (via C&W), Central African Republic MVIC (via CMC Networks), China, Colombia MVIC (via C&W or Tigo), Cote d'Ivoire MVIC (via CMC Networks or Vodacom), Congo Democratic Republic MVIC (via CMC Networks), Costa Rica, Costa Rica MVIC (via C&W and Tigo), Croatia, Curacao, Curacao MVIC (via C&W), Djibouti MVIC (via CMC Networks or Vodacom), Dominica, Dominica MVIC (via C&W), Dominican Republic, Dominican Republic MVIC (via C&W), Ecuador, Egypt, Egypt MVIC (via TE Data), El Salvador, El Salvador MVIC (via C&W or Tigo), Estonia, Ethiopia MVIC (via CMC Networks or Vodacom), Gabon MVIC (via CMC Networks or Vodacom), Gambia MVIC (via CMC Networks), Ghana MVIC (via CMC Networks or Vodacom), Greece, Grenada, Grenada MVIC (via C&W), Guatemala, Guatemala MVIC (via C&W or Tigo), Guinea MVIC (via CMC Networks), Guyana, Guyana MVIC (via C&W), Haiti, Haiti MVIC (via C&W), Honduras, Honduras MVIC (via C&W or Tigo), Iceland, India MVIC (via Bharti or Reliance), Iraq MVIC (via Tawasul), Jamaica, Jamaica MVIC (via C&W), Japan MVIC (via Softbank), Jordan, Jordan MVIC (via Tawasul) Kazakhstan, Kenya MVIC (via CMC Networks or Vodacom), Kuwait, Kuwait MVIC (via Tawasul), Latvia, Lebanon, Lebanon MVIC (via Tawasul), Lesotho MVIC (via CMC Networks or Vodacom), Liberia MVIC (via CMC Networks), Lithuania, Macao, Macedonia, Madagascar MVIC (via CMC Networks or Vodacom), Malawi MVIC (via CMC Networks or Vodacom), Mali MVIC (via CMC Networks), Malta, Mauritius MVIC (via CMC Networks or Vodacom), Monaco, Montenegro, Mozambique MVIC (via CMC Networks or Vodacom), Namibia MVIC (via CMC Networks or Vodacom), Nicaragua, Nicaragua MVIC (via Tigo or C&W), Niger MVIC (via CMC Networks), Nigeria MVIC (via CMC Networks or Vodacom), Oman, Oman MVIC (via Tawasul), Pakistan, Panama, Panama MVIC (via C&W or Tigo), Paraguay, Paraguay MVIC (via Tigo), Puerto Rico, Puerto Rico MVIC (via C&W), Qatar, Reunion, Romania, Russia MVIC (via Beeline), Rwanda MVIC (via CMC Networks), Saudi Arabia, Saudi Arabia MVIC (via STC), Senegal MVIC (via CMC Networks), Serbia, Sierra Leone MVIC (via CMC Networks), Slovakia, Slovenia, South Africa, South Africa MVIC (via CMC Networks or Vodacom), Sri Lanka, St. Kitts and Nevis, St. Kitts and Nevis MVIC (via C&W), Saint Maarten MVIC (via C&W), St. Lucia, St. Lucia MVIC (via C&W) St. Martin, St. Martin MVIC (via C&W), St. Vincent, St. Vincent MVIC (via C&W), Sudan MVIC (via CMC Networks), Suriname, Suriname MVIC (via C&W), Swaziland MVIC (via CMC Networks or Vodacom), Tanzania MVIC (via CMC Networks or Vodacom), Togo MVIC (via CMC Networks), Trinidad and Tobago, Trinidad and Tobago MVIC (via C&W), Tunisia MVIC (via CMC Networks), Turkey, Turkey (Turknet), Turks and Caicos, Turks and Caicos MVIC (via C&W), United Arab Emirates (UAE) MVIC (via Etisalat), Uganda MVIC (via CMC Networks or Vodacom), Uruguay, U.S. Virgin Islands, U.S. Virgin Islands(via C&W), Venezuela, Vietnam, Yemen MVIC (via Tawasul), Zambia MVIC (via CMC Networks or Vodacom), Zimbabwe MVIC (via CMC Networks or Vodacom).

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Service in the countries without a MVIC designation listed above is provided via a backhaul to the nearest Verizon Provider Edge device. The PTD, PDR, and Jitter Service Level Standards for these locations are based on measurements at Verizon's Provider Edge device. Additional information on the locations of the Verizon Provider Edge is available through Customer's account team or on the Verizon Looking Glass portal for Private IP.

5. **Service Level Standards Defined**

5.1 **Availability**

5.1.1 **Definition.** End-to-end Circuit up-time.

5.1.2 **Standard.** See Service Level Standard for Performance Measurements above. Availability includes the local access from the Customer Edge (CE) to the Verizon PIP Provider Edge (PE) and the PIP Network. Availability excludes CPLL and the Customer CPE.

5.1.3 **Calculation.** Availability is determined by computing the total number of Eligible Hard Outage Minutes per Priority 1 trouble tickets in a calendar month for a specific Customer Circuit divided by the total number of minutes based on a 30-day calendar month. Availability is calculated after a trouble ticket is opened with Verizon and represents the percentage of time that the Circuit is available within a given calendar month.

$$\text{Availability (\%)} = \left(1 - \left(\frac{\text{Total Eligible Hard Outage Minutes per Circuit per month}}{30 \text{ days} * 24 \text{ hours/day} * 60 \text{ minutes/hour}}\right)\right) \times 100$$

5.1.4 **Credit Structure.** The credit is based on the number of Eligible Hard Outage Minutes. Availability applies only in those cases in which a PIP trouble ticket is opened with Verizon and the Customer subsequently allows the necessary physical or logical access to its premises and facilities for testing if required by Verizon.

Availability credit table:

Availability				Credits as a percent of MRC											
PIP Network Down Time		% of Up Time		All Global Tiers and US	U.S. and Global Tier A	U.S. and Global Tier A	U.S. and Global Tier A	Global Tier B	Global Tier B	Global Tier B	Global Tier C	Global Tier C	Global Tier C	U.S. and Global Tier A	U.S. and Global Tier A & B
From (Mins)	To (Mins)	From %	To %	(Platinum or Gold/Silver/ Bronze + Wireless Private Network)	(Gold, Silver or Bronze)	Silver	Bronze	(Gold, Silver or Bronze)	Silver	Bronze	(Gold, Silver or Bronze)	Silver	Bronze	Satellite	SCI and Private Wireless Gateway
1	43	< 100%	≥ 99.9%	5%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5%
44	86	< 99.9%	≥ 99.8%	10%	10%	NA	NA	5%	NA	NA	NA	NA	NA	NA	10%
87	216	< 99.8%	≥ 99.5%	15%	10%	NA	NA	5%	NA	NA	NA	NA	NA	NA	15%
217	432	< 99.5%	≥ 99.0%	25%	15%	10%	NA	10%	5%	NA	5%	NA	NA	5%	25%
433	648	< 99.0%	≥ 98.5%	30%	15%	15%	10%	10%	10%	5%	10%	5%	5%	10%	30%
649	864	< 98.5%	≥ 98.0%	40%	20%	20%	15%	10%	10%	10%	10%	10%	10%	10%	40%
> 864		< 98.0%		50%	20%	20%	20%	10%	10%	10%	10%	10%	10%	10%	50%

5.1.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, Availability Service Level Standard measurements do not include the following:
- Any act or omission on the part of any third party other than a local access provider over which Verizon exercises control.

- Periods of Service degradation, such as slow data transmission, where a Priority 1 trouble ticket has not been opened with Verizon and Customer has not released its Service for immediate testing.
- Customer inquiry for circuit monitoring purposes only.
- Availability Service Level Standards for MVIC services are only applicable for MVIC locations where local access is provided by one of the corresponding MVIC partners identified above.
- Off-Net Bronze hard outage to be handled as a Priority 2 ticket.
- Verizon Wireless Private Network charges are excluded.

5.2 Time To Repair (TTR)

5.2.1 **Definition.** Time taken to restore end-to-end Services during a Hard Outage on a specific Circuit.

5.2.2 **Standard.** See Service Level Standard Performance Measurements table above. TTR includes the Local Access from the Customer Edge (CE) to the Verizon PIP Provider Edge (PE) and the PIP Network. TTR excludes CPLL and the Customer CPE.

5.2.3 **Calculation.** TTR is determined by computing the time taken to repair each Eligible Hard Outage Priority 1 trouble ticket in a calendar month for a specific Customer Circuit with the exception of Hard Outages for Bronze which is handled as a Priority 2 ticket. The duration of each Hard Outage on a specific Circuit is calculated after a trouble ticket is opened with Verizon. TTR (Hrs) = Time taken to repair a specific Circuit experiencing an Eligible Hard Outage Priority 1 trouble. Bronze hard outage to be handled as a Priority 2 ticket.

5.2.4 **Credit Structure.** The credit is based on the number of Eligible Hard Outage Minutes. TTR applies only in those cases in which a PIP Hard Outage Priority 1 trouble ticket is opened with Verizon and the Customer subsequently allows the necessary physical or logical access to its premises and facilities for testing if required by Verizon and with the exception of Hard Outages for Bronze, which are handled as a Priority 2 ticket. Circuits may qualify for the TTR Service Level Standard in addition to the Availability Service Level Standard.

TTR credit table:

TTR		Credit as a Percent of MRC						
PIP Network Outage Time		U.S.	Global Tiers A & B	U.S.	Global Tier A	Global Tier B	Global Tiers C	U.S. and Global Tier A & B
From Hr:Min:Sec	To Hr:Min:Sec	(Platinum)	(Platinum)	(Gold, Silver or Bronze)	(Gold, Silver or Bronze)	(Gold, Silver or Bronze)	(Gold, Silver or Bronze)	SCI, Satellite and Private Wireless Gateway
2:00:00	3:59:59	4%	NA	NA	NA	NA	NA	N/A
4:00:00	4:59:59	4%	4%	2%	NA	NA	NA	4%
5:00:00	7:59:59	10%	10%	4%	4%	NA	NA	10%
8:00:00	11:59:59	10%	10%	4%	4%	4%	4%	10%
≥ 12:00:00		10%	10%	4%	4%	4%	4%	10%

5.2.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, TTR Service Level Standard measurements do not include the following:
- Any act or omission on the part of any third party, other than a Local Access provider over which Verizon exercises control.

- Periods of Service degradation, such as slow data transmission, where a Priority 1 trouble ticket has not been opened with Verizon and Customer has not released its Service for immediate testing.
- Customer inquiry for circuit monitoring purposes only.
- TTR Service Level Standards for MVIC services are only applicable for MVIC locations where Local Access is provided by one of the corresponding MVIC partners identified above.
- Bronze hard outage to be handled as a Priority 2 ticket.

5.3 Core Network Transit Delay (C-NTD)

5.3.1 **Definition.** Core Network round trip delay average between Verizon-designated core backbone network nodes across a specific region.

5.3.2 **Standard.** See Service Level Standard Performance Measurements table above.

5.3.3 **Calculation.** Verizon calculates the C-NTD by using 64-byte packets for measuring round trip transit delay in milliseconds between Verizon-designated backbone network nodes across a specific region and averaging the results over a 30 day period. The measurements exclude any traffic that is re-routed as a result of a network outage or scheduled maintenance. The monthly measurements are available at the following link: https://www.verizon.com/business/terms/latency/#pip.

5.3.4 **Credit Structure.** To receive a credit, Customer must submit their request within 30 business days after the month in which the C-NTD Service Level Standard was not met. Such credit will equal the pro-rated charges for one day of the MRC for the Customer's Connections within the specific region during the calendar month in which the C-NTD Service Level Standard was not met.

C-NTD credit table:

For Standard not met	Credit
Core Network Transit Delay (C-NTD)	The pro-rated charges equal to one day's MRC for the Customer's Connections

5.3.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, C-NTD Service Level Standard measurements do not include the following:
- All Customer data traffic that is marked EF/COS5 by Customer and is not compliant with the subscribed EF/COS5 Real Time CAR or any other data traffic that is not compliant with the applicable subscribed CAR.
- All Customer data traffic that is marked by Customer using IP Precedence/DSCP settings not supported by the Verizon PIP Network.
- Core Network Transit Delay (C-NTD) is only applicable to the US P-Core Network

5.4 Packet Transit Delay (PTD)

5.4.1 **Definition.** Round trip data packets delay between origination and destination Ports.

5.4.2 **Standard.**
- PE PTD is the provider edge PE-to-PE monthly average round trip transit delay in milliseconds between respective Provider Edge device pairs on the Verizon PIP Network.
- The PE PTD Service Level Standards is applicable for the following traffic priority classes:
  - Standard PIP Service

- o Enhanced Traffic Management (ETM) option
- PE PTD Service Level Standard Performance Measurements for international and U.S. locations are stated in the PIP PTD Matrix located in the Verizon Secure Guide portal at: https://www.verizon.com/business/service_guide/secure/cp_pip_sla_matrix_SG.xlsx.

5.4.3 **Calculation.** PTD is determined by using 64-byte packets for measuring transit delay in milliseconds across the Verizon PIP Network and averaging the results over a thirty day period.
- PTD calculation is as follows: PTD = T2 – T1. Where: T1 is the time in milliseconds when an IP packet leaves the ingress reference point (i.e., Packet exit event) and T2 is the time in milliseconds when an IP packet arrives back at the ingress reference point (i.e. Packet return event).
- PE PTD is measured between the respective origination and destination infrastructure ports, i.e. between the points where the packet enters and exits Verizon's PIP Network, regardless of the mode of access to Verizon's PIP Network. External factors, including, but not limited to, Local Access issues, are excluded from the measurement.

5.4.4 **Credit Structure.** If the PTD Service Level Standard is not met, it is a Service Issue and is considered a Service Restoration Priority 2. If the PTD metric for a pair of Customer Connections or Customer Sites is not being met, Customer may be eligible for a credit. To obtain a credit, a trouble ticket must be opened with Verizon when a PTD Service Level Standard is not being met or if a Service Issue is identified. Verizon will work with Customer to confirm that a PTD issue exists and repair the problem(s), as applicable. Once Verizon confirms that the PTD Service Level Standard is not being met, Verizon will have 30 calendar days to repair the Service to meet the PTD Service Level Standard and close the applicable trouble ticket, and in such an event, Customer will not be eligible for a credit. If, after 30 calendar days of opening the trouble ticket, the PTD Service Level Standard continues to not be met, Customer will qualify for a credit. Customer's measurement of PTD prior to opening a trouble ticket may be considered by Verizon in determining the need to repair the Service.

PTD credit table:

For Standard not met	Credit as % of MRC
Packet Transit Delay (PTD)	20%

5.4.4.1 Service Issues occur between pair Ports of the Private IP Network. Consequently, two Customer connections will be impacted by each Service Issue. For Service Issue Service Level Standard credit purposes, the MRC will be defined as the average of the MRCs for each of the two impacted Customer Connections.

5.4.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, PTD Service Level Standard measurements do not include the following:
- All Customer data traffic that is marked EF/COS5 by Customer and is not compliant with the subscribed EF/COS5 Real Time CAR or any other data traffic that is not compliant with the applicable subscribed CAR.
- All Customer data traffic that is marked by Customer using IP Precedence/DSCP settings not supported by the Verizon PIP Network.
- PTD Service Level Standards for MVIC locations are based on measurements at the Verizon owned Provider Edge devices and not the MVIC partner location.
- Any delay or dropped data packets caused by a Customer who subscribes to Access Oversubscription and Customer's traffic over a circuit exceeds 100% of the Access speed of the circuit.

5.5 **Packet Delivery Ratio (PDR)**

5.5.1 **Definition.** Effectiveness in transporting and delivering customer packets across the PIP Network.

5.5.2 **Standard.**
- PE PDR is the PE-to-PE monthly average Packet Delivery Ratio. The PE PDR Service Level Standards is applicable for the following traffic priority classes: Standard PIP Service and Enhanced Traffic Management (ETM) option.
- PE PDR Service Level Standard is:
- For the EF/COS5 traffic priority class: 99.995%
- For the AF/COS4, COS3, COS2, COS1 traffic priority class: 99.99%
- For the BE/COS0 traffic priority class: 99.5%

5.5.3 **Calculation.**
- PDR is determined by using 64-byte packets for measuring the number of packets within a specified traffic priority class that are successfully delivered divided by the total number of packets sent within the specified traffic priority class during a calendar month. For data consisting of packets within the specified traffic priority class, the PDR is as follows:

$$\text{PDR (\%)} = \frac{\text{Packets Delivered}}{\text{Packets Offered}} \times 100$$

- PE PDR is measured between the respective origination and destination infrastructure Ports, i.e. between the points where the packet enters and exits Verizon's PIP Network, regardless of the mode of access to Verizon's PIP Network. External factors, including, but not limited to, Local Access issues, are excluded from the measurement.

5.5.4 **Credit Structure.** If the PDR Service Level Standard is not met, it is a Service Issue and is considered Service Restoration Priority 2. If the PDR metric for a pair of Customer Connections or Customer Sites is not being met, Customer may be eligible for a credit. To obtain a credit, a trouble ticket must be opened with Verizon when a PDR Service Level Standard is not being met or if a Service Issue is identified. Verizon will work with Customer to confirm that a PDR issue exists and repair the problem(s), as applicable. Once Verizon confirms that the PDR Service Level Standard is not being met, Verizon will have 30 calendar days to repair the Service to meet the PDR Service Level Standard and close the applicable trouble ticket, and in such an event, Customer will not be eligible for a credit. If, after 30 calendar days of opening the trouble ticket, the PDR Service Level Standard continues to not be met, Customer will qualify for a credit. Customer's measurement of PDR prior to opening a trouble ticket may be considered by Verizon in determining the need to repair the Service.

PDR credit table:

For Standard not met	Credit as % of MRC
Packet Delivery Ratio (PDR)	20%

5.5.4.1 Service Issues occur between pair Ports of the Private IP Network, including SCI. Consequently, two Customer connections will be impacted by each Service Issue. For Service Issue Service Level Standard credit purposes, the MRC will be defined as the average of the MRCs for each of the two impacted Customer Connections.

5.5.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, PDR Service Level Standard measurements do not include any of the following:

- Packets that are not delivered due in whole or in part to factors unrelated to Verizon's PIP/PIPL2 Network.
- Packets dropped at infrastructure ingress or egress due to improper Customer Port speed specifications of Customer Port speeds.
- All Customer data traffic that is marked EF/COS5 by Customer and is not compliant with the subscribed EF/COS5 Real Time CAR or any other data traffic that is not compliant with the applicable subscribed CAR.
- All Customer data traffic that is marked by Customer using IP Precedence/DSCP settings not supported by the Verizon PIP Network.
- PDR Service Level Standards for MVIC locations are based on measurements at the Verizon owned Provider Edge devices and not the MVIC partner location.
- Any delay or dropped data packets caused by a Customer who subscribes to Access Oversubscription and Customer's traffic over a circuit exceeds 100% of the Access speed of the circuit.

5.6 **Jitter**

5.6.1 **Definition.** Displacement of data packets from their ideal sequence or position in time.

5.6.2 **Standard.**
- PE Jitter is the monthly average mean deviation of the difference in packet arrival time at the receiver compared to the sender for a pair of packets one-way between respective Provider Edge Devices. The Jitter Service Level Standards is applicable for the following traffic priority classes:
- Enhanced Traffic Management (ETM) option:
  o PE Jitter is applicable to data packets marked EF by Customer and compliant with the subscribed EF Real Time CAR.
  o PE Jitter is applicable to data packets in the AF4 traffic class and compliant with the AF4 forwarding priority.
  o Other traffic classes are not available for PE Jitter Service Level Standards.
- PE Jitter Service Level Standard provides that the maximum delay variance between Verizon Private IP PE devices is less than 5 ms one-way for the EF traffic class and less than 15 ms one-way for the AF4 traffic class.
- If a Jitter issue is identified, packet fragmentation technologies or similar capability may be required to remedy the issue.

5.6.3 **Calculation.**
- Jitter is determined by using 64-byte packets for measuring the mean deviation of the difference in packet spacing at the receiver compared to the sender for a pair of packets. The mean is determined by sampling the PIP Network frequently and averaging the results over a thirty day period.   The calculation for Jitter (J_i) for two consecutive packets i and i+1 is as follows: Jitter (J_i) = ΔT_i - $\Delta T_i'$

  Where:
  T_i = time 1st byte of packet i is received by the source Port (ingress time)
  T_{i+1} = time 1st byte of packet i+1 is received by the source Port (ingress time)
  T_i' = time 1st byte of packet i is received at the destination Port (egress time)
  T_{i+1}' = time 1st byte of packet i+1 is received at the destination Port (egress time)
  And:
  ΔT_i = T_{i+1} - T_i (ΔT_i is the time interval between packets at ingress)
  $\Delta T_i'$ = T_{i+1}' - T_i' ($\Delta T_i'$ is the time interval between packets at egress)
  The Average Jitter (J-avg) is calculated as follows:
  Average Jitter (J-avg) = $\sum | J_i | / (N-1)$
  Where:

N is the number of sample packets over 30 day period

- PE Jitter is measured between the respective origination and destination infrastructure Ports, i.e. between the points where the packet enters and exits Verizon's PIP Network, regardless of the mode of access to Verizon's PIP Network. External factors, including, but not limited to, Local Access issues, are excluded from the measurement.

5.6.4 **Credit Structure.** If the Jitter Service Level Standard is not met it is a Service Issue and is considered Service Restoration Priority 2. If the Jitter metric for a pair of Customer Connections or Customer Sites is not being met, Customer may be eligible for a credit. To obtain a credit, a trouble ticket must be opened with Verizon when a Jitter Service Level Standard is not being met or if a Service Issue is identified. Verizon will work with Customer to confirm that a Jitter issue exists and repair the problem(s), as applicable. Once Verizon confirms that the Jitter Service Level Standard is not being met, Verizon will have 30 calendar days to repair the Service to meet the Jitter Service Level Standard and close the applicable trouble ticket, and in such an event, Customer will not be eligible for a credit. If, after 30 calendar days of opening the trouble ticket, the Jitter Service Level Standard continues to not be met, Customer will qualify for a credit. Customer's measurement of Jitter prior to opening a trouble ticket may be considered by Verizon in determining the need to repair the Service.

Jitter credit table:

For Standard not met	Credit as % of MRC
Jitter	20%

5.6.4.1 Service Issues occur between pair Ports of the Private IP Network. Consequently, two Customer connections will be impacted by each Service Issue. For Service Issue Service Level Standard credit purposes, the MRC will be defined as the average of the MRCs for each of the two impacted Customer Connections.

5.6.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, Jitter Service Level Standard measurements do not include any of the following:
- PE Jitter applicable to the AF4 traffic class is available only for Video traffic that uses either AF41 or CS4 classification when the AF4 queue facilitating such Video traffic is not mixed with any other type of traffic.
- All Customer data traffic that is marked EF by Customer and is not compliant with the subscribed EF Real Time CAR or any other data traffic that is not compliant with the applicable subscribed CAR.
- All Customer data traffic that is marked by Customer using IP Precedence/DSCP settings not supported by the Verizon Private IP Network.
- Jitter Service Level Standards for MVIC locations are based on measurements at the Verizon owned Provider Edge devices and not the MVIC partner location.
- Jitter Service Level Standard is not applicable to Private IP Layer 2 services.

5.7 **Service Installation**

5.7.1 **Definition.** Period of time beginning on the Order Acceptance date and ending on the date Verizon completes installation of the Service and the Service is up and billable. Customer's Due Date is defined as the date to which Verizon commits to deliver the Service.

5.7.2 **Standard.** See Service Level Standard Performance Measurements table above.

5.7.3 **Calculation.** The Service Installation Service Level Standard is calculated by computing the period of time beginning on the Order Acceptance date and ending on the date Verizon completes installation of the Service and the Service is up and billable.

5.7.4 **Credit Structure.** To obtain a credit, Customer must report the delay in Service installation to the Verizon account team as described in the in the Credit Section of the SLA.

Service Installation credit table:

For Standard not met	U.S.	Global Tier A	Global Tier B	Global Tier C
Service Installation	50% of the first month's MRC on the applicable Connection	50% of the first month's MRC on the applicable Connection	50% of the first month's MRC on the applicable Connection	50% of the first month's MRC on the applicable Connection

5.7.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, the Service Installation Service Level Standard does not include any minutes associated with the following:
- Delays in installation related to Customer actions, moves or scheduling difficulties.
- Delays resulting from changes to a previously accepted order for Service from Customer, its agents or vendors.
- Any delays resulting from unavailability of Customer's premises, equipment, or facilities required to install the Service.
- Delays attributed to extending the Local Access demarcation point.
- Delays resulting from inaccurate or incorrect order information from Customer.
- Delays resulting from an order suspension due to credit issues involving Customer.

Any periods of delay attributable to the reasons above will be deducted from the Service Installation time period.

5.8 **Moves, Adds or Changes (MAC)**

5.8.1 **Definition.** The MAC interval is the period of time beginning on the Order Acceptance date and ending on the date Verizon completes the Order for the Service. Customer's Due Date is defined as the date to which Verizon commits to deliver the Service.

5.8.2 **Standard.** See Service Level Standard Performance Measurements table above.

5.8.3 **Calculation.** The MAC Service Level Standard is calculated by computing the period of time beginning on the Order Acceptance date and ending on the date Verizon completes the order for the Service.

5.8.4 **Credit Structure.** To obtain a credit, Customer must report the delay in Service order completion to the Verizon account team as described in the Credit Section of the SLA.

MAC credit table:

For Standard not met	U.S.	Global Tier A	Global Tier B	Global Tier C

MAC	50% of MRC on the applicable Connection	50% of MRC on the applicable Connection	50% of MRC on the applicable Connection	50% of MRC on the applicable Connection

5.8.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, the MAC Service Level Standard does not include any minutes associated with the following:
- Delays in installation related to Customer actions, moves or scheduling difficulties.
- Delays resulting from changes to a previously accepted order for Service from Customer, its agents or vendors.
- Any delays resulting from unavailability of Customer's premises, equipment, or facilities required to install the Service.
- Delays attributed to extending the Local Access demarcation point.
- Delays resulting from inaccurate or incorrect order information from Customer.
- Delays resulting from an order suspension due to credit issues involving Customer.
- MAC problems for services provided pursuant to any promotional Move, Add or Change offerings might not be eligible for credit refunds.

Any periods of delay attributable to the reasons above will be deducted from the MAC installation time period.

5.9 Mean Opinion Score (MOS)

5.9.1 **Definition.** Quality level of the audio fidelity and clarity of a voice call.

5.9.2 **Standard.** See Service Level Standard Performance Measurements table above.

5.9.3 **Calculation.** Verizon calculates MOS by sampling performance scores for the EF traffic class, using the standards based ITU-T G.107 (E-model) and assuming a G.711 codec, between Verizon-designated core backbone network nodes and averaging the results over a thirty day period. The monthly measurements are available at the following link: https://www.verizon.com/business/terms/latency/#pip.

5.9.4 **Credit Structure.** To receive a credit, Customer must submit their request within 30 business days after the month in which the MOS Service Level Standard was not met. Such credit will equal the pro-rated charges for one day of the MRC for the Customer's Connections within the specific region during the calendar month in which the MOS Service Level Standard was not met.

MOS credit table:

For Standard not met	Credit
Mean Opinion Score (MOS)	The pro-rated charges equal to one day's MRC for the Customer's Connections

5.9.5 **Exclusions.** In addition to the General Exclusions, as set out in the General Exclusion Section below, MOS Service Level Standard measurements do not include the following:
- The MOS Service Level Standard applies only to data packets marked EF by Customer and compliant with the Customer's subscribed EF Real Time CAR.
- The MOS Service Level Standard applies only to the U.S., EMEA and APAC regions.
- The MOS Service Level Standard is not applicable to the Private IP Layer 2 services.

6. **Credit Requests and Application Process**

6.1 **Service Level Agreement Credit Application Structure.**
   - For any calendar month in which Verizon fails to meet any of the Service Level Standards stated in this document the credit structure for the Service Level Standards listed above will be applied to the corresponding net billing MRC for the specific Connection(s) affected by a PIP Network Hard Outage(s) or Service Issue(s).
   - The total of all credits within any one month is limited to a maximum of 100% of the MRC for the specific Connection or Site, as applicable, which was impacted by any non-compliance with the Service Level Standard(s). Credits are not cumulative month to month.
   - Credits for Hard Outages are determined based on Eligible Hard Outage Minutes and Customer may claim the TTR Service Level Standard credit in addition to the Availability Service Level Standard credit in a given calendar month. Customer may claim only one credit within a particular Service Issue Service Level Standard category during a given month. Customer cannot claim credits from both the Hard Outage and Service Issue categories for the same event. Customer can request to have compliance checked for all of the standard Service Level Standard commitments when requesting credits in any given month.
   - To receive a credit, a trouble ticket must be opened with Verizon and Customer must submit their credit request no later than the stipulated time allowed to claim the specific Service Level Standard credit. The appropriate refund amount will be credited to the Customer's account at the billing account number (BAN) level in one lump sum, as opposed to each individual circuit or all circuits under multiple BANs. The appropriate refund amount will be appearing as a line item on a bill delivered within 90 calendar days following Verizon's confirmation of non-compliance with the Service Level Standard.
   - Credits do not apply to Local Access or backhaul charges.

6.2 **Process for Customer to Apply for Service Level Agreement Credits.** The process to apply for SLA credits is provided below for each of the Service Level Standards.

6.2.1 **Opening a Trouble Ticket.** In the case that a trouble ticket is required to document an outage or service event for credit compliance, this can be done either through the Customer Service Center or through the web-based Verizon Enterprise Center. The number for the assigned Customer Service Center is printed on Customer's invoice. Access to the Verizon Enterprise Center can be requested at the first use by registering at the Verizon Enterprise Center portal https://enterprisecenter.verizon.com/.

6.2.2 **Submitting a Service Level Agreement Credit Request.** The request for a SLA credit is submitted in writing from Customer to the account team. The timing and content of the request varies by Service Level Standard. This communication can be through email or by fax.

6.2.3 **Trouble Ticket and Credit Request by Service Level Agreement**

6.2.3.1 **Availability and Time To Repair (TTR).** In order for the Hard Outage to qualify for an SLA credit Customer must do the following:

6.2.3.1.1 A trouble ticket is opened with Verizon within 72 hours of the time the Hard Outage.

6.2.3.1.2 Submit an SLA credit request to Verizon within 30 days of the closing of the trouble ticket. The request may be submitted in writing to Customer's account team or via the Verizon Enterprise Center portal. The credit request must contain the following information:
   - The date the Hard Outage occurred.
   - The time the Hard Outage began and ended.

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- The circuit ID(s) for each circuit(s) that was impacted.

6.2.3.2 **Packet Transit Delay (PTD), Packet Delivery Ratio (PDR) and Jitter.** In order for the Service Issue to qualify for an SLA credit Customer must do the following:
- A trouble ticket is opened with Verizon within 72 hours of the time the Service Issue arose.
- Submit an SLA credit request to Verizon within 30 days of the closing of the trouble ticket. The request may be submitted in writing to Customer's account team or via the Verizon Enterprise Center portal. The credit request must contain the following information:
  - o The date the Service Issue occurred.
  - o The time the Service Issue began and ended.
  - o The circuit ID(s) for each circuit(s) that was impacted.

6.2.3.3 **Core Network Transit Delay (C-NTD) and Mean Opinion Score (MOS).** To receive a credit, Customer must make a credit request in writing (e-mail or fax) to the Verizon account team within 30 business days after the month in which the C-NTD or MOS Service Level Standard was not met.

6.2.3.4 **Service Installation and Moves, Adds, or Changes (MAC).** Customer must report the delay in Service installation or MAC to the appropriate Customer Service Center when the target date is missed. Customer must make a credit request in writing (e-mail or fax) to Verizon account team within 30 days of the date that Verizon completes the installation of the circuit. Customer must document the following information when requesting the credit:
- The date on which the Service Installation Period or MAC interval began.
- The date specified for Service Installation or Service order completion in the Customer's order.
- The date installation or Service order was completed.
- The Port and Local Access ID numbers for the installed Service or the related Service order.

6.3 **Service Level Agreement Credit Time Limitation.** Service Credits made by Verizon to Customer under this Service Level Agreement are the sole and exclusive remedy available to Customer in respect of any failure to meet a Service Level Standard. Notwithstanding the preceding sentence, Customer may pursue the following options after three consecutive months of non-compliance with the PIP Service SLA:

6.3.1 Customer may elect to continue the Service for the affected connection inclusive of the credit. Customer can only receive a maximum of six months of credits for any individual Service Level Standard within a 12-month period regardless of the number of Connections.

6.3.2 Customer may elect to discontinue all PIP Service for an affected Connection without liability except for charges incurred prior to discontinuation of the Service. To cancel the Service for a Connection, Customer must submit a written disconnect notice to its Verizon account team within 30 days following the end of either the third or subsequent consecutive month of Verizon's failure to meet the Service Level Standard.

7. **General Exclusions.** The following exclusions apply to all Service Level Standards contained in this document:

7.1 Service Level Standards is limited to measurements taken at and service events occurring at or within the Provider Edge for Private IP services delivered when using the following access methods to Private IP:
- Network to network interface (NNI) partner via a MVIC.
- Satellite Port.
- Customer Provided Access.
- International Private Line (IPL).

7.2 No Service Level Standards are provided for the following nor will any Service level standard not met be considered for:

- Service installations prior to acceptances by Customer.
- Packets marked EF/COS5 by Customers that are larger than 300 bytes.
- Bursty Traffic in the EF/COS5 queue.

7.3 Private IP Layer 2 Specific Exclusions:

- Private IP Layer 2 excludes Mean Opinion Score (MOS) and Jitter Service Level Standards.
- Private IP Layer 2 Coverage Exclusions:
  - All MVIC locations.
  - The following countries: Argentina, Brazil, Canada, Chile, Colombia, Mexico, Panama, Peru, Puerto Rico and Venezuela.

7.4 Service Level Standard measurements do not include periods of PIP Network Outage resulting in whole or in part from one or more of the following causes:

- Any Hard Outage minutes associated with failure of CPLL.
- CPE associated with the PIP Service.
- Any act or omission on the part of the Customer, its contractors or vendors, or any other entity over which the Customer exercises control or has the right to exercise control.
- Any scheduled maintenance on the part of Customer, Customer contractors or Customer vendors.
- Any scheduled maintenance on the part of Verizon or Verizon Service partners which are within Verizon's maintenance windows.
- Any scheduled maintenance on the part of Verizon's Service partners, including without limitations, MVICs.
- Any Force Majeure events as defined in the Contract.

8. **Terms and Definitions**

Term	Definition
Assured Forwarding (AF)	A set of priority Class of Service types intended to support data prioritization and precedence.
Best Effort (BE)	A Class of Service type intended to support General Business transactions.
Billing Account Number (BAN)	The account number to which all the Service charges are linked.
Bursty Traffic	Traffic where the minimum packet arrival gap in ms is the same or less than [(the largest expected voice packet sizes in bytes)*8000/(link speed in bits/sec)].
CE-to-HUB	Satellite Gateway SLA is measured between Verizon's-origination (Satellite earth station Hub) and customer-destination demarcation point.
Circuit	A circuit is a Connection, port, CAR and local access.
Class of Service (COS)	Priority classes that enable the network to differentiate data packages and assign routing precedence based on the customer data networking settings.
Committed Access Rate (CAR)	Committed Access Rate (CAR) is the amount of bandwidth to which Customer subscribes on a logical port by logical port basis. CAR can be equal to or less than the logical port speed.
Connection	Connection is a port on Customer's virtual private network (VPN) connected to the Verizon PIP Network. Customer subscribes to a CAR for each Connection.
Core Network	The Core Network, also referred as the Provider Core or P-Core Network, is a dedicated and redundant backbone network with a resilient topology engineered to optimized network routes, maximize stability and minimize failover times. The

	Core Network has been designed to provide quality of service excellence and to enable intelligent adaptability to new generation technologies. The Core Network is a secure, reliable and fast backbone network platform dedicated solely to Private MPLS network traffic. The Core Network supports Private MPLS network traffic but does not support direct customer access connections.
CPE	Customer Premise Equipment. Telecommunications equipment located at the Customer Site.
Customer Edge (CE)	Routers and CPE connected to the local access loop.
CE-to-CE	Customer Edge to Customer Edge. The network segment to and from the customer demarcation point that includes the local loop and the PIP network but excludes the customer CPE.
Customer Provided Local Loop (CPLL)	Customer remits payment for local access directly to their local access provider and Verizon does not invoice Customer for local access charges.
Customer Service Center	Verizon locations where Customer reports Service issues.
Eligible Hard Outage Minutes	Total number of Connection Hard Outage minutes less any Outage minutes attributed to events excluded by the PIP SLA.
End-to-End	The network segment in which Verizon Business has control. It includes the Local Loops if it is furnish or ordered by Verizon Business or a Verizon Affiliate from a third party carrier, and where Verizon Business invoices the Local Access cost to Customer. It excludes the CPE.
Enhanced Traffic Management Service (ETM)	Service that provides priority traffic routing with Class of Service features.
Expedited Forwarding (EF)	A priority Class of Service type intended to support applications that require real time traffic flows.
Hard Outage	Complete loss of Service where Customer cannot use the Service and is prepared to release it for immediate testing.
Hub	The satellite infrastructure located at a Verizon earth station which is interconnected to Private IP.
International Private Line(IPL)	Provides dedicated connections (point-to-point or point-to-multipoint circuits) between customer sites in numerous countries around the globe.
IP	Internet Protocol.
Layer 2	The Data Link Layer of the OSI Model.
Layer 3	The Network Layer of the OSI Model.
Local Access	On-Net, Off-Net or Customer Provided connection from the Provider Edge to the Customer Edge.
Managed Services	A Verizon Service designed to provide customers with a range of management options, from the proactive monitoring to complete outsourcing, of the Customer's data or voice networks.
MPLS	Multi-Protocol Label Switching. An IETF standard.
MRC	Monthly Recurring Charge. MRC includes net port and CAR charge, less any applicable discounts, and does not include local access charges.
MVIC	Private IP MPLS VPN Interconnect Services provided through a partner network and interconnected with Verizon through the MVIC.
Network	Verizon MPLS VPN Service, known as PIP. A network-based IP VPN service that utilizes IP-over-MPLS (Multi-Protocol Label Switching) technology to deliver IP VPN services to its customers in a secure, reliable and fast manner.
Network Outage	A Network Outage is defined as an unscheduled period in which the Service is interrupted and unavailable for use by Customer for 60 or more Unavailable

	Seconds (UAS). UAS is the American National Standards Institute standard (ANSI) T1.231.
NNI	Network to Network Interface (NNI) which provides an efficient interface between two data networks.
Off-Net	A location that is interconnected to Verizon Business using Local Access Circuits not wholly furnished via facilities owned or operated by Verizon Business or a Verizon Affiliate but ordered by Verizon Business or a Verizon Affiliate from a third party carrier. Off–net is offered at three levels of performance: Premium, Standard and Basic.
On-Net	A location that is interconnected to Verizon Business using Local Access Circuits wholly furnished via facilities owned or operated by Verizon Business or a Verizon Business Affiliate.
Order Acceptance	When Customer has provided all information required by Verizon, Customer has successfully passed a credit check (if required), and Verizon's ordering systems has processed the Customer's information and have accepted the order as ready for provisioning.
OSI Model	Open Systems Interconnection Reference Model. A standard description for how data should be transmitted between any two points in a telecommunication network. Its main purpose is to define the networking framework for the consistent delivery of products and services over a telecommunications network. The reference model defines seven layers of functions that take place at each end of a telecommunication network: Application (Layer 7), Presentation (Layer 6), Session (Layer 5), Transport (Layer 4), Network (Layer 3), Data-Link (Layer 2) and Physical (Layer 1).
P-Core	Provider Core. Dedicated and redundant backbone network with a resilient topology engineered to optimized network routes, maximize stability and minimize failover times. The P-Core has been designed to provide quality of service excellence and to enable intelligent adaptability to new generation technologies. The P-Core is a secure, reliable and fast backbone network platform dedicated solely to Private MPLS network traffic. The P-Core supports Private MPLS network traffic but does not support direct customer access connections.
PIP	Private IP Service.
PIP Network	The Verizon Private IP Network consisting of the devices and transport making up the MPLS cloud.
Port	An entrance to and/or exit from a network.
Provider Edge (PE)	The edge of the Verizon PIP Network. It is the point in which customer traffic enters or exits the Verizon PIP Network.
PE-to-PE	Provider Edge to Provider Edge. The network segment consisting of the PIP Network but excluding the Local Loops and the customer CPE.
Private IP Layer 2	Private IP Layer 2 is a technology using Virtual Private Wire Services (VPWS) to provide point-to-point routing and to allow Customers to retain control of routing, architectural and topology changes.
Private IP Layer 3	Private IP Layer 3 is a Network-Based IP VPN service using IP-over-MPLS technology to deliver high-performance IP VPN solutions to customers in a secure, reliable and fast manner.
Service or PIP Service	Service or Private IP Service is defined as Customer port and CAR and Local Accesses.
SLA	Service Level Agreement.

Service Restoration Priorities	Process by which Service disruptions are ranked by the Customer Service Center. A "Priority 1" is a total loss of Service, or degraded Service to the extent that it is unusable by Customer and Customer is prepared to release its Service for immediate testing. A "Priority 2 is degraded Service, however Customer is able to use the Service and is not prepared to release its Service for immediate testing.
Site	A site is Customer's Service location which includes CPE and a Connection.
Service Issue	A degradation of Service where Customer is able to use the Service and is not prepared to release the Service for immediate testing. Service Issues are a Priority 2 restoration priority.
Trouble Ticket	A trouble ticket is defined as the official method used to document a perceived problem with the Service or non-compliance with a Service Level Standard.
Virtual Private Network (VPN)	A virtual network that provides the equivalent of a dedicated private network service over a shared data telecommunications infrastructure. A VPN maintains privacy through security network protocols. A VPN uses a logical connection to route traffic between network sites. One of the key attributes of a VPN is that it can provide the same capabilities of a Private Network but usually at a much lower cost.