



MANAGED WAN SERVICE

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1. GENERAL

1.1 **Service Definition.** Managed WAN Service provides a range of service options enabling Customer to transfer all or part of its wide area network management to Verizon, including network design, CPE configuration, service installation, proactive monitoring, fault notification, reporting, device management and software support (subject to availability).

1.1.1 **Platforms.** Except where explicitly stated otherwise, these terms apply to Optimized Service (denoted with a “+” and sometimes referred to as Rapid Delivery) and non-Optimized Service.

1.2 **Standard Service Features.** Managed WAN is offered at three service levels. The features and responsibilities are summarized in the table below.

	Division of Responsibilities		
	Monitor and Notify	Physical Management	Full Management
Customer	Customer Manages: <ul style="list-style-type: none"> • Strategic Direction • Fault Isolation • Fault Restoration-Logical • Fault Restoration-Physical • Maintenance-Break/Fix • Change Management-Logical • Change Management-Physical • Configuration Back-Up • Security Policy and Patching 	Customer Manages: <ul style="list-style-type: none"> • Strategic Direction • Fault Restoration-Logical • Change Management-Logical • Security Policy and Patching 	Customer Manages: <ul style="list-style-type: none"> • Strategic Direction • Security Policy
Verizon	Verizon Manages: <ul style="list-style-type: none"> • Monitoring • Fault Notification • Performance Reporting 	Verizon Manages: <ul style="list-style-type: none"> • Monitoring • Fault Isolation • Fault Notification • Fault Restoration-Physical • Maintenance-Break/Fix • Configuration Back-Up • Performance Reporting 	Verizon Manages: <ul style="list-style-type: none"> • Monitoring • Fault Isolation • Fault Notification • Fault Restoration-Logical • Fault Restoration-Physical • Maintenance-Break/Fix

		<ul style="list-style-type: none"> • Change Management-Physical 	<ul style="list-style-type: none"> • Change Management-Logical • Change Management-Physical • Configuration Back-Up • Performance Reporting • Security Patching
<p>Change management of applicable software licenses that may be configured on Managed Devices does not include responsibility for tracking device-specific licenses where the device vendor permits re-use on new device acquisition.</p>			

1.2.1 **Monitor and Notify Service Level.** The most basic level of Managed WAN is Monitor and Notify, under which Verizon, provides the following capabilities.

- **Monitoring.** Verizon proactively monitors all Managed Devices up to the local area network (LAN) interface of the Managed Device 24 hours a day, 7 days a week. Verizon will manage devices that are certified by Verizon.
- **Notification and Resolution.** Verizon will create a trouble ticket and send a notification to Customer's designated point of contact within 15 minutes of Verizon's determination of a Managed Device or transport failure. Following the creation of a trouble ticket, Verizon will i) if the trouble is due to a Verizon transport service, troubleshoot the transport service until the problem has been verified as fixed and the ticket will then be closed; or ii) if the trouble is due to causes other than a Verizon transport service, inform Customer of the fault and monitor the ticket.
- **Managed Services Customer Portal.** Verizon will provide a managed services portal on the Verizon Enterprise Center or other website provided by Verizon from time to time (VEC). The VEC provides a consolidated view of Customer Network information 24 hours a day, 7 days a week and real time access to project status, contact information, and information about Managed Devices. The Cloud-Controlled Routing portal (Web Portal) is accessed via the VEC.
- **Web Portal Administrative Access.** Monitor and Notify Cloud-Controlled Routing (CCR) Customers have write administrative access to logically manage their Managed Devices. Customer shall not add, move or remove devices or licenses to the dashboard, add or remove administrators in the dashboard to ensure that devices, licenses and administrators are provisioned on Verizon systems.

1.2.2 **Physical Management Service Level.** The Customer can choose Physical Management which contains the capabilities of Monitor and Notify plus additional capabilities described below. As part of Managed WAN Physical service, Verizon provides the following capabilities:

- **Design Services.** Verizon will create a Customer design document (CDD) based on a written statement of requirements (SOR) agreed to by Customer. Verizon will activate, monitor, and manage the Customer Network as designed in the CDD.
- **Monitoring and Resolution.** Verizon provides physical fault detection, isolation, and monitoring services for Managed Devices, 24 hours per day, 7 days per week. Verizon will resolve physical faults whether caused Verizon, Customer or third party issues. Managed Device logical faults are Customer's responsibility. Customer will inform Verizon of physical faults once Customer has completed its logical troubleshooting if Verizon is the maintenance provider for Customer's CPE.
- **CCR Network Image.** For CCR, a current image of Customer's network is stored on the Cloud Infrastructure, but a roll-back to previous configurations is not supported.
- **Change Management Activities.** Verizon will perform the change management activities shown on the VEC as Standard Change Management at no charge. Optional Change Management activities will be performed at the rates shown.

1.2.3 **Full Management.** The Customer can choose Full Management, which contains the capabilities of Monitor and Notify and Physical plus additional capabilities described below.

- **Monitoring and Resolution.** Verizon will resolve both logical and physical issues, with Customer's cooperation, either remotely or by dispatching a technician, whether caused by Verizon, Customer or a third party.

- **Web Portal Administrative Access.** Full CCR Customers have read-only administrative access in the Web Portal.

1.2.4 **Implementation Options.** Managed WAN has two implementation options to bring devices under Verizon management: (i) Managed Implementation, which applies to Customer or Verizon provided devices and (ii) Managed Take Over, which applies to existing, operating networks with Customer-provided devices. Both are subject to an SOR to be agreed upon by the Parties.

1.2.5 **Managed Device Software Release Management**

1.2.5.1 **Installation.** Verizon will provide relevant software patches and updates as provided by the Managed Device manufacturer from time to time for installation during a fixed update time period, mutually scheduled by the parties. Warranties on software updates, if available, will be provided directly by the Managed Device manufacturer.

1.2.5.2 **Testing.** At Customer's request, Verizon will make commercially reasonable efforts to make available the resources of Verizon's Customer Test Center (CTC) for the purpose of testing Managed Device manufacturer software prior to the implementation of such software. Verizon's ability to control the implementation of any new Managed Device manufacturer software release may be limited by rules established by the Managed Device manufacturer software. CTC testing may be subject to additional fees and result in delay of the software deployment.

1.3 **Optional Service Features**

1.3.1 **Network Discovery.** Network Discovery is provided to Managed Take Over Customers for certain management features as part of the implementation. Otherwise, Customers may order Network Discovery subject to an additional cost. If Customer orders Network Discovery, Verizon will electronically collect information on CPE connected to Customer's managed network.

1.3.2 **Third Party Transport Service.** With the Third Party Transport Service feature, if Customer has two or more managed Customer Sites, Verizon will monitor and manage covered third-party provided transport services and inform Customer of the existence of outages or problems with those third-party provided services.

1.3.3 **Device Management.** For device management, Customer may select "Router Management," "SD WAN Management," "Virtual Host Management," "Software Defined Secure Branch," "Analog VoIP Gateway," "Satellite Device Management," or "Cloud-Controlled Routing." Router Management and Cloud-Controlled Routing are available with all Managed WAN service levels. To effectively manage the network, all Customer sites with Cloud-Controlled management (e.g., CCR, Cloud-Controlled Switching for Managed LAN, and Cloud-Controlled Access Point for Managed WLAN) must be at the same service level. Satellite Device Management, SD WAN Management and Software Defined Secure Branch are available with either Full Management or Monitor and Notify service level. Virtual Host Management, and Analog VoIP Gateway are only available with Full Management.

1.3.4 **SD WAN Management + and Software Defined Secure Branch + Service Description.** Verizon proactively monitors all Verizon certified SD WAN Management and Software Defined Secure Branch Managed Devices up to the host controller for such Managed Devices, 24 hours a day, 7 days a week.

- **SD WAN Management (For select Managed Devices with Cisco SD-WAN Software).** With SD WAN Management, Verizon monitors traffic performance based on flexible Customer-established policies that classify its traffic into application categories and define minimal requirements for loss, delay, and jitter per traffic or application group, such that application traffic can be routed over the preferred network paths as defined by the Customer.
- **Software Defined Secure Branch (For select Managed Devices with Versa or Fortinet Software).** With Software Defined Secure Branch, Verizon will provide programmable, rules-based WAN routing services, optional security services, and centralized management. Not all

services and options listed below are available for every vendor software. This feature maps Customer application traffic over Customer's network in accordance with Customer defined routing policies which can be updated by Customer either manually or automated. Policies are customizable on an application-by-application basis. Customer may request a list of the features included in each package by vendor by contacting Customer's account manager. Available services as part of this feature are based on vendor license capabilities and Verizon support capabilities, and include the options below:

- **Routing.** The routing function enables basic routing capabilities with support for common routing protocols.
- **SD WAN Function.** The SD WAN function monitors network performance for each relevant pair of source and destination sites and sends traffic onto those paths that best meet Customer's policies.
- **Centralized enforcement of access control and network policies.** Any changes to the policy will be applied across the network automatically.
- **Encrypted Control and Data Traffic.** The traffic can be encrypted end to end for additional protection of the data as it traverses the network.
- **Security Function.** Verizon will provide security functions including firewall, intrusion prevention, and content filtering services.

1.3.5 Managed Device Enhanced Features. For selected devices under Full Management. Verizon can provide configuration, implementation, administration, monitoring, support, reporting (if applicable), and installation of available manufacturer-provided and/or hardware patch/upgrades for the following features as selected by Customer.

- **Firewall.** With Firewall, Verizon will manage Customer-selectable zones (e.g. external or untrusted, internal or trusted, DMZ), firewall policies, and firewall rule sets between all zones.
- **Content Filtering.** With Content Filtering, Verizon will configure the feature to interface with Customer's Websense server based on information provided by Customer. Customer can use that server, and/or a backup list of up to 25 URL filters, to control web-based content accessed by end users.
- **Switching (For LAN Module on a Managed Device).** With LAN Module Switching, Verizon provides additional LAN ports on the Managed Device. Verizon monitors the LAN module generally, but not individual ports.
- **Intrusion Prevention.** With Intrusion Prevention, Verizon will detect, alert, and in some cases block attacks (intrusions) on Customer's managed network, using intrusion prevention signature files provided by the Managed Device manufacturer.
- **Encryption.** With Encryption, in countries where it is available, Verizon will encrypt Customer data traffic between Managed Devices on the Verizon Private IP network. Customer will provide at least two additional Managed Devices with the Encryption feature to act as key servers. If circumstances arise that cause the Encryption feature to fail and prevent communication to and from that Managed Device, Customer will notify Verizon.
- **WAN Acceleration.** With WAN Acceleration, Verizon will optimize traffic using compression, caching protocol optimization where other Sites on the Customer's managed network have compatible application optimization CPE.
- **Wireless LAN Controller Management.** With Wireless LAN Controller Management, Verizon will configure the Managed Device to provide Wireless LAN controller management capabilities for Customer Network Sites with compatible access point CPE.
- **Lightweight Access Point Management.** With Access Point Management, Verizon will configure the Managed Device with embedded Access Point functionality such that it will interoperate with Verizon Managed Wireless LAN service.
- **IPSec Tunneling.** With IPSec Tunneling, available on certain Managed Devices, Verizon enables the tunneling and encryption of Customer data traffic between two Managed Devices. Enabling this feature on a remote Managed Device is dependent on the same feature being enabled on a separate Customer Managed Device, typically located at the Customer hub site.
- **Wireless LAN Access Point.** With Wireless LAN Access Point, available on certain Managed Devices that have Access Point functionality, Verizon will configure the Managed Device as a

Wireless access point so long as at least one other site or Managed Device in Customer's network has a compatible Wireless LAN Controller.

- **Virtual Blade Management.** With Virtual Blade Management, Verizon makes available management of the blade on certain Managed Devices that support additional hardware used to host Virtual Machines (VMs) running Virtual Network Services (which above-described combination may also be referred to as Virtual Network Functions). To the extent Virtual Network Services are required, they are to be purchased separately.
- **Managed VoIP Services including Voice Gateway, Analog VoIP Gateway, and Multi-Service IP-to-IP Gateway.** With Managed VoIP Services, Verizon will manage VoIP CPE Elements (not VoIP Service devices such as phones) at the same management level as the related Managed Devices. Certain Customer roles and responsibilities for the underlying VoIP Service may be impacted by Managed VoIP Services. Verizon will work with Customer to address such impacts.
- **Application Aware Routing + (For select Cisco Managed Devices).** With Application Aware Routing, Verizon monitors traffic performance based on flexible Customer-established policies, that classify its traffic into categories to the granularity of applications, and define minimal requirements for loss, delay, and jitter per traffic or application group, such that application traffic can be routed over the preferred network paths as defined by the Customer.
- **Virtual Host Management +.** Virtual Host Management supports a universal CPE device deployed to Customer's premises. This hardware device is used to host Virtual Machines (VMs) running Virtual Network Services (which may also be referred to as "Virtual Network Functions") which include Security and WAN Services. Customer acknowledges that Virtual Host Management covers the universal CPE device only, and does not cover any Virtual Network Functions hosted on that universal CPE. For Virtual Network Functions hosted on the universal CPE, Customer must purchase Virtual Network Services under a separate Contract.
- **Cloud Security Services +.** For select Managed Devices, Verizon will configure and manage the connection from the Managed Device to an external cloud-based security service. Approved security services may be provided by Verizon or third party.
- **Embedded WiFi +.** For select Managed Devices, Verizon will configure and manage WiFi service; WiFi services are standalone and not compatible or interoperable with Managed Wireless LAN service.

1.3.6 **WAN Analysis.** (non-Optimized Service only) For customers receiving non-Optimized Managed WAN services, the terms and conditions for WAN Analysis are located at the following URL:

For U.S. Services:

www.verizonenterprise.com/external/service_guide/reg/cp_war_plus_wan_analysis_reporting.pdf

For non-U.S. Services:

www.verizonenterprise.com/external/service_guide/reg/cp_war_plus_wan_analysis_reporting_2017_DEC01.pdf

For Optimized Service, WAN Analysis includes support for application aware routing reports for Verizon-supported vendors. WAN Analysis is not included for certain software license levels under Software Defined Secure Branch that do not include application aware routing functions.

1.3.7 **WAN Backup.** With WAN Backup, Verizon configures a Managed Device to support a second access circuit (over separately provided Verizon or third party service) in the event the primary network connection fails.

1.3.8 **Network Analysis Service (NA).** (For Networks with 20 or more Managed Devices with a United States law contract). With Network Analysis, Verizon will provide monthly network analysis reporting, including interactive monthly calls to review that reporting, starting 60-90 days after installation.

1.3.9 **Network Engineering Service (NE).** (For larger Networks, i.e., those with 20 or more Managed Devices under Full Management). With Network Engineering, Verizon provides engineering planning, design and change-management support services.

- 1.3.10 **Managed WAN Support for Private IP (PIP) Dynamic Network Manager.** Verizon PIP Dynamic Network Manager service is available in either fully automated or semi-automated mode for Managed Devices under Full Management. For Full Management, Verizon is responsible for updating both PE and CE devices. Verizon will make changes only to PE devices for Physical and Monitor and Notify management levels; Customer is responsible for any changes to the CE device
- 1.3.11 **Cloud-Controlled Routing Reporting.** This feature enables Customer to access comprehensive daily and ad hoc reporting – which may aid Customer in accessing the health and performance of Managed Devices under Cloud-Controlled Routing – via the Web Portal, which is available on the VEC.
- 1.3.12 **Guest Access.** Verizon offers two Guest Access options available per Lightweight Access Point or Wi-Fi-enabled Managed Device under Cloud-Controlled Routing: (i) Cisco Meraki, with additional information available at the Web Portal; and (ii) Purple Wi-Fi, with additional information available at <http://verizon.purplewifi.net/> or other URL provided by Verizon from time to time (the Guest Access Portal). These Guest Access options provide the following functionality:
- **Guest Wi-Fi.** Log-in pages can be created to provide Customer’s guests with Wi-Fi access to Customer’s network through a tailored splash page presenting Customer’s brand identity and offering various login options to facilitate access by Customer’s guests.
 - **Mobile Location Analytics (MLA).** This feature enables Customer to choose to (i) capture information broadcast by the wireless devices of guests and end users (collectively, such data is hereinafter referred to as MLA Data); and (ii) use MLA Data for the protection of Customer’s network and marketing purposes.
 - **Content Filtering (Purple Wi-Fi-only).** Customer can block inappropriate content by requesting either a specific category of sites to be blocked or the specific sites. Customer also has the option to limit traffic via bandwidth controls.
- 1.3.13 **Splash Page Design Support.** Verizon provides splash page design in basic or customized forms.
- **Basic.** Basic splash page design support provides up to two hours of minor customization of a one-page, pre-defined, guest access splash page template on either the Cisco Meraki- or Purple WiFi-based platforms. Basic splash page design support consists of adding Customer’s logo to the splash page and styling the page with Customer’s corporate color scheme and font. Only styling changes will be made. No structural or layout changes will be made to any pre-defined template as part of this Basic option.
 - **Customized.** Customized splash page design support provides up to eight hours of professional services to fully customize a one-page guest access splash page. Customer’s typography, graphics, images, and links may be utilized if provided in HTML or CSS.

1.4 **Customer Responsibilities**

- 1.4.1 **Out of Band Access.** Unless otherwise agreed, Customer will provide out of band access to each Managed Device over a separate PSTN line or wireless connection (which may include backup wireless), where required and consistent with Verizon specifications for troubleshooting purposes. Out of Band Access is not required for the Monitor and Notify service level. For Managed WAN Physical, Customer also will provide Verizon read access to the Managed Device configuration, and will maintain any software licenses associated with Managed Devices. Customer will provide Verizon the Simple Network Management Protocol or SNMP read/write community string to any Managed Device whose configuration it wants Verizon to automatically backup. For Customer Sites with two or more circuits, Customer may utilize the “alternate access” circuit in lieu of either PSTN or wireless out of band connection. Managed Devices under Cloud-Controlled Routing do not require out of band access.
- 1.4.2 **Wireless OOB from Verizon.** Verizon may provide Customer with the option to order a Wireless out of band (OOB) for approved Managed Devices. The Wireless OOB provided on the SIM card will be



machine-to-machine (M2M) data only (no voice) and carrier service data (CSD) and that the PIN code of the SIM card will be removed.

- 1.4.3 **Physical Verification of Managed Devices.** Upon Verizon's request, Customer will reboot the Managed Devices, provide the LED light statuses of the 3rd party provider Network Terminating Unit where applicable, verify equipment power, verify if all cables are securely connected, and insert a loopback plug.
- 1.4.4 **Customer Initiated Site Maintenance.** Customer will notify Verizon via a Customer Maintenance Change Management Request via the VEC of any maintenance (powering down the site/managed device/3rd party provider Network Terminating Unit, resetting equipment, re-cabling, physical equipment move) that may affect the operating status of the Managed Devices.
- 1.4.5 **Customer Owned CPE.** Managed Take Over or Managed Implementation may show Customer's CPE needs upgrading before it can be managed. Verizon will manage such CPE after the upgrade is complete. Customer is responsible to refresh the CPE as required, including upgrades for Managed Device Enhanced Features, end-of-life conditions, and the like.
- 1.4.6 **Managed VoIP Services.** Customer will do the following for Managed VoIP Services:
- **Configuration Requests.** Confirm configuration of its active Managed VoIP Services is consistent with its preferences.
 - **PSTN Lines.** Arrange for the purchase and installation of any PSTN lines for its Verizon or third party VoIP Service design.
 - **Feature Changes.** Make feature changes at the user or administrator level (e.g., setting up call forwarding for a phone or establishing an auto-attendant) through the VEC.
 - **IP Phone and PBX Changes.** Make IP phone and IP PBX configuration changes (unless Customer is subscribed to Verizon Managed IP PBX Service).
 - **Server Support.** Implement and maintain a server (e.g., for Cisco, a TFTP [trivial file transfer protocol] server) for IP phone configuration support.
- 1.4.7 **Guest Access Notice.** Customers utilizing the MLA feature must display a notice, in a conspicuous location proximate to the area where the MLA data is collected, that at a minimum: (i) identifies Customer as the Data Controller (as defined in applicable law); (ii) describes the type of personal information collected; (iii) describes the purpose(s) for which guests' and end users' personal information is processed; (iv) provides a summary of Customer's privacy practices and/or a link to its privacy policy; (v) describes any third parties to which Customer will disclose the personal information of guests and end users and the countries to which such personal information may be transferred; (vi) explains how guests and end users can contact the privacy officer or other person who is accountable for the Customer's privacy practices and how to access and/or correct their personal information; (vii) explains how such guests and end users can opt out from the collection and processing of their personal information; and (viii) notifies guests and end users that their decision not to opt out constitutes consent to the collection, processing, transfer and use of their personal information. Where the guest or end user is located outside of the United States, the opt out requirement in subsections (vii) and (viii) above will not apply and instead the notice must: (1) include an "opt-in" click box or other mechanism that guests and end users must check or accept prior to gaining access to the MLA feature; and (2) notify guests and end users that their decision to opt-in constitutes express consent to the collection, processing, transfer and use of their personal information in accordance with the terms described in (i) through (vi) herein.

2. SUPPLEMENTAL TERMS

- 2.1 **Restriction on Encryption Functionality in India.** Customer will not perform any bulk encryption in connection with Verizon Facilities in India. The use of encryption shall be governed by the government policy/rules made under the Information Technology Act, 2000. Customer is responsible for any encryption/decryption activity.



- 2.2 **Network Discovery.** Customer will provide Verizon with accurate information about proper scope of the Network Discovery, represents that it has all necessary authority to have Verizon undertake the Network Discovery requested under these terms, and will indemnify Verizon and its employees, affiliates and agents against any liability if it does not. Verizon reserves the right to stop or withhold from performing Network Discovery, at its sole discretion. Customer's sole remedy for any failure, inadequacy or other problem of Network Discovery is to request that Verizon re-perform it.
- 2.3 **NE and NA Services Disclaimer.** Customer will make its own independent decision whether to consider or implement any Verizon recommendation, referral or introduction in connection with NE and/or NA (collectively "Recommendations").
- 2.4 **Portal User Names and Passwords.** Customer must immediately notify Verizon upon learning of any unauthorized use of Customer's login credentials. Customer is responsible for all activities and charges incurred through the use of the compromised login credentials.
- 2.5 **VoIP Restrictions.** Customer acknowledges that a number of jurisdictions impose restrictions and/or licensing or registration conditions on VoIP transmission over the network. Customer shall comply with such regulations, as applicable.
- 3. **SERVICE LEVEL AGREEMENT (SLA).** The SLA for Managed WAN may be found by clicking on the following: www.verizonenterprise.com/external/service_guide/reg/cp_mwan_sla.pdf.

4. FINANCIAL TERMS

4.1 **Optimized Service.** Customer will pay the charges for Optimized Managed WAN + specified in the Agreement, including those below and at the following URL: www.verizonenterprise.com/external/service_guide/reg/applicable_charges_toc.htm. Charges below are in U.S. dollars and will be billed in the invoice currency for the associated service. MRCs and NRCs are based on management level and size of Managed Device. Managed WAN MRCs are fixed for the Service Commitment.

4.1.1 **Administrative Charges.** The following administrative charges are applicable to Managed WAN:

Administrative Charge	Charge Instance	NRC
Dispatch Charge	Dispatch/Re-dispatch	\$300.00
Expedite Fee	Per Device, Upon Customer Request	\$1,100.00
After Hours: Installation	Per site	\$600.00

4.1.2 **Managed Devices.** The Managed Device sizes apply to the rates shown in the Contract.

4.1.3 **One-Time Management Charges.** Optional Change Management (OCM) provides additional remote change management support for Managed WAN for the NRC shown below. Customer can order specific OCM activities through the VEC. The Standard Change Management activities shown in the VEC are included in the MRC of the Managed WAN Service.

Managed WAN Optional Change Management Charges		
Change	Change Instance (Charged per device unless noted)	NRC
After Hours: Changes	Per request per site	\$600.00
Implementation (Modify Existing) ^{1,3}	Change per device	\$50.00
Design (Single Feature/Protocol) ²	Change per device	\$250.00
Design Plus (Multiple Feature/Protocol) ²	Change per device	\$400.00
Engineering – 1 Hour ⁴	Per request and block of hours, 1 hour block	\$300.00
Engineering – 5 Hours ⁴	Per request and block of hours, 5 hour block	\$1,375.00
Engineering – 10 Hours ⁴	Per request and block of hours, 10 hour block	\$2,500.00

Managed WAN Optional Change Management Charges		
Change	Change Instance (Charged per device unless noted)	NRC
Engineering – 20 Hours ⁴	Per request and block of hours, 20 hour block	\$4,500.00
Engineering – 40 Hours ⁴	Per request and block of hours, 40 hour block	\$8,000.00
<p>1. Implementation is used to modify existing features or protocols including the following: dynamic host configuration protocol (DHCP), IP network address translation, network routed protocol, MNSO IP address/subnet mask change, permanent virtual circuit (PVC) Change, routing protocol changes, switch VLAN, dynamic port/CAR, and VPN Tunnel.</p> <p>2. Design and Design Plus is used for requests to evaluate or add single (Design) or multiple (Design Plus) new or changed features, protocols or applications/policies in the Customer Network, including the following: add DHCP, quality of service (QoS), NAT router configuration, traffic filter design, traffic shaping/queuing, application Aware routing, and SD WAN.</p> <p>3. Customer may create a new design at one site by selecting Design/Design Plus to add the new feature(s) or protocol(s) and then replicate the design across other sites by selecting Implementation for the remaining sites.</p> <p>4. Customer may select Engineering Hours and request additional Engineering OCM hours from time to time as needed. Verizon will track the number of hours spent per OCM request against the hours selected and will report remaining hours to Customer upon request.</p>		

4.1.4 **IP Addresses.** Verizon may use secondary IP addressing if Customer is using unregistered IP address space. If secondary IP addressing is not available, Customer must pay reasonable costs for a dedicated management domain or an IP proxy hardware solution. Additionally, Verizon may use border gateway protocol (BGP) routing used to access and monitor the Customer Network.

4.2 **Non-Optimized Service.** Customer will pay the charges for non-Optimized Managed WAN specified in the Agreement. In addition, online pricing for Managed WAN provided by a United States Verizon entity is at www.verizonenterprise.com/external/service_guide/reg/cp_managed_wan_services.htm.

5. **DEFINITIONS.** The following definitions apply to Managed WAN, in addition to those identified in the Master Terms and the administrative charge definitions at the following URL www.verizonenterprise.com/external/service_guide/reg/definitions_toc_2017DEC01.htm

Term	Definition
Cloud-Controlled Routing (CCR)	Cloud Infrastructure-controlled appliances at a Customer Site.
Cloud Infrastructure	The Cloud Infrastructure consists of all cloud-hosted elements that are used to provision and manage the architectural aspects of the system comprised of the CCR and related equipment; such aspects to include security policies, intrusion prevention signatures, and quality of service. Internet access services, non-CCR equipment at the Customer Site, including other Managed Devices, are not part of the Cloud Infrastructure.
Customer Edge (CE)	Customer edge.
Customer Network	A collection of Managed Devices and the network they are connected to.
Dispatch	A Customer service request that results in Verizon going on to, or attempting to go on to, a Customer Site.
Expedite	A Contract that is processed, at the request of the Customer, with the objective of installing or changing the service in a time period shorter than the Verizon's standard installation time period for that service, whether or not the installation or change is completed in that time period.
Managed Device	Items of CPE that have been designated as supported by Managed WAN.
Provider Edge (PE)	Provider edge.