verizon

MANAGED LAN SERVICE

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1. GENERAL

1.1 **Service Definition.** Managed Local Area Network Service (MLAN) provides a range of service options enabling Customer to transfer all or part of its local area network to Verizon, including local area network design, planning, implementation, and management (subject to availability). MLAN can include LAN Switches and endpoints such as Cameras.

- **Platforms.** Except where explicitly stated otherwise, these terms apply to Optimized Service and non-Optimized Service.

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

	Division of Responsibilities		
	Monitor and Notify Management	**Physical Management**	**Full Management**
Customer	**Customer Manages:**	**Customer Manages:**	**Customer Manages:**
	• 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	• Strategic Direction • Fault Restoration-Logical • Change Management-Logical • Security Policy and Patching	• Strategic Direction • Security Policy
Verizon	**Verizon Manages:**	**Verizon Manages:**	**Verizon Manages:**
	• Monitoring • Fault Notification	• Monitoring • Fault Isolation	• Monitoring • Fault Isolation

	Division of Responsibilities		
	Monitor and Notify Management	**Physical Management**	**Full Management**
	• Performance Reporting	• Fault Notification • Fault Restoration-Physical • Maintenance-Break/Fix • Configuration Back-Up • Performance Reporting • Change Management-Physical	• Fault Notification • Fault Restoration-Logical • Fault Restoration-Physical • Maintenance-Break/Fix • Change Management-Logical • Change Management-Physical • Configuration Back-Up • Performance Reporting • Security Patching

1.2.1 **Monitor and Notify Management (Monitor and Notify).** The most basic level of Managed LAN is Monitor and Notify, under which Verizon provides the capabilities described below:

- **Monitoring.** Verizon proactively monitors all designated Managed Devices 24 hours a day, seven days a week.
- **Notification.** 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 failure. Upon the creation of a trouble ticket, Verizon will i) troubleshoot the transport service until the problem has been verified as fixed and the ticket will then be closed, if the trouble is due to a Verizon transport Service; or ii) inform Customer of the fault and monitor the ticket if the trouble is due to causes other than a Verizon transport Service.
- **Managed Services Customer Portal.** Verizon will provide a managed services Customer 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, seven days a week and real time access to project status, contact information, and information about Customer's LAN Switches. The Cloud-Controlled Switching (CCS) and Cloud-Controlled Camera (CCC) portal (Web Portal) is separate from the VEC, but may be accessed via the VEC. Several Web Portal permissions are generally available for the VEC, however, currently, only one Web Portal permission is available per VEC user.
- **Web Portal Administrative Access.** If Customer has Monitor and Notify CCS and CCC, Customer will have write administrative access to logically manage their Managed Devices.

1.2.2 **Physical Management.** Customer can choose Physical Management which contains the capabilities of Monitor and Notify plus additional capabilities described below:

- **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 Management.** Verizon provides physical fault detection, isolation, and monitoring services for Managed Devices, 24 hours per day, seven days per week. Verizon will resolve physical faults whether caused by Verizon, Customer or third party issues. Managed Device logical faults are Customer's responsibility. Customer will inform Verizon of physical faults once it has completed its logical troubleshooting if Verizon is maintenance provider for Customer's CPE.
- **CCS and CCC Network Image.** If Customer has Physical Management CCS or CCC, a current image of the Customer Network is stored on the Cloud Infrastructure. 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 below.

1.2.3 **Full Management.** Customer can choose Full Management, which contains the capabilities of Physical Management plus additional capabilities described below:

- **Monitoring and Management**. 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.** If a Customer has Full Management CCS or CCC Customer will have read-only administrative access in the Web Portal.

1.2.4 **Implementation Options.** Managed LAN has two implementation options to bring devices under Verizon management. Managed Implementation, which is designed to bring a new customer Managed LAN network online, and 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. Managed Take Over may include Network Discovery, as defined below.

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 may be provided as part of the Managed Takeover implementation for certain management features. Otherwise, Customers may order Network Discovery for an additional Charge. If Customer orders Network Discovery, Verizon will electronically collect information on CPE connected to the Customer's network.

1.3.2 **WAN Analysis (non-Optimized Service only).** If Customer receives non-Optimized MLAN, the terms and conditions for WAN Analysis are located at the following URLs:

For U.S. Services:
www.verizon.com/business/service_guide/reg/cp_war_plus_wan_analysis_reporting.pdf

For non-U.S. Services:
www.verizon.com/business/service_guide/reg/cp_war_plus_wan_analysis_reporting_2017DEC01.pdf

1.3.3 **Device Management.** For device management, Customer may select either Switch Management, CCS or CCC. To effectively manage the Customer Network, all Customer Sites with Cloud-Controlled management as part of MLAN or other Verizon Services (e.g., CCS or CCC for MLAN, Cloud-Controlled Routing (CCR) for Managed WAN, and Cloud-Controlled Access Point (CCAP) for Managed WLAN) must be at the same service level.

1.3.4 **Wireless LAN Controller Management Feature.** With Wireless LAN Controller Management (available under Switch Management at Full Management level and supported on specific models of LAN Switches), Verizon manages compatible Wi-Fi access points in the Customer Network using the Wireless LAN Controller capability on the LAN Switch.

1.3.5 **Port Monitoring.** If Customer receives Port Monitoring, (available under Switch Management at Full Management level), Verizon will monitor ports up to the maximum number of ports shown below based on LAN Switch size. Verizon will only onitor ports that interface directly to another Customer internal network device which is available to Verizon on a continuous basis. Verizon will not monitor ports connected to end user devices.

Port Monitoring			
LAN Switch Size	Small	Medium	Large
Maximum Number of Ports Monitored	2	6	12

1.3.6 **Routing Support.** If Customer receives Routing Support (available under Switch Management at Full Management level), Verizon will manage the configuration of intra-LAN (layer 3) routing protocols for those LAN Switches that support it.

1.3.7 **Network Analysis Service.** (Available under Switch Management for Customer Networks with 20 or more LAN Switches with an Agreement governed by United States law). With Network Analysis, Verizon will provide monthly network analysis reporting, including interactive monthly calls to review that reporting, starting 60-90 days after installation.

1.3.8 **Network Engineering Service.** (For larger Customer 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.

1.3.9 **CCS and CCC Reporting.** This feature enables Customer to access comprehensive daily and ad hoc reporting via the Web Portal – which may aid Customer in accessing the health and performance of Managed Devices under CCS and CCC.

1.4 Customer Responsibilities

1.4.1 **General.** At all times, Customer must:

- Not add, move or remove devices, licenses or administrators to or from the Web Portal, in order to ensure that devices, licenses and administrators are those provisioned by Verizon, and shall not modify the administrators that are used for the provisioning and fault monitoring interface with Verizon's systems.
- Provide Verizon with must have write administrative access to Managed Devices for provisioning and management through the Web Portal. For Managed LAN 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 (SNMP) read / write community string to any Managed Device whose configuration it wants Verizon to automatically backup.

1.4.2 **Out of Band (OOB) Access.** Where available, OOB Access is a MLAN service option that can be selected by Customer for Managed LAN with the Physical Management or Full Management service level. Unless otherwise agreed, Customer will provide OOB Access to each Managed Device over a separate PSTN line (Analog OOB) or wireless connection (Wireless OOB). Direct console access connections are used to provide OOB Access to the Managed Devices. Console access works without an actual configuration on the Managed Device. Inline management requires a configured Managed Device. OOB Access is not required for the Monitor and Notify service level or for Managed Devices under CCS or CCC. Where Verizon provides OOB Access, Customer will not interfere with it, or use it for any purpose other than enabling OOB management by Verizon. Unless otherwise agreed to by Verizon, dsconnecting the OOB Service voids any SLAs provided by Verizon.

For Customer Sites with Verizon's Managed WAN or Secure Gateway Retail and Remote Office (RRO) with two or more circuits, Customer may utilize the Alternate Circuit or backup wireless options, where the backup access is used in lieu of either Analog OOB or Wireless OOB for inline management access

to the Managed Devices, either connecting into two separate Managed Devices or into a single Managed Device as part of Managed WAN or RRO.

Verizon also offers the No OOB option to Customers that do not have any OOB Accessor backup access.

1.4.3 **Managed Device Removal, Repair, and Access.** Customer will notify Verizon before removing or repairing any Managed Device. For Managed Devices under Full Management, Customer will notify Verizon before physically accessing, configuring, amending, or modifying a Managed Device. Customer will provide Verizon with full access to Managed Devices as needed to provide MLAN, with the exception of any audio or video from the Camera.

1.4.4 **Customer Provided Facilities.** Customer is responsible for all equipment, software, wiring, power sources, telephone connections and/or communications services necessary to use MLAN (Customer Facilities), which Customer will ensure is compatible at all times. Customer may meet this responsibility by contracting separately with Verizon to perform these tasks.

1.4.5 **Customer Equipment.** Managed Take Over or Managed Implementation may show Customer Equipment needs upgrading before it can be managed. Verizon will manage such customer Equipment after the upgrade is complete. Customer is responsible to refresh the Customer Equipment as required, including upgrades for Managed Device features, end-of-life conditions, and the like.

1.4.6 **Cloud-Controlled Camera.** Verizon access to audio or video is systematically restricted during normal operation of the Camera. Audio or video is only available to Verizon during Camera installation or replacement to ensure correct operation. Verizon may have Camera access up to a maximum period of 7 days after installation or replacement of the Camera at a Customer Site, after which such access is systematically revoked.

1.4.6.1 **Fault Monitoring.** Verizon does not have access to the Camera's video or audio, therefore, a Camera outage is limited to whether the Camera is up and connected the Customer Network and excludes picture content or quality, optics, or audio quality.

1.4.6.2 **Customer Video or Audio Content.** Customer is responsible for all activities related to the Camera video or audio content, including but not limited to monitoring live and recorded surveillance footage, reporting incidents or suspicious behavior and contacting the authorities when necessary.

1.4.6.3 **Legal Compliance.** Local law may govern how Cameras can be used. Customer is responsible to comply with all applicable local regulations and privacy laws. Customer agrees not to cause, or otherwise request that Verizon create, receive, maintain or transmit protected health information (as defined under United States law at 45 C.F.R. § 160.103) for or on behalf of Customer in connection with the MLAN or in any manner that would make Verizon a business associate (as defined under United States law at 45 C.F.R. § 160.103) to Customer. Customer shall assume and be solely responsible for any reporting requirements under law or contract arising from Customer's breach of this section.

2. SUPPLEMENTAL TERMS

2.1 **Restriction on Encryption Functionality in India.** Prior to connecting any encryption equipment to Verizon Facilities in India Customer must obtain prior evaluation and approval from the relevant telecom authority. Customer will not employ bulk encryption equipment in connection with Verizon Facilities in India.

2.2 **Network Discovery.** Customer will provide Verizon with accurate information about the 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.

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.

2.4 **VEC or Web 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 **CPE or Managed Device for End-Use in China, Russia and Venezuela.** Without limiting the foregoing or its obligations to comply with applicable export law, Customer specifically represents that the CPE or Managed Device and related software used in conjunction with any services provided hereunder, including equipment or software that is virtualized or cloud based, will not be used by a military end-user or for a military or any other prohibited end-use, as defined by the US Export Administration Regulations, in China, Russia or Venezuela.

3. **SERVICE LEVEL AGREEMENT.** The service level agreement (SLA) for Managed LAN may be found at the following URL: www.verizon.com/business/service_guide/reg/cp_mlan_sla.pdf

4. **FINANCIAL TERMS**

4.1 **Optimized Service.** Customer will pay the Charges for MLAN + 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.

4.1.1 **General Financial Terms (Applies to all management levels of service).** Monthly recurring charges (MRCs) and non-recurring charges (NRCs) for MLAN + are specified below and in the applicable Agreement. Additional MRCs and NRCs for any equipment management required or for optional services or features are shown below.

4.1.2 **Administrative Charges**

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

4.1.3 **MLAN Managed Devices.** Managed Device sizes apply to the rates shown in the Agreement.

4.1.4 **One-Time Management Charges.** Optional Change Management (OCM) provides additional remote change management support for MLAN for the NRC shown below. Customer can order specific OCM activities through the VEC.

Managed LAN OCM 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 Managed Device	$50.00
Design (Single Feature/Protocol)[2]	Change per Managed Device	$250.00
Design Plus (Multiple Feature/Protocol)[2]	Change per Managed 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

Managed LAN OCM Charges		
Change	**Change Instance (Charged per device unless noted)**	**NRC**
Engineering – 10 Hours[4]	Per request and block of hours, 10 hour block	$2,500.00
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

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, routing protocol changes and switch VLAN.
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, class of service (CoS), quality of service (QoS), network address translation (NAT) router configuration, traffic filter design and traffic queuing.
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.
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.

4.1.5 **Managed Implementation or Take-Over Charges.** Depending upon network readiness, additional equipment or equipment upgrade may be required. Equipment costs are not included in the NRC shown in a Contract. CPE may be provided under a separate Service Attachment. The NRC shown in the Contract applies per LAN Switch or Camera.

4.1.6 **Port Monitoring.** No additional Charge applies to Port Monitoring (up to the maximum number of LAN Switches indicated in the feature description above), which is available to Customers with MLAN at the Full Management level.

4.1.7 **IP Addresses.** Verizon may use secondary IP addressing if Customer is using unregistered IP address space. If secondary IP addressing is not available, Customer will pay reasonable costs for a dedicated management domain or an IP proxy hardware solution, which will be agreed-upon by the Parties before being implemented. Additionally, Verizon reserves the right to use border gateway protocol (BGP) routing for the management of PVCs used to access and monitor Customer's Network.

4.2 **Non-Optimized Service.** Customer will pay the Charges for MLAN specified in the Agreement, including those at the following URL: www.verizon.com/business/service_guide/reg/applicable_charges_toc.htm Online pricing for Managed LAN provided by a Verizon entity organized in the United States is at: www.verizon.com/business/service_guide/reg/cp_managed_lan_services.htm

5. **DEFINITIONS.** The following definitions apply to MLAN, in addition to those identified in the Master Terms and the administrative Charge definitions at the following URL: www.verizon.com/business/service_guide/reg/definitions_toc_2017DEC01.htm

Term	Definitions
Camera	Means the camera, as specified by reference to these terms, which will be managed at Customer Site by Verizon for this MLAN Service.
Cloud-Controlled Switching (CCS)	Cloud Infrastructure-controlled switches at a Customer Site.
Cloud-Controlled Camera (CCC)	Cloud Infrastructure-controlled cameras 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 CCS and related equipment; such aspects to include security policies, intrusion prevention signatures, and quality of service. Internet access services, non-CCS equipment at

	the Customer Site, including the Managed CPEs, are not part of the Cloud Infrastructure.
Customer Network	A collection of Managed Devices and the network they are connected to.
In-Band Access	In-Band access provided through a Verizon Managed WAN site connected to Customer's LAN network.
LAN Switch	Means the LAN switches and associated OOB modems or terminal servers, as specified by reference to these terms, which will be managed at Customer Site by Verizon for this MLAN Service.
Managed Devices	Cameras and/or LAN Switches.