



MANAGED IP PBX SERVICE +

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1. GENERAL

1.1 **Service Definition.** Managed IP PBX is a premise-based unified communications (UC) service that provides Customer with ongoing management of its UC systems. For new Customer sites, site assessment and initial customer-premises equipment (CPE) implementation services are provided pursuant to a separate Professional Services Service Agreement (PSSA) and statement of work (SOW) with Verizon. Support for Managed IP PBX is provided globally, 24x7.

1.2 **Standard Service Features**

1.2.1 **Activation.** Verizon provides activation services which include installing management software on the CPE, testing management connectivity, testing alarming and notification rules, and conducting acceptance testing with Verizon's managed Network Operations Center (NOC).

1.2.2 **Managed Take-Over.** With Managed Take-Over, Verizon reviews, modifies (if applicable) and takes over management of Customer's existing IP PBX network. Managed Take-Over will be provided on a mutually agreed to date based on Customer readiness and Verizon resource availability, and pursuant to a separate Verizon PSSA and SOW. Verizon's Managed Wide Area Network (WAN) or Managed Local Area Network (LAN) upgrades are also available at Customer's request, pursuant to separate service agreements and costs for those services.

1.2.3 **Management Services**

1.2.3.1 **Monitoring.** Verizon provides proactive monitoring and fault management of mutually agreed upon IP PBX applications and devices 24x7x365.

1.2.3.2 **Performance Reporting.** Customer will have access to the Verizon Enterprise Center (VEC). The VEC provides real-time access for project oversight, operational systems and updates including, without limitation, trouble ticketing and call detail records for Verizon voice circuits. Customer is limited to 10 user accounts and is responsible for ensuring that all users comply with the confidentiality requirements set forth in the Agreement. In addition to the standard reports available to the Customer



on the VEC, Customer may request that Verizon provide the following reports: mean opinion score (MOS), jitter, packet delivery, one-way latency, call completion, central processing unit (CPU) utilization, and memory utilization. Reports are generated on the first of the month for the previous month's data.

- 1.2.3.3 **Notification.** Verizon will open a trouble ticket and attempt to electronically notify Customer within 15 minutes of receiving an alarm for i) device failure to respond to "ping," or ii) critical system messages, as determined by Verizon notification services. Customer will have the ability to view trouble tickets and associated statuses on the VEC.
- 1.2.3.4 **Standard Change Management Activities.** Verizon may add, delete or change the following remote change management activities from time to time: Server OS/Application Patch*, Server Administrator Account Add/Delete/Modify, UC System Modify*, UC Call Routing Modify*, UC Media Resource Modify*, and Emergency Responder Modify*. Verizon reserves the right to limit the number of change management activities performed by Verizon per month based on the size and complexity of the Customer's network.

*Does not include end-user or end device MAC-D activities. Customer may purchase MAC-D through the service desk.

1.3 **Customer Responsibilities**

- 1.3.1 **Managed IP PBX Service Functions.** Customer will have a designated administrator perform user-oriented day to day Managed IP PBX functions including, without limitation, configure and update i) individual end-user phones, ii) voicemail boxes, and iii) personal assistant features (e.g., Find Me, Follow Me parameters). Customer will perform certain system administrator Managed IP PBX functions, including without limitation, administration of phone account features, individual dial number assignments, phone features and templates, voicemail box features setup and maintenance, and update and monitoring of the 911 location database information. Customer will designate a program manager to work with Verizon during Managed IP PBX implementation. Customer will have read-only access to CPE and read-write access as required to perform end-user administration functions.
- 1.3.2 **Building Space.** Customer will provide adequate building space, circuitry, facility wiring, temperature, humidity, and power to comply with the standards established by the manufacturer of the CPE for proper installation and operation of the Managed IP PBX Service. Customer is responsible for any facility issues that may arise (e.g., bad or incorrect cabling, not meeting cable plant, environmental or power specifications, lack of rack space) and will correct any issues as quickly as possible. Customer may contract separately with Verizon for resolution of these issues.
- 1.3.3 **Customer Licenses.** Customer will obtain any necessary permits, licenses, variances, and/or other authorizations required by state and local jurisdictions including, without limitation, for installation and operation of the CPE on Customer's premises. Additionally, Customer will ensure that the components and configurations of the Managed IP PBX Service comply with local laws and regulations, including, without limitation, dial plan requests, for every jurisdiction, that Managed IP PBX Service is provided. Verizon reserves the right to terminate Managed IP PBX Service for Cause upon violation of this provision.
- 1.3.4 **Cisco Licensing.** Customer will maintain adequate Cisco licenses to ensure proper operation of the agreed upon configured Managed IP PBX Service. Upon notification from Cisco of any license deficiencies, Verizon will notify Customer of the same, and Customer must then resolve such license deficiencies within the timeframe allotted by Cisco. Failure to act by Customer may result in a loss of application functionality, including functionality of the Managed IP PBX Service.



1.3.5 Managed IP PBX Prerequisites

- 1.3.5.1 **In Band Access.** Managed IP PBX is only available to Customers with at least one Verizon Managed WAN circuit, which must be at the Full Level of Service.
- 1.3.5.2 **Out of Band Access.** Out of band access is required for each managed router or switch. Customer will provide a dedicated, analog telephone connection either dedicated to each device or dedicated to a port server with indirect access to each device. Analog access will be used for troubleshooting Managed IP PBX. The analog telephone connection must be separate from IP PBX and maintain a minimum of 9600 bits per second connection rate for site-level SLAs to apply.
- 1.3.5.3 **IP Addresses.** Verizon reserves the right to assign IP addressing to Customer's IP PBX devices. If supported, secondary IP addressing will be used, maintaining Customer's existing IP address space. In the case where there are devices which do not support secondary IP addressing, Verizon will assign new IP addressing to Customer's IP Telephony segment, based on availability in both Verizon's and Customer's address space. If Customer will not permit the use of Verizon-assigned IP address space, Customer agrees to pay reasonable costs for a dedicated management domain or an IP proxy/NAT/IPv4-IPv6 solution. Additionally, Verizon reserves the right to use border gateway protocol routing for the management of permanent virtual circuits used to access and monitor Customer's network.
- 1.3.6 **Non-Verizon Circuits.** Unless purchased through Verizon, any required telco circuit is Customer's responsibility to order and maintain.
- 1.3.7 **Expressway.** Verizon requires open IP ports on Customer's firewalls to enable Verizon's remote monitoring and management of the Expressway application. The IP ports will be identified in the solutions design.
- 1.3.8 **Customer Endpoints.** Verizon requires Customer installation and support of hardware and software for Cisco Jabber® soft phones and Cisco IP Phones devices, including installing and supporting headsets and speakerphones for these devices. Customer responsibilities include, but are not limited to, software version control, certificate installation, configuration, and troubleshooting on the end-user device. Verizon may utilize the Wireshark network analysis tool for end user or device trouble shooting.
- 1.3.9 **Backup Responsibilities.** Backups for software applications and servers are the sole responsibility of the Customer and are a requirement for Managed IP PBX.
 - 1.3.9.1 Customer is responsible for storage of backup materials and bootable image files required to restore applications. While these may be stored offsite as indicated by best practices, they must be available to Verizon as may be required for restoration during a re-install or re-build. Additional time required due to lack of restore media or corrupted backup materials and bootable image files may result in additional service charges.
 - 1.3.9.2 Customer is responsible for backing up information, data, configurations, etc. related to the IP PBX pursuant to the agreed upon backup plan during the planning phase including, without limitation, the voicemail store (e.g., Unity Voicemail) and the operating system (Customer Backup). Customer is responsible for any required physical rotation of storage media. Customer will store installation discs and Customer Backup locally to be used if needed for system restoration. Failure to provide ready access to such installation discs, Customer Backup and any other locally stored back up data may invalidate Verizon's SLAs.



- 1.3.10 **Catastrophic Failure.** Unless Verizon is at fault, Catastrophic Failures are not included as part of Managed IP PBX. Time and materials charges may apply if Customer requests assistance with Catastrophic Failure recovery. Managed IP PBX includes restoration of a failure from Customer backup data provided the Customer Backup is valid and complete for the impacted device, has been performed using Verizon-approved tools pursuant to the agreed upon backup plan, and the site is stable.
- 1.3.11 **Managed IP PBX Configuration.** Customer will confirm that Managed IP PBX is configured in accordance with Customer's preferences prior to and after activation of Managed IP PBX. Customer will define and update Emergency Response Locations, ensure that the Public Safety Answering Point (PSAP) updates the Automatic Location Information (ALI) Database, and perform initial and periodic testing of 911 services.
- 1.3.12 **Maintenance.** Customer is responsible for purchasing seven days/week by 24 hours per day CPE maintenance services meeting Verizon's requirements.
- 1.3.13 **Anti-virus.** Customer is responsible for purchasing anti-virus software meeting Verizon's requirements for Microsoft Windows server hosted applications. Verizon must have access to such anti-virus software as required to perform management operations. Customer is responsible for ensuring the anti-virus software is licensed and up to date.
- 1.3.14 **System Outages.** Customer will schedule and inform users of any planned systems outages.

2. SUPPLEMENTAL TERMS

- 2.1 **Performance.** Customer agrees to provide working space, facilities, and any other assistance and support that Verizon may reasonably request in order to perform the Managed IP PBX Services.
- 2.2 **International Managed IP PBX.** Verizon will determine the availability of Managed IP PBX outside of the United States as well as any restrictions in such countries. Countries or other local jurisdictions may impose restrictions or requirements from time to time that may cause Verizon to in turn impose restrictions or requirements on Customer or suspend Managed IP PBX in such jurisdictions. Such restrictions may include, without limitation, limited access and use to a closed user group, requiring all private calls remain on Verizon's network, prohibiting the origination or termination of calls on the public switched telephone network (PSTN), or imposing special licensing conditions. Verizon will provide advance notice of Managed IP PBX changes required by such restrictions or requirements where possible; however, Verizon reserves the right to act immediately if required.
- 2.3 **Emergency Calling.** Managed IP PBX may include the installation and/or configuration of equipment and software that provides Customer with Emergency 911 Service with the addition of other services, including without limitation, local exchange service. Customer acknowledges that Managed IP PBX alone does not provide Emergency 911 Service. Customer is responsible to take the steps necessary to establish Emergency 911 Service, including, without limitation, defining and updating Emergency Response Locations, ensuring that the PSAP updates the ALI Database, and performing initial and periodic testing of 911 services. Customer also acknowledges that IP-based voice service is different in key respects from traditional telecommunications-based voice service and that those differences may cause Emergency 911 Service to be unavailable under certain circumstances, including, without limitation, the following: (1) loss of power, (2) loss of broadband service, (3) loss of LAN service or applicable WAN service, (4) equipment failure, (5) making voice calls from a different location from the one for which 911 routing was established, and (6) nonpayment for service. Customer will notify all end-users of these limitations, and will comply with all applicable emergency 911 calling service laws.



- 2.4 **Service Disclaimer.** Managed IP PBX may be interrupted or degraded by certain conditions. For example (without limitation), Managed IP PBX Service relies on Customer’s domain name server (DNS Server) and LAN. Verizon will not be responsible if Customer’s DNS Server or LAN fails or performs poorly for LAN and WAN networks not managed by Verizon. Verizon’s responsibility for LAN and WAN performance for networks managed by Verizon is stated in Customer’s agreement for such management. Network-related outages also may occur, and service restoration intervals may vary from those associated with traditional telecommunications service. Communications from analog modems may have protocol interaction issues when used over VOIP technology (due to their handshake and error-checking rules) and cannot be assured of the same quality as other communications; Managed IP PBX Service is provided without any warranty whatsoever with respect to modems. Modems may not be used on Managed IP PBX Service except with Codec G.711 without silence suppression. Alarm lines (whether or not they use modems) are wholly unsupported on Managed IP PBX Service (with respect to both service and wiring, without limitation). Customer will be responsible for all inside wiring and special construction charges. Use of Managed IP PBX Service is restricted as follows: Customer may not modify the Verizon installed design and/or configuration without the previous written consent of Verizon and Customer expressly acknowledges that any violation of the foregoing restriction will result in the immediate termination of services management and related SLAs.
3. **SERVICE LEVEL AGREEMENT (SLA).** The SLA for this Service is located at the following URL: http://www.verizonenterprise.com/external/service_guide/reg/cp_managed_ip_pbx.htm
4. **FINANCIAL TERMS**
- 4.1 **Optimized Services.** Customer will pay the monthly recurring charges (MRC) for the **Managed IP PBX Service +** specified in the **Agreement** for the number of Flex Users identified and/or the number of managed devices and applications, as originally ordered.
- 4.2 **Audit Findings.** Verizon will perform an audit of the Managed IP PBX Services, from time to time. If Verizon discovers additional Flex Users and/or managed devices and applications, Customer will be charged for each additional Flex User and/or managed device and application.
- 4.3 **Non-Standard Hours.** If Customer requests that Verizon perform Standard Change Management Activities outside of Business Hours (unless planned and agreed to in advance) then Customer will incur additional charges for such activities in accordance with Verizon’s prevailing labor rates.
5. **DEFINITIONS.** The following definitions apply to the Managed IP PBX Service +, in addition to those identified in the Master Terms of your Agreement.

Term	Definition
Automatic Location Information Database	A database managed by the local exchange carrier that stores each telephone number and the physical location to which it corresponds.
Catastrophic Failure	A i) a failure at a site or sites that renders Customer’s IP PBX devices inoperable, ii) a failure that requires a complete restoration of the operating system, the applications, or Customer data to restore functionality, and iii) a valid, complete Customer back up is unavailable.
Emergency 911 Service	The functionality to enable Customer to have “911” calls routed to the local PSAP.
Emergency Response Locations	A specific geographic location to which a 911 emergency response team may be dispatched.
Expressway	Offers users outside a firewall simple, highly secure access to all collaboration workloads, including video, voice, content, IM, and presence.



Flex User	A person identified by Customer as a user of the underlying managed service.
Full Level of Service	The highest level of service levels for the Verizon Managed Network services.
Internet Protocol Private Branch Exchange (IP PBX)	A private branch exchange (telephone switching system within an enterprise) that switches calls between VoIP (voice over Internet Protocol or IP) users on local lines while allowing all users to share a certain number of external phone lines.
IP Telephony	Internet Protocol Telephony is the use of IP-based networks to build, provide and access voice, data or other forms of telephonic communications. IP telephony provides traditional telephonic communication over an IP-based network, the Internet - via an Internet service provider (ISP) - or directly from a telecommunications service provider.
Public Safety Answering Point	A dispatch center staffed by emergency operators, which receives 911 calls and dispatches fire, police, or medical services, depending on the nature of the emergency.
Standard Change Management Activities	Systemic and non-design affecting configuration changes for managed servers requested by the Customer.
Verizon Enterprise Center	A Customer portal that provides a secure, scalable, consolidated view of Customer's network information 24x7x365. The VEC can be accessed here: https://enterprisecenter.verizon.com/