

Voice and Data Networking (VDN) Managed Services

verizon | Enterprise Center

VZ Enterprise Center (VEC) – Comprehensive Functionality for Online Management of Telecom Services

Billing Report Inbox Access to daily priced call detail and online shared reports pages (SRP's).	Reporting Tools <small>Bill Report Inbox</small>
Dynamic Network Manager Web-based interface of 3 components: Looking Glass, Dynamic Port, and CAR & QoS egress profiles.	Verizon Enterprise Center <small>Dynamic Network Manager</small>
Looking Glass in Dynamic Network Manager Enables changes to PIPs, CARs, and customer egress profiles. View network configs and make layer-3 mods w/o being charged thru Looking Glass option.	
Electronic Data Interchange (EDI) Electronic file delivery system transporting large volumes of billing data to automate monthly invoice processing.	
Outbound Network Manager (ONM) Can examine configuration data and customize features on near real-time basis.	
Online Invoice Provides online billing using an electronic presentment and payment (EBPP) app – formerly known as eBilling.	
Directed Data Billing Services Provides invoice data electronically and allows customized billing report creation.	Billing Invoices
Reporting Center Network reporting application to create reporting structures unique to one's organization for reporting and analysis. Formerly event monitor.	
VEC Mobile Mobile feature allows customers access to their virtual comms center from anywhere.	

Traffic Reporting and Traffic Monitor
 Provides summary/call detail info on inbound numbers within 1-30 mins (near real-time) after a call has been completed, and a comprehensive suite of inbound and outbound call detail reports.

Service Management Tools
 Provides visibility into near-real-time inventory (incidents, change requests, network alarms, maint events) to manage network at the service level.

Repairs and Troubleshooting
 Electronic ticketing and circuit testing tool to initiate circuit monitoring and loop-back testing. Open, track, or update tickets for a broad range of products.

Electronic Bonding
 eBonding is a B2B SW interface automating exchange between business apps and supports ordering, billing, management and repair in the full commerce lifecycle.

Conferencing Services

Web Conferencing – WebEx
 Cloud-based web and video conferencing solution enabling collaboration in real time from anywhere, anytime, on any mobile device, or video system as though working in the same room. Solutions include meetings, events, training, and support services.

Cisco WebEx Cloud Connected Audio (CCA)
 Audio conferencing natively integrated into WebEx meetings.

IP Voice Services

VoIP Time Sharing Option (TSO) Service
 Enables telephone calls via the Internet; sometimes referred to as 'SIP Trunking'. Customer premise gateway device, and used to connect legacy PBX and key systems to the PSTN across the customer's WAN.

Virtual Communications Express (VCE)
 Cloud-based business VoIP services and VZ support.

UCCaaS SLED – Cisco HCS-G Platform
 Based on Cisco HCS platform. Full suite of collaboration services including voice, video, instant messaging, presence, and conferencing from the cloud hosted platform. SLED edition (government) is FedRAMP certified. Supports integrated Cisco cloud UC offerings such as WebEx (web conferencing), CMR (video), cloud connected audio (audio conference), Contact Center Enterprise, and Spark.

Jabber Soft Client
 Unified communications app/platform streamlines comms by unifying presence, instant messaging, video, voice, voice messaging, screen sharing, and conferencing capabilities

Wide Area Network (WAN) Services

Network Connectivity Interchange – VZ Secure Cloud Interconnect (SCI)
 Enables connections to a global ecosystem of cloud providers and apps. Offers simple provisioning and integration of customer WANs to cloud services using VEC.

WAN Optimization – Secure Gateway (SG)
 Network-based service securely connecting customer's private network to the public internet through a logical, virtual port (Universal Port).

Security Services

DDI (DNS, DHCP and IP Address Management) Service
 DDI is an important aspect of private cloud initiatives because it helps automate DNS and Internet Protocol (IP) address management functionalities. The larger the network or employees, the greater a DDI solution will provide benefits.

Distributed Denial of Service (DDoS) Shield
 A managed, cloud-based, on-demand service designed to intercept/remove significant amounts of malicious DDoS traffic inbound to a Customer's Internet-connected network.

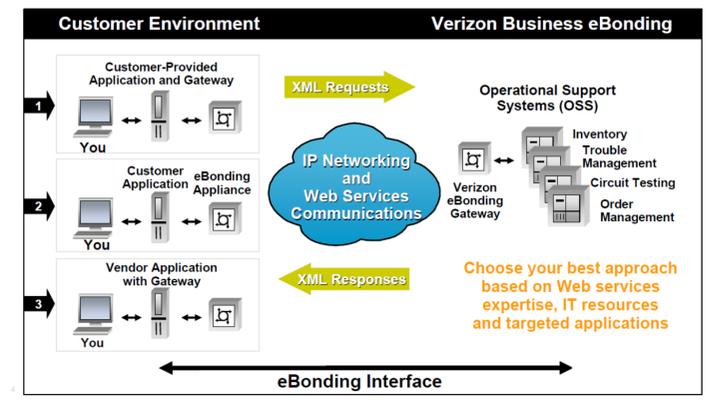
“There's more to network management than the management of network components.”

Source: Gartner Research

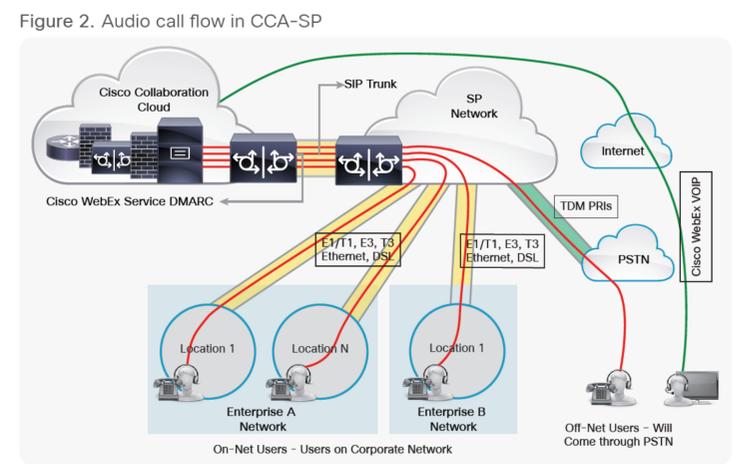


Deploying eBonding In Your IT Environment

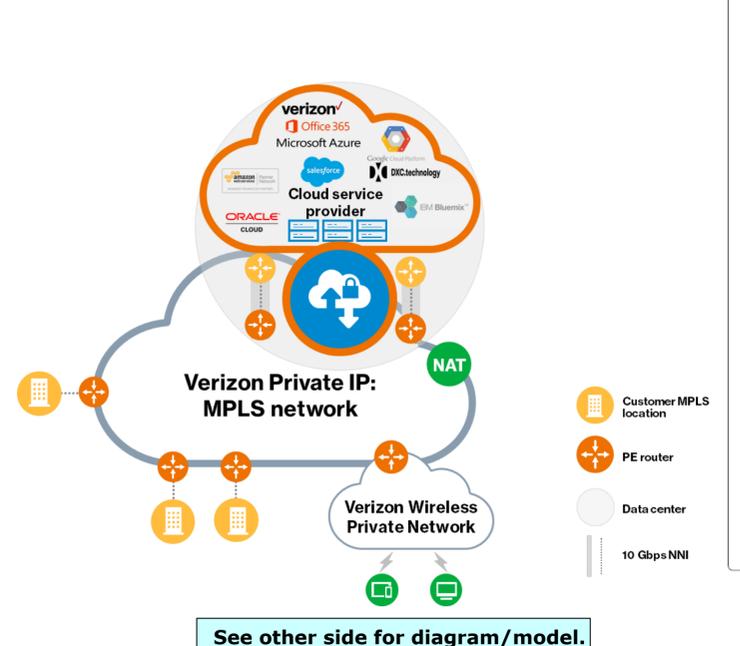
Interface Options



With Cloud Connected Audio, however, web conference session audio travels over your existing IP telephony network, not the PSTN (Figures 2 and 3).



In this model, the service provider connects directly to Cisco via dedicated IP peering connections. The service provider carries all of its customers' audio traffic, from both off-net and on-net users, and sends it to the Cisco Collaboration Cloud.



See other side for diagram/model.



Networking Tower Mast Disguised as a Cactus

By 2021, early adopter brands that redesign their websites to support visual- and voice-search will increase digital commerce revenue by 30%.

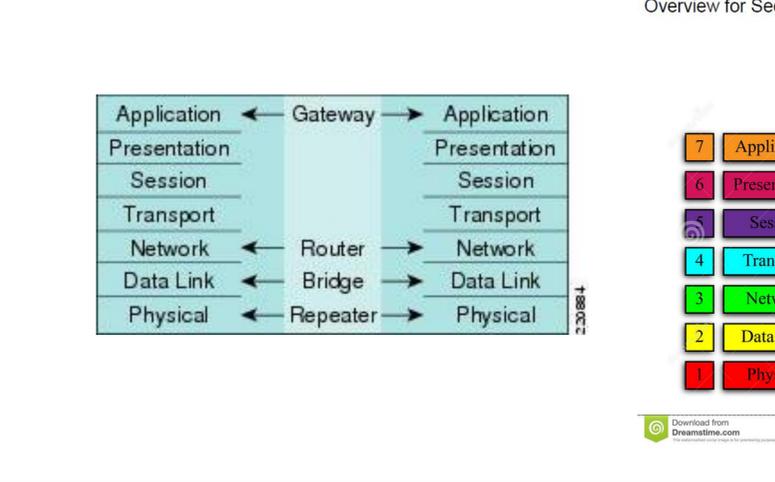


Figure 3- Supplier/CCA-SP High Level Architecture - Outbound Dial

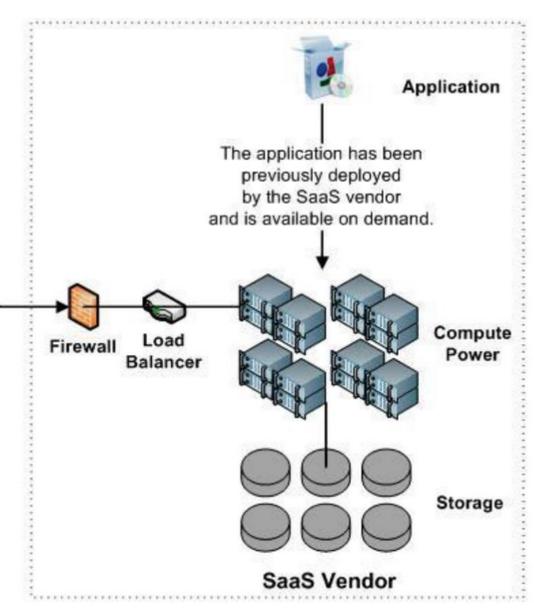
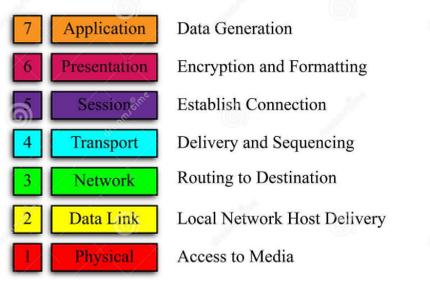


Figure 2. SaaS architecture. Reprinted from Cloud Computing and Software as a Service: An Overview for Security Professionals [5].

OSI Model



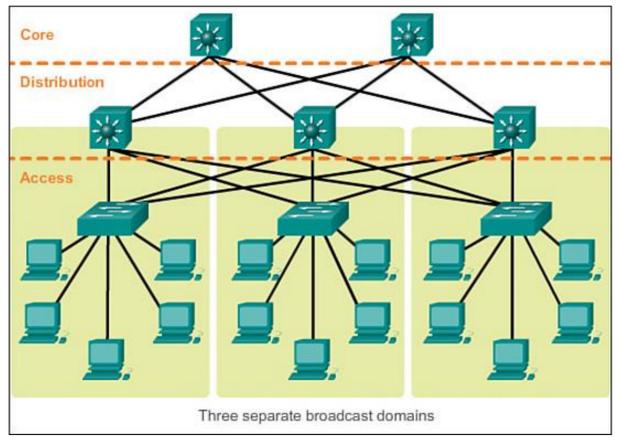
Download from Dreamstime.com

DDI Solution Operational Requirements

DNS, DHCP, and IP Address Management (DDI)

Network operators need an integrated DDI solution that provides:

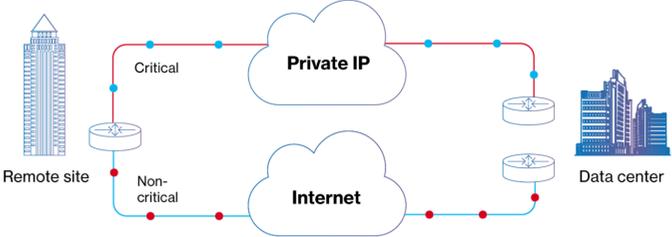
- Reduced OpEx
- Improved Workflow
- Automation
- Simplified Manageability
- Security and Compliance



Hybrid networking.

With SD WAN, you can combine internet and MPLS into one network. This can help:

- Offload non-critical application traffic on more cost effective transport
- Leverage diverse networks and access at an application level



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

Transfer of Services Agreements (TOSA)	Infrastructure Enabling Components	Site-Level Remote Only	Site-Level Site Visit Required
Dedicated Internet	Managed WAN	Managed WAN	Managed WAN
IP Contact Center	Managed LAN	Managed LAN	Managed LAN
VCE	Managed WLAN	Managed WLAN	Managed WLAN
VCC	UCCaaS	UCCaaS	UCCaaS
VoIP (Transport)	VoIP (TSO)	VoIP (TSO)	CPE
SONET	WebEx	WebEx	Secure Gateway
SIP	CCA	CCA	
	Audio Conferencing	Audio Conferencing	
	Secure Gateway	Secure Gateway	
	DDI	DDI	
	DDOS Shield		
	SCI		

The overall timeline for the discovery and MTO phases would be approximately 12 months depending on the site and device volumes.

Service Management Dashboard

The Service Management Dashboard provides visibility into your near-real time Verizon inventory and its associated incidents, service and change requests, network alarms, and maintenance events allowing you to manage your network at the service level. The information is presented in a centralized, graphical user interface accessible around the globe via the Verizon Enterprise Center portal.

You can also view the dashboard by scrolling to the bottom of the Home page. You can customize your views of inventory, alarms, and tickets.

Refer to the Service Management Dashboard User Guide for more information.

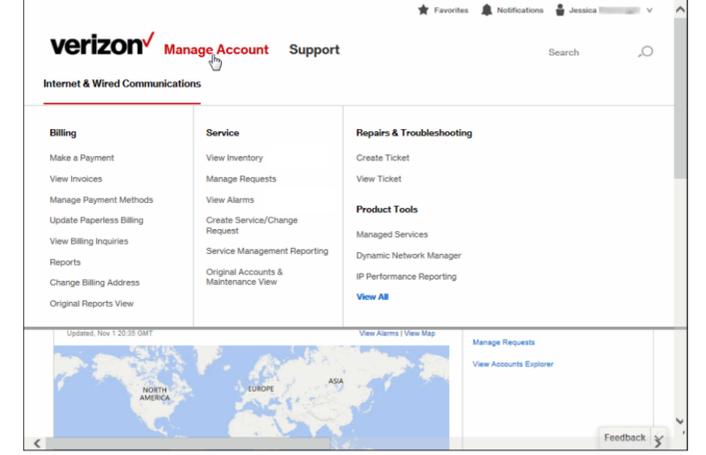
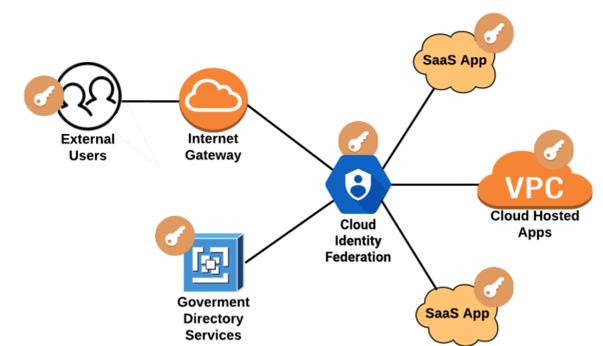


Figure 25 Access Service Management Dashboard

Identity as a Service Federated Cloud Model



	Business Relation	E-Invoicing Models	Software	Business Process
Organization Layer	<ul style="list-style-type: none"> Business-to-Business (B2B) Business-to-Consumer (B2C) Business-to-Government (B2G) 	<ul style="list-style-type: none"> Direct Model <ul style="list-style-type: none"> Seller Direct Buyer Direct Network/Consolidator Model 	<ul style="list-style-type: none"> ERP System Invoice/Billing Software Accounting Software Document Management Systems Workflow Systems Office Software 	<ul style="list-style-type: none"> Process Integration <ul style="list-style-type: none"> Manual IS Supported Fully Automated In-House Outsourcing Service Provider
Technical Layer	<ul style="list-style-type: none"> SMTP FTP/S-FTP HTTP/HTTPS X.400 AS2 	<ul style="list-style-type: none"> Email EDI File Transfer Service Provider Portal 	<ul style="list-style-type: none"> Structured (Oasis, UBL, UN/EDIFACT, etc.) Unstructured (PDF, TXT, etc.) 	<ul style="list-style-type: none"> Neutral (Oasis UBL, UN/EDIFACT, etc.) Industry Specific (ISO 20022, GSIXML, etc.) Proprietary (SAP iDoc) Country Specific (Finvoice, OIOXML, etc.)
Legal Layer	<ul style="list-style-type: none"> Authenticity Integrity Legibility Storage format and period Corresponding legal requirements (e.g., for accounting) 			

Figure 3: E-Invoicing Implementation Models 13