



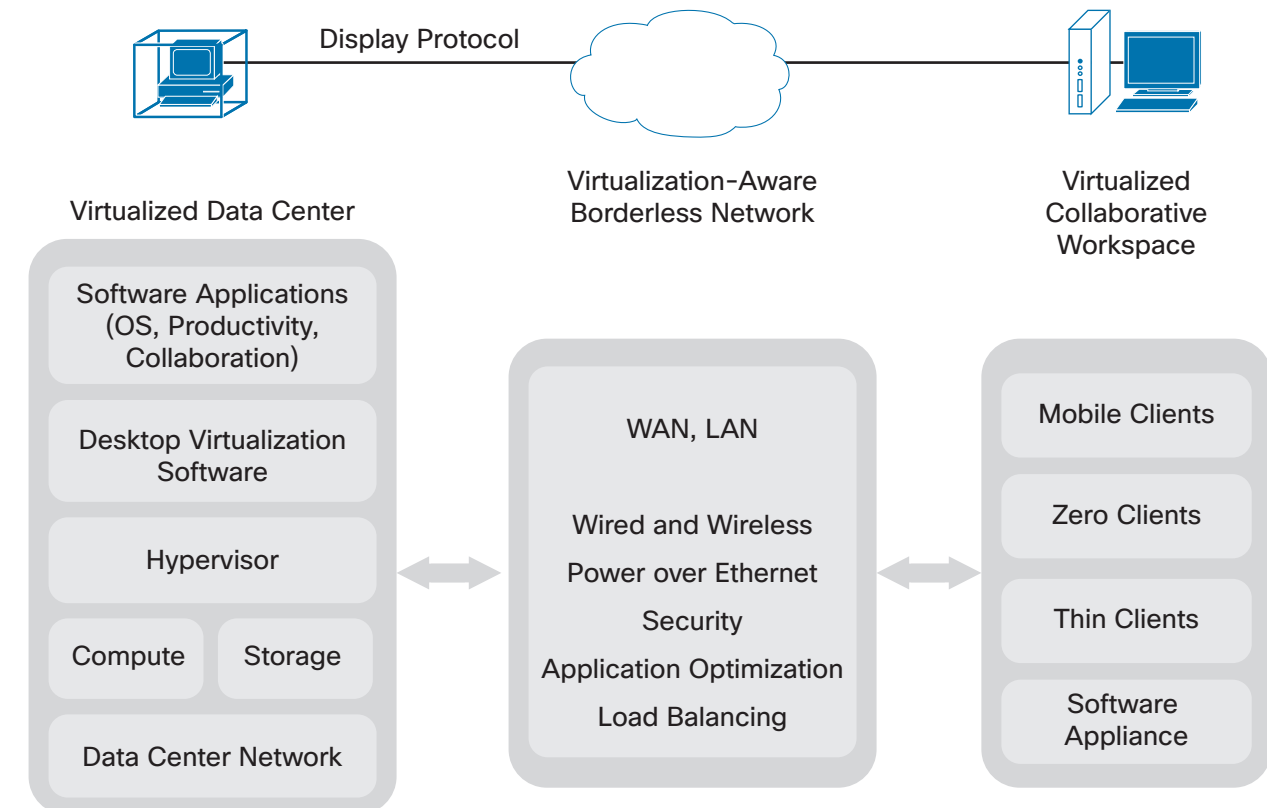
The Cisco Virtualization Experience Infrastructure (VXI)

Cisco VXI: Delivering the Next Generation Virtual Workspace Solution

Cisco® Virtualization Experience Infrastructure (VXI) accelerates mainstream virtual desktop adoption and the journey to the next-generation virtual workspace in a fully integrated, open, and validated end-to-end solution. It is adaptable, highly secure, and optimized to deliver a superior user experience and best in class ROI.

Cisco VXI addresses every dimension of planning, deploying, and supporting virtual workspaces across the organization by bringing together Cisco's data center, network, and communication and collaboration architectures. Cisco combines VXI with technologies from ecosystem partners shown below. The technology is complemented with services, support, and financing options to simplify deployments while staying ahead of evolving needs.

Combined with cloud services, VXI provides IT organizations with an important building block for developing an efficient and agile "service delivery model" and cloud computing.



Cisco VXI Benefits

Cisco VXI delivers the most adaptive, highly secure, and optimized next-generation virtual workspace. It is:

- Adaptive:**
 - VXI accelerates the adoption of new end-user service delivery options and models through faster, simpler provisioning and delivery of virtual applications, virtual desktops, and virtual workspaces.
 - It offers customers choice of solution elements through an open ecosystem.
 - VXI provides different types of users with an integrated virtual work environment that accommodates any user requirement on any device and any location.
- Optimized:**
 - Combined with cloud services, VXI provides IT organizations with an important building block for developing an efficient and agile "service delivery model."
- Highly Secure:**
 - VXI lowers IT costs for deployment, operation and support of end-user services for productivity, communication and collaboration through a centrally managed infrastructure.
 - VXI delivers a superior end-user experience that provides virtualized computing, communications, and collaboration services on any device in any location.
 - VXI protects data confidentiality and improves compliance by centralizing critical data and IP at the data center rather than across various endpoints.
 - Helps ensure security by controlling access to data based on user identities and roles.
 - Responds quickly to planned and unplanned disruptions—technical, natural, or man-made.

Cisco VXI Partner Ecosystem

| Hypervisor | Desktop Virtualization | User Virtualization | Optimization |
|----------------------------------|-------------------------|------------------------------|------------------------------------|
| Citrix® Microsoft® VMware® | Citrix VMware | AppSense® | Atlantis Computing Teradici™ |
| Storage | Virtual Anti-Virus | Management | Clients |
| EMC® NetApp® | McAfee® Trend Micro® | Liquidware Labs™ Unidesk® | WinXP and Windows 7 PCs Wyse |

For More Information
cisco.com/go/vxi

Virtualized Data Center

Data Center

Optimized Desktop Virtualization and Communications

- Cisco VXI provides scalable, secure, and manageable infrastructure for hosting virtual desktops, shared desktops, and virtual applications using industry leading solutions such as Citrix® XenDesktop®, Citrix® XenApp®, and VMware® View™.
- Cisco VXI combines desktop virtualization with Cisco Unified Communications applications that integrate voice and video communications, conferencing, instant messaging, presence, directory lookup and more.
- Cisco VXI delivers a superior user experience for desktop virtualization, voice and video communications and collaboration services

Industry Leading Data Center Solutions

- Cisco Unified Computing System™ (UCS) B-Series Blade Servers or C-Series Rack Mount Servers deliver the ideal compute infrastructure for hosting from smallest to largest virtual desktop deployments.
- Cisco VXI offers a choice of Hypervisors—VMware vSphere®, Citrix XenServer®, and Microsoft® Hyper-V™.
- Cisco UCS™ delivers advanced virtual switching, virtual interface and security technologies such as the Nexus 1000v, VN-Link, Virtual Interface Cards, and Virtual Security Gateway (VSG) to simplify and protect virtual desktop deployments.
- Cisco Unified Fabric provides a scalable 10 GB network to intelligently aggregate client, data center LAN, SAN, and NAS I/O for a superior user experience.
- Cisco UCS Extended Memory Technology increases performance, capacity, and VM density at a lower cost.
- Cisco offers Validated Design Guides on Design Zone for customers using VMware View and Citrix XenDesktop.

VXI Storage Options

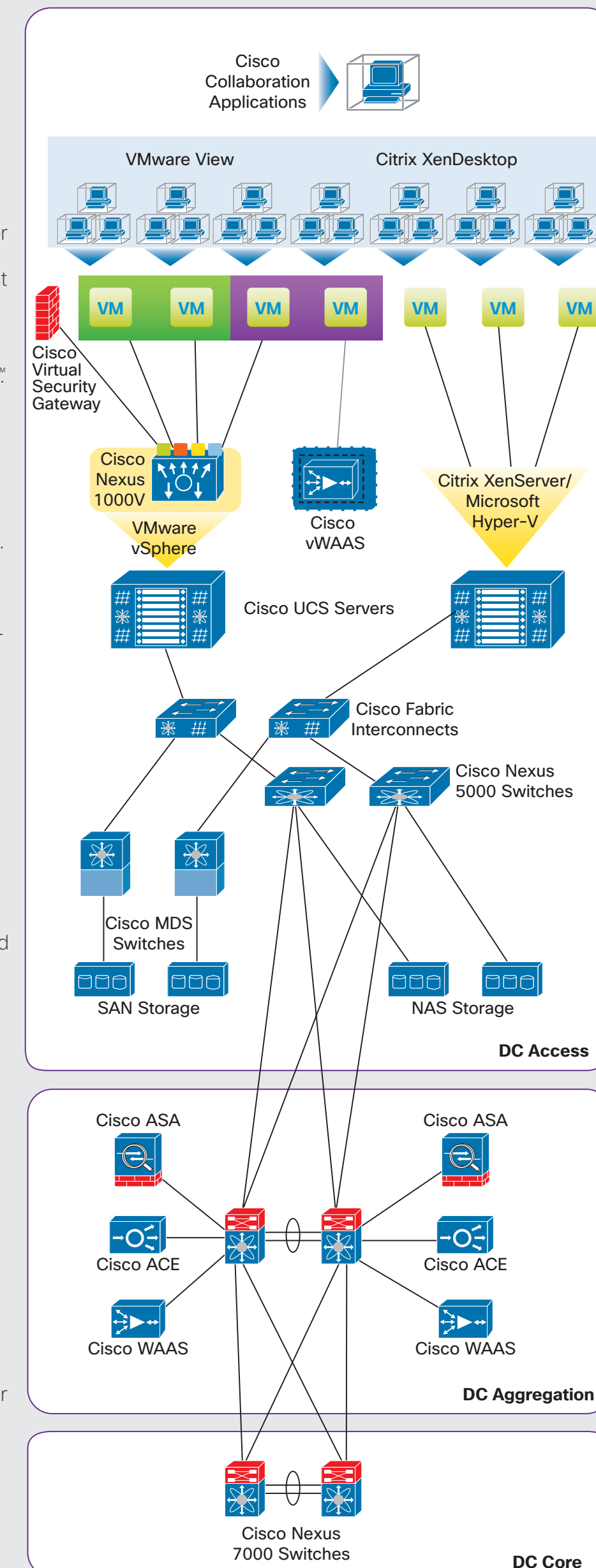
- Cisco VXI supports Fibre Channel, iSCSI, and FCoE-based SANs, and Ethernet-based network-attached storage (NAS).
- Storage ecosystem partners include EMC and NetApp.
- Cisco VXI validated with both Vblock Type 1 and FlexPod solutions.
- Cisco VXI includes storage optimization solutions such as Atlantis ILLIO™ that help to reduce costs and boost performance.

Service Aggregation

- Cisco Application Control Engine (ACE) provides load balancing, SSL offloading, and health monitoring for connection brokers in hosted virtual desktop (HVD) environments.
- Cisco Wide Area Application Services (WAAS) in the data center supports WAN optimization for users in other parts of the network, with context-aware caching, compression, and protocol optimization.
- Cisco Adaptive Security Appliances (ASA) concentrate VPN traffic and provide firewall services for the data center.

Virtualized Network and Security Solutions

- Cisco VXI provides advanced data center network solutions that simplify management and optimize virtual desktop performance and security.
- The Cisco Nexus® 1000v Switch runs inside the VMware ESX® or ESXi™ hypervisor, and uses Cisco VN-Link server virtualization technology to deliver policy-based virtual machine (VM) connectivity, mobile VM security, network policy, and a non-disruptive operational model.
- Cisco Virtual Security Gateway provides highly secure segmentation of virtualized data center VMs using granular, zone-based control and monitoring with context-aware security policies.
- Cisco Virtual WAAS (vWAAS) is a virtual appliance that accelerates business applications using policy-based configuration in the Cisco Nexus 1000v Switch.



Virtualization-Aware Borderless Network

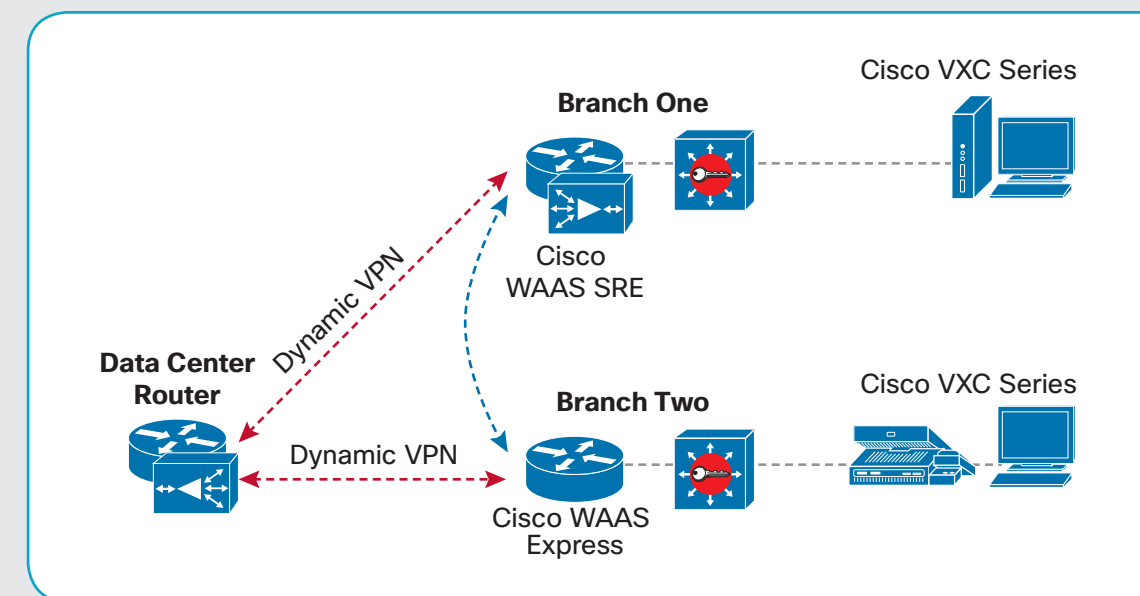
Branch

Highly Secure Communications

- Cisco VPN solutions help enable branch devices to communicate more securely over untrustworthy links.
- Virtual desktop traffic normally travels from the branch device to the data center, while collaboration traffic may travel between branch offices.

Feature-Rich Branch Connectivity

- Cisco VXI provides the critical services that branch users need.
- WAN optimization for print, data, and Multimedia Redirection (MMR) traffic.
- Power over Ethernet support.
- Quality of service (QoS) for voice and data.



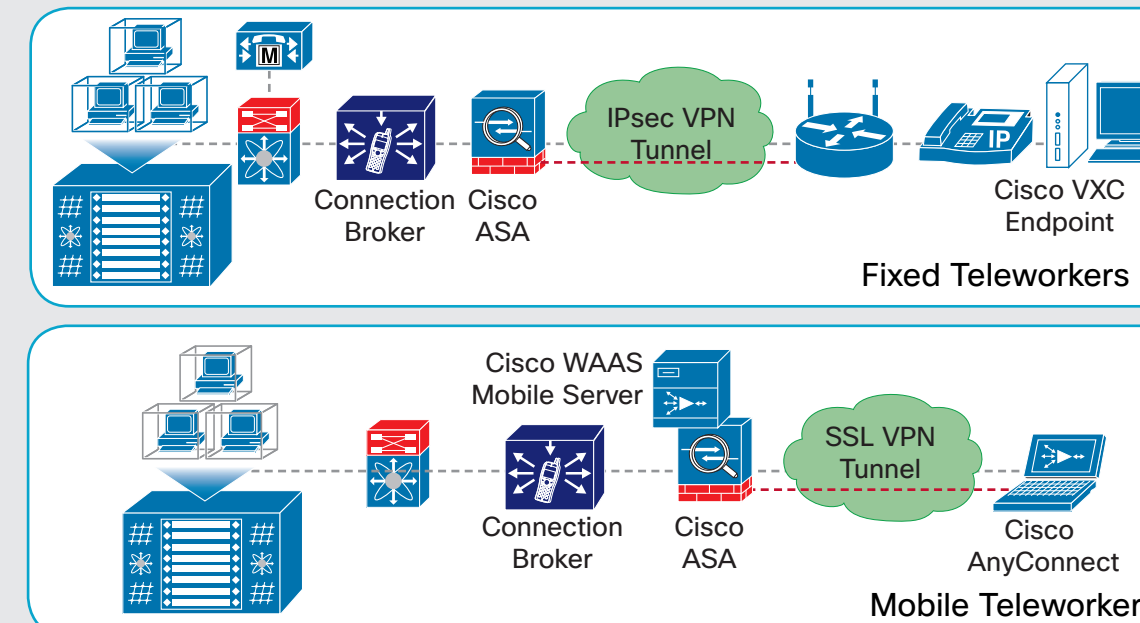
Teleworker

Fixed Teleworkers

- The Cisco Virtual Office solution helps enable fixed teleworkers to more securely access virtual desktops and applications from outside the corporate network, using IPsec VPN tunneling.

Mobile Teleworkers

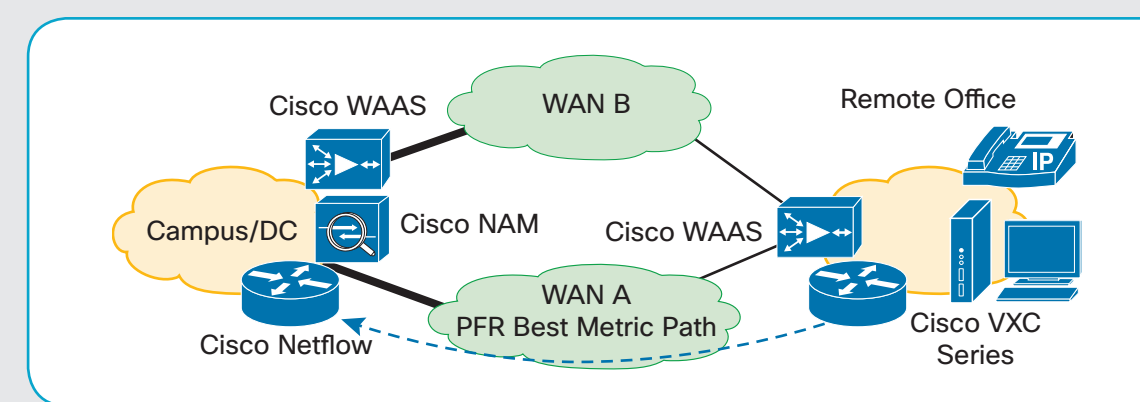
- Typically connect from a wide range of insecure locations, using a variety of endpoints.
- Cisco AnyConnect™ VPN Client provides a highly secure connection for accessing virtual desktops.
- Cisco WAAS Mobile optimizes traffic between users and virtual desktops.



WAN

Bandwidth and Path Optimization

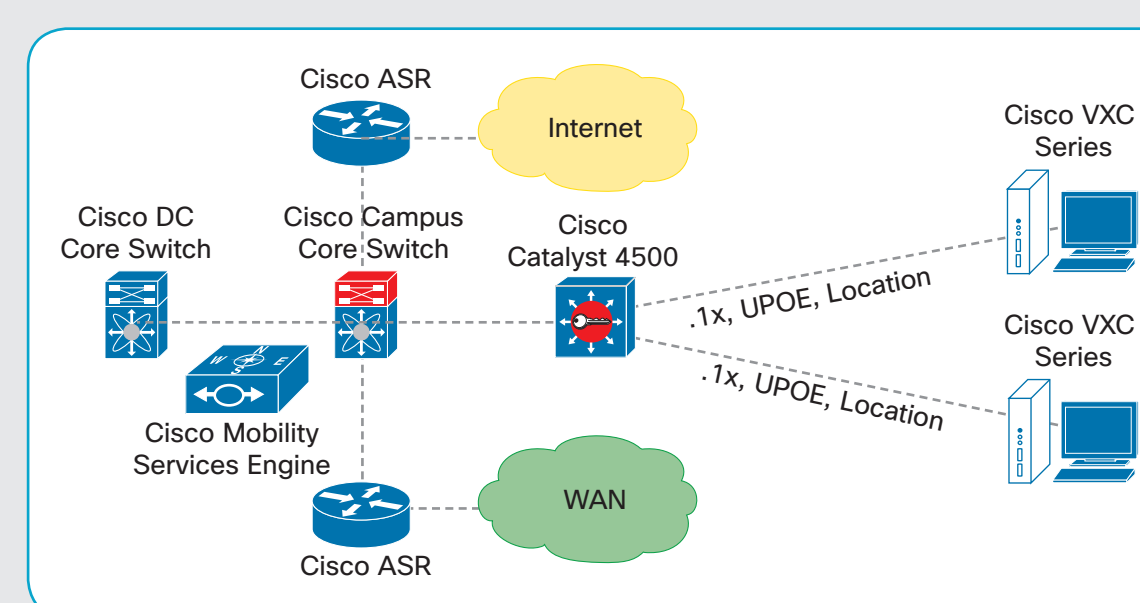
- Cisco WAAS optimizes bandwidth for display protocols such as RDP and ICA, and accelerates application performance.
- Cisco Performance Routing improves application performance by selecting the best path across the WAN based on network metrics.
- Cisco Network Analysis Module (NAM) Software and Cisco NetFlow are used to monitor, manage, and troubleshoot network traffic flows.



Campus/DC Edge

High Performance, High Function

- The campus network connects users to the data center, WAN, and Internet while delivering a comprehensive set of services.
- 802.1x authentication helps enable highly secure access, and Cisco VXi end points can be automatically provisioned into the right VLANs.
- Cisco Universal Power over Ethernet (UPOE™) support simplifies deployment and reduces costs.
- Cisco Catalyst switches transmit location information to a Cisco Mobility Services Engine on behalf of connected endpoints, to facilitate asset management and compliance assurance.



Virtualized Collaborative Workspace

Cisco Virtualization Experience Client (VXC) 2000 Series and 6000 Series

Superior User Experience

- Cisco VXC 2000 Series zero clients provide task workers with highly secure real-time access to business applications and content. Cisco VXC 6000 Series thin clients provide converged rich media, voice, and video collaboration to create an adaptive virtual workspace for demanding knowledge workers.

Flexibility and Choice

- Cisco VXC Series clients are available to support VMware View, Citrix XenDesktop, and Microsoft environments.
- The Cisco VXC product portfolio offers a broad range of features; consult with your Cisco sales team to determine the best solution for your environment.

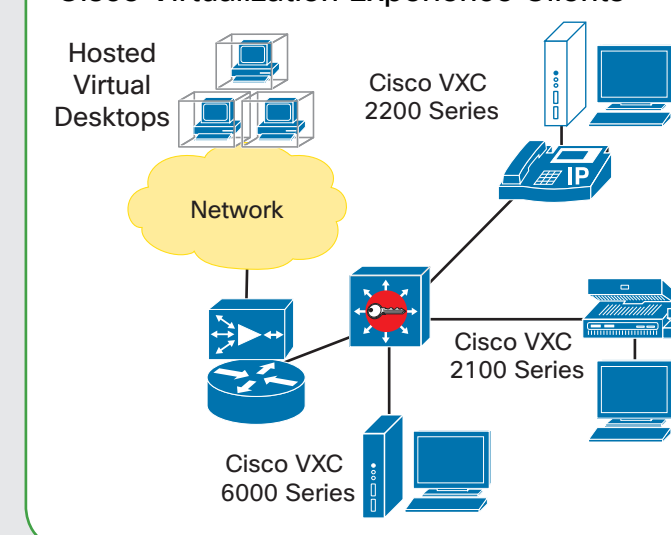
Power over Ethernet

- Some models support Power over Ethernet, which simplifies deployment and reduces wiring and energy costs.
- Cisco EnergyWise™ Orchestrator manages and monitors energy consumption of Cisco devices.

No Hairpinning

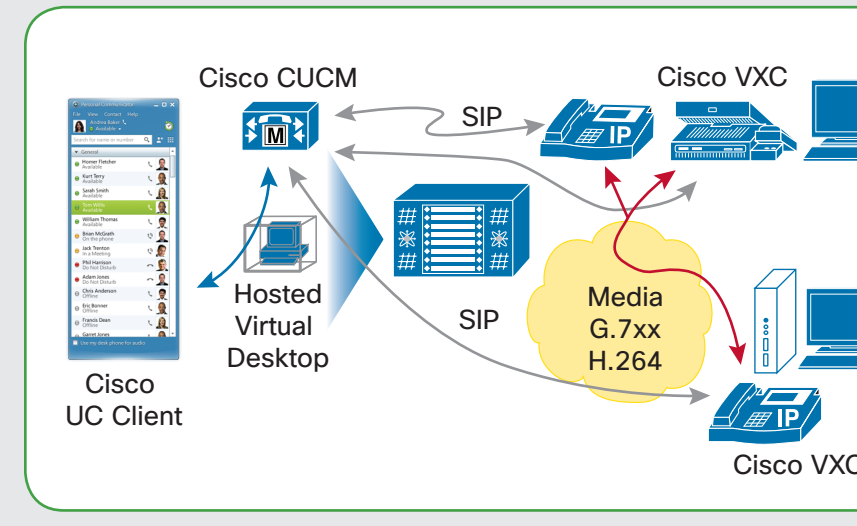
- Cisco VXC's help enable voice and video to flow directly from endpoint to endpoint.
- Cisco VXC's eliminate the need to hairpin this traffic through the data center.
- Cisco VXC's improve overall efficiency, optimize path selection, and help enable network services to be applied to media traffic.

Cisco Virtualization Experience Clients

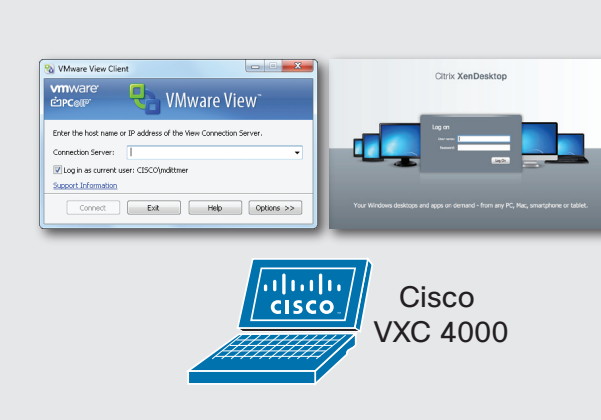


Manageability

- Cisco VXC Manager centrally provisions, monitors, and troubleshoots Cisco VXC endpoints.
- Devices can be remotely accessed, controlled, configured, and updated using a management console.



Cisco VXC 4000 Series



Software Appliance for Standard PCs and Laptops

- The Cisco VXC 4000 Series is a software appliance that delivers enterprise-class unified communications support to repurposed PCs accessing virtual desktops.
- It extends the benefits of Cisco VXI to repurposed PCs, contractors, and other bring-your-own-PC users.
- It increases the lifespan of existing assets, and delivers voice to a wider range of corporate users.
- It eliminates hairpinning when using your existing PCs and laptops as client devices.

Cisco Cius



Collaborative Tablet

- Cisco Cius™ provides access to resources, applications, and network services in an ultraportable package.
- Cisco Cius fosters new ways of working by delivering enterprise-class mobility, security, and manageability.

Network Powered Collaboration

- Cisco Cius is an Android-based tablet that provides access to an enormous range of applications.
- It can also act as an IP phone that supports collaboration and high definition video.

Optimize Desktop Virtualization

- Cisco Cius supports a variety of desktop virtualization solutions from industry leaders such as VMware, Citrix, and Wyse.
- Cisco Cius optional media station provides additional USB and network ports, a speaker for hands-free operation, a display port, and a phone handset.