MITEL®
Virtual

MITEL

Virtual Solutions

Reliable voice performance in a virtualized environment

What would your IT department do if it could spend more time on innovation and less time working just to "keep the lights on?"

In most organizations, IT departments spend up to 72 percent of their time and budgets on basic administrative tasks. Fortunately, virtualization makes it possible to dramatically cut operating and capital costs, time and effort, by up to 45 percent, enabling you to more than double the time your IT department can devote to innovation and driving process improvements that could directly impact and increase your bottom line. With virtualization, IT staff can consolidate applications on fewer servers. Instead of a physical server being dedicated to a single application, a server can handle many virtual machines – each with its own operating system – saving capital investments in hardware, energy costs and more.

Voice in a virtualized world

Recognizing the industry evolution of voice communications as an integral part of the virtualized data center, Mitel" collaborated with VMware" – the undisputed leader in virtualization – to break the latency barrier between voice telephony and virtualized software and be the first to provide a real-time voice application that can run in a virtualized data center environment. Instead of maintaining a separate set of hardware, processes, tools and staff for voice communications, you can now treat voice like any other virtualized application in the data center, so voice and data can be managed in the same place.
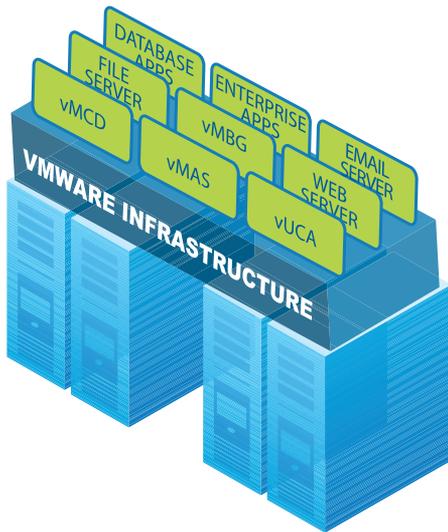
MITEL®
Simply Communicating®

Mitel Virtual Solutions is the industry's first fully virtualized business communications software suite featuring Voice over IP telephony, as well as unified messaging, conferencing, collaboration, mobility, contact center and IP border gateway capabilities. All of these essential unified communications functions can now be deployed alongside other traditional virtualized business applications in a VMware-enabled data center on a VMware vSphere™ 4 server.

The Mitel Virtual Solutions suite includes the following pre-packaged VMware Ready virtual appliances:
• Virtual Mitel Communications Director (Virtual MCD)
• Virtual Mitel Applications Suite (Virtual MAS) –
  with Mitel NuPoint Unified Messaging™ (UM),
  Mitel Audio & Web Conferencing (AWC) and
  Mitel Unified Communicator® (UC) Mobile
• Virtual Unified Communicator® (UC) Advanced
  (Virtual UC Advanced)
• Virtual Mitel Border Gateway (Virtual MBG)

The following applications are also available as VMware Ready for self-installation in a virtual infrastructure environment:

• Contact Center
• Call Accounting
• Enterprise Manager

With Mitel Virtual Solutions, voice and business applications now run together in a virtualized environment.

Maximize your voice and data communications

Mitel Virtual Solutions offers all of the functionality and features of Mitel's award-winning telephony software portfolio delivered as a complete package of virtual appliances for VMware-enabled virtual data centers, providing an innovative way to manage and converge real-time applications cost-effectively, so you can leverage both voice and data communications to maximum advantage.

Virtual Mitel Communications Director

The industry's first fully virtualized voice processing software application and the core component of the Mitel Virtual Solutions suite, Virtual MCD is a virtual telephony services platform that provides IP-PBX features for small to large enterprises. It offers the same Mitel Communications Director software deployed on the Mitel 3300 IP Communications Platform (ICP) and industry standard Sun Microsystems, HP and IBM® servers. The virtual appliance uses open standard definitions, and can be deployed on any VMware vSphere 4 certified industry standard server.

With Virtual MCD, you can access the full range of standard MCD telephony features such as Dynamic Extension, clustering, resiliency support, SIP service provider interconnect, and multi-node management.

Virtual Mitel Applications Suite

Virtual MAS unifies business-critical applications into an easy-to-use, cost-effective solution to help simplify communications while increasing productivity, enhancing customer service and collaboration, and reducing total cost of ownership. Virtual MAS delivers capabilities such as unified messaging, voice mail, speech-enabled auto-attendant, mobility, teleworking and sophisticated audio and web conferencing in a single- or multi-application deployment.

Virtual Mitel Unified Communicator Advanced

A key component of the Mitel Unified Communicator portfolio, the Mitel UC Advanced server converges the call control capabilities of Mitel communications platforms with contact management, dynamic status and collaboration applications to simplify and enhance real-time communications. The Virtual UC Advanced appliance provides a single access point for all your business communication and collaboration needs.

It gives you unprecedented control over your communications and allows real-time access to everyone in the organization, on or off the premises, with user and phone presence information that makes every phone call or instant message (IM) count, and simple ways to manage your personal communications.

Virtual Mitel Border Gateway

Virtual MBG enables secure deployment of multiple services in a number of network edge configurations. The consolidated multi-service virtual appliance provides secure, trusted connectivity between the enterprise LAN and the Public Internet, allowing Mitel IP PBX platforms and application servers to work seamlessly behind a company firewall. The following services, which can be separately licensed and configured, are available as part of Virtual MBG:

- Teleworker
- SIP Trunk Proxy / Firewall
- Applications Web Proxy
- Secure Recording Connector
- Voice Quality Monitoring

In addition to the above virtual appliances, Mitel Contact Center, Call Accounting and Enterprise Manager are also available as fully supported, server-side VMware Ready applications:

Contact Center and Call Accounting

Mitel's virtualized Contact Center and Call Accounting applications are ideal for sophisticated contact centers of all sizes, from small, single-site contact centers, to distributed, multi-site, virtual contact centers. Designed to ensure business continuity, these robust applications deliver resiliency and high availability.

Enterprise Manager

Mitel Enterprise Manager is a suite of management tools that allow simple configuration, control and management of Mitel's enterprise product portfolio. It allows access to multiple sites and systems from a single interface, lowering business costs and increasing staff productivity.

Virtual voice management

With Mitel Virtual Solutions, you can also take advantage of the advanced functions of VMware vSphere, such as management of server availability and maintenance. For example, virtual applications don't experience the long periods of downtime for server maintenance. And management methodologies and best practices can be applied consistently across all applications in the data center – saving time and money.

VMware offers a full range of virtual infrastructure management capabilities, among them:

• Virtual machine creation and configuration, health monitoring, performance reports and more
• Live migration of virtual machines from one physical server to another with zero downtime
• Automated migration of virtual machines to balance workloads and optimize the use of physical server resources

• Consolidation of unneeded or lightly used virtual machine workloads onto fewer physical servers, placing unneeded physical servers in standby mode
• Automatic restart of virtual machines on alternate servers when a server failure happens
• Pre-planned disaster recovery management policies for when a primary data center or server cluster is put out of service; virtual cluster can also be recreated on a backup data center

VMware virtualization brings many other advantages as well – software-managed security zones, private cloud computing to share virtual resources, distributed power management, thin provisioning and built-in NIC failover.

Mitel Virtual Solutions: Management Capability Support

VMware Management Capability	Virtual MCD	Virtual MAS	Virtual MBG	Virtual UC Advanced
Virtual Appliance Deployment (Import)	•	•	•	•
Export Virtual Appliance	•	•	•	•
Power ON	•	•	•	•
Shutdown Guest	•	•	•	•
Reset / Restart	•	•	•	•
Cold Migration	•	•	•	•
Snapshot (Powered Off)	•	(Future)	•	•
Cloning	•	•	•	•
Health Monitoring	•	•	•	•
Performance Reports	•	•	•	•
vMotion	•	•	•	•
Storage vMotion	•	•	•	•
High Availability (HA)	•	•	•	•
Distributed Resource Scheduler	•	•	•	•
Distributed Power Management	•	•	•	•
VStorage APLs	•	•	•	•
Data Recovery	•	•	•	•
Site Recovery Manager	•	•	•	•

Lower costs, higher productivity

CIOs know that virtualization technology provides big advantages. By virtualizing UC applications, you can transform infrastructure into an integrated, dynamic and flexible service that delivers efficiency, control and choice – and dramatically lowers capital and operating costs.

What are some of the key benefits? For one, virtualization makes the data center more dynamic and flexible. Software deployment and provisioning can be accomplished in hours rather than days, freeing up IT staff for more value-added initiatives. And there is no downtime with virtual machines. With voice and data integration, there's no longer a need for two sets of hardware, two sets of resources, or two budgets. By reducing the overall number of physical servers in a data center, your organization experiences significant capital cost savings. As well, server consolidation can save operational costs – fewer servers mean more efficient integration of IT processes. Just as important, less energy is required for powering up and cooling down.

Simplified disaster recovery planning is another advantage. Business applications and data can be encapsulated into virtual machines that are easily transmitted off-site, and just as easily recovered, if disaster strikes. And a single business continuity and disaster recovery plan is all that's required for everything in the data center.

From "keeping the lights on" to supporting the business

Virtualizing voice alongside other business applications improves your ability to respond to business changes. This agility allows your organization to better respond to the changing demands that the business places on IT and voice resources. People can connect with the right information when and where they need it. In effect, with Mitel Virtual Solutions, you can fundamentally shift the way you think about IT resources – from focusing on individual boxes to managing overall services and finding innovations that further the business.

Technical specifications

Virtual MCD, Virtual MAS, Virtual UC Advanced and Virtual MBG are delivered as downloadable software images in a standard Open Virtualization Format (OVF) for installation into a VMware-enabled virtual environment. These applications require the following minimum software and hardware:

- VMware vSphere 4, with VMware vSphere client (VMware vCenter™ Server is optional and not required to install and manage Mitel Virtual Solutions)
- Intel-based servers with a minimum Xeon® 55xx Series at 2 GHz or better (supporting Intel® Nehalem architecture), with hyper-threading enabled

Mitel Virtual Solutions Virtual Appliance Resource Reservation

Virtual Appliance	Virtual CPUs	RAM (GB)	Hard Disk Space (GB)	CPU (GHz)	RAM (GB)
		Resource Allocation		Resource Reservation	
Virtual MCD 4.0 / 4.1	4	2	10	6	2
Virtual MAS 2.1	4	6	86	4	6
Virtual UC Advanced 3.2	2	2	30	2	2
Virtual MBG 6.0	2	2	20	6	2

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