Mitel and VMware Virtualization

Mitel and VMware build a bridge

In a partnership made in data-center heaven, Mitel® and VMware® have cracked the final frontier of voice telephony: virtualization. It took the combined forces of Mitel, a company in a voice telephony league of its own, and VMware, the leader in virtualization, to solve a previously unmanageable problem. The partnership attacked the seemingly insoluble chasm between voice telephony and virtualized software, and succeeded. Now, mission-critical voice applications have been virtualized alongside other enterprise business applications in the mainstream data center.

The Virtualization Storm

Virtualization has taken data centers by storm over the past few years. The technology is software that makes it possible to run multiple operating systems and their applications on the same computer at the same time. Instead of a physical server being dedicated to a single application, a server can now accommodate many virtual machines, each with its own operating system and applications.

VMware has become the champion and leading exponent of virtualization, which IT advisory company Gartner named a top strategic technology to watch. With 85 percent of the virtual machines installed worldwide, VMware is clearly the leader in this field.

Virtualization in the Data Center

Smart CIOs are finding that virtualized data centers are achieving a reduction of up to 60 percent in infrastructure operating costs. With data-center servers previously running at very low capacity – some at 15 to 20 percent, others as low as two to five percent – it makes sense to consolidate applications to save real estate and server power.

And consolidation of servers is only the first benefit derived from virtualization. There's clearly a domino effect: fewer servers mean less space required, reduced power and cooling costs, and less time spent on server and application management and administration. The data center becomes more flexible and dynamic. Software deployment and provisioning are sped up exponentially, freeing IT staff for more value-added initiatives. With virtual machines, there's no downtime for users – the hot-add and hot-extend capabilities offered by VMware virtualization software allow for upgrade without user disruption.

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Another significant benefit in these times of climatic and political hazards, business continuity and disaster recovery plans are streamlined and simplified. It's easy to transmit a virtual machine to an off-site recovery facility – and easy to get it back when you need it in a crisis.

The latest developments by VMware include private cloud computing to share virtual resources, software-managed security zones, thin provisioning, and built-in NIC failover. With this kind of innovation and the attendant cost savings, it's not surprising that virtualization has become a hot topic in data centers globally.

THE VOICE PROBLEM

Development in virtualization for non-real-time applications has followed a relatively straightforward path, but real-time applications like voice communications are a different story. The process of virtualizing voice is extremely complex, primarily due to the stumbling-block of latency. Latency in a non-real-time application like email is acceptable: a 2-second delay in message receipt, for instance, won't affect the user. But a 2-second delay in voice communications is clearly unacceptable. Call quality would be heavily compromised, and teleconference effectiveness would hit rock bottom.

UNIFIED COMMUNICATIONS KEEPS US CONNECTED

Meanwhile, as virtualization wizards struggled with the voice communications issue, Mitel was integrating voice applications into a unified communications network. Taking today's disparate and sometimes confusing communications environment – phones, mobile devices, voice mail, instant messaging, email – Mitel created an elegant, converged unified communications portfolio. With the integration of voice, messaging, mobility, and conferencing capabilities, as well as the integration of third-party applications, Mitel's customers have found a whole new approach to business communications.

Unified communications solutions are lowering communication costs for real-world businesses while helping improve productivity. Successful organizations are gaining competitive advantage in the market through easy collaboration and communication over distance and time.

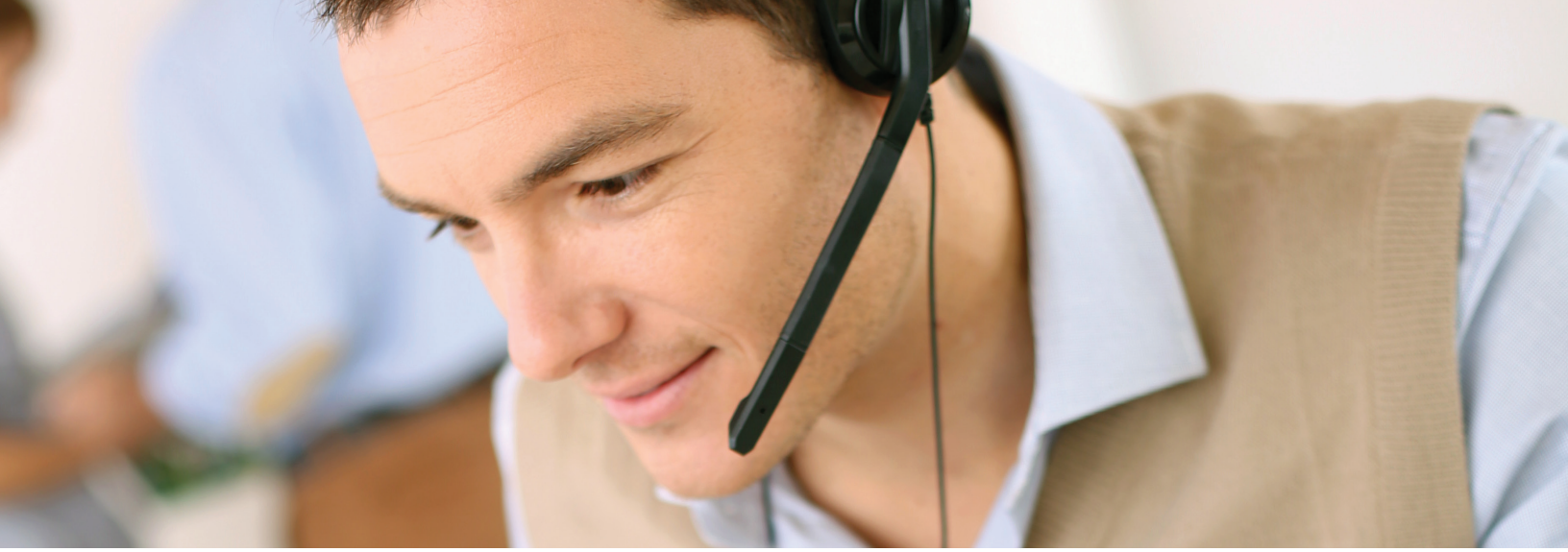
As well as making communications solutions easy to use and deploy, Mitel has designed products that enhance a company's existing investments. Developed with open standards as guidelines, Mitel solutions enable easy integration with IBM® and Microsoft® business applications, and simplify connection with CRM and ERP systems. Protecting your investment is just one of the benefits of Mitel's intelligent evolution – a phased approach to implementing unified communications.

Mitel's unified communications, business is all about staying connected. Regardless of location and time zone, the portfolio has the tools – softphone, teleworker, telecollaboration – to keep employees in touch with each other and with customers and partners. In doing so, businesses are improving efficiency, reducing costs, and streamlining operations.

SOLVING THE VOICE PROBLEM

With the accomplishment of these individual developments for Mitel and VMware, the stage was set for the meeting of virtualization and unified communications. Mitel and VMware experts disappeared into the lab for 18 months, and came out with the latency barrier cracked open. They managed to solve the delay issue and virtualize voice.

Now, Mitel's unified communications features run as virtual appliances on VMware vSphere™ 4 virtualization platform. Like any other application, the Mitel software can be downloaded and installed on any data-center server that's running VMware vSphere. The first Mitel virtual solution out of the starting gate is the MiVoice Business, which is the core of the unified communications system, providing call control for the IP voice path. Also available are VMware Ready™ applications, Mitel Enterprise® Manager, and Mitel Contact Center as well as virtual appliances for Virtual Mitel Applications Suite (including Mitel MiCollab and Mitel Audio & Web Conferencing (AWC)), Virtual MiVoice Border Gateway (for the Mitel Teleworker Solution) and Virtual Mitel MiCollab Client.



VIRTUALIZED VOICE IN THE DATA CENTER

Already, with virtualized voice, some CIOs are enjoying a new perspective on voice communications. Instead of having to handle voice communications with a separate budget and separate sets of hardware, processes, and tools – and often staff – CIOs can treat voice like any other business application in the data center. Instead of managing boxes, CIOs can manage the overall services that IT provides to the business. And in the process, reap the benefits and cost savings of a simplified test / development / production cycle, streamlined administration, and a single disaster recovery / business continuity plan that applies to the whole data center. Not to mention the capital and operational savings in real estate, hardware, power and cooling, and server provisioning costs.

With the voice virtualization chasm spanned and the Mitel and VMware bridge up and functioning, CIOs are crossing over to a data center in which virtualized, unified communications helps enterprises respond to today's market challenges.

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