

Hewlett-Packard and Mitel Networks have partnered to provide an enterprise level solution for voice and data over a single infrastructure.

Many recognize the advantages and cost savings to be gained by implementing and managing a converged voice and data network. However, many also believe that VoIP is not ready to deliver the type of reliability and functionality that is currently receive from their telephone company, or PBX system. This would certainly be true if the voice solution were developed, or pieced together, by a data centric manufacture that lacks Mitel's years of phone experience. However, by combining the strengths HP and Mitel for a VoIP solution today's telecommunications needs can be met without sacrificing features and functionality. Mitel's full-range of VoIP products can support a company's total voice needs. Or, VoIP can be implemented to complement, or facilitate migration, of existing communications services by inter-operating with the existing telephone company or PBX services.

Take a look at a typical HP/Mitel VoIP solution. Located at the company headquarters in the **MDF** is a HP ProCurve 9304m Routing Switch, a high performance backbone switch. The wire-speed, non-blocking, HP 9304m supports media speed IP routing, and ASIC enabled forwarding for Layers 2 – 7. To ensure that VoIP conversations are allocated the highest priority the 9304m QoS features include prioritization based on various traffic types. The HP 9304m would connect the entire campus with Gigabit links for maximum bandwidth availability. Also connected to the HP 9304m routing switch is the Mitel MN3300ICP (Integrated Communications Platform). The MN3300 delivers a call control system that is the culmination of nearly 30 years of reliable voice expertise. This unit is not built on a NT server, but was designed to provide stalwart voice service, with hardware and an OS specifically architected to handle up to 4600 calls per hour (including call setup and tear-down), and connectivity for up to 700 IP users. Nothing is sacrificed in moving up to a converged voice/data solution with support for more than 500 features such as ACD, Networked ACD, networking for scalability, call hold, music on hold, paging and voice mail all in the box.

Also located in the MDF are the Mitel Networks NSU (Networks Services Unit) and ASU (Analog Services Unit). The NSU provides multiple connectivity options to the telephone company central office, which include T1/D4 – Standard T1 trunking, DID, ISDN/PRI, QSig, and Calling Line Identity. The ASU enables analog connectivity for modems, faxes or standard single line telephones, and also

includes support for Music On-Hold, External Paging, Loop Start (CLASS) Analog Trunks.

The life-blood of a company comes from its ability to meet their customers' needs for products or support. A **Customer Service** function therefore requires an infrastructure that permits quick access and response from customer database servers. The HP ProCurve 4108gl switch provides a 36.6 Gigabit switch fabric capable of delivering the performance, port density (192 10/100BaseTX ports maximum) and media flexibility required. The Mitel Networks 3300ICP offers a very powerful ACD or Networked ACD (follow the sun) solution, which includes the ability to generate in depth reports via a web interface, monitor call center activity in real time and with a mouse move ACD agents from one group to another to meet call load demands. Also with the Mitel Networks 6160 iRAD/IVR interactive voice response (IVR) messages can be delivered to your callers while they wait in queue. Mitel's advanced IP display telephones are cost-effective in delivering the functions and information both agents and supervisors require. While many ACD sets offer only hard-coded keys wired to perform set functions, Mitel's programmable soft-keys allow agents and supervisors to select the functions that matter as their needs change. Any Mitel display telephone can be used as an ACD position thus eliminating the need for dedicated agent positions. The agent mobility feature allows agents to log in at any ACD telephone in their call center by keying in their user ID. The queue status key on Mitel advanced telephones gives agents important call activity information, such as number of calls waiting, agents available, allowing them to adjust and manage themselves accordingly.

Quite often a customer's first impression of a company is in the main **Lobby** through the company receptionist. This highly efficient, multi-tasking individual depends on a phone network capable of ensuring connectivity for numerous calls a minute. The HP ProCurve 2524 switch provides a high performance Gigabit capable fixed port switch to ensure reliable service in a low cost platform. Mitel's 5550 IP console builds on Mitel's long line of successful attendant offerings. Providing the tools necessary to handle large amounts of calls with ease, quick look up of phone numbers through the phonebook application, send messages to other attendants via a built in message board and keep notes in the scratch pad, route a call to a user's voice mail box with the push of a button, or retrieve a misdialed call by one key press.

To address the networking needs of the **Manufacturing** plant the HP ProCurve 4000m delivers flexibility and performance in a low cost mini-chassis. Generally, manufacturing facilities are large, spread out and users; especially managers or

supervisors need to be mobile. With Mitel Networks wireless solution you can provide users both voice and data through out the plant. Mitel's wireless solution provides wireless handsets and wireless NIC for both laptops and desktop PCs.

In the **Sales** department, applications such as the Mitel Networks PDA application make remembering a phone number a thing of the past. Dial directly from you PDA. Or invoke features such as call forward follow me to reroute your calls to you wherever you are located. Synchronize your PDA from anywhere in the building.

For your boardrooms, **Conference Rooms** and offices that require high quality conference capability, Mitel Networks has the MN 5305 IP conference unit. This device delivers high fidelity, full duplex audio for conference calls. Mitel's IP conference unit's unique beam forming technology forms a cone around the speaker and blocks out any side discussions in the room.

Use your existing WAN technology to extend voice services to a **Remote Office**. IP phones at a remote site can be extensions off of either the Headquarters system or the Manufacturing system. Or if required an additional MN3300 could be put in place at the remote site to support the users.

In summary, the Headquarters, Manufacturing and the remote site can operate independently or as we have shown as one large enterprise system with simple extension dialing throughout the network, centralized voice mail and feature transparency. All systems can communicate over the network or fail over to the Central office trunks to communicate ensuring uninterrupted communications.