



A Pragmatic Vision of Unified Communications

Prepared by Mitel Networks Corporation



Unified Communications (UC) refers to the continuing evolution of communications and its related technology. It is a direct result of the convergence of communications networks, communications and business applications, and devices. It combines multiple capabilities (voice communications, messaging, mobility, conferencing and collaboration applications) enabling new approaches to communications and is changing how individuals, groups and organizations communicate. For forward-looking IT professionals UC is an ongoing communications objective rather than a particular product, application, or solution.

Why Unify?

Businesses choose to unify their communications to deliver value at all levels of the organization:

Type	Benefit	How	Example
User-level	Improve employee productivity by reducing latency in communications	Integrating communication functions directly into work activities and applications	Mobility solutions that enable single number and single identity allowing employees to remain in touch
Workgroup-level	Faster and more effective collaborative and team efforts delivering higher quality results	Lever communications and collaboration tools to overcome barriers of time and distance Virtual meeting rooms speed rapid-response teams	Rich presence and availability information rapidly identify individuals with the right skills to address a problem
Enterprise-level	Better communication between teams / departments, with partners and customers enabling organizations to: <ol style="list-style-type: none"> 1. be more responsive, 2. deliver more value to their customers and partners, and 3. adapt easily and quickly to changing market conditions 	<ul style="list-style-type: none"> • Integrating communication capabilities into workflows • Integrating communications capabilities into business process applications which support workflows (Communication enabled business processes) 	Customer interaction and escalation based on rules engines and advanced PBX call handling, mobile integration, remote / home / branch office integration and collaboration Integrating communications capabilities into business process applications UC client integration with CRM applications

Adapted from: Bern Elliot, Network World 01/02/2008 and Eric Krapt

The Mitel Vision of Unified Communications

“Better than Live” Communications

Mitel®’s goal is to facilitate better business results through improved communications outcomes that are enabled by “better than live” communications experiences. While enabling “better than live” experiences is a lofty goal, there is a precedent in the broadcast communications industry with multiple camera angles, instant replays, and expert color commentary delivering an enhanced experience during a television sports telecast. Ultimately, we believe that a successful unified communications solution must deliver a rich, real-time collaborative environment that rivals or exceeds what can be readily achieved through face-to-face communications.

Presence indication is one of the cornerstones of a “better than live” unified communications experience, significantly improving the frequency of successful interactions. A user’s presence status can provide information to others about the ability or willingness to communicate as well as the preferred communications mode. Mitel enhances the traditional concept by enabling users to manage how their presence information is displayed and how communications modes are to be used. Through “Smart Presence” the user’s preference settings control which devices are contacted and how calls are handled (e.g. forwarded to another user, sent to voicemail, or delivered a custom greeting based on presence status, caller’s identity, time of day or by calendar information).

Video telepresence promises a new dimension to video conferencing and collaboration by creating the experience of “being there” while avoiding the many downsides of business travel. The benefits of pervasive telepresence technology will, however, only be realized when it is both easy to use and cost-effective to deploy. Mitel’s telepresence solution enables participants to naturally communicate over distance with their colleagues as if they were across the table using a simple deskphone web interface, high-definition video and immersive, spatial wide-band audio technologies. With lower cost configurations designed for the executive office, small or large meeting rooms, Mitel’s solution integrates with desktop clients and collaboration applications to ensure a “better than live” experience during video collaboration.

The journey to “better than live” communications involves a migration from today’s disparate real time communications solutions through the addition of improved voice / web / video collaboration, rich presence and availability indication plus mobile communications and messaging. By leveraging these elements, Mitel’s UC portfolio enables:

- ad-hoc interactions that mimic face-to-face communications for individuals and groups using presence indication and instant messaging
- ready access to business-critical subject matter experts or information resources
- the ability to use multiple modes of communications to explain / discuss ideas
- the ability to easily record, review and publish outcomes through web collaboration tools (including “instant replay” of meetings)
- the ability to integrate communications more effectively into the flow of business processes

These emergent “better than live” solutions are enabling progressive businesses to make better decisions more quickly, be more responsive, deliver greater value to their customers, and adapt quickly to changing market conditions.

Pragmatic Deployment

Mitel believes that the path to UC should be an evolution of existing IT investments (not a replacement) through a measured, pragmatic deployment of functionality. It is a multi-step process that involves:

- i. a move to IP Communications (a well-proven, essential first step towards UC)
- ii. integration with mobility and messaging applications
- iii. deployment of collaboration infrastructures based on specific user or site requirements, and
- iv. deployment of presence and UC clients (specialized, fixed and mobile) to strengthen access to communications value, and
- v. selective integration of communications with business software

In this world of open standards, a proprietary or single-vendor “closed system” approach to UC is retrogressive. Most IT professionals prefer the flexibility of an easily integrated and managed multi-vendor approach. According to Zeus Kerravala of The Yankee Group, “Whatever system that gets put in likely needs to work with a combination of PBX’s, data networks, email and other business applications, and possibly some consumer communications tools as well” (http://www.nojitter.com/blog/archives/2008/03/voicecon_2008_s.html). Mitel consistently invests heavily in open standards like SIP, HTML, and SOAP. In addition, Mitel provides integration to leading third party real time communications elements like Microsoft® Exchange / Outlook, OCS, and Active Directory and IBM Domino / Lotus Notes and Sametime.

Unified Communications Design Principles

Mitel’s UC portfolio elements are integrated in a way that creates enhanced interworking between applications (interflow) while enhancing our clients’ business processes. The Mitel Teleworker, Mitel Unified Communicator® Mobile, and Mitel Unified Communicator® softphone applications that work together to deliver calls to a single number independent of device provide a good example of UC applications interflow. This creates a consistent user experience from application to application. The integration of Mitel UC applications ensures users and businesses get the most from their investment.

Simplicity: ease of use, deployment and management. UC clients are designed to integrate frequently used communications functionality and deliver a familiar user-experience. The architecture minimizes the number of servers and unifies management interfaces.

Flexibility: Mitel offers a range of fixed and mobile Unified Communications clients as well as integration with major third-party clients and collaboration infrastructures to providing flexible deployment options and unified communications solutions tailored to the needs of all users.

Reliability: with a heritage of high-availability voice communications, Mitel designs its Unified Communications solutions as mission-critical business systems. Based on a proven, resilient architecture that minimizes system integration and call processing complexity while supporting manageable migration from existing systems, Mitel solutions take the risk out of the transition to Unified Communications.

Cost-Effectiveness: through intelligent migration that levers existing IT investments in a multi-vendor environment, Mitel Unified Communications solutions ensure that organizations get the most out of their investment. Solutions are tailored to the requirements of all types of mission-critical users and industry sectors to ensure maximum business value. With fewer servers to manage, lower power consumption and integrated management interfaces, Mitel Unified Communications solutions are cost-effective to operate.

Unified Communications Clients

Mitel follows in a comprehensive unified client strategy that delivers a communications experience suitable to the job function and business process of each user and workgroup. Our approach provides the advantages of a family of clients tailored to the unified communications needs of distinct user groups, including:

- Advanced deskphones
- Simple deskphone assistant
- Softphone
- Advanced UC client
- Agent client (contact centers)
- Mobile client

Mitel recognizes that different users have different needs for their communications environment. We offer a family of clients designed to support the distinct needs of diverse user types within both single and multi-vendor environments. Mitel has a unique set of UC solutions tailored to the needs of the user and the industry sector, offering both a lightweight deskphone assistant client as an introduction to UC value and a robust, full featured UC client for highly collaborative and mobile applications. Both Mitel UC clients provide seamless access to sophisticated Mitel applications that drive productivity, enhanced customer service and lower cost of ownership.

For companies that have standardized on a multi-vendor UC implementation, Mitel provides integration either at the system level (via Mitel Live Business Gateway) or at the client level (via extensions to third-party clients like Microsoft Office Communicator and IBM Lotus Sametime) to deliver flexible access to the Mitel's rich telephony feature-set and unified communications applications. Following the principle of simplicity in design and management, Mitel's architecture avoids the risk and complexity of operating multiple call processing engines in the UC infrastructure.

To connect mobile users to the corporate Unified Communications infrastructure, Mitel offers a range of FMC clients tailored to the design of various mobile devices and will progressively extend their functionality to provide access to enterprise UC applications outside the workplace.

Fixed Mobile Convergence: Unified Communications On-the-Go

Fixed / Mobile Convergence (FMC) extends the boundaries of a company's voice communications to employees when away from their fixed work locations, whether in corridors, across a campus, in a home office, or traveling. Employees can seamlessly transition between wireline and wireless networks with the convenience of business communications features.

Carrier FMC

A carrier FMC solution extends a wireless carrier's service into the enterprise. It integrates wireless networks both inside and outside the premise and provides basic interoperability with the business PBX. The user's mobile number is the focal point for all calling with calls passed off to the enterprise PBX to provide converged communications with fixed devices.

The carrier is clearly in control of the service and its pace of evolution. Because of the limitations of the carrier network, mobile access to the rich feature-set and applications of the private business communications network may be limited. Consequently, a carrier FMC solution is best suited for users who are primarily mobile in the wide area network and have limited need for advanced fixed communications services.

Enterprise FMC

An enterprise FMC solution is an extension of the private IP Communications infrastructure and integrates with wireless networks inside and outside the premise over private and public domains. The user's business extension is the focal point for the solution, ensuring a single directory, phone number, voice mailbox and identity for each user and providing maximum access to business communications functionality.

In this approach, the business is in control of the deployment and evolution of the FMC solution since service is tied to the enterprise communications system. Enterprise policy application and control is simplified and dependence on the carrier is minimized. There is also an opportunity to reduce the cost of calling on the wireless carrier network.

Enterprise FMC is the most flexible method of serving a broader range of mobile users who have varying degrees of need for wireless service and advanced private network functionality. Such flexibility is particularly important since the needs of mobile users should be addressed as an integral part of the larger enterprise unified communication plan.

The Mitel Vision of Unified Mobility

Within the communications industry, enterprise mobility products are typically designed to address classes of users with specific mobility needs in one of three ranges: an office, a campus, or the public wide area. Mitel aims to deliver total mobility by keeping mobile workers connected to the business no matter where they roam or what device they use. This approach to mobility is consistent with our vision of transforming point-to-point communications into person-to-person communications.

Mitel's mobility solutions recognize any phone number as a legitimate device within the system providing for the user a single phone number, single voice mailbox and single identity independent of the device, while using the lowest-cost network for connectivity. Today, Mitel delivers this through the Mitel Unified Communicator Mobile applications server that addresses any mobile device. As "smartphones" become more prevalent in business, additional value will be available through capabilities like enterprise calling from the mobile device and remote user self-administration, as well as through access to a greater range of applications such as corporate directories, presence, visual message waiting, secure call recording, and Wi-Fi operation with compatible devices.

Through the combination of the mobility applications server and intuitive mobile clients tailored to the user's mobile device, mobile workers are provided with ubiquitous and cost-effectiveness mobile access to the enterprise network and communications-enabled business applications with a single enterprise identity that is easy to manage and control. We extend unified communications value to mobile workers by providing ubiquitous access to enterprise services and business processes, regardless of device or location and, independent of network or access technology. At the same time, IT departments are given unprecedented control over communications usage, spending, regulatory compliance, call accounting and asset and policy management.

FMC Design Principles

As a subset of a larger unified communications strategy, Mitel's FMC solutions reflect the core design principles set out for our Unified Communications portfolio.

Simplicity: the ability to use a single number, single mailbox, and single mobile device, on any compatible wireless network. Mobile clients for "smartphones" are integrated with the native operation of the mobile devices to improve usability and can be configured and deployed remotely (over the air). Mitel Unified Communicator Mobile applications server is integrated into the Mitel Applications Suite, minimizing the number of separate applications servers, creating a common applications management environment, and enabling improved inter-working between unified communications applications.

Flexibility: Solutions are available for major enterprise smartphone devices from: Nokia, Microsoft Mobile and RIM Blackberry, independent of network or access technology. The user can designate any device as a “mobile extension” and, through the Mitel mobile client, can control call delivery schedules.

Cost-effectiveness: Mitel mobile clients ensure mobile calls are carried on the enterprise long-distance network and, with dual-mode “smartphone” devices operating in Wi-Fi mode, enable use within corporate wireless LANs or in public Wi-Fi hotspots to avoid airtime charges.

Unified Communications for the Real World

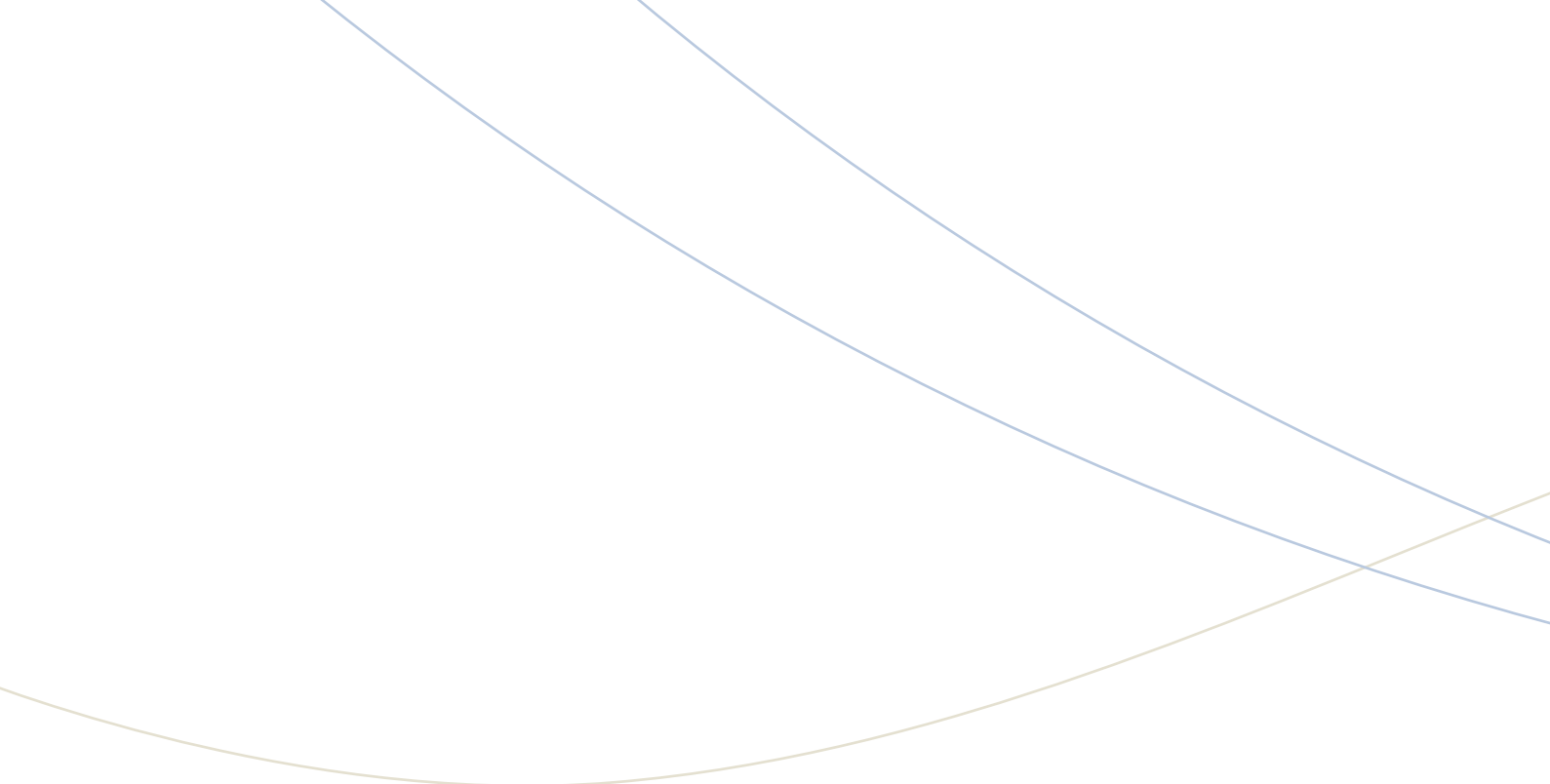
A lot of what is being promoted as unified communications or “UC” is simply technology hype. Many vendors are talking about products that aren’t really ready for deployment or they’re selling products that require significant infrastructure upgrades, system integration and training costs. Products are also being launched that are unnecessarily complicated for the user and for those who are managing the system. All this has led to significant confusion in the marketplace leaving many IT departments planning but a smaller percentage actually implementing high-value Unified Communications solutions.

Mitel delivers a comprehensive Unified Communications (UC) solution that encompasses:

- IP Communications
- Unified messaging
- Teleworking
- Audio, web and video collaboration
- UC clients including a deskphone assistant, softphone and full-featured UC client
- Presence and Instant Messaging
- Third party client integration to Mitel UC
- Fixed / mobile convergence infrastructure and mobile UC client

This functionality is delivered through an integrated architecture with common management interfaces that ensure tight application inter-working and ease of management. These solutions can be pre-configured and pre-integrated as the Mitel Applications Suite (MAS) for SMB applications and easily integrated within multi-vendor environments for more complex enterprise implementations. In all cases, Mitel unified communications solutions follow common design principles built on a foundation of simplicity.

What matters most in the real world? The Mitel difference is how we address real world business concerns such as simplicity (ease of use, ease of management), meeting user needs with tailored solutions, reducing total cost of ownership, maximizing return on assets through intelligent migration, and helping to address important operating issues like revenue generation and customer service. We invite you to discover Mitel Unified Communications Solutions that address the unique needs of your Enterprise by visiting www.mitel.com.



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