



# A Pragmatic Vision of Presence

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## IP Telephony vs. Presence

The debate rages. What's more "fundamental" to deploying Unified Communications – Presence or IP Telephony? It is a "chicken or egg" question and isn't really a productive debate. It is much more important to ensure that the right versions of these underpinning technologies are selected and that they are deployed appropriately.

The business case for IP Telephony for corporate communications is well established. As a result, IP Telephony has displaced legacy digital technologies as the de facto standard for business communications. While interworking issues remain between certain vendors' IPT implementations, the standards continue to mature to ensure interoperability with legacy systems and new communications applications. Mitel® has been a leader in this regard with a strong focus on support for traditional PBX interworking standards and a strong commitment to interoperability through its Mitel Solutions Alliance (MSA) program.

Presence technology, as it is widely known, is less mature within the enterprise and originally arose from a simple desire to improve the effectiveness of consumer instant messaging (ru there?). Because knowing whether someone is available before you try to reach them dramatically improves communications effectiveness, presence is gradually infiltrating into enterprise messaging systems. It is also starting to be leveraged for broader communications purposes as desktop PC clients (like Microsoft® Office Communicator and IBM® Lotus SameTime) begin to integrate document processing and real time communications functions.

What isn't always recognized is that a type of enterprise "presence" functionality has existed for a long time in the form of voice communications states. A busy lamp on a phone indicating that a colleague is engaged is a well established form of presence information that improves communications performance (you know up front to try someone else or that you'll need to leave a message). Similarly call waiting tones, redirection to voicemail, do not disturb features, call forward no answer, etc. all represent communications functions influenced by user status. These capabilities (and more) are already embedded into enterprise IP Telephony systems. So the real question is not "presence or IP Telephony?" but rather how to integrate the two presence environments to ensure the most comprehensive Unified Communications performance.

## Presence – More Than Just Status

At the most basic level, presence information is a status indicator that conveys the ability and willingness to communicate. A user's desktop client provides presence information which can be made available to other users to convey his availability for communication. The most common use of presence in an instant messaging client is to display an indicator icon along with a text description of the state. States exist in many variations across different clients but common ones are "free", "busy", "away", "do not disturb" and "out to lunch".

### The Three Cs

Even the most die-hard proponent of presence information has to admit that published availability can be a burden if not properly implemented (consider the sometimes mixed reviews of the productivity value of "always on" technologies like cell phones and Blackberries). So, at Mitel we talk about the "3 Cs" of effective enterprise presence solutions: Context, Control and Confirmation.

"Context" recognizes that a user's availability status really depends both on what they're doing and on who is trying to contact them. While I may not be "available" to most people that might want to reach me, if my boss needs me then miraculously I become available for her. That is, unless I'm deep in negotiations with an important client. Sometimes I'm available only for the right person... and it depends on the context of my situation. Any presence system should incorporate context into its policies.

"Control" refers to the ability of the user and the IT department to maintain presence policies with the minimum of overhead and effort. As early "find me / follow me" services demonstrated, a capability that requires a significant amount of user effort to maintain (e.g. complex time of day routing tables and VIP caller lists) means that only a small number of dedicated users will see real value. Trying to offload this responsibility to a centralized IT department only results in unsatisfactory performance for the user and higher IT costs. The "control" issue is a major challenge for effective implementation of presence solutions.

"Confirmation" is the negotiation and acknowledgement process that is an inherent part of human interaction. When you're behind closed doors, I peek through the window next to your office door and wave to get your attention. If you're talking to someone else you give me the "just a minute" signal (or you wave me off). Regardless of the outcome, I know you received my request for communication and were able to make an informed decision about its relative importance in light of your current activities (context and control). Shouldn't presence information enable us to signal each other this way as well?

### Aggregated Presence Information

To be truly useful, presence information must reflect a more comprehensive view of the user's state (context). Status indication based on manual settings, or driven from keyboard activity or on-hook / off-hook status is insufficient for intensive enterprise applications. Mitel's concept of rich presence aggregates status information from a variety of additional sources including electronic calendars, GPS or bluetooth enabled devices and ultimately intelligent systems that recognize trends in behavior.

With the more nuanced view of the user's status aggregated from these sources (what you are doing, who you're with, your location and your next scheduled activities) presence systems can more effectively implement unified communications user policies for call / message treatment and provide intelligent confirmation feedback to people trying to reach you (e.g. a response indicating your next available calendar slot or an alternative way to reach you). In addition to automatically updating call routing policy (e.g. which device should receive calls / messages) certain unified communications applications can use rich presence information to optimize performance (e.g. "out of office" presence information advises a unified messaging system to send the user an email if a voice message has been received).

VIP lists, in which a caller is pre-authorized by the user to over-ride rich presence driven policies, is particularly relevant to the fast-paced enterprise environment. These privileges may also be extended beyond individuals to workgroups built around organization, function or project who share responsibilities for a mission critical activity. Special presence status and treatment / policies may be provided to all members of internal workgroups and may be further extended (federated) to important external social / business networks if appropriate. A user's membership in a workgroup becomes part of the aggregated presence information and drives more refined communications policy.

A user's presence status provides information to others about the ability or willingness to communicate and should also determine the preferred mode of communications. Even with rich presence and the resulting sophistication in policies, the user still requires ultimate control to customize communications. Mitel's approach is to enable users to control both how their presence information is displayed and which communications modes are to be used. The user's preference settings determine 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 calendar information).

### Natural Presence

A rich presence solution that incorporates the "3 Cs", something Mitel calls "Natural Presence", creates the necessary conditions for communications that are equivalent to face-to-face interactions. When Natural Presence information, available from both IP Telephony systems and messaging systems, is leveraged by all Unified Communications applications and is available to all UC clients and devices, a "better than live" communications experience is possible. This is the ultimate goal of Mitel's Unified Communications strategy. While enabling "better than live" unified communications 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, Mitel believes 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.

## Mitel Presence Architecture

Mitel has been at the forefront of presence-enabled Unified Communications with the Mitel Unified Communicator® client and server that combine PC and telephony presence and availability, secure instant messaging, audio conferencing, video and data collaboration, and softphone with Mitel 3300 ICP call control for a complete, business-grade UC solution. Mitel has also led the marketplace by integrating PC presence information from Microsoft® presence engines with telephony status and extending it across a variety of communications applications. Currently Mitel has enhanced its communications applications by delivering presence information to the display of IP desktop phones, IP attendant consoles and IP contact center agent clients to enable more successful communications outcomes. Similarly, presence information can be used by Mitel NuPoint unified messaging systems to provide customized call treatment based on called party availability.

Many IT departments are currently implementing a corporate presence infrastructure associated with instant messaging and “presence-enabling” various office productivity applications. At this stage, there are few standards for presence information but all architectures have the concept of a “presence engine” in common. Vendors like Microsoft® and IBM® offer presence engines as part of their corporate directory and office productivity solutions. Mitel also offers a presence engine as part of its Unified Communicator server.

In fact, it is expected that many enterprises will find themselves with multiple presence engines based on different vendor topologies. The challenge for IT departments will be to ensure interworking between diverse presence infrastructures, IP telephony systems and Unified Communications applications to create a cohesive user environment.

Some IT departments may feel pressured to take the risk of committing to a single-vendor Unified Communications deployment to mitigate the challenges of managing a multi-vendor environment. As a compelling alternative, Mitel has introduced the concept of a presence proxy server to bridge diverse presence topologies. The Mitel presence proxy server is integrated into the Mitel Applications Suite (Release 1.2) to mediate between Mitel IP Telephony and Unified Communications applications and the evolving presence infrastructure in the typical enterprise IT network. The proxy server ensures:

- i. Compatibility with multi-vendor presence environments leveraging SIP / SIMPLE protocols
- ii. Mitigation of impact on multiple UC applications as the enterprise presence topology continues to evolve
- iii. Ease of integration of future UC applications by creating a standard web-services interface to the presence environment
- iv. Central point of management for policies governing use of presence information

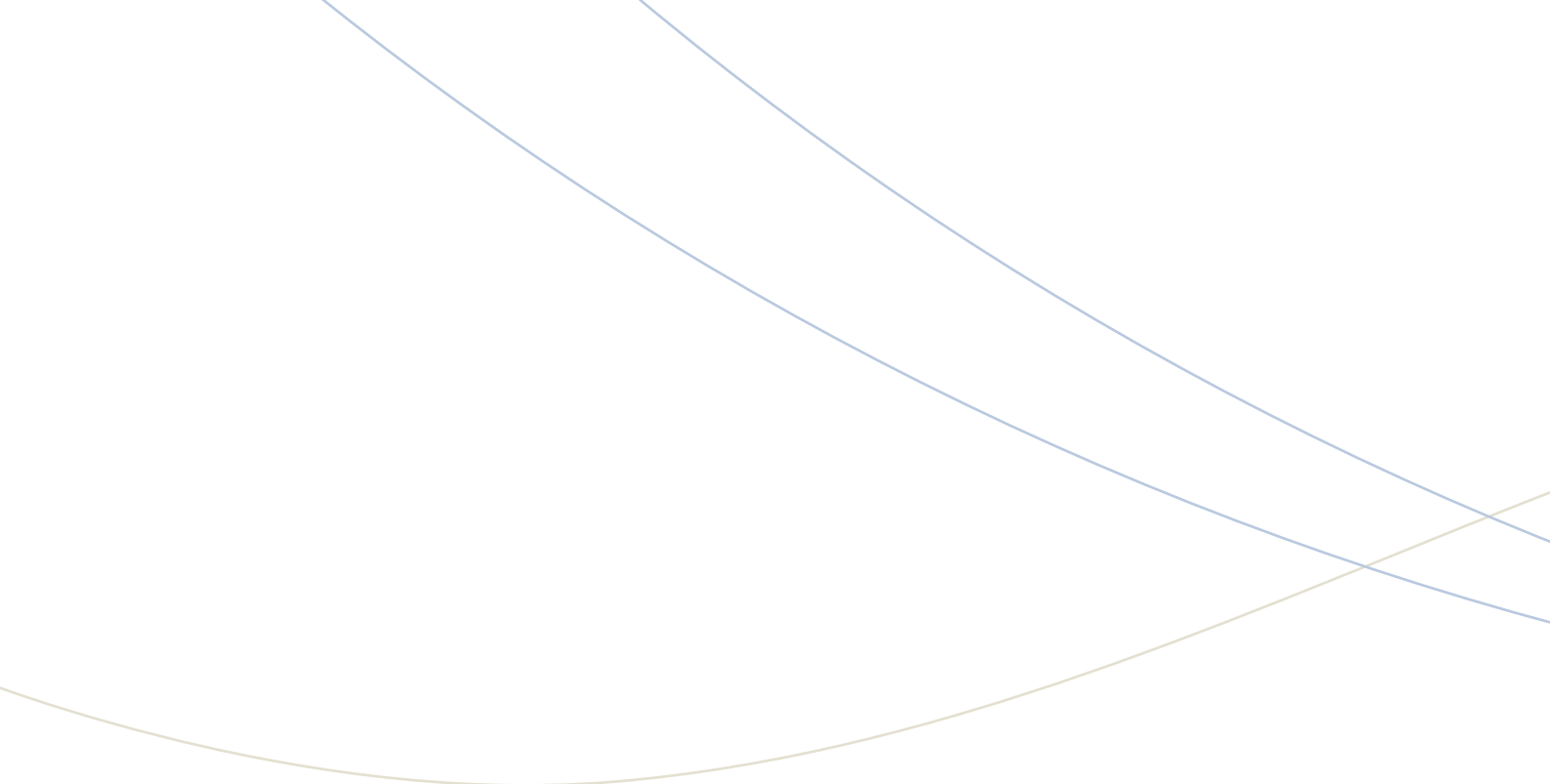
To maximize interoperability, Mitel invests heavily in open standards like SIP, HTML, and SOAP. In addition, Mitel provides integration to leading third party real time communications elements like Microsoft® Exchange / Outlook, OCS, and Active Directory and, IBM® Lotus Notes / Lotus Domino® and Sametime™. For progressive IT departments that wish to avoid being locked into a single-vendor unified communications solution, Mitel's standards based approach, exemplified by the Mitel presence proxy server, enables realistic, best-in-breed deployment of presence-enabled UC applications.

## Summary

Good teamwork is essential to most organizations. However, in today's complex business environment, team members are often scattered around the world, working in different time zones, different departments and different offices, some working from home and others on the road. Teams often extend beyond the boundaries of the business as part of a community of interest of partners, suppliers and other collaborators. Each individual team member may also work with several other teams and communities of interest.

With unified communications and presence tools that let each individual indicate whether he is available to communicate at any given time and what device he can communicate with, team members can collaborate with their colleagues without wasting time with messages and telephone tag. Mitel's vision of UC provides a converged communications infrastructure that streamlines communications between people and organizations, regardless of the medium, mode, platform, device or location. This leads to improved productivity, enhanced customer service, reduced costs, and ultimately improved business process integration.

This converged infrastructure brings together voice communications, presence and availability, instant messaging, conferencing, collaboration, unified messaging, mobility, and business applications into a seamless environment to enhance the user experience and the effectiveness of "in the moment" communications that is a critical element of business success. A robust and flexible presence infrastructure, that leverages the strengths of IP Telephony call status information as well as presence information from evolving presence engines, presents dramatic opportunities for more effective enterprise communications. Mitel's goal is to apply the principles of Natural Communications to presence-enabled UC applications to deliver better business outcomes through a "better than live" communications experience.



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