

INTEROPERABILITY FOR UC&C SOLUTIONS

Leveraging Multiple Vendors to Bring UC&C into Harmony

CONTENTS

Key Challenges.....	2
Questions to Ask.....	2
Paths to UC&C.....	2
Existing Interoperability Opportunities.....	3
Harmonizing UC&C's Cornerstone Technologies.....	4
Additional Harmonized UC&C Considerations.....	6
Is Interoperable UC&C Right for My Organization?.....	6
Conclusion.....	6
About Insight.....	7

Sponsored by:



Unified Communications and Collaboration (UC&C) brings together a number of communication channels — voice, video, instant messaging and email — into a single user interface on a single network. Done well, a UC&C solution allows people to share information and work together virtually through shared workspaces, conferencing, enterprise social software and more.

UC&C is often used to support an increasingly mobile workforce that wants to bridge the data, voice and video silos with a consistent user experience across all devices. Common UC&C solutions include some or all of the following: voice and telephony, video and audio conferencing, messaging, presence and IM, user experience software and communications-enabled applications.

There are several individual vendors who can provide all of these solutions under one brand, and many organizations are working towards their own “best of breed” solutions. A third option, however, is becoming increasingly viable: building an interoperable UC&C architecture that seamlessly unites the products of several different vendors under one consistent user interface.



KEY CHALLENGES

Today, many organizations support a mobile workforce around the country or around the world, working in separate offices, homes, coffee shops or on the move. This has placed a great deal of strain on existing UC&C platforms in a few focused areas:

- 1. Managing Devices and Security:** Managing connection technologies can be difficult, as the number of communication and collaboration tools available today is growing almost as quickly as the number of devices and platforms used to access them. This exponential growth in complexity makes it difficult for any business to keep pace with the quality of service, security, upgrades, maintenance and support needs of these tools and devices on a cost-effective basis.
- 2. Budgets:** From a budget perspective, many businesses are continually looking to reduce the costs of their conferencing and collaboration solutions. They need cost-efficient and scalable UC&C resources able to ensure that communications and collaboration standards are delivered within reasonable budgets, even as the use of these tools and technologies grows.
- 3. User Experience:** The most effective UC&C platforms won't hit their ROI targets if they go unused. So organizations today are continually striving to improve the quality of the overall user experience as well, across a growing number of devices and business apps.

QUESTIONS TO ASK

To meet the evolving needs of today's mobile workforce, companies need UC&C solutions designed to help employees get work done efficiently, securely, productively, collaboratively and seamlessly wherever they may be. In order for workers to produce in harmony, their technology tools must also work in harmony.

To evaluate their UC&C needs and focus properly, organizations should ask:

- What do we currently own and what legacy investments have we already made in UC&C?
- What UC&C elements are our employees actively using? What technologies are less used?
- Is there value for us in standardizing our UC&C solutions with a single vendor?
- Is there a way to replace our conferencing solution with something more cost-effective?
- Should we move all or part of our UC&C solution out of our data center?

Technology partners can bring some clarity and objectivity to these questions, since the variety of responses refutes any "one size fits all" approach.

PATHS TO UC&C

Currently, most organizations take one of two paths with regard to their UC&C architecture:

1. they leverage a hosted (or more recently, cloud) solution set.
2. they partner with a single vendor that ties together on-premise data center hardware, endpoint hardware, software and services.



Hosted and cloud-based UC&C solutions offer an alternative to managing UC&C from an organization's own data center. Established vendors like Cisco and Microsoft offer a variety of cloud and hosted solutions, as do other emerging vendors, such as 8X8. Hosted services typically represent operating expenses, as opposed to capital expenditures, and can be scaled to individual resource needs. However, a hosted or cloud-based approach isn't attractive or even possible for many organizations, due to their security or control requirements, and while many organizations have embraced the cloud for a broad range of support needs, telephony in the cloud still has a way to go before it is leveraged to the same degree. Small and mid-sized organizations have been the first to consider cloud and hosted options for UC&C, and as these solutions evolve over time, more enterprise-sized organizations will begin to consider them as viable options.

For organizations managing UC&C within their own data centers, leading vendors such as Cisco and Microsoft offer comprehensive solution sets under one brand. Such standardization with a single vendor can certainly ease integration and unify support, and there are often cost savings to be found in consolidated offerings.

However, a third option is emerging as these technologies have matured: Interoperable UC&C. Interoperable UC&C — essentially building a hybrid architecture that unites multiple vendor solution sets — allows companies to leverage their existing UC&C investments, choose best-of-breed solutions to fill out their solution suite, and still deliver a unified and consistent user experience across all platforms.

This might include a variety of Cisco and Microsoft UC solutions (the two leading UC&C solutions providers in the industry today) supporting a uniform, optimized user experience across endpoint devices including smart phones, tablets and audio endpoints from Cisco, Jabra, Plantronics — even legacy PBX phones. Interoperable solutions can also be a hybrid of cloud, hosted and on-premise communications solutions.

EXISTING INTEROPERABILITY OPPORTUNITIES

Many organizations are already on the path to a harmonic UC&C architectures across multiple vendor products to some degree or another, whether they know it or not. For example, directories and unified messaging are core UC&C building blocks already in place in most established companies that can provide the first forays into harmonized UC&C.

For instance, an interoperable directory could evolve from the integration of Microsoft Exchange and Cisco UC directories, making it easy to find someone by looking in a single directory for telephone numbers, email, VoIP Session Initiation Protocols (SIP), etc. Directories are typically available out of the box from Cisco and Microsoft, so no investment is necessary for additional licensing, though services will vary.

In a unified messaging approach, on the other hand, an interoperable solution takes place when Cisco Unity voicemails are sent to a Microsoft Exchange email inbox. Such a solution replicates a copy of the voicemail from Unity Connection to Exchange, enabling the text-to-speech, contact search and calendaring features through the voicemail system. Again, unified messaging is available out-of-the-box from Cisco and Microsoft, with minimal (or sometimes no) investment in additional licensing, though services will vary.



HARMONIZING UC&C'S CORNERSTONE TECHNOLOGIES

In addition to directories and unified messaging, there are four cornerstones of the modern UC&C platform that are ripe for interoperability as well:

- 1. Presence** — Presence technologies help users to know where intended recipients are, and if they are available, in real time. In the era of the mobile workforce, knowing where individuals in your organization are located and what their availability might be are essential for efficient communications.

In an interoperable UC&C solution between Microsoft and Cisco products, an individual's VoIP or PBX phone status would communicate directly to a Lync client (and other Lync Presence enabled apps), sharing availability status without any action needed by the parties involved.

Such a solution would require a minimal investment in additional licensing, since Microsoft Lync Standard CALs come at “no extra charge” on most Microsoft Enterprise Agreements, and organizations typically have a single system for voice (though implementation costs will vary).

- 2. Call Control** — Call control technologies that can route telephone calls from one end point to another seamlessly, or that use client software applications to control end point devices are growing, due to the capabilities of VoIP-enabled and mobile phones.

Call control allows users to leverage their desktop systems to improve efficiency and customer service by seamlessly using click-to-call anyone, initiating a call via their desk phone, passing a call to their mobile handset or even to other users. However, if the user is not at his or her desk, the phone call may connect to a desk phone with no one there. A combination of call control and a presence capability might help to prevent this situation from happening.

In an interoperable solution set, organizations might use Cisco VoIP Phone for audio and Microsoft Lync for IM, presence and call control. The user would have the ability to click-to-call a phone number from the Lync application, which would initiate a desk-side Cisco VoIP phone to make the call. Again, no additional software is required (though implementation costs will vary), and there is minimal to no investment in additional licensing.

At one time, a tool named Cisco Unified Communication Integration for Lync, or CUCI-Lync, was promoted as an interoperability solution for Cisco UC and Microsoft Lync integration. From a user standpoint, a Cisco UC toolbar was applied to the Lync application user interface (UI) on the desktop. As highlighted above, more modern call control interoperability options are now available today.



- 3. Audio** — In today's mobile workforce, conference calls where many (or all) of the participants are dialing in remotely are as common as face-to-face meetings, if not more so. Unless an organization has the luxury of housing every employee under one roof, audio and/or web conferencing is likely a significant piece of their unified communication and collaboration offering.

An interoperable configuration for audio conferencing might include dial-in and web conferencing from any device, anywhere with the Lync client configured as the web conferencing application of choice. The Lync Client would work in conjunction with Cisco voice back-end solutions (Cisco Voice Gateway, Communications Manager, and Presence Server) to replace costly third-party dial-in conferencing solutions. Cisco WebEx is also an option for conferencing and web meetings.

Organizations may also choose to enable Enterprise Voice for Lync to dial any phone by voice. In an interoperable configuration, Enterprise Voice via Lync could also leverage Cisco voice back-end solutions.

Both Conferencing and Enterprise Voice configurations typically require additional investment in Microsoft Client Access Licensees (CALs) for Lync, beyond standard CALs. Additionally, implementation costs will vary.

- 4. Video** — The recent economic downturn led many organizations to invest in videoconferencing and telepresence technologies to allow deeper, more meaningful collaboration in real-time without the associated travel expenses.

An interoperable videoconferencing configuration might unite Lync client video (from any mobile device, desktop, or laptop) to join a Cisco telepresence meeting that is taking place in an executive board room, for example.

With interoperable configurations, technical considerations should be taken into account concerning video codecs, since codecs vary based upon version of Lync and may impact overall quality of the solution. Not all Lync video codecs are standards-based.

Typically, little to no additional investment in software licensing is required to enable video interoperability, allowing organizations to leverage their investments in this area to a greater degree within a larger UC&C solution with minimal additional expense. Again, implementation costs will vary.



ADDITIONAL HARMONIZED UC&C CONSIDERATIONS

Beyond the individual UC&C services themselves, an interoperable UC&C solution set must address additional considerations, specifically network, telecom, endpoint, data center and overall security.

- **Network considerations** would span service quality, bandwidth and latency, and call admission control.
- **Telecom considerations** include carriers and contracts, provisioning and MACs, plus 911 services and SIP trunking.
- **Endpoint considerations** such as multi-platform support, mobile strategy, service desks, and user portals must be evaluated.
- **Data Center considerations** inherently include servers, storage, virtualization, scalability, and rapid provisioning.
- **Overarching security considerations** should account for increasing workforce mobility and all endpoints possible within an organization that entails, plus hardware, software and maintenance of the security solutions.

IS INTEROPERABLE UC&C RIGHT FOR MY ORGANIZATION?

While interoperable UC&C solutions certainly have their benefits, they may not be the best option for all organizations. For example, organizations that are highly invested in Cisco and not invested in Microsoft, or vice-versa, may find that going with a single-vendor solution is superior to a best-of-breed option. Both Cisco and Microsoft offer end-to-end UC&C solutions that may be the optimal option for many organizations.

One size simply does not fit all when it comes to UC&C. Exploring business and IT needs, use cases, legacy investments, cost concerns, and other implications are crucial to defining a successful UC&C roadmap. Technology partners can bring some clarity and objectivity to help organizations address these issues on a case-by-case basis, identifying areas where an interoperable UC&C solution is possible and cost-effective.

CONCLUSION

UC&C solutions are increasingly important as work has become something to be done, rather than somewhere to go. UC&C allows the distances between co-workers and teams to disappear, simultaneously equipping those workers with the tools, technologies and data they need to be successful and productive.

As UC&C technologies have matured, they have created opportunities to merge best-of-breed solutions that leverage and harmonize an organization's legacy UC&C investments, without sacrificing the unified user experience needed to deliver maximum ROI.





ABOUT INSIGHT

Insight is a trusted technology provider of hardware, software and service solutions to business and government clients in more than 190 countries. Founded in 1988, Insight is a Fortune 500 company headquartered in Tempe, Arizona with approximately 5,400 teammates worldwide.

Specific to UC&C, Insight has world class expertise in both of the two leading solutions: Cisco and Microsoft. As a Cisco Gold Certified Partner, Insight holds Master Certifications in Unified Communications, Cloud, Telepresence Video, and Network Security. As the #1 Global LAR for Microsoft, Insight manages over 4,000 Enterprise Agreements, holds eight Gold and eight Silver Competencies, including Gold in Messaging and Communications. Insight also supports Jabra and Plantronics, specializing in endpoint devices such as wired and wireless headsets, handsets, speakerphones, etc.

HarmonySM is a set of integrated UC&C solutions from Insight that integrates the four cornerstones of a modern interoperable UC&C solution. Insight UC&C solutions present no silos, just harmony.

Learn more about Insight's UC&C solutions at www.insightharmony.com

