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Executive Summary

Unified Communications (UC) is a concept that has been in the market for more than 15 years but is not well understood by the majority of enterprise and contact center executives and managers. In the past 24 months, several contact center infrastructure vendors have adopted UC as their primary strategy, and most of the other competitors have introduced UC products. Most telephony and contact center vendors believe UC is essential for the future of enterprise communications and is the next logical step in the evolution of Voice over Internet Protocol (VoIP) solutions. The challenge is that vendors and users alike are struggling to identify and quantify UC's benefits, beyond its ability to standardize and simply the communications infrastructure. This white paper explains UC, presents its benefits and reviews the solutions currently available from leading providers.

What is Unified Communications?

Unified Communications is a technology framework that helps organizations provide a standardized user interface and user experience across multiple applications, devices and channels. It integrates real-time and non-real-time communications services. The real-time communications services include: Internet Protocol (IP) telephony, presence, call control, speech control, instant messaging (IM)/chat, and conferencing (voice and video). The non-real-time communications services include: voicemail, email, SMS and fax, also known as unified messaging. The primary UC deliverable is a technology called presence. With the exception of presence, UC does not introduce new applications or capabilities; instead, it provides a unified approach to accessing and interacting with technology. See Figure 1.

What is Presence?

Presence is a feature of session initiation protocol (SIP) that allows an organization to know their employees' "state," regardless of their location; an employee's state includes their availability and willingness to communicate. Once their state is known, other people in the enterprise, including contact center agents, can determine if an individual is available for a collaboration session or to take a phone call.

As it relates to the contact center, presence technology allows contact center agents to locate enterprise experts who can resolve customer inquiries that are beyond an agent's knowledge or authority. The idea is to increase the first call resolution rate and thereby reduce contact center operating expenses (by reducing transfers and call backs) while increasing customer satisfaction (by speeding up the resolution process). The practical problem, and one of the reasons why enterprises are not rapidly adopting UC, is that while contact centers are in favor of being able to reach enterprise experts to assist with customer inquiries, managers of other departments, such as application development,

product management or risk management, do not want their employees interrupted throughout the day to handle customer inquiries. They view customer inquires as tangential to their departments' primary goals. These managers have a legitimate argument that interrupting their staff can be very expensive and non-productive for the company, as many of these employees/experts are more expensive than contact center agents. (A contact center agent costs \$15 to \$20/hour while an enterprise expert may earn \$30 to \$100/hour.)

Enterprise Applications CRM **Desktop Productivity Suite ERP** Others Video Conferencing SMS Real-time Communication Services Real-time Communication Services Mobile Voice **Presence** Text to Speecin Speech to Text IM/Chat Voice Mail Non Conferencina Desktop Sharing/Collaboration Channels **Contact Center** PBX eMail Server **IM Server Mobile Server VoIP/SIP Foundation Layer**

Figure 1: Unified Communications Framework

Source: DMG Consulting LLC, October 2009

Benefits of Unified Communications

The primary benefit of UC/presence is that it can speed up the handling of business issues. As vendors phrase it, UC has the potential to greatly reduce the "latency" inherent in traditional business processes. So, for example, instead of leaving a phone message and playing "phone tag," a highly unproductive and often frustrating activity, employees can look up their colleagues' presence status and, if they are available, reach out to them via instant messaging (IM). This can sharply reduce or eliminate delays in solving business issues. (If the person being contacted is not available, the individual needing assistance can wait until they are free to take the inquiry, or reach out to a backup resource, which also avoids the need to leave phone messages.) The ability to

reach the needed person rapidly is viewed as a "change agent," but is hard to quantify. How does one measure the benefit of speaking to someone five minutes or one day earlier than without presence? Or, how significant are the benefits from saving the 30 seconds that would have been wasted leaving phone messages? Even though most business managers agree that there is great benefit in removing latency from business processes, it's hard to cost-justify a major infrastructure investment based on this one feature. As a result, vendors are cost-justifying UC investments on other more quantifiable benefits, including:

- 1. Reduction in third-party conferencing costs, which generally run \$0.035 to \$0.06 per minute
- 2. Elimination of toll bypass/carrier fees, since UC solutions are SIP-based and eliminate the need to continue to use carriers for these features if all calls are handled on the same technology platform (contact center solution)
- 3. Reduction of the number of IT resources required to maintain different communications systems
- 4. Elimination of stand-alone private business exchange (PBX) solutions

Large organizations that utilize many different solutions have seen a small reduction in IT support costs as a result of the fully integrated nature of UC. Organizations that migrate to VoIP and UC at the same time find that the cost savings from the elimination of carrier fees can help justify the investment in UC; however, if an organization has previously made the move to VoIP, then these savings have already been realized. Additionally, while a UC-based conferencing solution may reduce conferencing costs by 50% over a stand-alone or hosted application, there may be great disparity between their features and capabilities.

If UC solutions are extended to include full PBX capabilities, meaning that they can replace the need for stand-alone or hosted solutions for managing all enterprise inbound and outbound voice traffic, then UC's benefits become clear, quantifiable and significant and the cost justification becomes easy. This is Microsoft's strategy, but currently the PBX capabilities of their UC solution, Office Communications Server (OCS), are not on par with most premise-based PBX solutions. (Microsoft plans to remedy some of the PBX weaknesses when they release the next version of OCS in mid-to-late 2010. This release is currently being referred to as Wave 14.) Keep in mind that many other UC providers are positioning their UC/presence capabilities as value-added (and often separately priced) add-ons to their traditionally expensive IP/PBX platform. Microsoft is expected to price their PBX-enabled OCS offering as a relatively inexpensive PC server application. If Microsoft succeeds with their approach, this has the potential to be a "game changer" for the market, threatening a major revenue stream for the traditional PBX vendors.

Why the Vendors are Pushing UC

The communications vendors are positioning UC as the next "must have" communications technology. This strategy gives the vendors two major opportunities; first, it gives them a strong argument to encourage enterprises to replace their old time division multiplexing (TDM)-based infrastructure and existing applications. The second is that UC gives them differentiated capabilities in a commoditized market.

UC is the next phase in the maturation of VoIP-based solutions. It gives vendors a product that can replace older IM, conferencing and desktop collaboration solutions and a way to sell new mobile voice, video conferencing, text-to-speech, and speech-to-text applications.

Adoption of Presence Is Slow

Presence, while hard to cost-justify by itself, has great revenue potential. This is the reason why many telephony and contact center vendors have invested large amounts of R&D and marketing resources to develop products for their customers. DMG conducted primary research in June and July 2009 to determine the status of the UC/presence market and the adoption rate of these solutions. There is a growing and improving set of UC products and plenty of ongoing development, but none of the vendors is seeing significant adoption. While all of the vendors recognize the challenges involved in selling UC/presence to contact centers, no one has compelling messaging or a way to convince contact centers to make this investment unless it is being done as part of an overall platform refresh. The messaging, value proposition and benefits are very strong for companies making the move to VoIP/SIP, and for organizations that want a unified framework for their real-time and non-real-time communications channels. It's also important to keep in mind that we are in a major world-wide business slowdown and enterprises are putting off all but the most essential investments. Additionally, contact centers are traditionally not quick to adopt new technology, even when the value proposition is clear and the price is low. UC solutions can be expensive - hundreds of thousands to millions of dollars for large enterprises.

UC and Presence Outlook

Unified Communications and presence are new to the contact center market, and all of the vendors are trying to figure out how to message and monetize their investments in these new capabilities. Contact centers are not rapid adopters of new technology or applications, even when they appreciate the value proposition. This is particularly true when the solutions are expensive and include significant implementation efforts, which is the case with UC.

DMG tracks the adoption rates of many contact center applications, including some that have a clear and rapid return on investment (ROI), such as interactive voice response systems (IVR), quality assurance, speech analytics, workforce management, and many more. Despite highly quantifiable benefits, it has taken between 5 and 10 years for most of these solutions to "catch on." IVR has had the quickest adoption rate of any product to enter the contact center market because it delivers significant cost savings by automating calls and reducing the need for live agents. Even so, it took more than 5 years for IVR to see significant adoption, and it was a much less intrusive solution to implement than UC.

DMG sees the value of UC/presence for contact centers and enterprises, and believes that this technology will play an important role in companies within the next five years. Using the classic technology risk assessment criteria that segment technology users into risk takers, mainstream users and laggards, DMG expects only a small percentage of risk takers to invest in UC/presence between now and the end of 2010, due to the recession. Adoption of UC/presence is expected to pick up between 2011 and 2012, when many contact center risk takers are expected to adopt UC/presence.

However, if vendors start providing a reasonably priced, standardized bundle of PBX and UC functionality, the savings from avoiding the cost of a stand-alone or hosted PBX will alter the equation, as will the mitigation of the disruption that would have occurred if organizations had to swap out their core infrastructure. DMG expects Microsoft's UC/PBX solution to mature and reach minimally acceptable functional parity for PBX and conferencing within the next three to five years.

Unified Communications/Presence Technology Providers

Today, there are two classes of vendors competing in the UC market: the underlying UC technology providers, Cisco, IBM and Microsoft; and the application vendors that use the technology, the contact center infrastructure vendors, Aspect, Avaya, Cisco, Genesys, Interactive Intelligence, Nortel, Siemens, etc. Cisco and Microsoft are both UC technology and infrastructure providers. IBM is different; they view UC software as middleware and their strategy is to compete only as a technology provider. Cisco, IBM and Microsoft are competing aggressively for this business. All three vendors are making heavy investments in R&D and marketing. Their three offerings are:

- 1. Cisco Unified Communications Manager (IP-PBX) with Cisco Unified Presence Server
- 2. IBM Lotus Sametime
- 3. Microsoft with Office Communications Server (OCS) and Office Communicator client

Many vendors provide Unified Communications technology. Among them are Avaya, Nortel, and Siemens, which offer their own enterprise UC/presence solution, and

CallTower and Smoothstone, which provide IP-based, hosted Unified Communications solutions.

Unified Communications was first introduced as a data-only product that used IM as a tool to reach out to other employees to see if they wanted to engage in a discussion, be it online via IM or by phone. Over the last year, voice-based presence has been added to some of the UC platforms, extending the technology's value and business benefits. Now, when an employee wants to reach out to a colleague, they can "ping" them via IM or phone.

The voice-enabled version of the UC platforms can act as a front end to a contact center solution, which means that it can function as a PBX that delivers calls to the automatic call distributor (ACD). None of the UC platforms currently has ACD functionality, but they are starting to make a bid for the PBX market.

Contact Center UC Vendor Offerings

As millions of dollars in R&D investments are required to create a UC platform, many of the contact center vendors are partnering with the UC technology providers, primarily Cisco, IBM and Microsoft, to acquire UC functionality. The "catch" is that these three UC platforms do not easily integrate with each other, as they are based on different standards. As a result, many of the contact center vendors are integrating with more than one UC platform. Cisco, Avaya, Genesys, Interactive Intelligence, Nortel, Siemens and other leading and contending contact center vendors are taking this approach.

Below is a summary of the UC offerings from leading enterprise and contact center vendors, including: Aspect, Avaya, Cisco, Genesys, IBM, Interactive Intelligence, Nortel (which announced its agreement to be purchased by Avaya in December 2009, pending government approval), and Siemens. What becomes clear is that UC has been around for years, but its use has been very limited until 2008. All UC solutions address the integration of real-time and non-real-time applications. Utilizing presence to efficiently access subject matter experts within the enterprise is the primary purpose of UC in the contact center, although the directions that these offerings are taking as they mature vary greatly. While UC delivers quantifiable and soft benefits, each of the competitors has taken a slightly different approach to justifying UC investments, as revealed in the vendor analysis below.

The analysis shows prospects what UC functionality is available from vendors today and what is planned over the next 12 to 18 months. Based on the work currently being done, DMG expects the commitments reflected below to be delivered either on time or within six months of the promised date. We anticipate that the pace of UC innovation will increase when the economy recovers, which DMG projects for the end of 2010.

The wild card and potential game changer is Microsoft. Microsoft sees the need to come out with a strong telephony/voice solution that builds upon their existing strength in creating and selling high-volume, cost-effective Wintel platforms that run data

networking, email and instant messaging within the enterprise. Microsoft is striving to own as many of the enterprise network communications channels as possible. With their OCS Voice offering, Microsoft has made it clear that they want to be a major player in the voice sector. As data and voice networks converge via a new generation of IP/SIP platforms, Microsoft perceives a battle between themselves and Cisco, and they are investing heavily to build a server-based solution that can compete with enterprise-level PBXs.

Microsoft Office Communications Server handles the routing of voice and video messages, conferencing, IM and presence-based collaboration. OCS has been designed to integrate tightly with Microsoft's Windows Server, Active Directory, SQL Server database, Exchange Server, SharePoint collaboration platform, and Office Communicator desktop UC client. The well-known limitation of the first version of OCS Voice is that it has only limited PBX functionality, lacking basic features such as full 911 location awareness, call parking, group pick-up and music on hold, which are standard in PBX solutions large and small. Microsoft is aiming to have competitive PBX functionality in their next major release of OCS, which is targeted for mid-2010. (DMG expects the release to be 6 to 12 months later than planned.) However, if Microsoft achieves their goal of delivering a competitive PBX solution that comes standard with a full UC suite, this development will alter the vendor landscape.

Aspect – Aspect has made a major strategic push in the area of Unified Communications. Aspect offers UC/presence as an integrated component of their Unified IP (UIP) inbound/outbound contact center suite. In March of 2008, Aspect signed a five-year deal with Microsoft to jointly develop a contact center platform and to be a leading systems integrator for Microsoft's Unified Communications product. As part of this deal, Microsoft made an equity investment in Aspect. Aspect's UC strategy is Microsoft-centric, offering a single-vendor solution for presence and all communications channels. Aspect's UC applications tightly integrate with Microsoft OCS, which provides presence, email, IM/chat, fax, Web-based collaboration (application sharing), voice, audio conferencing, voice mail and video. The solution interoperates with Microsoft OCS, Exchange and Active Directory and uses Microsoft's Office Communicator as a desktop client. Presence can be incorporated into each Aspect user's soft phone and Outlook calendar to identify and indicate their availability status. OCS uses a buddy listtype interface with skill-set designation and routing to allow agents to access an expert. Currently, Aspect's solution combines IM and IVR system routing and queuing logic to route calls to agents. Aspect's solution can interoperate and federate with the three major public IM providers: AIM, Windows Live Messenger and Yahoo Messenger. Aspect has trained their entire sales staff to identify UC opportunities and their professional services staff to perform Microsoft OCS Voice implementations. Aspect believes that there are three primary benefits from UC:

 OCS/Exchange can be used to combine an enterprise's disparate solutions for office phones, voice mail, audio conferencing, email, IM and video conferencing (if applicable) using presence with a PC desktop application acting as a single user interface; this means less complexity, fewer security issues, less support staff and less cost

- 2. Enhanced employee productivity from ease of collaboration
- 3. Improved first call resolution in the contact center

Avaya – Avaya's UC/Presence solution is called Avaya Aura Presence Services. This solution provides "scalable, high performance presence aggregation that collects and disseminates rich presence from Avaya and third-party sources." Avaya's presence strategy is focused on application enablement, which concentrates on integrating presence information from any source into any application. Aura Presence Services is a component of Aura, Avaya's "next generation core communications architecture," introduced in May 2009. Avaya includes presence for free in the Aura license bundle, which currently supports voice/video presence and Microsoft OCS federation. Support for IM and contact center presence is planned to be added to the bundle by the end of Q4 2009. Aura Presence Services is expected to provide native support for both SIP/SIMPLE (which comes out of the telephony world and is supported by Microsoft and IBM) and XMPP (open source used by Google and most of the social networking sites) IM – the two primary presence standards – as of Q4 2009. With Release 5.2 of Aura Presence Services, due in Q4 2009, the solution will extend the routing, logging and reporting available within the contact center to outside "experts."

In the second half of 2010, Avaya plans to roll out a "Resident Expert" application that will allow agents to access skill groups using dynamic routing rules rather than a buddy list. The plan is for the application to use routing rules to select the correct "expert" and means of contact. The planned solution will allow experts to accept or reject an inquiry. Experts will be able to use Avaya, IBM or Microsoft software as the desktop UC client without special integration. This release is intended to allow expert-handled transactions to be logged and reported along with regular agent activity. Avaya has had IM-enabled clients and voice-enabled UC for years Currently, full UC client functionality is available for the Avaya one-X product line (PC desktop, mobile phone, Web access), as well as with Microsoft OCS and IBM Sametime. Avaya's contact center client, one-X Agent, also has UC capabilities and will be able to support IM/presence federation via Aura Presence Service to Microsoft OCS. Support for IBM Sametime IM/presence federation is planned for Q2 2010. The four primary benefits of "Resident Expert are:

- 1. Improved information access for agents
- 2. Informative interface for experts
- 3. Dynamic routing rules
- 4. Integrated multi-channel capabilities

Cisco – Cisco competes with their network-centric "Network as Platform" strategy. Cisco's UC technology is provided by Cisco Unified Presence Server, which works in conjunction with the Unified Communications Manager IP PBX platform. Cisco sees UC as a technology that brings together many common communications capabilities in one workspace. Cisco considers IM and presence to be the most critical UC capabilities for customer care. Cisco's contact center UC/presence offering, Unified Expert Advisor, was released in September 2008 and uses IM-based presence and business rules to route

calls and associated information to appropriate experts. Cisco Unified Expert Advisor, released in September 2008, automates the process of finding experts. Using the agent desktop application, an agent selects an expert group to which the call should be transferred. Expert Advisor then sends an IM to all available experts fitting the requested skill set. The experts reply with their availability via IM. Expert Advisor then chooses an expert and either transfers the call or sets up a conference, depending on how the business rules are configured. Expert Advisor supports Cisco's Unified Personal Communicator client and federated Microsoft Office Communication IM clients. Cisco plans to add support for IBM Sametime IM clients in 2010. Cisco supports both major IM/presence standards – SIP/SIMPLE and XMPP. Currently, Cisco's UC solution is built off of their enterprise contact center platform, ICM. Cisco is working on an enhanced version of UC that does not require the use of ICM, but instead uses their interactive voice response system for routing.

Genesys – Genesys views presence as a natural extension of their CIM contact center offering. By integrating with multiple UC technologies (IBM, Microsoft, Alcatel-Lucent, Cisco, Siemens, etc.), Genesys can extend their reach to a broader range of client platforms. Genesys is dedicated to using UC to closely align the contact center with the rest of the enterprise. Genesys's UC product, called UC Connect, is intended specifically for contact centers. It allows customers or agents to connect to "experts" using either IM/chat, or by phone via routing rules. It was introduced to the market in June 2009. UC Connect integrates with UC clients that reside on the desktop. It provides presence capabilities that go beyond a buddy list; contact center agents can choose an individual, skill set or channel for routing. The solution includes automated routing capabilities to find experts to assist in the handling of transactions. Genesys views UC Connect as both a way to extend the capabilities of the contact center to "experts" outside of the contact center and to provide flexible access to large pools of resources to handle call overflow. Experts can also use UC Connect to transfer transactions back into the contact center.

UC Connect software is designed to facilitate a tight integration between Genesys's Customer Interaction Management (CIM) solution and a variety of leading UC providers' clients. UC Connect currently integrates with IBM Sametime, which displays customer information via "screen pops." This enables users to preview key information about a call and the caller and make an educated decision about whether to accept or reject the request for assistance. Anyone who accepts the request for assistance will also be able to read or write notes or update customer records without exiting their Sametime-based "portal." UC Connect lets Genesys customers link UC-enabled employees to their customer service operation in a way that allows enterprises to measure the effectiveness of each interaction. (Non-contact center users who are connected via UC Connect are tracked using Genesys's contact center reporting. The solution maintains full reporting capabilities, even after a call is handed off to someone outside of the contact center.) Genesys is currently beta-testing their integration with Microsoft Office Communications Server 2007. Genesys also plans to integrate CIM with parent company Alcatel-Lucent's MyInstant Communicator UC technology, Cisco CUPS (Cisco Unified Presence Server), and Siemens OpenScape UC solution. The dates for these integrations are not yet known.

IBM – IBM's UC strategy is to sell UC middleware, platforms and applications to technology partners. IBM's approach is to create an open and extensible UC platform that allows them to operate in diverse environments. IBM introduced their UC/presence capability, Lotus Sametime, in 1998. This offering addressed presence, IM/chat and Web conferencing. In June 2009, IBM expanded their offering with the introduction of Sametime Unified Telephony. IBM is now piloting Virtual Collaboration for Lotus Sametime, which is intended to provide a 3D virtual meeting environment. Late in 2009, IBM plans to introduce standards-based conferencing capabilities that more easily integrate with a variety of voice and video conferencing systems (i.e., will support SIPbased video and third-party teleconferencing environments). To date, IBM has concentrated on IM/chat-presence. IBM expects to extend to voice and video in the future. The solution is designed to federate with other IM standards, comes with open APIs, can put Sametime presence information into an application's client or the application's information into a Sametime client, and supports "mash-ups" using Sametime presence information within a client's application. Sametime UC can integrate out-of-the-box with several versions of Office/Outlook/SharePoint on the client's desktop. The Sametime client is available for Windows, Mac, Linux, and various mobile devices, such as RIM's Blackberry and Apple's iPhone. Sametime currently supports several popular browsers.

In the next version of Sametime, IBM plans to introduce zero-download IM and Web conferencing clients for lightweight deployments. Additionally, Sametime is designed to support a heterogeneous systems world; customers do not have to "rip and replace" their network/telephony infrastructure in order to realize its benefits. Sametime is designed to leverage a company's existing telephony infrastructure. IBM is partnering with many of the major telephony PBX/contact center vendors to facilitate interoperability. IBM generally targets large enterprises that are already users of Lotus client server applications. IBM also markets Sametime to the mid-market through partners. IBM's goal is to provide a platform and tools to produce a "unified user experience." The two primary benefits of their UC solutions are:

- 1. Cost savings from a reduction in teleconferencing, travel and long distance charges
- 2. Acceleration of the business process cycle by reducing information latency and speeding responsiveness within organizations

Interactive Intelligence – Interactive Intelligence's UC/presence solution is a built-in component of their all-in-one IP communications software suite, Customer Interaction Center (CIC). Presence functionality has been part of CIC since it was first launched in 1997. Interactive Intelligence intends their UC/presence solution to be used as an extension of contact center capabilities to experts outside of the contact center, and as a stand-alone platform to facilitate business process redesign. Interactive Intelligence is partnering with both Microsoft and IBM to deliver IM and voice-based UC/presence to their customers. They are also offering two Microsoft integrations: Office Communications Server (OCS), which requires the use of Microsoft for PBX functionality, and Remote Call Control (RCC), where users can integrate with a third-

party PBX. In Q4 2009, Interactive Intelligence plans to release an integration to IBM Sametime to support UC along with the introduction of their new Interaction Process Automation (IPA) technology. The IBM Sametime integration builds on Interaction Intelligence's existing partnership and integration with IBM Lotus Notes. In mixed Sametime/non-Sametime shops, customers can use an enhanced version of CIC's .NET client to realize the benefits of UC/presence.

Nortel - In September 2009 Nortel announced that they had agreed to sell their Enterprise Solutions business to Avaya by the end of 2009. This acquisition is contingent upon various court and regulatory approvals. Until the deal is closed, neither company can discuss their plans. DMG does not expect to see any significant changes in Nortel's contact center and UC portfolios for the first three years following the sale closing date. Nortel has a broad UC portfolio with three categories of products: Telephony UC, Native UC and Agile Communication Environment (ACE). Telephony UC is built around Nortel's IP PBX switches, including Business Communications Manager (BCM) for the SMB market, CS1000 for the mainstream enterprise market (up to 22,500 lines per server), and the carrier-scale CS2100 for very large implementations (up to 250,000 lines per server). The second category, Nortel's native UC solutions, are IT-centric, available as software only, and based on a SIP server core including: Software Communications Server (SCS), the lead SMB/enterprise product; MCS 5100; and AS 5300, designed for the federal market (and evolved from the MCS 5100). Lastly, Nortel offers Agile Communication Environment (ACE) software that extends Nortel's native UC solutions to business applications using Web Services to facilitate the development of Communications Enabled Applications (CEA) and Business Processes (CEBP). Adapters are used to integrate with PBXs and UC clients from a variety of vendors.

Nortel's support of UC voice presence dates back to 2003 for the MCS 5100, and 2005 for BCM50. Nortel's UC platform supports telephony, unified messaging, conferencing (voice, video and Web), IM, collaboration, email/calendaring, mobility, contact center and IVR, desktop and business applications and presence. Nortel's IP PBX-based platforms all exchange presence information with Microsoft OCS and IBM Sametime clients. SCS supports integration with Microsoft Exchange/OCS. Nortel Contact Center 7.0 integrates out-of-the-box with Microsoft's OCS client. In 2006 Nortel entered into an alliance with Microsoft to promote Unified Communications. The partnership, called the Innovative Communications Alliance (ICA), began with a focus on joint R&D, including Microsoft OCS integration with Nortel PBXs, and expanded to include additional solutions, joint sales and marketing, and a full-service solution set built around the ICA solution.

Customer support and contact center were among the original UC areas of interest from major customers. Nortel has one of the most mature applications for using UC to connect contact center agents to subject matter experts (SME) located elsewhere in the enterprise or in federated organizations (such as a partner). Agents can route an inquiry to a group of experts with enough detail to allow a SME to decide if they want to accept it. If an inquiry is accepted, the SME can forward associated information, consult, conference or transfer the call within the application. Nortel generally finds that their customers begin the migration to UC with a move to IP telephony, and then look to introduce additional productivity and collaborative applications later. Multi-channel desktops are utilized by most, if not all companies that look to deploy UC. Nortel has

found that the three areas of customer value/benefits for their UC/presence solutions are:

- 1. Improved productivity
- 2. Reduced cost
- 3. Improved customer experience.

Siemens - Siemens has built their own UC/presence technology; it is a component of their OpenScape Voice Server SIP platform. OpenScape UC Server sits on top of the Siemens IP voice platform and provides presence, IM, collaboration (desktop sharing), conferencing, voice messaging, fax and video capabilities. Siemens offers an enterprise UC/presence solution called OpenScape Unified Communications. This application gives a basic contact center agent desktop to non-contact center users and allows calls to be transferred and tracked outside of the contact center. OpenScape includes a rich software development kit (SDK), allowing customers to enhance their own workflow systems using native UC integration (CEBP) with the OpenScape infrastructure. Siemens supports their own UC/presence clients, including a Rich Desktop Client, Web Client, Mobile Client (iPhone, BlackBerry, Nokia, Windows Mobile) and Voice Portal Tangible User Interfaces (TUI) format. Siemens also supports IBM's Sametime UC client and can integrate with Microsoft OCS 2007. OpenScape UC Server is an "open architecture," supporting integration to all standard and popular PBX and telephony systems. OpenScape Voice allows agents to consult, transfer or conference with subject matter experts (SMEs) outside of the contact center.

Siemens views UC/presence as a transformational tool that, when integrated into business processes, can change the way people communicate. To that end, Siemens has designed several plug-ins to common user interfaces, including Microsoft Outlook, IBM Lotus Notes, SalesForce.Com, and Microsoft SharePoint. Siemens cost-justifies UC/presence investments based on hard dollar savings from:

- 1. Toll bypass/reduction in carrier fees
- 2. Elimination of third-party conferencing solutions, which cost \$0.035 to \$0.06 per minute

Soft benefits come from reducing time wasted waiting for information, follow-up activities and minimizing ineffective communications.

Final Thoughts

While still an emerging platform, UC has a number of proven and tangible benefits for enterprises and contact centers. Some of these contributions, such as reducing carrier fees, are an extension of the generic benefits of adopting VoIP throughout an enterprise. Other benefits, such as the reduction in conferencing cost and ability to standardize and simplify an enterprise's communications infrastructure, are directly attributable to the newly emerging UC solutions. In the future, if feature-rich PBX capabilities are added to the UC bundle at an aggressive price, the value proposition of UC will be even more appealing. Unified Communications also has the potential to alter and enhance internal communications by minimizing latency – the speed at which people interact with each other. For enterprises to realize these benefits – which are hard to quantify – they will have to change internal goals, processes, and the mindset and expectations of employees to encourage a more collaborative working environment.

Unified Communications has been an area of significant R&D investment for the past several years. Many vendors are delivering innovative, functionally strong, effective and practical UC solutions. While UC is considered the future for enterprise communications solutions, market adoption has been slow. This is due to two major challenges: enterprises and contact centers are slow to replace core infrastructure, particularly if the "old stuff" is still working well enough, and the world-wide economic slowdown has dramatically limited enterprise investments, particularly in infrastructure.

Despite the challenges, DMG's five-year outlook for UC is encouraging. DMG does not expect to see significant purchases of UC solutions until the economy recovers in 2011. At that time, a larger number of early adopters will start taking a serious look at these solutions. However, broader adoption is not expected until the 2014 time frame. While this sounds far off in the future, for communications infrastructure, which generally does not evolve quickly, it's just around the corner.

About DMG Consulting LLC

DMG Consulting is the leading provider of contact center and analytics research, market analysis and consulting services. DMG's mission is to help end users build world-class, differentiated contact centers and assist vendors in developing high-value solutions for the market. DMG devotes more than 10,000 hours annually to researching various segments of the contact center market, including vendors, solutions, technologies, best practices, and the benefits and ROI for end users. DMG is an independent firm that provides information and consulting services to contact center management, the financial and investment community, and vendors in the market.

More information about DMG Consulting can be found at www.dmgconsult.com.