

Critical Capabilities for Unified Communications

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This research will help managers responsible for unified communications (UC) evaluate leading products on the market. It outlines three major use cases, detailing the functions that managers and planners should look for, and scores vendors' products based on the specific functions most critical to each of the three use cases.

Key Findings

- UC remains an early stage market and technology; vendor portfolios vary in capability and maturity.
- All leading vendors evaluated have good product portfolios, although some were rated as Excellent due to the breadth of their offerings.
- All vendors depend on partnerships to complete their portfolios.
- Standards, such as Session Initiation Protocol (SIP), and vendor interoperability agreements are critical for success in today's multivendor environments.

Recommendations

- Interoperability is an important selection criterion. Enterprises should expect to have several different vendor products as part of their solution sets; as a result, it is critical that any products and partners selected interoperate.
- Develop a two- to three-year road map for critical communication functions. This will help guide planning and criteria development.
- Develop a cross-organization UC center of excellence to assist in addressing the broad set of enterprise requirements and stakeholders.

ANALYSIS

Introduction

Many Gartner clients are considering UC as a way to integrate and simplify their communication portfolios. Potential benefits include reduced operating and licensing costs and improved productivity. These are achieved in many ways, including reduced latency in business processes, improved quality of work product, enhanced recovery capabilities and improved call center functioning.

This research provides an overview of leading UC products, and evaluates their effectiveness at addressing users' needs in three common use cases:

- An enterprise must enhance or upgrade its telephony and voice infrastructure, but wishes to do this in a broader UC framework.
- An enterprise must enhance its ability to support collaboration activities and applications, and wishes to incorporate communications as a key element of the enhancement.
- A small or midsize business (SMB) is considering new communication investments, and due to the smaller scale of the existing investment, it wishes to consider a tightly bundled UC portfolio.

This research is different from the UC Magic Quadrant because it focuses on product capability and viability, rather than on the broader range of corporate criteria, vision and marketing, which are key aspects of the Magic Quadrant. This research is intended to help organizations define their requirements and select specific products that match their needs.

This analysis also focuses on products in the North American and Western European regions. These regions have similar vendors and products, and enterprises in these locations have comparatively similar requirements.

Product Class Definition

Gartner defines UC products (equipment, software and services) as those that facilitate the use of multiple enterprise communication methods. This can include the control, management and integration of these methods. UC products integrate communication channels (media), networks and systems, as well as IT business applications and, in some cases, consumer applications and devices.

UC offers the ability to significantly improve how individuals, groups and companies interact and perform. These products may be made up of a stand-alone suite, or may be a portfolio of integrated applications and platforms spanning multiple vendors. In many cases, UC is deployed to extend and add functionality to communication investments.

UC products are used by people to facilitate their personal communications, and by enterprises to support workgroup and collaborative communications.

Some UC products may extend UC outside company boundaries to enhance communications among organizations, to support interactions among large public communities or for personal communications.

Critical Capabilities Definition

UC is made up of a wide range of functionalities. This research examines eight critical UC capabilities. Enterprises seeking to increase the level of unification among their communications often start by developing a broad migration and strategic partner road map. They build toward these goals by investing in one or more specific capability areas outlined below:

- **Critical Capability 1 – Telephony:** This is the ability of a solution to provide voice and telecommunication functionality. This includes fixed and mobile voice, softphones and video. This can include in-building and remote access.
- **Critical Capability 2 – Conferencing:** This is the ability to offer comprehensive conferencing functionality. This includes audio, video and Web conferencing. This also may include meeting room technologies, multipoint webcam approaches and unified or integrated conferencing solutions.
- **Critical Capability 3 – Messaging:** This is the ability to offer messaging. This includes e-mail, voice mail and unified messaging (UM).
- **Critical Capability 4 – Instant Messaging (IM)/Presence:** This is the ability to provide IM, presence and rich-presence aggregation. Rich presence is the ability to aggregate and publish presence and location information from multiple sources.
- **Critical Capability 5 – Clients:** This ability provides a consistent interface for communication, and supports multiple types and styles of clients. This includes thick clients, thin Web clients and mobile clients. It also may include limited software dashboard clients for imbedding within IT applications.
- **Critical Capability 6 – Communications-Enabled Business Processes (CEBPs) Tools and Applications:** This ability enables business applications to directly integrate and manage communication functionality. This is accomplished by offering application programming interfaces (APIs), service interfaces and development tools to facilitate the integration of business applications with communications. For instance, a purchasing/order-processing application may provide presence and communication information about the sales support team associated with any order. This speeds and facilitates the handling of any questions the order-processing group has. In some cases, applications may offer preintegrated communication functionality; for instance, collaboration and notification applications may be preconfigured to work with well-known communication environments.

- **Critical Capability 7 – Consolidated Administration:** This ability provides consolidated administration, reporting and analytics across all the communication elements.
- **Critical Capability 8 – SMB Product:** This reflects the suitability of the product or solution set for SMBs.

Mobility, Collaboration and Contact Centers: These additional areas have important relationships with UC platforms. However, enterprise needs vary enormously in these areas. Each enterprise should define its requirements in these areas, and should evaluate each product's ability for each of the eight critical areas. The CEBP critical ability enables communications to be customized and integrated into applications; hence, it plays a key role for collaboration and for contact-center-focused requirements. The names of specific products in these areas are provided for vendors to assist in understanding the product portfolios. However, these products are not rated.

Use Cases

Enterprises evolve their communication infrastructures at different rates, in response to differing requirements and within the context of differing pre-existing infrastructure investments. As a result, the UC market is driven by a wide range of user needs and environments. However, enterprises typically address one of three separate issues or use cases:

- **Enhancing telephony UC functionality:** In this use case, a midsize or large enterprise is enhancing its telephony and voice infrastructure. These enterprises look for solutions that provide strong telephony capabilities that also offer other UC functions, and that interoperate well with established investments in other communication areas.
- **Enhancing collaboration functionality:** In this use case, a midsize or large enterprise is enhancing its ability to support collaboration activities and applications. These enterprises look for solutions with strong conferencing, e-mail and IM abilities, and that can integrate well with key collaboration applications, possibly via CEBP tools and APIs. Although integrating with telephony is useful, it is not the focus of these enterprises.
- **SMB requirements:** In this use case, an SMB is considering new communication investments. Due to the smaller scale of investments and more-basic requirements, it often is possible for these environments to consider tightly bundled UC portfolios. Key aspects include simplicity of the user interface, simplified administration, and broad telephony and messaging functionality.

Table 1 shows the weighting for critical capabilities in use cases.

Inclusion Criteria

We have included UC solutions based on the following criteria:

- The vendor must have significant global market presence in four or more of the eight critical capabilities outlined above. Market presence can be demonstrated in one of two ways – by significant market share or by differentiating innovation.
- The product must have enterprise deployments with references.
- The solution set must enable a complete portfolio, even if parts are offered via partnerships.
- The product vendor must be a leader or challenger in the UC Magic Quadrant.

Table 1. Weighting of Critical Capabilities in Use Cases

Critical Product Capabilities	Overall	Telephony Focus	Collaboration Focus	SMB Focus
Telephony	20.0%	40.0%	10.0%	5.0%
Conferencing	15.0%	15.0%	22.0%	5.0%
Messaging	20.0%	10.0%	22.0%	5.0%
IM and Presence	15.0%	10.0%	16.0%	5.0%
Clients	10.0%	10.0%	10.0%	5.0%
CEBP	10.0%	5.0%	10.0%	5.0%
Administration	5.0%	5.0%	5.0%	15.0%
SMB Bundle	5.0%	5.0%	5.0%	55.0%
Total	100.0%	100.0%	100.0%	100.0%

Source: Gartner (August 2009)

Critical Capabilities Rating

Each product that meets our inclusion criteria was evaluated based on the eight critical capabilities, on a scale from 1.0 to 5.0.

The following seven companies were included in this review:

- Alcatel-Lucent (ALU)
- Avaya (see Note 1)
- Cisco
- IBM
- Microsoft
- NEC
- Siemens Enterprise Networks

Table 2 shows product ratings based on critical capabilities.

Note 1 Disclaimer

Avaya is a portfolio company of Silver Lake Partners, a private investment firm that also owns a substantial, publicly disclosed interest in Gartner, Inc., and has two seats on Gartner's 11-member Board of Directors. Gartner research is produced independently by the Company's analysts, without the influence, review or approval of our investors, shareholders or directors.

Critical Capabilities Methodology

Critical capabilities are attributes that differentiate products in a class in terms of their quality and performance. Gartner recommends that users consider the set of critical capabilities as some of the most important criteria for acquisition decisions. This methodology requires analysts to identify the critical capabilities for a class of products. Each capability is then weighted in terms of its relative importance overall, as well as for specific product use cases. Next, products are rated in terms of how well they achieve each of the critical capabilities. A score that summarizes how well they meet the critical capabilities overall, and for each use case, is then calculated for each product.

Ratings and summary scores range from 1.0 to 5.0:

- 1 = Poor: most or all defined requirements not achieved
- 2 = Fair: some requirements not achieved
- 3 = Good: meets requirements
- 4 = Excellent: meets or exceeds some requirements
- 5 = Outstanding: significantly exceeds requirements

Product viability is distinct from the critical capability scores for each product. It is our assessment of the vendor's strategy and its ability to enhance and support a product over its expected life cycle; it is not an evaluation of the vendor as a whole. Four major areas are considered: strategy, support, execution and investment. Strategy includes how a vendor's strategy for a particular product fits in relation to its other product lines, its market direction and its business overall. Support includes the quality of technical and account support as well as customer experiences for that product. Execution considers a vendor's structure and processes for sales, marketing, pricing and deal management. Investment considers the vendor's financial health and the likelihood of the individual business unit responsible for a product to continue investing in it. Each product is rated on a five-point scale from poor to outstanding for each of these four areas, and it is then assigned an overall product viability rating.

The critical capabilities Gartner has selected do not represent all capabilities for any product and, therefore, may not represent those most important for a specific use situation or business objective. Clients should use a critical capabilities analysis as one of several sources of input about a product before making an acquisition decision.

Table 2. Product Rating on Critical Capabilities 2009

Critical Product Capabilities	1 = ALU	2 = Avaya	3 = Cisco	4 = IBM	5 = Microsoft	6 = NEC	7 = Siemens Enterprise Networks
Telephony	5	5	5	3	3	5	5
Conferencing	3	3	4	3	3	3	3
Messaging	3	4	4	5	5	3	4
IM and Presence	4	3	3	5	5	3	5
Clients	3	3	3	4	5	3	4
CEBP	3	3	3	4	4	3	3
Administration	4	3	3	3	3	4	4
SMB Bundle	4	4	4	4	2	4	4

Source: Gartner (August 2009)

Table 3. Product Score in Use Cases

Use Cases	ALU	Avaya	Cisco	IBM	Microsoft	NEC	Siemens Enterprise Networks
Overall	3.7	3.7	3.8	4.0	4.0	3.5	4.1
Telephony Focus	4.0	4.0	4.1	3.6	3.6	3.9	4.3
Collaboration Focus	3.5	3.5	3.7	4.0	4.0	3.3	3.9
SMB Focus	3.9	3.7	3.8	3.9	2.8	3.8	4.0
Product Viability	Good	Good	Excellent	Excellent	Excellent	Good	Good

Source: Gartner (August 2009)

Vendors

Alcatel-Lucent

ALU (www.alcatel-lucent.com)

The ALU OmniTouch Instant Communications Suite (ICS) provides a complete UC solution. It is often combined with the OmniPCX for advanced telephony functions and with the ALU Genesys Enterprise Telephony Software (GETS) solution, which provides integration middleware for interoperability with third-party PBXs and UC solutions. ALU's comprehensive UC portfolio can optionally be integrated with a range of third-party solutions, for instance, for video or collaboration. This combination makes for a broad portfolio. Table 4 shows the critical capabilities and product descriptions for ALU.

Avaya

Avaya (www.avaya.com)

The Avaya Aura portfolio includes the recently released Session Manager, Presence Services, and System Manager, as well as

the more established Communication Manager and Application Enablement Services components. Avaya also offers a wide range of additional communication products, including those for conferencing, messaging, a range of Avaya one-X client options, mobility, contact centers among others. The Avaya Aura UC solution set includes several market-leading components, including the Communication Manager telephony server, the Modular Messaging UM product and the contact center capabilities built around the Interaction Center.

Cisco

Cisco (www.cisco.com)

Cisco offers a strong overall UC portfolio, with particular strengths in two critical UC areas: live voice and conferencing. Its VoIP-related products, built around Unified Communications Manager, remain a particular strength. Similarly, Unified MeetingPlace conferencing, combined with Cisco's WebEx and Telepresence products, provide strong conferencing solutions (see Table 6).

Table 4. ALU (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	OmniTouch Unified Communication (OTUC) 8400 ICS ALU (GETS)	-
Voice and Telecom	ALU OmniPCX Enterprise ALU Business integrated Communications Solution (BiCS)	5
Conferencing	OTUC 8400 ICS OTUC 8660 My Teamwork Conferencing and Collaboration OTUC 8460 Advanced Communications Server (ACS)	3
Messaging	OTUC 8400 ICS OTUC 8440 Messaging Software OTUC 4645 and OTUC 4635 for Voice Mail	3
IM and Presence	OTUC 8400 ICS OTUC 8660 My Teamwork	4
Clients	OTUC 8600 My Instant Communicator OTUC 8622 My Cellular Extension (see the Mobility Solutions section in this table for details)	3
CEBP	OTUC 8410 XML Web Services OTUC 8460 ACS OmniAccess 8550 Web Services Gateway	3
Administration and Analytics	ALU OmniVista 4760; ALU VitalSuite; ALU VitalQIP	4
SMB	OmniPCX Compact Edition and Extended Communication Server Compact	4
Contact Center	OmniTouch Contact Center Premium Edition OmniTouch CC Teamer Genesys UC Connect	-
Collaboration	OTUC 8400 ICS OTUC 8660 My Teamwork Conferencing and Collaboration	-
Mobility Solutions	OTUC 8600 My Instant Communicator OTUC 8622 My Cellular Extension	-

Source: Gartner (August 2009)

IBM

IBM (www.ibm.com)

IBM's Unified Communications and Collaboration portfolio is based on IBM's strong Sametime collaboration products, the Lotus Notes messaging products, and the recently added Sametime Unified Telephony (SUT) solution. The portfolio is supported by IBM's broader Eclipse client framework, the WebSphere environment and partner ecosystem, and IBM's partner and services capabilities. Table 7 shows the critical capabilities and product descriptions for IBM.

Microsoft

Microsoft (www.microsoft.com)

Microsoft's solution is based on Office Communications Server (OCS), Exchange, Active Directory and strategic partnerships with specific telephony vendors. Although the solutions' capabilities vary, these continue to evolve and maturing. Microsoft integrates its UC functionality with its own collaboration applications as well as with a range of partner applications. Table 8 shows the critical capabilities and product descriptions for Microsoft.

Siemens Enterprise Networks

Siemens Enterprise Communications
(www.enterprise-communications.siemens.com)

The Siemens OpenScape suite (see Table 10) provides a full UC portfolio, and comprises a set of software modules that can be combined according to an enterprise's needs. The solution also offers consolidated administration and session control for the full suite. The product is fully standards-based, all-software, highly scalable and available as a single server. The key OpenScape modules are the:

- UC Applications module, which offers presence, IM, conferencing and customization tools
- Xpressions messaging module, which offers various forms of UM
- OpenScape Voice module, which offers IP-PBX functionality
- Mobile UC module, which offers a range of fixed-mobile convergence

Table 5. Avaya (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	Avaya Aura (includes Session Manager, Communication Manager, Presence Services, Application Enablement Services, System Manager)	-
Voice and Telecom	Avaya Aura Communication Manager; Avaya Video Telephony; Avaya Aura Session Manager	5
Conferencing	Avaya Meeting Exchange (audio and Web)	3
Messaging	Avaya Modular Messaging (unified with Exchange and Domino)	4
IM and Presence	Avaya Aura Presence Services; integrates with Microsoft Office Communications Server (OCS) and IBM Lotus Sametime	3
Clients	Avaya one-X Communicator, one-X Portal, one-X Mobile, one-X Speech and one-X Deskphone	3
CEBP	Avaya Voice Portal; Avaya Aura Application Enablement Services	3
Administration and Analytics	Avaya Aura System Manager & Integrated Management (suite)	3
SMB	Avaya IP Office with mobility, UC and customer service solutions	4
Contact Center	Avaya Customer Interaction Suite	-
Collaboration	Partnerships – (Microsoft, IBM and Adobe)	-
Mobility	Solutions UC solutions – role-based (for example, teleworker, mobile worker, campus and others)	-

Source: Gartner (August 2009)

Table 6. Cisco (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	Unified Communications Manager	-
Voice and Telecom	Unified Communications Manager	5
Conferencing	WebEx; Unified MeetingPlace and TelePresence; Cisco Unified Video Conferencing	4
Messaging	Cisco Unity; Unity Connection; Unity Express	4
IM and Presence	Unified Presence; WebEx Connect	3
Clients	Unified Personal Communicator; Unified IP Phone; Unified Mobile Communicator; IP Communicator; WebEx; WebEx Connect; Unified Video Advantage	3
CEBP	Unified Application Environment; Unified Communications Widgets	3
Administration and Analytics	Unified Communications Management Suite: Unified Service Statistics Manager, Unified Service Monitor, Unified Provisioning Manager and Unified Operations Manager	3
SMB	Smart Business Communications System/Unified Communications 500 Series; Unified Communications Manager Express	4
Contact Center	Unified Contact Center; Unified Expert Advisor	-
Collaboration	WebEx-based solutions and partnerships	-
Mobility Solutions	Unified Wireless IP Phone, Unified Mobility (Single Number Reach), Cisco Unified CallConnector Mobility, Unified Mobile Communicator, and a range of other options.	-

Source: Gartner (August 2009)

BOTTOM LINE

For most midsize and large enterprises, preserving the value of existing investments is critical. As a result, enterprises must approach UC as a migration that will take place over time. Additionally, midsize and large enterprises often must support a wide variety of user requirements, so flexible solutions are important. UC planning should not be isolated from other related enterprise infrastructure planning; in particular, collaboration and mobility are both critical parts of an overall successful solution. For most enterprises, no vendor will be able to meet all of their requirements, so a one-vendor solution should not be advanced.

One-vendor solutions will limit enterprise choice and negotiating ability. Instead, enterprises should expect to have several cornerstone strategic UC providers. Enterprises should insist that all providers use standards, and that they proactively interoperate with the other providers involved in a complete enterprise solution.

SMBs that have the option of replacing their communication infrastructures should consider a different and more consolidated approach, and should review the all-software, bundled solutions for UC. This will often result in lower total cost of ownership and more flexibility for SMBs, due to their more-limited support and administration resources, and because their requirements are often more limited.

Table 7. IBM (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	Sametime	-
Voice and Telecom	Sametime Unified Telephony and partner integrations on the server or client.	3
Conferencing	Sametime for Web, audio and video plus partner integrations	3
Messaging	Lotus Notes, Unified Messaging for WebSphere and partner integrations	5
IM and Presence	Sametime	5
Clients	Sametime Connect (Windows, Mac, Linux), Web (all browsers) and mobile (BlackBerry, Windows Mobile, Symbian), iPhone (in 2H09)	4
CEBP	Sametime Client and Sametime Server integration possible; software development kit for Web (Ajax & REST), Eclipse, Java, C++, and WebSphere	4
Administration and Analytics	Sametime Consolidated Administrator and Tivoli	3
SMB	Lotus Foundations Server, and partner for IP telephony with SMB-specific packaging, LotusLive SaaS	4
Contact Center	IBM Global Business Services and Global Technology Services have a dedicated practice; integration announced with partners such as Genesys; Interactive Intelligence	-
Collaboration	IBM Lotus Sametime, Lotus Quickr, Lotus Connections, WebSphere Portal and Lotus Notes/Domino, LotusLive SaaS	-
Mobility Solutions	Mobile presence, IM chat, click to call, mobile e-mail, mobile applications and mobile -application support across multiplatforms	-

Source: Gartner (August 2009)

Table 8. Microsoft (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	Microsoft OCS 2007 R2 (OCS 2007 R2); Microsoft Exchange Server 2007 (Exchange 2007); Microsoft Online Services (Exchange Online and Office Communications Online)	-
Voice and Telecom	Office Communicator (OC) 2007 R2 (OC 2007 R2); OC Phone Edition; OC Mobile	3
Conferencing	OCS 2007 R2; Microsoft Office Live Meeting	3
Messaging	Microsoft Exchange Server 2007; Exchange Online	5
IM and Presence	OCS 2007 R2	5
Clients	Multiple OCS clients, Exchange clients, chat clients, as well as others	5
CEBP	APIs for OCS 2007, Exchange and OC.	4
Administration and Analytics	Active Directory; Windows PowerShell; System Center Operations Manager	3
SMB	Windows Essential Server Solutions 2008; Windows Essential Server 2008; Exchange Online; Office Communications Online; Office Live meeting	2
Contact Center	OCS 2007 R2 Response Groups (for informal departmental call handling); Aspect Unified IP and other third-party products for formal contact centers	-
Collaboration	SharePoint; the desktop sharing function of OCS 2007 R2	-
Mobility Solutions	Mobility functions are built into Exchange, OCS and the associated clients Outlook Voice Access, Outlook Mobile, Exchange ActiveSync and OC Mobile are specifically intended to provide additional capabilities for workers outside the office	-

Source: Gartner (August 2009)

Table 9. NEC (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	NEC Univerge360	-
Voice and Telecom	Univerge SV8000 series; Spherical	5
Conferencing	Univerge UCE Collaboration and partners	3
Messaging	Univerge UM8500	3
IM and Presence	Univerge OW5000	3
Clients	Univerge UC700	3
CEBP	APIs and Web services, SOAP interfaces, SOA	3
Administration and Analytics	Univerge MA4000	4
SMB	UCB/BCT	4
Contact Center	UCB/BCT and CC Design	-
Collaboration	UCE Collaboration and partnerships	-
Mobility Solutions	Univerge MC530 Mobile client, fixed-mobile convergence and Wi-Fi	-

Source: Gartner (August 2009)

Table 10. Siemens Enterprise Communications (2009)

Critical Capabilities	Product/Service Name and Brief Description	Rating
Flagship Product	OpenScape	-
Voice and Telecom	OpenScape Voice (HiPath 8000)	5
Conferencing	OpenScape Video; OpenScape UC Application (audioconferencing and Web conferencing); and conferencing partners	3
Messaging	OpenScape Xpressions and partners	4
IM and Presence	OpenScape UC Application, OpenScape Xpressions and partners	5
Clients	OpenScape clients: rich, thin, Web, toolbar and SIP	4
CEBP	OpenSOA	3
Administration and Analytics	OpenScape Common Management Portal and OpenScape UC Server	4
SMB	HiPath OpenOffice	4
Contact Center	OpenScape Contact Center (HiPath ProCenter)	-
Collaboration	OpenScape UC Application and partnerships	-
Mobility Solutions	OpenScape Mobile UC Client, HiPath Wireless and HiPath MobileConnect (multiple mobile platforms)	-

Source: Gartner (August 2009)