Top UC Applications Are Now Apparent

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Applications definitions provide a foundation for RFP templates.

For the past few years, customers and suppliers have been asking, "What is unified communications?" and "What is the ROI from unified communications?" We're now seeing the answers to those questions in the form of clear unified communications (UC) definitions and specific high-payback UC applications.

This article will set the stage by reviewing the structure of UC, and then will highlight the apparent "top five" unified communications applications, describe the features that enable those applications, and outline the benefits that customers are accruing from those UC solutions.

At UCStrategies.com, we define unified communications as, "communications integrated to optimize business processes," and we have seen this definition gain wider acceptance in the marketplace. Every keynote speaker at VoiceCon Spring 2007 outlined the benefits available from the linkage of communications tools and technologies into the business processes of an enterprise. Most major communication system suppliers offer interfaces and toolkits to make this possible, and most are also forming alliances with other leaders in the desktop software and enterprise applications industry segments.

Communication In Business Processes

Competitive advantage is created by changing or optimizing the value chain, i.e., the series of business processes that deliver value, goods and services to customers (as described in such works as: *Competitive Advantage: Creating and Sustaining Superior Performance* by Michael E. Porter, 1985; *The Innovator's Dilemma—When New Technologies Cause Great Firms to Fail* by Clayton M. Christensen, 1997; and *Blue Ocean Strategy—How to Create Uncontested Market Space and Make Competition Irrelevant* by W. Chan Kim and Renée Mauborgne, 2005).

Amazon.com, Southwest Airlines and DishTV are all notable examples of changing and optimizing value chains. But most companies don't optimize in such big leaps; rather, they focus in on elements of their existing value chain to make significant improvements or innovations.
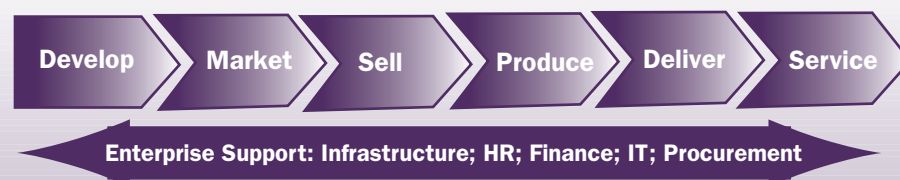
A typical value chain model will include the elements shown in Figure 1. Communications is present in some form and to some degree of intensity and criticality in each of these value chain elements. Unified communications addresses the people within these processes as they communicate with other people and interact with their information resources and the tools of their jobs. So to optimize the business processes, it's possible to look at the jobs within these processes and then streamline or transform the communications activities of those process-job combinations.

Analysis of US Bureau of Labor Statistics information shows that, in any given enterprise, roughly 80 percent of the work is performed by workers in about five job categories. So an enterprise should be able to identify these top categories and correlate them to specific business processes in the value chain as shown in Figure 2. The jobs vary by industry and specialization, yet all enterprises generally meet this model.

Once you identify these linkages, look for places where new UC-related technologies can optimize business processes. Certainly this has happened over the past 15 years by applying call

FIGURE 1 Typical Value Chain Model

Develop → Market → Sell → Produce → Deliver → Service

Enterprise Support: Infrastructure; HR; Finance; IT; Procurement

Source: Communication Perspectives

center technologies to the Marketing, Selling, Delivery and Service elements of the value stream. Similarly, IP and Web-based applications have had a major effect on almost all elements of the value stream. As with call/contact centers, a focus on the jobs within the business process will highlight the potential for payroll cost reductions (per transaction or in total) available through integrated communication management.

Top Apps Address Specific Business Processes

Now, under the UC moniker, we're seeing another wave of new capabilities enabling breakthroughs in business results. These new capabilities include: presence, instant messaging (IM), enhanced conferencing (voice, video, and Web), collaborative workspaces, social networks, Web portals, pervasive IP networks (wired and wireless), multimedia IP endpoints (wired and wireless), speech recognition, voice over IP (VOIP) and Session Initiation Protocol (SIP), with software application control of all of these elements.

Five applications of these technologies are emerging as the core of the UC market:
- Contact Management
- Seamless Information for Mobile Personnel
- Resource Identification/Problem Resolution
- Collaboration Acceleration
- Job-specific Communication-enabled Portals

Before examining these applications in more detail, let's see how they fit into the business value chain and apply to the relevant job categories. Figure 3 (p. 28) maps the five applications into the model value chain. The check marks show the typical uses of each UC application based on the communication activities and obstacles that occur in each value chain element and job category.

These UC applications attack the major communication bottlenecks or "hot spots" in business processes. UC applications add value and produce high returns in the areas checked because they:
- Eliminate queues and queue-related delay.
- Deliver information more effectively, often with self-service methods.
- Facilitate information sharing and resulting decisions and actions.

- Prioritize or schedule work to focus effort on the highest-value activity.
- Reduce or eliminate interruption of high-value activities.
- Automate or bypass communication or process steps.

These changes deliver measurable reductions in labor, asset usage, facilities requirements, or elapsed time for the relevant business process; or they may deliver measurable increases in revenue, profits, or customer satisfaction/loyalty.

Top UC Application Descriptions And Examples

Each UC application uses existing and new technology functions to produce benefits. Each application description defined below includes the principles and methods being applied, the technology elements used, examples of available solutions, and the resulting benefits and ROI basis.

■ **Contact Management**: Improved management of access to people and resources by both external customers and internal enterprise employees; supported by profiles, rules and enterprise information coordinated across contact channels.

—*Principles and Methods*: Similar to contact center methods, namely caller-based or purpose-based service levels, skills-based or knowledge-based contact routing, and first call resolution.

—*Technology Elements*: Software-based contact rules and algorithms based on calling party (from databases, directories); presence indication; calendar status; user profiles; IP/wireless networks; IP/wireless multimedia endpoints; and IP communication including IM, email and VOIP.

—*Available Examples*: Partial solution examples include IBM SameTime, Microsoft Live Communication Server, Siemens OpenScape, Nortel MCS5100, Avaya one-X, Cisco Mobile Communicator, RIM BlackBerry with Ascendant, and Interactive Intelligence suite. Most of these, as well as most unified messaging systems with "find me" features, still need to improve in the ability to find an alternate resource, to avoid sending callers into a delay-inducing message queue.

—*Benefits and ROI Basis*: Primary benefit is faster transaction completion, which usually

The primary benefit of improved contact management is faster transaction completion

FIGURE 2 Typical Jobs In Value Chain Elements

Develop ▶ Market ▶ Sell ▶ Produce ▶ Deliver ▶ Service

Jobs:
| Engineers Research | Marketing | Sales Support | Manufacturing | Logistics | Services |

Enterprise Support: Infrastructure; HR; Finance; IT; Procurement

Jobs:
IT, Finance, HR, Legal, Facilities, Procurement

Source: Communication Perspectives

increases revenue or volume and lowers asset requirements. Other benefits include competitive advantage with clients, elimination of the labor and time for return calls or messages, and possibly shifting contacts to lower-cost staff or to self-service resources.

■ **Seamless Information for Mobile Personnel**: Delivery of information to and collection of information from enterprise personnel who are usually mobile, in a way that removes barriers to productivity and accelerates business processes.

—*Principles and Methods*: Provide a seamless, consistent work environment, especially for information workers who must work in locations away from their primary desktop, including meetings, client sites, and travel.

—*Technology Elements*: Software-based clients and portals; IP/wireless networks; IP/wireless multimedia endpoints; software-based synchronization; secure transmission; IP communication modes including IM, email, VOIP and softphones.

—*Available Examples*: Remote desktop clients from Microsoft and IBM; IP-PBX softphones from most major IP-PBX providers; mobile desktop and portal software from RIM, Microsoft, IBM, SAP, Oracle and others, running on devices from RIM, Palm, Nokia, Motorola, et al.

—*Benefits and ROI Basis*: Primary benefit is elimination of delays in processes for faster transaction completion, and avoidance of workarounds for getting information manually or through others. This should result in lower labor costs (per transaction and/or by reduction in headcount); also

may increase revenues, increase quality/reduce error rates, and lower facility costs.

■ **Resource Identification and Problem Resolution**: Improved and accelerated location of and access to resources throughout the value chain (including suppliers and partners) as required for problem resolution, and support of the communications needed to complete the resolution.

—*Principles and Methods*: Find the right skill, approver, authorizer, or knowledge source in the shortest period of time with the least impact on other business processes; this is similar to contact center techniques for delivering optimum service levels across channels and customer segments. While similar to contact management, this focuses primarily within the enterprise value chain, while contact management is primarily for support of clients, customers or prospects.

—*Technology Elements*: Software-based contact rules and algorithms based on task/process priority, resource identification; software control of calls, conferences or resource queuing; presence indication of available resources; calendar status; user profiles; IP/wireless networks; IP/wireless multimedia endpoints; and IP communication including IM, email and VOIP.

—*Available Examples*: Integrated process management using IBM Websphere/Eclipse/SameTime, SAP/Genesis, or Microsoft Live Communication Server; CTI integrations by Avaya, Siemens, Mitel, Alcatel-Lucent, or Cisco; mobile presence-based solutions such as Cisco Unified Mobile Communicator.

FIGURE 3 Mapping UC Applications To Jobs And Value Chain Elements

	Enterprise Support	Develop (Engineers Research)	Market (Marketing)	Sell (Sales Support)	Produce (Manufacturing)	Deliver (Logistics)	Service (Services)
Contact Management				✓			✓
Seamless Info for Mobility	✓		✓	✓			✓
Resource ID & Problem Solving	✓	✓		✓	✓	✓	✓
Collaboration Acceleration	✓	✓	✓				
Job-Specific Info Portals	✓			✓	✓	✓	

Source: Communication Perspectives

—*Benefits and ROI Basis*: Primary benefits stem from rapid transaction completion (approve sales price/discount requests, dispatch technical resources, solve a service or logistics problem, approve personnel action, legal approval, etc.) and from avoidance of expensive outages, inventory shortages, etc. via rapid resolution of exceptions. Can increase revenue if more transactions are completed in fixed time period; also can reduce or avoid costs by eliminating rework, overtime, etc.

■ **Collaboration Acceleration**: Support of acceleration and improvement for collaborative tasks, usually performed by teams of people, whether contained within the enterprise or operating across enterprise boundaries.

—*Principles and Methods*: Enable teams to work more efficiently by reducing information management overhead (share files vs. email, manage revisions, etc.), managing idea generation and review (use of blogs, wikis, RSS, websites, etc. vs. meetings or messaging), inclusion of only authorized personnel (internal and/or external) with security methods, tracking project timelines, and facilitating or automating live communications when needed (call, conference, IM).

—*Technology Elements*: Collaborative workspaces, perhaps with social networking options; presence; enhanced conferencing; IP/wireless networks; IP/wireless multimedia endpoints; and IP communication including IM, email and VOIP.

—*Available Examples*: Microsoft SharePoint; IBM Quickr and IBM Social Networks for Business; Parlano, Near-time, and other collaborative workspaces including emerging Google and Yahoo! options; advanced audio/video conferencing tools from Cisco, Avaya, Nortel, Radvision, Tandberg, Polycom, et al., though the conferencing tools need integration with information management tools to support this UC application fully.

—*Benefits and ROI Basis*: The primary benefits are: **(1.)** faster time to market and increased competitiveness, since projects can be completed more quickly, with better quality and information richness; and **(2.)** labor cost reduction due to the faster completion, since collaborative project costs correlate directly to the elapsed time multiplied by the number of team members.

■ **Job-specific Communication-enabled Portals**: The combination of communications capability with enterprise information portals to improve job performance and to accelerate transaction completion.

—*Principles and Methods*: Organize all the information needed for a specific job into a single portal-based environment, equipped with the appropriate communications, information resources and applications. This model has been proven in call center/contact centers, network operation centers and similar environments.

—*Technology Elements*: Software control of Web-based portals and of communication tools; business application software; IP/wireless networks;

IP/wireless multimedia endpoints; and IP communication including IM, email, VOIP and enhanced conferencing.

—*Available Examples*: Application packages such as Salesforce.com, Siebel Sales/Service, SAP and others are being communication-enabled and enhanced by SIs to create this UC application; in addition, leading portal solutions such as BEA AquaLogic, IBM WebSphere and Vignette provide platforms to create customized versions.

—*Benefits and ROI Basis*: Specific benefits from increased transaction volume and/or reduced transaction costs; often significant time improvements by automating back-office tasks. Initially, these portals have been used in enterprise support, but are now increasingly seen in manufacturing and logistics as well as sales and service.

Conclusion

Of course, other UC apps and application suppliers exist, and more will emerge. Yet these five applications are clearly the core of the UC market in 2007 and will likely remain center stage for the coming 3 to 5 years, based on the visible levels of investment, alliances, product releases and channel development. And, of course, all of this is driven by the huge untapped and ROI-justified potential for enterprise business process optimization and development of competitive advantage.

Review of these five UC applications for use within your enterprise's business processes is certain to be a valuable use of your time□

These five applications will remain center stage for the next 3–5 years

Companies Mentioned In This Article
Alcatel-Lucent (www.alcatel-lucent.com)
Amazon.com (www.amazon.com)
Avaya (www.avaya.com)
BEA (www.bea.com)
Cisco (www.cisco.com)
DishTV (www.dishtv.com)
Google (www.google.com)
IBM (www.ibm.com)
Interactive Intelligence (www.inin.com)
Microsoft (www.microsoft.com)
Mitel (www.mitel.com)
Motorola (www.motorola.com)
Nokia (www.nokia.com)
Nortel (www.nortel.com)
Oracle (www.oracle.com)
Palm (www.palm.com)
Parlano (www.parlano.com)
Polycom (www.polycom.com)
Radvision (www.radvision.com)
RIM (www.rim.com)
Salesforce.com (www.salesforce.com)
SAP (www.sap.com)
Southwest Airlines (www.southwest.com)
Siemens (www.siemensenterprise.com)
Tandberg (www.tandberg.com)
Vignette (www.vignette.com)
Yahoo (www.yahoo.com)