

FASTER IS BETTER: SPEED TO RESPONSE, RESOLUTIONS AND RESULTS

BLAIR PLEASANT
PRESIDENT & PRINCIPAL ANALYST
COMMfusion LLC



Position Paper

How unified communications enables first contact resolution in the enterprise

Executive summary

Speed to response, speed to decision, speed to transaction, speed to X — this is what will make or break enterprises in the 21st century. In this hyperconnected, global business environment, speed will be the determining factor in which companies best succeed in the coming years. Along with speed to X is first contact resolution (FCR) — ensuring that your customers reach the right person and get the information and service they need the first time they contact you — by telephone, email, web chat or IM. Whether it's to drive customer service levels and build loyalty, or to enhance collaboration within the

enterprise, speed to X puts you ahead of competition and in the market sooner.

Of all the new tools and technologies that can help companies become more agile and operate with greater speed, unified communications is the best solution to achieve optimal performance. Unified communications is a presence-enabled communications and collaboration solution that operates regardless of device and location, delivering a unified user experience and optimizing business processes. By tightly integrating and aligning business-grade telephony with communications applications, companies achieve productivity enhancements and improved collaboration, thus

enabling them to respond to customers, bring products to market, react to emergencies, and serve and grow their target audiences more quickly and efficiently.

Hyperconnectivity — Too much of a good thing?

The proliferation of multiple devices and our expectations for anywhere, anytime communication are both a blessing and a curse. On one hand, it's easier than ever to connect with people instantly. On the other hand, it's harder to manage all these modes of communications, which brings with it inefficiencies. This new phenomenon we're experiencing is called "Hyperconnectivity" — the state in which the number of devices, nodes and applications connected to the network far exceeds the number of people using the networks (see Figure 1). Hyperconnectivity is defined by Nortel as "the mega-trend through which everyone and everything that can benefit from being connected to the network *will* be connected." Hyperconnectivity heralds a new era in communications and is the catalyst for companies to rethink the way networks and applications are built. While it presents a challenge, Hyperconnectivity also brings with it a prospect for advancement.

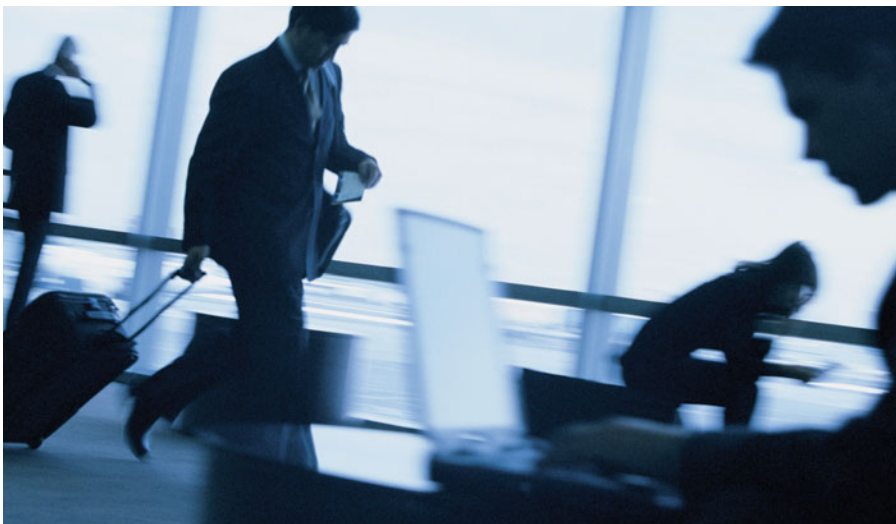
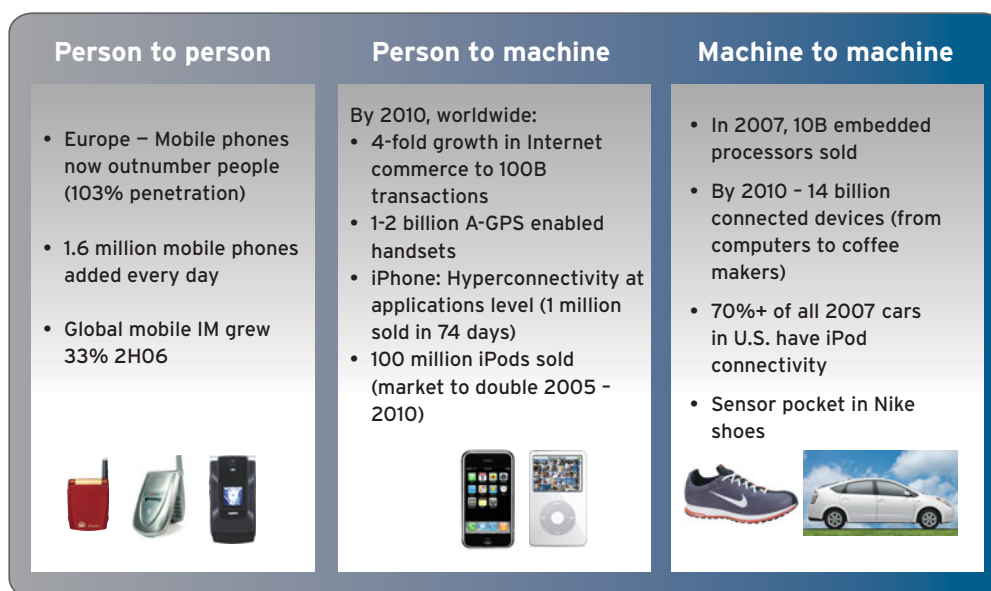


Figure 1. Hyperconnectivity – It’s happening now



Alongside Hyperconnectivity is “communication chaos”. The average knowledge worker receives up to 50 messages a day in up to seven different places and on numerous devices, whether the PC at home and/or work, desktop phone, mobile phone, hand-held, etc. On top of that, researchers at King’s College London University found that communication overload causes a professional’s IQ to drop 10 percentage points! These two forces, along with increased mobility, are forcing companies to re-evaluate the way in which they do business and communicate both internally and externally.

Demands for increased responsiveness, decreased latency and faster time are leading to new solutions — and unified communications is answering the call.

Unified communications — A dynamic business and communications evolution

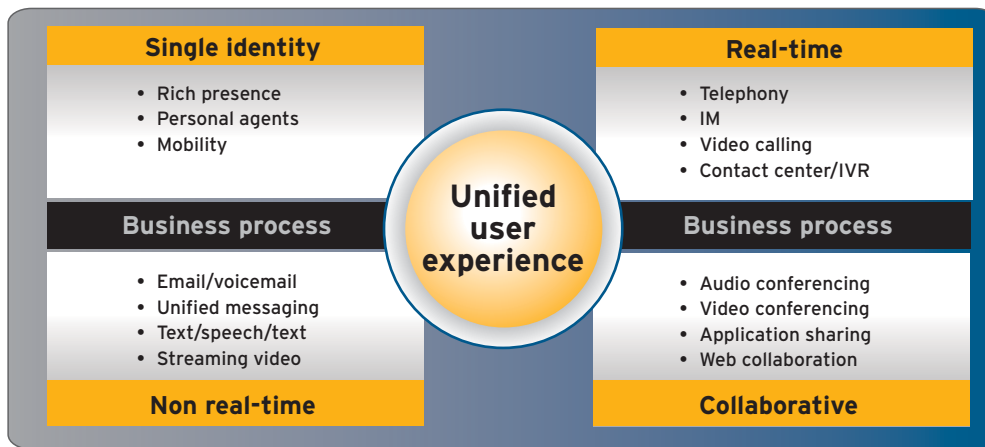
Unified communications is the “now” phase for enterprise communications decision-makers and leaders who want to optimize their networks as a key element in a successful business strategy. IP provides the foundation for the new

set of unified communications capabilities. IP telephony is critical to this evolution, and over the past few years many enterprises have been transforming their TDM networks by making the move to IP. While IP provides cost savings and benefits to the IT department, its real value lies in the set of applications it enables. Unless organizations begin to make the move to implement capabilities leveraging the IP network and infrastructure, the true benefits are not realized, and companies are simply replacing one set of wires and desktop devices with another set. As the foundation for unified communications, IP integrates voice with other aspects of the business. Nortel sees this as setting the stage for Communications Enabled Applications (CEA) and integration with business processes. Enterprises can make the most of their voice over IP (VoIP) investment by implementing unified communications and progressing to the next step — business transformation-driven unified communications, based on integrating with and communication-enabling applications.

Overview of unified communications – Connecting, communicating and collaborating more effectively

Unified communications means different things to different people. According to UCStrategies.com, unified communications is “Communications integrated to optimize business processes.” Unified communications can be summed up as enabling people to connect, communicate and collaborate seamlessly to improve business agility. It’s all about integrating communications to improve user and group productivity, drive dynamic collaboration, and simplify business processes — with the goal of increasing revenues, decreasing costs and improving customer service. Unified communications solutions represent a new generation of communication tools, building upon previously silo-ed components and tasks. Unified communications components include messaging (email, IM, voice, video), calling (audio, video) via business-grade telephony, conferencing (audio, web, video), presence, device awareness and information sharing (web chat, file sharing, document

Figure 2. Defining unified communications



sharing) — tied together with a common user interface. Even more important, as shown in Figure 2, these unified communications tools are tied in and integrated with business processes and applications, making these applications exponentially more useful to businesses and workers.

One example of business transformation-driven unified communications — or as Nortel refers to it, Communications Enabled Applications — is a large, regional company that has embedded Global Positioning System (GPS) functionality in its communications network. As the company’s delivery trucks arrive within a certain range of the customer delivery location, the GPS sends a signal to the network, which is automatically sent to the customer’s contact device (such as home phone, handheld device, cell phone, etc.) and advises the customer that delivery will take place within a certain timeframe, such as in 20 minutes. The customer does not have to waste time waiting, and the delivery is fast and smooth.

Presence — The cornerstone of unified communications and foundation for first contact resolution

A fundamental building block of unified communications is presence. Every aspect of collaboration requires or is

enhanced by knowing whether colleagues are available for a communication, and how to best contact and interact with them based on what device they are using and what their situation and circumstances are (in a meeting, at a customer site, etc.).

Unified communications and presence awareness let you interact with people in the most convenient means possible — whether by phone, IM, web or video conference. With unified communications and presence capabilities, you can view your “buddy list” on your desktop (or even a unified communications-enabled mobile device) to determine if a co-worker is available to communicate with, no matter where they are located — even if they’re on the road. With unified communications, all it takes is one or two clicks of the mouse to initiate an Instant Message chat discussion or phone call. Using click-to-call and drag-and-drop capabilities in the unified communications client, additional parties can be brought into the phone conversation, which can also be escalated to a web conference or collaborative session, with document sharing and other collaborative tools. All these capabilities are key to FCR, while communications and collaboration become simpler and faster by being able to initiate communications from within the familiar desktop and applications with a few simple clicks of the mouse.

Speed to X — Unified communications as the engine

While there are a myriad of benefits that unified communications provides, helping companies save time, or more positively spun — gain time — is among the most compelling. Speed to X — whether it’s speed to decision, speed to sales, speed to service, speed to response — allows companies to better achieve the three main goals of most companies: increasing sales, reducing costs and improving customer service.

Speed to X means different things to different types of workers within the organization. Service workers, such as store clerks, focus on speed to transaction, while information workers such as bank tellers or contact center agents focus on speed to resolution. Knowledge workers — such as business executives, engineers and financial analysts — focus on speed to decision. All are equally important to an organization looking to garner a competitive edge across all their operations.

First contact resolution — Ubiquitous enterprise coverage

With expertise and valuable intellectual property spread throughout the enterprise, speed to these essential resources is a major differentiator for companies.

First contact resolution (FCR) has taken center stage as a way in which enterprises can measure and quantify the service provided to customers. While the notion of first contact resolution began in the contact center, this concept has implications for the entire enterprise, and is increasingly being used as a customer service measurement criteria across the business. Velocity in gaining knowledge is one of the major differentials for any business — but this speed must also assure a quality decision in order to provide true value.

A study by Harris Interactive found that workers want knowledgeable and personalized service, and 70 percent of the study respondents indicate that first contact resolution — whether by phone, email or the web — is a primary driver of customer satisfaction. Studies show that customer satisfaction drops an average ten percent with each call back. Improving first contact resolution means that fewer second-contact calls will be required, resulting in direct quantifiable savings. On average, every one percent increase in first contact resolution results in a 0.64 percent increase in customer satisfaction.

Contact centers throughout the world have demonstrated the value of FCR. As the front line to customers, many contact centers today are focusing on FCR as opposed to other metrics such as average talk time when looking at service level metrics. Products like Nortel's Expert Anywhere expand the contact center capabilities throughout the organization, enabling agents to access an expert anywhere, anytime, within and outside the organization using the power of presence, fueled by SIP. Agents can satisfy the customers' needs on the spot by leveraging their access to an expert anywhere. Agents can quickly and easily see which experts

are available to help with a customer inquiry in real-time. The agent can collaborate with the expert via phone, instant messaging (IM), screen sharing and video, regardless of where the expert resides. Agents can access experts in real-time and respond to customer queries more expediently, resulting in first contact resolution.

First contact resolution goes beyond voice interactions, delivering a multi-modal experience. A customer viewing a business' web page can click a button on the PC screen to initiate not only a voice call, but also an IM or video interaction with an agent in order to get additional information or support. The immediacy of the interaction, as well as the multimedia capabilities, leads to a more successful and satisfactory interaction for the customer, resulting in increased customer loyalty. In earning loyalty, customers rate their quality of interactions as equally important to them as the quality of the goods or services, according to research done by the Customer Think Corp in 2006.

And it's not just the contact center — the value and implications of FCR extend to the entire enterprise. According to the Harvard Business Review, a five percent increase in customer retention can increase profits by nearly 100 percent, and cutting defections in half can more than double a company's growth. In addition, Harvard Business Review notes that customers who rate themselves as "completely satisfied" are six times more likely to become repeat buyers than "satisfied" customers, thus increasing a company's bottom line.

First contact resolution and the importance of speed to X cuts across all vertical industries. In retail establishments, time spent doing anything other than helping customers and selling is

time misspent. Oftentimes the sales people require immediate information to questions such as pricing, inventory, promotional sales and other issues that they may not have access to, but they need to respond to a customer's inquiry in a timely manner. Usually this means looking up the phone number and calling another store branch or the head office, and more likely than not reaching voicemail instead of an actual person, or being put on hold while someone tries to get the information.

The same situation applies in the finance industry, where time literally means money. Unified communications can help increase FCR by connecting financial institution clients to specific experts in areas such as loan processing, claims processing, mortgage rates and so on. As an example, a broker with a large financial firm received a call from a high-value client who invested in the firm's Asian Hedge Fund and needed to speak with a specialist. Using unified communications and presence, the broker was able to identify an Asian Hedge Fund specialist and determine his availability. With one or two clicks of the mouse, the broker immediately initiated a conference call between the client and the specialist, resulting in a speedy decision and transaction.

Without unified communications, the brokerage firm rep would need to identify the fund expert and try to blindly contact him by email, IM or phone — or even all three, which generally results in multiple messages being left before connecting and getting the information needed, taking hours or even days, which would have negatively impacted customer satisfaction and could have meant a lost deal for the firm.

Unified communications and speed to X: Driving quality decisions

An example of a mix of high-value decisions with velocity is Baylor University Medical Center in Dallas, where speed to diagnosis is what's important. By securely sending medical orders directly to radiology technicians wirelessly, staff members can receive medical orders anywhere on the hospital's 120-acre campus on a handheld device, improving business processes associated with time-to-diagnosis, workflow and patient care. By expressing physician orders via instant messaging to radiology technicians equipped with unified communications-enabled BlackBerry devices, the technicians are able to more rapidly receive order requests, including patient location and severity of need, leading to better patient care and even saving lives.

Speed to X can be attained through a variety of ways by means of unified communications:

- **Speed to collaboration:** When employees have the ability to reach others without costly delays, they make decisions more quickly and experience fewer setbacks when responding to critical situations. The ability to confer with others regardless of location can save hours or even days when multiple employees are involved in the decision process. Geographically dispersed workgroups can collaborate in real time, exchanging documents, using tools such as white boarding and file sharing, leading to faster development times and time to market.
- **Speed to service:** Increased access to information via collaboration and access to subject matter experts for quick turnaround of information leads to shorter sales cycles, while increased customer service leads to higher customer loyalty and retention.

When viewing a company's web page, a customer can "click to chat" or "click to talk" or even "click to video" and be connected with a customer service or sales representative. In addition, the use of "Expert Agents" makes it possible to identify and interact with subject matter experts outside of the contact center, ensuring that customers get the information they need when they call, without having to wait for a contact center agent to research and track down the information and respond to the customer hours or days later.

- **Speed to communicate:** Unified communications provides more efficient communications, thus saving time and valuable human resources. Users monitor the presence of their colleagues and click to connect when they are available, rather than enter into an email exchange or reach someone's voicemail. Unified communications mobile capabilities make it easy for workers to be contacted and stay in touch, regardless of their location.
- **Speed to notification:** Companies can notify customers of time-sensitive information, such as changes in a stock price, new sales or promotions, product recalls, and so on, on the customer's preferred device and media of choice using unified communications presence and mobility capabilities. This can even be used in emergency situations, such as severe weather, safety or security breaches.

These all have quantifiable impacts on the enterprise. Case in point: quicker response to customer inquiries leads to increased sales, reduced selling costs and increased profits. Early adopters of unified communications have achieved quantifiable savings in terms of improved business performance, faster time to market and shorter time for problem resolution.

Communications Enabled Applications — Building on and extending unified communications

Unified communications can be seen as enhancing human-to-human communications. When tying in unified communications with machine-to-human communications for customer- and employee-facing business processes via an open software-oriented architecture, the result is what Nortel calls Communications Enabled Applications (CEA). CEA eliminates latency in human-to-human and human-to-machine interactions while improving productivity. CEA may involve machine-to-human interactions only, or can also include human-to-human interactions.

For example, a hospital with 1,000 intravenous (IV) pumps and several nurses who monitor the pumps and battery power flowing to the pumps uses CEA to ensure that the pumps have continuous power. When the batteries get low and reach a specified threshold, the nurses and supply department responsible for replacing the batteries are automatically notified, allowing the nurse on duty to have the new battery sent to his or her station (based on presence capabilities) in order to expeditiously replace the batteries and keep the IV pumps working. When the battery supply begins to run low, the purchasing managers can be notified via IM regardless of their location, and the supplies can be ordered quickly and easily.

SIP and SOA — Key to the first contact resolution equation

There are various enabling technologies being used to help companies move down the path to unified communications and CEA. The key enablers are Session Initiation Protocol (SIP), which supports open standards while enlarging the pool of multimedia applications an

enterprise can leverage, and Service-Oriented Architecture, or SOA, which allows businesses to integrate their business process workflows across an open architecture.

SIP is an open standard protocol for initiating, creating, modifying and ending an interactive session that involves multimedia elements. SIP supports a number of call control features making it possible to add voice, data and video communications to various business processes. SIP also allows for presence to determine if someone is available for conversation and if so, how and on what type of device. By having a standard way to make connections between devices to set up sessions, whether video or audio, SIP eliminates boundaries in communicating across public networks with customers, partners and suppliers.

Using SIP, pools of subject matter experts can be dynamically created and contacted via different modes. For example, the financial firm mentioned earlier may have an Asian Market expert pool and a North American expert pool, with individuals whose presence is made available to members of the organization. The experts can be reached via a myriad of ways to gain information, insights and answers to drive speed of decision/results/resolution.

While SIP provides a standard way of setting up and initiating real-time interactions, the other element needed for first contact resolution and unified communications is an open architecture accelerating the ability to meet customer and business needs on the fly. This is where SOA comes in.

SOA is the architecture to enable enterprises to integrate their business process workflows easily and quickly and to leverage existing services. By modular-

Nortel unified communications and CEA in action

Geisinger Health System in Pennsylvania provides healthcare, education, research and service to 2.5 million people in the region. Nortel's unified communications and customer contact solutions are helping Geisinger improve accessibility, reach and responsiveness for patients, leading to enriched customer care through faster, more efficient access to doctors, nurses and outpatient care information.

Nortel's unified communications solutions, including the Nortel Multimedia Communication Server (MCS) 5100 with its presence capabilities, make it possible for physicians and administrators to find doctors regardless of where they are located and enable them to better communicate, while the web collaboration capabilities make it possible for doctors to provide consultations remotely. With Nortel wireless IP phones, doctors and administrators can be mobile yet accessible, and Nortel CallPilot unified messaging is adding functionality at community practice sites to help with triage and scheduling appointments.

Geisinger's use of unified communications solutions is improving patient interactions — connecting patients quickly with the right resource, reducing the time patients are on the phone, scheduling and confirming appointments easily, and delivering important healthcare information and instructions quickly and efficiently.

izing and re-using various services and tying the pieces together with a common interface, it becomes easier to make changes across the network and to speed deployment of new or updated business processes. There are a variety of services that can be used across different applications and integrated to automate business process workflow, including click-to-connect (click-to-call, click-to-IM), presence query and status, notify and response, policy-bandwidth/performance request, response, and location query and status services.

A case in point is a financial services firm that deploys a stock market notification tool that automatically notifies the appropriate contacts via IM, phone, pager or device of choice when the price of a selected stock rises or falls by a certain percentage, ensuring that the necessary parties take prompt action. Going a step further, a video meeting can be scheduled automatically (based

on the users' calendars) and initiated to enable the brokers and others to strategize an alternative financial approach, while ensuring end-to-end quality and security. A competitive advantage is gained in a seemingly simple and quick manner.

Unified communications and CEA require an open architecture that can easily adapt to other systems and technologies within the enterprise. Closed or proprietary systems restrict the types of technology solutions and offerings that can be integrated, and are not appropriate in multi-vendor environments where different vendors offer different components or elements of a total unified communications solution. The value of unified communications and CEA is greatest when using standards-based SOA application platforms that adapt to multi-vendor infrastructures.

Nortel: Delivering on the need for speed with unified communications

As part of its CEA and unified communications strategy, Nortel has aligned with both Microsoft and IBM to integrate its solutions into existing desktop environments using open standards, offering enterprises a choice of unified communications solutions.

Forming a unique partnership, Nortel and Microsoft have joined together in the Innovative Communications Alliance (ICA), bringing to market a single client for mobility, IM, telephony, conferencing, contact center, etc., as well as consistent business-grade telephony within Microsoft Office, and a single presence engine. Microsoft and Nortel share a joint vision of unified communications — transforming the user experience and reinventing communications, unifying both the user experience and the underlying unified communications infrastructure on a software-centric platform. The fruits of this alliance are a single client user experience for messaging, conferencing, call control, integrating telephony and the desktop, while extending network reliability across a unified communications framework — all elements for assuring speed to X and first contact resolution. The three elements of ICA are joint research and development of which Nortel is one of three companies (Intel, AMD) working in Microsoft's head development Redmond lab; joint sales and marketing with co-branding and collateral; and global services.

Nortel and Microsoft have announced many ICA customers, such as Singapore-based International SOS — a leading provider of medical assistance, international healthcare, security services and outsourced company care. The company is using the Nortel and Microsoft unified communications solution to blend

together IP telephony voice with other communications services like instant messaging, multimedia collaboration, conferencing and presence to increase user productivity and simplify processes. Using unified communications, workers can scan resources with online presence to see who is currently available, making it easy to quickly tap into specialists to assist their customers. Integrating telephony services with computing-based and mobile communications allows International SOS employees to be productive outside the office, staying connected wherever Internet access is available.

Another company, Jyske Bank in Denmark, integrated the Nortel Communication Server 1000 platform (including 5,600 phones) with the Microsoft Live Communications Server 2005 to unify communications for 4,000 employees. In addition to Nortel CallPilot for out-of-hours business messages and Nortel Contact Recording for recording customer dealings, Jyske Bank is also using Microsoft Exchange Server 2003, Microsoft Office Outlook 2003 and Microsoft Office Communicator 2005. Customers entering a branch are greeted by a “host” at an “AskBar” who transfers the customer to an appropriate staff member simply by looking at their presence information on a screen, and contacts them in real time by sending them an instant message or clicking their name on a Microsoft Office Communicator interface. The host does not have to spend time trying to find people in the bank, and the customer receives faster service.

Nortel has also formed an alliance with IBM, and the two companies have a joint mission to deliver easier integration and comprehensive solutions and services expertise from both companies. The joint strategy includes providing software communications and business

solutions for small- and medium-sized businesses, integrated enterprise unified communications solutions, communication-enabling applications for accelerated business processes and customer service, business optimized networking for unified communications and Websphere applications, and providing end-to-end services.

Another element of the IBM and Nortel partnership is to bring unified communications to the enterprise by integrating their products in a variety of ways to enable the integration of communications and business processes and applications. An example of this integration is the Nortel Multimedia Client plug-in for IBM Lotus Notes. The Nortel Multimedia Client enables business users to improve their access to corporate communications and multimedia capabilities while simplifying communications and enhancing productivity from within the Lotus Notes desktop environment.

With these relationships, Nortel is providing tight desktop integration with the leading applications — Microsoft Office and Outlook, and Lotus Notes and Sametime — to enhance the user's quality of experience. This will also allow companies to create SOA-based communications-enabled applications and business processes by linking together business systems and applications with communication systems and networks.

The path to unified communications and CEA

Achieving first contact resolution and speed to X comes from planning a strategy today that looks beyond standard voice communications to encompass unified communications and communications-enabled applications and processes. It's all about establishing a path based on an IP telephony

foundation to deliver the productivity and collaboration tools that unified communications provide. Companies need to initiate this path with the departments and business processes in their organization that require and will benefit most from unified communications and will garner greatest business impact. Then continue on this path by gradually adding in the broader employee base, other business processes and applications. And to take full advantage of unified communications and achieve higher returns on investment, a business needs to integrate communications into applications and business processes, taking advantage of new technologies such as SOA and SIP — which Nortel sees as the transition to CEA. By taking this direction, companies can reap the benefits of speed — in servicing customers, making fast, high-quality decisions, and bringing products and services to market quickly and efficiently.

Conclusion: Reinventing communications

Identifying, finding and communicating with the right person at the right time are essential for today's enterprise organizations. Speed to X is the key differential — in decision-making, collaboration and customer service. As Jim Collins, business consultant and author of "Build to Last" said, "Technology never propels a company to greatness; it can only accelerate the momentum of great business strategy."

With first contact resolution and unified communications, technology plays the major role in achieving a competitive degree of difference through speed to X. In this case, speed is what it's all about.

Nortel's open SOA approach and unified communications and CEA solutions are helping companies enhance first contact resolution and speed to response, speed to resolution, speed to results. Speed is a good thing.

Author: Blair Pleasant

President & Principal Analyst, COMMFusion LLC

Blair Pleasant is the president and principal analyst of COMMFusion. With over 19 years experience, Blair has authored many highly acclaimed market studies, and provides market research analysis and consulting services to both end users and vendor clients. She can be reached at bpleasant@commfusion.com.

About CoMMfusion LLC

COMMFusion (www.comfusion.con) provides consulting and market research analysis on voice/data convergence markets and technologies, aimed at helping end-user and vendor clients both strategically and tactically. Areas of coverage include unified communications, unified messaging, contact centers, collaboration and conferencing, Internet Protocol (IP) telephony and voice/data convergence applications.

Nortel is a recognized leader in delivering communications capabilities that make the promise of Business Made Simple a reality for our customers. Our next-generation technologies, for both service provider and enterprise networks, support multimedia and business-critical applications. Nortel's technologies are designed to help eliminate today's barriers to efficiency, speed and performance by simplifying networks and connecting people to the information they need, when they need it. Nortel does business in more than 150 countries around the world. For more information, visit Nortel on the Web at www.nortel.com. For the latest Nortel news, visit www.nortel.com/news.

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In the United States:

Nortel
35 Davis Drive
Research Triangle Park, NC 27709 USA

In Canada:

Nortel
195 The West Mall
Toronto, Ontario M9C 5K1 Canada

In Caribbean and Latin America:

Nortel
1500 Concorde Terrace
Sunrise, FL 33323 USA

In Europe:

Nortel
Maidenhead Office Park, Westacott Way
Maidenhead Berkshire SL6 3QH, UK
Phone: 00 800 8008 9009

In Asia:

Nortel
United Square
101 Thomson Road
Singapore 307591
Phone: (65) 6287 2877



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