



Solution Brief

Nortel Communication Server 1000

Nortel Communication Server 1000 can...

Lead to savings for your business through...

- › Reduced operating costs
- › Centralized and simplified network management and administration
- › Convergence of business infrastructure and underlying data network
- › Reduced office space and facilities
- › Leveraging existing investments

And, improve business efficiency through...

- › Desktop convergence of voice and data
- › Consistent access to features and applications
- › Increased worker productivity
- › Improved customer service
- › Readiness for emerging technologies

It's 9:00 a.m. and business is bustling. Do you know where your employees are? How about your business partners, suppliers or customers? The answer is that it really doesn't matter. What matters is that all lines of communication are open, accessible and secure to everyone who contributes to the success of your business.

We've entered into a new era, where anywhere-anytime connectivity and advanced IP Telephony services make communications, collaboration and customer service seamless and efficient — regardless of a user's location or

media choice. What is vital in this new environment is a communications platform that can support these services and deliver increased value. Nortel's Communication Server 1000 (formerly known as Succession*) is a converged IP PBX communications system that delivers on the key values that are most critical to your business.

Business continuity — No time is a good time for downtime. Issues that impact network reliability can be devastating to an enterprise, costing thousands of dollars and posing a threat to customer loyalty. Ensuring business



More than half of companies in North America, Europe and Asia Pacific have remote users — a number that is expected to increase to 80% by 2006. (*eBCVG.com*)



Nortel ships more enterprise telephony lines than any other vendor in the world and has been pushing innovation in telecommunications for over 100 years.

continuity through a highly-reliable operating system, robust hardware and options for redundancy reduces network vulnerability so your business can continue to thrive.

Cost containment — Delivering reliable and future-ready services across the network, while attempting to contain costs, is a challenge that faces every enterprise. Add the constraints of a flat or even shrinking IT budget and those challenges magnify. Optimizing network bandwidth and curtailing network costs with a single converged network for voice and data can help lead to significant savings across the board.

Improved productivity and accessibility — Employees, especially those who are constantly on the go or remotely located, can only be productive if they have all the tools they need to do their job. They must have consistent anywhere-anytime access to applications and resources. Applications such as unified messaging, multimedia collaboration and customer contact services allow employees to be more efficient and accessible — a catalyst for greater customer loyalty.

New services and applications — As today's workforces become more distributed, introducing new services and technologies across multiple locations and branches can be complicated and expensive. Innovative solutions that keep users actively engaged must be easily deployed and managed across the enterprise and capable of meeting long-term requirements.

Nortel Communication Server 1000

Nortel Communication Server 1000 is a full-featured, highly-scalable converged IP communications system that can be flexibly distributed across IP LAN and WAN infrastructures. With built-in reliability and survivability mechanisms, Communication Server 1000 extends Nortel's comprehensive suite of business-critical telephony features and multimedia applications to any user that needs them anywhere on the network. Whether working from home, on the road, in a branch office or at headquarters, all users have equal access to productivity-enhancing applications including Nortel CallPilot* unified messaging, Nortel Contact Center (formerly known as Symposium*), Interactive Voice Response (IVR), and rich media services from Nortel's Multimedia Communication Server 5100.

Communication Server 1000 is one element of a complete portfolio of enterprise converged communication solutions from Nortel. Engaged applications deliver multimedia and collaborative capabilities that enhance productivity and extend customer reach. Adaptive hardware and software clients provide the flexibility needed to meet diverse user requirements. Intelligent data networking supports dispersed traffic-intensive networks with maximum performance and reliability. Comprehensive management applications streamline the installation, maintenance and evolution of distributed converged networks. Security solutions ensure business continuity by providing end-to-end protection against network threats.

Communication Server 1000 highlights

- > IP PBX functionality delivered over IP LAN and WAN infrastructures without sacrificing features or high-value business communications applications
- > Scalability to meet growing enterprise requirements: 15,000 IP clients per call server; multiple call servers networked with transparent IP networking to support tens of thousands of users
- > Built-in reliability based on VXWorks operating system and multiple resiliency mechanisms, including redundant call and signaling servers and survivable WAN gateways
- > Extensive client portfolio, including IP phones, mobile clients, wireless phones as well as digital and analog phones to meet diverse requirements
- > Business-critical applications, including Contact Center, CallPilot unified messaging, Multimedia Communication Server 5100 rich media services, and integrated services such as Nortel Integrated Personal Call Director and Nortel Integrated Recorded Announcement



Nortel's industry leadership is reinforced by the tens of thousands of SIP clients deployed by customers and partners around the world.

Delivering outstanding value when and where it counts

Seamless scalability — with flexible options for you

Small offices, such as medical clinics, may support anywhere from 5 to 50 users but still require full feature access and survivability. Communication Server 1000 provides highly scalable services for offices of all sizes — from small to large — and beyond.

For the small office, the Nortel Survivable Remote Gateway provides survivable IP Telephony and local trunking up to 90 users. For the mid-sized office, the Nortel Enterprise Media Gateway 1000B supports up to 400 users.

And whether requirements are IP Telephony or TDM telephony-based, Nortel's Communication Server portfolio can meet virtually any requirement.

Communication Server 2100 — for very large enterprises, providing geographic survivability with carrier-grade reliability

Communication Server 1000S — for single-site or networked enterprises that focus on advanced applications and require a small footprint

Communication Server 1000M — for mid-size to large enterprises, providing advanced telephony features, redundant call processing and the ability to serve both IP and TDM in large scale

Communication Server 1000E — for mid-sized to large enterprises, providing a data center form-factor and redundant, geographically distributable call servers

Business-enhancing telephony and multimedia applications

Quality business interactions must be quick, efficient and adaptable to the

circumstances at hand. Communication Server 1000 leverages advances in technology such as Session Initiation Protocol (SIP), to provide users the flexibility to choose whatever type of media or device they need to communicate most effectively. SIP, a powerful protocol for IP Telephony, supports a wide range of media sessions allowing users to engage in real-time, integrated business communications regardless of location, media type or device.

From multimedia conferencing to instant messaging, Nortel is leading the way in deploying innovative solutions based on SIP.

Multimedia Communication Server 5100 and Communication Server 1000 work together seamlessly to deliver presence-aware, multimedia collaborative sessions. Users are able to remain productive and actively engaged with customers and colleagues as if they were face-to-face.

Service ubiquity for greater productivity and cost savings

Communication Server 1000 supports a broad portfolio of Nortel IP Phones that deliver services wherever they're needed — freeing users to work where and how it makes the most sense.

Nortel's feature-rich and adaptable IP Phones are the ideal fit for today's emerging virtual enterprises — delivering users a level of collaboration that is engaged, secure, reliable and transparent. Advanced multimedia applications, uncompromised voice quality and increased access across distributed environments are just a few reasons why Nortel's broad IP Phone portfolio is the perfect complement to the Communication Server 1000.

Users that are frequently mobile or away from a traditional desktop environment will benefit from the Nortel IP Softphone 2050 and Nortel Mobile Voice Client 2050, for example, which provide soft-client mobility for desktop and laptop computer installations as well as mobile PDA applications. The Mobile Voice Client 2050 supports the full suite of Nortel business telephony features and applications on many Dell, HP and other popular PDA devices as well as Nortel's wireless phones portfolio.

The cutting-edge Citrix Application Gateway takes existing Web-based and XML applications and transforms them for use on business-level Nortel IP Phones including 2002, 2004, 2007 and 2050 clients. Applications such as Push-to-Talk

enable quick exchanges and better collaboration between employees and their co-workers, associates and clients. Visual Voice Mail creates an innovative, PC-like visual interface on mobile handsets that lets users easily browse and manipulate their voice mailbox so they're never out of touch. Through the gateway, Nortel IP Phones, such as IP Phone 2004, can deliver the desired data functionality to enhance business communications — at a fraction of the total cost of ownership of a PC.

Reliability so you can continue with business

The Communication Server 1000 provides a number of capabilities to ensure that your business communications run smoothly. The Communication Server 1000 portfolio is built on the robust VxWorks operating system and incorporates highly reliable hardware elements with Mean Time Between Failure ratings from 30 to 60 years. The system supports multiple options for survivability, redundancy and even geographic distribution.

Campus mirroring

Enterprises with multiple buildings that span a campus environment are ideal candidates for the benefits of campus redundancy. Hospitals, for instance, deal with life and death situations on a daily basis and can't afford communication network disruptions — not even for a second. Communication Server 1000E ensures fault tolerance and operational resilience by allowing active and inactive call servers to be physically separated on

different floors or in different buildings up to 25 miles across a campus environment. With redundant call servers that can be separated from each other over a high-speed, reliable data link, if a disaster such as a fire or flood causes one call server to fail, the redundant call server will automatically take over.

Geographic redundancy

A redundant Communication Server 1000M or Communication Server 1000E system can be deployed at remote locations anywhere in the world across a customer's WAN, ready to take over if a primary system fails. Hot-standby or Controlled Load Sharing configuration options can be supported between the redundant systems with automatic database replication between the main and standby systems, to ensure a smooth transition.

As an example, a large financial institution with offices on both the west and east coast might have a Communication Server 1000M (or E) system at each location in a redundant configuration to ensure business continuity in the event of a natural disaster such as an earthquake. For financial institutions, every second lost to downtime translates into millions in lost revenues. A Communication Server 1000M (or E) in hot-standby mode configuration ensures that if one system fails, the other will automatically take over service. In controlled load-sharing mode, where both systems are sharing the traffic load, if one system goes down the other takes over full service.

Large companies lose 2% to 16% of annual revenue to network downtime.

(Infonetics Research 2005)

Voice quality management

Equipment reliability doesn't mean a thing if the network can't provide high-quality service. The Communication Server 1000 implements real-time monitoring and reporting of network conditions during each call. The administrator can pull these statistics directly from the call server or use software to import and analyze the data — enabling quicker resolution to network problems and ensuring continued high-quality service.

Choices — so you can grow when you're ready

Investment protection is a key part of Nortel's product design philosophy — ensuring that when you're ready to implement the latest technologies and capabilities, you can do so smoothly and without incurring the high cost of new equipment.

For example, your business may be primarily IP Telephony today with plans to gradually add SIP-based multimedia

applications for collaboration and video. Nortel gives you a choice of paths to IP so you can migrate at your own pace and add or upgrade elements to complement the existing infrastructure.

With Nortel's help, enterprises across a wide range of industries — including healthcare, government, finance, hospitality and education — are choosing the path that's right for them. Communication Server 1000 is very much part of that path.

Real-world examples of winning Communication Server 1000 solutions

Erlanger Health Systems

Erlanger deployed Communication Server 1000 and Multimedia Communication Server 5100 to enable users to personalize their work environment and share information wherever they are on the network.

Benefits

- Increased staff mobility and secure data access
- Quality of Service (QoS) to support advanced voice communications
- Cost reductions in several key areas
- Simpler network management
- Readiness for future applications and technologies

City of Coquitlam

City of Coquitlam is using an end-to-end converged IP Telephony solution from Nortel — from WAN backbone to IP Phones on 700 desks, IP PBX and IP-VPNS — to bridge multiple campuses and offices in one unified network.

Benefits

- Future-proof, reliable converged solution
- Increased flexibility and staff mobility
- Reduced costs for adds, moves and changes

Laurentian University

Communication Server 1000 integrates with existing Nortel Meridian* 1 systems to leverage infrastructure investments. As a converged voice and data network platform, it allows Laurentian University to migrate to IP on the school's own terms and timeframes — providing end-to-end IP Telephony to maximize cost savings and deliver payback in just a few years.

Benefits

- Cost savings in telephone charges and through simplified, flexible network maintenance
- Improve productivity with availability of unified messaging
- Scalability to embody emerging features that will meet future needs

Amrest (Poland)

American Restaurants (AmRest), the owner of 114 Pizza Hut and KFC restaurants in Poland, is deploying Communication Server 1000M to provide services and applications related to voice transfer and IP Telephony.

Benefits

- New communications services
- Lower operational costs
- Lower infrastructure costs through convergence

Adelphi (UK)

Adelphi, a UK-based company that provides market intelligence to global drug companies, is using Communication Server 1000 to handle IP Telephony across its organization.

Benefits

- Improved communication and collaboration through new features
- Six-figure savings in call costs
- Reliable and available wide area network infrastructure to support communications between sites

The Nortel logo is centered in a white box with an orange border. It features the word "NORTEL" in a bold, black, sans-serif font. The letter "O" is stylized with a circular graphic element that resembles a globe or a network node.

Conclusion

From the call center to the home office, Communication Server 1000 provides a host of new innovative features, applications, network configurations and management tools that can help transform your business into the ultimate “virtual enterprise” — one that enables you to maximize each interaction, reinforce each relationship and deliver new services. The transformation will not only satisfy customers’ needs, it will enrich communications for everyone, whether they’re across the hall or around the world.

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Nortel is a recognized leader in delivering communications capabilities that enhance the human experience, ignite and power global commerce, and secure and protect the world’s most critical information. Serving both service provider and enterprise customers, Nortel delivers innovative technology solutions encompassing end-to-end broadband, Voice over IP, multimedia services and applications, and wireless broadband designed to help people solve the world’s greatest challenges. Nortel does business in more than 150 countries. For more information, visit Nortel on the Web at www.nortel.com.

For more information, contact your Nortel representative, or call 1-800-4 NORTEL or 1-800-466-7835 from anywhere in North America.

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