



## Solution Brief

### Nortel Communication Server 1000

**Provide all your employees — whether they're working from home, on the road, in a branch office or at headquarters — access to productivity-enhancing IP telephony solutions and applications.**

**Offer your customers elevated levels of service through improved employee contact, extended reach and always-on communications.**

**Do it all with an open, secure, resilient and flexible platform that enhances productivity, improves user accessibility and enables unified communications.**

#### Nortel Communication Server 1000

Nortel Communication Server 1000, one element of a complete portfolio of unified communication solutions from Nortel, is a full-featured, highly scalable IP communications system that meets the needs of enterprises from small to large.

Communication Server 1000 offers a comprehensive array of reliability and survivability mechanisms to ensure the integrity of your network, while

enabling communications security through a full suite of security features and capabilities. Communication Server 1000 extends Nortel's comprehensive array of business-critical telephony features and multimedia applications to any user that needs them — anywhere on the network.

#### Resilient to ensure business continuity

Ensuring the integrity of your telephony infrastructure is critical to business success, which is why Communication Server 1000 was specially designed with no single point of failure. The platform can also be deployed with an array of reliability and redundancy mechanisms to ensure that even in adverse conditions, business continues as usual.

#### Communication Server 1000 portfolio

| Product                    | Where it fits   |
|----------------------------|---|
| Communication Server 1000M | Well suited for Meridian 1 customers that are TDM-centric and want to maintain investment in their existing infrastructure while evolving to enjoy the benefits of IP applications and services |
| Communication Server 1000E | Ideal for new customers that are IP-centric and want a best-of-breed reliable and secure IP Telephony solution with a broad portfolio of productivity-enhancing applications and services       |



## Campus mirroring

Communication Server 1000E's fault tolerance and operational resilience enable active and inactive call servers to be physically separated on different floors or in different buildings 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

Since system failures are not always localized, enterprises must have broad-reaching failover mechanisms that provide continuity of service in the event of disasters or network failures. Nortel's geographic redundancy implementation enables networks to 'self-heal' in the event that the main call server is isolated from the rest of the network — allowing users to stay connected and business operations to continue.

## Branch survivability

Connectivity between remote sites and their network can be impacted without warning. To minimize exposure in the event of these unforeseen circumstances, it's critical that offices be able to support their telephony infrastructure in isolation. Nortel offers a suite of survivable branch office solutions to address the needs and requirements of branch offices from small to large.

## Voice quality management

Equipment reliability doesn't mean a thing if the network can't provide high-quality service. Communication Server 1000 supports real-time monitoring and reporting of network conditions during calls — enabling quicker resolution to network problems and ensuring continued high-quality service.

## Nortel Communication Server 1000 highlights

- **IP PBX functionality delivered over IP LAN and WAN infrastructures delivers a comprehensive suite of rich features and applications**
- **Support for TDM and IP clients on one platform provides a smooth migration path to IP at your own pace**
- **Scalability to meet growing enterprise requirements: 22,500 IP clients per call server; multiple call servers networked to support hundreds of thousands of users**
- **Inherent reliability and multiple resiliency mechanisms that ensure business continuity during a network or system failure**
- **Integration with best-in-class unified communications solutions through alliances with market-leading desktop application providers such as Microsoft and IBM**
- **Extensive client portfolio, including IP phones, soft clients, wireless handsets as well as digital and analog phones to meet a diverse set of customer needs**
- **Integration with advanced business-critical applications, including Nortel Contact Center, Nortel CallPilot unified messaging and Nortel Multimedia Communication Server 5100 which delivers unified communications through rich media services**

Nortel's exclusive Proactive Voice Quality Management (PVQM) enables network managers to ensure the overall quality of their IP Telephony deployments. PVQM continuously and passively measures the user quality of experience (QoE) for IP Telephony communications, conducts system health checks for IP Telephony servers, and provides troubleshooting and resolution for any performance degradation or fault conditions to ensure the quality of VoIP communications.

## Security

Increased user mobility combined with growing threats from legitimate and illegitimate users and devices represent a daunting challenge for companies who are trying to secure their network. Nortel has a comprehensive layered defense approach that ensures the integrity and security of the network and its users. This offers numerous security capabilities that include firewall protection to secure against denial of

service (DoS) attacks. The Communication Server 1000 supports a number of capabilities to ensure the security of its users, including the encryption of media and signaling traffic.

## Location-based emergency services

Communication Server 1000 employs intelligent emergency services globally (e.g. 911, 999, 112) that track the location of IP clients and direct calls to the appropriate emergency contact — even if that client is halfway around the world.

## Service ubiquity for greater productivity and cost savings

As the workforce becomes more mobile, staying connected isn't just a convenience anymore, it's a requirement for staying in business. Providing employees with anytime-anywhere access to advanced services enhances worker productivity and improves customer service.

Communication Server 1000 supports one of the most extensive portfolios of IP clients and devices in the industry that includes IP phones, WLAN handsets and soft clients. The comprehensive deskset offering includes two series of IP phones (Nortel IP Phone 2000 Series and Nortel IP Phone 1100 Series) which feature models tailored to specific customer environments, budget and/or requirements.

Nortel's WLAN handset portfolios (Nortel WLAN Handset 2200 Series and Nortel WLAN Handset 6100 Series) are designed for premises-based mobile communication in the workplace with lightweight, durable WLAN handsets optimized for some of the most challenging environments.

The IP client portfolio is further complemented with an array of soft clients for PCs, PDAs or smartphones to enable access to advanced communication from the worker's PC desktop while on campus, or while mobile and

**The Nortel Communication Server 1000 delivers the capabilities, feature richness and evolution flexibility enterprises need to lay the foundation for a reliable, secure unified communications environment.**

roaming off-site. Integration of the IP clients into the Communication Server 1000 system allows for streamlined management for site administrators and improved responsiveness to customer calls for employees, thereby improving customer satisfaction and end user productivity.

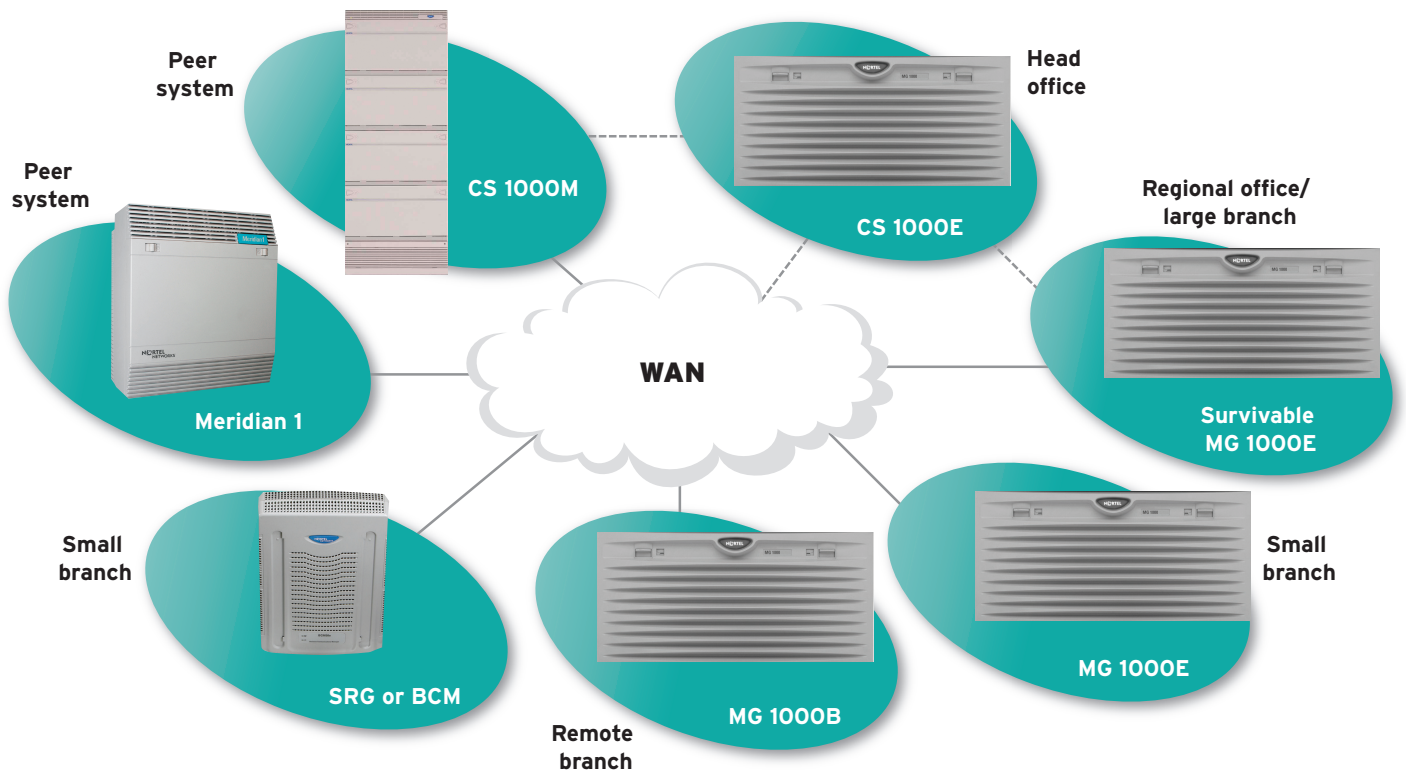
**Business-enhancing telephony and unified communications**

Communication Server 1000 leverages advances in technology, such as Session Initiation Protocol (SIP), to provide users the flexibility to choose the 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.

Communication Server 1000 users all have equal access to productivity-enhancing applications such as Nortel CallPilot unified messaging, Nortel Contact Center, Interactive Voice Response (IVR) and rich media services from Nortel's Multimedia Communication Server 5100. Together, Nortel Multimedia Communication Server 5100 and Communication Server 1000 deliver presence-aware, multimedia

**Figure 1. Example of network deployment scenarios**



collaborative sessions that enable employees to improve their productivity, stay connected and be actively engaged.

### Investment protection and freedom to evolve

As enterprises face increasingly tighter capital and IT budgets, replacement of old equipment with new isn't a strategy that will resonate with most CFOs. Nortel's investment protection philosophy ensures that when an enterprise is ready to implement the latest technology, they can upgrade with minimal to no disruption — enabling users to remain productive and engaged with customers and colleagues regardless of time or distance.

### Partnering to deliver unified communications

To deliver on the promise of unified communications, Nortel is working closely with leading desktop vendors

such as Microsoft and IBM to deliver integrated telephony across the entire enterprise.

Nortel and Microsoft have formed the industry-unique Innovative Communications Alliance to accelerate the transformation of today's voice, video and data communications components into advanced unified communications solutions. As part of this alliance, enterprises can take advantage of Communication Server 1000 telephony features and capabilities integrated into Microsoft applications. These applications include Microsoft Live Communications Server 2005 (LCS), Microsoft Office Communications Server 2007 (OCS) and Microsoft Exchange Unified Messaging.

The Nortel and IBM alliance extends Nortel's rich telephony capabilities to Lotus Notes and Sametime users, through the integration with Nortel

Communication Server 1000 and Nortel Multimedia Communication Server 5100.

Additionally, through Nortel's Developer Program, Nortel works with innovative partners to accelerate the deployment of enhanced next-generation solutions.

### Conclusion

Nortel, together with its partners, is delivering unified communications solutions that allow users to experience enhanced communications while leveraging their existing investments in Nortel telephony. Communication Server 1000, Nortel's cornerstone IP Telephony solution, is helping to deliver the unified communications experience by enabling enterprises to maximize each interaction, reinforce each relationship and deliver innovative new services.

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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. Our next-generation technologies, for both service providers and enterprises, span access and core networks, support multimedia and business-critical applications, and help eliminate today's barriers to efficiency, speed and performance by simplifying networks and connecting people with information. Nortel does business in more than 150 countries. For more information, visit Nortel on the Web at [www.nortel.com](http://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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