

One Network - A World of Choice

A sustainable, profitable solution for the new enterprise network.

New business realities bring profound implications for network and information management strategies. IT executives have had to reassess the way they build, manage and use the information infrastructure. Under constant pressure to do more with less, they have to constantly push for more competitive and proactive information management models.

Could the enterprise network be doing more? More efficiently? More 'intelligently?' It supports business functions, but could it also be creating new revenue opportunities and new sales channels? Could it revolutionise the very nature of how business is done... how customer contacts take place... how information about suppliers and customers is shared and used? And how much or how quickly IT delivers return on investment? Nortel Networks says yes.

Nortel Networks has defined an enterprise networking vision called One Network - A World of Choice, which promises to deliver greater flexibility and innovation for deploying new business applications and services. This is based upon converging networks to create a seamless end-user experience, however, unlike the usual meaning of convergence, it's not simply about breaking down the barriers between voice and data. Instead, the One Network - A World of Choice breaks down the barriers between public and private networks, LAN and WAN networks and wireless and wireline networks - allowing the user to treat them all as essentially the same system.

Eliminating the Boundaries

In practice, this means that remote or mobile workers are able to take the office network and environment with them throughout the world - without compromise. Not only can they get fully secure, high speed, remote access to their corporate systems, but they can also access the full functionality of their telephone system through their laptop. In addition, this degree of access can be extended to whole offices, presenting a more convenient way to help grow the global enterprise. Designed to take full advantage of the Internet, the new paradigm confirms IP Telephony as not only a successor to traditional telephony but as a foundation for new ways of working. From a financial point of view, its ability to converge and therefore simplify network infrastructures dramatically reduces overall cost of ownership. Another hallmark of the vision is to be technologically innovative. For example, it will fully exploit optical networking and Optical Ethernet

technology for data centre and storage network connectivity.

One Network - A World of Choice directly enhances customer relations with contact centres that span multiple channels coupled with highly efficient self-service applications. And it empowers employees with collaboration, mobility and messaging tools that eliminate network boundaries. What's more, the technology finally makes security an intrinsic part of the complete networking environment.

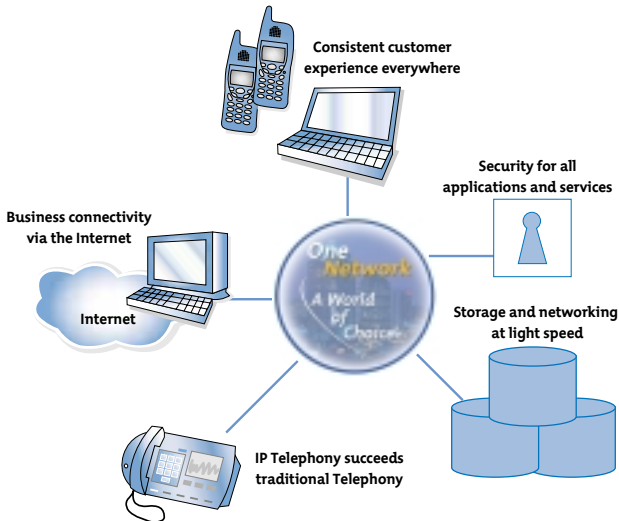
Nortel Networks understands that simply responding to customers' requests isn't enough. Our enterprise solutions provide a proactive, value-added dimension that will help you achieve a new level of engagement with your customers, partners and suppliers, making it possible for you to anticipate customers' needs and wants and seamlessly deliver the appropriate solutions — sometimes before the customer even knows there is a need. By evolving to this Engaged Business approach, enterprises can achieve a higher level of Return on Engagement with customers, essentially

optimising the customer relationship and every encounter with the customer, which can lead to increased profitability and accelerated business success. Using new technologies such as Voice over IP (VoIP), Internet Protocol Virtual Private Networks

(IP-VPN) and Optical Ethernet, Nortel Networks delivers solutions that cost less to operate, have fewer or no bottlenecks, and are open and flexible to support new applications and services that drive business results.

What does the future enterprise network look like?

The One Network vision is composed of five key elements:



The enterprise network evolves into a unified, adaptable infrastructure

A consistent customer experience, everywhere.

“Engaged applications” flow seamlessly across customer contact channels (in-person, telephone, Web, chat, fax, e-mail) and provide a positive experience, where the business is not just reacting to but engaging with the customer. By delivering time-sensitive, critical information in the user’s choice of context and access device, the new enterprise network makes service and convenience a tangible competitive differentiator in an increasingly commoditised world. By moving telephony into the Web paradigm, the new enterprise network offers multi-media capabilities that give users control over where, when, how, and in what form they can be reached.

Consistent information is delivered through increased centralisation of IT infrastructure enabled through Optical Ethernet.

Business connectivity over the Internet.

With innovations in privacy and quality of service, the Internet takes on an expanded role as the backbone of enterprise applications. The Internet and IP-based intranets bring new agility and economies to the tasks of connecting data centres, delivering content to users, and supporting the flow of private information cross the extended supply chain.

Storage and networking at light speed.

The new enterprise network takes advantage of CWDM/DWDM, next-generation SONET, and Ethernet for optical storage networking, ever-aging optics for performance and reliability. These aspects are critical requirements for business continuity and disaster recovery applications. Protocol-independent optical wave-lengths support all storage protocols and the end-to-end delay, reliability, and capacity requirements of the most stringent storage applications, while Optical Ethernet provides a lower cost storage networking solution.

IP Telephony solutions from Nortel Networks can now scale from a single user to branch offices, to regional offices, to campuses - right up to global networks with hundreds of thousands of users. IP Telephony has matured to offer the fundamental requirements of full-scale enterprise deployment: centralised or distributed control, enterprise-wide access to applications such as unified messaging, uncompromised voice quality, choice of features and functions, multiple migration paths, and coexistence with legacy systems. Converging voice and data onto one infrastructure integrates critical communications capabilities into a single platform to lower total cost of ownership and build productivity through new applications.

Security inherent in all applications and services.

High-performance, multi-layer security protects data integrity and privacy across all environments, including mobility, without compromising the performance of the network and applications. Routing is transformed by building in IP-VPN and firewall security into routing devices that naturally understand security protocols.

By using these elements together, customers will gain a competitive business edge through:

Cost reduction - simplified operations with faster & cheaper bandwidth

Increased productivity - converged communications over a secure, reliable network

Innovation in customer experience - improved application performance and engaged applications.

One Network is not just a series of Nortel Networks products. It's a view of how business can innovatively respond to new situations.

The following section illustrates how.



■ Consistent Customer Experience

IP Contact Centre Solution

Customer Needs

- Converge voice and data infrastructure in the contact centre for increased savings and reduced operating costs
- Optimise resources by creating a virtual contact centre with skills distributed across a wide geographic area
- Extend the reach of the contact centre and harness the unprecedented potential of the Internet by implementing IP Contact Centre solutions
- Provide reliable and cost effective remote solutions to individual agents and supervisors at home and branch locations
- To improve overall customer satisfaction through better utilisation of distributed or virtual resources
- Enhance contact centre flexibility to manage peak and seasonal loads and provide 24x7 service
- Allow customers to do business anytime, anywhere while enjoying seamless access to the best possible service
- Create a virtual contact centre using IP that spans wide geographic areas and crosses multiple time zones, ensuring the best agent available handles each caller's needs promptly
- Evolve gracefully or move immediately to a VoIP environment without compromising on the existing Meridian 1 and Symposium Contact Centre capabilities
- Migrate to a VoIP environment with absolutely no disruption to the daily operations of the existing contact centre
- Move immediately to an all VoIP environment, keeping the existing Symposium Call Centre Server or Symposium Express Call Centre without losing any contact centre features
- Maintain telco-grade reliability in a mission critical VoIP contact centre environment with fallback to PSTN and fully survivable local calling capability

Nortel Networks Solution

Customers can use either Symposium Call Centre Server or Symposium Express Call Centre with an IP-enabled Meridian 1 (Figure 1) to leverage the power and performance of Internet Telephony. Regardless of their business environments – single site or geographically dispersed – they can use Internet Telephony to simplify management and administration and to extend contact centre capabilities to agents. This flexibility results in lower operating costs and increased employee retention, both of which improve profits.

Customers who wish to maintain an all IP environment can use Symposium Call Centre Server or Symposium Express Call Centre with Succession

Communication Server for Enterprise (CSE) 1000 (Figure 2). The Succession CSE 1000 is a server-based, IP-distributed communication system that delivers an unprecedented level of performance and range of system features. It allows customers to implement IP Telephony without sacrificing the quality of business communications that an enterprise requires.

With IP Contact Centre solutions from Nortel Networks, you can choose the technology solution you need to conduct business today without having to overhaul or invest in completely new communications infrastructures.

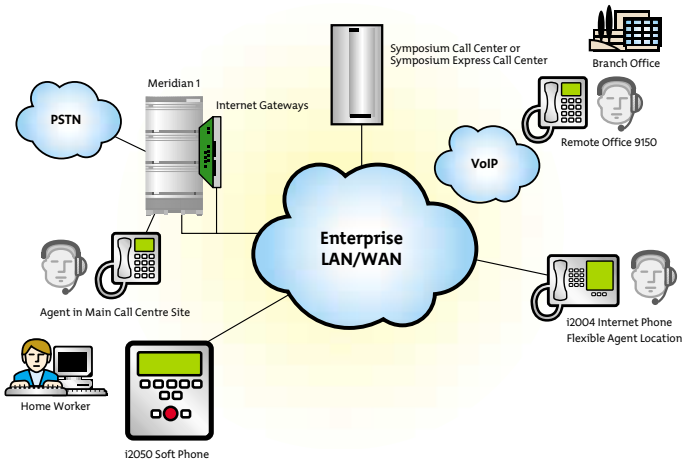


Figure 1: Nortel Networks Meridian 1 IP Contact Centre Solution

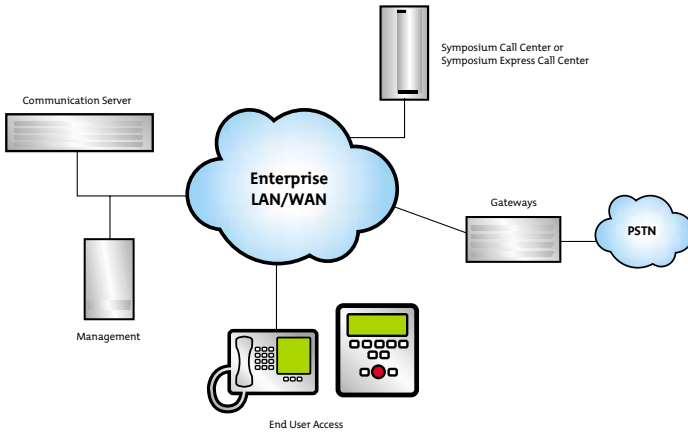


Figure 2: Succession Communication Server for Enterprise 1000 (CSE1000) Solution

Nortel Networks IP Contact Centre Solution Building Blocks

The Nortel Networks IP Contact Centre solutions leverage existing and new products in the Nortel Networks Enterprise portfolio. The underlying network infrastructure in the contact centre can be built on a choice of IP or TDM technology.

The IP Contact Centre solutions building blocks are:

- Infrastructure based on Meridian 1 Option 11 to 81 or Succession CSE 1000 product lines, including Meridian Internet Telephony Gateway (ITG) and i2004 Internet telephone sets
- Contact Centre functionality based on Symposium Call Centre Server 4.0 or higher and Symposium Express Call Centre 3.0 or higher
- CTI using Meridian Link Services, TAPI Server 2.3 or higher and Symposium Agent 2.3
- IVR based on Meridian Mail, Periphonics MPS100 or VPS/is

These Nortel Networks IP Contact Centre solutions have been pre-tested and verified to work with Meridian 1 Internet Enabled (IE) and Succession CSE 1000 configurations. New products in the portfolio have also been tested and verified to work with existing applications (eg CTI control of the new i2004 Internet Telephone sets).

This removes integration risks when deploying these solutions.

Solution Value Proposition

Nortel Networks IP Contact Centre solutions enable businesses to unleash the unprecedented profit potential of the Internet, offering unparalleled choice and customisable solutions for integrated business communications.

With Internet Telephony, businesses can extend their contact centres to agents anywhere, while still providing a seamless experience for customers and suppliers. This flexibility can help attract and retain customers by making it easier to conduct business with them – anyway and anytime.

Benefits of Nortel Networks IP Contact Centre Solution include:

- Build more profitable customer relationships by giving remote agents the powerful, feature-rich applications they need to deliver superior service
- Speed up answering and extend your hours of service to meet the high expectations of today's customers
- Increase savings and reduce operating costs by converging your voice and data infrastructures and simplifying contact centre management
- Extend your contact centre to reach the most appropriate agents - by distributing calls to company branches and even home offices via reliable, cost-effective Voice over IP (VoIP) solution
- Deploy VoIP technology for your business today without overhauling or buying entirely new communications infrastructures
- Improve employee satisfaction and staff retention by addressing the needs of your geographically dispersed workforce
- Simplify contact centre expansion to support seasonal business or new program requirements

For further information contact your local Nortel Networks Representative



■ Consistent Customer Experience

Multimedia Customer Contact Centre Solution

Customer Needs

- Create a tightly integrated Customer Contact Centre that converges voice and data technologies with Internet services in a reliable, flexible and scalable way, evolving seamlessly in line with business requirements
- Make optimum use of skilled resources in handling customers' queries by applying skill-based routing to telephone, email and web queries, ensuring that the customer is served by the agent with the right knowledge every time
- Automate the Multimedia Contact Centre, bringing applications (such as CRM) together with CTI, automating tasks and empowering agents with critical customer information
- Deliver personalised one-to-one service that differentiates your business while at the same time increasing profitability
- Equip customer service representatives with powerful tools to provide outstanding customer service, delivering seamless, personalised and consistent responses to customers for email, web requests, or telephone transactions
- Provide 24/7 access to services via Periphonics IVR self-service solutions that tightly integrate with Web and CTI applications
- Transform the traditional call centre into a powerful, unified, multimedia customer interaction centre
- Respond to customers constantly changing demands by delivering superior personal service over the web
- Direct customers to the right help, right away, regardless of the contact method with skill-based routing
- Comprehensive, easy-to-use management tools to provide managers and supervisors with the real-time information required to monitor performance and react immediately
- Detailed reports to provide historical information - to measure Contact Centre and agent performance, to track trends and to plan
- The ability to operate more effectively, reducing operating costs and to build customer loyalty in today's highly competitive world
- Give customers the reassurance that live agents are available should they need help or if something goes wrong with their Web-based order
- Offer sophisticated customer guidance through web collaboration and page sharing – with a choice of voice or text chat
- Provide self service applications that free up agents from repetitive and tedious tasks in order to deliver superior customer service to valuable clients and more complex calls
- Customer information input to be displayed on the agent 's desktop, eliminating the need to ask the customer for information twice

Nortel Networks Solution

The Nortel Networks Multimedia Customer Contact Centre solution incorporates many of the Symposium and Periphonics portfolio products to create a powerful portfolio of customer-focused business applications. No longer “just call centres”, Nortel Networks CRM Integrated Multimedia Contact Centre provides true multimedia-based transaction processing.

So whether you choose an off the shelf integrated solution or create your own via our suite of open interfaces, Nortel Networks offers a powerful set of products to create world-class customer care applications.

The specific products in the Multimedia Customer Contact Centre consists of:

- **Symposium Web Centre Portal** - facilitating e-mail, Web-based and telephony-based communications that enable companies to optimise call centre effectiveness and enhance customer service with a comprehensive set of modular Web-based business solutions
 - **Symposium Call Centre Server** - providing networked skill-based routing, comprehensive management and reporting and real-time displays for supervisors and managers with a complete communication solution for dynamic contact centres.
- or
- **Symposium Express Call Centre** can also be used to deliver sophisticated skill-based call routing and management reporting to departmental or small to medium enterprise customer care centres
 - **The Symposium TAPI Service Provider** - acts as the 'glue' that enables a business to bring together disparate systems and multiple customer touch points, such as phone, email and the Web. TAPI Service Provider 2.3.1 is making integrations with business applications even easier with Symposium Communications Driver for Siebel 7 that will be available from January 2003 and SAPphone R/3 compliancy from SAP.
 - **Symposium Agent** - offering an excellent desktop computer telephony framework that takes full advantage of industry standard desktop and server components
 - **Symposium Agent Greeting** - automating the agent's greeting enabling the agent to pre-record a standard greeting that can be played to the customer before the agent handles the live call
 - **Symposium Call Centre Web Client** - offering superior management tools that better equip call centre managers using Symposium Call Centre Server Release 4.0 or higher to make improved business decisions and respond faster to customer needs
 - **Media Processing Server 100 (MPS 100)** – a compact, aggressively priced Interactive Voice Response (IVR) system designed specifically for the small to medium-sized contact centre environment. Features tight integration with Symposium Call Centre Server via IPML
- or
- **Periphonics VPS/is** – is a scalable multi-media, self-service platform that provides sophisticated self-service solutions. VPS/is offers a full range of Advanced Speech Recognition capabilities including Natural Language Understanding, Speaker Verification and Text-to-Speech. Features tight integration with Symposium Call Center Server / Symposium Express Call Center via IPML

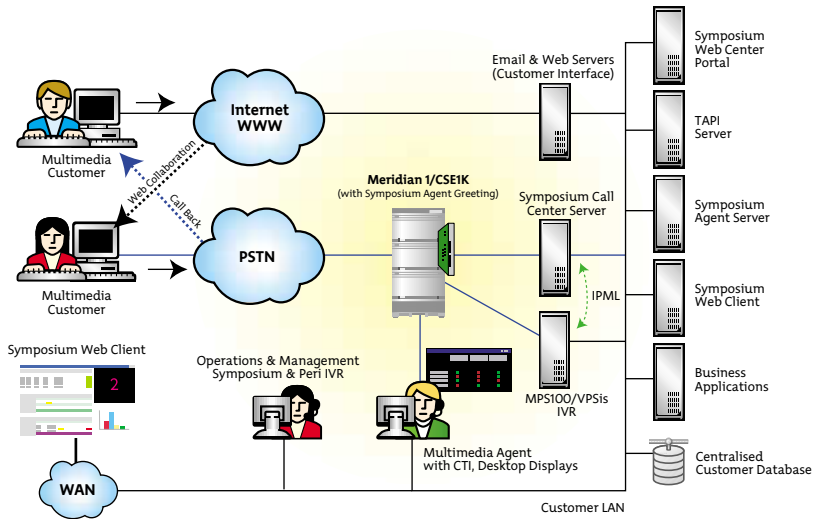


Figure 1: Nortel Networks Multimedia Customer Solution

Value Proposition

With an increasing number of customers choosing mixed media interactions, the CRM Integrated Multimedia Contact Centre solution can help companies capture new customers and deliver higher levels of service to customers who choose to interact over the Web, e-mail or by traditional means such as the telephone. By blending phone calls and Web inquiries into the same service queue, customers can choose to interact with a service centre through traditional, Web-based channels or sophisticated self-service options and can expect high-calibre service with each contact.

Key Benefits

- Phone calls and web enquiries blended to the agent's desktop, to make full use of your customer care resources
- Helps to improve customer satisfaction and loyalty through telephony self-service, online self-service and live interaction in a truly collaborative environment
- Skill-based routing to ensure both voice callers and web visitors are routed to the right agent

whilst reducing costs and increasing efficiency

- Enables your customers to use their preferred form of communication - email, Web, phone or fax - to reach you 24 hours a day, 7 days a week
- Handles Web interactions and e-mail with the same ease and efficiency as telephone calls, improving your overall customer service
- Helps to increase job satisfaction and staff retention by making your agents more productive and adding variety to their work
- Helps you improve agent productivity and address your customers concerns effectively using superior management tools including real-time and historical reporting that unify information on managers' and supervisors' desktops
- Adapts and grows with your evolving business needs and easily integrates with other contact centre solutions and 3rd party applications such as CRM applications from Siebel, SAP and others.

For further information contact your local Nortel Networks Representative



■ Consistent Customer Experience

Speech Enabled Self Service Solutions

Customer Needs

- The ability to provide a differentiated customer care application that operates more effectively, reducing operating costs and to build customer loyalty in today's highly competitive world
- Provide 24/7 access to services via Nortel Networks IVR self-service solutions that tightly integrate with Web and CTI applications
- Create a tightly integrated customer contact centre that converges Agent Assisted and Self Service technologies, evolving seamlessly in line with business requirements.
- Provide self service applications that free up agents from repetitive and tedious tasks in order to deliver superior customer service to valuable clients and more complex calls
- Open up a database to be accessed by customers, using speech as the navigation tool, not touch tone

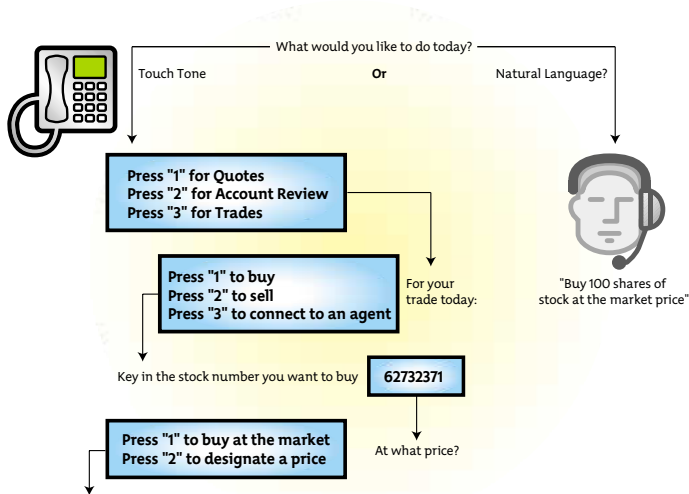
"...by 2003, 30 percent of the new automated lines in call centres will respond to customers' speech. The technology pays for itself within six to 18 months in call centres with more than 50 agents..."
Gartner Group.

Nortel Networks Solution

- Unmatched experience in speech recognition solution deployment and the most deployed speech applications in the industry
- Lower risk, thanks to our industry-leading experience in making speech recognition work in real-world situations
- Speech Processing Platform:
 - VPS/is server for a modular, resilient and scaleable foundation.
 - OSCAR (Open Signal Computing and Analysis Resource) architecture is designed to support advanced speech-processing applications in an open and scaleable environment
- Best-in-class technology with industry-leading large vocabulary speech recognition (LVR), Natural Language Understanding (NLU), Text-to-Speech (TTS) and Speaker Verification technologies:
 - Natural language speech recognition is one of the core enabling technologies available with the Nortel Networks Speech Processing Platform. Our advanced systems are able to adapt to the channel characteristics of telephone connections and recognise tens of thousands of words with very high recognition accuracy. Natural Language Understanding

(NLU) capabilities allow customers to speak in complete sentences, using a variety of phrases to relay the same information. This more natural flow to customer transactions and the ability to simplify complex menu choices results in shorter calls, an improved customer experience and savings in call time and agent interaction.

- Text-to-Speech (ITS) converts ordinary text into intelligible speech. This core technology works well when information to be spoken to callers is drawn from large numbers of items, or from multiple diverse sources that change regularly. It is used for very large databases of information where pre-recording is impractical or not possible.
- Speaker Verification - this biometric technology confirms a claimed identity on the basis of voice characteristics. Speaker Verification compares live speech samples against a stored voiceprint – a pre-recorded sample of the user's speech – to either approve or deny the caller's claimed identity. In addition to boosting security, it can lower an organisations operating costs by reducing the amount of agent-based customer service required to verify a caller's identity.



Value Proposition

Nortel Networks Advanced Speech Processing solutions allow customers to do the talking, they dramatically enhance your ability to provide the highest levels of personalised service. Callers perceive a better experience, because they are able to accomplish more in less time, while using a more natural method of communication. Speech processing solutions allow them to conduct complex transactions that were not possible with touch-tone input. The result is the opportunity to build strong, long-term relationships that are based on increased customer satisfaction and loyalty.

The Nortel Networks Speech Technology Portfolio also brings significant benefits to your internal organisation. These include greater automation, as well as the ability to reduce call lengths and allow agents to focus on high-value transactions, sales opportunities and complex customer issues.

The result is greater agent job satisfaction, which reduces turnover. Our solutions also improve employee productivity, lower your operational costs and increase revenue, all of which lead to a rapid return on investment. In fact, Nortel Networks customers report up to a 50 percent reduction in transaction costs as a result of deploying a Nortel Networks speech recognition solution

Key Benefits

- Automating services to provide accessible and cost effective customer service
- Greater automation and reduced talk time results in decreased overhead costs and staffing requirements
- Creation of significant opportunity for revenue enhancing offerings
- Consistent delivery of information to customers in a speedy, secure and private manner
- Customer loyalty building service offering

For further information contact your local Nortel Networks Representative