

Norstar Integrated Communications Systems:

Increasing the  
**Competitive Advantage**  
of Small and Medium-Sized Businesses

# Introduction

Despite their increasing reliance on data networks, businesses still consider the telephone an essential business tool. Most large enterprises have adopted telephony solutions that feature automated attendants and unified messaging, along with integrated voice and data applications, to increase productivity and market share. To compete with larger competitors, small and medium-sized businesses (SMBs) need to implement these capabilities as well. Traditionally, integrated business telephony has been too costly and complex for SMBs to adopt. Until now. This paper discusses how the Norstar suite of integrated communications systems from Nortel Networks can help SMBs optimize their voice communications and enable them to meet today's business challenges and tomorrow's opportunities.

## **Beyond Basic Voice: Why Integrated Telephony is important**

Depending on a caller's experience, a long-term customer relationship can be made or broken over the phone. As a result, SMBs need business communications systems that go beyond basic voice capability if they want to compete in the marketplace and provide superior customer service. Employees also need voicemail, fax and basic networking capabilities. Advanced telephony capabilities such as efficient call traffic management, contact centers and computer telephony integration (CTI) have made voice communications even more indispensable to business success. For example, CTI enables an incoming caller's records to appear automatically on a desktop screen, allowing an agent to expedite order taking and customer service. By implementing an integrated voice and data solution, businesses can boost their productivity and improve their bottom line.

Traditionally, only large enterprises had the budgets and technical expertise to implement company-wide, integrated voice and data solutions. Now, recent developments in integrated key telephone systems have leveled the playing field for SMBs. These new solutions are more affordable; they cost less and realize ROI

faster. Plus, the radical ease of use these new systems offer enable SMB owners to set up and run an integrated telephony solution without extensive technical support. Norstar Integrated Communications Systems deliver all these benefits – and more.

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### **What is Norstar?**

Introduced in 1994, the Norstar Integrated Communications System (ICS) portfolio is based on a vision that links computers, communications platforms, networks and telephones together. With Norstar, a small system can offer companies the kind of power previously found only in big business environments. Thanks to



**The Norstar Modular Integrated Communications System**



**The Norstar Compact Integrated Communications System**



**The Norstar 3x8**

its building-block design, Norstar systems easily expand for even more power as the company grows. This approach makes the most of voice technologies, both now and in the future. Norstar is available in three models: Norstar Modular ICS, Norstar Compact ICS and Norstar 3x8.

Each Norstar solution is a fully digital platform that brings all company communications – voicemail, fax, email, computer and telephones – to an employee’s desktop. The communication needs and size of a business will determine the best system for that organization.

Whatever system a company chooses, every Norstar ICS offers these important advantages:

- **High bandwidth to the desktop:** lets companies use applications like ISDN and CTI without changing their existing wiring.
- **Digital technology:** creates a platform for current and future PC-based applications.
- **Outstanding quality:** makes Norstar one of the most durable and reliable voice solutions available, delivering one of the lowest failure rates in the telecommunications industry.

### Private Networking with VoIP Gateway



BUSINESS SERIES  
TERMINALS



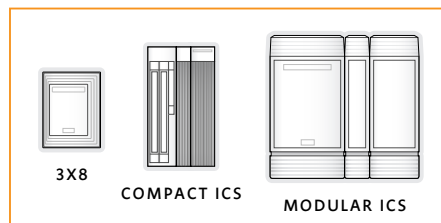
T7406 CORDLESS



CTI

**APPLICATIONS**

- DESKTOP MESSAGING
- FAX MESSAGING
- DIGITAL NETWORKING
- CALL CENTERS
- CENTRALIZED VOICEMAIL



3X8

COMPACT ICS

MODULAR ICS



ANALOG  
STATION  
MODULE

**NETWORK CONNECTIVITY**

- ANALOG
- T1
- BRI
- PRI



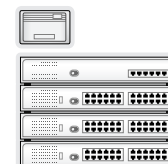
VOIP GATEWAY



CALLPILOT  
100/150



NORSTAR REMOTE  
UTILITIES



NORSTAR DATA  
INTERFACE

Norstar lets a business with multiple locations maximize its telecommunications investment by allowing it to network all its sites together and share a single voicemail system. It also seamlessly networks the sites for additional benefits like common dialing plans and centralized auto attendant features. With Norstar, businesses can network their sites together so tightly that, to the outside world, their dispersed locations will appear as a single, customer-focused organization.

### Integrated Applications: Sharpening the company’s competitive edge

With scalable integrated applications, a company’s employees can get more work done in less time by managing all communications from one location. Businesses can also save money on long-distance charges by using their own network for voice and fax messaging. Organizations that use a Norstar ICS tend to notice the increased productivity

soon after they have adopted it. And their customers quickly notice the company's increased responsiveness.

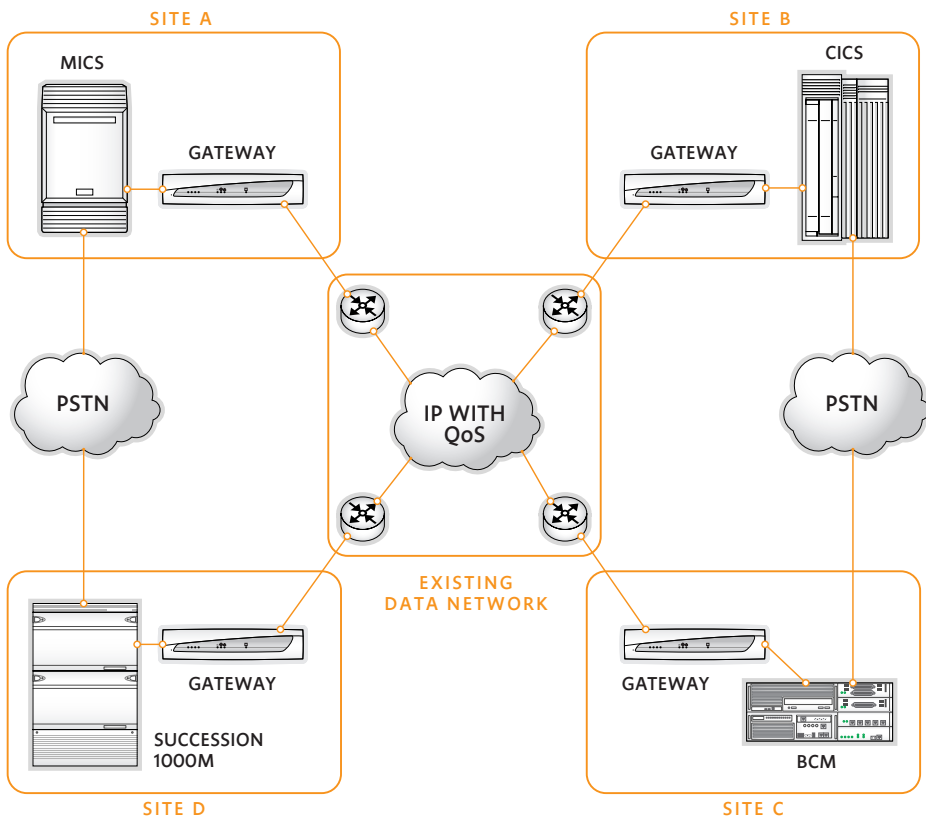
### Norstar Messaging

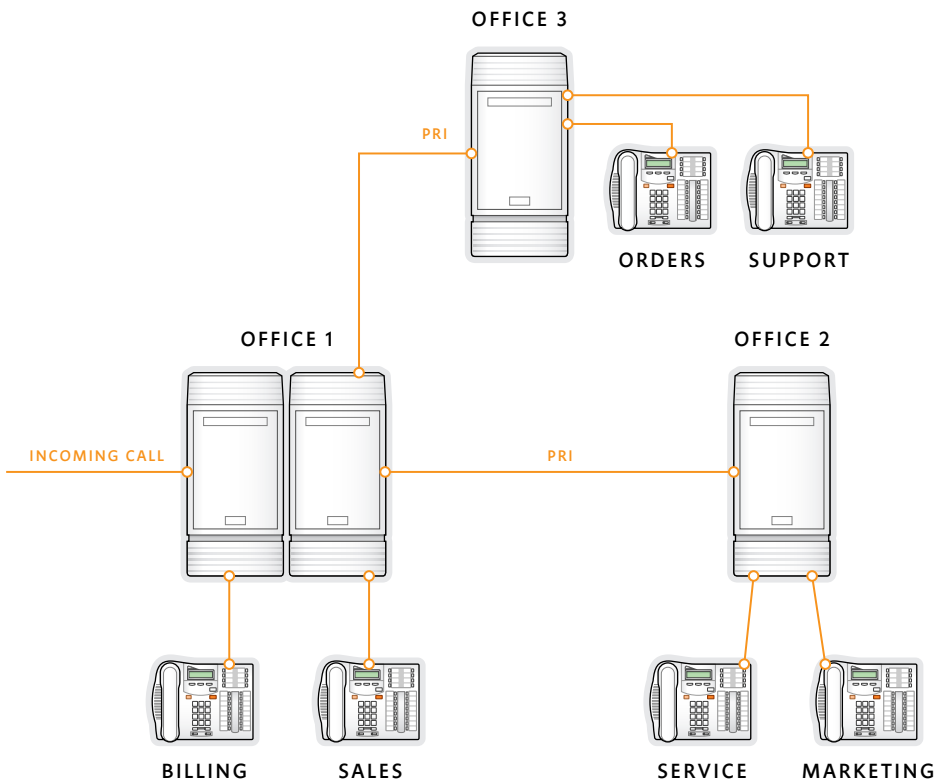
Call messaging is the backbone of any key telephony system – and any effective business. Norstar Desktop Messaging is the solution to information overload. It puts employees in control by letting

them retrieve all voice and email messages directly from their computer screens. At a glance, employees can see who the messages are from, when they arrived and how urgent they are. Messages can be read or listened to in any order, forwarded, saved or replied to – all at the click of a mouse button. Norstar offers a complete line of messaging applications, including:

- **CallPilot Unified Messaging** – Unified Messaging lets users retrieve and manage all incoming information, including voice and email messages, directly from their desktop PCs.
- **Digital Networking** – A solution for any organization that wants fast, clear and seamless voice and fax communications, Digital Networking can transfer voice messages over a LAN/WAN or the Internet to other Norstar Voice Mail, Meridian Mail or CallPilot 100 and CallPilot 150 systems using standard Internet protocols.
- **Norstar CallPilot 150** – A cost-effective solution for businesses with up to 300 users. CallPilot 150 is an applications platform designed to address customers requiring additional mailbox expansion, a basic call center application and enhanced applications such as Unified Messaging and Digital Networking.
- **Norstar CallPilot 100** – A messaging solution targeted at price-sensitive customers with up to 40 mailboxes requiring a feature-rich voice messaging system with advanced applications.

### Private Networking with VoIP Gateway





**Mailboxes for all networked sites are housed in a single voicemail box – in this case, located at Office 1.**

### Centralized Auto Attendant

The Norstar centralized Automated Attendant cuts call traffic congestion at the main answering desk while extending a business' service hours. Auto Attendant seamlessly routes calls between locations to any party on the network. Every caller is answered quickly and given the choice

of dialing directly to an extension, consulting the company directory or speaking to an attendant. When combined with Norstar voicemail, the Auto Attendant can also provide frequently requested information to customers such as hours of operation, phone and fax numbers or locations and driving instructions.

### Call Centers

Norstar Call Center solutions provide efficient call handling for frequently called sales or service groups using Automatic Call Distribution (ACD). When calls are distributed properly, customers can see increased customer satisfaction, staff productivity and revenue, as well as an improved office environment. Norstar includes these call center solutions:

- **Norstar PRELUDE ACD** – Designed for businesses with as many as 15 active phone representatives and up to 30 incoming lines, PRELUDE ACD offers essential features like real-time group and system status displays, management reports, “longest-idle” call distribution, voice announcements played to callers on hold, call overflow, caller directed routing and other advanced call routing features.
- **Norstar CINPHONY ACD** – Designed to offer additional capacity and supervisor functions to meet the needs of growing-businesses, CINPHONY ACD is available in two capacity levels: Level I supports up to 30 representatives and 80 phone lines; Level II supports up to 80 representatives and 120 phone lines. In addition to all the features of PRELUDE ACD, CINPHONY ACD

also includes: intelligent call routing, export of ACD information to other software tools for specialized reporting and supervisor tools including Norstar telephone information displays, employee HELP requests and silent monitoring.

- CallPilot Basic Call Center — Basic Call Center is a call center application designed for the customer who has relatively minimal requirements for number of agents and queues and no requirement for supervisor monitoring. Basic Call Center is included with the CallPilot 150 and is an optional offering on the CallPilot 100.

### Personal Call Manager

Norstar Personal Call Manager enables employees to link their desktop computers with their company's Norstar phone system. Users can answer calls, dial, conference and even see call activity on their PC screens. Personal Call Manager makes dialing, finding contact information, setting up conference calls and other regular tasks easier and more efficient.

### Computer Telephony Integration (CTI)

CTI connects the intelligence of the personal computer to the power and flexibility of the Norstar ICS. Using Microsoft Telephony Applications

Programming Interface® (TAPI), businesses can use a variety of CTI applications that combine telephone and computer functionality in exciting new ways to increase employee productivity and customer satisfaction. Norstar CTI can:

- Bring the power of your employees' computer and telephone together through a single desktop interface.
- Provide caller ID capability that lets employees identify incoming calls on their computers screen before picking up the call.
- Easily set up conference calls and manage faxes and voicemail with drag-and-drop simplicity.
- Pay for itself quickly by allowing your employees to get more done in less time, and to serve your customers more efficiently.

### Business Series Terminals



Norstar offers a wide range of user-friendly Business Series Terminals to meet the needs of any place in an organization – from the reception area, to conference rooms, to employee desks. The Business Series Terminals offer full integration with Norstar features, as well as integration with basic and advanced applications such as Voice Mail, ACD, CTI and integrated voice and data solutions.

- The T7100 is designed for low-traffic areas such as lobbies, office kitchens, reception rooms and break rooms.
- The T7208 is ideal for lower internal and higher external calling volumes, such as reception areas, workstations with moderate call volumes and activity, and with shared telephone situations such as manufacturing plants, retail departments or repair centers.
- The T7316E is a full-featured, multi-line telephone for demanding users such as managers and executive professionals; when combined with the T24 KIM module, it also serves as a centralized answering and administrative console.
- The Audio Conferencing Unit extends voice connectivity to conference rooms and offices with crystal-clear clarity and reliability.

## Mobility



The T7406 cordless Business Series Terminal enables employees to remain in touch with customers and other employees when they are away from their desks or wireline phones. An ideal solution for staff who are on the move in hospitals, retail outlets or financial institutions, the T7406 delivers full desk phone functionality that eliminates the need for callbacks – so customers can receive the information they need immediately. Seamless integration with Norstar lets the T7406 user take advantage of the same features and capabilities as an existing wired Norstar telephone.

## Calling Line Identification (CLID)

Calling Line Identification (CLID) prioritizes customers, giving company agents the ability to provide specialized customer care and ensure the highest level of service.

## Connectivity

Norstar ICS offers several ways to connect to network service providers, including Integrated Services Digital Network (ISDN), Basic Rate Interface (BRI) and Primary Rate Interface (PRI). As a result, SMBs have a greater choice of networking platforms.

ISDN technology provides a fast, accurate and reliable means of sending and receiving data, images, text and voice information through a single pair of copper wires. The Norstar ICS platform brings ISDN functionality to the small site business.

Norstar Compact ICS offers ISDN BRI connectivity, while Modular ICS offers BRI and PRI connectivity.

## Private Networking

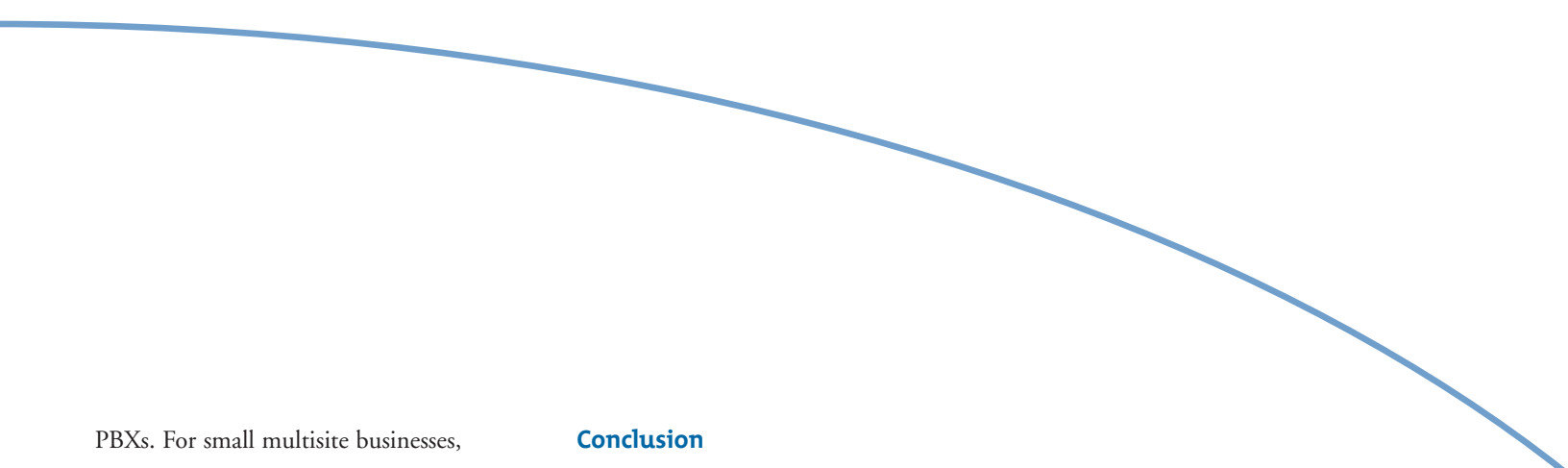
Norstar supports PRI or IP networking between sites. Both can offer significant cost savings and productivity gains to businesses with multiple locations. Networked locations can use centralized voicemail, dialing plans that enable quick four-digit dialing between locations and consolidated access that provides both voice and data services to the organization, significantly reducing network access charges. Using Norstar-to-Norstar networking, organizations can now gain these advantages:

- **Shared applications:** all systems on the network share one application server
- **Cost-effective:** a single application server for multiple locations means greater ROI
- **Virtual single site:** all sites are linked together as a single voice network
- **Simplified management:** network applications can be managed as a single unit
- **Reduced long-distance charges:** voicemail and fax messages are sent as data over the data network, instead of the telephone network.

Norstar networking gives SMBs big-business efficiency by connecting their office seamlessly to remote sites, such as warehouses and branch offices, as if they were “just down the hall.”

## Networking over PRI with MCDN

The Norstar Modular ICS system supports networking over PRI using Nortel Networks Meridian Customer Defined Network (MCDN) protocol. MCDN signaling allows Norstar to be networked to other Norstar systems, along with Nortel Networks Meridian 1



PBXs. For small multisite businesses, MCDN over PRI allows up to 10 Norstar systems to be networked together, providing a single CallPilot 150 voice mail system for all sites.

### **Networking with Norstar VoIP Gateway**

The Norstar VoIP Gateway solution allows current single site companies with Norstar to cost effectively enter into a VoIP environment, while enabling multisite companies with Norstar systems to slowly migrate their voice network to IP. The Norstar VoIP Gateway also provides interoperability between Norstar and Nortel Networks BCM, Meridian 1 IP Enabled and CSE 1000. The Norstar VoIP Gateway enables Trunk side IP connectivity for Norstar by providing multisite customers with direct interoffice voice and fax traffic over an IP network.

### **Conclusion**

The telephone is still the “frontline” method of delivering customer service. Using new innovations in integrated voice and data networking, businesses can achieve higher levels of productivity and customer satisfaction. While these solutions used to be expensive and difficult for SMBs to deploy, a new generation of key voice systems provides big businesses telephony at a price they can afford.

Norstar offers complete, integrated communications solutions to power small and medium-sized businesses. With Norstar, businesses can improve customer service, increase productivity and reduce costs. Since its introduction, Norstar has cost-effectively brought integrated digital technology to the desktops of SMBs everywhere, ensured simplicity for end users, and provided a scalable architecture that allows new functionality and applications. With more than 14 million telephone sets in over 80 countries, Norstar is the #1 small system for business communications in the world.

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