



## 3Com® NBX® 100 Communications System



Proven Performance and Advanced Capabilities

# 3Com® Networked Telephony: Profit from Experience

Thirty years ago, researcher Robert Metcalfe had a vision that there was a more cost-effective method of connecting computers so that people could better share information and be more productive. His pioneering work revolutionized computer networking—creating both Ethernet technology and a global, industry-leading networking company, 3Com Corporation.

Eight years ago, our goal was to develop a dedicated set of practical telephony products that would operate reliably across data networks. Now in its fourth generation, this innovative system is the foundation of the 3Com NBX 100 Communications System.

3Com NBX solutions were designed from their inception to harness the power, flexibility, and the value of a data network without sacrificing the reliability and familiarity of a traditional telephone system. They eliminate the need for separate data and voice cabling plants and greatly reduce installation, operation, and management costs, helping customers take control of their telephone communications.

Award-winning 3Com networked telephony solutions deliver enhanced capabilities and sophisticated applications that cost less and do more than traditional telephone systems whether deployed in a small office or as part of a larger virtual campus converged network.

## **Robust Hardware for Business-Critical Communications**

- **System Capacity**

*Scalable to support up to 200 devices per location (including up to 100 PSTN lines)*

- **Voice Network Connectivity**

*Loop start analog lines with caller ID capability; T1, T1/PRI, E1/PRI, and QSIG; ISDN BRI-ST*

- **Traditional Telephones**

*Analog Terminal Cards for multiple traditional (2500) phones or G3 fax machines; Analog Terminal Adapter for a single phone or fax machine*



Interface cards for the 3Com NBX 100 Communications System offer a number of connectivity choices.

# High Value, Low Cost of Ownership

*"We were very confident choosing a 3Com solution as our experience of the company has been universally and consistently excellent. We've found that 3Com technology always 'overachieves,' delivering far more than was ever promised."*

Keith Clayton,  
IT Activities,  
Liskeard School and Community College,  
Cornwall, U.K.

*"The NBX system's reliability and ease of management are a major time and money saver for us. Our loan officers and processors are more productive, our service is better than ever, and our customers couldn't be happier. The 3Com voice solution is one of the most valuable investment decisions I've made."*

Tim Ward,  
President, Castlerock Lending,  
Newport Beach, CA, U.S.

The 3Com NBX 100 Communications System has the intelligence, power, and flexibility for managing an organization's most demanding communications needs. Thousands of businesses around the world have discovered that networked telephony delivers powerful call processing, a full set of built-in applications, and a continuously expanding suite of optional applications—all designed to increase productivity and maximize investment assurance.

## Reliability You Can Count On

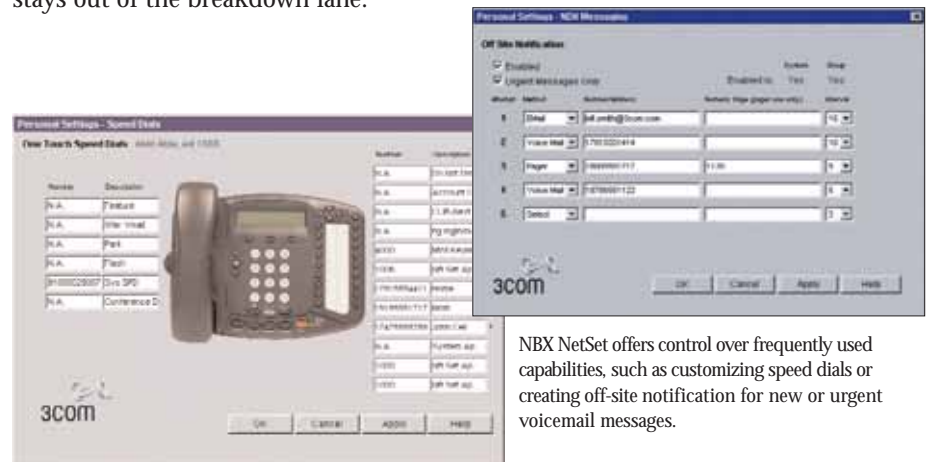
NBX 100 systems isolate voice communication functionality from everyday issues associated with desktop PCs and servers. High-availability hardware and a real-time operating system that is so reliable it is also used in heart pace-makers deliver reliability you can count on. Telephones share the data network with PCs and servers, but don't use the PCs or servers for voice traffic. It's like operating two cars on the same multi-lane highway—even if the PC stalls, the voice traffic is able to pass by unimpeded. The latest digital signal processor (DSP) technology powers phones and other components in an NBX system, assuring that every device is capable of maximum performance. By using a superior open architecture, 3Com leverages decades of networking experience to assure a communications solution that stays out of the breakdown lane.

## Easy to Install, Use, and Manage

3Com understands that most phone systems seem like a mystery to every-day users and often to the staff assigned to administer them. The result is lost productivity and lost opportunity.

An incredibly intuitive administrative portal, 3Com NBX NetSet™, lets individual users and administrators fully customize the NBX 100 solution to meet individual requirements. This password-protected, browser-based utility features pull-down menu choices tailored to each facet of the system. Organizations of all sizes will find time-saving tools that simplify creation of departmental profiles for managing telephone users. Adding or changing capabilities is fast and easy.

3Com voice communications technology completely eliminates the high costs and high anxiety normally associated with moving an office telephone. Anyone who has ever had to wait days for an expensive service call merely to get a telephone moved will truly appreciate the self-locating capabilities of NBX phones. Simply unplug a phone from one location and plug it into another network jack. The user's extension number, voice mail, and personal settings move with the phone. It's that simple.



NBX NetSet offers control over frequently used capabilities, such as customizing speed dials or creating off-site notification for new or urgent voicemail messages.

# Choices for Today, Flexibility for the Future

*"It all began with a straightforward need to rectify a basic PBX problem. What we've actually implemented in the 3Com NBX 100 Communications System—notably without complication or delay—is a unique solution that saves us money at the same time as improving our business performance and efficiency."*

Thierry Mangin,  
Information Systems Manager, Baccarat,  
Paris, France

## Open Architecture

NBX solutions use standards-based interfaces to assure easy integration of new applications to meet evolving business objectives. From a foundation of IEEE 802.3 Ethernet that lets users plug NBX phones into millions of Ethernet ports around the world, customers can easily grow their communications network by adding industry-standard switches and routers, expanding size and capabilities as demands arise.

3Com NBX systems provide application flexibility with support for standards such as:

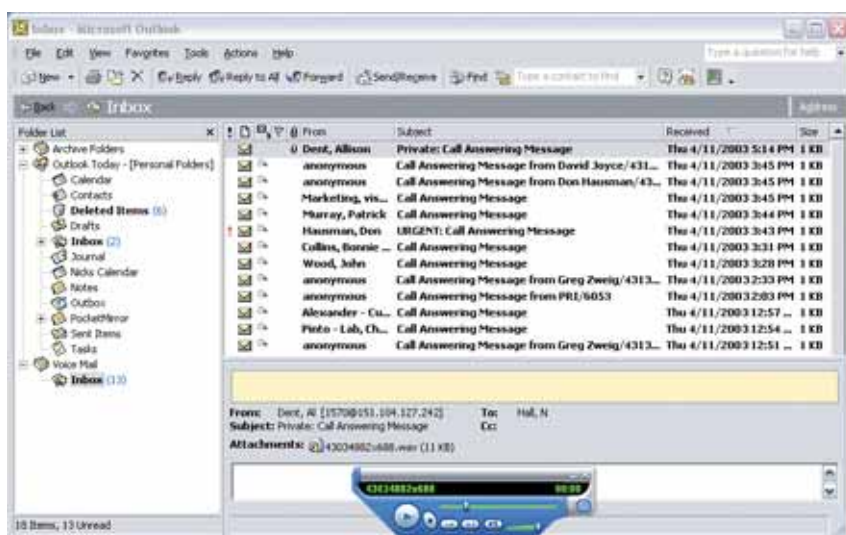
- IMAP4—enables users to view and listen to voice mail with standard e-mail clients (e.g., Microsoft Outlook, Eudora).
- TAPI—lets users dial numbers and manage active calls from a computer screen with built-in computer telephony integration (CTI).
- TAPI/WAV—supports seamless connections to call center and unified messaging applications.
- H.323—for connecting multiple sites or third-party devices.

3Com NBX Solution Providers offer numerous out-of-the-box solutions as well as those for custom business requirements. Actively supported by 3Com, a host of third-party developers write software applications to enhance the capabilities of an NBX platform.

## Upgradeable Software

Traditional PBX products require customers to pay extra for capacity that may never be needed or for capabilities only available on the largest platforms. 3Com solutions, however, offer pay-as-you-grow scalability.

Business needs inevitably change, so the 3Com NBX 100 solution is software upgradeable for easy expansion and maximum flexibility. New functionality, even documentation, can be available in minutes and automatically distributed to every system device and user. When business needs dictate additional capabilities, they can be added simply with software licenses.



Voice mail can be viewed and managed from PC monitors with standard IMAP4-compatible clients.

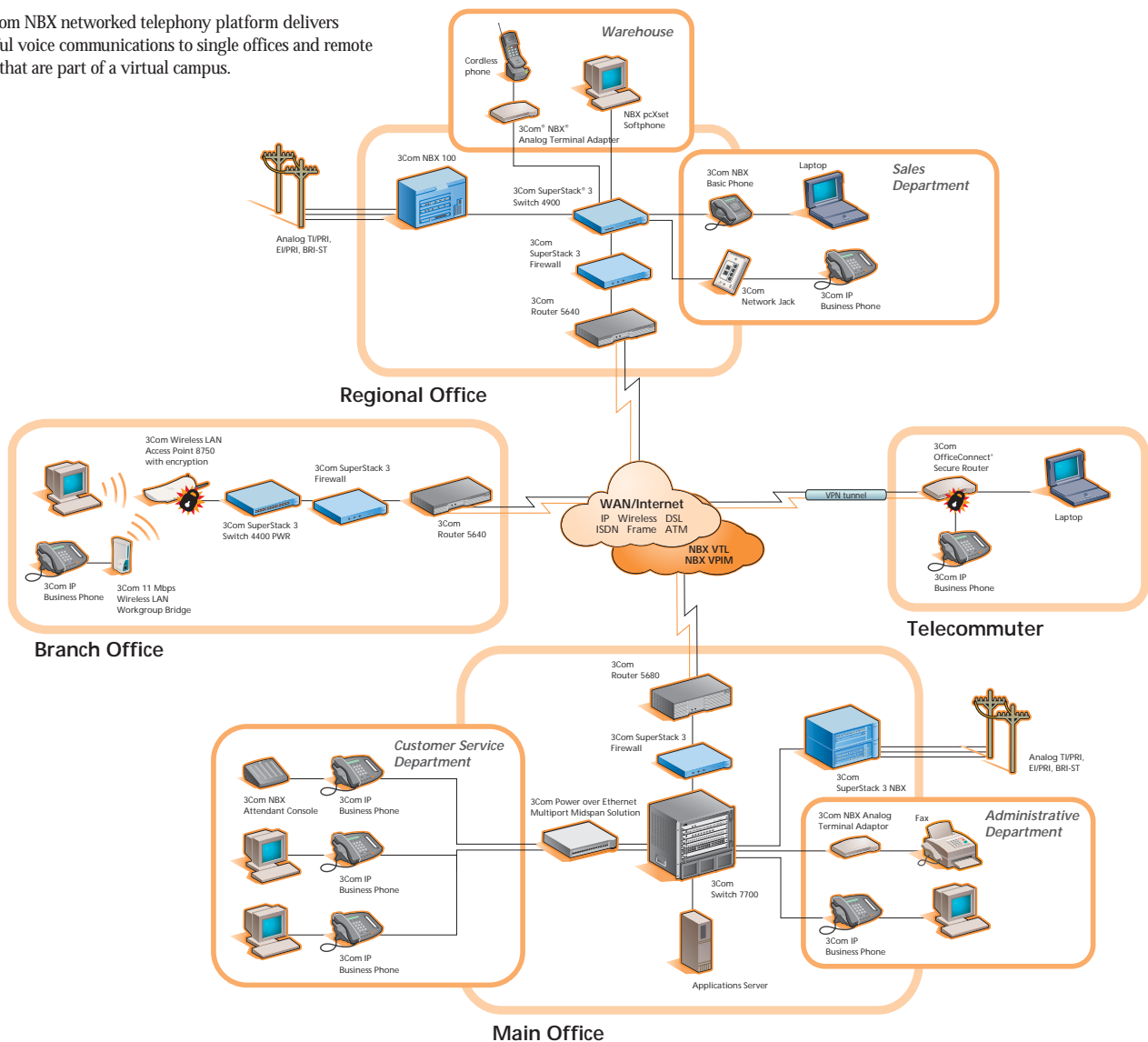
# Optimized Communications Among Work Locations

## Money-Saving Solutions

Many organizations are challenged by the need for voice communications among staff and resources that are spread across multiple locations. These requirements can be as basic as connecting offices across the street, or as sophisticated as linking multiple campuses across the world. 3Com offers affordable and scalable solutions for seamless telephony services among dispersed offices.

3Com NBX systems let organizations dramatically reduce intra-company long-distance phone charges, while improving customer service. By leveraging a data network that today may only move e-mail and files, users can affordably call between sites, transfer callers, and send voicemail messages to one or more users located in multiple offices. These capabilities yield faster, easier, more effective communications and customer service.

The 3Com NBX networked telephony platform delivers powerful voice communications to single offices and remote offices that are part of a virtual campus.



*"We chose 3Com because it was the only company to offer a fully-integrated, total solution that met all our criteria. The solution combines simplicity with technical excellence and a wide range of features and functionality. I have no doubt that we have the innovative yet reliable communications infrastructure we need to support the blue-chip service our brand-name customers expect."*

Okan Dikoz,  
Network Manager, Ogilvy and Mather,  
Istanbul, Turkey

#### **VoIP and Toll By-pass Applications**

- Connect offices with NBX Virtual Tie Line licenses. Provide low-cost, high-quality voice over IP (VoIP) using a WAN, VPN, or the Internet.
- Use the least expensive long-distance option with calls able to "hop on" the company WAN and "hop off" at the location that offers the most savings.
- Take advantage of multisite connectivity options that include traditional Analog, T1/PRI/QSIG, or NBX ConneXtions H.323 Gateway software.

#### **Multisite Voice Mail Exchange**

- Compose and distribute voice mails to co-workers at other sites where multiple voice messaging systems are used.
- Communicate directly with third-party VPIM-compliant messaging systems.

Improved communications help increase employee and customer satisfaction. With the 3Com NBX 100 solution, multisite communications are completely transparent to users. Support for uniform dialing plans makes reaching another office as simple as calling a co-worker across the aisle.

#### **Advanced Voice Services for Remote Staff and Telecommuters**

For years remote workers have enjoyed seamless access to corporate e-mail, but access to the corporate phone system was nearly impossible. 3Com solutions have practically made the term "remote" worker a thing of the past. A broadband connection, router, and a 3Com NBX phone allow off-site workers to make and receive calls as if they were in the office. Customers and co-workers can reach formerly "remote" workers with ease. And telecommuters can count on NBX voice mail to professionally answer calls as if they were in the main office.

#### **Voice Messaging Features**

A powerful voice messaging system built into the NBX 100 system ensures that important communications are never missed. Listen over the phone or use a PC with either a browser or a standard IMAP4-compatible e-mail client to hear and manage voicemail messages. Voice mails are saved as .WAV file attachments in the e-mail client and can be detached, shared, and stored indefinitely. Save messages to record transactions or important information—a perfect solution for law offices and financial or customer service organizations. Dozens of built-in voice messaging options include:

- **System capacity**  
Base system supports four automated attendant (AA) ports and 30 minutes of voicemail (VM) storage, scalable up to 80 hours and 12 AA ports.
- **Automated attendant (AA) services**  
Multiple, multilevel AA provides callers with information and messaging directions when phones are unattended, allowing them to dial by name, number, or department; supports up to 20 menu layers and as many as 200 station and 150 phantom mailboxes.
- **Off-site notification**  
Users are notified of new or urgent messages via pager, phone, cell phone, or SMTP e-mail client; provides cascading notification for up to five external destinations.
- **Voice Profile for Internet Mail (VPIM)-compliance**  
When activated, support for this protocol allows multiple NBX voicemail systems to seamlessly send and receive messages across a secure corporate WAN or the Internet; standards-based to support communications with any third-party VPIM-compliant system.

# Business-Enhancing Desktop Phones and Software

3Com understands that an organization may have unique requirements. That's why the family of 3Com phones provides a full range of powerful telephony services and built-in computer telephony CTI capabilities. All phones have LCD displays that access the company directory as well as personal call logs for dialed, received, and missed calls. Software links and licenses extend system capabilities to include third-party applications.

## 3Com Phones

3Com phones operate dynamically as Layer 2 (Ethernet) or Layer 3 (IP) devices that users can self-locate—plug into any network port without losing personalized configurations and calling privileges. They offer a variety of models, from full-featured 10/100 Ethernet units with extensive customizable features to exceptionally affordable basic phones.

## 3Com NBX Attendant Console

The 3Com NBX 1105 Attendant Console can monitor staff availability and manage calls easily for an entire organization from a central location.

## NBX pcXset PC Client Software

An ideal connectivity solution for travelers and telecommuters, this software puts the equivalent of a 3Com business phone—a "softphone"—onto the screen of a Windows laptop or PC. Users can place and receive calls using a keyboard, mouse, and USB headset, fully able to receive traditional telephone functionality, even voice messaging and CTI.

## Controlling Phone Usage

The comprehensive dial plan of the 3Com NBX 100 solution can control unauthorized long-distance telephone calls with ease, automatically allowing, disallowing, and routing calls based on parameters such as time of day, day of week, user class of service, exchange number, and area and country codes. Outbound calls are automatically routed in the most cost-effective way.

## NBX Call Detail Reporting

NBX systems include a complete call detail reporting (CDR) package to further monitor and control business operations. Organizations can track phone usage by internal account numbers to accurately charge clients for phone consultations.

## Array of Advanced Applications

The built-in functionality of a 3Com NBX solution is impressive, yet there are always organizations that need even more capabilities. 3Com offers solutions for further customization, created both from within 3Com and by some of the best third-party application developers in the world.

If an organization requires world-class conference room phones, powerful call centers, the ability to record and monitor calls, or even voice-activated dialing services, 3Com NBX Solution Providers can meet its needs. 3Com's support for standard Application Protocol Interfaces (APIs) makes the NBX platform compelling to developers, ensuring that users can easily reap the benefits of innovation. Solutions are rigorously tested to assure complete integration and superior performance.



Shown from left to right:

3Com 3102 Business Phone, 1105 Attendant Console, and 2101 Basic Phone. More detailed information on 3Com worktop options is available in the brochure, "3Com Worktops—Boosting Productivity with IP Phones and Software," downloadable from [www.3com.com](http://www.3com.com).

## Need More Information?

The 3Com NBX 100 Communications System is available from NBX Voice Authorized Partners in more than 61 countries with voicemail prompts and end-user documentation in 11 languages.

For additional information, visit [www.3com.com](http://www.3com.com).



3Com Corporation, Corporate Headquarters, 350 Campus Drive, Marlborough, MA 01752-3064.

To learn more about 3Com solutions, visit [www.3com.com](http://www.3com.com). 3Com is publicly traded on NASDAQ under the symbol COMS.

Copyright © 2003 3Com Corporation. All rights reserved. 3Com, the 3Com logo, NBX, and SuperStack are registered trademarks of 3Com Corporation. Possible made practical and NBX NetSet are trademarks of 3Com Corporation. All other company and product names may be trademarks of their respective companies. While every effort is made to ensure the information given is accurate, 3Com does not accept liability for any errors or mistakes which may arise. Specifications and other information in this document may be subject to change without notice. 600423-009 12/03