



3Com® NBX® 100
Communications System

Solution Brochure



3Com® NBX® IP 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 solution 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 IP telephony solutions deliver enhanced capabilities and sophisticated applications that cost less and do more than traditional phone 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)

• **Advanced Redundancy**

Resilient 10/100 Mbps Ethernet up-link ports with fail-over; optional redundant power supplies, mirrored hard drives with failure notification

• **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

• **3Com IP Worktops**

Featuring the 3Com 3101 Basic Phone, 3101 Basic Speaker Phone, 3102 Business Phone, and 3105 Attendant Console



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 solution has the intelligence, power, and flexibility for managing the most demanding communications needs of organizations in one or many locations. Thousands of businesses around the world have discovered its powerful call processing, full set of built-in applications, and continuously expanding suite of optional applications—all designed to increase productivity and maximize investment assurance.

Reliability You Can Count On

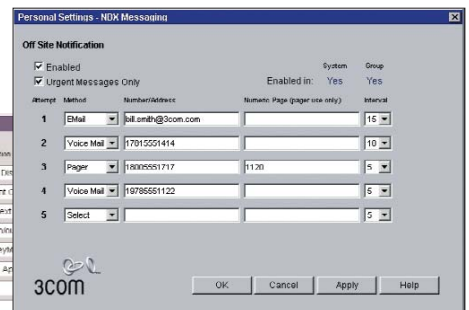
The NBX 100 system isolates telephone functionality from everyday issues associated with desktop PCs and servers. High-availability hardware and a real-time operating system—built on VxWorks, an OS that is so reliable it is also used in heart pace-makers—deliver reliability that can be counted on. Telephones 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 has leveraged 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 telephone systems seem like a mystery to everyday users and often to the staff assigned to administer them. The result is often 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

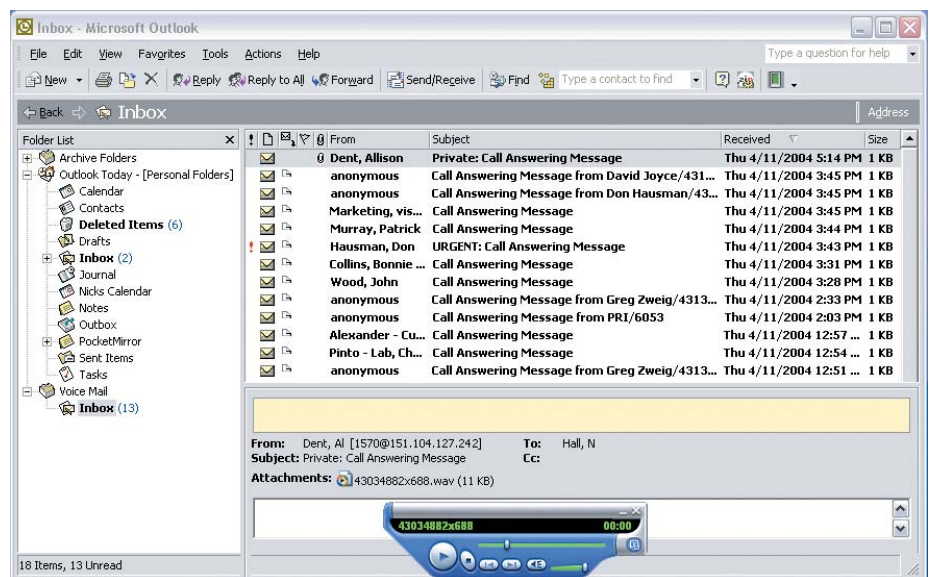
NBX solutions use standards-based interfaces to assure easy integration of new applications. From a foundation of IEEE 802.3 Ethernet that lets users plug NBX phones into millions of Ethernet ports around the world, customers can easily grow their communications network by adding industry-standard switches and routers, expanding capabilities and size to meet evolving needs. 3Com NBX systems provide application flexibility with support for standards such as:

- IMAP4—enables viewing and listening 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.

3Com Voice 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 often require customers to pay extra for capacity that may never be needed or for capabilities designed originally for large systems. The NBX 100 solution offers pay-as-you-grow scalability, economical for more than a thousand users per site. Business needs inevitably change, so this 3Com 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.

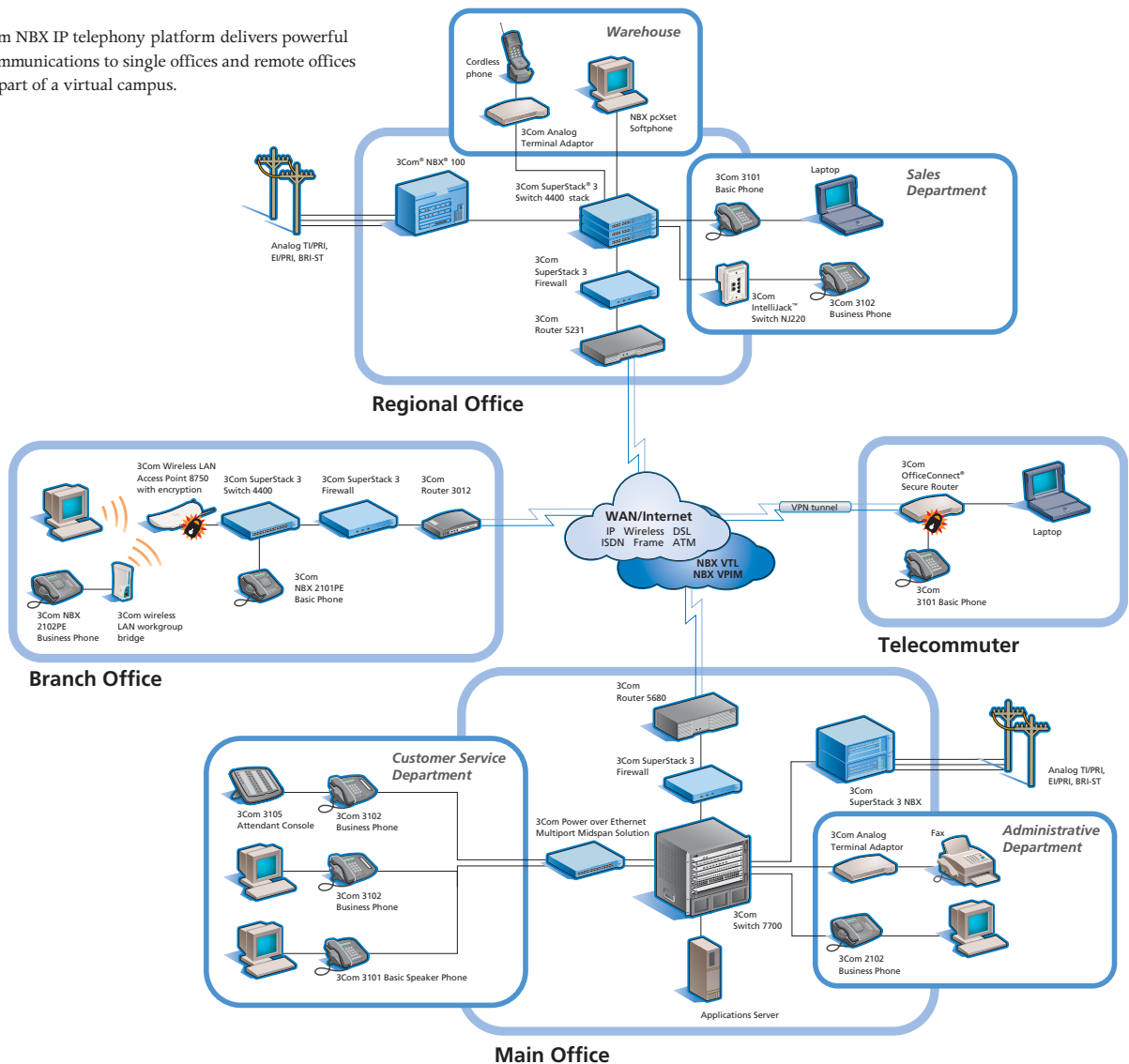
Optimized Communications Among Work Locations

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.

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 IP 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

The NBX 100 solution provides low-cost, high quality Voice over IP (VoIP) using a WAN, VPN, or the Internet. By connecting multiple offices with NBX Virtual Tie Lines, the least expensive long-distance option is used, with calls able to "hop on" the company WAN and "hop off" at the location that offers the most savings.

Multisite connectivity options include traditional analog, T1/PRI/QSIG, or NBX ConneXtions H.323 gateway software.

Multisite Voice Mail Exchange

Multisite Voice Mail Exchange allows the composition and distribution of voice mails to co-workers at other sites where multiple voice messaging systems are used. It also enables communication directly with third-party VPIM-compliant messaging systems.

With the NBX 100 solution employee and customer satisfaction can be increased with transparent multisite communications. 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 NBX solutions 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 a maximum of 12 AA ports and 80 hours VM storage. Software-based expansion can be activated via keycode.

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. AA can support up to 20 menu layers and as many as 1,000 phantom/1,500 station voice mailboxes.

Off-Site Notification

Users can be notified of new or urgent messages via pager, phone, cell phone, or SMTP e-mail client. Cascading notification provides for up to five external destinations.

Voice Profile for Internet Mail (VPIM)

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. The NBX system is standards-based, so as to also support voicemail communications with any third-party VPIM-compliant system.

Business-Enhancing Desktop Phones and Software



Array of Advanced Applications

The built-in functionality of 3Com NBX solutions 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 Voice 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.

3Com understands that an organization may have unique requirements. That's why the family of 3Com worktops provides a full range of powerful telephony services and built-in CTI capabilities.

All phones have LCD displays that can access the company directory as well as personal call logs for dialed, received, and missed calls. And both phones and attendant consoles support the IEEE 802.3af Power over Ethernet (PoE) and have the capability to support the Session Initiation Protocol (SIP) standard in future deployments.

3Com worktops 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. A variety of models offer varying degrees of sophistication.

3Com 3101 Basic Speaker Phone

The 3Com 3101 Basic Speaker Phone delivers big phone features in a compact form factor. Practical, easy-to-use features include a half-duplex speakerphone for staff who require hands-free and two-way speaker communications. Four programmable buttons for call management and access to frequently used functions. Hold and Message buttons are clearly distinguished to help users handle calls professionally. An intuitive multiline display with three softkeys and a four-way cursor controller provide instant access to a site's directory and call logs. Two switched 10/100 Ethernet ports enable convenient connection of a computer or other network device.

3Com 3101 Basic Phone

Demonstrating 3Com's commitment to offering its customers practical and cost-saving choices, the 3101 Basic Phone delivers all the rich capabilities of the 3101 Basic Speaker Phone but with a listen-only speaker.

3Com 3102 Business Phone

For a busy office that requires a robust feature-set yet easy-to-use capabilities, the third-generation multiline 3Com 3102 Business Phone is ideal. It offers a full-duplex speakerphone, 18 programmable buttons with lights, 10 fixed-feature buttons, and a two-line pixel-based LCD display. Two switched 10/100 Ethernet ports and a removeable language-specific faceplate give organizations additional communications flexibility.

3Com 3105 Attendant Console

With the 3Com 3105 console, receptionists and workgroup administrators can support up to 100 users. From a central location they can monitor staff availability and manage calls easily for an entire site. To service larger locations with hundreds of users, multiple consoles can be connected in parallel. The console can deliver productivity enhancing capabilities such as full browser-based support, Direct Station Selection and Busy Lamp Field (DSS/BLF) functions, CO line appearances, and call park zones.

3Com NBX pcXset PC Client Software

An ideal connectivity solution for travelers and telecommuters, this "softphone" application puts the equivalent of a 3Com IP phone on a Windows-based laptop or desktop PC screen. Employees can place and receive calls on their computers and enjoy full 3Com phone functionality using the keyboard, mouse/trackball, and a compatible USB headset—no external phone is necessary.

Controlling Phone Usage

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.

Need more information?

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

For additional details, please visit www.3com.com/iptelephony.



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To learn more about 3Com solutions, visit www.3com.com. 3Com is publicly traded on NASDAQ under the symbol COMS.

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