3com

3Com® NBX® V3000 IP Telephony Solution

3Com® NBX® IP Telephony:
Changing the Way Business Speaks

Robust 3Com NBX Hardware

- **System Capacity**
  Scalable to support up to 1,500 devices per location (including up to 720 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

- **3Com IP Worktops**
  Featuring the 3Com 3101 Basic Phone, 3101 Basic Phone with Speaker, 3102 Business Phone, and 3105 Attendant Console

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.

Building on this initial innovation in data networking and true to its founders' focus on **Com**puters, **Com**munication, and **Com**patibility, 3Com became an early supporter of converged communications. In 1998, the company developed the NBX® 100 system, the first practical IP telephony solution that would operate reliably across data networks. Now in its fourth generation, this platform is the foundation of the 3Com® NBX V3000 IP Telephony Solution.

The 3Com NBX and VCX™ platforms comprise the IP Telephony module of the 3Com Convergence Applications Suite—the most recent proof of 3Com's commitment to high-value solutions. The suite allows businesses to choose the communications solutions that best meet their needs. Its modular design lets them immediately gain the benefits of convergence: lowered costs, increased productivity, and improved customer interactions.

With over 1,200 patents, approximately 1,900 employees, and operations in over 45 countries, 3Com is the market leader in IP telephony for small to medium enterprises. Because its IP telephony solutions deliver enhanced capabilities and sophisticated applications that cost less and do more than traditional phone systems, businesses around the world choose 3Com voice and data systems for small offices or as part of a larger virtual campus converged network.

The full-featured and exceptionally affordable NBX V3000 system joins the award-winning 3Com portfolio, further demonstrating how the company applies technological innovation to communication challenges, changing the way business speaks.

The 3Com NBX V3000 IP Telephony Solution—right size, right features, right price.

NBX V3000—The Perfect Choice for Small and Medium Businesses
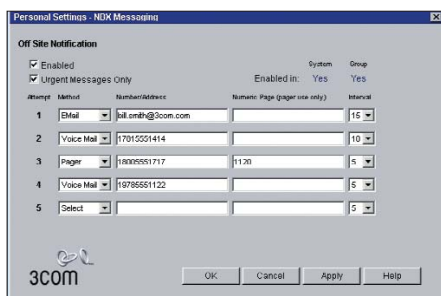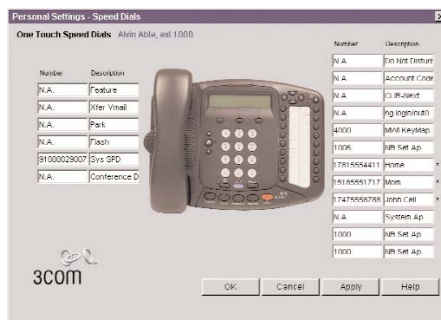
NBX NetSet gives users control over frequently needed capabilities, such as customizing speed dials or creating off-site notification for new or urgent voicemail messages.

Supported by the latest 3Com NBX software, Release 4.4, the 3Com NBX V3000 platform offers a trim 1U-high telephony system, packed with power and features. It includes call processing, voice mail, four analog FXO ports, and one analog FXS port, as well as a suite of built-in NBX capabilities. In addition, with NBX Release 4.4, users can now benefit from up to nine separate paging zones and the option of creating a personal operator for customized call coverage.

Reliability You Can Count On

The NBX V3000 system isolates telephone functionality from the everyday issues associated with desktop PCs and servers. Its real-time operating system, VxWorks—so dependable it is also used in heart pace-makers—and its high-availability hardware deliver reliability that can be counted on.

The latest digital signal processor (DSP) technology powers phones and other components in an NBX system, ensuring that every device is capable of maximum performance. The IP phones 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.

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 V3000 solution. This password-protected, browser-based utility features pull-down menu choices tailored to each facet of the system. Time-saving tools simplify creation of departmental profiles for managing telephone users, further easing system administration.

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.

# Choices for Today, Flexibility for the Future

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 tele-phony integration (CTI).

· TAPI/WAV—supports seamless connections to call center and unified messaging applications.

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

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 V3000 solution offers pay-as-you-grow scalability, economical for twenty users and powerful enough 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 auto-matically distributed to every system device and user. When business needs dictate additional capabilities, they can be added simply with software licenses.
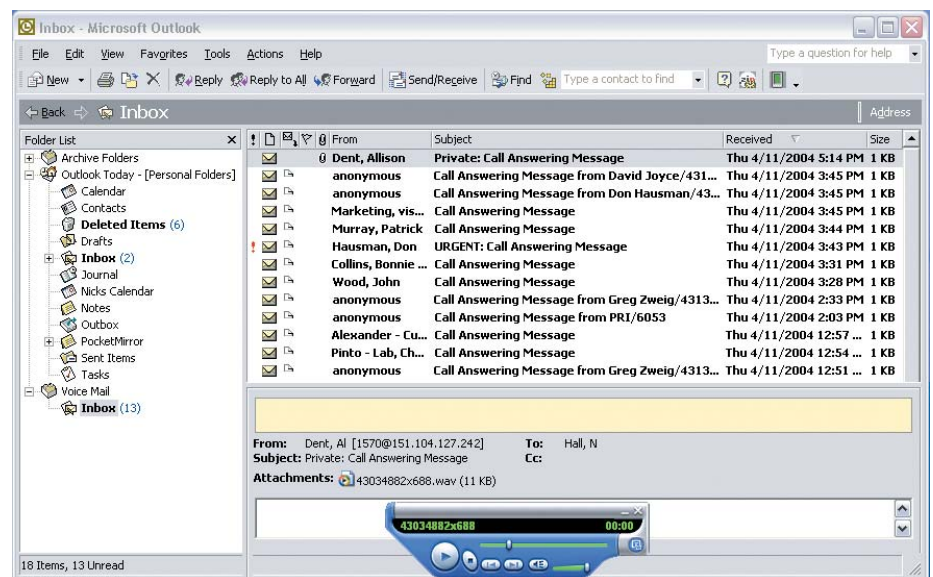
Voice mail can be viewed and managed from PC monitors with standard IMAP4-compatible clients.
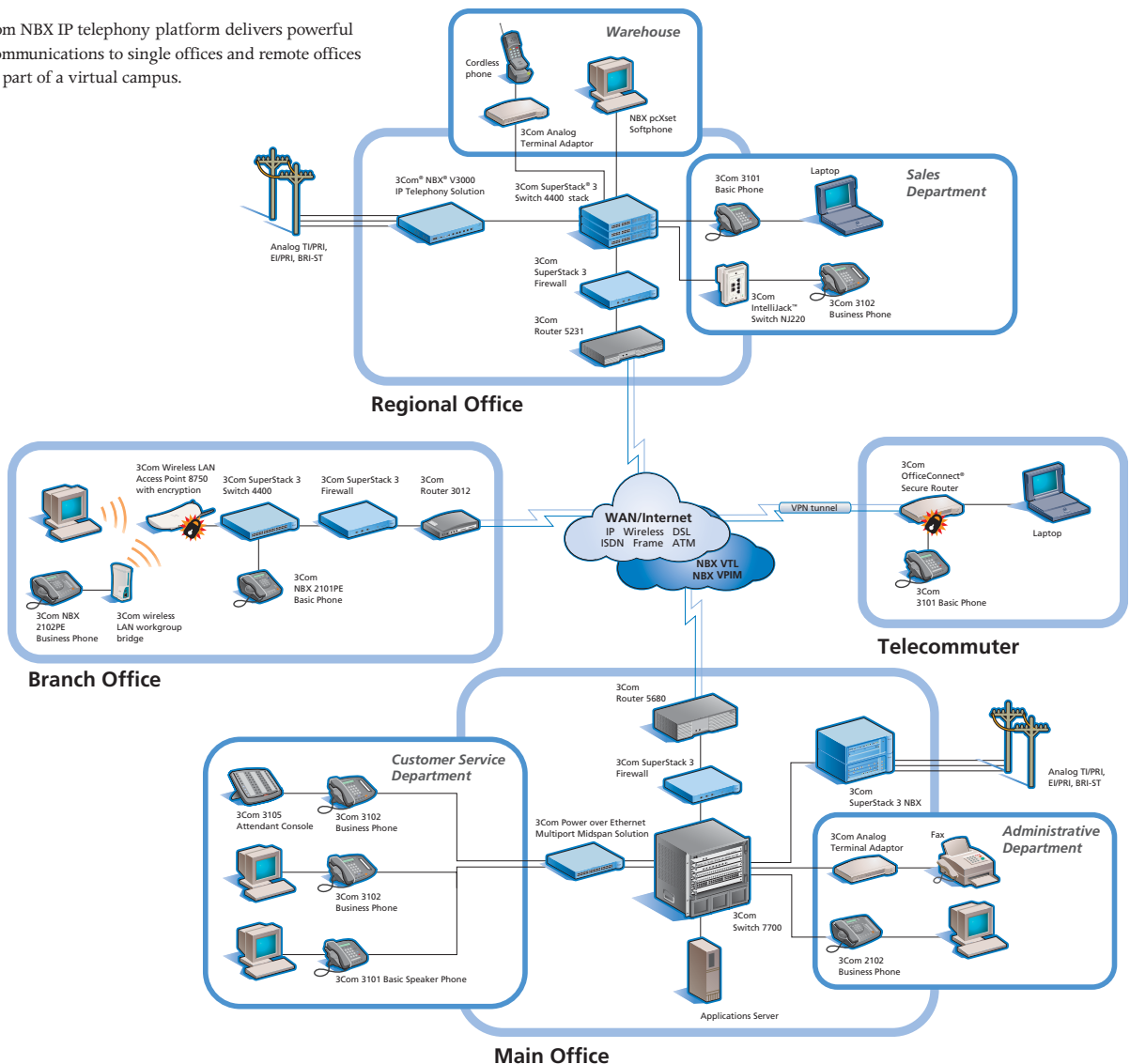
Optimized Communications Among Work Locations

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.

Warehouse

Cordless phone

NBX pcXset Softphone

3Com Analog Terminal Adaptor

3Com® NBX® V3000 IP Telephony Solution

3Com SuperStack® 3 Switch 4400 stack

Analog TI/PRI, EI/PRI, BRI-ST

3Com SuperStack 3 Firewall

3Com Router 5231

3Com 3101 Basic Phone

Laptop

Sales Department

3Com IntelliJack™ Switch NJ220

3Com 3102 Business Phone

Regional Office

3Com Wireless LAN Access Point 8750 with encryption

3Com SuperStack 3 Switch 4400

3Com SuperStack 3 Firewall

3Com Router 3012

3Com NBX 2101PE Basic Phone

3Com NBX 2102PE Business Phone

3Com wireless LAN workgroup bridge

Branch Office

WAN/Internet
IP Wireless DSL
ISDN Frame ATM

NBX VTL
NBX VPIM

VPN tunnel

3Com OfficeConnect® Secure Router

Laptop

3Com 3101 Basic Phone

Telecommuter

3Com Router 5680

3Com SuperStack 3 Firewall

3Com SuperStack 3 NBX

Analog TI/PRI, EI/PRI, BRI-ST

Customer Service Department

3Com 3105 Attendant Console

3Com 3102 Business Phone

3Com 3102 Business Phone

3Com 3101 Basic Speaker Phone

3Com Power over Ethernet Multiport Midspan Solution

3Com Switch 7700

Applications Server

3Com Analog Terminal Adaptor

Fax

Administrative Department

3Com 2102 Business Phone

Main Office

VoIP and Toll By-pass Applications

The NBX V3000 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 V3000 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 IP 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 V3000 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 400 hours of voicemail (VM) storage, scalable up to 72 AA ports. Expansion is software based and activated via keycode.

Automated Attendant (AA) Services

Multiple, multilevel AA services provide callers with information and messaging directions when phones are unattended, allowing them to dial by name, number, or department. The automated attendant 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 it can support voicemail 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 worktops provides a full range of powerful telephony services, built-in CTI capabilities, and support for IEEE 802.3af Power over Ethernet (PoE) and Session Initiation Protocol (SIP). Businesses can easily migrate from the 3Com NBX platform to the 3Com VCX platform, protecting their worktop investment—traditionally between 40% to 50% of an initial telephony system outlay.

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. All phones have LCD displays that can access the company directory as well as personal call logs for dialed, received, and missed calls. A variety of models offer varying degrees of sophistication.

3Com 3101 Basic Phone with Speaker

The 3Com 3101 Basic Phone with Speaker delivers big phone capabilities 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 provide 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 Phone with Speaker, 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 powerful call detail reporting (CDR) package to 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 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.

Need more information?

The 3Com NBX V3000 IP Telephony Solution 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/voip**.

3COM

Exercise Choice™