



3Com® NBX® 100 Communications System R4.3

DATA SHEET

Key Benefits

Increased Productivity

Advanced applications and intuitive, browser-based management can save time and increase efficiency. Collaboration among staff can be more effective. Customer services can be enhanced without requiring additional personnel. Built-in voice mail, computer telephony integration (CTI), voicemail/e-mail clients (IMAP4), and call detail reporting (CDR) applications give organizations practical, productivity-enabling tools.

Easy Deployment

Standards-based design, including support for IEEE 802.3af Power over Ethernet (PoE) and Session Initiation Protocol (SIP) help ensure seamless integration with existing network infrastructure and the investment assurance of cost-effective system evolution. Open Applications Protocol Interface (API) architecture provides access to best-in-class third-party applications. Multisite message exchange options between 3Com and third-party Voice Profile for Internet Mail (VPIM)-compliant voicemail systems offer organizations the flexibility of inter-operable systems.

Practical Scalability

Organizations can boost capacity and enhance applications via software upgrades, without the need for expensive hardware acquisitions. Cost-saving incremental licensing provides scalability up to 200 devices (lines/stations; max. 100 PSTN lines) and up to 48 NBX IP Virtual Tie Lines (VTLs).

Reduced Operation Costs

A single voice and data network gives organizations the advantages of a converged infrastructure. Streamlined deployment and management optimize existing IT resources. Simplified moves-adds-changes can significantly lower total cost of ownership. Voice over Internet Protocol (VoIP) telephony can dramatically reduce long distance calling expenses—unified multisite dialing plans and hop-on/hop-off toll-bypass across WANs make possible immediate cost savings.

Budget-Matching Phone Choices

Multiline IP phones with robust feature-sets let organizations optimize their investments in communications infrastructure. 3Com® phones include 10/100 Mbps Ethernet/IP phones, soft-phones, and receptionist consoles that support NBX H3 or SIP call control and PoE for deployment flexibility.

Extended Range of Advanced Applications

3Com NBX® IP telephony systems support numerous standards-based applications for improving business activities. The 3Com Voice Solution Providers Program enhances these options with third-party offerings tested for compatibility and integration with 3Com voice solutions.

- Fourth-generation system delivers proven high-fidelity audio and system reliability
- Converged communications eliminates the cost and administrative overhead required for separate voice and data networks
- Worktop choices meet varying performance and budget requirements
- Advanced built-in applications include Automated Attendant, voice mail and graphical Call Detail Recording; easily integrated optional software includes off-the-shelf call center, customer relationship management, and call reporting solutions

Specifications

System Requirements

100BASE-TX or 10BASE-T Ethernet LAN
 3Com NBX V5000 call processor and chassis
 Two 3Com business phones
 At least one PSTN interface card if connecting to the PSTN

System Capacity

Supports up to 200 devices (lines/stations), including up to 100 PSTN Central Office lines and 48 Virtual Tie Lines

PSTN Gateway Options

Loop-start analog, T1/PRI, E1/PRI, ISDN BRI-ST, Q.SIG/Q.931

Port Connections

WAN: via external router with IP-ToS support
 LAN: Two 10/100 redundant uplink ports on the call processor
 Diagnostic: Serial port

Analog Devices

Supports 2500 series-compatible analog devices, including cordless phones, fax machines, night bells, and door ringers

Network, Prioritization, and Audio Compression Standards

100BASE-T, 10BASE-T, H.323, G.711, G.729a/b, ADPCM, 802.1d/p/Q, 802.2, 802.3, 802.3af, 802.11, IP, IP-ToS, DiffServ, TCP/IP, UDP/IP, DHCP, DNS

Application Standards

TAPI 2.1, TAPI/WAV, IMAP4, HTTP, H.323, NetMerge, SMTP/MIME, VPIM

Management

Built-in 3Com NBX NetSet™ utility; 3Com Network Supervisor support

Languages/Dialects

Chinese (Cantonese), Chinese (Mandarin), English (Australian), English (UK), English (US), French (Parisian), German, Hebrew, Italian, Spanish (Castilian), Spanish (Mexican), Russian

Power Requirements

Call Processor: 85-264 VAC, 47-63 Hz, 3 A
 Chassis: 85-264 VAC, 47-63 Hz, 2.5 A

Power Dissipation

Call Processor: 150 W
 Chassis: 130 W
 Phone: 5 W (maximum)

Chassis/Call Processor Dimensions and Weight

Height: 29.21 cm (11.5 in)
 Width: 50.8 cm (20 in)
 Depth: 43.18 cm (17 in)
 Weight: chassis and packaging—10.35 kg (23 lb); call processor and packaging—13.5 kg (30 lb)

Environmental Ranges

Operating temperature: 0° to 40°C (32° to 104°F)
 Storage temperature: -40° to +70°C (-40° to +158°F)
 Humidity: 5% to 85% noncondensing

Network Access Standards

National Requirements FCC Part 68, Canada CS03 CTR4/A1 (Commission Decision 98/520/EC)

Safety

UL/CUL 1950 3rd Edition
 IEC 60950: 1991 + A1, A2, A3, A4; National deviations for Europe and Australia

Emissions

FCC Part 15 Class A and B
 EN 55022:1994/A1, 1995/A2, 1997 Class A
 VCCI Class A
 AS/NZS 3548:1995 Class A

Immunity

EN 55024:1998P

Ordering Information

PRODUCT DESCRIPTION	3COM SKU
NBX 100 Call Processor One required per system with support for 200 NBX devices and 11 languages; manages all call traffic. Embedded application hosting, external application gateway connectivity, and telephony adjunct connectors for Music on Hold (1/8" RCA) and Paging (RJ-11), one 10BASE-T MIDI uplink port; one system hard disk and one installation guide.	3C10110D
NBX 100 Chassis Six universal card slots; NBX Voice Mail license for four automated attendant/voicemail (AA/VM) ports and 30 minutes of message storage; one switchable 110/220 V, 50/60 Hz AC power supply; one 2.43 m/8 ft U.S. power cord and 48.26 cm/19" rack/wall mounting ears. Includes one trail port of ConneXtions, pcXset, and NBX Media Driver.	3C10211C-XX
NBX 100 System Bundle Includes one each NBX 100 Call Processor, NBX 100 Chassis, NBX Analog Line Card (4 ports), four automated attendant ports, four hours VM storage.	3C10100
NBX Analog Line Card (FXO) Terminates up to four Loop-start PSTN telephone lines to the NBX system via four RJ-11 interfaces. Includes built-in Caller ID support (service must be purchased from a telco/PTT) and built-in power failure transfer jack.	3C10114C
NBX Uplink Card Includes eight RJ-45 uplink ports (10 Mbps shared Ethernet) to add an NBX chassis or to support other NBX devices.	3C10370
NBX T1/PRI Card Terminates a voice T1 or T1/PRI circuit into the NBX system. Includes a 10/100 MB MDI uplink port to connect to a LAN switch port for optimized network loading, plus a built-in CSU.	3C10116D

Ordering Information *(continued)*

PRODUCT DESCRIPTION	3COM SKU																					
<p>NBX Analog Terminal Card (FXS) Terminates up to four tip/ring analog devices, such as an analog phone, cordless phone, Group 3 fax machine, speakerphone adjunct, etc. Does not support modems.</p>	3C10117C																					
<p>NBX BRI-ST Card Terminates up to eight ISDN BRI-ST lines into the NBX system.</p>	3C10164C-ST																					
<p>NBX E1 Card Terminates a voice E1 circuit into the NBX system. Includes a 10/100 MB MDI uplink port to connect to a LAN switch port for optimized network loading, plus a built-in CSU.</p>	3C10165D																					
<p>NBX Analog Adapter (FXS) Standalone device that converts an Ethernet connection into an analog station port (FXS) for industry standard analog phones or similar devices. Provides a switched 10/100 Ethernet port for another device such as a PC. Supports IEEE 802.3af Power over Ethernet. Does not support modems. Local power supply included. Requires NBX R4.2 or greater.</p>	3C10400-XX																					
<p>NBX 100 Voice Mail Upgrade Licenses The NBX 100 Chassis includes 30 minutes of voicemail (VM) storage and four automated attendant (AA) ports. Options offer price/capacity choices that ensure growth is efficient and economical. Each requires a keycode to activate.</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">From VM storage/AA ports</td> <td style="width: 50%; text-align: center;">To VM storage/AA ports</td> <td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center;">30 minutes/4 ports</td> <td style="text-align: center;">4 hours/4 ports</td> <td style="text-align: right;">3C10137</td> </tr> <tr> <td style="text-align: center;">30 minutes/4 ports</td> <td style="text-align: center;">20 hours/6 ports</td> <td style="text-align: right;">3C10134</td> </tr> <tr> <td style="text-align: center;">30 minutes/4 ports</td> <td style="text-align: center;">80 hours/12 ports</td> <td style="text-align: right;">3C10135</td> </tr> <tr> <td style="text-align: center;">4 hours/4 ports</td> <td style="text-align: center;">20 hours/6 ports</td> <td style="text-align: right;">3C10138</td> </tr> <tr> <td style="text-align: center;">4 hours/4 ports</td> <td style="text-align: center;">80 hours/12 ports</td> <td style="text-align: right;">3C10139</td> </tr> <tr> <td style="text-align: center;">20 hours/6 ports</td> <td style="text-align: center;">80 hours/12 ports</td> <td style="text-align: right;">3C10136</td> </tr> </table>	From VM storage/AA ports	To VM storage/AA ports		30 minutes/4 ports	4 hours/4 ports	3C10137	30 minutes/4 ports	20 hours/6 ports	3C10134	30 minutes/4 ports	80 hours/12 ports	3C10135	4 hours/4 ports	20 hours/6 ports	3C10138	4 hours/4 ports	80 hours/12 ports	3C10139	20 hours/6 ports	80 hours/12 ports	3C10136	
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<p>3Com 3102 Business Phone Provides full-duplex speakerphone, 18 programmable buttons with lights, 10 fixed-feature buttons, a two-line pixel display, plus two switched 10/100 Ethernet ports and a removeable language-specific faceplate for additional communications flexibility. Supports 3Com NBX H3 or SIP call control and IEEE 802.3af PoE standard. Local power supply not included; may be ordered separately. Requires NBX R4.2 or greater and an NBX Group 2 device license (3C10412), sold separately. 3C10402A</p>																						
<p>3Com 3101 Basic Speaker Phone Provides half-duplex speakerphone, four programmable buttons, multiline display with three softkeys and a four-way cursor controller, plus two switched 10/100 Ethernet ports. Supports 3Com NBX H3 or SIP call control and IEEE 802.3af PoE standard. Local power supply not included; may be ordered separately. Requires NBX R4.3 or greater and an NBX Group 2 device license (3C10412), sold separately. 3C10401SPKRA</p>	3C10401SPKRA																					
<p>3Com 3101 Basic Phone Provides listen-only speaker, four programmable buttons, multiline display with three softkeys and a four-way cursor controller, plus two switched 10/100 Ethernet ports. Supports 3Com NBX H3 or SIP call control and IEEE 802.3af PoE standard. Local power supply not included; may be ordered separately. Requires NBX R4.3 or greater and an NBX Group 2 device license (3C10412), sold separately. 3C10401A</p>	3C10401A																					
<p>3Com 3105 Attendant Console Provides up to 100 programmable functions via 50 buttons with high/low shift position, four pre-programmed buttons, and a 10/100 Mbps Ethernet port. Supports 3Com NBX H3 or SIP call control and IEEE 802.3af PoE standard. 3C10405A</p>	3C10405A																					
<p>NBX 2101PE Basic Phone Provides a monitor-only speakerphone, two-line display with three softkeys and three programmable buttons, plus a 10/100 Ethernet port. Supports 3Com NBX H3 or SIP call control and IEEE 802.3af PoE standard. Requires NBX R4.2 or greater. 3C10248PE</p>	3C10248PE																					
<p>NBX 2102PE Business Phone Provides a full-duplex speakerphone, two-line display with three softkeys and 18 programmable buttons, 10 fixed-feature buttons, plus 10/100 Ethernet dual port. Supports 3Com NBX H3 or SIP call control and IEEE 802.3af PoE standard. Requires NBX R4.2 or greater. 3C10226PE</p>	3C10226PE																					
<p>NBX 1105 Attendant Console Provides up to 100 programmable functions via 50 buttons with high/low shift position, four pre-programmed buttons, and a 10/100 Mbps Ethernet port. Supports 3Com NBX H3 call control, plus IEEE 802.3af PoE standard when used with 3Com Ethernet Power Souce. 3C10123ANBX</p>	3C10123ANBX																					
<p>NBX Group 1 Phone License Permits connection of a 3Com 3101 phone to an NBX system. One license per phone required for operation; may be ordered in any quantity. Not required for NBX 1100 and 2100 series phones. One-port license (unit-based). 3C10411</p>	3C10411																					
<p>NBX Group 2 Phone License Permits connection of a 3Com 3102 phone, 3105 Attendant Console, or any Group 1 phone to an NBX system. One license per phone required for operation; may be ordered in any quantity. Not required for NBX 1100 and 2100 series phones. One-port license (unit-based). 3C10412</p>	3C10412																					
<p>NBX IP On-the-Fly Site License Allows local and remote NBX phones and Analog Line Card ports to operate as IP telephones at Layer 3 on a per-call basis with each LAN-based device returning its IP address to the "pool" on the NCP after call completion.</p>																						
Site license	3C10132																					
License upgrade from NBX IP Serve	3C10133																					

Ordering Information *(continued)*

PRODUCT DESCRIPTION	3COM SKU
NBX IP Serve Site License Allows local and remote NBX phones and Analog Line Card ports to operate as IP telephones at Layer 3 via static or DHCP IP addressing. Requires one IP address per MAC address (each device and CO port) in the system.	3C10131
NBX ConneXtions Gateway License Software-based H.323 gateway license supporting one concurrent VoIP H.323 session added to existing installed session. Uses a dedicated Windows NT/2000 workstation or server (PC HW and OS license not included). One-port license (unit-based)	3C10315
NBX IP Virtual Tie Line License Enables NBX-to-NBX VoIP calling between sites. Includes 60-day trial NBX IP On-the-Fly license. One-port 60-day trial license Two-port license (unit-based)	3C10270 3C10328
NBX VPIM Multisite Messaging Exchange License Lets NBX solutions exchange voice mails with third-party VPIM-enabled voicemail systems. Requires NBX R4.0 or greater. 60-day trial license Site license	3C10276 3C10277
NBX 3rd-Party Messaging License Enables connectivity between NBX and third-party voicemail systems. Requires NBX R4.0 or greater and NBX WAV application ports. 60-day trial license Site license	3C10278 3C10279
NBX Media Driver License Supports seamless connections for TAPI/WAV and NetMerge-enabled applications to NBX solutions, eliminating need for T1/PRI card or analog connections between third-party application server and need for DSP resource boards once required for application server. Support for only NBX R4.1 or greater. 60-day trial license (four-port license) One-port license (unit-based)	3C10318 3C10319
NBX pcXset License Puts a "softphone," the equivalent of an NBX business phone (USB handset or headset not included) on the screen of a laptop or PC running Windows 98/NT/2000/XP. Incremental or site licenses available. One-user license (unit-based) Site license	3C10316 3C10154
Polycom Device License Allows one Polycom Soundstation IP 3000 to connect to an NBX solution. One license needed per Polycom unit. One-port license (unit-based).	3C10282
CITELink Norstar or Meridian Handset Gateway Device License Allows one 16-port CITELink Analog Handset Gateway to connect to an NBX solution. Requires NBX R4.1 or greater. One-board license (unit based)	3C10283
CITELink Analog Handset Gateway License Allows one 16-port CITELink IP Handset Gateway to connect to an NBX solution. Requires NBX R4.2 or greater. 60-day trial license One-board license (unit based)	3C10321 3C10361
Phone Wall Mount Bracket Allows NBX 1102, 2101, and 2102 phones to be securely wall mounted to a standard telco wallplate. Not for use with NBX 3102 phone or NBX 1105 Attendant Console. Charcoal gray.	3C10247
NBX R4.3 Software and Documentation Includes NBX Resource Pack CD with NBX system software, related applications, and documentation.	3C10185R4.3
NBX Call Record and Monitor Licenses Enables third-party call recording and monitoring systems to connect to the NBX 100 and SuperStack 3 NBX systems. Site license	3C10286

Notes:

E1/PRI and BRI-ST cards not available in Canada or the U.S. where these services are not standard.

When ordering, replace XX with the applicable suffix:

AA = Australia, New Zealand; ME = Europe; SA = South Africa; UK = United Kingdom; US = Canada, Latin America, United States



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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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