

This i-Series Branch Extender enables branch office and remote call center users to be seamlessly connected to the corporate voice system over traditional and next-generation networks.

"REMOTE EMPLOYEES WON'T FEEL REMOTE ANYMORE"

If you've ever worked in a remote office, you know why they call them remote. Remote employees usually have had to settle for second-rate services because the technology was not available or the costs of duplicating resources were too high.

Now, imagine providing better services to your branch employees and your customers with minimum additional investment.



PRODUCT OVERVIEW

With NEC's i-Series Branch Extender for branch offices, off-premise workers can now enjoy the features of the corporate KTS/PBX, from wherever they are located. No more feeling of seclusion from co-workers and corporate resources.

The i-Series Branch Extender delivers quality voice over circuit-switched and managed packet networks.

The i-Series Branch Extender supports two proprietary protocols: Remote Voice Protocol (RVP)[™] and Remote Voice Protocol over IP (RVPoIP)[™]. One or more i-Series Branch Extenders can be terminated at one i-Series Gateway located at the corporate office. The i-Series Branch Extender is available in 8-port and 12-port configurations.

A proprietary remote voice protocol turns digital voice and phone signaling into highly efficient data packets. Sophisticated software features include a G.165-compliant echo canceller enhanced with extremely robust double-talk performance and a range of industry standard voice compression options.

i-Series Branch Extender for branch offices enables you to provide full corporate PBX capabilities over an existing data network, making voice and data convergence a reality.

The i-Series Branch Extender has been designed for operational simplicity, freeing branch employees from administrative tasks. All of the system's configuration, operation, and administrative and diagnostic functions may be managed using a serial connection, Telnet, dial-up modem or an inband network connection from an i-Series Gateway. This flexibility allows you to maximize your company's network administration resources and lowers operating costs.

NEC's Distributed Voice Solutions affordably extends the features and functionality of existing corporate voice systems to:

- Branch Offices
- Remote Call Center Agents
- Telecommuters
- Mobile Workers

across traditional and next-generation networks.

Distributed Voice
For The Extended
Enterprise



i-Series Branch Extender

i-Series Branch Extender

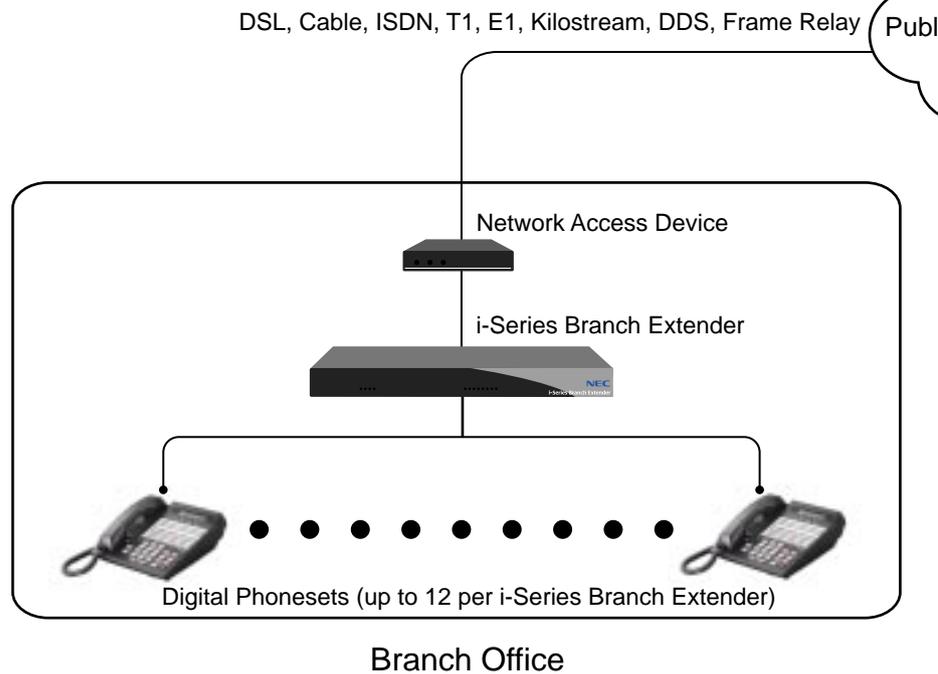
APPLICATION SCENARIOS

- Sales offices
- Satellite call centers
- Retail operations
- Franchise outlets
- Banking or financial parks
- Municipal departments
- Manufacturing operations
- School districts
- Healthcare networks
- Any office of less than 24 users that values voice connectivity to the corporate PBX



FRONT VIEW

DB-9 console port for easy system management



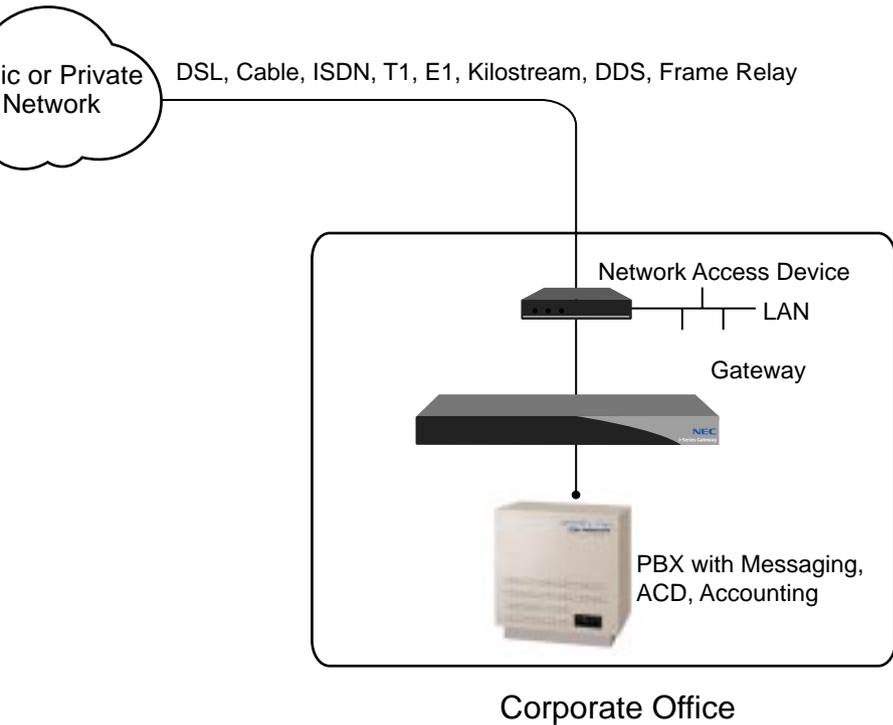
KEY BENEFITS

- **Flexible Configurations**
Available in 8-port or 12-port configurations.
- **Increased Productivity**
Branch office users get fully featured digital sets and all corporate PBX, messaging, call accounting and ACD features.
- **Network Efficiency**
Leverages existing corporate PBX and data networking resources. Choice of network protocol support and variable compression rates minimizes communications cost.
- **Ease-of-Use**
Plug and play installation. Corporate and remote management tools provide flexible administration.

KEY FEATURES

- Auto Connect
- Encrypted Username and Password
Allocated by System Administrator to Each Port (Log In)
- Call Suspend Mode on ISDN Lines with TA
- Analog Telephone Line for 911 Calls (Optional)
- Network Down Recovery (Serial RVP™ Mode Only)
- Synchronous Transmission
- Support for Asynchronous ISDN TA Adapters
- IP or HDLC Packet Encapsulation
- Support for IP Precedence and DiffServ Quality of Service (QoS) Mechanisms

i-Series Branch Extender



GENERAL SET-UP GUIDELINES

- Requires one i-Series Gateway at the corporate office.
- External network interface required. Requires a DB-25 to DB-25 RS-530 male to female straight thru cable for each WAN port (DB-25 to M34 adapters may be required for some network access devices) or RJ-45 10Base-T Ethernet cable for IP traffic.
- Set-up via:
 - RS-232 serial connection to PC, LAN Telnet, PC and modem connection, inband RVP™ management from an i-Series Gateway.
- SNMP support (MIBs and traps)

KTS/PBX COMPATIBILITY

- NEC: i-Series 28i, 124i, 124ie, 384i and 704i

i-SERIES TELEPHONE COMPATIBILITY

- 92550 Digital Single Line
- 92750 22 Button Handsfree
- 92753 22 Button Handsfree Display
- 92760 28 Button Handsfree
- 92763 28 Button Handsfree Display
- 92773 34 Button Handsfree Super Display
- 92783 34 Button Handsfree Display



BACK VIEW

CONNECTORS INCLUDED ON BACK OF UNIT:

- Internal power supply
- One Amphenol connector for 50-pin RJ-21 cable for interface with digital telephone sets
- Two DB-25 WAN ports for serial RVP™ connection. Redundant interfaces include V.35, RS-232 or RS-530
- One RJ-45 10Base-T Ethernet for RVPoIP™ and Telnet/HTML system management

i-Series Branch Extender

SOFTWARE SUPPORT

- TCP/IP protocol
- RVPoIP™ uses UDP/IP protocol for voice transmission
- Serial RVP™ uses HDLC encapsulation for voice transmission

NETWORK MANAGEMENT

- Telnet, inband RVP™, RS-232 console interface, SNMP, HTML, phone display (limited features)

OPERATING SYSTEM & UPGRADE

- Wind River's VxWorks®
- Software upgradeable via LAN FTP, RS-232 serial port to PC, or inband connection between the i-Series Branch Extender and an i-Series Gateway

VOICE PROTOCOLS

- Choice of voice compression standards:
 - G.729A (8 kbps)
 - G.726 (24 or 32 kbps ADPCM)
 - G.711 (64 kbps PCM)
- G.165 echo canceller software, with proprietary double talk detection enhancement
- Remote Voice Protocol (RVP™)
- Remote Voice Protocol over IP (RVPoIP™)
- IP voice packets are tagged for network traffic prioritization using IP Precedence or DiffServ

HARDWARE

- Form factor: low profile, 1U rack mountable unit
- Other components:
 - Motorola 68MH360, 33Mhz CPU
 - 4 MB flash memory, 512 kb ROM, 4MB DRAM
 - DSP analog devices 2187 (52 MIPS)

POWER SUPPLY

- Internal
- Universal auto ranging power supply
- Line voltage: 100 – 240 V
- Frequency: 47 – 63 Hz
- Maximum power consumption: 75 Watts

DIMENSIONS

- Size: 17" x 8" x 1.75"
(432mm x 203mm x 44mm)
- Weight: 6.5 lbs (3 kg)

OPERATING ENVIRONMENT

- Temperature: 32° - 130° F (0° - 55° C)
- Relative humidity: 5 to 95% (non-condensing)

REGULATORY APPROVALS

- FCC Part 15 Class B and FCC Part 68, NRTL/CSA, CE Mark and TUV



Product specifications subject to change without notice.

NEC's IP-based products utilize Voice over IP (VoIP) technology to deliver remote voice solutions. The voice quality of these solutions is dependent on variables such as available bandwidth, network latency and Quality of Service (QoS) initiatives, all of which are controlled by the network and Internet service providers. Because these variables are not in NEC's control, it cannot guarantee the performance of the user's IP-based remote voice solution.

Certain features may be optional, not applicable to all systems or require additional equipment. The information contained herein is subject to change without notice at the sole discretion of NEC America.

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NEC America, Inc., Corporate Networks Group
4 Forest Parkway, Shelton, CT 06484
Tel: 800-365-1928 Fax: 203-926-5458
cng.nec.com

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