

The NEAX[®] 2000 IPS

The Promise Fulfilled



Technology that helps you work smarter, not harder.

Today's technology offers great potential. The NEAX 2000 IPS is the promise fulfilled.

Take advantage of all the benefits of peer-to-peer IP Telephony for your mid-sized or branch office with the NEAX 2000 IPS (Internet Protocol Server) while enjoying the many hundreds of PBX features you've come to expect from NEC.

What is Peer-to-Peer Switching?

"Peer-to-peer" switching means that the stations participating in a call are connected directly to each other through the IP network. The signals travel through the IP network but do not "go through" the switch as they do in traditional telephony. The fact that the NEAX 2000 IPS can function in and support a "hybrid" network with traditional digital/analog switching, IP/TDM/IP switching and pure peer-to-peer IP switching means that users can continue

to utilize their existing equipment while they phase in IP Telephony and lay the foundation for future networks.

Reduced Costs of Peer-to-Peer IP Connectivity

The NEAX 2000 IPS retains all the features of the popular NEAX 2000 IVS², while offering significant cost savings associated with peer-to-peer IP Telephony such as:

Converged WAN Infrastructures –

Pay for service and maintenance of one network rather than two. By transporting voice signals across the Wide Area Network as IP packets, users can integrate their voice traffic with their data traffic.

Converged LAN Infrastructures –

Establish voice calls across the 10/100 Ethernet Local Area Network utilizing the existing plant cabling and allowing single cable termination to the desktop.

Reduced Equipment Requirements –

Reduce the need for cards while minimizing the required plant footprint as well. In traditional TDM telephony, a single port is required for each station and each tie line connection. With IP connectivity, multiple calls are controlled through a single 10/100 Ethernet port while voice travels directly between the user telephones.

Investment Protection

Even if you're not ready to migrate to 100% IP Telephony immediately, the NEAX 2000 IPS supports traditional circuit-switched telephony (Time Division Multiplexed) on both the trunk and line sides. This simultaneous compatibility allows current users of NEAX systems to retain their existing TDM equipment (thus protecting their original investment) as they begin to make the migration to pure IP Telephony. All previous versions of the NEAX 2000 can be upgraded to the NEAX 2000 IPS easily and inexpensively.

The Promise of NEON

Migration with investment protection is the cornerstone of NEC's Enterprise Open Network (NEON). NEON embodies NEC's



philosophy that drives development of complementary communication solutions for OPEN networks, delivering value-added capabilities and quality of service, while protecting investment; all without compromising the user experience.

Functions Alone or in a Network

The NEAX 2000 IPS functions as a standalone telephony system supporting both IP and traditional circuit switched connectivity. As such it can support up to 512 stations and 240 digital trunks. Yet it can also be networked with feature transparency into a system with other NEC telephony devices such as the NEAX 2000 IVS², the Electra Elite[®] Key System, the NEAX 2400 IPX and, of course, other NEAX 2000 IPS units*. The NEAX 2000 IPS supports node-to-node peer-to-peer connectivity. Up to 255 NEAX 2000 IPS nodes can be networked together.

The Bottom Line

The NEAX 2000 IPS offers the full range of PBX features while utilizing less equipment and occupying less floor space than a traditional PBX. Additionally, NEC's broad range of IP phone sets all have a multi-port switch built in, thereby enabling one-cable termination to the desktop. Furthermore, with NEC's migration strategy, you can switch to IP Telephony now or in the future while protecting your investment.

**Exact feature set will vary when networking different NEAX/Elite systems.*

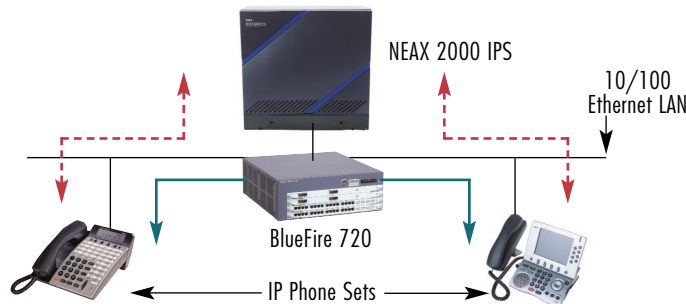
NEAX 2000 IPS Features

- Full complement of over 700 traditional NEC PBX features
- Intra-nodal (LAN) and inter-nodal (WAN) peer-to-peer IP connectivity
- Upgradeable from all prior versions of NEAX 2000
- Supports legacy TDM for digital and analog telephony
- Full-featured node-to-node CCIS inter-networking
- Supports full range of NEC IP telephone sets

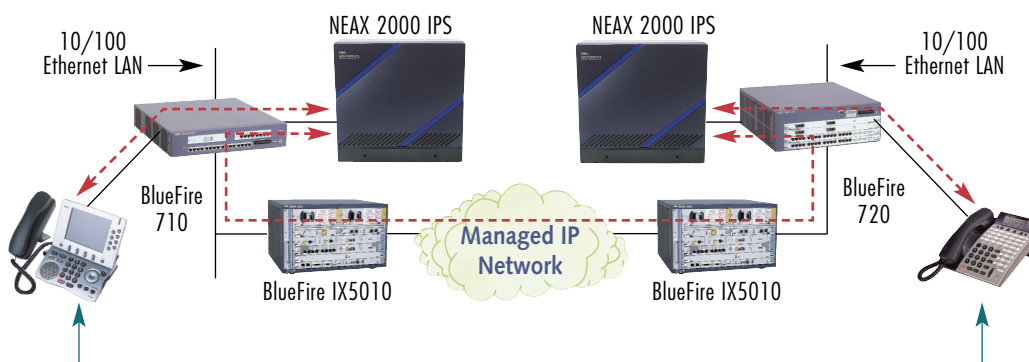
The NEAX 2000 IPS unit assists in the call setup process and provides the full range of NEAX telephony features

Once the call is established, it is "carried" only by the network. The NEAX 2000 IPS unit only "re-enters" when requested to provide a function such as conferencing in a third party

Node-to-Node Peer-to-Peer IP Connectivity In LAN



Node-to-Node Peer-to-Peer IP Connectivity Across WAN



NEAX 2000 IPS

A LOT FOR A LITTLE

Empowerment

- Minimal site prep costs
- Reduced implementation costs
- Manageable operational costs
- Reduced power consumption
- Minimal heat dissipation
- Reduced voltage requirements
- Universal single-pair cabling
- Reduced costly floor space
- Traffic measurement reports
- Variable system timers
- System inventory management and reporting
- System traffic and reporting
- Match communications power and costs to telephone users
- 16 Service Feature Classes (SFC)
- 16 Restriction Classes (RSC)
- Attendant control facilities
- Station access control
- Day/night class of service
- Forced or optional account codes
- Least cost routing
- Automatic route selection
- Line or trunk control
- Time-of-day restrictions
- Authorization codes
- Call duration timer/alert
- Least-cost/time-of-day routing
- Executive override
- Station message detail recording
- Peer-to-peer IP station

- Peer-to-peer IP CCIS
- Attendant override
- Executive busy verification
- Station monitor/tone
- Attendant busy verification
- Bad call notification
- Barge-in with forced release
- Attendant system status display

Reliability

- Custom LSI and VLSI circuits (NEC engineered)
- Stringent component selection
- Component quality control
- Zero defect manufacturing
- PIM (module) level testing
- Card-level testing
- Full-load burn-in
- System installation support
- Outstanding Mean Time Between Failure (MTBF) statistics
- Optional battery support
- Quality common control component design and engineering
- Power failure cut-through
- Proprietary switching matrix
- Quality module design and testing
- Telephone set quality control
- Quality module and shelf testing
- Industry standard power supplies
- Load sharing power components

Serviceability

FAULT PREVENTION

- Qualitative diagnostics (pre-timed or on-demand)
- Remote dial-up inquiry or polling
- Continuous quantitative diagnostics
- Fault Detection
- Remote troubleshooting
- On-site fault isolation
- Diagnostic reporting and printout

FAULT ISOLATION

- System status testing
- Service record print
- Diagnostic routine print
- FAULT CORRECTION
- Online card replacement
- Universal card slots
- Online programming
- 8 levels of password protection
- Faulty station lock-out
- On-site or remote fault detection

Versatility

- Port Interface Module (PIM) design
- PCM digital sampling
- Stored-program controller
- AMD processor
- Time division switching
- IP Switching
- Modular switching matrix
- Full traffic availability (non-blocking)
- Flexible numbering plan
- Universal station and line card slots

- Tone-to-pulse conversion
- Pulse-to-tone conversion
- Flexible line ringing
- Flexible line appearance

Adaptability

- 4 or 8 port stations and line cards
- Universal card slots
- Universal single pair cabling
- Special application processors
- Feature software enhancements
- System performance enhancements
- On-site or remote system reconfigurations
- Software packaging flexibility
- On-site or remote database management
- PC-based Windows®-driven, GUI Maintenance Administration Terminal (MAT)

Scalability

HARDWARE EXPANSION

- 8-slot station and low-cost hardware expansion
- PIM expansion
- Upgradable system configurations
- Upgradable application processors
- Universal line and station card slots

SOFTWARE EXPANSION

- Feature enhancements
- System performance enhancements
- System configuration upgrades
- Peripheral Enhancement
- Interface with peripheral systems
- Drive integrated CTI and OAI applications

NEC reserves the right to change specifications without notice.

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To find out more about the NEAX 2000 IPS and how NEC's powerful and versatile technology platforms can work for you, visit our website at www.cng.nec.com

Empowered by Innovation

NEC