

SWITCH MATRIX

A newsletter specifically for the Customers of Matrix Communications Group

Authorized Distributor
NEC
NEC America, Inc.
Business Systems Sales Division

NEC AMERICA HYBRID AND PBX TELEPHONE SYSTEMS
VOICE, DATA, FIBER OPTIC, AND VIDEO CABLING
ACTIVE VOICE – VOICE MAIL SYSTEMS (TELANOPHY)
NEC WIRELESS TELEPHONE SYSTEMS!



From the Editor:

Can you believe that another year has come and gone? And what a year it was! The year 2001 will certainly be recorded in the history books as being one of the most pivotal years, a year that changed life as we know it!

First and foremost, the thoughts and hearts of everyone at Matrix Communications Group are with the victims, survivors, and heroes of the September 11th terrorist attacks. Like most companies, Matrix Communications Group collected funds for the American Red Cross Disaster Relief Fund. Of course, no monetary contribution can even be compared to the brave men and women who offered their lives for their fellow Americans. To the firefighters, police officers, EMS workers, military, and everyone who bravely give of themselves everyday: THANK YOU!

The year 2001 also brought many exciting new developments to the telecommunications field. Matrix has brought on new products to meet the demands of the expanded marketplace. The following pages of this newsletter will bring you up to date.

Thank you for your support and continued patronage in these uncertain times. On behalf of everyone at Matrix Communications Group, we hope that the New Year brings you peace, happiness, and good fortune!

Valerie Glowacki
Editor-in-Chief

MATRIX COMMUNICATIONS GROUP OFFERING NEAX 2400 IPX

In response to the needs of the Upstate New York marketplace, Matrix Communications Group is proud to announce that we are now offering the NEAX 2400 product line, specifically the NEAX 2400 IPX!

The NEAX 2400 is NEC's largest and most advanced PBX. The NEAX 2400 provides over 780 service features that enhance productivity, reduce operating costs, and improve communications efficiently. Innovative modular hardware and software design allows the NEAX 2400 serve efficiently and grow incrementally over its entire size spectrum, ranging from 384 ports to over 24,576 ports.

More benefits of the NEAX 2400 IPX...

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Dterm Phone Family

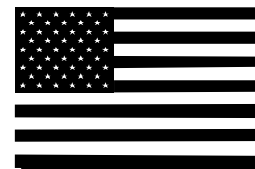


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REMEMBERING 9-11-01

VOICE OVER IP AND WHAT IT MEANS TO YOU

The Humble Beginnings

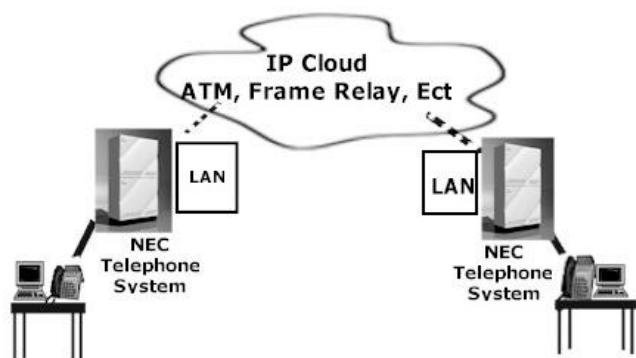
Think back to the 1990's when you bought your new PC. In the bundle of accessories, you may have found a microphone that allowed you to speak into your computer. Many of us tried to cash in on the offers for **free long distance** through the Internet. (*were you one of them?*). Can you remember the static and choppiness? This is an early example of Voice over IP or IP Telephony. Today, large corporations are directing a great deal of their voice traffic over IP. Voice over IP has come a long way!

What is Voice Over IP/IP Telephony?

Internet Protocol (IP) telephony describes the process of converting analog or digital communications (voice, fax, etc.) into digital data packets which are sent over the Public Internet or private Intranets.

How does it work?

A simple explanation: Voice over IP takes a digitized voice signal and slices it into packets and sends these packets with other packets (data, e-mail, video images) randomly across a network. At the receiving end, the random packets are reassembled into the original voice signal. The reassembled packets arrive as a normal sounding voice call.



Why use IP Telephony?

Money, Money, Money. Voice over IP can potentially save substantial amounts of money. You can save a great deal of money because NEC's Voice Over IP solutions allow you to use one cable for both your telephone and PC!

Sounds Great Right?

Here are some of the challenges:

Remember that IP networks send the packets of information in a random order to reach their destination. Packets associated with a single source may take many different paths through the network arriving out of sequence, with different delay times, or possibly not arriving at all.

This can be a result of poor Quality of Service. Quality of Service (or QOS) is a mandatory feature offered by network providers (i.e. local/long distance/internet providers). Without a guaranteed QOS, problems can include delays, echoes, jitters, or choppiness. Of course, through advancements in technology and NEC's commitment to excellence, many of these problems can be avoided.

How Can Matrix Help?

Matrix Communications Group can help your company utilize Voice Over IP technology by either cost effectively upgrading your current NEC telephone system or providing new NEC equipment. NEC has a committed to preserving the investments made by customers. This means that there **is no need to replace your entire telephone system!**

Perhaps the most important reason to consider Matrix and NEC for your IP telephony needs is the fact that NEC's IP Strategy allows you to **gain the IP Telephony you need without sacrificing** any of the **traditional voice features** you are used to and enjoy today. Other solutions cannot offer this approach and may sacrifice these voice features for VOIP! To reiterate:

You do not lose the voice features of your PBX or Key Telephone system as you would with many IP Telephone Systems!

In Conclusion - Approach Cautiously

Making the change from a traditional circuit based telephone system to a newer packet based IP telephone system is a decision not to be taken lightly. As this article indicates, there are several factors to consider. You must **be informed of your options** and you must **know what you want** from your communications system before taking the plunge into VoIP.

If you have any questions, please call one of our experienced Sales Representatives. They will be able to give you more information and help you in your journey to Voice over IP!



If you're in Western or Central New York please come to see us at the annual ITEC show in Rochester!

More benefits of the NEAX 2400 ...

continued from page 1

Flexible Line Size

Innovative Modular hardware and software design allows the NEAX 2400 IPX to efficiently serve from 384 ports to 24,576 ports. Modularity gives the system the ability to be expanded from its minimum configuration to its maximum capacity as the need arises.

Highly Reliable

The NEAX 2400 IPX is designed and manufactured to provide the highest level of reliability. The NEAX 2400 IPX is designed with such features as remote maintenance, distributed call processing, error-correcting memory, equipment redundancy, battery backup, self testing and automatic system alarm indications to ensure unsurpassed reliability

Redundancy

The basic design philosophy of the NEAX 2400 IPX is to provide redundant capacity for all critical circuitry such as processors, control circuitry, memory, switching network and power

Cost Controls

With Telecommunications costs growing, it is becoming increasingly important to control them. The NEAX 2400 IPX makes it possible for you to get a firm grasp on telecommunications costs. Through the use of such features as Least Cost Routing (LCR), Class of Service, and Station Message Detail Recording (SMDR), cost reduction and controls are possible.

Future Capabilities

Because the NEAX 2400 IPX uses a stored program control, performance enhancements and new features can be easily incorporated by simple changes in software. This means that your initial investment will be protected and that the system will not become obsolete .

To learn more about the NEAX 2400 IPX, please contact our sales department. You may also access brochures and further information on our website,

www.matrixcommunications.com. Follow the link for "products" and "NEAX 2400"!

ALSO NOW AVAILABLE

The NEAX ® 2000 IPS

In addition to the announcement of the NEAX 2400 IPX, NEC also announces the NEAX 2000 IPS. The NEAX 2000 IPS provides the perfect solution for forward thinking, medium sized companies considering Voice Over IP.

Because of it's unmatched flexibility, the NEAX 2000 IPS offers a choice of traditional TDM switching, pure peer-to-peer IP connectivity or a combination of both!

End users have access to hundreds of service features that they have come to expect from a PBX telephone system. Management can take advantage of all of the unique solutions that enhance productivity, reduce operating costs, and improve efficiently.

As with all of NEC's systems, the modular hardware and software design allows efficient, effective growth within each module from its minimum to its maximum configuration. The NEAX 2000 IPS software is as advanced as its hardware. It ensures the system will support evolving applications and have the reliability needed to compete in today's world and tomorrow's!

As with the previous version, the NEAX 2000 IVS², wireless is also available!

Contact our sales department today for more information!



CONTACT US:

Albany Office:

1015B Central Avenue
Albany, NY 12205
(518) 454-9055
Fax (518) 454-9057
Toll Free (877) 820-1249

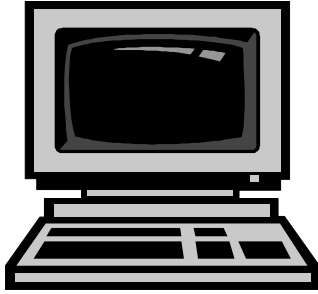
Rochester Office:

10 Vantage Point Drive, Suite 6
Rochester, NY 14624
(716) 352-9777
Fax (716) 352-8797
Toll Free (800) 925-6788

Syracuse Office:

126 Dwight Park Circle
Syracuse, NY 13209
(315) 451-4777
Fax (315) 451-4847
Toll Free (800) 925-6788

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**IF THIS IS AN EMERGENCY, PLEASE CALL
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Your Name:

On Site Contact:

Customer Number:
(if known)

Company Name:

Telephone Number:

Fax Number:

Your Address:

City, State, Zip Code:

Email Address:

What needs to be done?
See notes below

See notes below before completing!

Notes: Please be as specific as possible! The more information that you provide to us, the better we can serve you!

If this is a **Service Problem**, please include extension numbers involved, specific problems, and contact people who have experienced the problem.

If this is a **Move, Add, or Change** please include specific locations, work to be performed, number of phones or cables to be installed, ect.

SEND TO SERVICE DEPARTMENT

RESET

Also available online, a virtual tour of our office. Check it out!

www.matrixcommunications.com