Panasonic

Business Communications Server
KX-NS1000

Business Communications Server
KX-NS1000

An IP Platform to Deliver Business Communication

Communication servers used for business should provide solutions to current real world business requirements such as: simplifying and improving communications, lowering costs, improving productivity, supporting SOHOs and diversifying of the workplace. They should do all of these while flexibly adapting to the way each organisation works.

The KX-NS1000 Business Communications Server by Panasonic is designed to deliver these solutions by integrating hardware and software components in a modular way, allowing you to tailor a communications system to your specific needs.

The system functions can easily be expanded by adding software applications and licences, enabling the system to meet the requirements of any company — no matter how large or small.

Furthermore, users of an existing Panasonic legacy PBX can easily migrate to an IP system by connecting a KX-NS1000. Legacy systems can also be expanded to perform partial migration according to the available budget.

You can easily integrate your system with the KX-NS1000, depending on your specific needs or budget, because the KX-NS1000 is suitable for all kinds of businesses or industries, such as sales, customer service, hospitality, healthcare, and home teleworkers.

New Features
of the KX-NS1000

IP Networking -
Flexibility

The KX-NS1000 can be used as a master unit to construct a One-look Networking environment with KX-NS series units.

IP Networking -
Easy Setup

If you have an internet connection, you can install IP software phones and wireless systems without using a VPN.

Mobile Unified
Communication

You can use smartphones just like office extensions, and for chatting, imaging sharing, and video communication, etc.

Call
Centre

Recorded conversation data can be forwarded by e-mail and members in the same group can check who calls are for and respond to them.

New IP Cell
Station

The new IP-CS KX-NS0154 with LAN synchronization enables fewer systems and reduced costs compared to the KX-NCP0158.

IP Networking - Flexibility

The KX-NS1000 fully supports IP, an open protocol for establishing real-time communication. Using IP effectively can result in compelling advantages such as improving user efficiency, and lowering communication costs.

Controlling the Systems at Multiple Offices as a Single System   New Feature
- One-look Networking -

Panasonic's One-look Networking is a system where a single KX-NS1000 works and provides PBX features even though two or more KX-NS series units are networked.
It is not necessary to provide additional servers. The system can be expanded easily via a web based maintenance console. One-look Networking provides a maximum of 16 sites, and the large capacity of the KX-NS1000 supports up to 1000 users.

Slave Unit
KX-NS series

Master Unit
KX-NS1000

One-look Networking

Slave Unit
KX-NS series
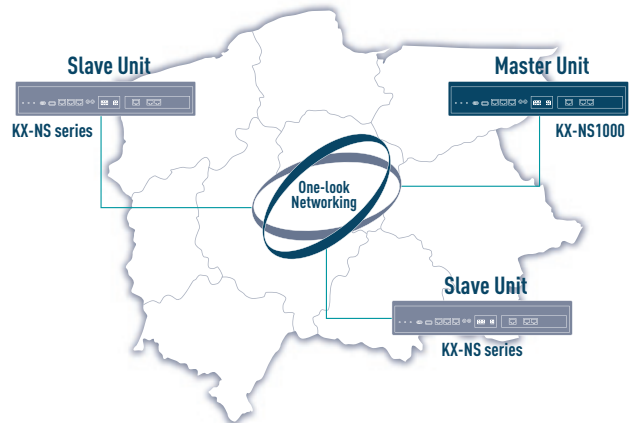
Reliable Backup System to Survive System Failures
- One-look Networking Survivability -

With One-look Networking, the system can continue to operate even in the event of a failover due to system trouble with the master KX-NS1000. By specifying a backup master site, the backup master site will act as the master site temporarily to continue communication services when there is trouble with the master site. This enables each site to continue operating independently. IP terminals only can also be registered to another PBX.

When system trouble occurs

KX-NS1000
(Master Unit)

KX-NS1000
(Backup Master Unit)

KX-NS series
(Slave Unit)
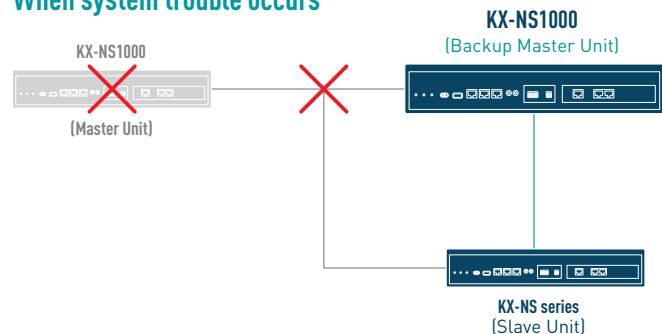
Build Systems for Up to 8000 Users
- QSIG Networking Support -

When the KX-NS1000 connects to existing PBXs such as the KX-TDE and KX-NCP via an ISDN private network or VoIP network (H.323), it is possible to flexibly increase capacity and provide QSIG features. QSIG networking is capable of supporting up to 8000 users and 17 or more sites on a network. It is not necessary to renew all PBX systems when the office population increases or a new branch is opened.

Site 1 Headquarter
KX-NS1000

OSIG Networking

Site 2 New Branch
KX-NCP
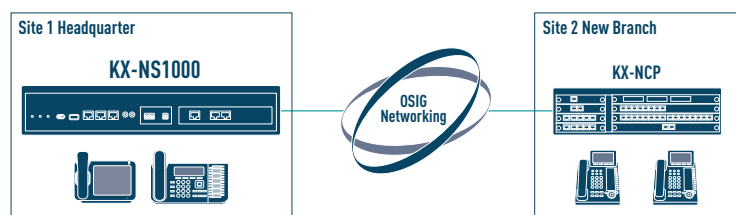
IP Networking - Easy Setup

The KX-NS1000 enables you to easily install IP devices if you have an internet connection. It also enables you to perform maintenance from a remote site without having to travel to an office. You can also install IP terminals in branch offices without having to visit them.
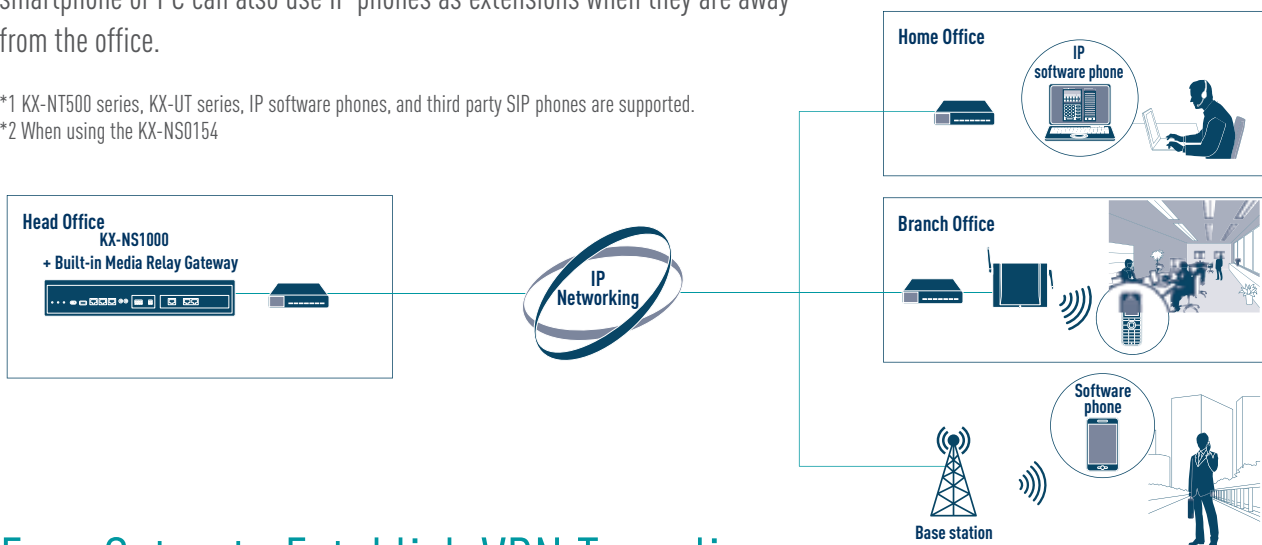
Remote Extension Setup New Feature

- Built-in Media Relay Gateway -

The Built-in Media Relay Gateway (MRG) of the KX-NS1000 enables you to install IP phones in locations distant from the office, such as the homes of teleworkers. By connecting with IP networking, IP phones[1] and DECT wireless systems[2] can be configured remotely and used as KX-NS1000 extensions. Furthermore, mobile workers using a software phone on a smartphone or PC can also use IP phones as extensions when they are away from the office.

[1] KX-NT500 series, KX-UT series, IP software phones, and third party SIP phones are supported.
[2] When using the KX-NS0154

Head Office
KX-NS1000
+ Built-in Media Relay Gateway

IP Networking

Home Office
IP software phone

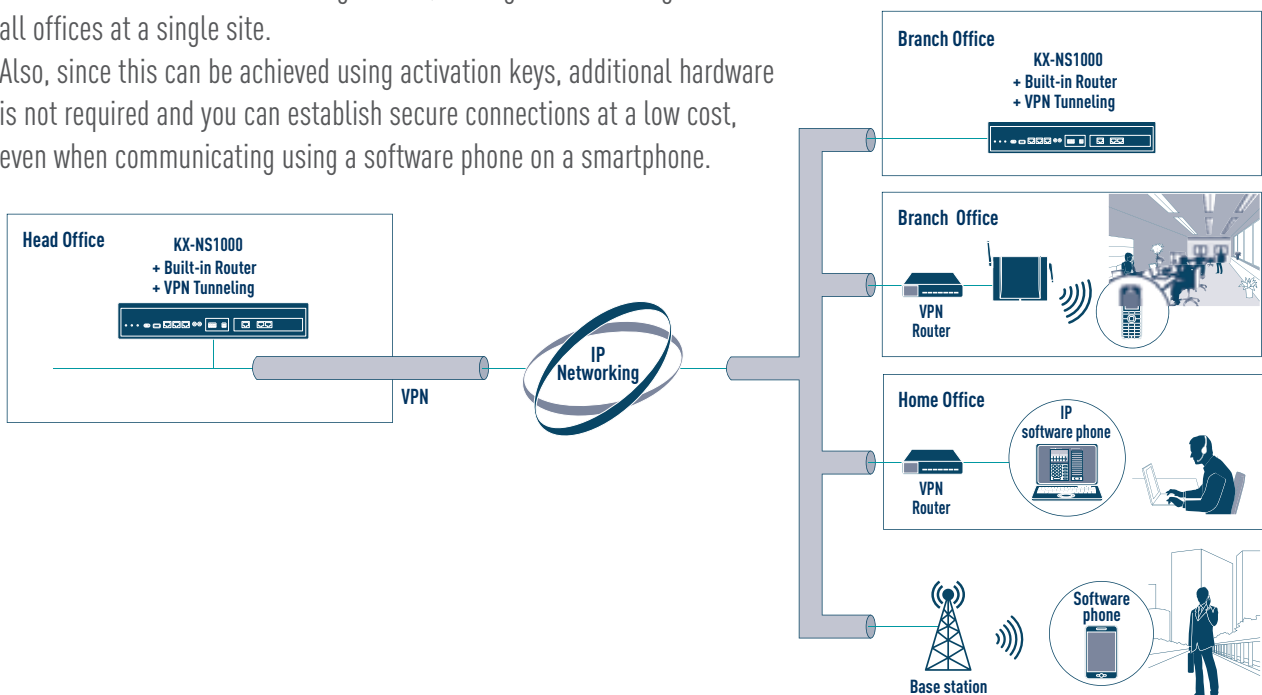**Branch Office**

Software phone

Base station

Easy Setup to Establish VPN Tunneling

- Built-in Router -

The router function of the KX-NS1000 can be used to support VPN with networks. If One-look Networking is used, settings can be configured for all offices at a single site.
Also, since this can be achieved using activation keys, additional hardware is not required and you can establish secure connections at a low cost, even when communicating using a software phone on a smartphone.

Head Office
KX-NS1000
+ Built-in Router
+ VPN Tunneling

VPN

IP Networking

Branch Office
KX-NS1000
+ Built-in Router
+ VPN Tunneling

Branch Office
VPN Router

Home Office
IP software phone
VPN Router

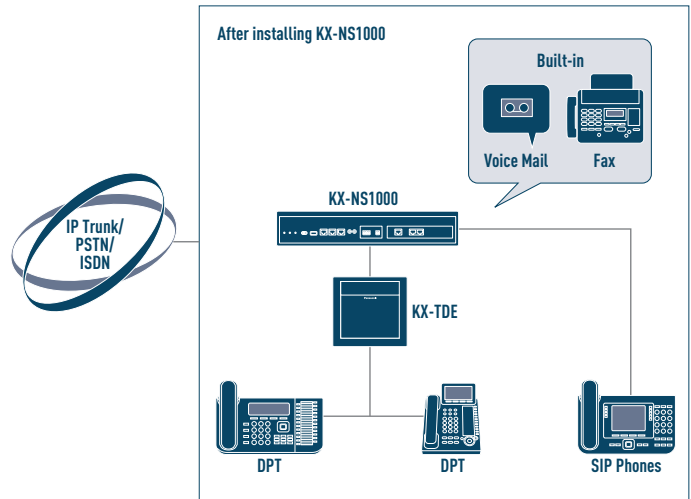Software phone

Base station

IP Migration

By connecting an existing Panasonic PBX system with the KX-NS1000, you can efficiently make legacy lines and terminals more expandable and flexible. The KX-NS1000 enables you to add IP capacity and functionality to an existing Panasonic PBX system at a low cost.

Phased IP Migration While Utilizing Existing Equipment
- IP Smart Migration -

By connecting the KX-NS1000 to an existing Panasonic PBX*, you can expand IP trunks and terminals and utilize the Unified Messaging feature of the KX-NS1000. This is also recommended for KX-NS1000 users that want to use legacy trunks and terminals for flexible system expansion. You can also use the KX-NS1000 as a server for adding a voice mail function. Assisted migration to an IP system, according to your budget and needs, is also available.

* An existing PBX refers to a Panasonic KX-TDE series, KX-NCP series, or KX-TDA100/100D/200/600/620.

After installing KX-NS1000

IP Trunk/ PSTN/ ISDN

KX-NS1000

Built-in

Voice Mail   Fax

KX-TDE

DPT   DPT   SIP Phones

Preparing for Future IP Migration
- Legacy Trunk Adaptor -

Users that mainly use a legacy trunk (E1/PRI) but want to prepare for future IP migration can use trunk adaptors (KX-NS8188/KX-NS8290) for the KX-NS1000 to increase the maximum number of legacy lines available and enable you to use both legacy and IP trunks. Since the adaptors can be connected to a maximum of 16 units, trunks can be flexibly expanded according to your budget.

KX-NS1000

IP Trunk

LAN

KX-NS8188
KX-NS8290

ISDN   E1
PRI
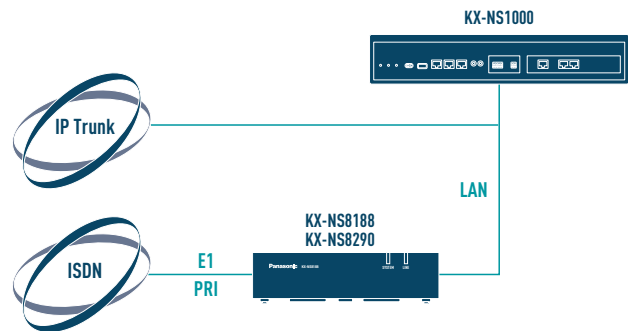
Unified Communication

The KX-NS1000 gives you great flexibility for managing messaging services. Voice and fax messages can be received using the built-in Unified Messaging system in a number of ways; as e-mail attachments, through the KX-NS1000 IMAP4 server, or using the Communication Assistant. This means you can listen to voice messages using their phone or PC, for maximum flexibility.

Built-in Voice Mail

The KX-NS1000's built-in voice mail can handle incoming calls, record messages and conversations, and manage mailboxes all from a cellular phone. 2 channel and 2 hour voice storage is preinstalled, and this can be expanded to 24 channels and 1000 hours.* Voice mail resources can also be shared across the network (using One-look Networking).

*Requires an activation key and the storage memory to be changed.

- Voice Mail/Mail Box Feature
- Custom Service
- Automated Attendant
- Interview Service
- Automatic Two-way Recording for Managers

Fax Server

With its fax server, the KX-NS1000 can receive, distribute, and send faxes. Received faxes can be saved in mail boxes and notify you via the message waiting lamp or e-mail, forwarded, printed, and downloaded.

E-mail Integration

The KX-NS1000 sends an e-mail to the corresponding user when they have new messages/FAX. Missed calls without a voice message also can be e-mailed. Receiving e-mail means you will not miss contact from your customers.

Voice Message

Fax Message
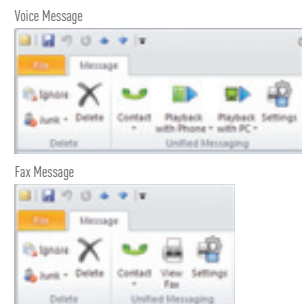
Communication Assistant

Communication Assistant is a highly intuitive PC-based application suite with a variety of collaboration tools.
Point-and-click telephony, presence and availability information, MS Outlook integration, visual voice messaging, CRM database integration and much more besides are combined in one single application.
Four versions of the Panasonic Communication Assistant are available, all of which offer high-performance functions for desktop integration and telephone system management.

CA Basic-Express/CA PRO
For Personal Productivity
You can easily make calls by simply searching for a desired contact from a customisable contact list. You can also see the phone status and PC status of employees in remote rooms or branches from the PC on your desk.

CA Operator Console
For Operators or Receptionists
You can perform call parking and call transferring with simple drag-and-drop operations in the graphical interface. Multi-site support is also available when using One-look Networking.

CA Supervisor
For Teams or Executive Users
Supervisors can monitor the performance of set extension groups in real-time with simple mouse operations and manage operators by listening in on telephone conversations and taking over calls.

Microsoft Exchange Server Integration

If CA Server is installed on your network, you can integrate a Microsoft Exchange calendar with CA Client. When Microsoft Exchange Server is integrated with CA Client, your presence will automatically change according to the contents of your Exchange calendar.

Microsoft Exchange calendar

CA Client Exchange integration settings

CA Client presence changes
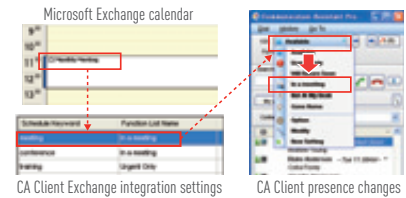
Linking with Panasonic Partner's Applications

You can link with CA and Panasonic partner's applications to provide various applications.

■ Appointment Reminder Solution
You can use text to speech to confirm appointments with customers. By registering the required information in advance, the system can contact the customer on a specified date. The customer can then follow the voice guidance to check and change schedules, and you can view the result on a PC. This enables you to check the latest schedules for appointments without spending time or money, and improves customer satisfaction because it helps customers remember appointments.

Automatic Outbound Dial and Notify

Customer
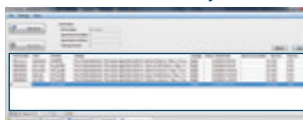
For detailed information on applications, access the following website.
http://panasonic.net/pcc/products/pbx/solutions/

■ Mobile Unified Communication   New Feature
Poltys CA RCS is software which runs on a smartphone or tablet to provide a unified communication environment both inside and outside the office, together with CA. You can communicate with each other in various ways (video/voice calls, text chatting, image sharing, etc.) so wherever you or your mobile workforce is operating, communication remains clear, constant and cost-effective.
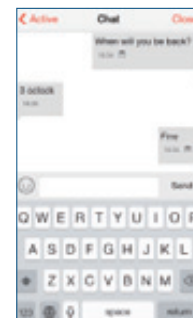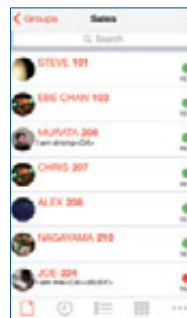
Call Centre

The KX-NS1000 includes an advanced call routing function for small to medium size call centres. This function can be used without an external CTI server. It enables you to provide various functions. Furthermore, the solutions can be expanded to suit more sophisticated call centres in combination with Voice Mail functions, the Communication Assistant and third party CTI applications.

Automatic Voice Guidance for Customers

The caller can recognise their position in the queue through voice guidance. They can then decide whether to stay in the queue or leave a message and hang up, according to the situation.
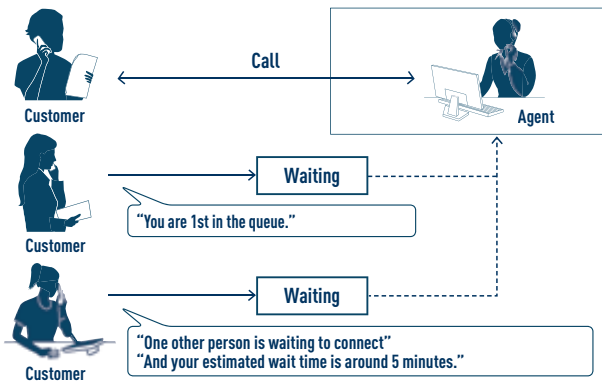

Call Pickup Group Monitor New Feature

When receiving a call with members of a pickup group, it is possible to notify the other members by displaying the extension number/name, enabling the other members to take the calls.
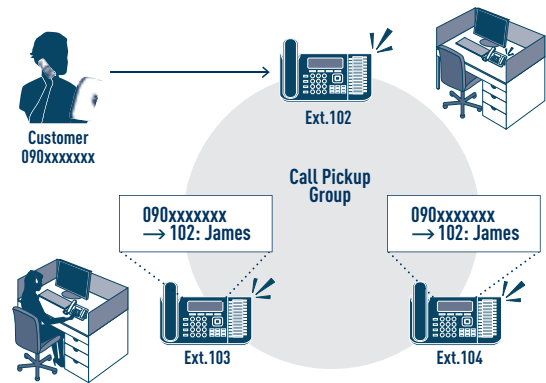
Auto Recording and Backing Up Data

The KX-NS1000 can be used to automatically record conversations with customers, which can be listened to by supervisors, saved to an external server, and used to understand problems or opportunities relating to customer service.
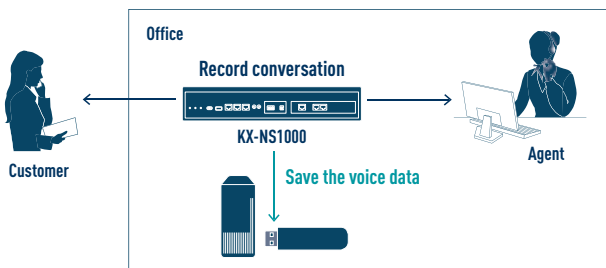
Monitoring Callers and Call History Report

The supervisor can monitor the live status of call centres to understand on-site problems and improve them. Reports can also be used to understand problems or opportunities relating to customer service. Reports data can be saved to an external server.

Mobility

The Multi-Cell DECT System also provides various wireless solutions, by making extension phones wireless and enabling you to keep in touch with people in charge whenever and wherever they are, as long as they are within the coverage area.

Multi-Cell DECT System

The Multi-Cell DECT System lets you carry on your conversation over lightweight, wireless extensions while you are away from your desk or moving around an office, factory, warehouse, or other large facility.

Office KX-NS1000 Shop floor

Hand-over

Meeting room Warehouse
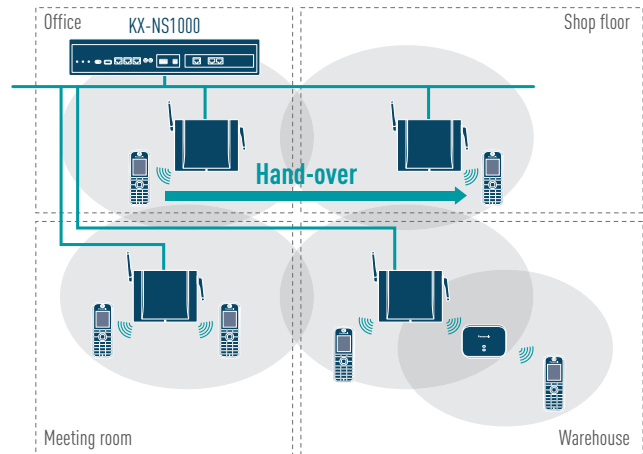
Expandable Call Range New Feature
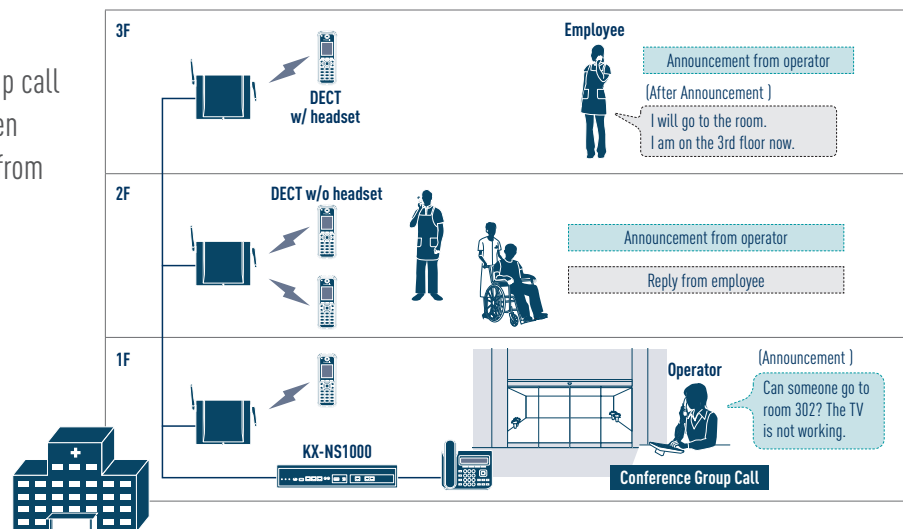## - IP Cell Station -

The new IP-CS KX-NS0154 supports LAN Synchronization for constructing wireless systems with lower costs using a smaller number of units than the existing KX-NCP0158. Since Media Relay Gateway is also supported, it can be easily installed in home offices to enable easy adoption of a wireless system.

KX-NS0154

Group and Conference Call Functions
For Directions to Staff around the Premises

Paging over Panasonic DECT phones is available for hospitality and other industries using the conference group call feature. All paged members can listen to both announcements and replies from users.

3F

DECT w/ headset

Employee

Announcement from operator

(After Announcement)
I will go to the room.
I am on the 3rd floor now.

2F

DECT w/o headset

Announcement from operator

Reply from employee

1F

KX-NS1000

Operator

(Announcement)
Can someone go to room 302? The TV is not working.

Conference Group Call

The KX-NS1000 provides solutions for linking to cellular phones for companies with many employees working outside the office or at home.

Using Smartphone as Extensions

There is no need for you to have multiple contact numbers for people who also use a cellular phone. The KX-NS1000 includes feat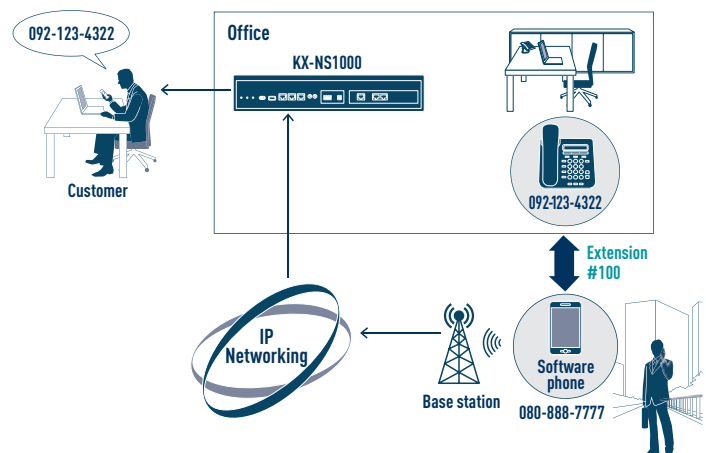ures for integrating cellular phones and smartphones with your office communications network, allowing mobile terminals to be used just like office extensions .

Customer

Office
KX-NS1000

Cellular phone network

IP Networking

Base station
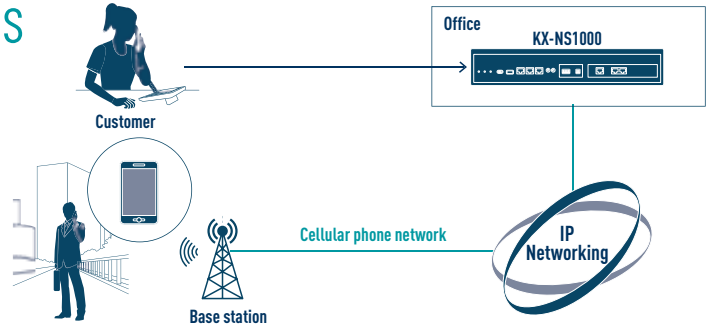
Using Desktop Phones and Software Phones With the Same Number
- One Numbered Extension -

IP phones such as a desk phone or software phone can be paired to use a single number.
When you make a call, the customer is notified of your office phone number instead of the number of your cellular phone. This means you only need to notify the customer of your office phone number.

092-123-4322

Office
KX-NS1000

Customer

092-123-4322

Extension #100

IP Networking

Base station

Software phone
080-888-7777

Conference

Various teleconferencing functions make work at or away from the company more efficient. These reduce business trip costs and speeds up decision making with smooth communication.

High Definition Voice Conference
For In-Company Staff

With the various voice processing technologies of the KX-UT series SIP phones and the KX-NT700 IP Voice conferencing phone, an IP network can be used to perform low cost and high audio quality voice conferences.

IP Conferencing Phone KX-NT700

- Full duplex acoustic echo-canceller
- Conference recording with SD Memory Card
- Speech speed conversion

- Power-over-Ethernet (PoE)
- Conferencing phone manager application (Simple video conferencing system with Panasonic Network Camera)*

* Peer to Peer connection only

Free Location Conferences
For In-Company Staff

Even if conference rooms or meeting corners do not have telephone lines or a LAN, you can have voice conferences with the KX-NT700 IP conferencing phone as long as it is connected to a DECT portable station within range of an IP cell station.

Conference Group Calls from Outside
For Outside Staff

Conference calls can be made simply by calling a phone number for a contact group registered in advance that contains up to 32 people (including the caller), without using charged voice conference services available from telephone carriers.

Office

PSTN/
IP Trunk

Outside
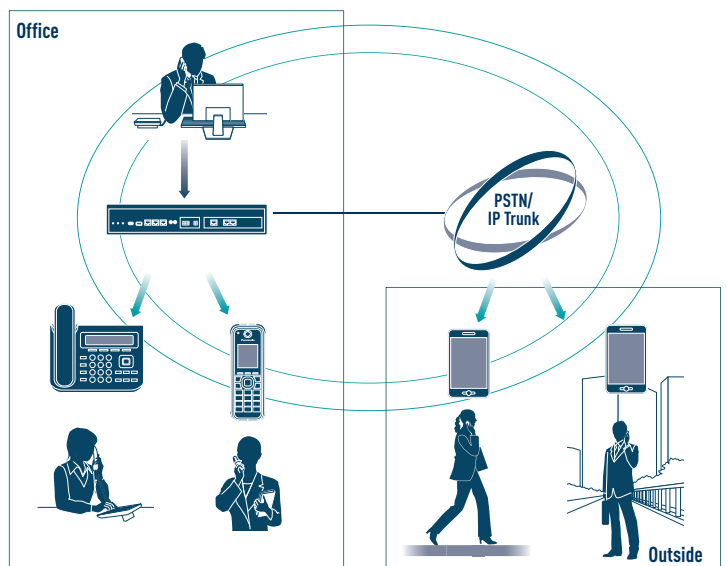
Powerful Solutions to Meet Your Needs and Requirements

Sales

These days, personal customer contact is the key to gaining a competitive edge and ensuring customer satisfaction. The flexibility and availability of sales staff are crucial factors for achieving success, and they can be enhanced with call handling, speed dialling, and more.
KX-NS1000 provides all that you need to keep in contact with and manage existing and prospective customers.

Customer Service

In customer service, incoming calls must always be routed correctly, and accurate call logs and reports are essential. The unified message function and solutions of the KX-NS1000 meet these requirements.
To ensure the availability of the reporting system, the Panasonic application interface can also be fully integrated into many existing and new report applications.

Hospitality

In the hospitality industry, communication systems need to be flexible, economical, and user friendly enough to meet individual needs.
System management with PC integration is also essential. The KX-NS1000 has the solutions to meet these needs. It can improve staff collaboration to provide higher quality service.

Factory

Inside large factories, it is essential to convey information smoothly and reliably. The same goes for contacting the outside world.
The KX-NS1000 provides solutions that enable uninterrupted high-quality conversations in the various environments found inside factories.

Terminal Line-up

Panasonic provides various models of telephones and DECT wireless systems to meet your needs.

For Executives/Supervisors

For executive users that need a larger screen and higher specifications.

KX-**UT670**

- 7 inch Backlight LCD Display
- Colour Touch Screen
- 4 x 6 Self-Labelling, Flexible CO Buttons
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Network camera monitoring
- Application Development (Java Supported)

KX-**NT560**

- 4.4 inch Backlight LCD Display
- 4 x 8 Self-Labelling, Flexible CO Buttons
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Built-in Bluetooth for Headset
- Available in black and white

For Standard Users

For staff that often communicate with customers and want to make work more efficient.

KX-**NT556** / KX-**NT553**

- 6-Line (KX-NT556) or 3-Line (KX-NT553) Backlight LCD Display
- 12 x 3 (KX-NT556) or 12 x 2 (KX-NT553) Self-Labelling, Flexible CO Buttons
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Available in black and white
- Option: KX-NT505 (Add-on 48-Key Module)

Photo: KX-NT556 with KX-NT505

KX-**NT551**

- 1-Line Backlight LCD Display
- 8 Flexible CO Buttons
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Available in black and white

For Entry Users

For cost-minded staff that need to perform simple telecommunications.

KX-**NT511A / **KX-**NT511P**

- 1-Line LCD Display
- 3 Flexible CO Buttons
- Full Duplex Speakerphone
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE) (KX-NT511P)
- Included AC Adaptor (KX-NT511A)
- Available in black and white

Photo: KX-NT511A

DECT Wireless System

For details on the KX-TCA series, refer to the multi-cell DECT system catalogue.

Portable Station

Tough Model
KX-**TCA385**

- Wideband Audio
- IP65 Compliant Dust Protection and Splash Resistance
- 1.8 inch Colour LCD
- 12 Flexible Keys
- Noise Reduction
- DECT Paging
- Vibration
- Built-in Bluetooth

Dimensions (W x D x H) (mm):
55.0 x 23.0 x 151.5
Weight: **150 g (Belt clip is included)**

Slim & Light Model
KX-**TCA285**

- Wideband Audio
- 12 Flexible Keys
- 1.8 inch Colour LCD
- Noise Reduction
- DECT Paging
- Vibration
- Built-in Bluetooth

Dimensions (W x D x H) (mm):
48.5 x 17.9 x 127.5
Weight: **88 g**

Standard Model
KX-**TCA185**

- Wideband Audio
- 12 Flexible Keys
- 1.8 inch Colour LCD
- Noise Reduction
- DECT Paging
- Vibration

Dimensions (W x D x H) (mm):
48.2 x 25.4 x 146.3
Weight: **115 g**

IP Cell Station

KX-**NS0154**

New IP-CS

- 4ch/8ch Speech Paths
- LAN Synchronization
- Compatible with MRG

IP Software Phone

- Compatible with MRG
- 48 FF key Function
- Automatic Recording

KX-NS1000 System Capacity

Maximum Trunks
The KX-NS1000 supports the following number of trunks.

Type	Stand-alone System	Stand-alone System with Legacy GW[*1]	One-look Networking	One-look Networking with Legacy GW[*1]
Total Number of Trunks	256 ch	256 ch	600 ch	600 ch
H.323	96 ch	96 ch	128 ch	128 ch
SIP	256 ch	256 ch	256 ch	256 ch
BRI	8 ch	256 ch	128 ch	600 ch
PRI23	23 ch	230 ch	368 ch	600 ch
PRI30	30 ch	256 ch	480 ch	600 ch
T1	N/A	240 ch	N/A	600 ch
E1	N/A	256 ch	N/A	600 ch
Analogue	2 lines	256 lines	32 lines	600 lines

Maximum Terminal Equipment
The following shows the number of each terminal equipment type supported by the KX-NS1000.

Type			Stand-alone System	Stand-alone System with Legacy GW[*1]	One-look Networking	One-look Networking with Legacy GW[*1]
Telephone	Total Number of Extensions		640	640	1000	1000
	SLT		2	480	32	1000
	KX-DT300/KX-T7600 Series DPT		N/A	320	N/A	512
	KX-T7560/KX-T7565DPT		N/A	256	N/A	512
	Other DPT		N/A	320	N/A	512
	APT		N/A	160	N/A	336
	IP-PT		640	640	1000	1000
	SIP		640	640	1000	1000
		SIP Phone	640	640	1000	1000
		KX-UDT Series	255	255	255	255
DSS Console			N/A	64	N/A	64
CS			64	64	128	128
	CS (2ch/8ch)		N/A	64/32	N/A	128/64
	IP-CS (8ch)		64	64	128	128
	SIP-CS		64	64	128	128
PS			512	512	512	512
Voice Processing System (VPS)			N/A	4	N/A	8
Doorphone			1	33	8	64
Door Opener			1	33	8	64
External Sensor			1	33	8	64
External Relay			N/A	33	N/A	64

*1 The capacity varies depending on which cabinet is being used as the legacy GW.

Note: The capacity varies depending on the setting conditions. Contact your dealer for further information.

Communication Assistant (CA) Specification *Software version 4.1 or later required.

	CA Basic-Express	CA PRO	CA Operator Console	CA Supervisor	CA RCS
Maximum users (Without CA Server/With CA Server)	240/1022	240/1022	128/128	4/128	240/1022
Supported platform	Windows PC*1				iOS/Android device
Usage via mobile (3G/4G) network	N/A	N/A	N/A	N/A	Yes
Automatic presence integrated with MS Exchange scheduler	N/A	Yes	Yes	Yes	N/A
Call contact	10	1000			
Call history	10	1000			1000 or last 10 days
Conference originator from application	N/A	Yes	Yes	Yes	N/A
Flexible call handling/Monitor & Seize CO line	N/A	N/A	Yes	N/A	N/A
Listen-in/Busy override/Take over	N/A	N/A	Yes	Yes	N/A
Follow me	N/A	Yes	N/A	N/A	Yes
Video call	N/A	N/A	N/A	N/A	Yes
CRM integration by TAPI	N/A	Yes	Yes	Yes	N/A
Chat	Yes	Yes	Yes	Yes	Yes

*1 Supports Windows Vista Business (32/64-bit) / Windows 7 Professional (32/64-bit) / Windows 8 (Desktop Mode only)

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