

Panasonic



DISCOVER A WORLD OF BENEFITS IN ONE BUSINESS COMMUNICATIONS SOLUTION

BUSINESS COMMUNICATIONS SERVER
TECHNOLOGY FOR A BETTER WORKING WORLD



KX-NS1000

An IP Platform to Deliver Business Communication Solutions

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.

Business Communications Server **KX-NS1000**





New Features of the KX-NS1000

Easy Setup [See page 5](#)

Even at remote locations such as the homes of teleworkers, IP phones can be easily installed from a single site and used as extensions. The same method can be used to extend a VPN to the entire office network for more secure communication.

Gradual IP Migration to Suit Your Budget [See page 6](#)

In addition to customers seeking total IP migration, the KX-NS1000 supports phased implementation of future IP migration for customers that wish to utilize existing equipment.

Call Centre Solution [See page 9](#)

Voice guidance for customers and call data can be output to reports and analyzed for improved customer satisfaction. Call data can be saved to an external server and exported as necessary.

Wireless Solutions [See page 10](#)

Softphones and desk phones can be paired and used with a single extension number, which leads to improved work efficiency.

Varied Terminal Line-up [See page 11 \(DECT Portable Station\)](#) and [pages 14-15 \(Desktop Terminal\)](#)

A wide range of terminals and handsets are available to meet various user needs.

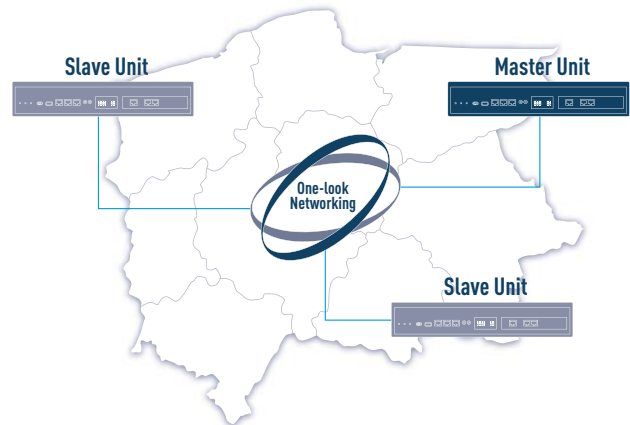
IP Networking – Flexibility

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 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 PBXs 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.



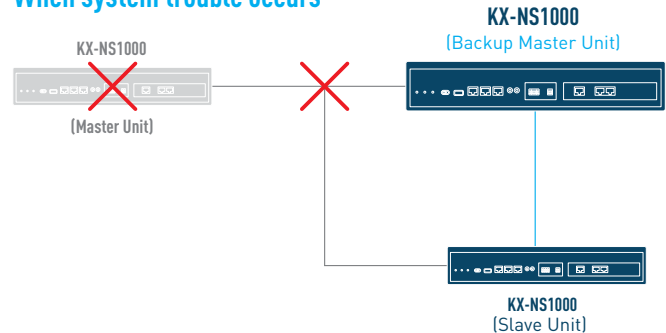
Reliable Backup System to Survive System Failures

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.

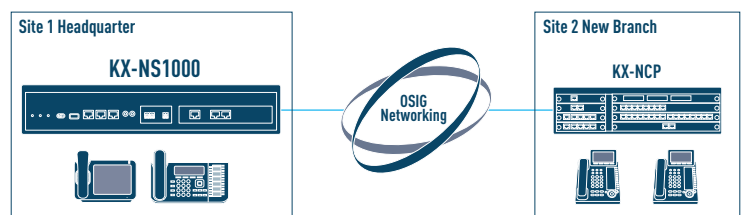
When system trouble occurs



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.



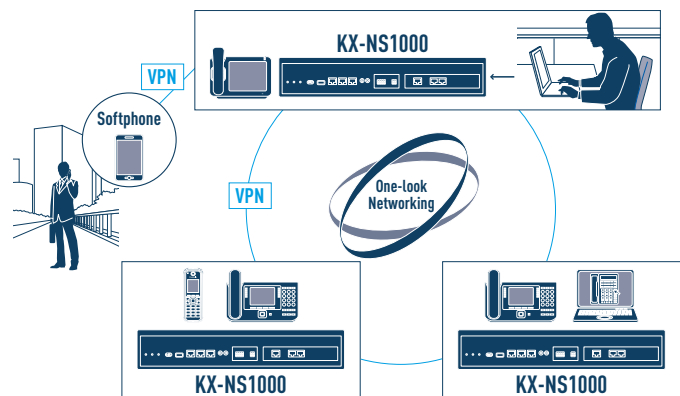
IP Networking – Easy Setup

The KX-NS1000 enables you to use One-look Networking and activation keys to easily build flexible and user friendly systems with a low cost of operation. You can also install IP terminals in remote offices without having to visit them.

Easy Setup to Establish VPN Tunneling New Feature

Built-in Router

The router function built in* to the KX-NS1000 can be used to support VPN with networks built with One-look Networking. Since 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 softphone on a smartphone.

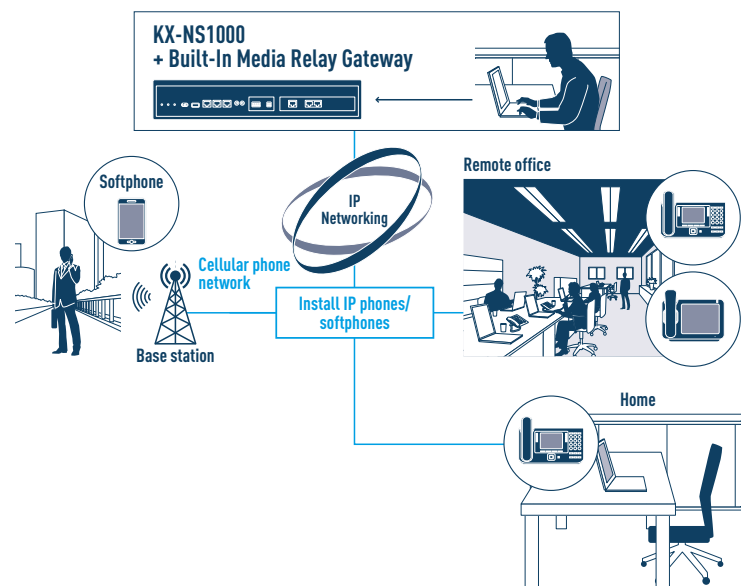


* Requires an activation key.

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* can be configured remotely and used as KX-NS1000 extensions. Mobile workers using softphones can also use IP phones as extensions when they are away from the office.



*KX-NT500 series, KX-UT series, and third party SIP phones are supported.

IP Migration

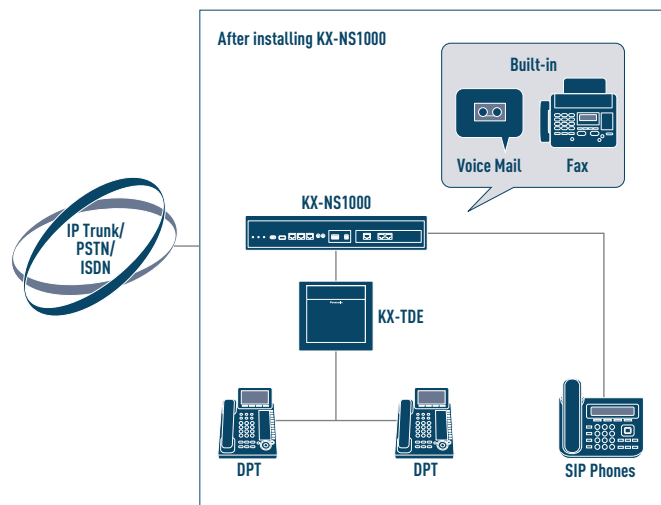
By connecting an existing Panasonic PBX system with the KX-NS1000, you can efficiently make legacy lines and terminals more expandable and flexible. The KX-NS1000 enables you to add IP capacity and functionality to an existing Panasonic PBX system at a low cost.

Phased IP Migration While Utilizing Existing Equipment New Feature

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.

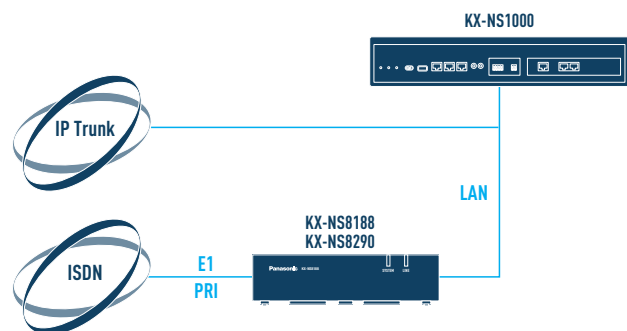
* An existing PBX refers to a Panasonic KX-TDE series, KX-NCP series, or KX-TDA100/100D/200/600/620.



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.



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

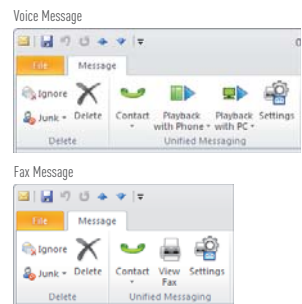
Built-in Fax Server

With its built-in 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

KX-NS1000 sends an e-mail to notify you when you have new fax and voice messages. Fax and voice messages can also be received as attachment files.

The KX-NS1000 also supports IMAP4 servers, so you can access the content of their mail boxes using a common e-mail client that supports the IMAP4 protocol, such as Microsoft Outlook.



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.

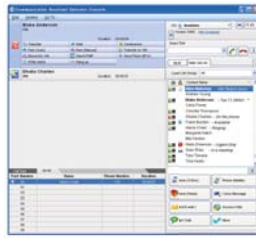
CA Basic-Express/CA PRO For Personal Productivity

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.



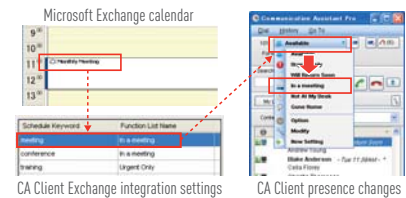
CA Supervisor For Teams or Executive Users

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.



Linking CA with your Phones CA Integrate (Follow-me)

You can call customers by registering your number and customer numbers in CA. You can then use your mobile phone and home phone as extensions to have conversations with customers. This enables you to communicate with customers both inside and outside the office without purchasing new phones, as long as you have an environment that supports CA.

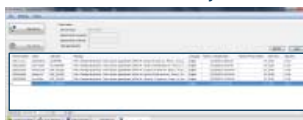
Linking with Panasonic Partner's Applications

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



Auto Attendant Solution

Voice recognition can be used to connect calls from customers to the person in charge. Various greetings can be played back to the customer according to the presence status set in CA. Detailed operations can be performed according to the customer, such as forwarding calls to your mobile phone or another member of staff, or transferring to voice mail. This enables efficient operations and leads to reduced costs and improved customer satisfaction.

User State: Not at my desk
→ Greeting
→ Transfer to VoiceMail

User State: Will return soon
→ Greeting
→ Disconnect

User State: Gone home / Urgent only
→ Greeting
→ Transfer to Secretary



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

Call Centre Solution

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 voice guidance for customers that are waiting, automatically record conversations, and search for past data when replying to customers. You can also export the call data to search by date and use these results to understand problems or opportunities relating to customer service, and back up recorded call data and restore it via network as necessary. 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.

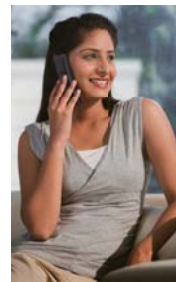
- Queue Announcement
- Uniform Call Distribution (UCD)
- Priority Routing for VIP Calls
- Intercept Routing/Busy on Busy
- Report per Agent/Group
- Multiple Group status Monitor by Supervisors
- Listen-in by Supervisors
- 1:N Ringing (Group Ringing)/Delayed Ringing
- Busy Override

Automatic Voice Guidance for Customers*

Queue Announcement

New Feature

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



"Four other people are waiting to connect"

"And your estimated wait time is around 10 minutes."

"Thank you for calling Panasonic. The department you are calling is busy. Please hold the line. We will answer your call shortly."

Music on Hold is set for 30 seconds

New Announcement

"One other person is waiting to connect"

"And your estimated wait time is around 2 minutes."

"We are sorry to keep you holding. If you'd like to connect to the operator, press 0. Otherwise please hold the line."

Monitoring the Waiting Status of Callers*

New Feature

Live Status Monitor for Supervisors

The call centre supervisor can monitor the live status of callers, such as how many people are waiting in the queue and for how long. The supervisor can also monitor the status of each agent and grouped members, to understand on-site problems and improve their call centre.



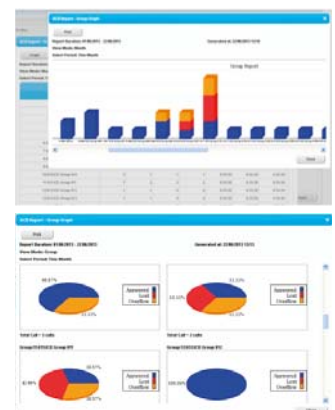
Call History Report*

New Feature

ACD Report for Supervisors

The call centre supervisor can specify a range of dates and times to be provided with a variety of reports for studying the status of the KX-NS1000. Data for up to 600,000 calls can be stored. The report is based on the agents or groups that have been monitored.

The supervisor can use these results to understand problems or opportunities relating to customer service, and back up recorded call data and restore it via the network as necessary.



* Requires an activation key.

Wireless Solutions

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

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.

Cellular Phone Integration

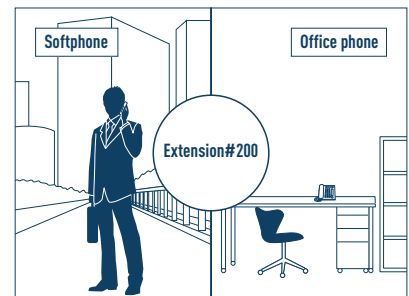
There is no need for you to have multiple contact numbers for people who also use a cellular phone. The KX-NS1000 includes features for integrating cellular phones and smartphones with your office communications network, allowing mobile terminals including smartphones and softphones to be used just like office extensions – making and receiving calls and using system short dialling codes from mobile devices.

Using Desktop Phones and Softphones with the Same Number

New Feature

One Numbered Extension

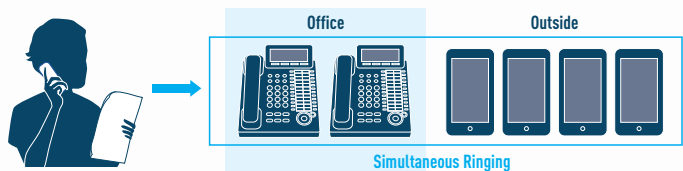
You can pair the desktop phone at your office with a softphone on your smartphone, enabling both phones to be called with a single extension number. You can also forward calls to the paired phone at the touch of a button. This enables customers to easily contact you using a single number.



Simultaneously Receiving Calls with Grouped Phones

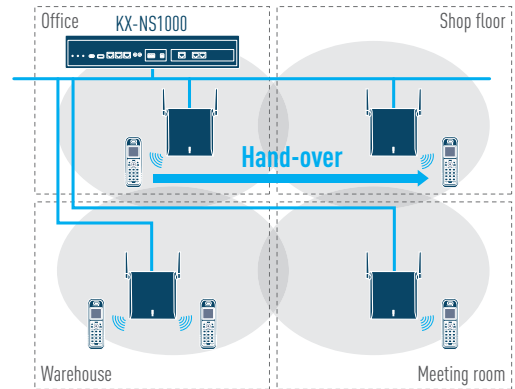
Outside Destinations in ICD Group

Up to four cellular phones can be assigned as members of an Incoming Call Distribution (ICD) group, and receive calls to the group. Calls to the extension in the office can be received simultaneously on cellular phones. This enables a member of the group to handle calls when the main contact person is away.



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.

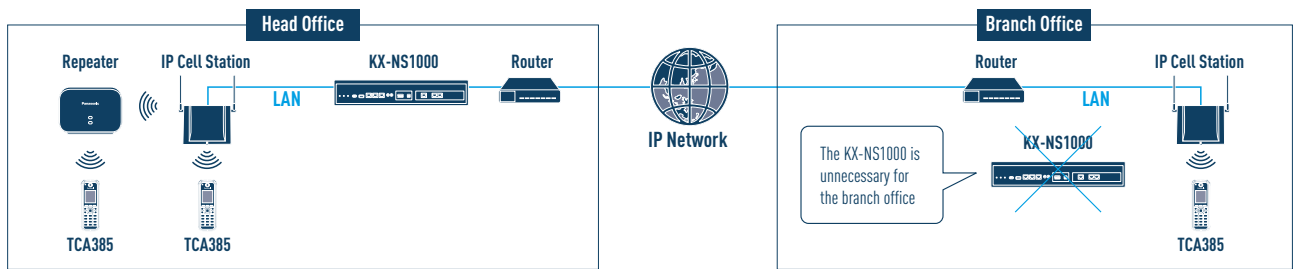


Expandable Call Range

IP Cell Station




An IP cell station allows you to connect a PBX via LAN. If there is a LAN in your work place, you can communicate with remote locations such as branch offices via an IP cell station, increasing the efficiency of your business. Even if you do not have a LAN, you can use a repeater to expand the range of calls within the same office. Feel free to expand the call range according to your business needs.

IP Cell Station
KX-NCP0158
 LAN I/F
 8 speech paths



DECT Portable Station New Terminal

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

<p>Tough Model KX-TCA385</p>  <ul style="list-style-type: none"> • Wideband Audio • IP65 Compliant Dust Protection and Splash Resistance • 12 Flexible Keys • 1.8 inch Colour LCD • Noise Reduction • 3 Soft Keys • DECT Paging • Vibration • Built-in Bluetooth <p>Dimensions (W x D x H) (mm): 55.0 x 23.0 x 151.5 Weight: 150 g (Belt clip is included)</p>	<p>Slim & Light Model KX-TCA285</p>  <ul style="list-style-type: none"> • Wideband Audio • 12 Flexible Keys • 1.8 inch Colour LCD • Noise Reduction • 3 Soft Keys • DECT Paging • Vibration • Built-in Bluetooth <p>Dimensions (W x D x H) (mm): 48.5 x 17.9 x 127.5 Weight: 88 g</p>	<p>Standard Model KX-TCA185</p>  <ul style="list-style-type: none"> • Wideband Audio • 12 Flexible Keys • 1.8 inch Colour LCD • Noise Reduction • 3 Soft Keys • DECT Paging • Vibration <p>Dimensions (W x D x H) (mm): 48.2 x 25.4 x 146.3 Weight: 115 g</p>
--	--	---

Multi-cell SIP based DECT phones are also available.

KX-UDT Series



For details on the KX-UDT series, refer to the multi-cell SIP based DECT phone system catalogue.

Conference Solutions

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

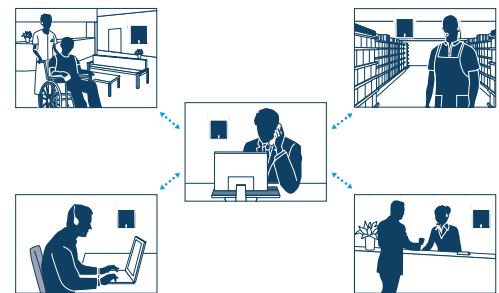
Even if conference rooms or meeting corners do not have telephone lines or a LAN, you can have voice conferences with the KX-NT700 IP conferencing phone as long as it is connected to a DECT portable station within range of an IP cell station.



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

The DECT paging function of this multi-cell DECT system enables you to both send instructions to and hold conversations with multiple colleagues (up to 32 people) at once*. This allows you to select a communication method suitable for conducting your work efficiently.

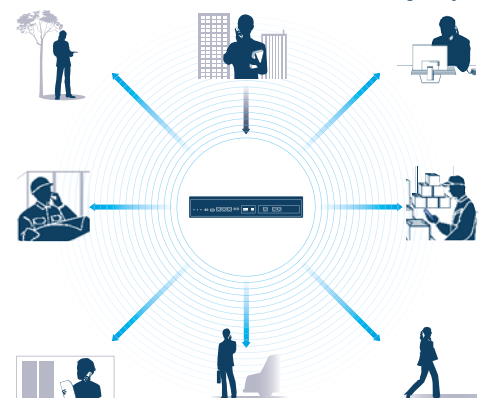
*KX-UDT Series cannot be used.



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 (up to 32 people, including the caller). This avoids using the charged voice conference services provided by telephone carriers.

Call an access number for a contact group



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 KX-NT series IP proprietary telephones and KX-UT series SIP phones 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-Labeling, Flexible CO Buttons
- 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-Labeling, Flexible CO Buttons
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Built-in Bluetooth for Headset
- Eco Mode
- Available in black and white



A variety of other terminals are also available



KX-NT546

- 6-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode



KX-NT543

- 3-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode



KX-UT248

- 4.4 inch Backlight LCD Display
- 3 x 8 Self-Labeling, Flexible CO Buttons
- 2 Ethernet Port (1000 Base-TX)
- Power-over-Ethernet (PoE)
- Built-in Bluetooth for Headset
- Eco Mode

For Standard Users

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

KX-NT556 / KX-NT553 **New Terminal**

- 6-Line (KX-NT556) or 3-Line (KX-NT553) Backlight LCD Display
- 12 x 3 (KX-NT556) or 12 x 2 (KX-NT553) Self-Labeling, Flexible CO Buttons
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Eco Mode
- Available in black and white
- Options: KX-NT505



Option KX-NT505

Add-on 48-Key Module



Photo: KX-NT556

For Simple Users

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

KX-NT551 **New Terminal**

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



KX-UT136

- 6-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode



KX-UT133

- 3-Line Backlight LCD Display
- 24 Flexible CO Buttons
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode



KX-UT123

- 3-Line Backlight LCD Display
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode



KX-UT113

- 3-Line LCD Display
- 1 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Eco Mode

KX-NS1000 System Capacity

Maximum Trunks

The KX-NS1000 supports the following number of trunks.

Type	KX-NS1000 Stand-alone System	KX-NS1000 Stand-alone System with Legacy GW ¹	KX-NS1000 One-look Networking	KX-NS1000 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

*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.

Maximum Terminal Equipment

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

Type	KX-NS1000 Stand-alone System	KX-NS1000 Stand-alone System with Legacy GW ¹	KX-NS1000 One-look Networking	KX-NS1000 One-look Networking with Legacy GW ¹
Telephone	Total Number of Extensions	640	640	1000
	SLT	2	480	32
	KX-DT300/KX-T7600 Series DPT	N/A	320	N/A
	KX-T7560/KX-T7565DPT	N/A	256	N/A
	Other DPT	N/A	320	N/A
	APT	N/A	160	N/A
	IP-PT ^{*2}	640	640	1000
	SIP		640	1000
		SIP Phone ^{*3}	640	1000
		KX-UDT Series	255	255
DSS Console	N/A	64	N/A	
CS		64	128	
	CS (2ch/8ch)	N/A	64/32	
	IP-CS (8ch)	64	64	
	SIP-CS	64	64	
PS	512	512	512	
Voice Processing System (VPS)	N/A	4	N/A	
Doorphone	1	33	8	
Door Opener	1	33	8	
External Sensor	1	33	8	
External Relay	N/A	33	N/A	

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

*2 KX-NT500 series, and KX-NT265 (software version 2.00 or later only).

*3 KX-UT Series, KX-N1700 and third party SIP phones (SIP hardphones/SIP softphones).

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

Communication Assistant (CA) Specification

	CA Basic-Express	CA PRO	CA Operator Console	CA Supervisor
Maximum users (Without CA Server/With CA Server)	240/1022	240/1022	128/128	4/128
Activation key	Preinstalled for 1022 users	60-day free trial for 128 users	60-day free trial for 1 user	
View other extensions' presence from main menu	No	Yes	Yes	Yes
Call contact/Call history	10/10		1000/1000	
ICD group login/logout	No	Yes	Yes	No
Listen-in/Busy override/Take over	No	No	Yes	Yes
ICD group supervisor	No	No	No	Yes
Conference interface	No	Yes	Yes	Yes
Multi-site communication (Networking)	No	Yes	Yes	Yes
3rd-party CRM integration (TAPI/CSTA)	No	Yes	Yes	Yes
Microsoft Exchange Server integration	No	Yes	Yes	Yes
Microsoft Outlook toolbar	Yes ^{*1}	Yes	Yes	Yes
Thin client support	Yes	Yes	Yes	Yes

*1 Call history and presence display in Outlook are not available for Basic-Express users.

Note: Software version 4.0 or later required.

Trademarks and registered trademarks

- Microsoft®, Windows® and Outlook® are registered trademarks of Microsoft Corporation in the U.S. and other countries.
- The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Panasonic Corporation is under licence.
- Other trademarks and trade names are those of their respective owners.

Important

- Safety Precaution: carefully read the operating instructions and installation manual before using these products.

- Some models will be available to limited countries.
- The images shown of products display and lamps are composite images.
- Weights and dimensions are approximate.
- Design and specification subject to change without notice.
- These products may be subject to export control regulations.

DISTRIBUTED BY :

Panasonic