

# Panasonic

Business Communications Server  
**KX-NS1000**



*The solution to your communication needs*



Business Communications Server  
**KX-NS1000**

# *An IP Platform to Deliver Business Communication*



Markets are changing rapidly in all types of industries. To lead such markets, ensuring speedy correspondence and maximizing productivity with limited resources are the keys to success.

The KX-NS1000 communication server is your answer to covering these needs while minimizing the networking and infrastructure transition costs. An IP-based communication server enables a free-location working style, while keeping employees connected with superb mobility and unified communication features.

The KX-NS1000 makes voice, text and visual communications all possible under one platform. While the platform connects employees at any location, the Employee Productivity Management Application itself is built-in. Call statistics analysis reports, as well as employee log-in/log-out data, can be tracked for better HR management.

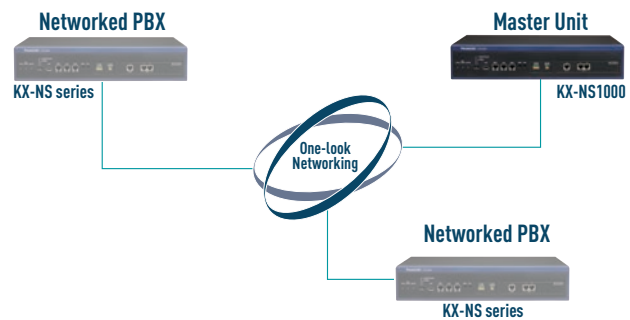


# IP Networking - Flexibility

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 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.

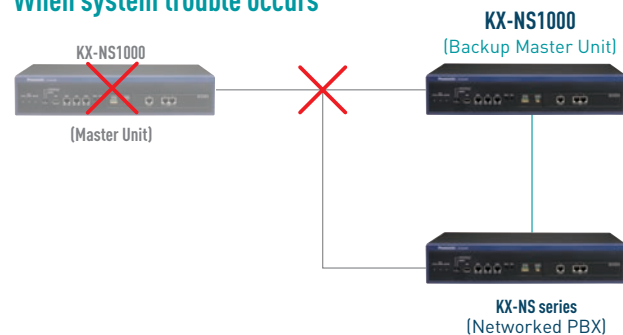


## Reliable Backup System to Survive System Failures

### - 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. Only IP terminals can be registered to another PBX.

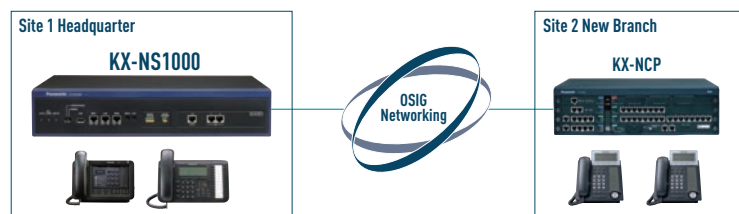
#### When system trouble occurs



## 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 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. Additionally, you can install IP terminals in branch offices without having to visit them.

## Remote Extension Setup

### - Built-in Media Relay Gateway -

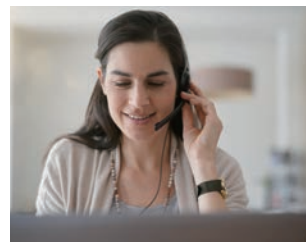
The Built-in Media Relay Gateway (MRG) of the KX-NS1000 enables you to install IP phones in locations distant from the office, such as the homes of teleworkers. By connecting with IP networking, IP phones\*<sup>1</sup> and DECT wireless systems\*<sup>2</sup> can be configured remotely and used as KX-NS1000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

MRG enhances network security by rejecting connections from non-Panasonic SIP phones when a SIP extension remote connection occurs\*<sup>3</sup>.

\*1 KX-NT600 series, KX-NT500 series, IP softphones, and third party SIP phones are supported.

\*2 When using the KX-NS0154.

\*3 This function can be turned on/off in the system settings.



Home Office Worker



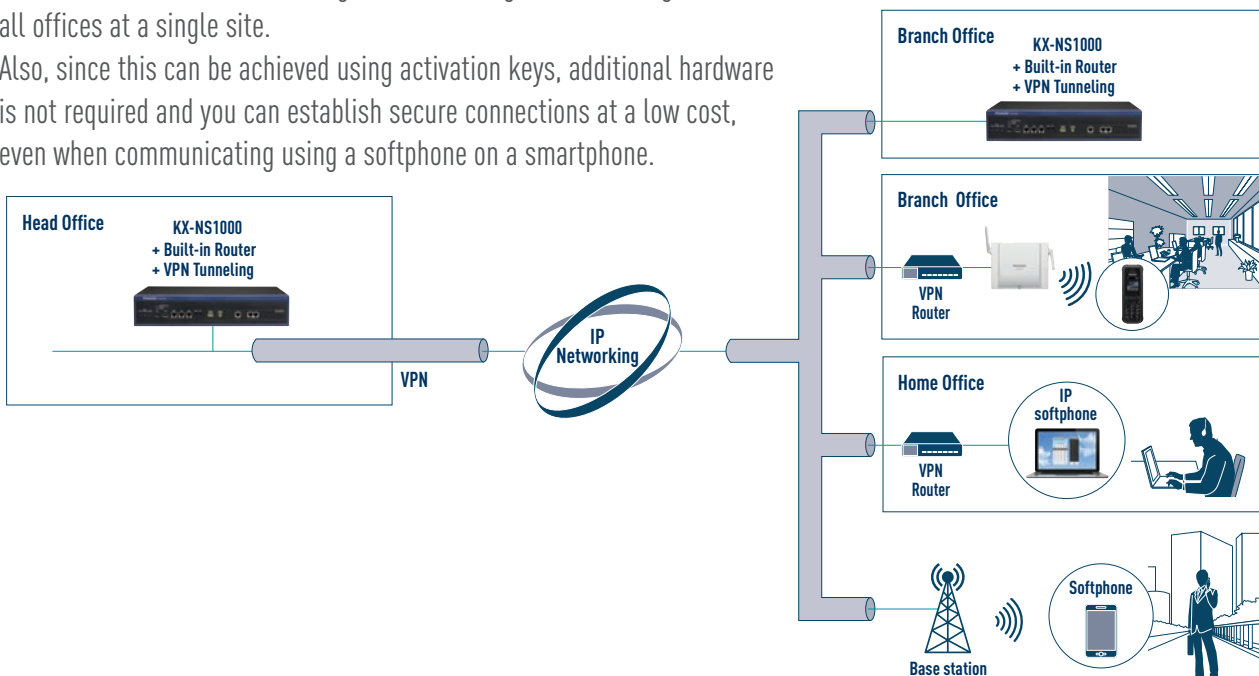
Mobile Worker

## 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 softphone on a smartphone.



# IP Migration

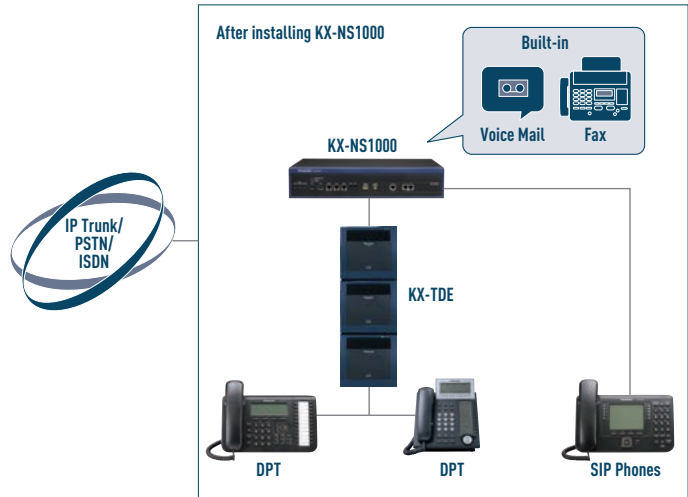
By connecting an existing Panasonic PBX system with the KX-NS1000, you can efficiently make legacy lines and terminals more expandable and flexible. The KX-NS1000 enables you to add IP capacity and functionality to an existing Panasonic PBX system at a low cost.

## 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.

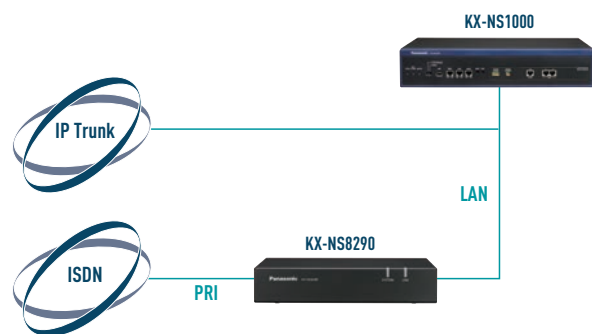
\* An existing PBX refers to a Panasonic KX-TDE series, KX-NCP series, or KX-TDA100/100D/200/600/620.



## Preparing for Future IP Migration

### - Legacy Trunk Adapter -

Users that mainly use a legacy trunk (PRI) but want to prepare for future IP migration can use trunk adapters (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 adapters 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 your 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 30 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.

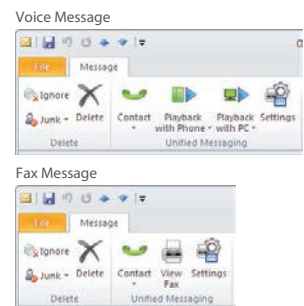
- Voice Mail/Mail Box Feature
- Custom Service
- Automated Attendant
- Interview Service
- Automatic Two-way Recording for Managers

## 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 an e-mail means you will not miss contact from your customers.

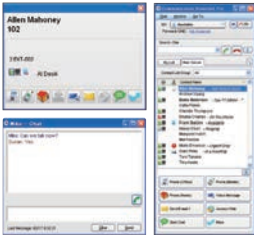


# Communication Assistant

Communication Assistant is a highly intuitive PC-based application suite with powerful point and click telephony and screen-based presence, availability and a variety of collaboration tools. It can be used with or without a server.

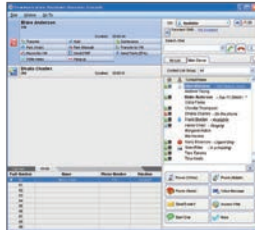
## CA Basic-Express/CA PRO For Personal Productivity

You can easily make calls by simply searching for a desired contact from a customizable 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.



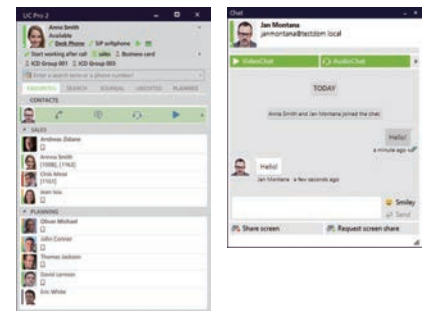
## CA Supervisor For Teams or Executive Users

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.



# UC Pro 2 (Professional UC Application)<sup>\*1\*2</sup>

UC Pro 2 supports multiple devices such as Windows<sup>®</sup> PCs and mobile phones (iOS / Android<sup>™</sup>) and provides collaborative functions, including presence management, audio/text/video chat and synchronization with Outlook<sup>®</sup> Calendar. Mobile clients can communicate with an account that is also registered to their PC, so they can take care of business while out of the office. For Windows users, screen sharing is also available, which makes voice communication smoother by enabling you to share information visually.

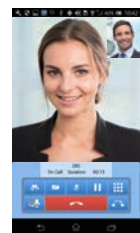


# Mobile Softphone<sup>\*1\*2</sup>

The Panasonic Mobile Softphone for smartphones is a SIP based softphone that includes an audio/video communication, Push Notification and does not require a server at the end user site. It also comes with SIP TLS features, which enhances security by hiding SIP passwords from hackers. This application enables your smartphone to work as a company phone wherever you are, while enhancing communication and minimizing costs.



Dialling



Video Call

# With Partner Applications<sup>\*1</sup>

Partner applications enable you to enhance and customize the functions of the KX-NS1000 to meet the needs of specific industries such as hotels, healthcare and call centres.

\*1 An internet connection (Wi-Fi<sup>®</sup>/3G/4G/LTE) is required to use the application on mobile devices such as smartphones or tablets. Voice quality may depend on the network environment.

\*2 The application can be installed via the App Store or Google Play<sup>™</sup>.



# 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.

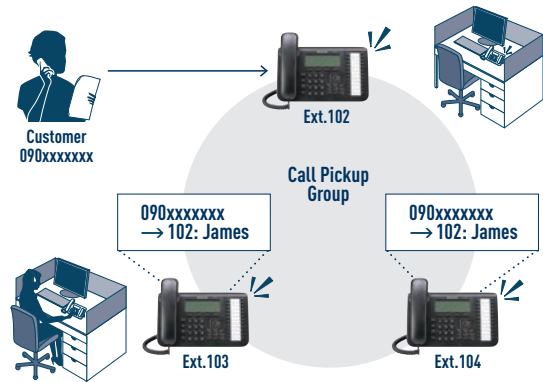
## Automatic Voice Guidance for Customers

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

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. Report data can be saved to an external server.





# Hospitality

**The KX-NS1000 provides solutions for efficient hotel management. By linking with the hotel management system, KX-NS1000 supports constructing a work efficient hotel system. Smoother hotel management leads to higher customer satisfaction.**

## Built-in Interface to Integrate with Hotel FOS Applications

The KX-NS1000 supports a FOS (Front Office System) interface function. You can connect the KX-NS1000 directly to a FOS without purchasing a third party external interface equipment to construct a cost efficient hotel system.

Integration with third party FOSs also enables easy call management for receptionists and operations, and streamlines wake-up call setting and management. This makes locking out phones of checked-out guests a one-touch operation. Customer satisfaction is further improved with KX-NS1000 V7.0 and later. It supports Fidelio compatible FOS from third party vendors and features such as room changes or SIP-based voice mail, improving integration between applications and phone systems.\*

\* Requires inter-operability testing prior to installation.



# 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.



## Expandable Call Range

### - IP Cell Station -

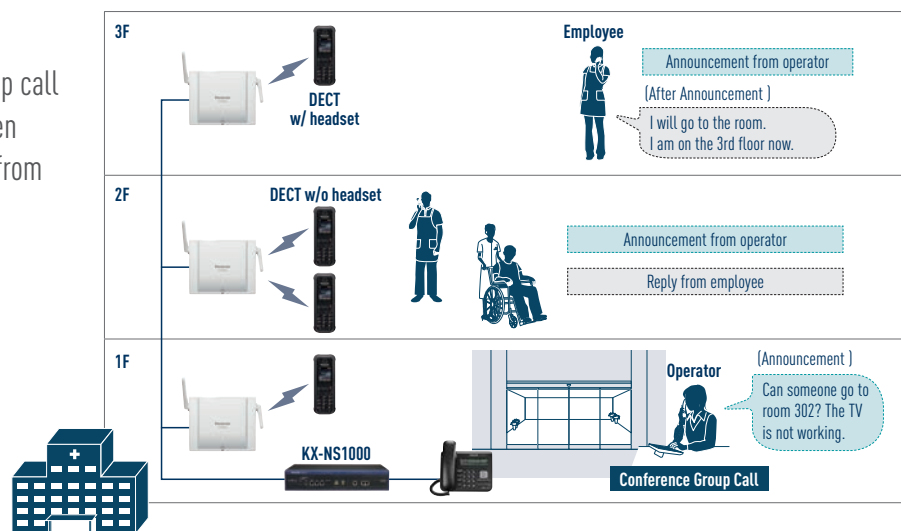
The new IP-CS KX-NS0154 supports LAN Synchronization for constructing wireless systems with lower costs using a smaller number of units than the existing KX-NCP0158. Since Media Relay Gateway is also supported, it can be easily installed in home offices to enable easy adoption of a wireless system.



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.



**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 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 to be used just like office extensions.



## Using Desktop Phones and Softphones With the Same Number

### - One Numbered Extension -

IP phones such as a desk phone or softphone 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.



## Effective Communication by Simple Operation

### - Semi-Automatic Paging System -

Using the semi-automatic paging system enables you to efficiently share information. With this system, pre-recorded common announcement messages are prompted through the external pager by simple operation. Professional pre-recorded announcements with high-quality sound can be paged to floors regardless of your employees' announcement skills. For example, it's a convenient feature when you need to broadcast an advertisement announcing the start time of a time-limited sale to customers. This can also be used for daily fixed messages to staff working on a large floor.



# Monitoring

The KX-NS1000 is compatible with the Communication IP Camera (KX-NTV150) and IP Video Doorphone (KX-NTV160). By utilising the KX-NTV series, you can set up a simple monitoring system. The KX-NTV series also has a motion/voice detection feature. It can send you notifications by calling or sending an e-mail when it detects something.



Monitor images from KX-NTV series cameras



Mobile Softphone

\* The photo is for illustrative purposes only.



KX-HDV430



Monitor storage rooms

KX-NTV150



Monitor visitors and unlock doors<sup>\*1</sup>

KX-NTV160



The KX-NTV series also has digital input and output ports to integrate with external alarm devices.



KX-HDV430 can also be used to monitor images from professional network camera devices from Panasonic.<sup>\*2</sup>

## Video Conference

3-party video conferences are possible as follows. It enables remote meetings with excellent ambience.<sup>\*3</sup>



Salesperson outside with Mobile Softphone



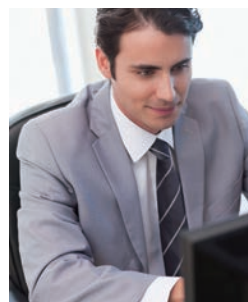
Manager at office with Video Terminal



Employee at warehouse with IP Communication Camera

## Productivity Management

The KX-NS1000 supports a built-in Employee Productivity Management feature. Managers can check each employee's log-in/log-out time record and view call activity. Call performance and log-in/log-out logged data can be automatically delivered by e-mail, so managers can make use of the data according to their needs.



\*1 A third-party door opener is necessary for this use case.

\*2 Compatible network camera models: WV-SC384, WV-S1111, WV-S2131L, WV-SC385 and WV-SW458.

\*3 The Mobile Softphone application cannot start 3-party video conferences, but it can receive conference calls from the KX-HDV430.

# 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. The 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, KX-HDV series IP phones, DECT portable stations, and IP cameras to meet your needs.

## Ergonomic and Stylish Mid-range Terminals with Colour LCD\*

### IP Proprietary Telephone: KX-NT680/KX-NT630

The KX-NT680 is an IP phone model with a large colour LCD display. Its flat & slim design fits any type of office design and its UI design enables intuitive operation. Users can set a customized image on the colour LCD, so it's possible to use it for branding, or for displaying simple operation procedures or advertisements.

The KX-NT630 is a mid-range IP phone with self-labelling flexible function keys and the same flat & slim design concept as KX-NT680. The KX-NT600 series supports SRTP and MGCP-TLS, enabling secure encrypted communication.

\* KX-NT680 only.

#### KX-NT680

- 480x272 pixel Large Colour LCD Display
- 4 x 12 Self-Labeling, Flexible Function Keys
- Customized image data can be displayed on LCD
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- EHS Support
- Built-in Bluetooth® for Headset
- SRTP and MGCP-TLS Support



#### KX-NT630

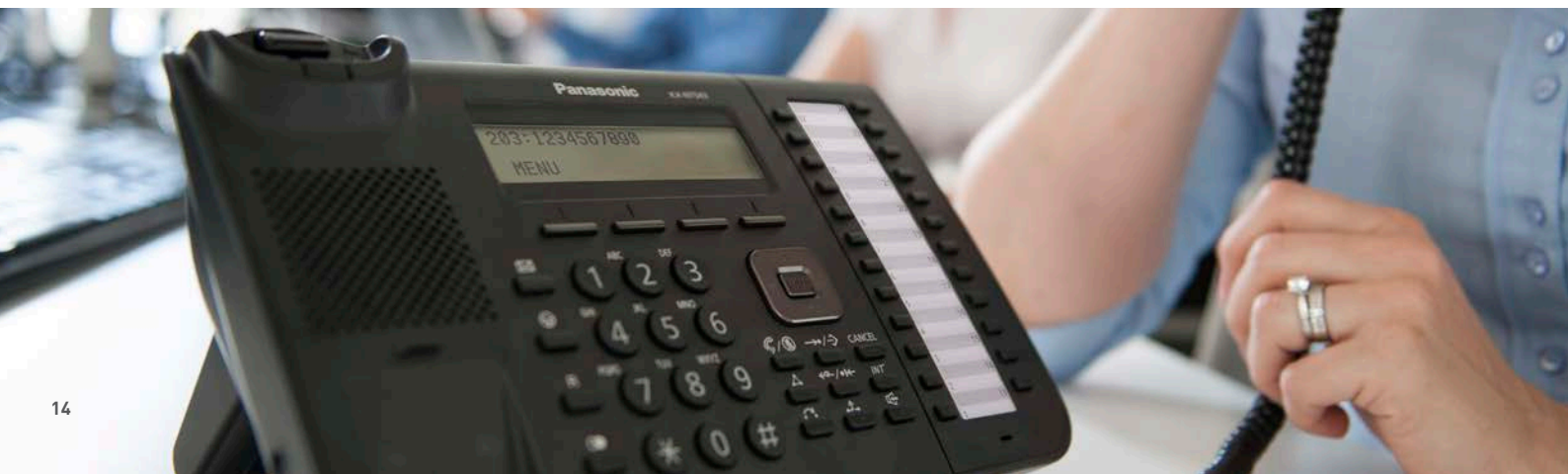
- 6 line Monochrome LCD with Backlight
- 4 x 6 Self-Labeling, Flexible Function Keys
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- SRTP and MGCP-TLS Support



**Intuitive Operation**  
The status of the assigned function keys shows on the LCD in colour. It is easy to know the status at a glance.

**Graphical Status Icons**  
Missed call or voicemail status displayed by easily found colour icons.

**Customizable Image**  
The KX-NT680 can import an image file to display on the LCD such as a company logo or seasonal advertisement.



## IP Proprietary Telephone

### KX-NT560

- 4.4 inch Backlight LCD Display
- 4 x 8 Self-Labeling, Flexible Function Keys
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Built-in Bluetooth® for Headset



### 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-Labeling, Flexible Function Keys
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Option: KX-NT505 (Add-on 48-Key Module)



### KX-NT551

- 1-Line Backlight LCD Display
- 8 Flexible Function Keys
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)



## IP Phone (SIP)

### KX-HDV430

- Video Communication
- 4.3 inch Backlight LCD Display
- Colour Touch Panel
- 3 x 8 Self Labeling, Programmable Keys
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- Built-in Bluetooth for Headset
- EHS support



### KX-HDV330

- 4.3 inch Backlight LCD Display
- Colour Touch Panel
- 3 x 8 Self Labeling, Programmable Keys
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- Built-in Bluetooth for Headset
- EHS support



### KX-HDV230

- 2.3 inch Backlight LCD Display
- 5.1 inch Self Labeling Backlight LCD Display
- 2 x 12 Self Labeling, Programmable Keys
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone
- EHS support
- Option: KX-HDV20 (Add-on 20-Key Module)



Photo: KX-HDV230 with KX-HDV20

### KX-HDV130

- 2.3 inch Backlight LCD Display
- 2 Programmable Keys
- 2 Ethernet Port (100 Base-TX)
- Power-over-Ethernet (PoE)
- Full Duplex Speakerphone



## DECT Portable Station

Tough Model

### KX-TCA385

- 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)

\* Dimensions and weight values do not include the charger.

Slim & Light Model

### KX-TCA285

- 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

- 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 Softphone

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



## IP Camera (SIP)

Communication IP Camera

### KX-NTV150

- Video Communication
- Dedicated Camera for the KX-NSX/NS series
- Built-in Wireless LAN
- Power-over-Ethernet (PoE)/ AC Adapter
- One Touch Calls
- Auto Dialling with Sensor



IP Video Doorphone

### KX-NTV160

- Video Communication
- Dedicated Camera for the KX-NSX/NS series
- IP43 Support
- Power-over-Ethernet (PoE) only
- One Touch Calls
- Auto Dialling with Sensor



# 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 <sup>1</sup>	One-look Networking	One-look Networking with Legacy GW <sup>1</sup>
Total Number of Trunks	256	256	600	600
H.323	48 / 48 / 96*2	48 / 48 / 96*2	96 / 96 / 128*2	96 / 96 / 128*2
SIP*3	256 / 256 / 160*2	256 / 256 / 160*2	256	256
BRI	8	256	128	600
PRI23*3	23	230	368	600
PRI30*3	30	256	480	600
T1	-	240	-	600
Analogue	2	256	32	600

## Maximum Terminal Equipment

The KX-NS1000 supports the following number of terminal equipment.

Type	Stand-alone System	Stand-alone System with Legacy GW <sup>1</sup>	One-look Networking	One-look Networking with Legacy GW <sup>1</sup>
Extensions	640	640	1000	1000
SLT	2	480	32	1000
KX-DT500/KX-T7600 Series DPT (DXDP*4)	-	320 (640)	-	512 (1000)
Other DPT	-	256	-	512
APT	-	160	-	336
IP-PT	256 / 640 / 256*2	256 / 640 / 256*2	1000	1000
IP Phone	640 / 256 / 384*2	640 / 256 / 384*2	1000	1000
IP Phone	640 / 256 / 384*2	640 / 256 / 384*2	1000	1000
S-PS	255	255	255	255
DSS Console	-	64	-	64
CS	64	64	128	128
DPT-CS (2 ch)	-	64	-	128
DPT-CS (8 ch)	-	32	-	64
IP-CS	64	64	128	128
SIP-CS	64	64	128	128
PS	512	512	512	512
Built-in UM (ch)	30	30	480	30
TVM Unit	-	4	-	8
Doorphone	1	33	16	80
Door Opener	1*5	33	16	80
External Relay	-	33	16	80
External Sensor	1	33	16	80

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

\*2 Standard Type / IP-Extension Type / System resources Type.

\*3 When using the trunk adapter KX-NS8290, the total number including SIP, PRI 256 ch.

\*4 When Digital XDP is used.

\*5 The total number of Door Openers and External Relays.

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

## Communication Assistant (CA) Specification \*Software version 5.0 or later required.

	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
Supported platform	Windows PC*1			
Usage via mobile (3G/4G) network	-	-	-	-
Automatic presence integrated with Microsoft® Exchange scheduler	-	Yes	Yes	Yes
Call contact	10	-	1000	-
Call history	10	-	1000	-
Conference originator from application	-	Yes	Yes	Yes
Flexible call handling/Monitor & Seize CO line	-	-	Yes	-
Listen-in/Busy override/Take over	-	-	Yes	Yes
Follow me	-	Yes	-	-
Video call	-	-	-	-
CRM integration by TAPI	-	Yes	Yes	Yes
Chat	Yes	Yes	Yes	Yes

\*1 Supports Windows Vista Business (32/64-bit) / Windows 7 Professional (32/64-bit) / Windows 8 (Desktop Mode only) / Windows 10 (32/64-bit).

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