#### For Executives/Supervisors

#### IP Proprietary Telephone

#### 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



- 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)

**SIP** Phone

KX-UT670

- Power-over-Ethernet (PoE)
- Network Camera Monitoring
- Application Development (Java Supported)



#### **For Standard Users**

#### **IP** Proprietary Telephone

#### **KX-NT551**

- 1-Line Backlight LCD Display
- 8 Flexible CO Buttons
- Full Duplex Speakerphone
- 2 Ethernet Port (1000 Base-T)
- Power-over-Ethernet (PoE)
- Power-over-Ethernet (PoE)
  - Option: KX-NT505

  - **KX-NT505**

#### 

- 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)

Add-on 48-Key Modul

### **Digital Proprietary Telephone**

#### KX-DT546

- 6-Line Backlight LCD Display
- 24 Flexible CO Buttons
- Full Duplex Speakerphone Option: KX-DT590



#### Digital Proprietary Telephone **KX-DT543**

• 3-Line Backlight LCD Display 24 Flexible CO Buttons • Full Duplex Speakerphone Option: KX-DT590



**For Simple Users** 

KX-NT511A

• 1-Line LCD Display

• 2 Ethernet Port

(100 Base-TX)

• 3 Flexible CO Buttons



#### **DECT Wireless System**

KX-TCA185/KX-TCA285/KX-TCA385 • 1.8 inch Colour LCD Noise Reduction

• DECT Paging Vibration





#### Panasonic's Environmental Efforts

Panasonic aims to become the No.1 Green Innovation Company in the Electronics Industry. We believe we can integrate contribution to the environment with business growth by driving green innovation in all aspects of our business practices, and help people lead better and greener lives.

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 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.

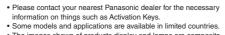
#### Important

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

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- Weights and dimensions are approximate.
  Design and specification subject to change without notice.
- These products may be subject to export control regulations.



# **Panasonic**



# Par

## **Smart IP PBX KX-NS300**



# New Smart IP PBX for the **SMB Market Brings You** Unified Communication

The Panasonic KX-NS300 Smart IP PBX is a cost effective legacy and IP communication system for small and medium sized companies that can be flexibly configured and expanded according to the your needs.

The KX-NS300 has advanced features and starts from 6 analogue trunks and 18 extensions, up to 192 extensions with an Expansion Unit. KX-NS300 is also a unified communication system which has rich IP features such as mobile linking, integrated voice mail and e-mail, instant messaging (chat), and presence information.

It can also use built-in applications such as a call centre solution, mobile solution, and voice mail system to provide more efficient work and increased customer satisfaction.



# Saving Costs is Top Priority

## Saving Costs by Adopting a Hybrid System

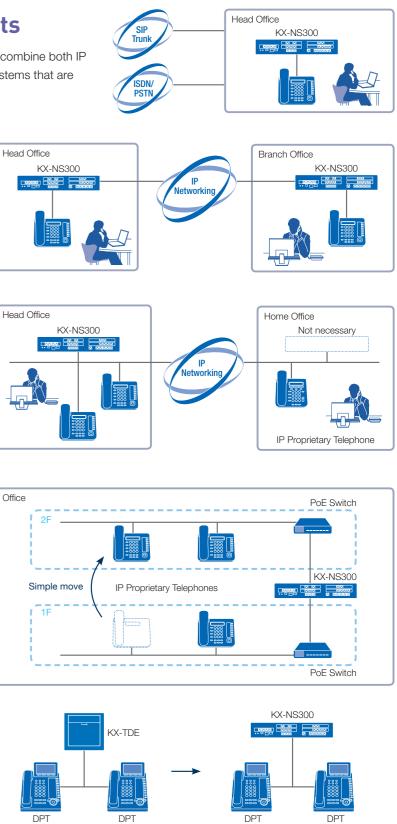
KX-NS300 can utilize the benefits of a hybrid system to help businesses lower costs and allow a quick return on investment.

## Saving Communication Costs

The adequate IP capacity of the KX-NS300 enables you to combine both IP and legacy trunks according to your needs, to construct systems that are flexible and cost effective.

## Saving Network Costs

By connecting the KX-NS300 units in different offices with an IP network, you can construct a network that integrates both voice and data. This enables extension calls between offices over the IP network, and reduces costs

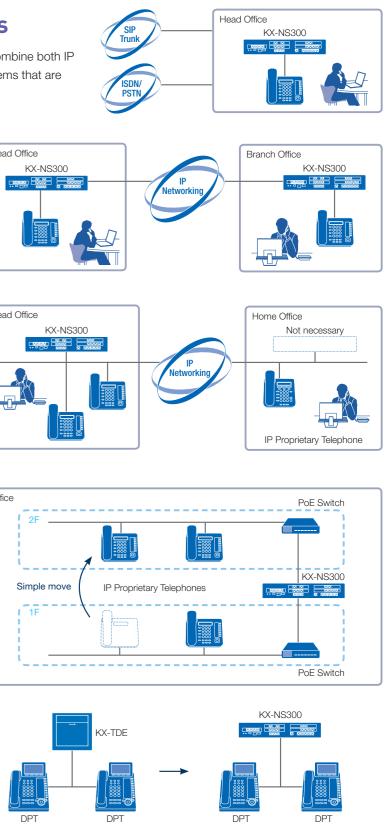


## Saving on Initial Investment

The KX-NS300 can utilize an IP network to use IP phones as head office extensions, without installing extra KX-NS300 units or special routers at remote sites. In other words, migration to an IP network enables installation costs to be saved.

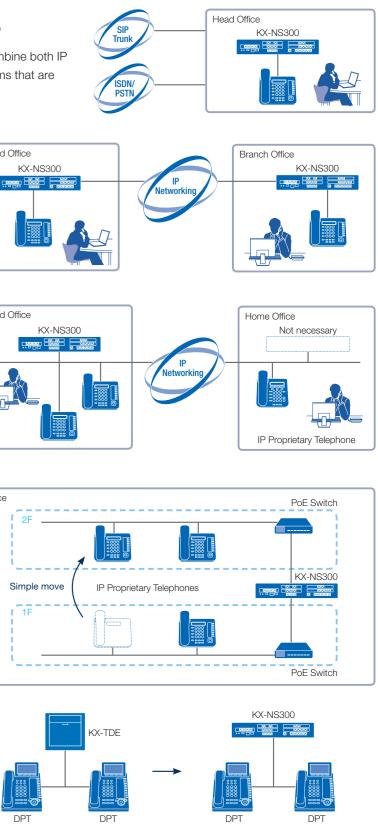


By using IP phones as extensions, you don't need to change the settings at the PBX each time you change your office layout, as is normally required. Simply move the phone, and then connect it to the LAN for guick and easy use.



## Using Existing Resources

Existing analogue PTs and digital PTs from Panasonic can continue to be used, enabling a system to be replaced at a low cost without wasting resources.



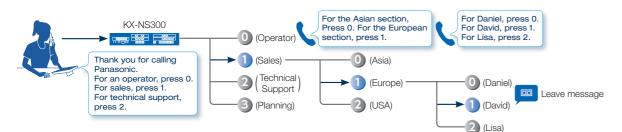
# Various Methods for Improving Customer Satisfaction

## Helping to Improve Customer Service

Improving customer satisfaction is the key to succeeding in business. The KX-NS300 provides services for smoothly responding and following up on customer queries.

## Built-in Auto Attendant/Voice Message System

As a standard feature, the KX-NS300 can connect customers to the appropriate section or operator according to their query in call routing with voice guidance. It can also prompt the customers to leave a voice message when the operator is away.



## Enhanced Voice Mail System

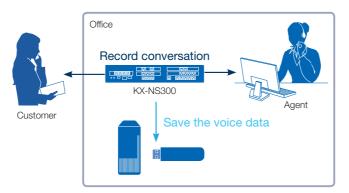
The KX-NS300 can be expanded to a voice mail system that can record a maximum of 24 channels and 400 hours. KX-NS300 also sends e-mail to notify you when you have new voice messages. The messages can also be received as attachment files and forwarded. E-mail notification can also be sent for missed calls where the customer did not leave a message, enabling you to guickly contact the customer.





### **Auto Recording and Backing** Up Conversations

The Voice Mail System function can be used to automatically record conversations with customers. The recorded voice data can be automatically saved to USB memory or an external server via the internet, and listened when required. The data can be used to understand problems or opportunities relating to customer service.



## **Continually Improving Customer Service**

It is always important to understand the changes in customer needs and improve the support provided by staff. Continually performing these measures leads to improved customer service.

## Call Centre Solution

The KX-NS300 includes an advanced call routing function for small to medium size call centres. This function can be used without an external CTI server. More efficient call reception enables you to effectively utilize limited resources to assist in improving customer service.



#### Automatic Voice Guidance for Customers

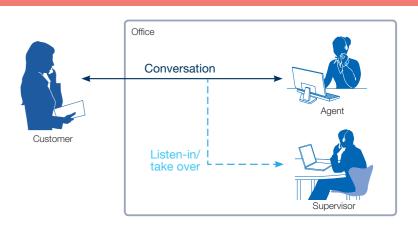
The caller can recognise their position in the queue through voice guidance. They can then decide whether to stay in the queue or leave a message and hang up, according to the situation.

> "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 seco 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."

#### Integrating with a Variety of Applications

The built-in Call Centre Solution function can be expanded to suit more sophisticated call centres by installing CA Operator Console, CA Supervisor, and CA Module, etc applications.

For example, installing CA Supervisor enables a supervisor to listen in on agent conversations and take over calls. This enables a supervisor to take over a call to handle a customer when agents cannot do so.



Monitor per Agent/Group Busy Override

#### Monitoring Callers and **Call History Report**

The supervisor can monitor the live status of callers, agents, and grouped members, to understand on-site problems and improve their call centre.

Reports can also be used to understand problems or opportunities relating to customer service, and recorded call data can be backed up and restores via the network as necessary.



## mproving Work Efficiency with Different Styles of Communication

## Smart Remote Extension

Recent business requires customers and staff members to be contacted anywhere and anytime. As long as the KX-NS300 is in an environment that can connect to the internet, it can enable IP phones to be used as extensions for easily contacting people.

## Remote Extension Setup

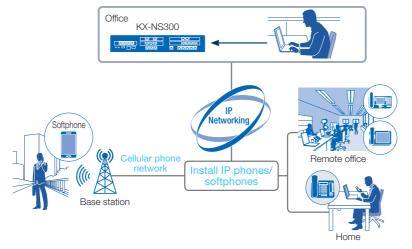
If you have Internet connection, KX-NS300 enables you to easily install IP phones in locations distant from the office, such as the homes of teleworkers, mobile workers using softphones on smartphones. Connecting with IP networking enables IP phones\* to be used as KX-NS300 extensions, without the need for any routers or extra devices.

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

## Using Smartphone as Extensions

Softphones on smartphones used by mobile workers can be installed as KX-NS300 extensions, meaning they will not miss calls as long as they are in a Wi-Fi/3G/LTE environment. whether they are at the office or away.



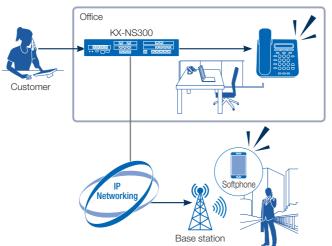




## One Numbered Extension

IP phones such as a desk phone or softphone can be paired to use a single number.

This enables customers to easily contact staff with a single number, regardless of whether they are inside or outside the office.



## **Various Communication Methods for Making Work More Efficient**

Flexible communication methods are essential in current business situations. Communication Assistant (CA) from Panasonic and its applications provide you with the communication methods to meet your needs.

## Communication Assistant (CA)

CA 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 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.

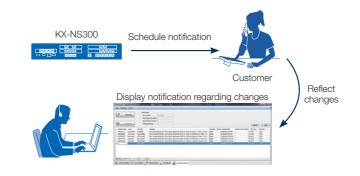
CA Basic-Express/CA PRO

#### Linking with Panasonic Partner's Applications

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

#### **Appointment Reminder**

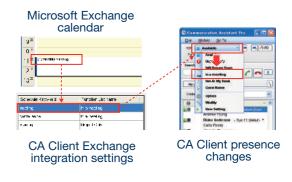
You can use text to speech to confirm appointments with customers. The customer can then follow the voice guidance to check and change schedules, and you can view the result on a PC.



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

#### Integrating Microsoft Exchange Server with CA

When Microsoft Exchange Server is integrated with CA Client, your presence will automatically change according to the contents of your Exchange calendar.



#### Mobile Communication

Even when you are away from the office, you can use a softphone to check the presence of the other party and select an appropriate method of communication, such as text message, video, or voice chat.

	Presence S		
•	Unavai		
•			



## Panasonic

#### **KX-NS300 PFMPR Software File Version 1.0**



## System Capacity Maximum Trunks The PBX supports the following number of trunks.

the row supports the following number of numbers.						
	Туре	KX-NS300	With 1 KX-NS320	With 2 KX-NS320	With 3 KX-NS320	
Total	Number of Trunks	52 ch	82 ch	112 ch	142 ch	
Le	egacy	36 ch	66 ch	96 ch	126 ch	
	PRI30	30 ch	60 ch	90 ch	120 ch	
	E1	30 ch	60 ch	90 ch	120 ch	
	Analogue	12 lines	24 lines	36 lines	48 lines	
IP		16 ch	16 ch	16 ch	16 ch	
	H.323	16 ch	16 ch	16 ch	16 ch	
	SIP	16 ch	16 ch	16 ch	16 ch	

Туре	KX-NS300	With 1 KX-NS320	With 2 KX-NS320	With 3 KX-NS320
Extensions (DXDP*1)	66 (72)	98 (112)	130 (152)	162 (192)
Legacy (DXDP*1)	34 (40)	66 (80)	96 (120)	130 (160)
SLT	32	64	96	128
DPT (DXDP*1)	18 (24)	34 (48)	50 (72)	66 (96)
APT	8	16	24	32
IP	32	32	32	32
IP-PT*2	32	32	32	32
SIP	32	32	32	32
SIP Phone <sup>*3</sup>	32	32	32	32
S-PS	32	32	32	32
DSS Console	8	8	8	8
2	20	24	28	32
DPT-CS (2 ch) / (8 ch)	4/2	8/4	12/6	16/8
IP-CS/SIP-CS	16	16	16	16
PS	128	128	128	128
VM				
ESVM (ch)	2	2	2	2
Built-in UM (ch)	24	24	24	24
TVM Unit	2	2	2	2
Doorphone	2	4	6	8
Door Opener	2	4	6	8
External Sensor	2	4	6	8

<sup>12</sup> When Digital XDP is used.
 <sup>12</sup> KX-NT500 series, KX-NT300 series, and KX-NT265 (software version 2.00 or later only).
 <sup>13</sup> KX-UT Series, KX-NT700 and third party SIP phones (SIP hardphones/SIP softphones).

#### **Option List**

Hardware

	Component		Installed in		Component		Model No.	Maximum KX-NS300 With KX-NS320
DSP	S (63 resources)	KX-NS5110	DSP Card Slot			1 ch	KX-NSE101	KX-N5500 WRITKX-N5520
	XS (VM Recording Time: 40 hours)	KX-NS3134	Storage Memory Card Slot	Cellular Phone Extension-User Licence	Mobile Extension	5 ch	KX-NSE105	288 cellular phone extensions
Storage Memory <sup>*1</sup>	S (VM Recording Time: 200 hours)	KX-NS3135				10 ch	KX-NSE110	
, ,	M (VM Recording Time: 400 hours)	KX-NS3136				20 ch	KX-NSE120	1
	LCOT6	KX-NS5180			Feature			
Trunk	PRI30/E1	KX-NS5290CE	Trunk Slot		Two-way REC (Reco	rding) Control	KX-NSU002	1 activation key
	DPH2	KX-NS5162			Message Backup		KX-NSU003	1 activation key
	DHLC4	KX-NS5170				2 ch	Preinstalled	· · · · · · · · · · · · · · · · · · ·
	DLC8	KX-NS5171	Extension Slot		Unified Messaging Channel	2 ch	KX-NSU102	24 UM Ports
Extension	DLC16	KX-NS5172				4 ch	KX-NSU104	
	MCSLC8	KX-NS5173	1		User (Mailbox) Licence			
	MCSLC16	KX-NS5174	1	Helferd Managers		1 user	KX-NSU201	
Expansion Master Card	EXP-M	KX-NS5130	EXP-M Slot	Unified Messaging	iging E-mail	5 users	KX-NSU205	]
Remote Modem	RMT	KX-TDA0196	RMT Slot	System <sup>*3</sup> (IMAP4) Client		10 users	KX-NSU210	500 mailboxes
					E-mail Notification	20 users	KX-NSU220	
Activation Kevs						All users	KX-NSU299	

Activation									
						1 user	KX-NSU301		
	Com	ponent	Model No.	Maximum		Two-way	5 users	KX-NSU305	
		KX-NS300 With KX-NS320		Recording/	10 users	KX-NSU310	288 users		
	Call Centre	ACD Report*2, Announcement of waiting	KX-NSF201			Two-way Transfer	20 users	KX-NSU320	
System Function	currecture	number for queuing	10/ 10/ 201	1 activation key			All users	KX-NSU399	
	VoIP/Unified Messa	ge (UM)	KX-NSF990			User Licence			
		2 ch	KX-NSM102			CA Basic-Express	All users	Preinstalled	
10 7 1 12	IP Trunks	runks 4 ch KX-NSM104 SIP 16 ch		1 user	KX-NSA201				
IP Trunk <sup>*3</sup>	(H.323/SIP)	8 ch	KX-NSM108	H.323 16 ch			5 users	KX-NSA205	without CA server 240 users/ with CA server 288 users
		16 ch	KX-NSM116			CA PRO	10 users	KX-NSA210	
Networking	QSIG Network		KX-NSN002	1 activation key			40 users	KX-NSA240	
		1 ch	KX-NSM201	35 10 20 20 21 55 32 ch 20 20 11 35	Communication Assistant CA Supervisor CA Operator Console CA Network Plug-in		128 users	KX-NSA249	
	IP PTs/KX-UT Series SIP Phones	5 ch	KX-NSM205			CA Supervisor	1 user	KX-NSA301	without CA server 4 users/
	/IP Softphones	10 ch	KX-NSM210						with CA server 128 users
	/IP Soluptiones	20 ch	KX-NSM220			1 user	KX-NSA401	without CA server 128 users/ with CA server 128 users	
		Up to 4 ch	Preinstalled			1 user	KX-NSA901	1	
IP Telephone*3,*4	IP PTs/KX-UT	1 ch	KX-NSM501				5 users	KX-NSA905	without CA server 240 users/
- User Licence	Series SIP Phones	5 ch	KX-NSM505			CA Network Plug-in	10 users	KX-NSA910	
oser Electrice	Series Sir Filones	10 ch	KX-NSM510				40 users	KX-NSA940	with CA server 1022 users
		20 ch	KX-NSM520				128 users	KX-NSA949	
		1 ch	KX-NSM701				External Interface		
	SIP Phones	5 ch	KX-NSM705				CA Thin Client	Thin Client Server Connection	KX-NSA010
	SIFFICIES	10 ch	KX-NSM710			CSTA Multiplexer	Multiple CSTA Connection	KX-NSA020	1
		20 ch	KX-NSM720			3rd Party CTI link	CTI interface	KX-NSF101	]

Storage Memory for VM Time, ACD Report, SMDR expansion, Program upgrading "An SD card is necessary to use ACD Reports. "I KX-NSF990 is necessary to use VolP/UM features.
 "IP PTs: KX-NT500/300 series IP proprietary phones, KX-NT265 IP Softphones: KX-NCS8100, KX-TDA0350 SIP Phones: KX-NT700 IP Conferencing phone and Third party SIP phones (SIP hardphones/SIP softphones).
 Incompatible Panasonic Telephones
 The KX-NS300 does not support the following Panasonic proprietary telephones:
 - KX-NT400 and KX-HGT100
 Note: Some models will be exported to limited regions. Please contact our dealer and confirm the availability of specific models in your region.

#### **Specifications**

		KX-NS300	KX-N5320					
Main CPU		Cortex A8 600 MHz	Cortex A8 300 MHz					
Power Input		100 V AC to 130 V AC: 2.2 A/200 V AC to 240 V AC: 1.3 A; 50 Hz/60Hz						
Power Consumption (when fully mount	ed)	110 W						
External Backup Battery		External battery port is supported.						
Memory Backup Duration		7 years	7 years					
Dialling	Trunk	Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling						
5	Extension	Dial Pulse (DP) 10 pps, 20 pps Tone (DTMF) Dialling						
Mode Conversion		DP-DTMF, DTMF-DP						
Ring Frequency	1	20 Hz/25 Hz (selectable)						
Operating Environment	Temperature	0 °C to 40 °C						
	Humidity	10 % to 90 % (non-condensing)						
Conference Call Trunk		From 10 x 3-party conference call to 4 x 8-party conference call						
Music on Hold (MOH)		Maximum 8 ports (Level Control: -31.5 dB to +31.5 dB per 0.5 dB)	_					
		MOH: Selectable Internal/External Music Source port						
External Paging		Maximum 6 ports (Volume Control: -15.5 dB to +15.5 dB per 0.5 dB)	_					
LAN Port	1 (for LAN connection)	10BASE-T/100BASE-TX (Auto MDI/MDI-X)	_					
	SLT	1-pair wire (T, R)						
	DPT	1-pair wire (D1, D2) or 2-pair wire (T, R, D1, D2)						
Extension Connection Cable	PT-interface CS	1-pair wire (D1, D2)						
	PT-interface CS (High-density)	4-pair wire (D1, D2)						
DSS Console and Add-on Key Module		1-pair wire (D1, D2)						
Air-cooling Method		Fan						
Dimension		430 mm (W) x 88 mm (H) x 367 mm (D)						
Weight (when fully mounted)		Under 4.5 kg						

#### **System Feature Capacity**

	ltem	Capacity		Item	Capacity
	Absent Message—Extension	1 x 16 characters		TRS/Barring Level	7
	Absent Message—System	8 x 16 characters	TRS/Barring	TRS/Barring Denied Code	16 digits, 100 entries/level
	Call Park Zone	100	71	TRS/Barring Exception Code	16 digits, 100 entries/level
	Conference	3 – 8 parties per conference (32 parties total)		Routing Plan Table	48 entries
	COS	64	11	Leading Number Table	16 digits, 1000 entries
	DID/DDI Table	32 digits, 1000 entries		Leading Number Exception Table	16 digits, 200 entries
	Extension number	1 – 5 digits	ARS	ARS Carrier	48
	Extension Personal Identification Number (PIN)	10 digits, 1 entry/extension	-11	Itemised Billing Code	10 digits
	Host PBX Access Code	10 digits, 10 entries/trunk group		Authorisation Code for Tenant	16 digits
	Number of Characters of Name	20	1	Authorisation Code for Trunk Group	10 digits
ı	Printing message	8	-11	Outgoing Call Log—PT	100 records/extn. 1520 records/system
	Queuing Time Table	64	-11	Outgoing Call Log—PS	100 records/extn. 640 records/system
	Ring Tone Pattern Plan	8	Call Log and	Incoming Call Log—PT	100 records/extn. 3040 records/system
	Simultaneous Programmers	one manager programmer + 32 personal programmers	Message	Incoming Call Log—PS + Incoming Call	100 records/extn. or group
	SMDR Call Storage	1000 calls (Without SD card)/40000 calls (With SD card)	Waiting	Distribution Group	Total 2560 records/system
	Special Carrier Access Code	16 digits, 20 entries	-11	Message Waiting—PS + Incoming Call Distribution Group	256
	Tenant	8	-1	Message Waiting—PT + SLT	256
	Time Service Holiday	24	-11	Outgoing Message (OGM)	64
	Verification Code	4 digits, 1000 entries	Voice	OGM Total Recording Time	Approx. 20 minutes
	Verification Code Personal Identification Number (PIN)	10 digits, 1000 entries	Message	Build-in Simplified Voice Message (SVM)	125 messages
				SVM Total Recording Time	120 minutes
	Emergency Call	32 digits, 10 entries	Hospitality	Billing items for guest rooms	1000 records/PBX (Without SD card)/
	Hot Line	32 digits	and Charge	5 5	10000 records/PBX (With SD card)
	Key Pad Protocol Dial (ISDN Service Access)	32 digits	- Management	Hotel Operator	4
	Personal Speed Dialling	32 digits, 100 entries/extn.	Features	Charge Rate	7 digits including a decimal
ng	Quick Dialling	8 digits, 4000 entries		Charge Denomination	3 currency characters/symbols
	Redial	32 digits		TIE Line Routing and Modification Table	32 entries
	System Speed Dialling	32 digits, 1000 entries/tenant		Leading Number	3 digits
	One-touch Dialling—PT	32 digits, 5000 entries/system	Networking	PBX Code	7 digits
	One-touch Dialling—PS	32 digits, 1000 entries/system		NDSS: Monitored PBXs	8
	Conference Group	32 (32 members/group for Conference Group Mode,		NDSS: Registered Extensions for Monitor PBX	250
	conference droup	32 members/group for Broadcast Mode)		Mailboxes	500 subscriber mailboxes 1 System Manager mailbox
	User Group	32		maildoxes	1 Message Manager mailbox
	Call Pickup Group	64	Unified		User: 4 groups, 40 members per group
	Idle Extension Hunting Group	64 (16 extensions/group)	Messaging	Group Distribution List	System: 20 groups, 200 members per group
	Incoming Call Distribution Group	128 (128 extensions/group)	-	Service Group	64 entries
5	Paging Group	32	71	Unified Messaging Ports	24 ports
	PS Ring Group	32	Web	Users (User)	500 accounts
	Trunk Group	64	Maintenance	Users (Administrator)	8 accounts
	UM Group	1	Console	Installer	1 account
	VM (DPT) Group	2 units x 12 ports (24 channels)	Accounts	Password (all account types)	4 – 16 characters
	VM (DTMF) Group	2 groups x 32 channels		rassiona (an account (spcs)	
	P2P Group	32	-		

#### Feature List 1. Call Handling Features

Incoming Call Features Incoming Trunk Call Features • Direct In Line (DIL) • Direct Inward Dialling (DID)/Direct Dialling In (DDI) - Direct Inward Dialling (JDI)/Direct Dialling - Calling Line Identification (CLI) Distribution - Intercept Routing - Intercept Routing - Intercent Routing - Intercen Call Waiting - Call Waiting
 Receiving Group Features
 Idle Extension Hunting
 Incoming Call Distribution Group Features
 - Goroup Call Distribution
 - Outside Destinations in Incoming Call Distribution Group
 - Queeling Feature
 - VIP Call
 - VOreflow Feature
 - Ion-in/Ion-out Log-in/Log-out
 Supervisory Feature Call Forwarding (FWD)/ Do Not Disturb (DND) Features Call Forwarding (FWD) Do Not Disturb (DND) Do Not Disturb (DND) FWD/DND Button, Group FWD Button Answering Features Line Preference—Incoming Call Pickup Hands-free Answerback Making Call Features Predialling Automatic Extension Release Intercom Call Trunk Call Features Emergency Call
 Account Code Entry Dial Type Selection Reverse Circuit Trunk Busy Out - Trunk Busy Out
 - Pause Insertion
 - Host PBX Access Code (Access Code to the Telephone
 Company from a Host PBX)
 - Special Carrier Access Code
 Secting a Line Features
 Line Preference—Outgoing
 - Trunk Acces
 Memory Dialling Features
 One a trunk Dialling Memory Dialling Features One-touch Dialling Last Number Redial Speed Dialling—Personal/System Quick Dialling Hot Line T7710 One-touch Dialling Toll Restriction (TRS)/ Call Barring (Barring) Features Toll Restriction (TRS)/Call Barring (Barring) Budget Management Extension Dial Lock Dial Tone Transfer Walking COS Verification Code Entry

Automatic Route Selection (ARS) Features Automatic Route Selection (ARS) Primary Directory Number (PDN)/Sec **Directory Number (SDN) Features** Primary Directory Number (PDN)/ Secondary Directory Number (SDN) Extension Busy Line/Busy Party Features Automatic Callback Busy (Camp-on) Executive Busy Override Call Monitor Second Call Notification to Busy Extension Call Waiting Tone
 Off-hook Call Announcement (OHCA) Whisper OHCA Conversation Features Hands-free Operation Off-hook Monitor Mute Headset Operation Data Line Security Flash/Recall/Terminate External Feature Access (EFA) Trunk Call Limitation Calling Party Control (CPC) Signal Detection Paralleled Telephone One-numbered Extension Transferring Features Call Transfer SIP Refer Transfer Holding Features Call Hold Call Park Call Splitting Music on Hold Conference Features Conference Privacy Release Conference Group Call Features Conference Group Call Direct Inward System Access (DISA) Features Direct Inward System Access (DISA) Automatic Fax Transfer Built-in Simplified Voice Message (SVM) Paging Features Paging Trunk Answer From Any Station (TAFAS) External Device Features Doorphone Call Door Open External Sensor External Relay Control Caller ID Features Caller ID Incoming Call Log Message Feature Message Waiting Absent Messag Proprietary Telephone (PT) Hardware Features Fixed Buttons Flexible Buttons LED Indication Display Information Administrative Information Features Record Log Features
• Station Message Detail Recording (SMDR) Station message Detail Record Syslog Record Management Printing Message Call Charge Services

#### **Hospitality Features** Room Status Control Call Billing for Guest Room Extension Controlling Features Extension Personal Identification Nu Extension Feature Clear Number (PIN) Walking Extension Features Walking Extension Enhanced Walking Extension Timed Reminder Audible Tone Features Dial Tone Confirmation Tone Computer Telephony Integration (CTI) Features Computer Telephony Integration (CTI) CA (Communication Assistant) Cellular Phone Features Voice Mail Features Voice Mail (VM) Group Voice Mail DTMF Integration Voice Mail DPT (Digital) Integration E1 Line Service Features F1 Line Service Miscellaneous Features Background Music (BGM) Outgoing Message (OGM) 2. Unified Messaging System 2. Contract Messaging System Administ System Administration Automatic Configuration of Mailboxes - Custom Service Builder - Default Mailbox Template Password Administration System Backup/Restore System Reports System Security System and Sub System Features Alternate Extension Group Auto Forwarding Automated Attendant (AA) Automatic Two-way Recording for Manager Broadcasting Messages Call Services Call Transfer to Outside Call Transfer to Outside Caller ID Call Routing Caller ID Screening Caller Name Announcement Class of Service (COS) Company Greeting Company Mame Company Name Covering Extension Custom Service Dialling by Name Emergency Greeting Extension Group • Hold Holiday Service Holiday Service Hospitality Mode Intercept Routing to a Mailbox Intercom Paging Interview Service List All Names Losical Extension (All Calle Texe Logical Extension (All Calls Transfer to Mailbox) Message Reception Mode Message Waiting Notification—E-mail Device Message Waiting Notification—Lamp Message Waiting Notification—Telephone Device

 Multilingual Service
 No DTMF Input Operation On Hold Announcement Menu - On Hold Announcement Menu
 - Operator Service
 - PIK Call Routing
 - Play System Prompt After Personal Greeting
 - Play System Prompt After Personal Greeting
 - Partice
 - Remote Time Service Set
 - Service Group
 - Simplified Tutorial
 - System Prompts
 - Transfer Recall to a Malhox Transfer to Mailbox Trunk Service (Universal Port) Voice Mail Service Subscriber Features Auto Receipt
 Automatic Login Automatic Login
 Autoplay New Message
 Bookmark
 Call-through Service
 Call Transfer Scenario
 Call Transfer Status
 Callback Number Entry
 Caller ID Callback
 Delete Message Confirm Caller ID Callback
 Delete Message Confirmation
 Direct Service Access External Message Delivery Service
 Forwarding to a Mailbox
 Group Distribution Lists Incomplete Call Handling Service
 Live Call Screening (LCS) Live Call Screening (LCS)
 Mailbox
 Mailbox Capacity Warning
 Manager Service Switching
 Message Transfer
 Personal Custom Service
 Personal Greetings
 Private Message
 Descent Mercene Recover Message
 Remote Absent Message Remote Call Forwarding Set Subscriber Tutorial
 Timed Reminder Setting Imed Reminder Setting
 Toll Saver
 Toll Saver
 Wo-way Record/Two-way Transfer
 Urgent Message
 Voice Mail (VM) Transfer Button
 Web Programming E-mail Client Integration Features Integration with Microsoft Outlook IMAP Integration **3. Network Features** Public Network Features SIP (Session Initiation Protocol) Trunk Integrated Services Digital Network (ISDN) Service Features • Calling/Connected Line Identification Presentation (CLIP/COLP) Calling/Connected Line Identification Presentatio Advice of Charge (AOC)
 Call Forwarding (CF)—by ISDN (P-P)
 Call Howarding (CF)—by ISDN (P-P)
 Call Hold (HIOL)—by ISDN
 Call Hold (HIOL)—by ISDN
 Call Transfer (CT)—by ISDN
 Malicious Call Identification (MCD)
 Completion of Calls to Busy Subscriber (CSCS)
 SISDN Service Access by Keypad Protocol

Automatic Rerouting to Secondary PBX

Private Network Features

TIE Line Service • Making a TIE Line Call • TIE Line and Trunk Connection

# TIE Line Programming Common Extension Numbering for 2 PBXs Voice over Internet Protocol (VoIP) Network Gateway Groups Common Extension Numbering for Multiple PBXs Gall Distribution Port Group SDN Virtual Private Network (ISDN-VPN) GGIS Gandrad Features -Calling/Connected Line Identification Presentation (CLIP/COLP) and Calling/Connected Name Identification Presentation (CNIP/CONP)—by QSIG -Call Forwarding (CF)—by QSIG -Completion of Calls to Busy Subscriber (CCBS)—by QSIG GSIG Enhanced Features -Network Direct Station Selection (NDSS) -entralised Voice Mail Network (LO Group -S PS Roaming by Network (LO Group

#### Administration Features

System Configuration Class of Service (COS) Group Tenant Service Time Service Operator Features Manager Features Manager Features System Configuration—Extensions IP Proprietary Telephone (IP-PT) SIP (Session Initiation Protocol) Extension - XC-VIT Series SIP Phones - SIP Portable Station (S-PS) and SIP Cell Station (SIP-CS) - Simple Remote Connection Peer-to-Peer (P2P) Connection Portable Station (PS) Features Portable Station (PS) Features Portable Station (PS) Connection
 PS Ring Group PS Directory
 PS Feature Buttons
 Wireless XDP Parallel Mode Virtual PS
 ISDN Extension Features
 ISDN Extension
 Extension Port Configuration Legacy Device Connection Trunk Adaptor Connection E-mail Notification Features E-mail Notification for Extension Users E-mail Notification of System-level Events E-mail Notification of Sensor Alarm E-mail Notification of Sensor Alarm System Data Control User Profiles PC Programming DSP Resource Vage - DSP Resource Reservation - DSP Resource Advisor Automatic Servation - Nose Resource Advisor Automatic Servation Flexible Numbering/Fixed Numbering Floating Extension Software Upgrading Fault Recovery/Diagnostics UPS (Uninterruptible Power Supply) Integration Power Failure Transfer Power Failure Restart Local Alarm Information Simple Network Management Protocol (SNMP) System Monitor Dynamic Host Configuration Protocol (DHCP) Assignment PING Confirmation

This spec sheet is for the KX-NS300 Software Version 1.0 or later.
 Some operations may vary depending on the type of telephone or Activation Key being used. Please consult a Panasonic sales company for details