

# Panasonic



## Smart Hybrid PBX **KX-NS500** Sales Guide



# Contents

## Introduction

PBX Line-up and Positioning of the KX-NS500 .....	4
Product Concept .....	5
Product Overview .....	6
System Connection Diagram .....	14

## Selling Points

Why the KX-NS500 ? .....	16
--------------------------	----

Cost Saving .....	17
Expandability .....	18
Backwards Compatibility .....	19
IP Networking	
•Saving Communication Costs .....	20
•Saving Network Costs .....	21
•Saving on Initial Investment .....	22
•Saving Running Costs .....	23

Customer Satisfaction .....	24
-----------------------------	----

### Wireless Solution

•Multi Zone .....	25
•XDP Parallel Mode .....	26
•DECT Paging .....	27
•Tough Type Handset .....	28

### Cellular Phone Integration

•Receive a Call .....	29
•Outside Destinations in Incoming Call Distribution Groups .....	30
•Make a Call .....	31

### Voice Mail Solution

•Voice Mail .....	32
•E-mail Notification .....	33
•MS Outlook & IMAP4 Integration .....	34

Improved Work Efficiency .....	35
Built-in DISA .....	36
Call Centre Solution	
•Queue Announcement .....	37
•Call Distribution .....	38
•Automatic Two-way Recording for Managers .....	39
•NAS Supported .....	40
•Activity Monitor .....	41
•Activity Report .....	42
Communication Assistant .....	43

### Simplified Maintenance

•Web Maintenance .....	44
------------------------	----

## Appendix

### Specifications

•KX-NS500 Capacity .....	46
•Hardware Condition .....	49
•Product Lineup - Hardware .....	50
•Product Lineup - Preinstalled Activation Keys .....	51
•Product Lineup - Activation Keys .....	52

### Terminal Information

•Overview .....	57
•IP Phone 'KX-NT5xx Series' .....	58
•Digital Phone 'KX-DT5xx Series' .....	63
•Wireless Terminal .....	66

### Improved Work Efficiency

### Call Centre Solution

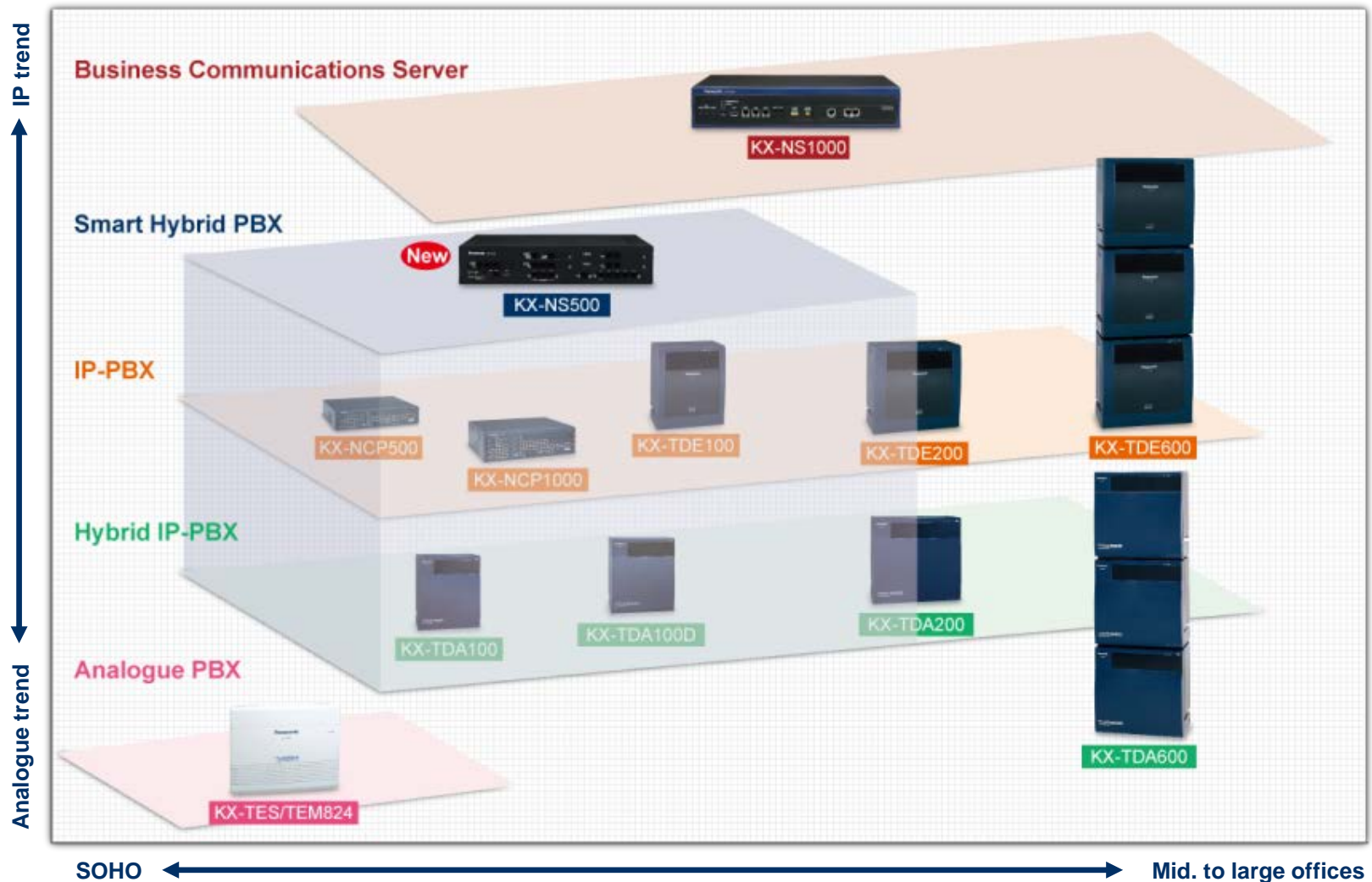
•“CC View” Activity Monitor and Report Tool .....	71
---	----

Communication Assistant .....	72
-------------------------------	----

# Introduction

## PBX Line-up and Positioning of the KX-NS500

The line-up extends from compact to large-scale systems. The new KX-NS500 is optimized for the SMB market.



## Product Concept

The KX-NS500 is the successor to the KX-NCP, KX-TDE100, and KX-TDA100D for the SMB market and comes built-in with the functions of the KX-NS1000.

### Smart Hybrid PBX KX-NS500



KX-NCP Series



KX-TDE100

- QSIG Networking
- IP Expansion
- CA Integration
- APT Compatible



KX-NS1000

- Unified Communication  
Full Voice Mail  
Call Centre Function  
Mobility
- Web Maintenance Console



KX-TDA100D

- Legacy Expansion
- Built-in Message Card
- DPT Programming



# One Package Platform for Your Business

The KX-NS500 is a Smart Hybrid PBX suitable for small to medium sized offices. It enables you to provide various solutions with its built-in functions.

Call Centre  
Solution

Smart Hybrid  
System

Preinstalled  
Activation Keys

One Numbered  
Extension

**One Package Platform for  
Your Business**



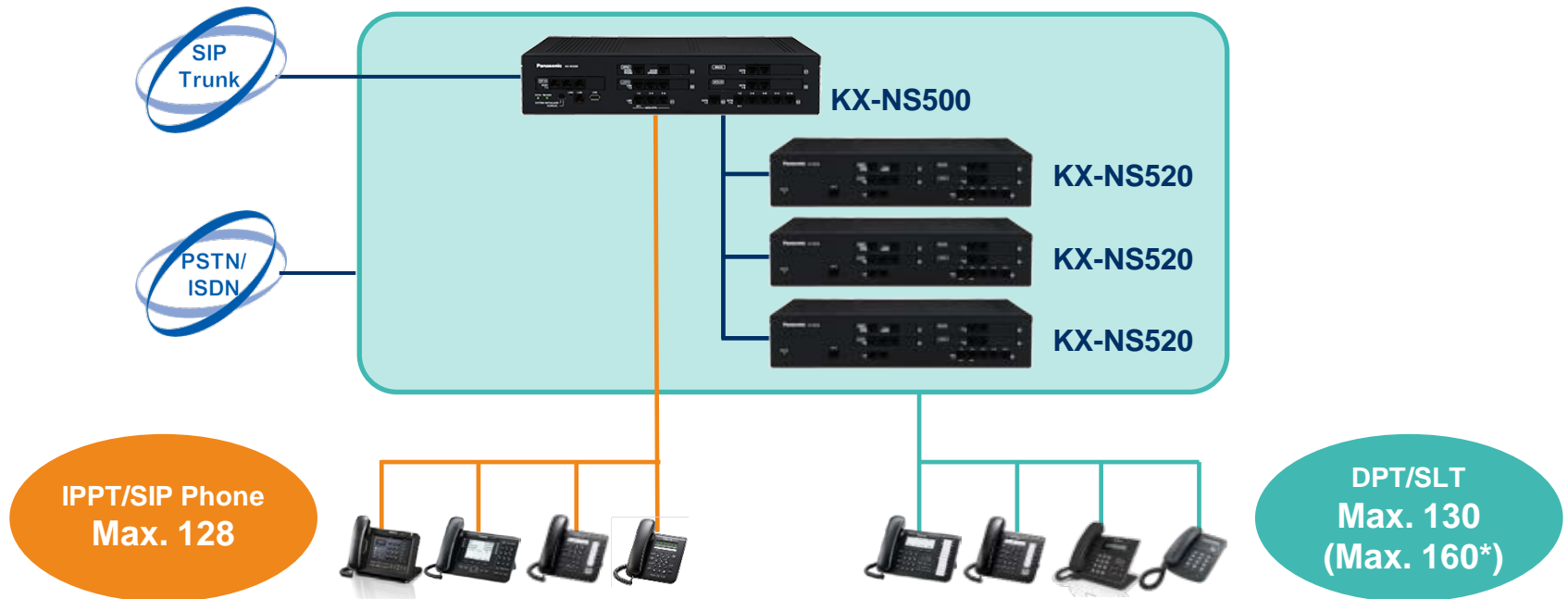
**Smart Hybrid PBX  
KX-NS500**

Simplified  
Maintenance

Built-in Voice Mail/  
UC Server

# Smart Hybrid System

The KX-NS500 has sufficient capacity for both legacy and IP ports, and an activation key or expansion cabinet can be used to easily expand the system according to customer needs.



### Maximum Trunks and Extensions

Types		Preinstalled	KX-NS500	With 1 KX-NS520	With 2 KX-NS520	With 3 KX-NS520
Legacy	Trunks	6 ch	36 ch	66 ch	96 ch	126 ch
	Extensions (DXDP*)	18	34 (40)	66 (80)	98 (120)	130 (160)
IP	Trunks	N/A	64 ch	64 ch	64 ch	64 ch
	Extensions	N/A	128	128	128	128

\* When Digital XDP is used.

# Preinstalled Activation Keys

The following type and number of activation keys are preinstalled or come with a 60-days free trial on the mother board.

### Smart Hybrid PBX KX-NS500



#### Preinstalled Activation Keys

##### *Free Activation Keys*

- 4 IP-PTs user
- 2 ch Unified Messages
- CA Basic-Express for all users

##### *60-days free trial*

- **Unified Messaging**  
(UM/E-mail Client/Message Backup/  
Two-way Recording)
- **Mobile Extension**
- **Communication Assistant**  
(CA PRO/CA Supervisor/CA Operator  
Console/CA Thin Client Server/CSTA  
Multiplexer)
- **3<sup>rd</sup> Party CTI interface**
- **Call Centre Enhancement**

\* DSP is required for some functions.

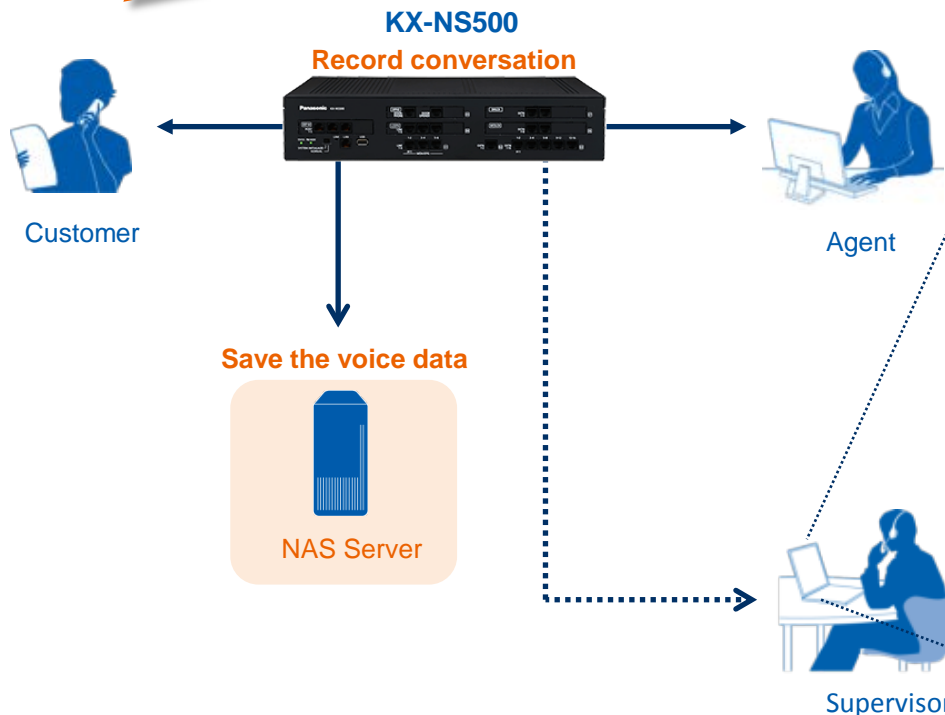


## Call Centre Solution

The KX-NS500 is designed to be used in call centre environments. Its built-in applications support the basic needs of supervisors at call centres, such as Queue Announcement, Live Status Monitor, Activity Report, Automatic Conversation Recording, and NAS (Network Attached Storage).

### Queue Announcement

"Four other people are waiting to connect"  
"And your estimated wait time is around 10 minutes."  
:



### Live Status Monitor

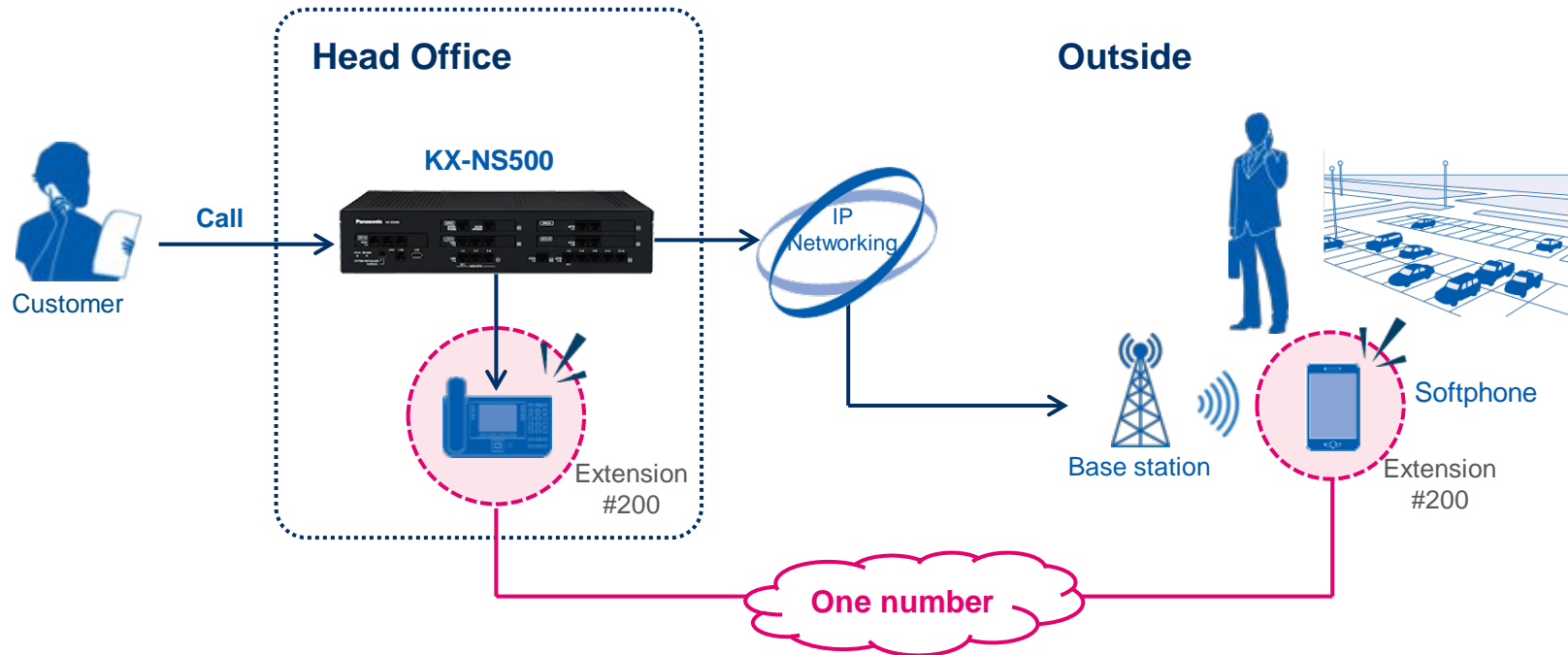
Group Call Monitor		
Current Waiting Call		Longest Waiting Time
0		00'00
Current Member Status		
100 Group		
Phone Status	Login	Logout
Wrap up	0	0
On the phone	0	1
Ringing	0	0
Idle	15	3

### Activity Report



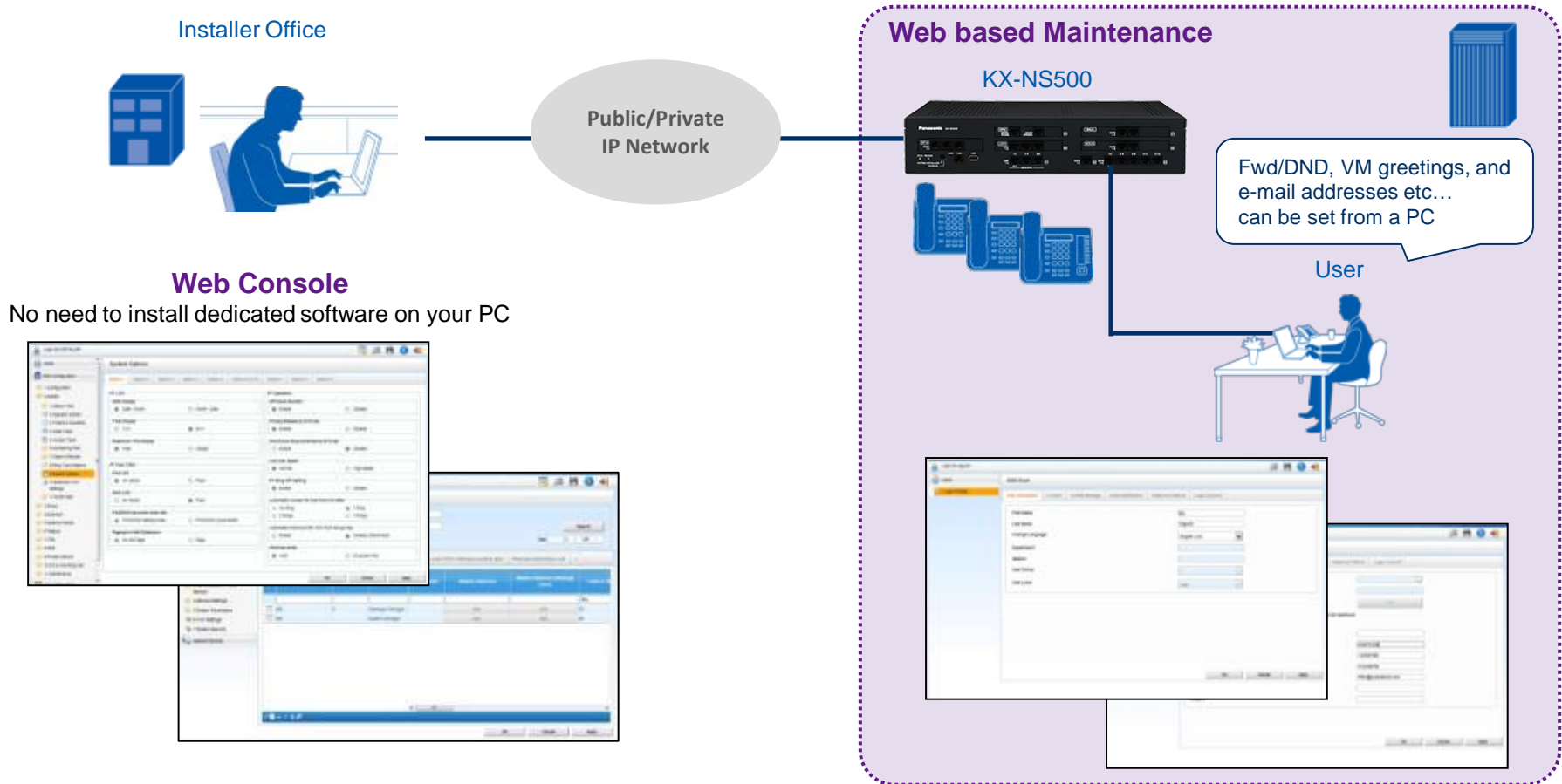
# One Numbered Extension

Up to two extensions can be assigned the same extension number. For example, calls to an extension in the office can be received simultaneously on a softphone on a smartphone. Calls can also be switched between paired phones with a simple operation.



## Simplified Maintenance

The installer can easily program everything related to functions such as PBX and VM by web based console, because the KX-NS500 comes with a built-in web server. Programming can also be performed from remote sites. Users can also use a web based console to configure terminals and the VM mailbox.

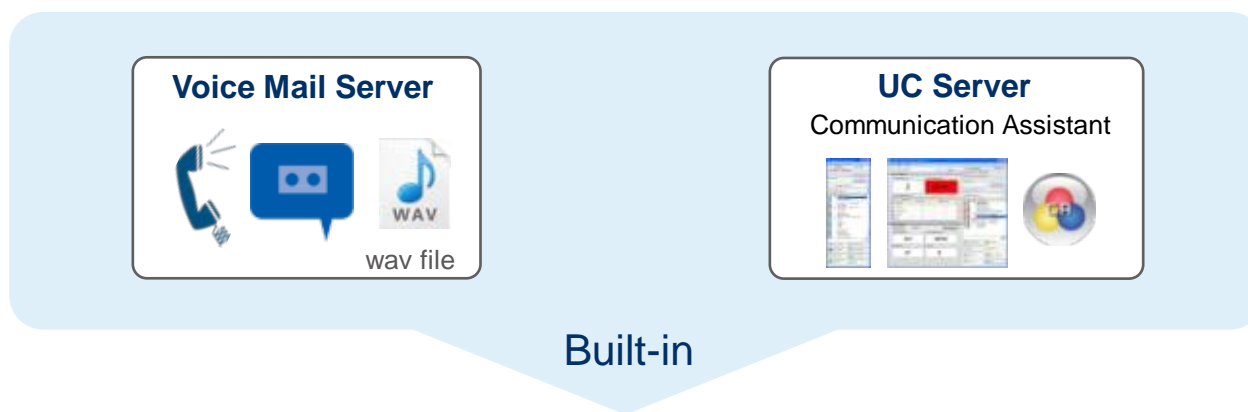


<Note>

The programming method is basically same as the KX-TDA/TDW/NCP and KX-TVM. Programming can be performed with PTs, in the same way as the KX-TDA100D.

# Built-in Voice Mail/UC Server - Unified Communication

The KX-NS500 has a built-in messaging system that provides voice mail to subscribers. The Unified Messaging system can also provide voice guidance to outside callers, either directing them to their desired destination or to the mailbox of a subscriber, where they can leave a voice message.



## Smart Hybrid PBX KX-NS500

### E-mail Notification Function

- Voice mail notification
- System alarm notification
- And more....







### MS Outlook & IMAP4 Integration

- Microsoft Outlook plug-in
- IMAP4 protocol supported

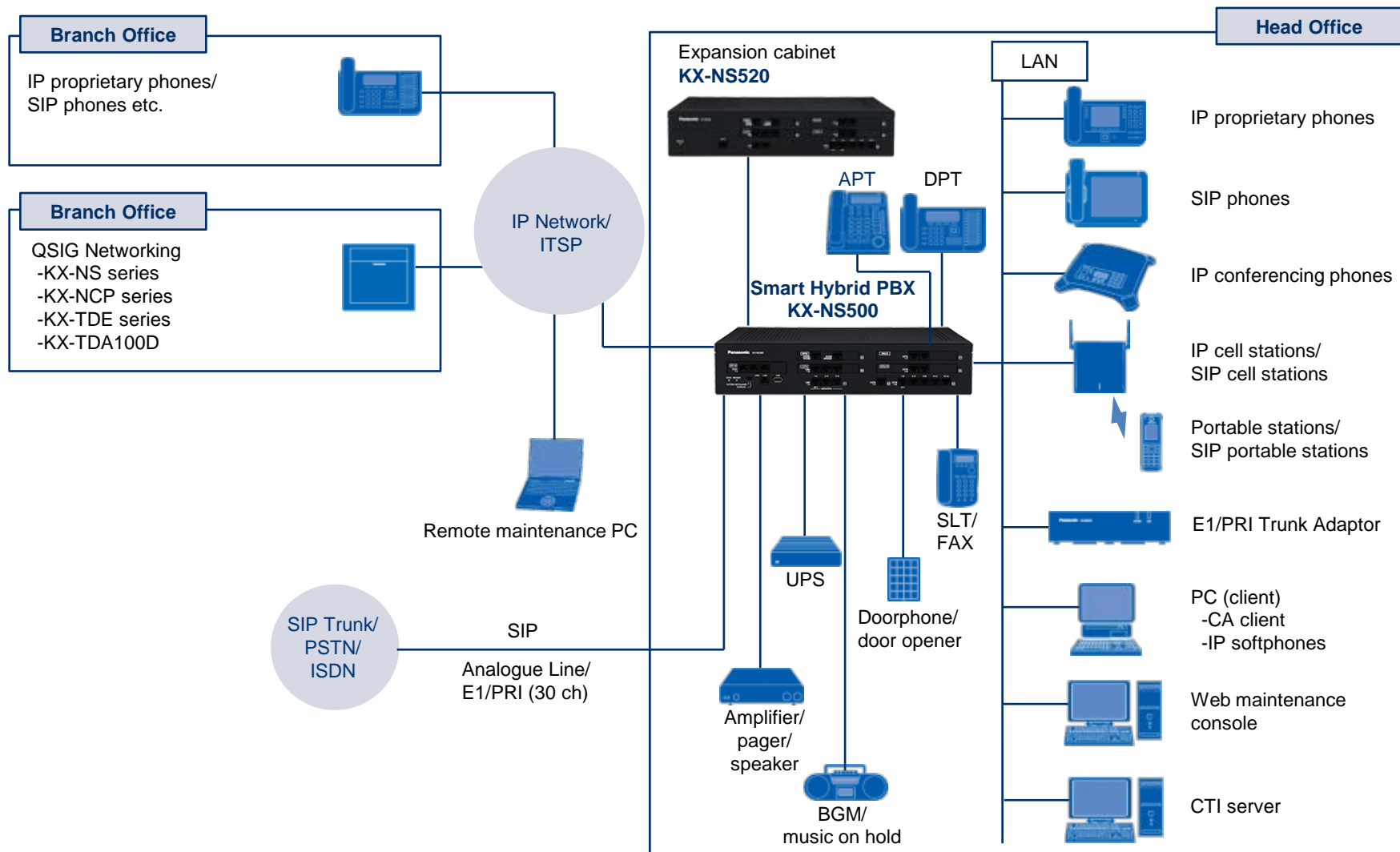
## Comparison with TDA/NCP/TDE Series

The KX-NS500 is more improved and varied than the KX-TDA/NCP/TDE series.

Model No.	<b>KX-NS500</b> 	<b>KX-TDA100D</b> 	<b>KX-NCP Series</b> 	<b>KX-TDE100</b> 
<b>Trunk Capacity</b>	Legacy: Max 126 IP: Max 64 Total: MAX 190	Legacy: Max 126 IP : MAX 64 Total: MAX 126	Legacy: Max 64 IP: Max 64 Total: MAX 128	Legacy: Max 120 IP: Max 64 Total: MAX 128
<b>Extension Capacity</b>	Legacy: Max 160 IP: Max 128 Total: MAX 288	Legacy: Max 128 IP: Max 112 Total: MAX 176	Legacy: Max 44 IP: Max 128 Total: MAX 172	Legacy: Max 128 IP: Max 192 Total: MAX 256
<b>Built-in Voice Mail</b>	ESVM Full VM functions Unified Message	ESVM (Option)	ESVM	ESVM
<b>Maintenance</b>	Web console/ proprietary telephone	PC maintenance console/ proprietary telephone	PC maintenance console/ proprietary telephone	PC maintenance console/ proprietary telephone

## System Connection Diagram

Existing equipment from Panasonic and trunks can continue to be used, and the legacy capacity can easily be expanded simply by connecting an expansion cabinet.





# Selling Points

# Why the KX-NS500 ?

Support for various features enhances business productivity. The KX-NS500 offers a Unified Communication System and it is suitable for small to medium sized businesses.

### Smart Hybrid PBX KX-NS500



#### Cost Saving

- Expandability
- Backwards Compatibility
- IP Networking

#### Customer Satisfaction

- Wireless Solution
- Cellular Phone Integration
- Voice Mail Solution

#### Improved Work Efficiency

- Built-in DISA
- Call Centre Solution
- Communication Assistant

## Head Office

2F



**Saving Running Costs**

➤ See page 23

**Saving Communication Costs**

➤ See page 20

1F



**Backwards Compatibility**

➤ See page 19

**Expandability**

➤ See page 18

## Home Office



**Saving on Initial Investment**

➤ See page 22

## Remote Office

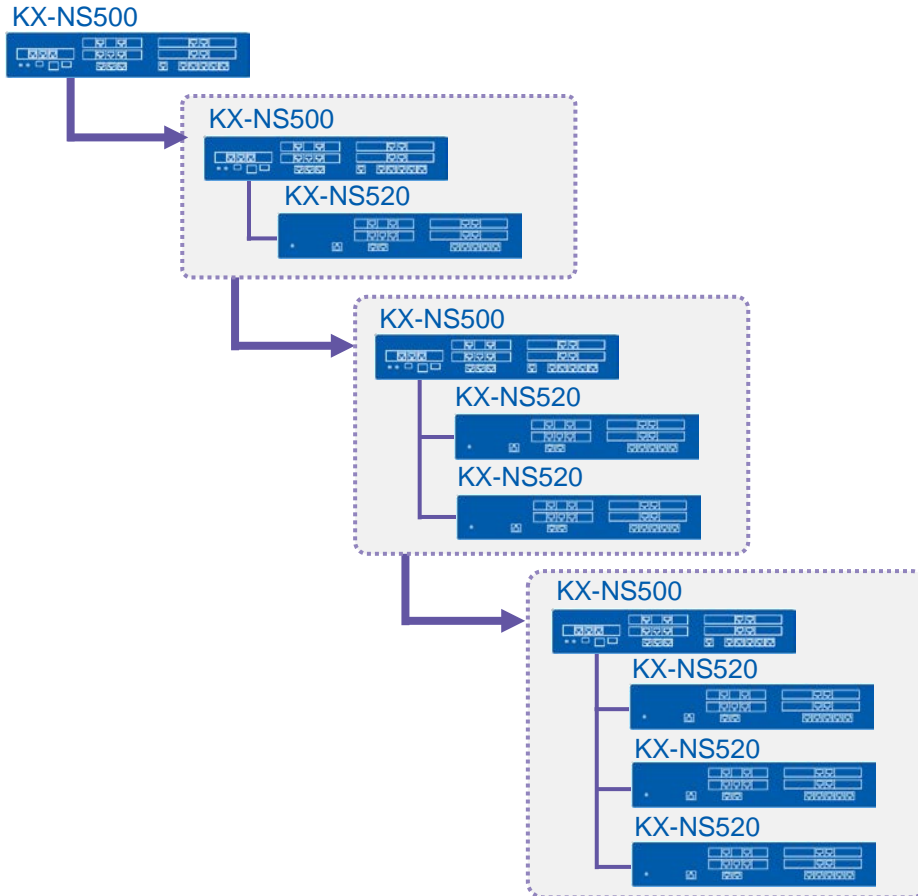


**Saving Network Costs**

➤ See page 21

# Expandability

The KX-NS500 is expandable with optional cards and expansion cabinets.



## Features and Benefits

- ▶ You do not need to discard the KX-NS500 to increase capacity in the future.
- ▶ Connecting an expansion cabinet is like connecting the KX-TDA600 and KX-TDA620.

## Recommended for:

- ▶ Growing companies

## Maximum Trunks and Extensions

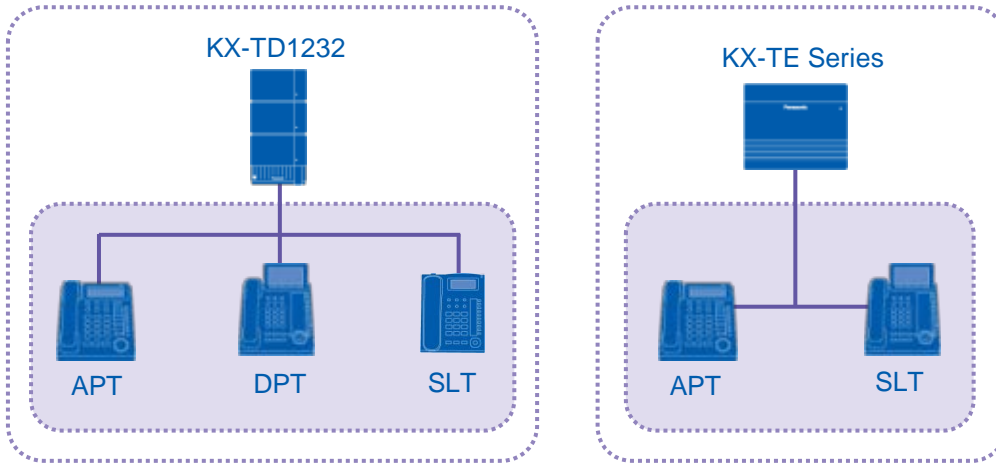
Types		Preinstalled	KX-NS500	With 1 KX-NS520	With 2 KX-NS520	With 3 KX-NS520
Legacy	Trunks	6 ch	36 ch	66 ch	96 ch	126 ch
	Extensions (DXDP*)	18	34 (40)	66 (80)	98 (120)	130 (160)

\* When Digital XDP is used.

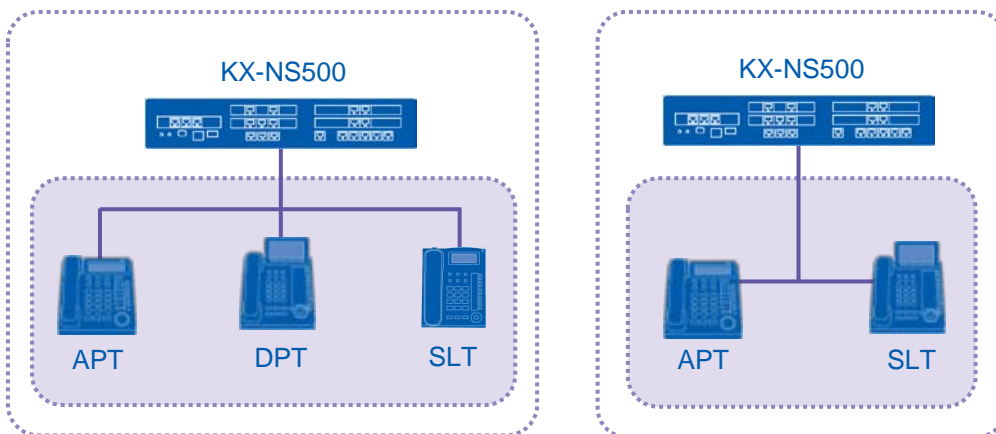
# Backwards Compatibility

Existing DPTs, APTs and SLTs from Panasonic and Trunk can continue to be used, enabling a system to be replaced at a low cost without wasting resources.

## Old System



## New System



## Features and Benefits

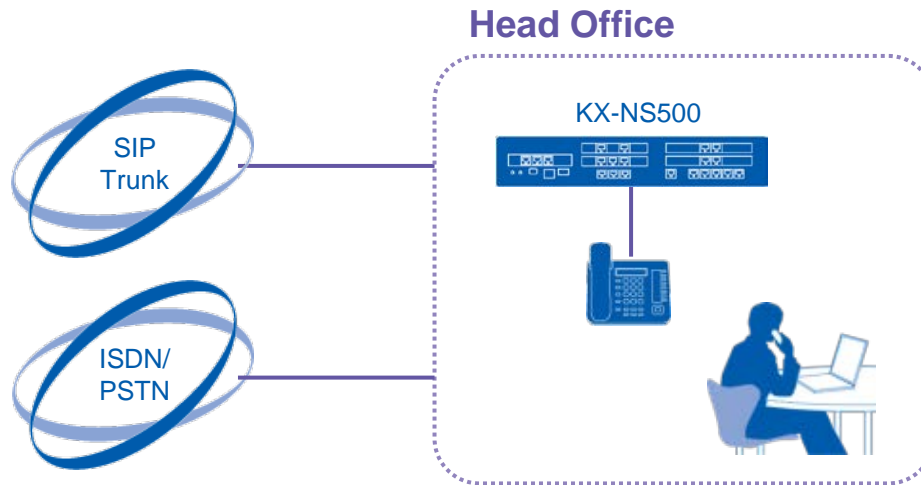
- ▶ Low initial investment costs because the only cost involved is that for purchasing the system.
- ▶ Continue to use an existing KX-T74xx/KX-T75xx.

## Recommended for:

- ▶ Growing companies
- ▶ Companies considering replacing their PBX

# IP Networking -Saving Communication Costs-

The adequate IP capacity of the KX-NS500 enables you to combine both IP and legacy trunks according to your needs, to construct systems that are flexible and cost effective.



## Features and Benefits

- Constructing a hybrid system that combines both legacy and IP lines to further reduce costs.

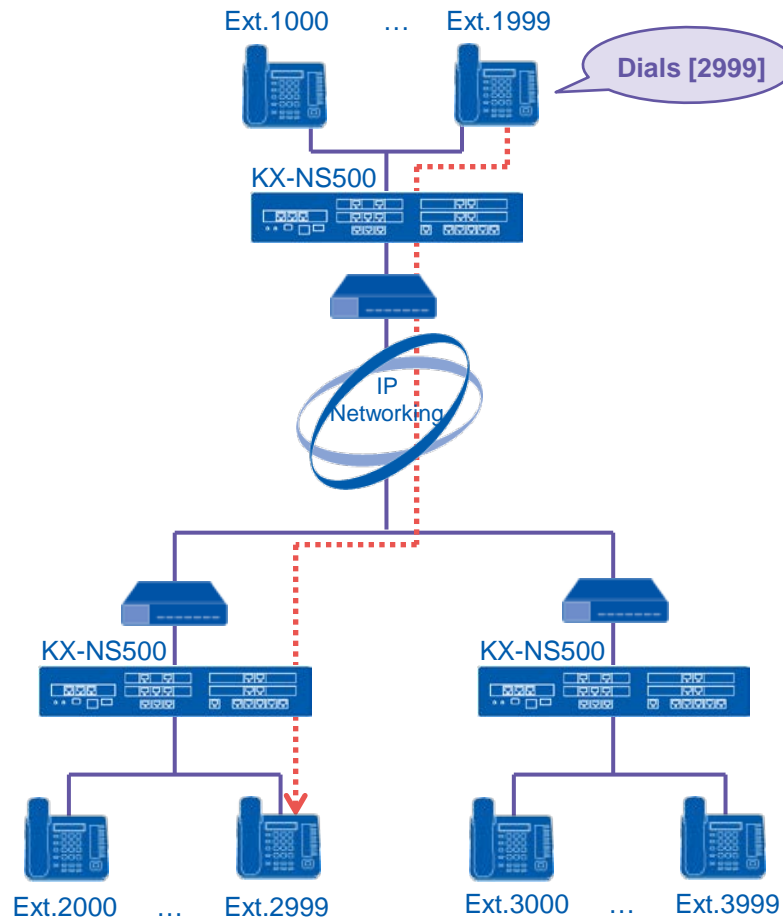
## Recommended for:

- Companies using an IP/ISDN/PSTN network system.



# IP Networking -Saving Network Costs-

VoIP allows you to talk with your remote offices anywhere in the world without telephone charges using a private IP network.



## Features and Benefits

- Save on call costs.
- The PBX extension functions can be used across multiple offices.

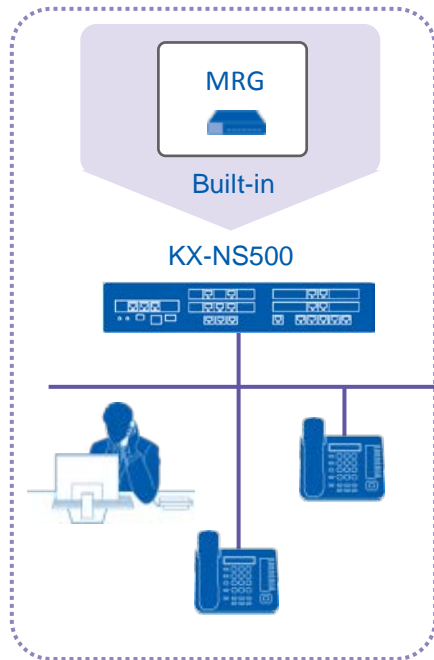
## Recommended for:

- Companies which have branches.
- Companies using an IP network system.

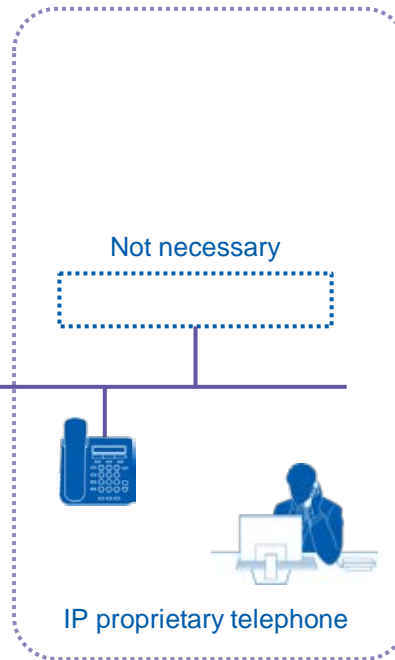
# IP Networking -Saving on Initial Investment-

IP phones can be installed at a remote office without a PBX via an IP network. A VPN is not required. (Built-in Media Relay GW)

## Head Office



## Home Office



## Features and Benefits

- No need to install the PBX in branch offices.

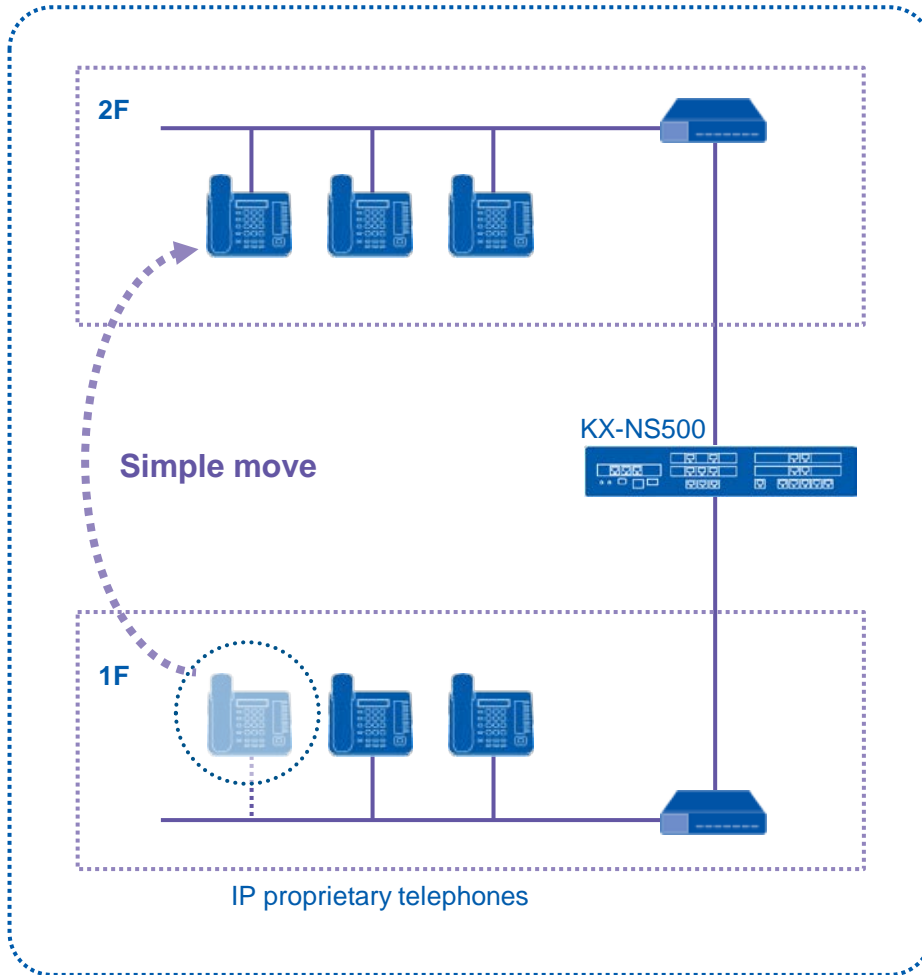
## Recommended for:

- Companies with employees working at home

# IP Networking -Saving Running Costs-

By using IP phones as extensions, there is no need to change the settings of the PBX each time the office layout is changed.

## Office



## Features and Benefits

- No need to change the PBX settings when phones are moved to another place.

## Recommended for:

- Companies with a need to change their office layout on occasion.
- Companies which have an LAN network system.
- Growing companies

## 3F: Warehouse



**Tough Type Handset**

➤ See page 28

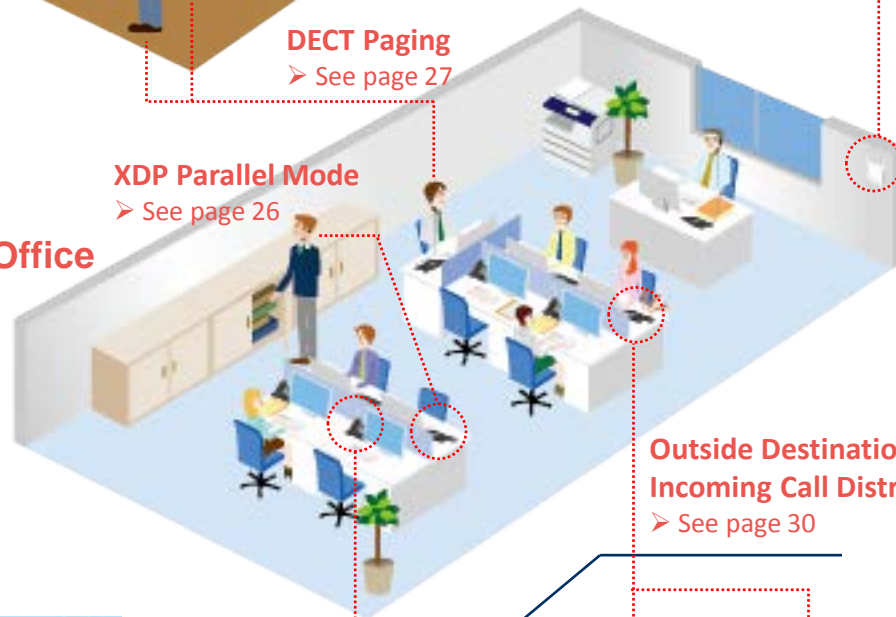
**DECT Paging**

➤ See page 27

**XDP Parallel Mode**

➤ See page 26

## 2F: Office



**One Numbered Extension**

➤ See page 29, 31

**Multi Zone**

➤ See page 25

## Branch Office



## 1F: Office



**Voice Mail**

➤ See page 32

E-mail  
server

KX-NS500

**E-mail Notification**

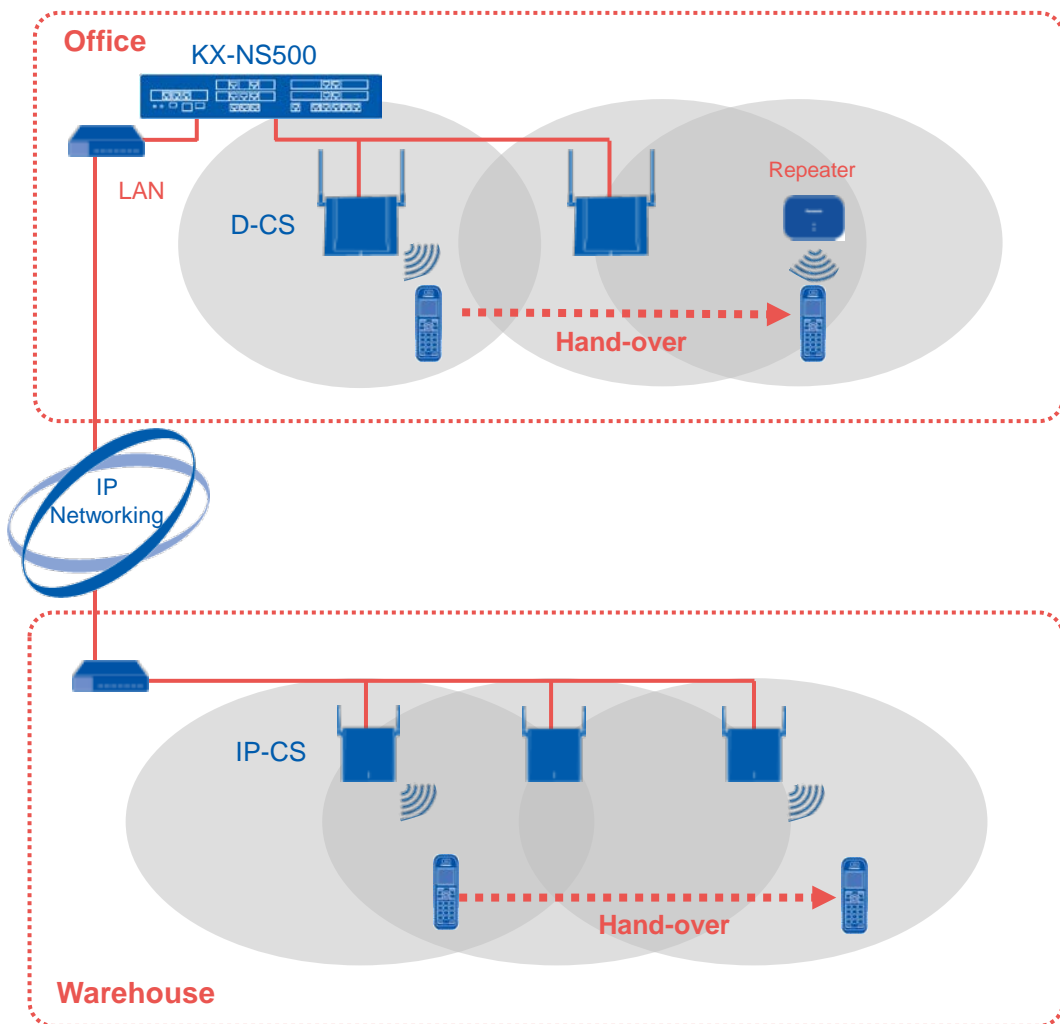
➤ See page 33

**MS Outlook &  
IMAP4 Integration**

➤ See page 34

# Wireless Solution -Multi Zone-

You can receive customer calls wherever you are in the company. Automatic hand-over allows smooth conversations on the move.



## Features and Benefits

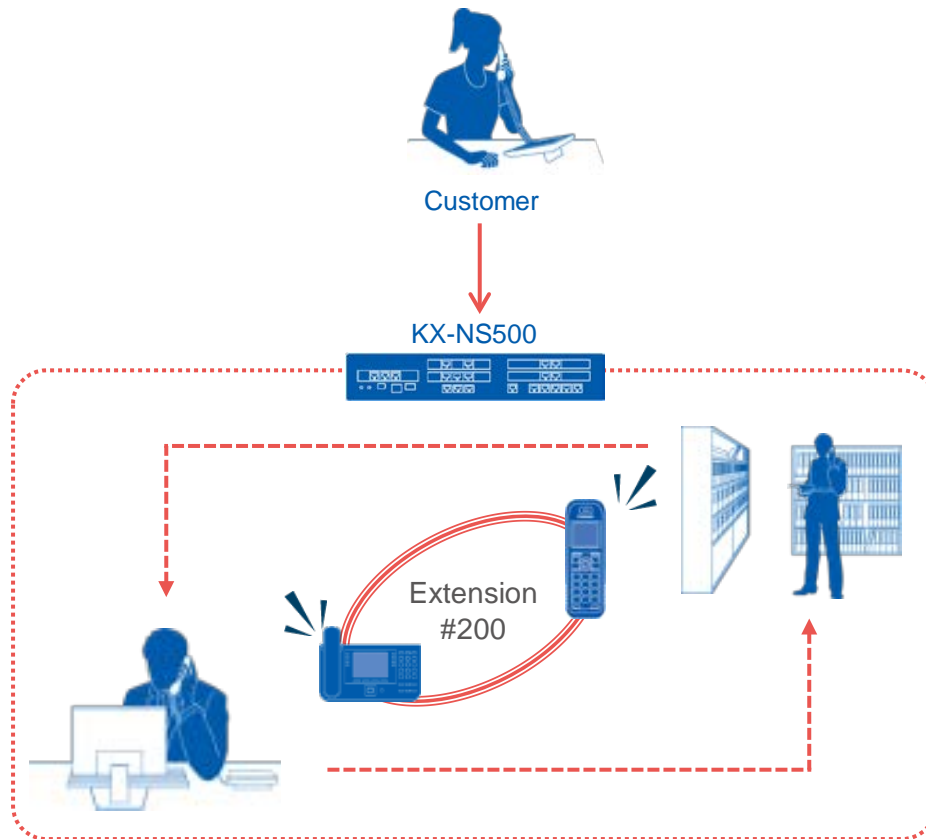
- ▶ On-site employees: efficient because it is not necessary to return to the office to make a call.
- ▶ Call receptionists: less trouble because the person to transfer the call to can be reached anywhere
- ▶ Customers: improved customer satisfaction with less customer waiting because calls can be quickly transferred to the wireless handset of the person in charge.
- ▶ Repeater Use: Call zone expansion can be enabled at a low cost because it is not necessary to wire extra cell stations to the PBX.
- ▶ Wireless solutions can be easily installed at remote sites using an IP network.

## Recommended for:

- ▶ Dedicated employees stationed for receiving phone calls
- ▶ Employees often away from their desks

# Wireless Solution -XDP Parallel Mode-

Both a proprietary phone on the user's desk and a portable station can be called simultaneously using a single extension number.



## Features and Benefits

- ▶ Calls can be switched between desk phones and portable stations with a simple operation during conversations.
- ▶ Switch from DECT simply by picking up the handset of your desk phone when you return to your seat.
- ▶ Switch to DECT simply by pressing a button on the portable station when you leave your seat.

## Recommended for:

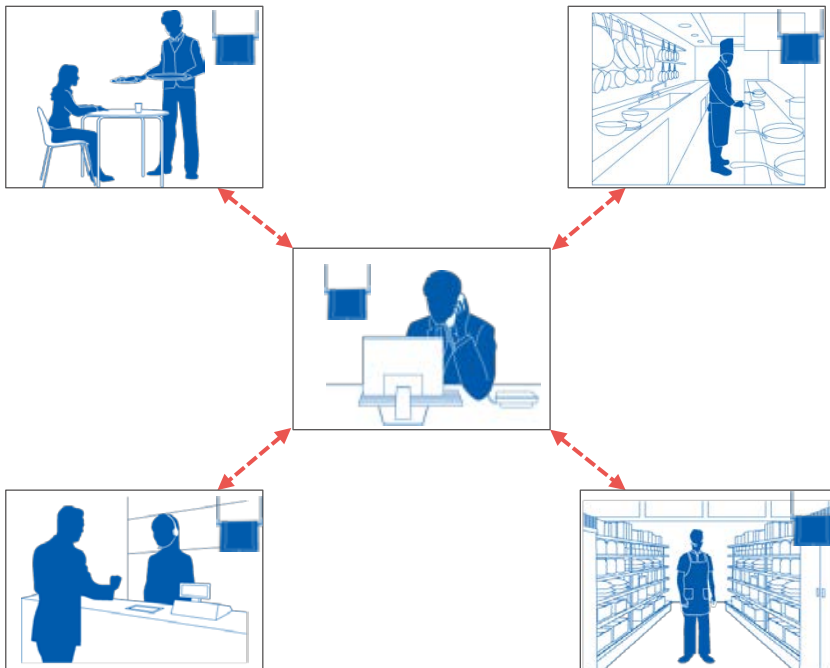
- ▶ Employees often going back and forth from their desk to make calls
- ▶ For executive rooms and reception corners



# Wireless Solution -DECT Paging-

Paging can be performed between a maximum of 32 DECT wireless extensions. You can give directions to staff around the premises. This enables customers to be quickly responded to.

Max : 32 parties



## Features and Benefits

- ▶ Conversations between staff can be shared.
- ▶ Multiple people can be called at the same time.
- ▶ Contact made anywhere within the coverage area.

## Recommended for:

- ▶ Hotel, healthcare, or retail customers, etc. that require speedy sharing of information to share instructions with the relevant parties at the same time.
- ▶ Companies with relevant parties in different locations.

# Wireless Solution -Tough Type Handset-

Dust resistance and water resistance for use in locations with high amounts of dust and humidity (IP65 Compliant). This enables customer calls to be received in damp or dusty locations without concern.

Tough type model  
KX-TCA385



IP5  
Splash  
proof

IP6  
Dust  
resistance



## Features and Benefits

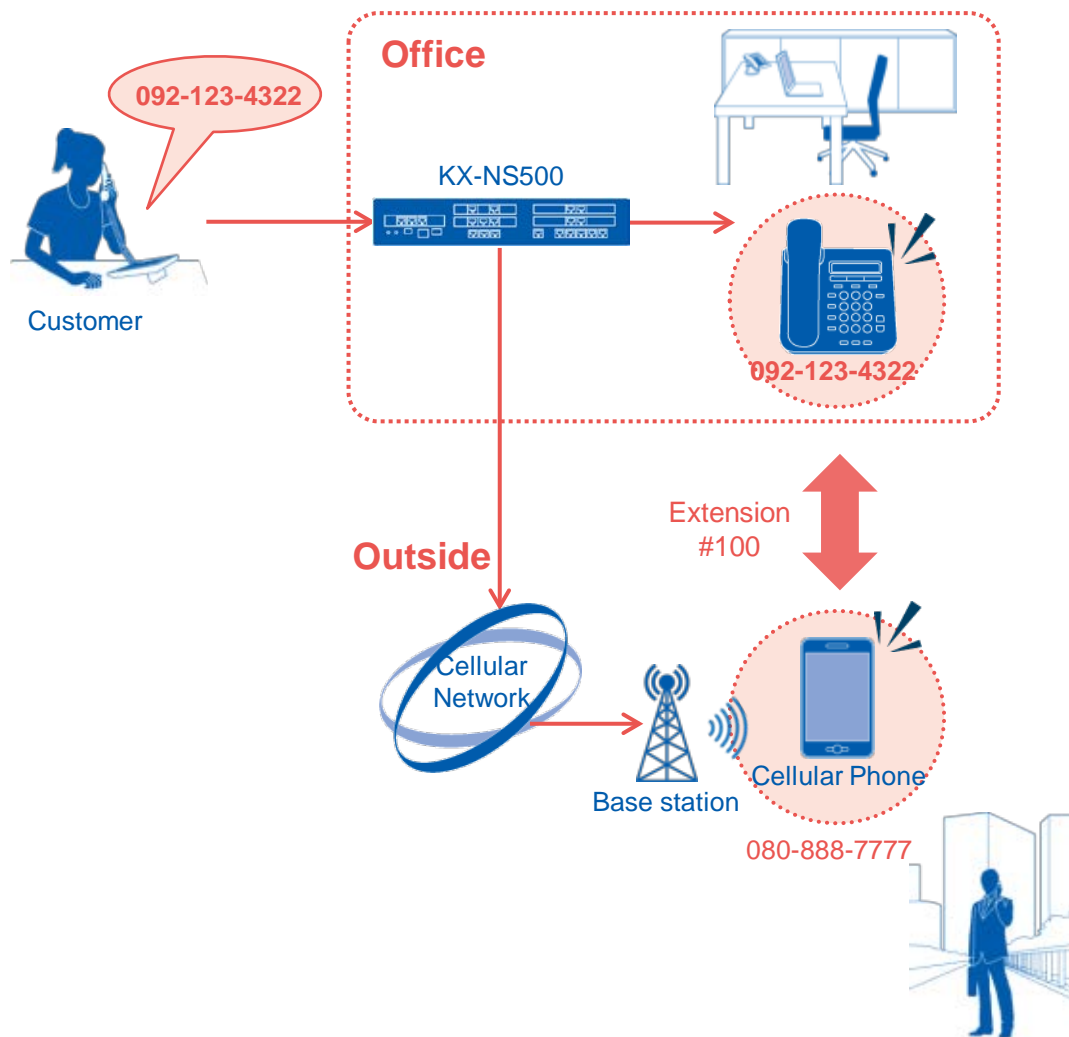
- ▶ In humid or dusty environments, repair costs can be reduced compared to non-resistant models.
- ▶ Water resistance  
IP5: Water resistance, protection against splashed water.
- ▶ Dust resistance  
IP6: Dust resistance, no invasion of dust.

## Recommended for:

- ▶ Environments with warehouses and garages
- ▶ Locations near kitchens, baths, etc.

# Cellular Phone Integration -Receive a Call-

When your customer calls your office phone number, both your phone at the office and your cellular phone can ring at the same time. You can receive customer calls both inside and outside the company.



## Features and Benefits

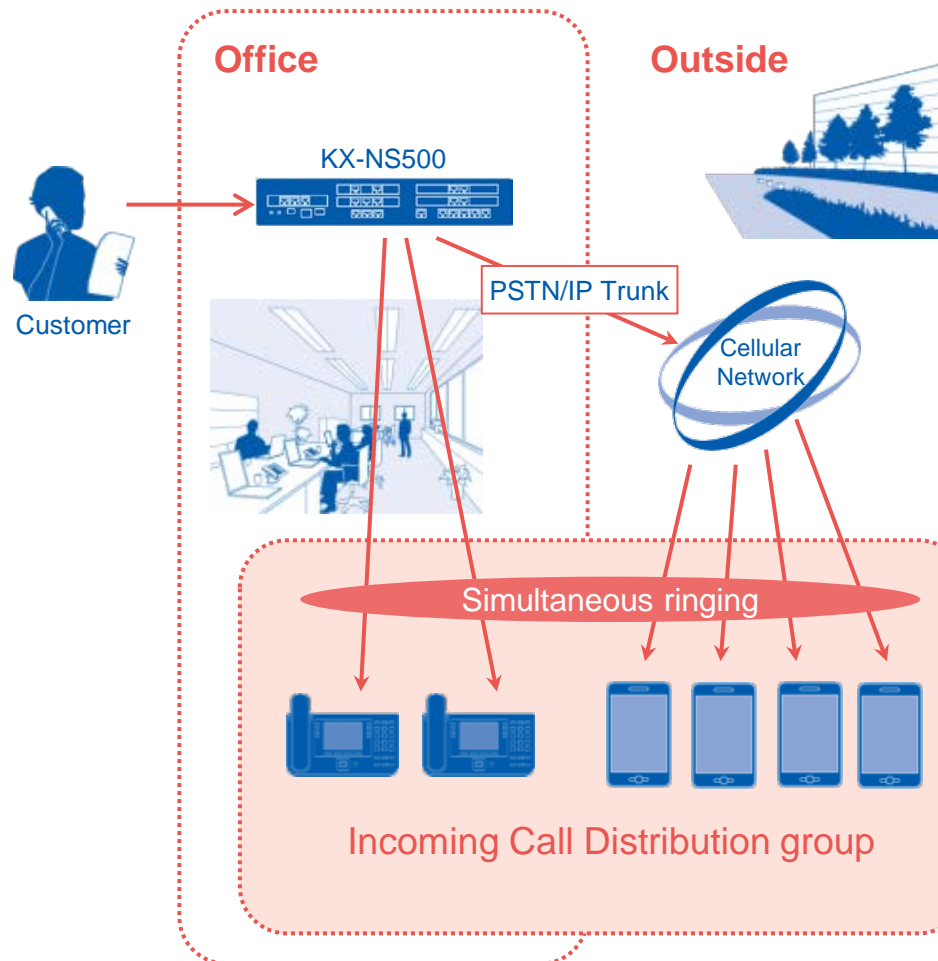
- ▶ You only need to inform the customer of your office phone number.
- ▶ Calls can be received with both a cellular network or IP network.

## Recommended for:

- ▶ Businesspeople that work both inside and outside the company.

# Cellular Phone Integration -Outside Destinations in Incoming Call Distribution Groups-

Up to four cellular phones can be assigned as members of an Incoming Call Distribution (ICD) group, and receive calls to the group. Users who are not busy can quickly respond to customer calls.



### Features and Benefits

- ▶ When a customer calls, both extensions and a registered cellular phone can be made to ring, enabling the call to be received with either phone.
- ▶ Up to four cellular phones can be registered to an ICD group with other wired extensions.

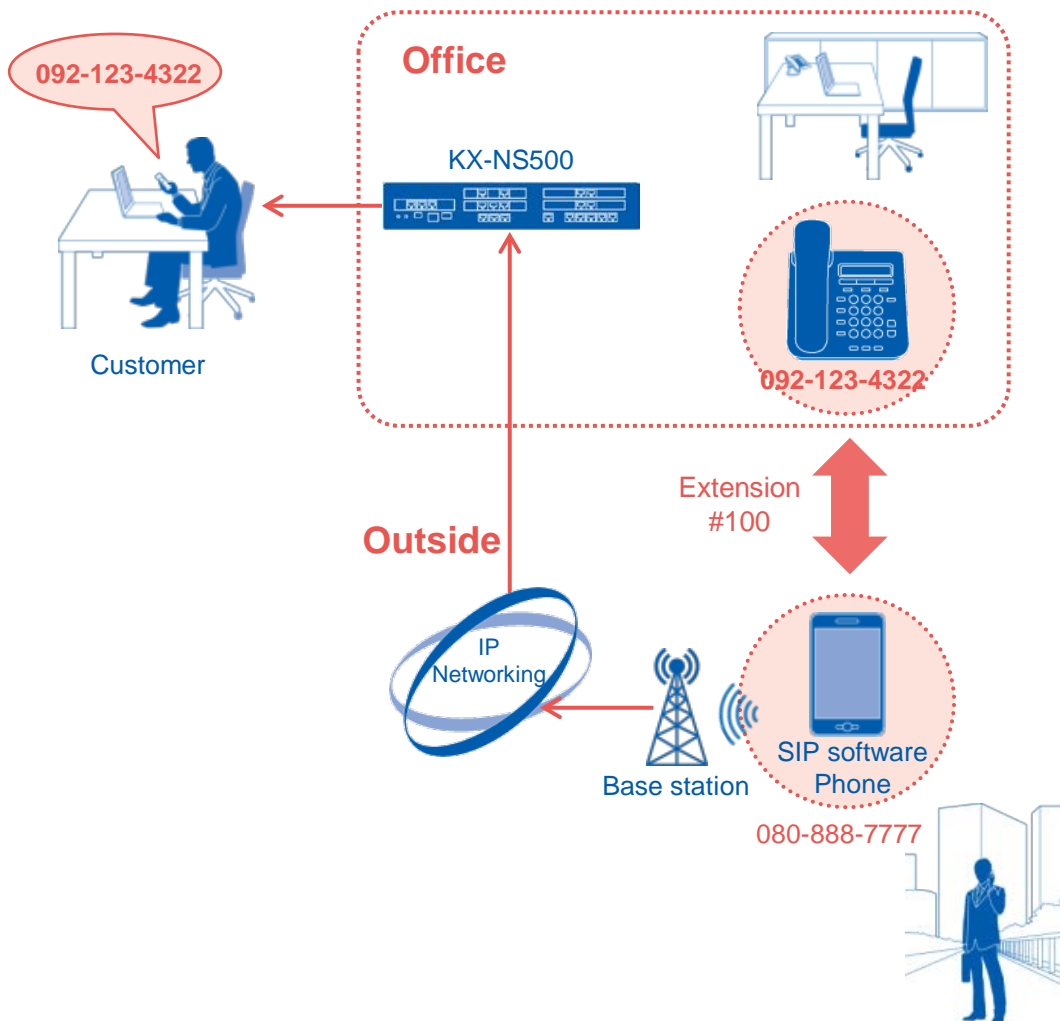
### Recommended for:

- ▶ Companies with not many people available to answer the phone
- ▶ Companies with many employees working outside of the office

# Cellular Phone Integration -Make a Call-

## Smart Remote Extension

You can install IP telephones in remote locations, such as the outside, without a special router. And up to two IP extensions can be assigned the same extension number. (One Numbered Extension)



## Features and Benefits

- ▶ Extensions can be configured remotely and easily.
- ▶ You can use smartphones as extensions.
- ▶ Use an SIP software phone to call customers when you are away from the office without any additional fees.
- ▶ The customer is notified of your office phone number instead of the number of your cellular phone.

## Recommended for:

- ▶ Businesspeople that work both inside and outside the company.

# Voice Mail Solution -Voice Mail-

Customers can leave voice mail if they call when you are away.



Customer or  
other extension

KX-NS500



101  
Susan



102  
Mike



103  
Tom  
No answer

### Mailbox

101	104
102	105
103	:

Hello, this is Tom.  
Please leave a voice message.

## Features and Benefits

- ▶ Record a maximum of 24 channels at the same time.
- ▶ Record up to 400 hours.

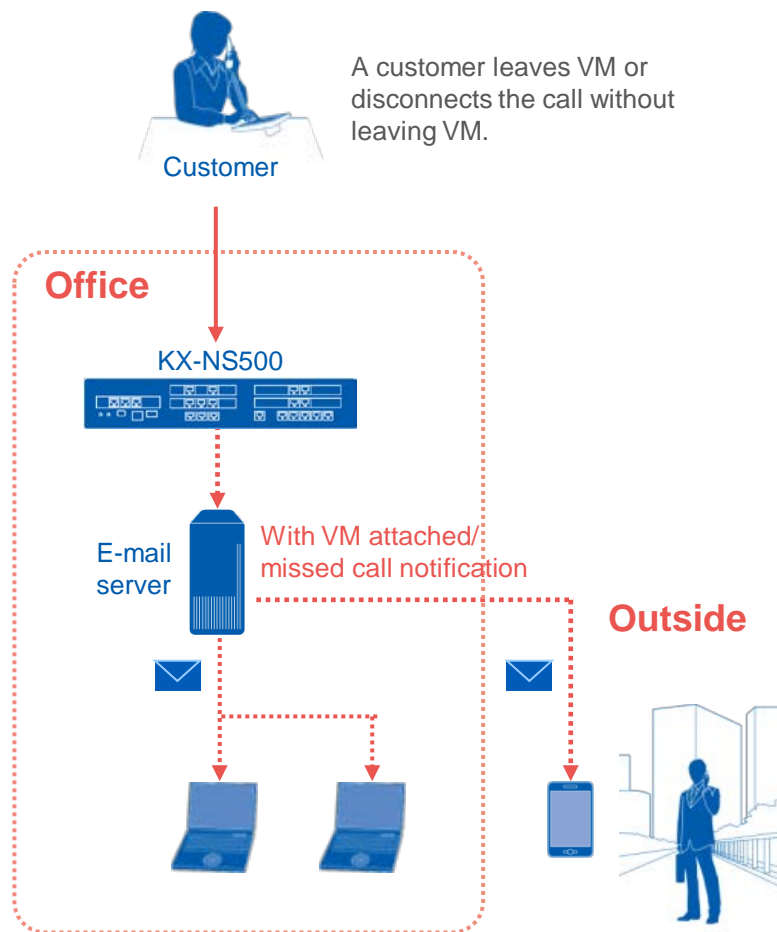
## Recommended for:

- ▶ Companies which get calls outside of business hours.
- ▶ Employees who work away from the phone or out of the office.



# Voice Mail Solution -E-mail Notification-

The KX-NS500 sends an e-mail to the corresponding user when they have new messages. Missed calls without a voice message also can be e-mailed. This enables you to contact customers quickly.



## Features and Benefits

- ▶ The notification contains information regarding the sender of the message, the length of the message, the number of messages, and a callback number.

## Recommended for:

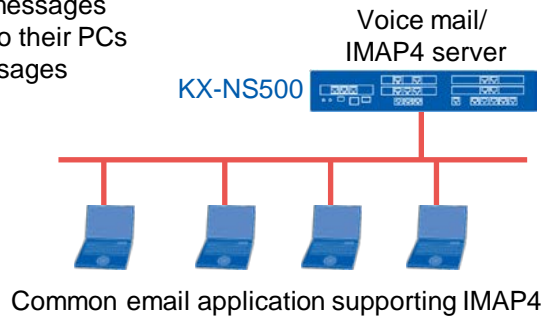
- ▶ Companies which get calls outside of business hours.
- ▶ Employees who work away from the phone or out of the office.

# Voice Mail Solution -MS Outlook & IMAP4 Integration-

The KX-NS500 works as a voice IMAP4 server, so users can access the content of their mailboxes using a common e-mail client which supports the IMAP4 protocol. With the Microsoft Outlook plug-in, users can access the content of their mailboxes through Microsoft Outlook in the same way as they do for e-mail.

## With IMAP integration, users can do the following:

- Play back voice messages
- Save voice data to their PCs
- Delete voice messages



## With the Outlook plug-in, users can do the following:

- Play back voice messages
- Record and send voice messages
- Forward and reply to messages
- Call back the sender of a message
- Export voice message data
- Attach voice messages to other e-mail messages



## Features and Benefits

- ▶ Users can easily listen to and transfer voice messages.
- ▶ A UC environment that includes voice messages, e-mail, an SNS, and a scheduler can be constructed with Outlook alone.

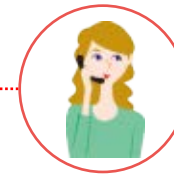
## Recommended for:

- ▶ Companies that require information to be shared between agents
- ▶ Companies using Outlook
- ▶ Companies that want to construct an efficient office environment that integrates various communication methods

## Call Centre

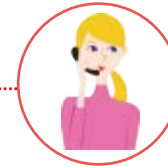
### Call Distribution

➤ See page 38



### Queue Announcement

➤ See page 37



KX-NS500

### Automatic Two-way Recording for Managers

➤ See page 39

### NAS Supported

➤ See page 40

### Activity Monitor

➤ See page 41

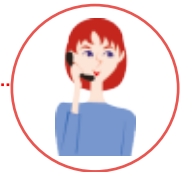
### Activity Report

➤ See page 42

## Office

### Built-in DISA

➤ See page 36



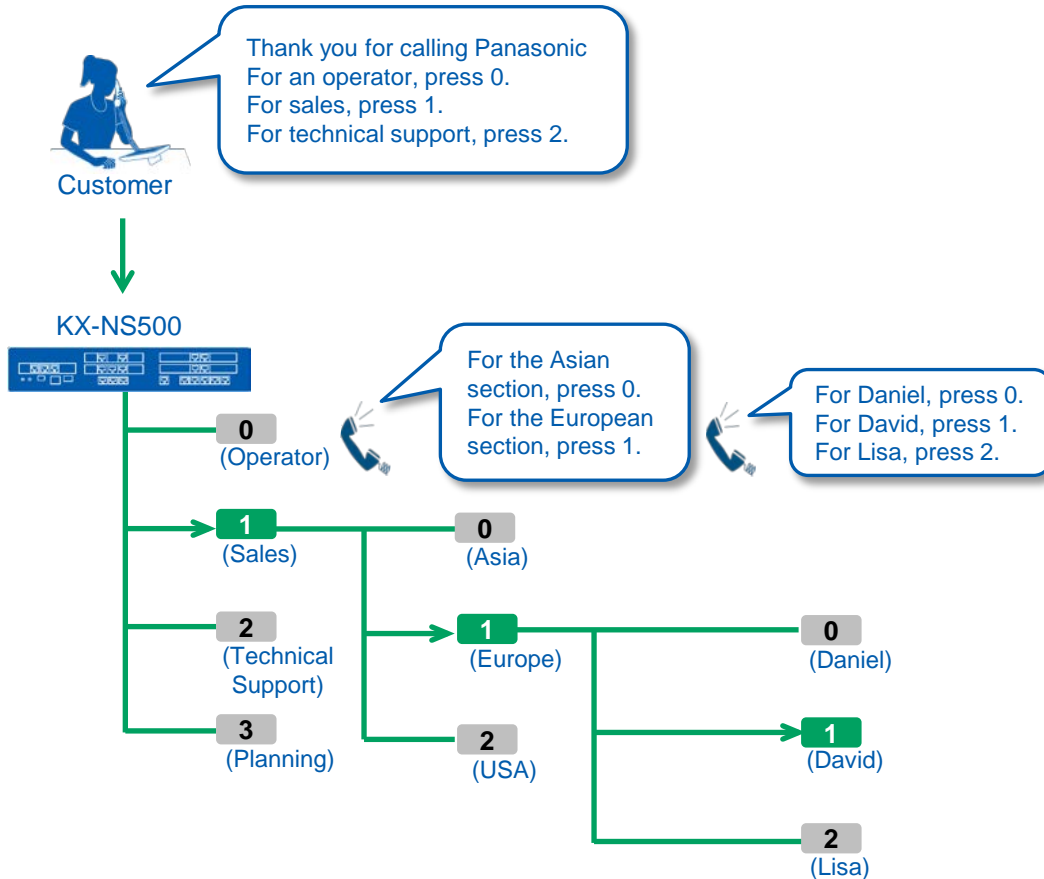
KX-NS500

### Communication Assistant

➤ See page 43

# Built-in DISA

Transfer customer calls without an operator.



## Features and Benefits

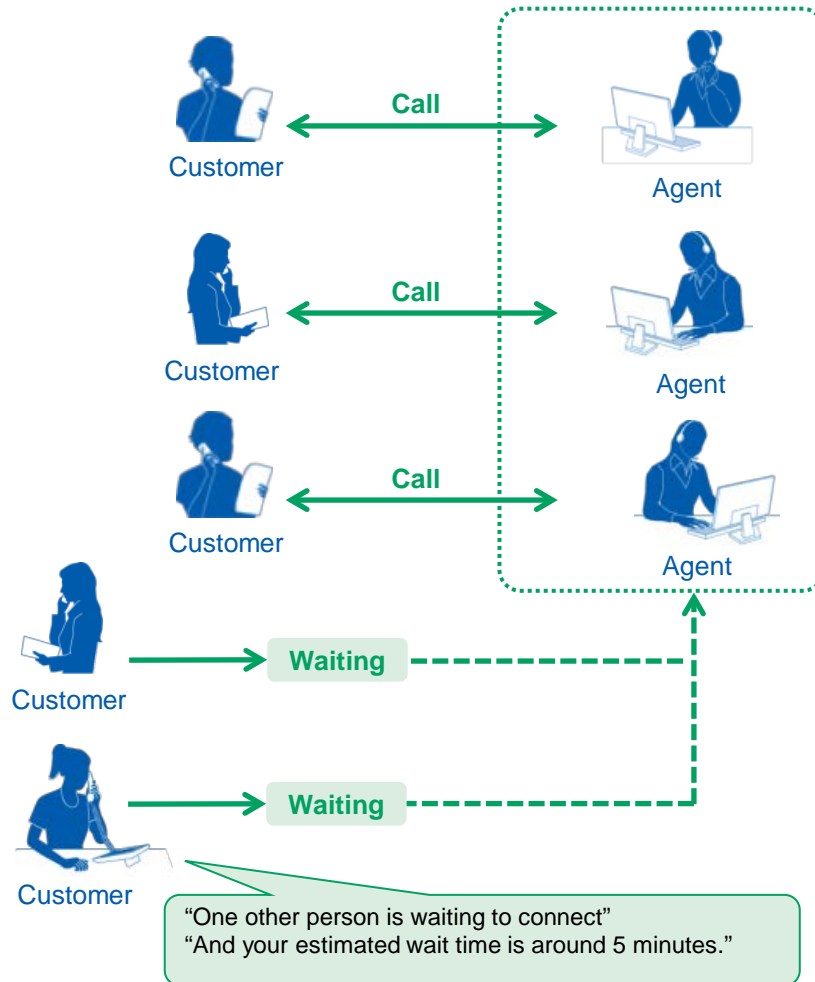
- ▶ These features provide users with greater flexibility and increase staff productivity.
- ▶ Human resources currently used for operators can be assigned other work.

## Recommended for:

- ▶ Companies which have various departments.
- ▶ Companies which get specific calls which need to be answered by the person in charge.

# Call Centre Solution -Queue Announcement-

The caller hears automatic voice guidance, enabling them to recognize their position in the call waiting queue. They can decide whether to stay in the queue or leave a message and hang up.



## Features and Benefits

- ▶ Customers can be notified of estimated waiting times.
- ▶ Customers can choose to leave a message or wait, according to their circumstances.

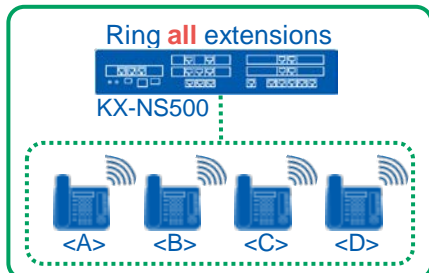
## Recommended for:

- ▶ Companies with not enough agents for the number of customer queries they receive
- ▶ Companies that receive many customer queries and have not been able to respond to them all

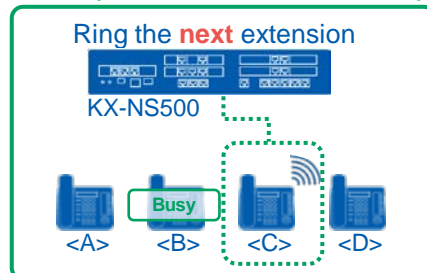
# Call Centre Solution -Call Distribution-

The KX-NS500 provides a variety of call distribution options.

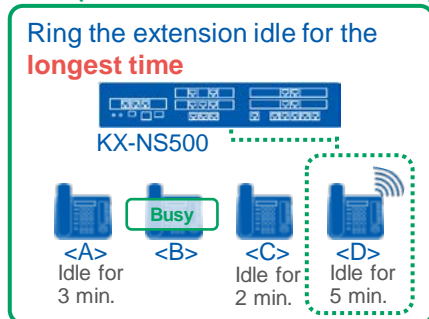
### Ring all extensions



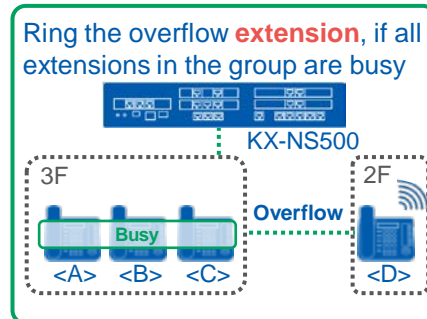
### UCD (Uniform Call Distribution)



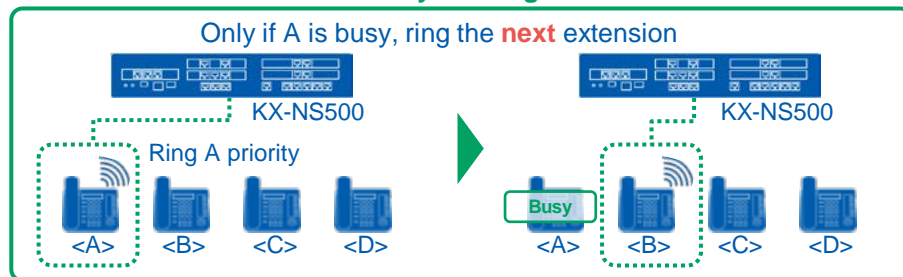
### ACD (Automatic Call Distribution)



### Overflow Extension



### Priority Hunting



Programmed Order: A⇒B⇒C⇒D (except with "Ring all extensions")

## Features and Benefits

- Various types of call distribution enables customer waiting time and stress to be reduced.
- For example, when a call comes in to a busy line or an unattended phone, the system can distribute it to another extension, a voice mail system, a home or mobile telephone, or other pre-programmed destinations.

## Recommended for:

- Companies which want to perform efficient call operations without installation of a special and expensive call centre system

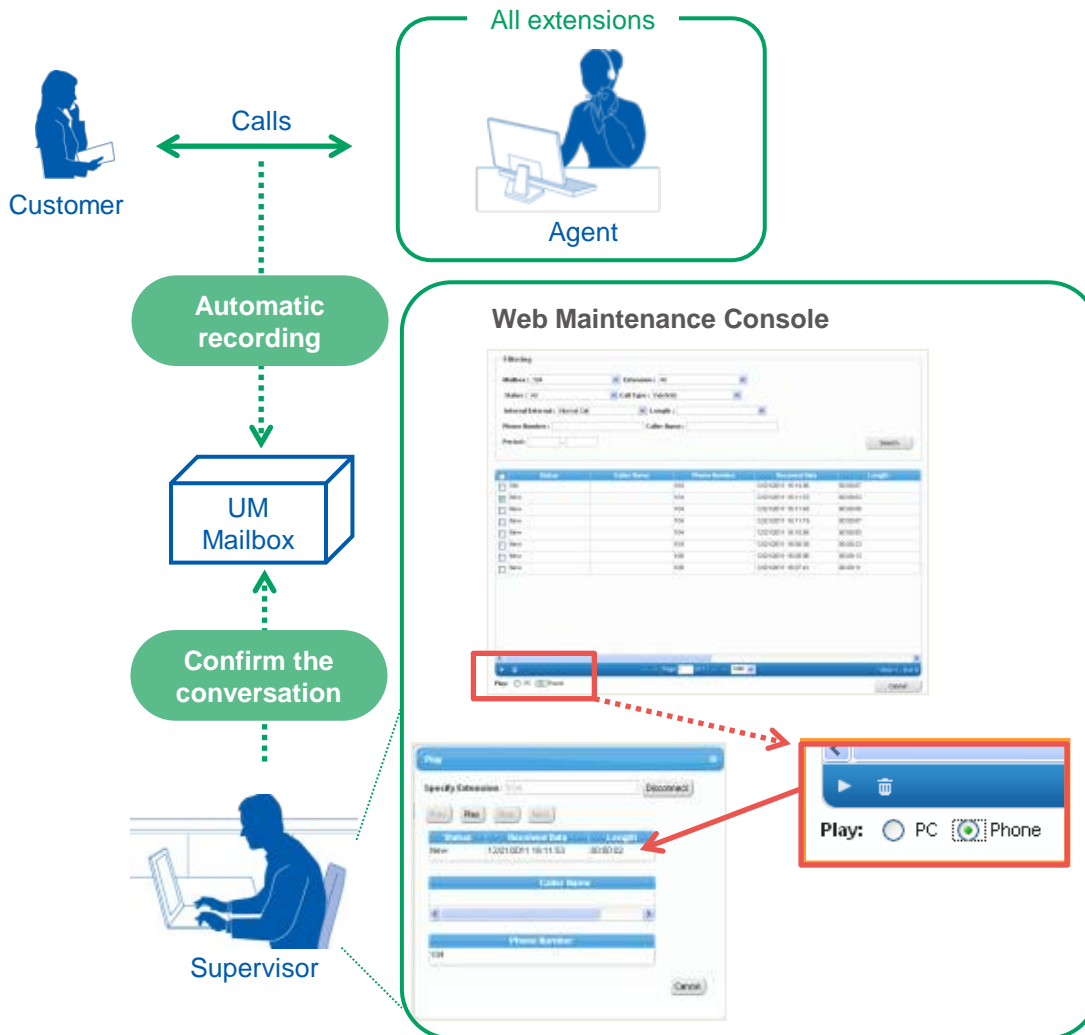
## Login / Logout

Allows agents to log into a ring group with an ID number. All calls received by the agent are displayed on the report until the agent has logged out.



# Call Centre Solution -Automatic Two-way Recording for Managers-

Calls to and from all extensions can be automatically recorded to a mailbox.



## Features and Benefits

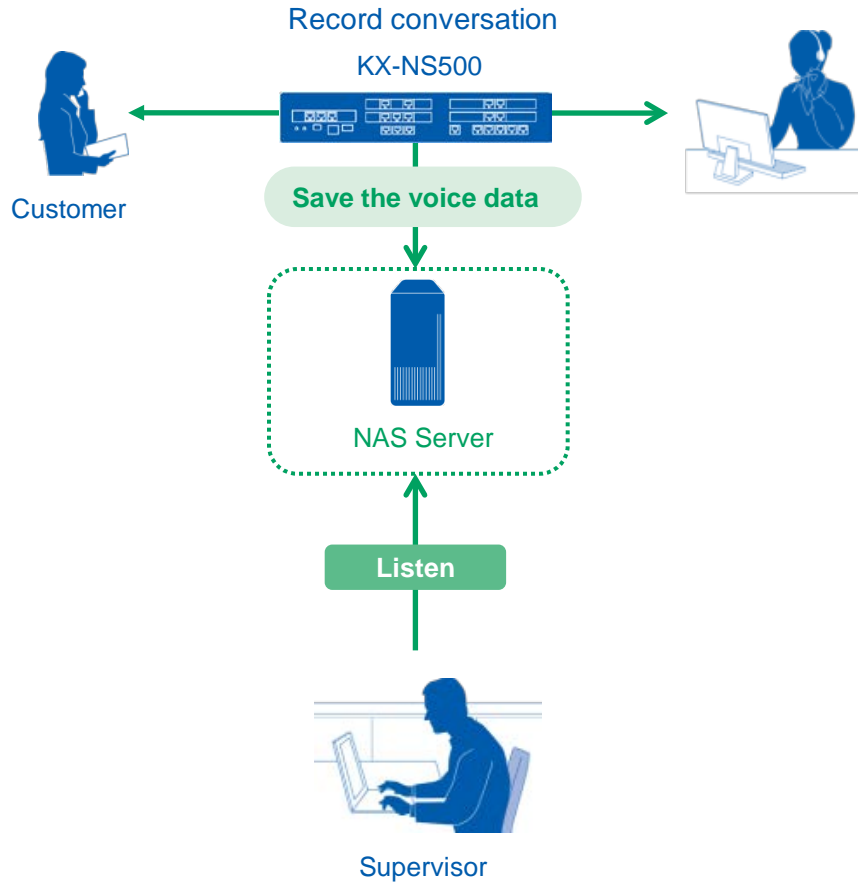
- ▶ Extensions can be assigned to a supervisor.
- ▶ Supervisors can listen to the recorded conversation through the Web Maintenance Console.
- ▶ Recorded data can be played back anytime the supervisor requires.
- ▶ Recorded data can be used to understand problems with agents, and then instruct those agents to improve customer service.

## Recommended for:

- ▶ Companies that want to educate employees
- ▶ Companies receiving increasing numbers of complaints from customers

# Call Centre Solution -NAS Supported-

Since the KX-NS500 supports connecting with NAS (Network Attached Storage), it can make a backup of voice data to NAS to enable supervisors to listen to the saved data when required.



## Features and Benefits

- Supervisors can use the backup data to understand problems or opportunities relating to customer service.

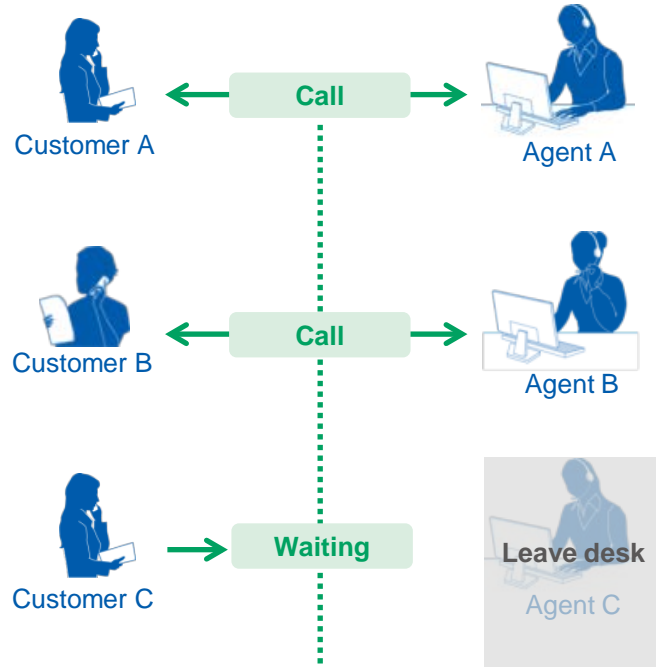
## Recommended for:

- Companies that often have the need to listen to the content of conversations again
- Companies that want to improve the customer handling of agents
- Companies that want to share information between agents



# Call Centre Solution -Activity Monitor-

The call centre supervisor can monitor the status of each agent and extension group.



## Live Status Monitor

Group Call Monitor

Current Waiting Call	Longest Waiting Time
0	00'00

Current Member Status

ICD Group	 Log-in	 Log-out
Phone Status		
 Wrap up	0	0
 On the phone	0	1
 Ringing	0	0
 Idle	15	3

Supervisor

## Features and Benefits

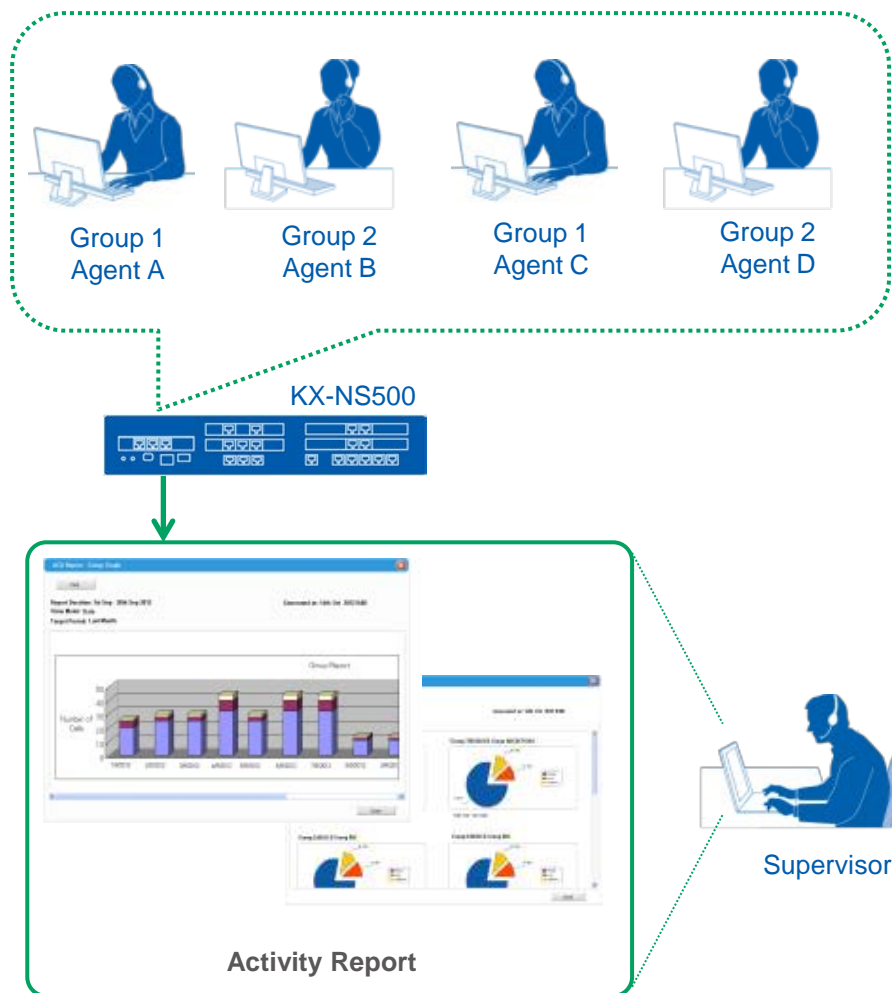
► Since the call status can be monitored in real time, customer waiting times can be understood, and calls can be transferred to other agents or handled by the supervisor, etc., to reduce customer waiting time and stress.

## Recommended for:

- Companies that want to perform operations efficiently and in real time
- Companies that want to discover what problems they have

# Call Centre Solution -Activity Report-

The call centre supervisor is also provided a variety of reports for studying the activity of the KX-NS500.



## Features and Benefits

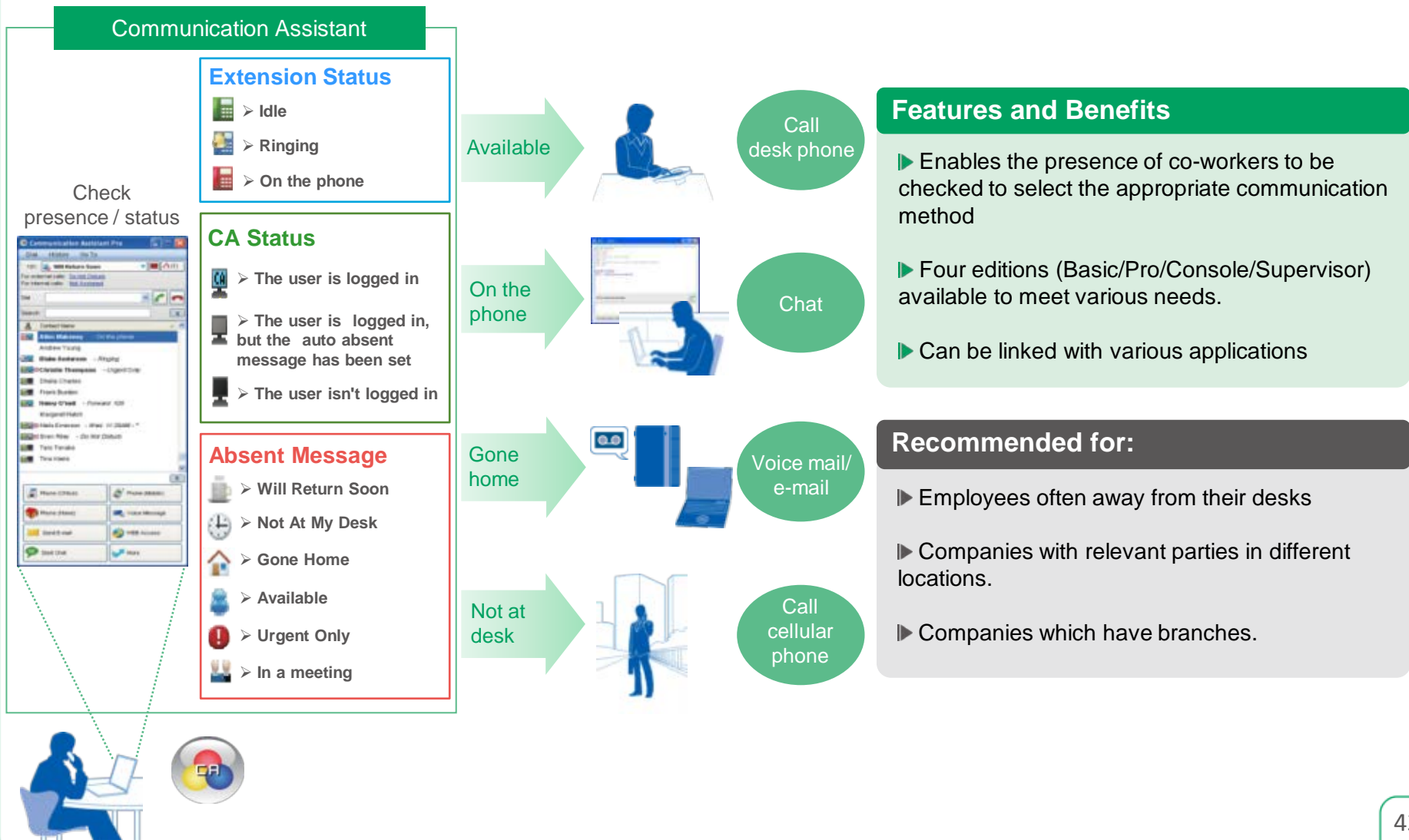
- ▶ Reports can be made by agent and also by group.
- ▶ Since reports are provided in various formats, they can help analysis the call status.
- ▶ Call data for up to 300,000 calls can be stored.

## Recommended for:

- ▶ Companies that want to discover/analyze current problems
- ▶ Companies that want to perform continuous analysis to improve customer satisfaction

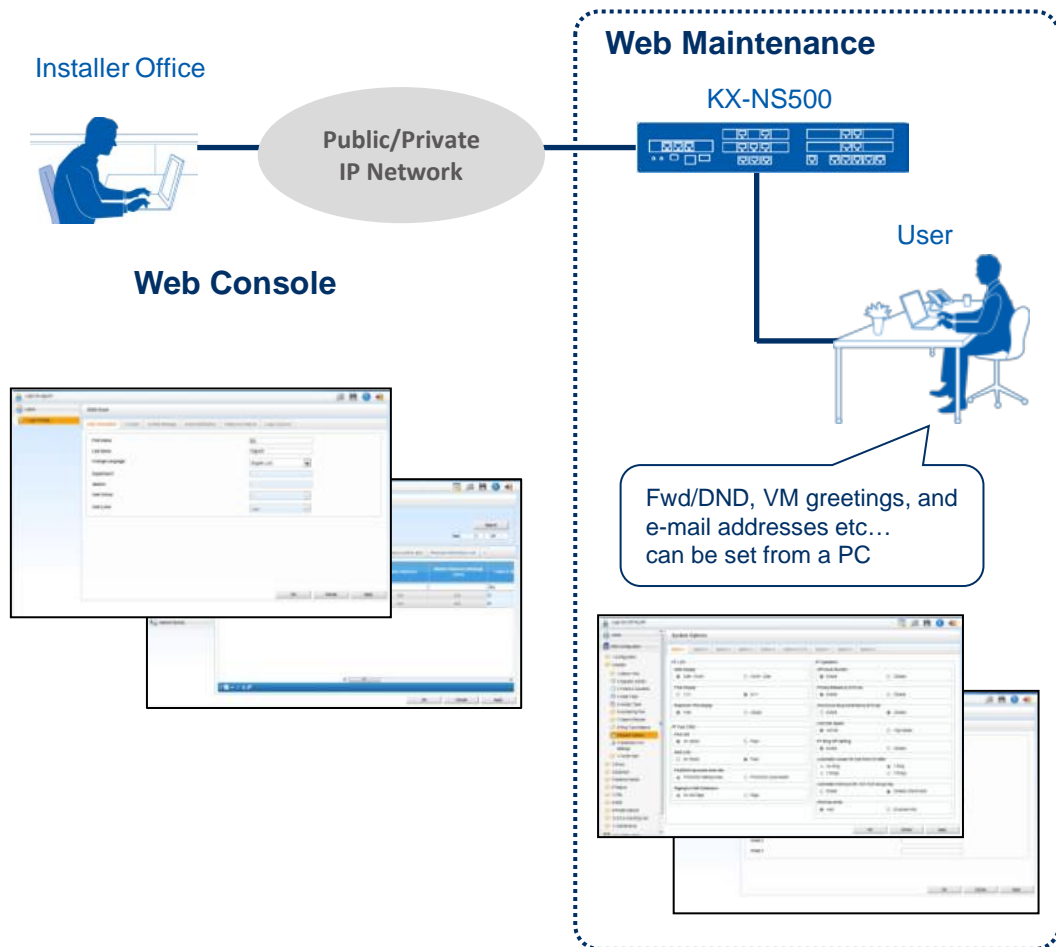
# Communication Assistant

Communication Assistant (CA) productivity software is a highly intuitive PC based application that enables you to change the contact method according to the status of the other party.



# Simplified Maintenance -Web Maintenance-

The features described on previous pages can be programmed with a Web based console via an IP network. Phones and the VM mailbox can also be customised by users via the Web.



- Programming is easy for experienced Panasonic installers because the programming method is basically the same as the KX-TDA, KX-TDE, KX-NCP and KX-TVM.
- No need to install dedicated software on your PC.
- Use an IP network to perform programming from remote sites.
- A maximum of 1 installer can modify system data at the same time.
- A maximum of 32 users can access at the same time.

# Appendix

# KX-NS500 Capacity

## Maximum Trunks

		Preinstalled	KX-NS500	With 1 KX-NS520	With 2 KX-NS520	With 3 KX-NS520
Total Number of Trunks (Legacy+IP)		6 ch	100 ch	130 ch	160 ch	190 ch
Legacy		6 ch	36 ch	66 ch	96 ch	126 ch
	PRI30	N/A	30 ch	60 ch	90 ch	120 ch
	E1	N/A	30 ch	60 ch	90 ch	120 ch
	Analogue	6 lines	12 lines	24 lines	36 lines	48 lines
IP		N/A	64 ch	64 ch	64 ch	64 ch
	H.323	N/A	32 ch	32 ch	32 ch	32 ch
	SIP	N/A	64 ch	64 ch	64 ch	64 ch

# KX-NS500 Capacity

## Maximum Terminal Equipment

Type		Preinstalled	KX-NS500	With 1 KX-NS520	With 2 KX-NS520	With 3 KX-NS520
Extensions (Legacy+IP) (DXDP*1)		18	162 (168)	194 (208)	226 (248)	258 (288)
	Legacy (DXDP*1)	18	34 (40)	66 (80)	98 (120)	130 (160)
	SLT	16	32	64	96	128
	DPT (DXDP*1)	2 (4)	18 (24)	34 (48)	50 (72)	66 (96)
	APT	N/A	8	16	24	32
	IP	N/A	128			
	IP-PT*2	N/A	128			
	SIP*3	N/A	128			
CS		N/A	20	24	28	32
	PT-interface CS (2ch) / (8ch)	2 / N/A	4 / 2	8 / 4	12 / 6	16 / 8
	IP-CS/SIP-CS	N/A	16			
PS		128				
VM						
	Built-in DISA (ch)	2	64			
	Built-in SVM (ch)		2			
	Built-in UM (ch)	N/A	24			
Doorphone		N/A	2	4	6	8
Door Opener		N/A	2	4	6	8
External Sensor		N/A	2	4	6	8

\*1 When Digital XDP is used. \*2 KX-NT500/300 Series, KX-NT265 (software version 2.0 or later only). \*3 KX-UT Series, KX-NT700 and third party SIP phones (SIP hard phones/SIP softphones).

# KX-NS500 Capacity

## Communication Assistant

		CA Basic-Express	CA PRO	CA Operator Console	CA Supervisor
Maximum Users	Without CA Server	240	240	128	4
	With CA Server	416*1	416*1	128	128
Activation Key		Preinstalled for all users	60-days free trial for 128 users	60-days free trial for 1 user	60-days free trial for 1 user
Automatic Presence		N/A	Yes		
Call Contact		10	1000		
Call History		10	1000		
Chat		Yes	Yes		
Conference Features		N/A	Yes		
Flexible Call Handling/ Monitor & Seize CO line		N/A	N/A	Yes	N/A
Listen-in/ Busy Override/Take Over		N/A	N/A	Yes	Yes
Multi Site Communication (Networking)		N/A	Yes		
CRM Integration by TAPI		N/A	Yes		
Thin Client Support		Yes	Yes		

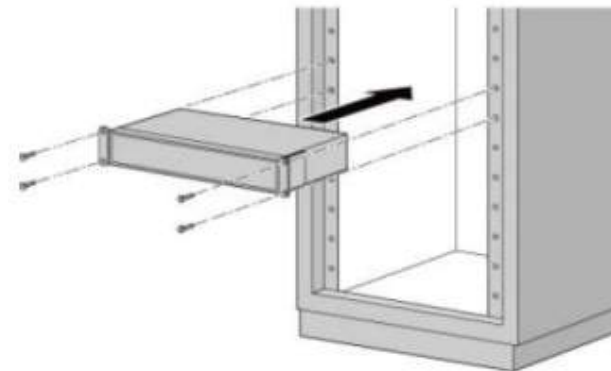
\*1 Can be used by all extension users. Including IP/DPT(DXDP)/PS.



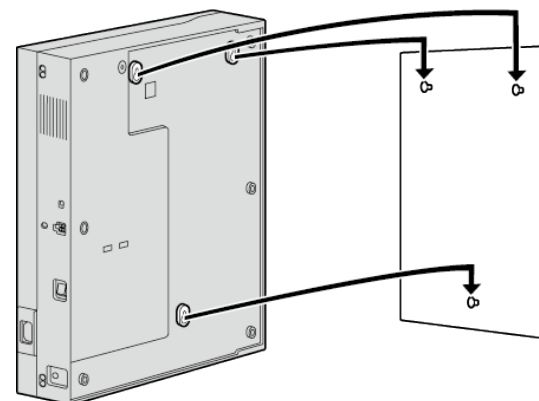
# Hardware Condition

Item	Specification
Temperature	0 °C to 40 °C
Humidity	10 % to 90 % (non-condensing)
Power Input	100 V AC to 130 V AC: 2.2 A/200 V AC to 240 V AC: 1.3 A; 50 Hz/60 Hz
Power Consumption (when fully mounted)	110 W
External Backup Battery	External battery port is supported.
Memory Backup Duration	7 years
Air-cooling method	FAN
Dimension	430 mm (W) x 88 mm (H) x 367 mm (D)
Weight (when fully mounted)	Under 4.5 kg

## 19-inch Rack Mounting

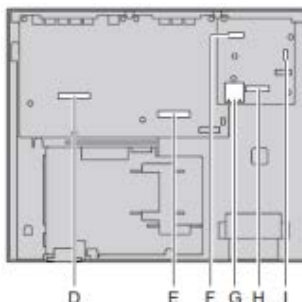
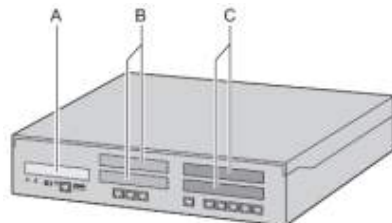


## Wall Mounting



# Product Lineup - Hardware

## Main Unit KX-NS500



- A. Front cover plate for the EXP-M Slot
- B. Front cover plates for Trunk/Doorphone Card Slots
- C. Front cover plates for the Extension Card Slots
- D. Extension Card Slot
- E. Trunk/Doorphone Card Slot
- F. EXP-M Card Slot
- G. SD Card Slot
- H. DSP Card Slot
- I. RMT Card Slot

## Option Unit in Main Unit

Component		Model	Description	Installed in
DSP	DSP S (63 resources)	KX-NS5110	VoIP DSP Card (S Type)	DSP Card Slot
	DSP M (127 resources)	KX-NS5111	VoIP DSP Card (M Type)	
	DSP L (254 resources)	KX-NS5112	VoIP DSP Card (L Type)	
Storage Memory For VM, ACD Report, SMDR expansion	XS (40 hours)	KX-NS5134	Storage Memory (XS Type)	Storage Memory Card Slot
	S (200 hours)	KX-NS5135	Storage Memory (S Type)	
	M (400 hours)	KX-NS5136	Storage Memory (M Type)	
Trunk	LCOT6	KX-NS5180	6-Port Analogue Trunk Card	Trunk Slot
	PRI30/E1	KX-NS5290CE	PRI30 / E1 Trunk Card	
	DPH2	KX-NS5162	Doorphone Interface Card	
Extension	DHLC4	KX-NS5170	4-Port Digital Hybrid Extension Card	Extension Slot
	DLC8	KX-NS5171	8-Port Digital Hybrid Extension Card	
	DLC16	KX-NS5172	16-Port Digital Hybrid Extension Card	
	MCSLC8	KX-NS5173	8-Port SLT Card	
	MCSLC16	KX-NS5174	16-Port SLT Card	
Expansion Master Card	EXP-M	KX-NS5130	3-ports Expansion Master Card	EXP-M Slot
Remote Modem	RMT	KX-TDA0196	Remote Modem Card	RMT Slot

# Product Lineup - Preinstalled Activation Keys

To use IP/SIP trunks and IP/SIP telephones and/or enabling the software for enhanced features, you need the appropriate activation keys. Customers can create their own optimized communication system by selecting various activation keys.

## The following activation keys are preinstalled\*1

Activation Key		Feature	Expire
IP Phone	IP Proprietary Telephone (ch)	4 IP-PTs/KX-UT series SIP phones	Permanent
Unified Messaging	UM Port (ch)	2 Unified Messaging ports	Permanent
	UM/E-mail Client	128 users (128 mailboxes)	Expire after 60 days
	Two-Way Recording Control	Automatic Two-way Recording Feature	Expire after 60 days
	Two-Way Recording	30 Two-way Recording/Two-way Transfer users	Expire after 60 days
	Message Backup	Automatic backup of messages	Expire after 60 days
Mobile Extension		30 users	Expire after 60 days
Call Centre Enhancement		Built-in ACD Report*2, Announcement of waiting number for queuing	Expire after 60 days
Communication Assistant	CA Basic-Express	ALL users	Permanent
	CA PRO	128 users	Expire after 60 days
	CA Supervisor	1 user	Expire after 60 days
	CA Operator Console	1 user	Expire after 60 days
	CA Thin Client Server	Using CA in a thin-client environment	Expire after 60 days
	CSTA Multiplexer	Multiplexing for CSTA connections	Expire after 60 days
	CTI interface	3 <sup>rd</sup> Party CTI interface	Expire after 60 days

\*1 DSP is required for some functions.

\*2 An SD card is necessary to use ACD Reports.

## Optional Activation Keys



Expand capacity  
Network functions  
Mobile extensions  
Unified messaging  
CA/CTI functions etc.



## Preinstalled activation keys for basic functions



# Product Lineup - Activation Keys

## IP Trunks

Activation Key Type		Model No.	Description	Maximum
IP Trunks (H.323/SIP)	2 IP Trunk	KX-NSM102	2-Channel IP Trunk Activation Key	SIP: 64 ch H.323: 32 ch
	4 IP Trunk	KX-NSM104	4-Channel IP Trunk Activation Key	
	8 IP Trunk	KX-NSM108	8-Channel IP Trunk Activation Key	
	16 IP Trunk	KX-NSM116	16-Channel IP Trunk Activation Key	

## Networking

Activation Key Type	Model No.	Description	Maximum
QSIG Network	KX-NSN002	Activation Key for QSIG Networking	1 activation key

## System Function

Activation Key Type	Model No.	Description	Maximum
Call Centre	KX-NSF201	Built-in ACD Report, Announcement of waiting number for queuing	1 activation key

## Product Lineup - Activation Keys

### IP Telephone - User

\*IP PTs: KX-NT500/300Series IP Proprietary phones

\*IP Softphones: KX-NCS8100 IP, KX-TDA0350

\*SIP Phones: KX-NT700 IP Conferencing phone and Third party SIP phones (SIP hardphones/SIP softphones).

Activation Key Type		Model No.	Description	Maximum
*IP PTs/ KX-UT Series SIP Phones/ *IP Softphones/	1 ch	KX-NSM201	1-Channel IP Softphone / IP Proprietary Telephone Activation Key	128 ch
	5 ch	KX-NSM205	5-Channel IP Softphone / IP Proprietary Telephone Activation Key	
	10 ch	KX-NSM210	10-Channel IP Softphone / IP Proprietary Telephone Activation Key	
	20 ch	KX-NSM220	20-Channel IP Softphone / IP Proprietary Telephone Activation Key	
*IP PTs/ KX-UT Series SIP Phones	Up to 4 ch	-	Preinstalled	
	1 ch	KX-NSM501	1-Channel IP Proprietary Telephone Activation Key	
	5 ch	KX-NSM505	5-Channel IP Proprietary Telephone Activation Key	
	10 ch	KX-NSM510	10-Channel IP Proprietary Telephone Activation Key	
	20 ch	KX-NSM520	20-Channel IP Proprietary Telephone Activation Key	
*SIP Phones	1 ch	KX-NSM701	1-Channel SIP Extension Activation Key	
	5 ch	KX-NSM705	5-Channel SIP Extension Activation Key	
	10 ch	KX-NSM710	10-Channel SIP Extension Activation Key	
	20 ch	KX-NSM720	20-Channel SIP Extension Activation Key	

# Product Lineup - Activation Keys

## Cellular Phone Extension - User

Activation Key Type		Model No.	Description	Maximum
Mobile Extension	1 user	KX-NSE101	Activation Key for Mobile Extension for 1 User	128 cellular phone extensions
	5 users	KX-NSE105	Activation Key for Mobile Extension for 5 Users	
	10 users	KX-NSE110	Activation Key for Mobile Extension for 10 Users	
	20 users	KX-NSE120	Activation Key for Mobile Extension for 20 Users	

## Unified Messaging System - Feature

Activation Key Type		Model No.	Description	Maximum
Two-way REC Control for Manager		KX-NSU002	Activation Key for Two-way Recording Control	1 activation key
Message Backup		KX-NSU003	Activation Key for Message Backup	1 activation key
Unified Messaging Channel	2 ch	-	Preinstalled on the Mother Board	24 ch
	2 ch	KX-NSU102	2 Channel Unified Messaging Activation Key	
	4 ch	KX-NSU104	4 Channel Unified Messaging Activation Key	

# Product Lineup - Activation Keys

## Unified Messaging System - User (Mailbox)

Activation Key Type		Model No.	Description	Maximum
E-mail (IMAP4) Client/ E-mail Notification	1 user	KX-NSU201	Activation Key for Unified messaging E-Mail Notification for 1 User	500 mailboxes
	5 users	KX-NSU205	Activation Key for Unified messaging E-Mail Notification for 5 Users	
	10 users	KX-NSU210	Activation Key for Unified messaging E-Mail Notification for 10 Users	
	20 users	KX-NSU220	Activation Key for Unified messaging E-Mail Notification for 20 Users	
	All users	KX-NSU299	Activation Key for Unified messaging E-Mail Notification for All Users	
Two-way Recording/ Two-way Transfer	1 user	KX-NSU301	Activation Key for Two-way Recording for 1 User	416 users
	5 users	KX-NSU305	Activation Key for Two-way Recording for 5 Users	
	10 users	KX-NSU310	Activation Key for Two-way Recording for 10 Users	
	20 users	KX-NSU320	Activation Key for Two-way Recording for 20 Users	
	All users	KX-NSU399	Activation Key for Two-way Recording for All Users	

# Product Lineup - Activation Keys

## Communication Assistant - User

Activation Key Type		Model No.	Description	Maximum
CA Basic-Express	All users	-	Preinstalled	Without CA Server: 240 users With CA Server: 416 users
CA PRO	1 user	KX-NSA201	Activation Key for CA PRO for 1 User	
	5 users	KX-NSA205	Activation Key for CA PRO for 5 Users	
	10 users	KX-NSA210	Activation Key for CA PRO for 10 Users	
	40 users	KX-NSA240	Activation Key for CA PRO for 40 Users	
	128 users	KX-NSA249	Activation Key for CA PRO for 128 Users	
CA Supervisor	1 user	KX-NSA301	Activation Key for CA ACD Monitor for 1 ICD Supervisor	Without CA Server: 4 users With CA Server: 128 users
CA Operator Console	1 user	KX-NSA401	Activation Key for CA Operator Console	Without CA Server: 128 users With CA Server: 128 users
CA Network Plug-in	1 user	KX-NSA901	Activation Key for CA Network Plug-in for 1 User	Without CA Server: 240 users With CA Server: 1022 users
	5 users	KX-NSA905	Activation Key for CA Network Plug-in for 5 Users	
	10 users	KX-NSA910	Activation Key for CA Network Plug-in for 10 Users	
	40 users	KX-NSA940	Activation Key for CA Network Plug-in for 40 Users	
	128 users	KX-NSA949	Activation Key for CA Network Plug-in for 128 Users	

## Communication Assistant - External Interface

Activation Key Type	Model No.	Description	Maximum
CA Thin Client	KX-NSA010	Activation Key for CA Thin Client Server Connection	1
CSTA Multiplexer	KX-NSA020	Activation Key for Multiple CSTA Connection	
3 <sup>rd</sup> Party CTI link	KX-NSF101	Activation Key for CTI interface	



# Overview

Panasonic's full terminal line up from high end to low end provide various solutions to various types of businesses.

## Smart Hybrid PBX KX-NS500



### IP Proprietary Telephone

- Gigabit LAN/PC port
- PoE
- Full duplex speakerphone
- Supports EHS for wireless headsets



### Digital Proprietary Telephone

- Full duplex speakerphone
- Supports EHS for wireless headsets



### Wireless Terminals

- Multifunctional design
- Seamless communication while you move from place to place during a call



## IP Phone 'KX-NT5xx Series'

### Lineup

#### For Executives/Supervisors

##### KX-NT560

- 4.4 inch Backlight LCD Display
- 4 x 8 Self Labelling, Flexible CO Buttons
- 2 Giga Ethernet Ports (10/100/1000M)
- PoE
- Full Duplex Speakerphone
- Electronic Hook Switch
- Built-in Bluetooth Module
- Eco Mode



#### For Simple Users

##### KX-NT511A/KX-NT511P

- 1-Line LCD Display
- 3 Flexible CO Buttons
- PoE (KX-NT511P only)
- 2 Ethernet Ports (10M/100M)
- AC Adaptor Included (KX-NT511A only)
- Full Duplex Speakerphone
- Eco Mode



#### For Standard Users

##### KX-NT551

- 1-Line Backlight LCD Display
- 8 Flexible CO Buttons
- 2 Ethernet Ports (10/100/1000M)
- Full Duplex Speakerphone
- PoE
- Eco Mode



##### KX-NT556/KX-NT553 with KX-NT505

- 6-Line Backlight LCD Display (KX-NT553: 3-Line)
- 12 x 3 Self Labelling, Flexible CO Buttons (KX-NT553: 12 x 2)
- 2 Ethernet Ports (10/100/1000M)
- PoE
- Full Duplex Speakerphone
- Electronic Hook Switch
- Eco Mode
- Options: KX-NT505 (Add on 48 key module)



##### KX-NT546/KX-NT543

- 6-Line Backlight LCD Display (KX-NT543: 3-Line)
- 24 Flexible CO Buttons
- 2 Ethernet Ports (10/100M)
- PoE
- Speakerphone
- Electronic Hook Switch
- Eco Mode



A white model is available for each phone

# IP Phone 'KX-NT5xx Series'

## Features

### High Audio Quality

➤ **Full duplex speakerphone (KX-NT560/KX-NT55x Series/KX-NT511)**

The speakerphone supports "full duplex", enabling both parties to speak at the same time without their voice getting cut out.

➤ **Supports the G.722 codec**

G.722 codec provides calls with high quality and reduced stress.

➤ **Advanced speaker design**

Speakers enhance the characteristics of low frequencies and contain a high performance D-class audio amp.

➤ **Larger acoustic chamber**

The acoustic chamber reduces echo and vibration from the speaker.



### Hands Free Communication

➤ **Built-in Bluetooth (KX-NT560 only)**

Bluetooth for wireless calls using a supported headset.

➤ **Electronic Hook Switch (EHS) supported (Except for KX-NT551/KX-NT511)**

By connecting an EHS headset, you can perform wireless communication.

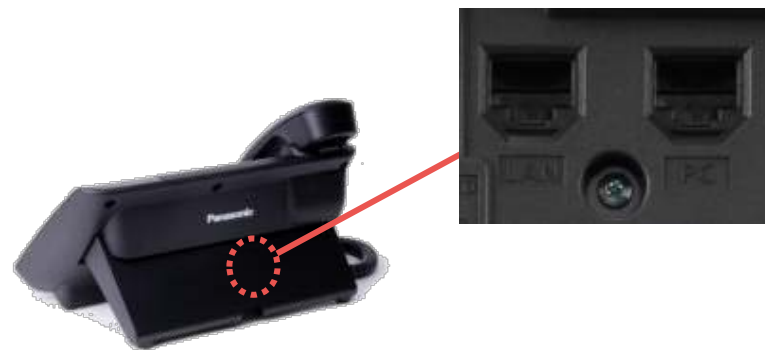


# IP Phone 'KX-NT5xx Series'

## High Speed Communication

### ➤ Supports Gigabit Ethernet (KX-NT560/KX-NT55x Series)

Enables high-speed data transfer.



## Easy to Use Design

### ➤ Paper label free (KX-NT560/KX-NT556/KX-NT553)

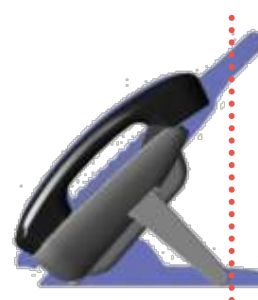
Since the numbers are displayed on the screen, a paper label is not required.



Paper label free

### ➤ Small footprint reduces desk space

### ➤ Longer handset curly cord







Small footprint



Longer handset curly cord

# IP Phone 'KX-NT5xx Series'

## Specifications





Model Number		KX-NT551	KX-NT553	KX-NT556	KX-NT560
					
Functions	LCD	1-Line, Monochrome	3-Line, Monochrome	6-Line, Monochrome	6-Line, Monochrome
	Backlight	Yes			
	Speakerphone	Yes (Full Duplex)			
	FF Button	8	2 x 12 (Self Labelling)	3 x 12 (Self Labelling)	4 x 8 (Self Labelling)
	Bluetooth Headset Connectability	N/A			Built-in
	Electronic Hook Switch	N/A	Yes*1		
	Ethernet Port	2 ports (10/100/1000M)			
	POE	Yes (802.3af compliant)			
	Others	IPv4, DHCP Client, Audio Codec (G.722/G.711/G.729a), Echo Cancellation, Microphone			
Options	AC Adaptor	KX-A239			
	Wall Mount Kit	KX-A432	KX-A433		
	Wired Headset	RP-TCA400/430			
Others	Colour Variation	White, Black			

\*1: Only a  $\Phi 3.5\text{mm}$  pin jack is connectable.

Note: Some operations may vary depending on the type of telephone being used.

# IP Phone 'KX-NT5xx Series'

## Specifications

Model Number		KX-NT511A	KX-NT511P	KX-NT543	KX-NT546
					
Functions	LCD	1-Line, Monochrome		3-Line, Monochrome	6-Line, Monochrome
	Backlight	N/A		Yes	
	Speakerphone	Yes (Full Duplex)		Yes	
	FF Button	3		24	
	Bluetooth Headset Connectability	N/A			
	Electronic Hook Switch	N/A		Yes*1	
	Ethernet Port	2 ports (10/100M)			
	PoE	N/A	Yes	Yes (802.3af compliant)	
	Others	IPv4, DHCP Client, Audio Codec (G.722/G.711/G.729a), Echo Cancellation, Microphone			
Options	AC Adaptor	Attached	N/A*2	KX-A239	
	Wall Mount Kit	Built-in		KX-A433	
	Wired Headset	N/A		RP-TCA400/430	
Others	Colour Variation	White, Black			

\*1: Only a  $\Phi 3.5\text{mm}$  pin jack is connectable.

\*2: Service parts

Note: Some operations may vary depending on the type of telephone being used.

# Digital Phone 'KX-DT5xx Series'

## Lineup

### For Executives/Supervisors

#### KX-DT546 with KX-DT590

- 6-Line Backlight LCD Display
- 24 Flexible CO Buttons
- Full Duplex Speakerphone
- Electronic Hook Switch
- Options

KX-DT590: Digital DSS console (48-Key)



### For Standard Users

#### KX-DT543

- 3-Line Backlight LCD Display
- 24 Flexible CO Buttons
- Full Duplex Speakerphone
- Electronic Hook Switch
- Options

KX-DT590: Digital DSS console (48-Key)



### For Simple Users

#### KX-DT521

- 1-Line Backlight LCD Display
- 8 Flexible CO Buttons
- Full Duplex Speakerphone
- Options

KX-DT590: Digital DSS console (48-Key)



A white model  
is available  
for each phone



# Digital Phone 'KX-DT5xx Series'

## Features

### High Audio Quality

#### ➤ Full duplex speakerphone

The speakerphone supports “full duplex”, enabling both parties to speak at the same time without their voice getting cut out.

#### ➤ Advanced speaker design

Speakers enhance the characteristics of low frequencies and contain a high performance D-class audio amp.

#### ➤ Larger acoustic chamber

The acoustic chamber reduces echo and vibration from the speaker.



### Hands Free Communication

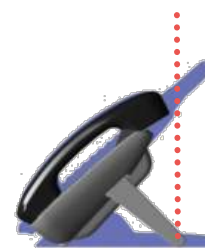
#### ➤ Electronic Hook Switch (EHS) supported (KX-DT546/KX-DT543)

By connecting an EHS headset, you can perform wireless communication.

### Easy to Use Design

#### ➤ Small footprint reduces desk space

#### ➤ Longer handset curly cord



Small footprint






Longer handset curly cord



# Digital Phone 'KX-DT5xx Series'

## Specifications

Model Number		KX-DT521	KX-DT543	KX-DT546
				
Functions	LCD	1-Line, Monochrome	3-Line, Monochrome	6-Line, Monochrome
	Backlight	Yes		
	Speakerphone	Yes (Full Duplex)		
	FF Button	8	24	
	Bluetooth Headset Connectability	N/A		
	Electronic Hook Switch	N/A	Yes*1	
	Ethernet Port	N/A		
	PoE	N/A		
	Others	Audio Codec (G.711), Echo Cancellation, Microphone, 1 DXDP Port		
Options	AC Adaptor	N/A		
	Wall Mount Kit	KX-A432	KX-A433	
	Wired Headset	KX-TCA400/430, RP-TCA400/430		
Others	Colour Variation	White, Black		

\*1: Only a  $\Phi 3.5\text{mm}$  pin jack is connectable.

Note: Some operations may vary depending on the type of telephone being used.

# Wireless Terminal

## Lineup

### Standard Model

**KX-TCA185**



### Slim & Light Model

**KX-TCA285**



### IP65\* Tough Type Model

**KX-TCA385**



- Noise Reduction
- Built-in Bluetooth Headset interface (KX-TCA285/KX-TCA385)
- DECT Paging
- DECT for CTI
- Wireless XDP Parallel Function



\*IP65 compliant: Protection against dust entering the handset, and protection against water spraying from any direction.

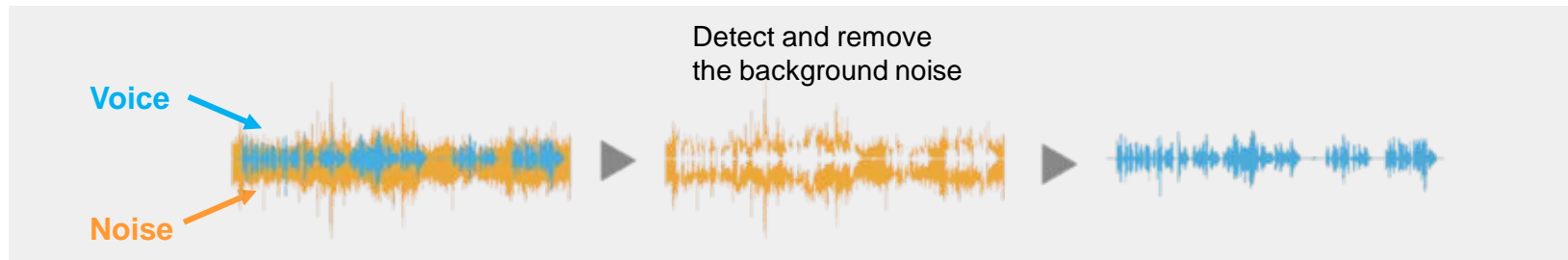
# Wireless Terminal

## Features

### Noise Countermeasures

#### ➤ Noise reduction

Detect and reduce the noise parts of transmitted voices



#### ➤ Dynamic listening volume control

When the KX-TCA series detects noise, it automatically increases the receiver volume to an easy-to-hear level.



### Hands Free Communication




#### ➤ Built-in Bluetooth (KX-TCA285/KX-TCA385)

Bluetooth for wireless calls using a supported headset.



# Wireless Terminal

## Specifications



	Standard Model KX-TCA185	Slim & Light Model KX-TCA285	IP65 Tough Type Model KX-TCA385
<b>Model Number</b>			
<b>LCD</b>	1.8 inch TFT Colour		
<b>PBX Linked Feature*<sup>1</sup></b>	Yes		
<b>Speakerphone</b>	Yes (Full Duplex)		
<b>PBX Flexible CO Button</b>	12		
<b>Soft Keys</b>	3		
<b>Headset Jack</b>	Yes* <sup>2</sup>		N/A
<b>Noise Reduction</b>	Yes		
<b>Wireless XDP Parallel Function</b>	Yes		
<b>Conference Function</b>	Yes		
<b>DECT Paging</b>	Yes		
<b>PS Ring Group</b>	Yes		
<b>Vibration</b>	Yes		
<b>Splash and Dust Resistant</b>	N/A		IP65
<b>DECT Encryption</b>	Ready		

\*1 Examples: PBX Call Log/PBX System Phonebook/PBX Personal Programming etc.

\*2 Only a  $\Phi$ 2.5mm pin jack is connectable.



# Wireless Terminal

## Specifications

IP Cell Station KX-NCP0158	Cell Station KX-TDA0158
 A white, rectangular Panasonic KX-NCP0158 IP Cell Station with two antennas on top and a small green indicator light at the bottom.	 A white, rectangular Panasonic KX-TDA0158 Cell Station with two antennas on top and a small green indicator light at the bottom.
<ul style="list-style-type: none"><li>● Wireless solution for remote office communication</li><li>● Provides 8 call user connections over 10/100Mbit LAN</li><li>● No special cabling required (overcomes distance issues)</li><li>● Air synchronization technology</li><li>● Powered by both PoE and AC adaptor (sold separately)</li><li>● No activation key requirements</li><li>● DHCP client/static address</li></ul>	<ul style="list-style-type: none"><li>● Solution to the office with dense population of user customer</li><li>● Up to 8 simultaneous calls</li><li>● DTP-IF (4 DPT port)</li><li>● Powered by PBX</li><li>● No activation key requirements</li></ul>

# Wireless Terminal

## Specifications

Cell Station KX-TDA0155	Repeater KX-A405
 A silver, rectangular Panasonic KX-TDA0155 Cell Station with two vertical antennas on the top corners and a small green indicator light at the bottom center.	 A white, rounded rectangular Panasonic KX-A405 Repeater with a small green indicator light in the center.
<ul style="list-style-type: none"><li>● Up to 2 simultaneous calls</li><li>● DTP-IF</li><li>● Powered by PBX</li><li>● No activation key requirements</li></ul>	<ul style="list-style-type: none"><li>● Designed to extend the range of a DECT Portable station</li><li>● Up to 6 repeaters can be registered to one cell station*</li><li>● Up to 3 repeaters can be registered in a cascade configuration</li><li>● Powered by AC adaptor</li><li>● Wall mountable</li></ul>

\* With the KX-NCP0158/KX-TDA0158/KX-TDA0155

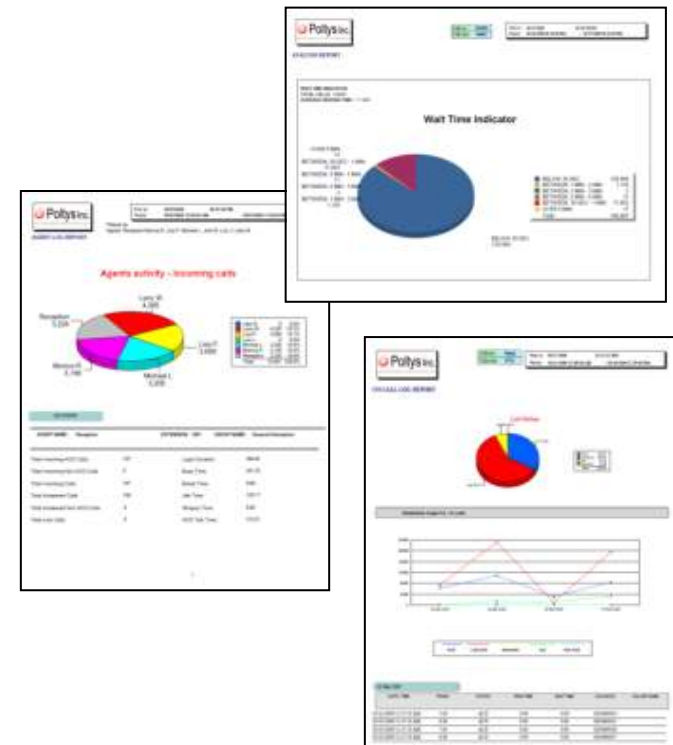
## Call Centre Solution - “CC View” Activity Monitor and Report Tool

“CC View” provides a more detailed activity monitor and reports than the built-in function (page 41-42).

Monitoring screen sample



Report sample



## Communication Assistant

### Lineup

For details, see page 48, 56, 73-92.

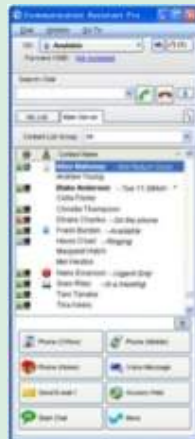
#### CA Basic-Express, CA PRO

- For Personal Productivity,
- For General Offices

Intuitive point and click telephony fully featured with real-time presence indication  
Stay informed of users availability in different locations.



CA Basic-Express  
Free



CA PRO

#### CA Operator Console

- For Operators / Agents
- For Reception / Secretaries

An agent can use the software to easily handle calls, and professionally handle communication between customers and colleagues.



#### CA Supervisor

- For Team / Group Productivity
- For Call Centres

A team supervisor can easily monitor and manage the real-time telephony activities of group members and agents.

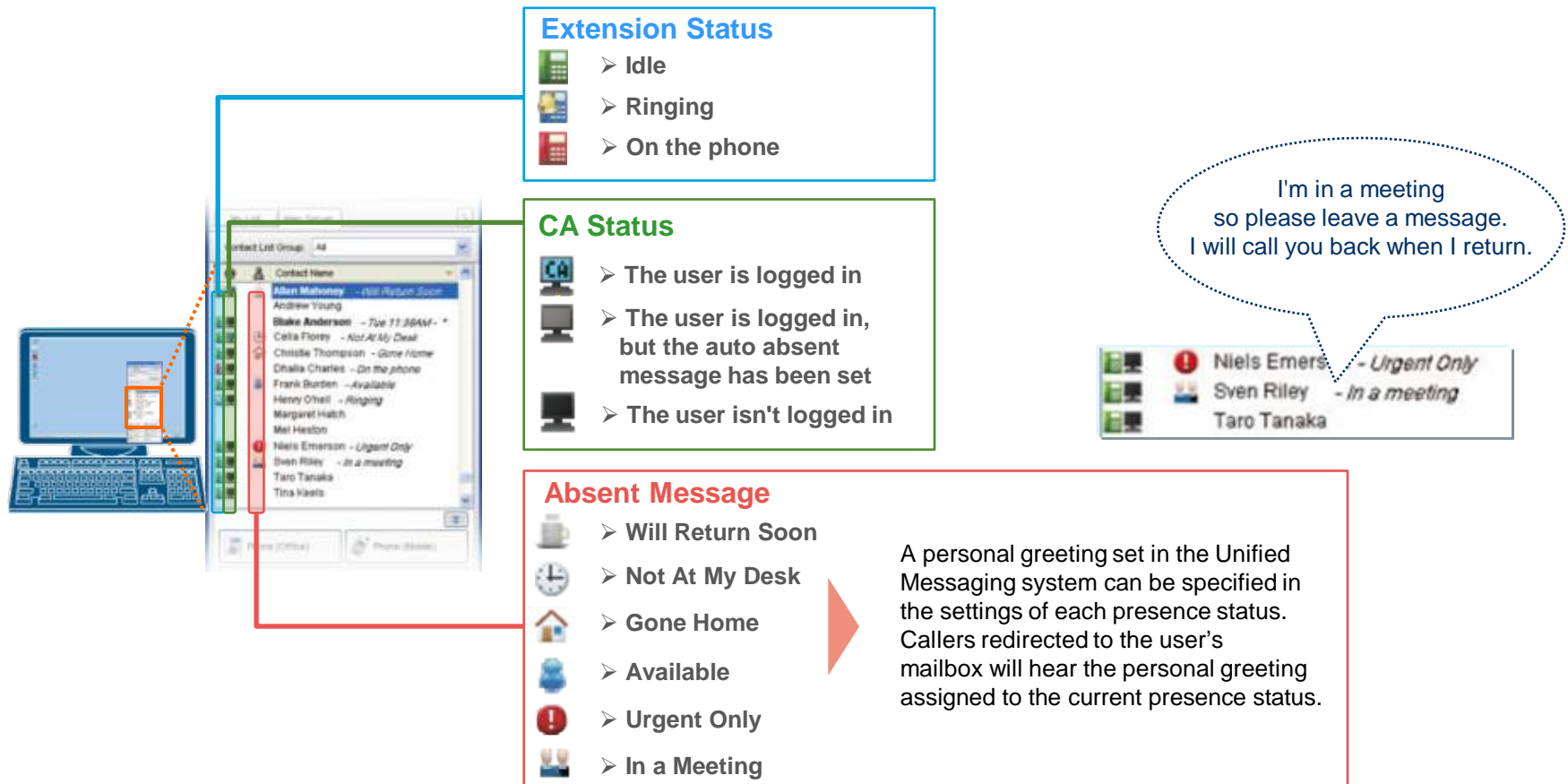




## Communication Assistant

### Presence

Users can save time and enjoy smoother communication by checking the status of co-workers on a PC screen right at their desk. Users can also choose the most suitable communication method to make calls, send e-mails, or chat with others, depending on the situation.



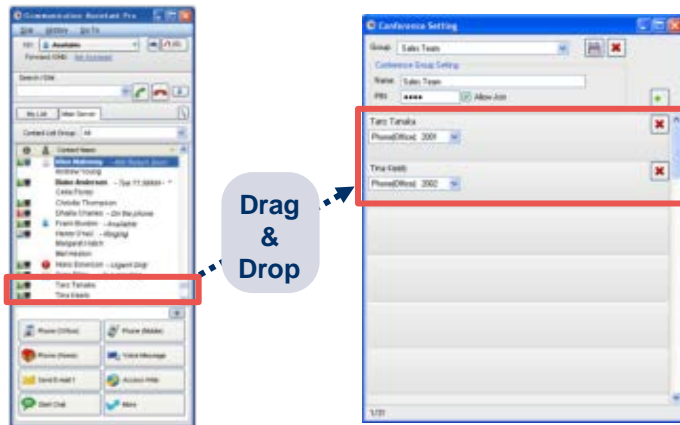
## Communication Assistant

### Conference Feature

Using the conference function, you can create ten conference groups of up to 32 people, simply by dragging and dropping members from the contact list to the conference setting window, or right-click a contact and select Add Member To Conference. Only three clicks are required to start a conference.

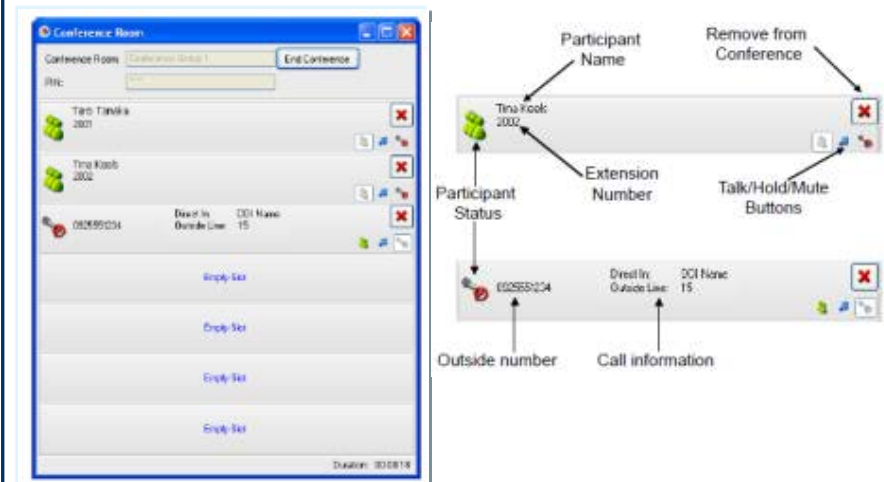
#### Editing conference group settings

To add members to a conference, drag and drop contacts from the contact list to the conference setting window, or right-click a contact and select Add Member To Conference.



#### Conference room window

During a conference, the originator of the conference can enable or disable the ability of other members to speak, put them on hold, or remove them from the conference.



# Communication Assistant

### Microsoft Outlook Integration

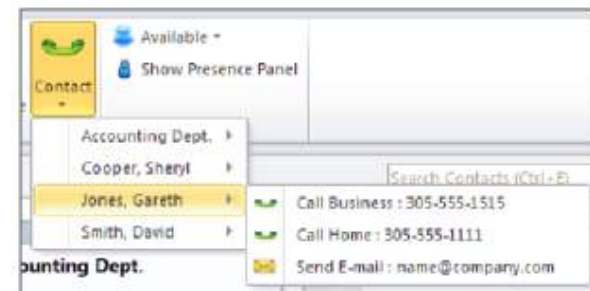
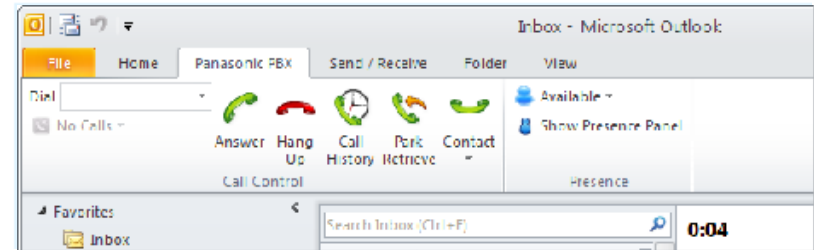
CA can seamlessly integrate with Microsoft Outlook® 2003/2007/2010. During the installation of CA Client, if you select to add call functions to Outlook, a toolbar will be added to Outlook. The toolbar offers many of the call features of CA Client.

#### Pop-up Outlook Contact Window for Incoming Calls



When a call is incoming, the Outlook contact information of that caller will appear.

#### Outlook Tool Bar

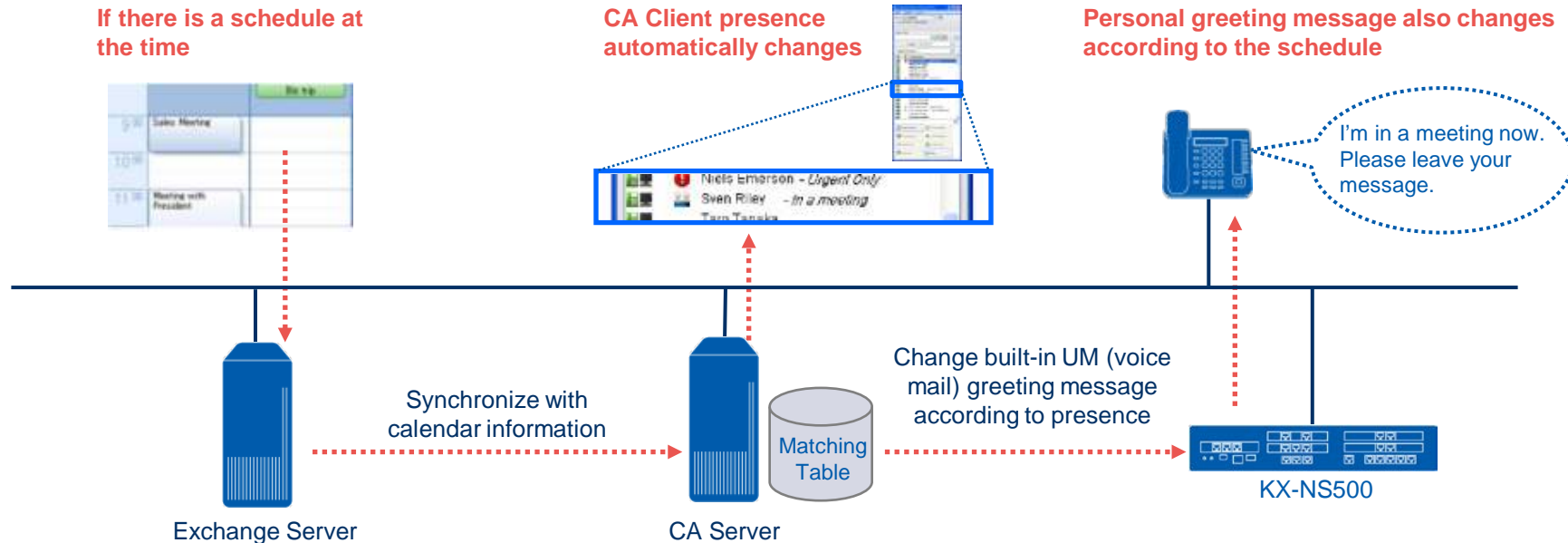


## Communication Assistant

### Microsoft Exchange Server Integration

If a CA server is installed on your network, you can integrate a Microsoft Exchange calendar with CA Client. When this is done, your presence will automatically change according to the content of your Exchange calendar (by referring to a matching table).

You can also set keywords in your calendar's schedule to change your presence.



<Note>

The supported versions of Exchange Server are 2007 and 2010. 2003 is not supported.

# Communication Assistant

## CRM Integration (TAPI/CSTA Support)

CRM integration enables linking with a wide range of CRM software by installing middleware.

CA Client also has a 1<sup>st</sup> party TAPI, which is a standard interface.

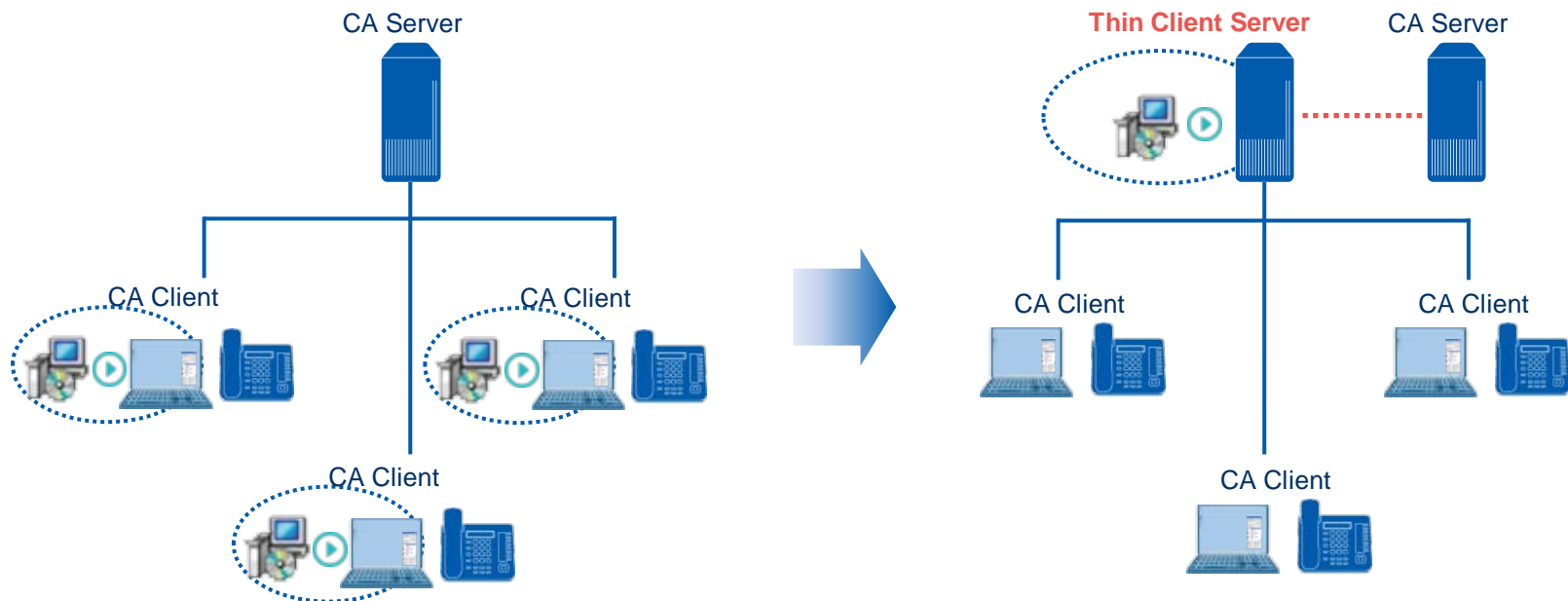
Functions that can be linked with CRM software include call pop-ups using caller ID, the CRM phone book, and calling from applications.

For information about middleware and supported CRM software types, contact your Panasonic sales company.

# Communication Assistant

## Thin Client Environment Support

CA Client can be used in a thin client environment. The supported thin client environments are Citrix XenApp™ and Microsoft Terminal Service. A CA server and a thin client activation key (KX-NSA010) are required to enable thin client support. Since personal information such as address books is not retained on the client PCs, safety is enhanced from an information security perspective.



<NOTE>

When using CA Client in a thin client environment, the following features are not available:  
IP Softphone, 1st Party TSP features, 3rd Party CRM Integration, Microsoft Outlook Integration

## Communication Assistant

### Network Camera Integration

Panasonic network cameras can integrate with a CA desktop PC. This allow users to view video on their PC from a remote location simply by clicking the access web in the CA contact list. By linking a registered door phone, users can also answer calls and open the door after confirming video on the screen.



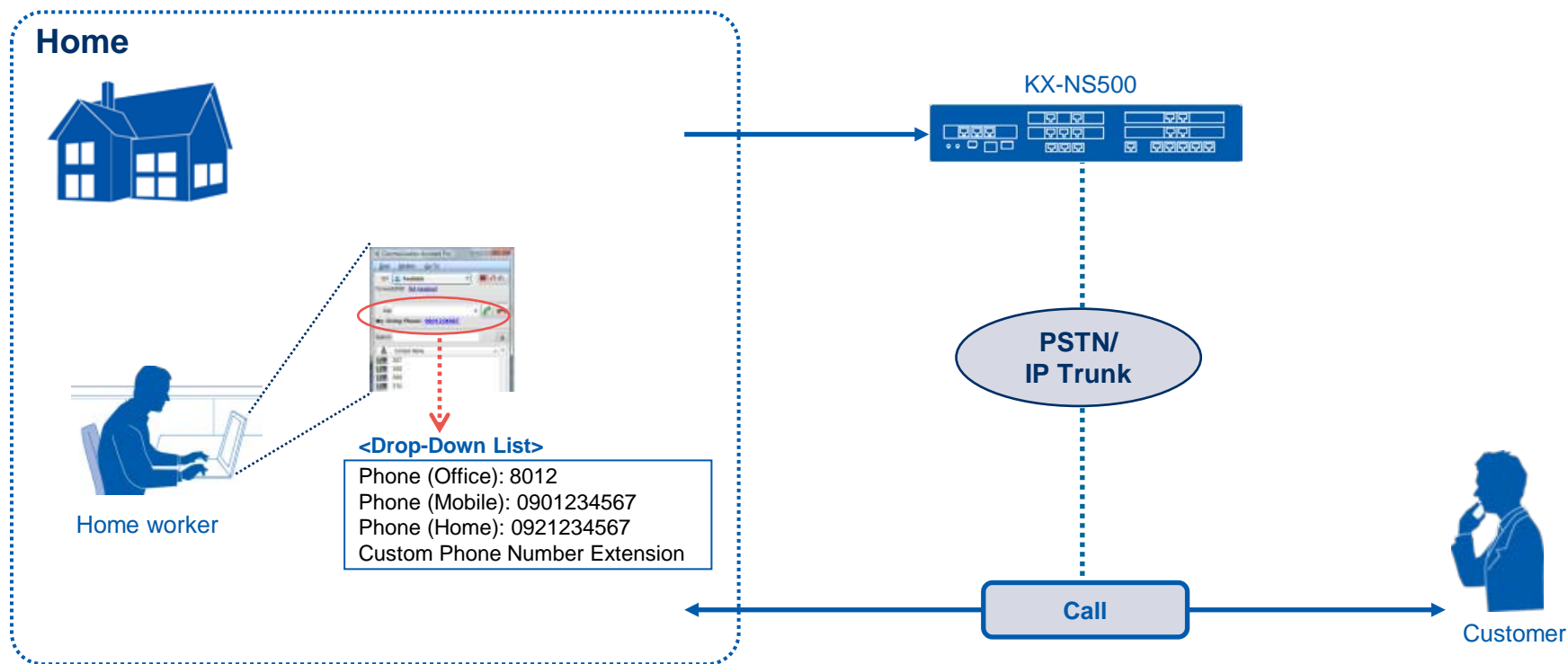
<NOTE>

Browser for viewing: Internet Explorer® 6.0 or later

## Communication Assistant

### Follow me function (CA integration with public telephone numbers)

CA can work with mobile phones or home phones. Home workers can make calls using the KX-NS500, to reduce telephone charges. Outgoing and internal calls can be made by using CA when outside.

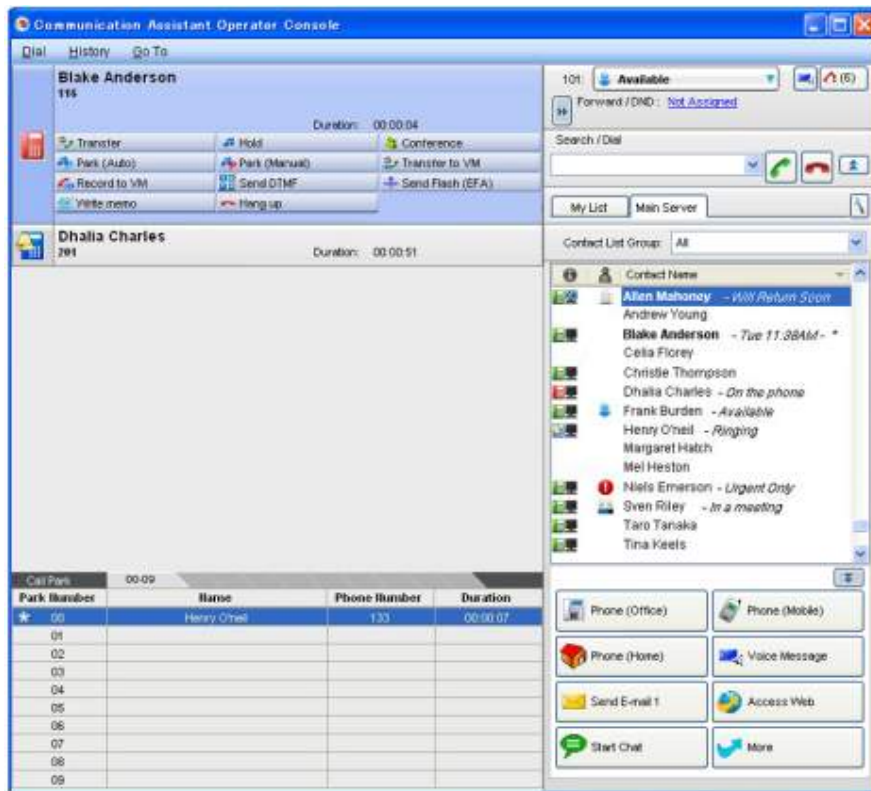




## Communication Assistant

### CA Operator Console - Overview

#### CA Operator Console



For

- Agents
- Receptionists

#### Easy Call Handling

Users can manage multiple calls simultaneously using a graphic interface.

#### Extension Setting

Various extension settings can be set.

- Set a wake-up call
- Set and clear the absent message, etc.



## Communication Assistant

### CA Operator Console - Easy Call Handling

The status of received and parked calls are displayed in the Arriving Calls Screen, allowing a single agent to handle multiple controls. Agents can easily transfer and park calls with a simple drag & drop operation.

The screenshot displays the 'Communication Assistant Operator Console' window. It features a central area for active calls, a 'Park' list at the bottom, and a 'Contact List' on the right. Two call cards are visible: 'Blake Anderson' (116) and 'Dhalla Charles' (291). The 'Blake Anderson' card has a red box around its action buttons: Transfer, Hold, Conference, Park (Auto), Park (Manual), Transfer to VM, Record to VM, Send DTMF, Send Flash (EFA), Write memo, and Hang up. A dashed arrow points from this box to a call card in the 'Park' list, with a callout box stating 'Drag & drop for parking'. The 'Park' list has a red box around its header and the first row (01, Henry O'Neil, 133, 00:00:27). Another dashed arrow points from the 'Contact List' to the 'Blake Anderson' card, with a callout box stating 'Drag & drop for transfer'. The 'Contact List' has a red box around the entry for 'Christie Thompson'.

**Drag & drop for parking**

**Drag & drop for transfer**

Park Number	Name	Phone Number	Duration
01	Henry O'Neil	133	00:00:27
02			
03			
04			
05			
06			
07			
08			
09			

## Communication Assistant

### CA Operator Console - Extension Settings

Operators can set and change the settings of each extension.

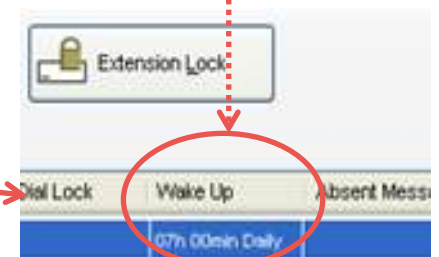
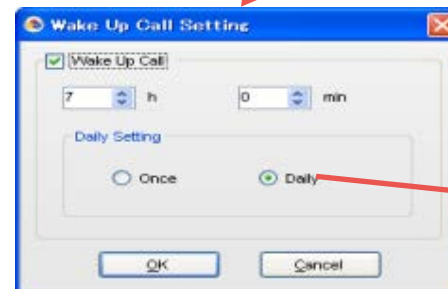
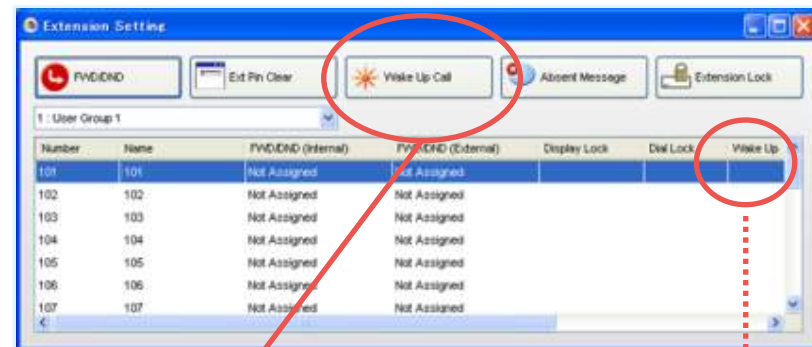
Operators can set the following

- FWD/DND
- Clear the extension PIN
- Set a wake up call
- Set/clear absent message
- Extension lock/unlock

**For the Hospitality Industry**



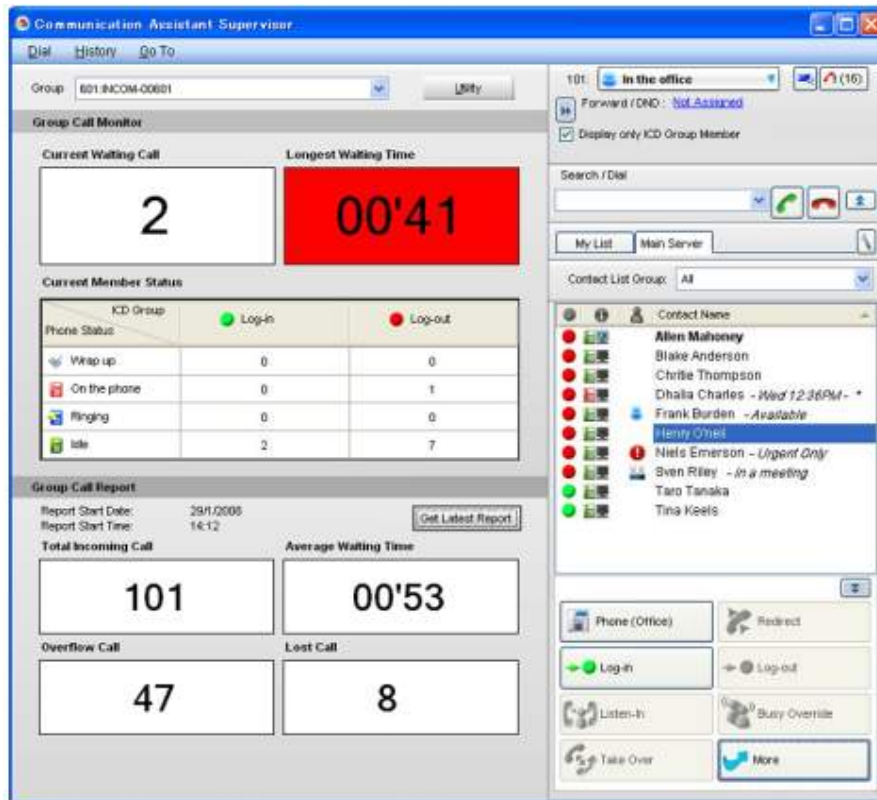
#### Example: Set a wake up call



## Communication Assistant

### CA Supervisor - Overview

#### CA Supervisor



For

- Supervisors
- Managers

#### Real-time Status Management

Supervise customer call handling by monitoring in real-time the number of calls waiting and the longest wait time.

Monitor agent status and control login and logout operations.

Manage the performance of all agents in a group.

#### Agent Support

Support agents who need help with difficult customer calls. (Listen-in, Busy Override, etc.)

## Communication Assistant

### CA Supervisor - Real-time Status Management

Supervisors can monitor the status of a target group's agents with the Group Call Monitor feature.

The screenshot shows the 'Communication Assistant Supervisor' window with the 'Group Call Monitor' tab selected. The interface displays various call statistics and agent status information. Call statistics are shown in a grid at the bottom, and agent status is shown in a table in the middle. A list of agents is on the right, and a 'Group Call Report' section is at the bottom left.

Phone Status	Log-in	Log-out
Wrap up	0	0
On the phone	0	1
Ringin	0	0
Idle	2	7

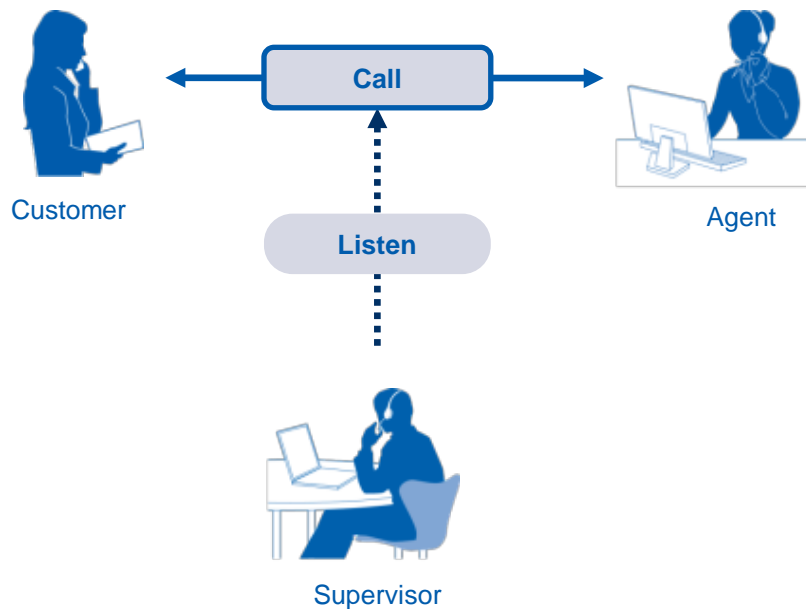
Group Call Report	Average Waiting Time
Report Start Date: 2/21/2008	00'53
Report Start Time: 14:12	
Total Incoming Call	101
Overflow Call	47
Lost Call	8

Call statistics and agent status are displayed in the interface. The 'Current Waiting Call' is 2, and the 'Longest Waiting Time' is 00'41. The 'Login/Logout Status' is shown in the table. The 'Total Incoming Calls' is 101. The 'Average Waiting Time' is 00'53. The 'Lost Calls' are 8, and the 'Overflow Calls' are 47.

# Communication Assistant

### CA Supervisor - Agent Support

Supervisors can support agents who need help with difficult customer calls.



#### ➤ Listen-In

Supervisors can listen in to the conversation of any agent extension number.

#### ➤ Take Over

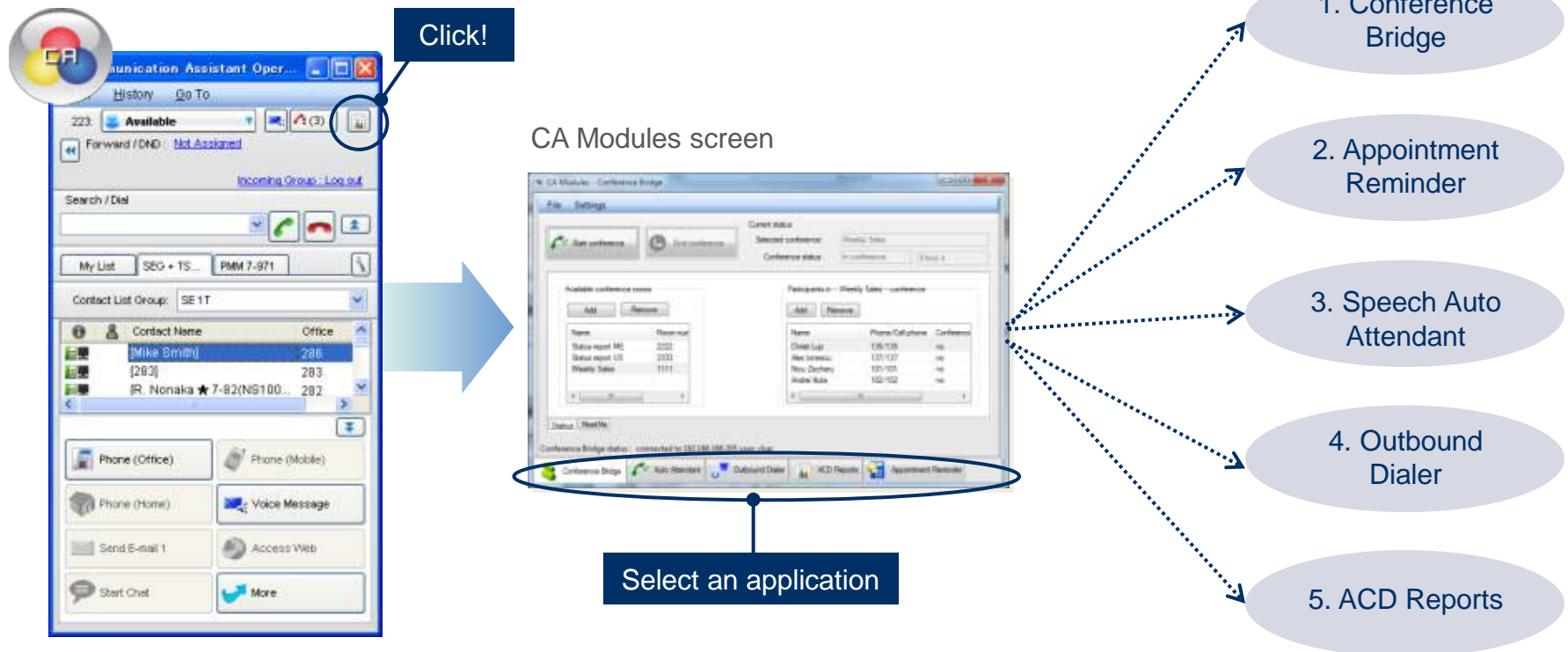
Supervisors can take over the telephone conversations of agent extension numbers.

#### ➤ Busy Override

Supervisors can override the call of any agent extension number.

## Communication Assistant -CA Modules as CA Family-

### CA Modules as CA Family





## Communication Assistant -CA Modules as CA Family-

### Conference Bridge Module

The CA Conference Bridge module provides a conference room for multi-party audio conferences. The conference schedule and participants can be set or maintained by the supervisor.

#### Meet-me conference



- Scheduled Meet-Me conference
- Automatic scheduled dial-out conference
- Maximum 50 conference rooms
- Maximum 96 participants per room
- Total of 100 simultaneous attendees per system



# Communication Assistant -CA Modules as CA Family-

### Appointment Reminder Module

The CA Appointment Reminder module places outbound calls to deliver specific appointment reminder information to each called recipient at a pre-defined date and time. It is useful for preventing customer no shows.

The CA module calls automatically at a pre-defined date and time.  
(24 hours before, etc.)



Customer

➤ Prevent users from forgetting to contact customers and check schedules.

➤ Reduce the work required for agents to make telephone calls.

#### **Text to speech;**

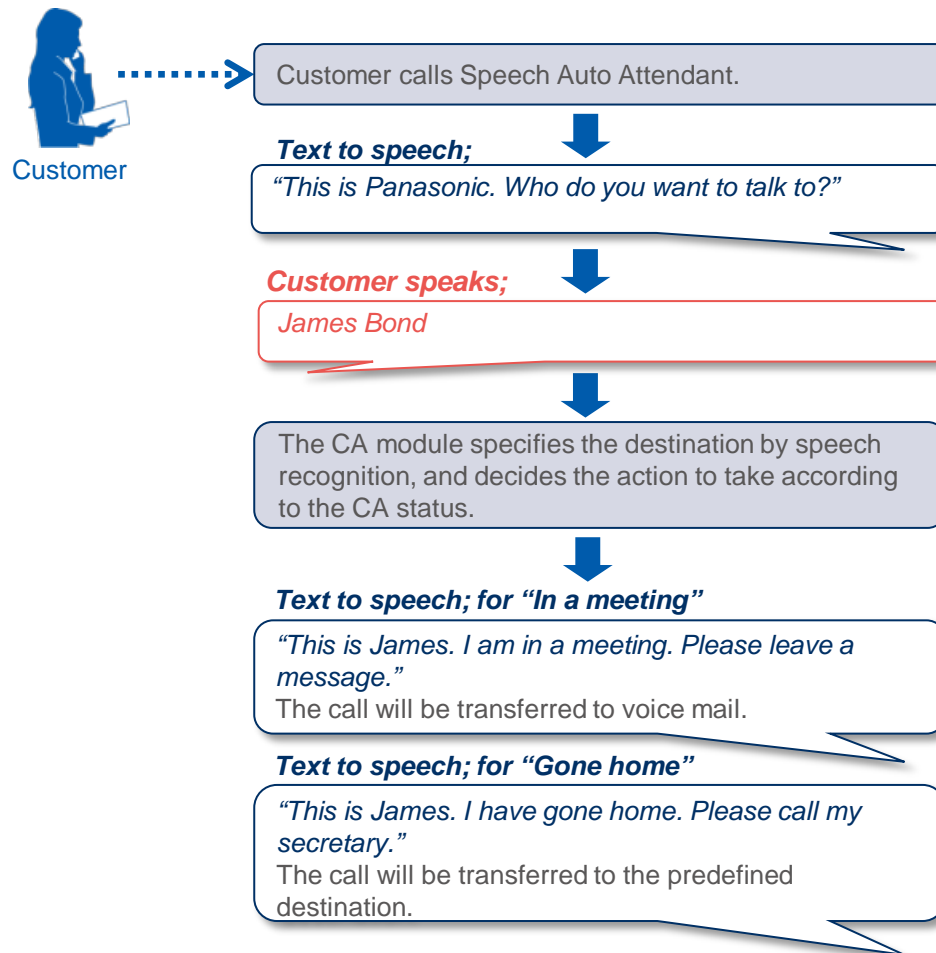
*A Panasonic restaurant table reservation confirmation call will be sent to you at 18:30 tomorrow.  
Press1 to confirm.*

If the customer accepts the appointment, they dial "1".  
The operation is then recorded.

## Communication Assistant -CA Modules as CA Family-

### Speech Auto Attendant Module

The CA Speech Auto Attendant module provides a call routing function. Calls are redirected to voicemail or a mobile phone, etc. according to the CA status after the caller tells the module the name of the caller they want to talk to.



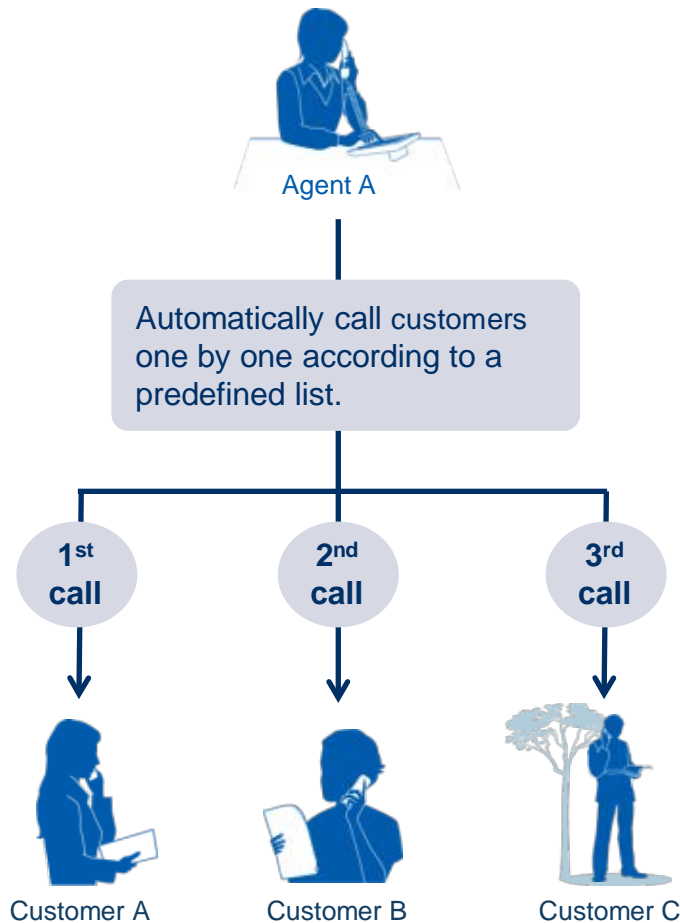
- Customers can connect to people in charge without pressing buttons
- When the agent a customer wants to talk to is absent, the customer can leave voice mail or a message for another person in charge
- By simply changing the CA status, communication can be performed with a method according to that status

# Communication Assistant -CA Modules as CA Family-

### Outbound Dialer Module

The CA Outbound Dialer module is a productivity tool that automatically places calls to a predefined list of phone numbers when the agent is idle.

It is useful for reducing misdialing and the time it takes to enter phone numbers.



➤ Reduce call mistakes made by agents and the time it takes to dial.

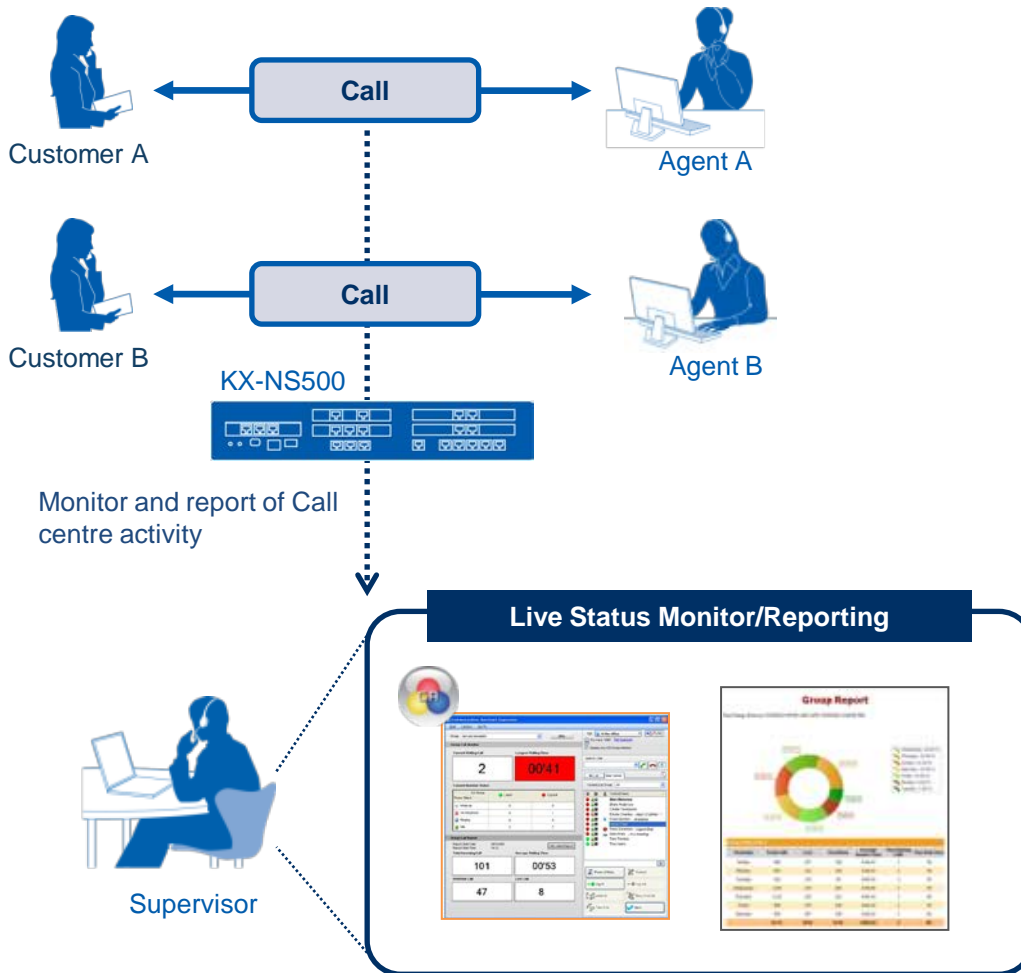
➤ Reduce the time that agents are free to improve work efficiency.

# Communication Assistant -CA Modules as CA Family-

## ACD Reports Module

The CA ACD Reports module is a productivity tool that provides Call Centre reporting features, adding ACD Call Centre specific functionality to CA.

By adding the CA module to CA Supervisor, monitoring and reporting can be provided on one PC.



- Analyze the status of calls and any problems to improve customer service.
- Save the status of calls as data.

## Related functions

**Call Centre Solution** - *For details, see page 37-42, 71*