UNIVERGE®
IP DECT

WIRELESS COMMUNICATIONS

CONTENTS

NEC IP DECT

TRUE MOBILITY
ACROSS YOUR ORGANIZATION

ON-SITE WIRELESS COMMUNICATIONS
ON YOUR IP NETWORK

Today's business environment demands flexible ways of working and excellent customer services. Organizations seek to extend the reach of their converged voice and data network and integrate wireless communications without compromising on voice quality, availability and security. NEC's Business Mobility IP DECT realises all of this, and much more.
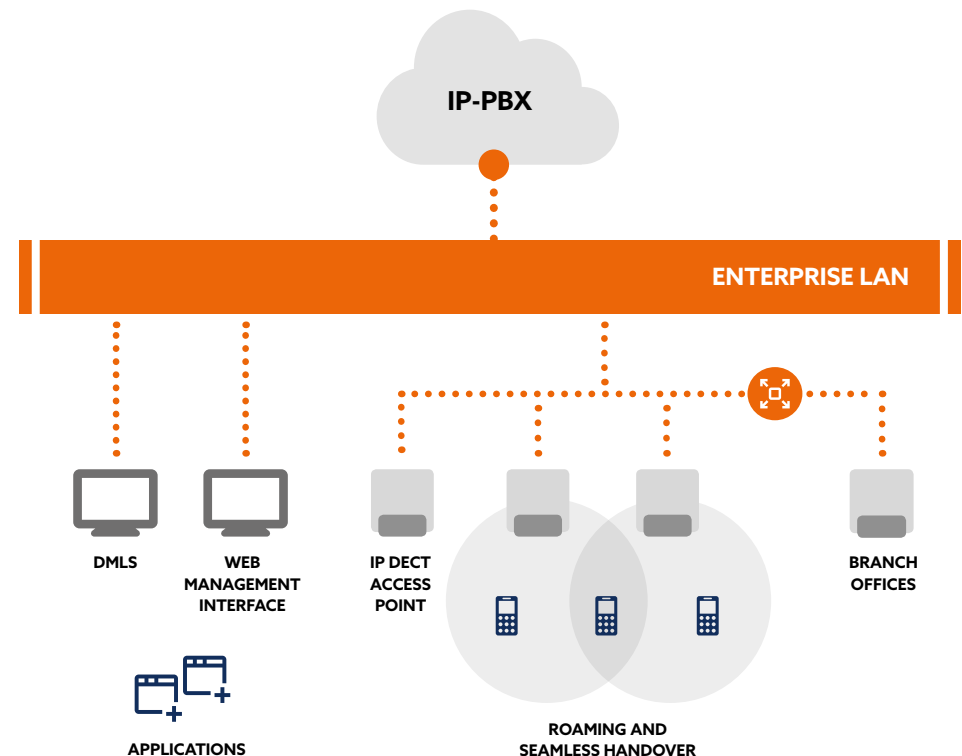
COMBINING THE BENEFITS
IP AND DECT TECHNOLOGIES

NEC's IP DECT delivers on-site wireless telephony that uniquely combines the benefits of IP technology with the superior quality and facilities of the well-established DECT technology. A configuration typically consists of Access Points (APs), IP DECT system software, a DECT Messaging and Location Services (DMLS) open interface and DECT handsets. The APs connect to the IP network and form a DECT system that provides peer-to-peer IP communications.

ADD SOPHISTICATED DECT WIRELESS COMMUNICATIONS
TO YOUR NETWORK

With IP DECT, a single converged network provides both fixed and wireless telephony. Wireless communications in a multi-site company or large campus environment is a matter of installing Access Points at remote locations, with no need for additional remote equipment. These remote locations become an integral part of your central communication infrastructure.

IP-PBX

ENTERPRISE LAN

DMLS

WEB MANAGEMENT INTERFACE

IP DECT ACCESS POINT

BRANCH OFFICES

APPLICATIONS

ROAMING AND SEAMLESS HANDOVER

IP DECT ACCESS POINTS
THE NEC AP400 SERIES

The NEC AP400 series is compatible with all NEC IP communication platforms as well as many systems of other brands that are based on standard SIP. An Access Point provides 12 DECT channels and supports up to 11 simultaneous calls.
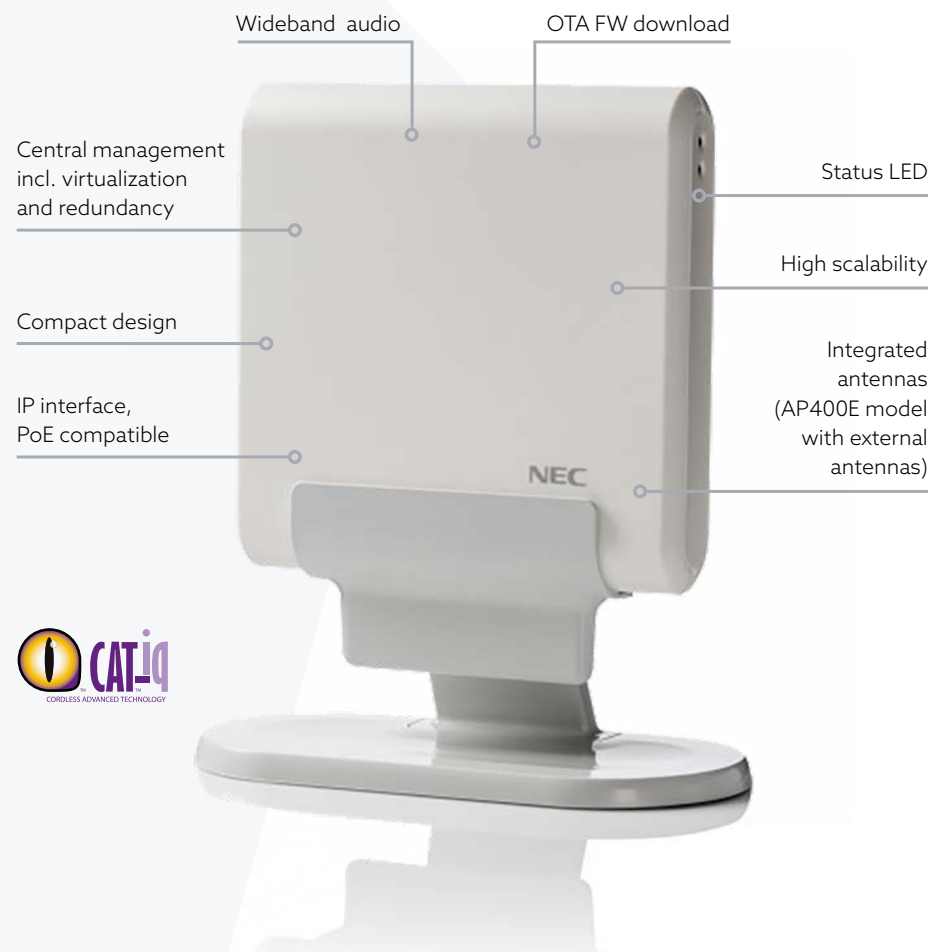
MULTI-SITE MOBILITY
WIDEBAND HD AUDIO

NEC's AP400 Series is CAT-iq enabled, providing wideband HD audio for excellent sound quality. The range starts with the AP400S, aimed at small businesses, that can be configured up to 10 access points at a very attractive price. Next in line is the AP400C, designed for small to medium sized businesses, while the full enterprise AP400 caters for larger organizations and networks. The series is compatible with all NEC IP communication platforms as well as many systems of other brands that are based on standard SIP interfaces.

Connects directly to IP network
> Different models
   AP400 (Enterprise) | AP400S/C (SMB) | AP400E (External Antennas)
> Redundancy, Branch Survivability
> Designed for CAT-iq
   HD-Voice (G.722) | 12 standard or 5 HD-Voice channels
> Virtualization
> Location services
> Compatible with various 3rd-party IP communication systems

Wideband audio

OTA FW download

Central management incl. virtualization and redundancy

Status LED

High scalability

Compact design

IP interface, PoE compatible

Integrated antennas (AP400E model with external antennas)

NEC

CAT-iq
CORDLESS ADVANCED TECHNOLOGY

WAY INTO THE FUTURE
IP AND DECT TECHNOLOGIES

Since its standardisation, DECT has developed into the most successful and favourite technology for wireless on-premises communications. Over the years many innovations have been introduced, and NEC has been at the forefront of all of these.

Today, IP DECT plays an important role in connecting and integrating devices, applications and data. It allows to dynamically design, manage and streamline meaningful workflows across an organization.

Looking to the future, private 5G promises to become a viable option for organizations wanting to deploy their own mobile network without being dependent on a particular operator. DECT-5G is the specification of the next generation of IP DECT that will pave the way to 5G and ensure seamless integration of present IP DECT technology into future 5G developments.

NEC IP DECT INTEROPERABILITY
SUPPORT THE SIP PROTOCOL

NEC IP DECT is an open system that can potentially interconnect with platforms from any vendor that supports the SIP protocol. NEC has many IP DECT customers with third-party host platforms including Avaya, Cisco, Broadsoft, Alcatel-Lucent and Mitel.

SOPHISTICATED DECT COMMUNICATIONS

MULTI-SITE MOBILITY

IP DECT provides wireless communications in a multi-site business or campus environment. Organizations with a main office and different branch offices, for instance, simply install IP DECT Access Points at remote locations, which form one cluster with all other Access Points via the company's network infrastructure.

PROVEN RELIABILITY ACROSS ALL LEVELS

DECT has been around for a while and still is the best possible mobility solution for practically all businesses. For one, it offers the ultimate in reliability - in terms of scalability, security and coverage. Its secure dedicated frequency band makes it totally free from interference, while encryption and security are standard. And once installed it never fails.

EASY DEPLOYMENT AND MANAGEMENT

NEC IP DECT comes with a powerful management tool, supporting Central Management from anywhere in the network. Scalability from 1 to 4000 Access Points and 'through the air' downloadable handset software ensures swift and smooth deployment, industrial process status, and extremely easy operational management. Central DAP (DECT Access Point) controllers have redundancy and virtualization options.

CORPORATE DIRECTORY AND PRESENCE STATUS

IP DECT provides users access to the company's corporate directory. At all times the telephone numbers and names of the entire organization are at hand. Users can also see the presence of the person they need. No need to search for personal contact information or consult the nearest PC screen, just browse to the right person in your DECT handset and check the person's presence status.

TEXT AND ALARM MESSAGING

IP DECT provides powerful text and alarm messaging capabilities for a wide variety of applications in different types of business. With messaging, staff can be alerted about incidents and emergencies, assistance requests such as nurse calls or industrial process status. As such it also replaces separate paging systems. Messaging includes individual messages to terminals, broadcast messages to a group of terminals and confirmation messages. Priority level ring tones allow staff to differentiate.

LOCATION DETECTION

IP DECT can also be used to locate DECT handsets and their users. This can be essential if e.g. staff need immediate assistance from colleagues. Pushing the SOS button on the phone, the system alerts staff to provide assistance, while the system automatically provides the location information.

PUSH-TO-TALK

IP DECT offers users Push-to-Talk (PTT) functionality. Pressing the PTT button on the I766 handset results in a group call with one-to-many (Walkie-Talkie) functionality. Multiple groups can be pre-defined. In loudspeaker mode, handsets will be muted; by unmuting every participant can respond.

LONE WORKER

The NEC Lone Worker solution protects lone workers when getting into a dangerous situation; users can raise an alarm by simply pressing the SOS button or pulling the pull cord from the I766 handset. Alarms go to a central alarm panel so that immediate and appropriate help can be provided. The solution complies with the German DIN VDE 0825-1 standard.

VOICE

MESSAGING

PUSH-TO-TALK

CENTRAL DIRECTORY & PRESENCE

LOCATION DETECTION

ALARM NOTIFICATION & BROAD-CASTING

PRESENCE & SEARCH

NEC   G577

10:52
Mon 18-02-2019

NEC
2239
Raymond van der Wel

BUSINESS IS CONDUCTED OVER THE PHONE

IP DECT PROVIDES KEY APPLICATIONS AND ENSURES BEST USER EXPERIENCE

COMPACT AND PROFESSIONAL HANDSET FOR MOBILE OFFICE USERS

NEC G277 HANDSET

The DECT handset G277 is an entry level professional mobile handset with mobile unified communication features, plug-and-play, charger compatibility and more for effective operation in various businesses.

> Many different call control features seamlessly integrated with the PBX
> Provides freedom to work at any place and freely move around
> Valuable unified communications, including central directory access and presence
> Simple plug-and-play with MicroSD card
> Intuitive colour user interface and icon based menus
> Single or dual charger for additional battery charging; rack charger for 6 handsets
> Freedom, comfort and flexibility with options like headset and built-in trembler
> DECT compliance for superior quality speech and security
> High-definition audio

Earpiece

Volume up

Volume down

Phone Lock

Speaker on/off

Navigation keys

Off hook/enquiry

Status LED

USB-C Connector

Display,
colour 1.77"
TFT 128x160

Soft Keys

Menu

Select/OK

On hook/On/Off

Keypad (0-9, *, #)

Microphone

Charging contact

SOPHISTICATED MOBILE HANDSET WITH EXTENSIVE MESSAGING CAPABILITIES

NEC G577 HANDSET

The G577 is a mobile handset combining mobile unified communications with alarming and messaging capabilities, facilitating task management, staff/patient safety and rich messaging in various businesses, hospitality and healthcare. With special anti-bacterial healthcare version (G577h).

> Many different call control features seamlessly integrated with the PBX
> Offers mobile interaction under all conditions in various demanding environments
> Valuable unified communications, including central directory access, presence and extensive messaging and alarming features
> Dedicated programmable keys with LED indication
> Large SOS key for personal safety
> Intuitive colour user interface and icon-based menus
> Freedom, comfort and flexibility with Bluetooth- or wired headset and built-in trembler
> DECT compliance for high-quality speech and security
> High-definition audio

SOS
Earpiece
Volume up
Volume down
Phone Lock
Speaker on/off
Navigation keys
Off hook/enquiry
Line/Function keys

Status LED
USB-C Connector
Display, colour 2.0" TFT 240x320
Soft Keys
Menu
Select/OK
On hook/On/Off
Keypad (0-9, *, #)
Microphone

Charging contact/ Data connection

ROBUST HANDSET FOR VOICE AND MESSAGING IN DEMANDING ENVIRONMENTS

NEC I766 HANDSET

The I766 DECT handset is a powerful communication tool and with its ruggedized design ideal for the most demanding environments.

> Provides many call control features seamlessly integrated with the PBX
> Any place accessibility improving customer satisfaction, while users keep full control over their presence
> Valuable unified communications, including central directory, presence, extensive messaging and alarming
> Additional user safety with the man-down function, SOS alarm key, pull cord and location detection
> Intuitive user interface with colour display and icon based menus
> Dual - and rack chargers; also charging additional batteries
> Bluetooth headset connectivity provides freedom, comfort and flexibility
> DECT compliance for high quality speech and security
> High definition audio in line with CAT-iq
> Dedicated model I766Ex for use in potentially hazardous/explosive environments

I766Ex

Label (left)	Label (right)
Earpiece	SOS
Noise-cancelling Microphone	Status LED
Volume up	DLA slot
Volume down	Headset jack
Speaker on/off	Speaker
Navigation keys	Display, colour 2.4" TFT 240x320
Off hook/enquiry	Soft Keys
Function keys (F1-F4)	Menu
Charging contacts	Select/OK
	On hook/Clear/Power
	Keypad (0-9, *, #)
	Microphone
	USB connector

PERSONAL ALARMING AND COMMUNICATION PENDANT FOR CARE AND CURE

NEC M166 COMMUNICATOR

The M166 Communicator is an alarming and communication device, ideally suited to provide personal safety to staff, patients and elderly people, such as in care and cure institutions and assisted living.

> The M166 provides freedom and comfort to move around
> Pressing the alarm button will immediately alert the relevant staff and send the location (with DLA and location beacons only)
> Instant speech connection with the patient for trust and comfort
> Very easy to use: can be worn with a lanyard or a clip
> Two charger models: a desktop and a wall model
> DECT compliance for high-quality speech and security
> High definition audio in line with CAT-iq

Operation state LEDs

Lanyard

Alarm2 button

Microphone

On/Off button with blue LED

Headset/ Pull cord jack

Alarm1 button with blue LED

Speaker

Charger/Connector

NEC
DECT Communicator

IP DECT IN ACTION

IN THE OFFICE

From small businesses to large enterprises, workforces are more mobile than ever in the past. With fewer spaces allocated to individuals, more flex-desking and a more distributed workforce, IP DECT provides the ideal solution for cost-effective and secure wireless connectivity across the office and its premises.

NEC IP DECT provides scalable and secure communi–cations for single office, campus or even metropolitan environments.

IN HEALTHCARE

NEC's IP DECT dramatically improves communication and collaboration in hospitals, enhancing the quality of patient care as well as patient safety, staff satisfaction and efficient clinical workflows.

In care institutions, wireless communication between residents and mobile caregivers reassures residents and saves time. Caregivers can ascertain a call's priority while on the go. Personnel alarm solutions enhance staff safety and facilitate discrete tracking and monitoring of at-risk persons and equipment.

IN HOSPITALITY

NEC IP DECT makes hotel staff reachable at all times, no matter where they are. It gives access to information and applications while on the move, including fire-alarm and building management systems and rapid response/workflow applications.

Practical scenarios include maintenance and guest-service requests, such as a defective bedside lamp or an extra towel, as well as a stuck elevator, a CCTV alert spotting intruders or a faulty meeting room air conditioner, etc.

IN RETAIL & WAREHOUSING

NEC's smart retail solutions create deeper customer loyalty and accelerate better business results. IP DECT communications help to handle incoming callers with ease while attendiing to in-store customers.

Store and warehouse managers have access to real-time data and order taking directly from the floor and can quickly respond to requests, reducing lead times and boosting productivity.

IN INDUSTRY

In industrial and manufacturing environments IP DECT is a powerful tool ensuring smooth, trouble-free operation. With full area coverage – however large the facility – it ensures better equipment uptime, improves logistics and enhances safety.

Mission-critical information can be broadcasted directly to the appropriate teams. Mobile staff are always connected to key data and aware of the latest status of production flows, deliveries and equipment performance.

ENHANCING SECURITY

Across all sectors, IP DECT helps maximize personnel safety and ensures officers have constant, dependable links with on- and off-site back-up. The latest applications in positioning, man-down and alarm functionality integrate with communications, control and access systems. The locator solution provides accurate zone-based positioning of residents and staff.

'Man-down' and 'no-movement' functions trigger alarms should a worker's handset suddenly tilt, or remain silent after a preset time. In hazardous and potentially explosive environments such as mining and petrochemical industries NEC's I766Ex Atex ensures safe and secure communications for all.

MARINE INDUSTRY

A particular sector where NEC is favoured is the marine industry. With everything shielded for radio signals, many small rooms, and everyone – guests and staff – expecting to be able to communicate as they walk around, a ship is an extremely difficult environment to deploy wireless communications.

SMART SHIP COMMUNICATIONS

ENSURING PASSENGERS AND CREW STAY CONNECTED

FEATURE OVERVIEW
FOR BUSINESS MOBILITY

Call handling features *	G277	G577 / G577h	I766 / I766Ex	M166 Communicator
- Auto answer	✓	✓	✓	✓
- Calling name display	✓	✓	✓	-
- Calling line (CLIP) display / digits	✓ / 24	✓ / 24	✓ / 24	- / -
- Call logging / size	✓ / 50	✓ / 50	✓ / 50	- / -
CAT-iq – HD audio	✓	✓	✓	✓
Charger / multi-charger rack (handsets)	Dual / ✓ (6)	Dual / ✓ (6)	Dual / ✓ (6)	✓ / wall charger
Standby time	Up to 160 hours	Up to 160 hours	Up to 160 hours	Up to 80 hours
Talk time	Up to 20 hours	Up to 20 hours	Up to 16 hours	Up to 3 hours
Display	Colour, 128x160, 1.77"	Colour, 240x320, 2"	Colour, 240x320, 2.4"	-
Headset (connector/Bluetooth)	USB-C (analogue) / -	USB-C (analogue) / ✓	3.5 mm (I766 only) / ✓	2.5 mm / -
IP-class	IP40	IP65	IP65	IP65
IECEx (ATEX)	-	-	Ex version	-
Location detection: RSSI / beacon	✓ / -	✓ / -	✓ / with DLA (I766**)	✓ / with DLA (M166CL)
Man down alarm / Pull cord alarm	- / -	- / -	✓ / ✓	- / ✓
Messaging / SOS button	- / -	✓ / ✓	✓ / ✓	✓ *** / ✓
Multi-line / Programmable keys	- / -	✓ / 4 keys	✓ / 4 keys	-
Memory card for handset settings	MicroSD	MicroSD	MicroSD	-
Personal / Central directory	200 / ✓	200 / ✓	200 / ✓	- / -
Software download over the air	✓	✓	✓	✓
Speakerphone / HD quality	✓ / -	✓ / ✓	✓ / ✓	✓ / -
Trembler alarm	✓	✓	✓	✓
Antibacterial provisions	-	G577h	-	-
ISIP	-	✓	✓	-

For details, see the datasheets for each type of handset   *) Availability depends on local market situation and frequency band. Contact your local NEC dealer for more information
) I766Ex does not support DLA and only offers BT headset interface *) Alarm handling only

10 COMPELLING REASONS FOR BUSINESS MOBILITY IP DECT

1 **It's proven and reliable**
Business Mobility IP DECT builds on proven and mature technology.

2 **It's scalable**
IP DECT is scalable for 1 to 4000 Access Points, offering seamless handover.

3 **It's affordable**
It is very attractively priced without complex licensing structure.

4 **It's integrated**
It offers all the relevant features users expect from any business telephone.

5 **Rich choice of terminals**
For every user-profile a specific handset and a choice of features, applications and accessories.

6 **True mobility across locations**
With IP DECT the handset will subscribe automatically in other locations allowing users to stay reachable under the same number.

7 **Easy deployment and management**
Encryption and security are standard. IP DECT also comes with powerful management tools; handset software can be downloaded 'through the air'.

8 **Makes Unified Communications a reality**
All IP DECT handsets share the same central directory which is always up to date. The directory even shows the presence of the required person.

9 **Powerful messaging to alarm and alert staff**
Alarms and text messages will alert staff, helping them to respond immediately to calamities.

10 **Protects investment**
IP DECT uses open standards such as the open messaging interface, the SIP protocol, new CAT-iq standards and Android.

For further information please contact NEC or:

About NEC Corporation - NEC Corporation is a leader in the integration of IT and network technologies that benefit businesses and people around the world. By providing a combination of products and solutions that cross utilize the company's experience and global resources, NEC's advanced technologies meet the complex and ever-changing needs of its customers. NEC brings more than 120 years of expertise in technological innovation to empower people, businesses and society. For more information, visit NEC at http://www.nec.com

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