

Gigaset N870 IP PRO

The scalable DECT IP multicell system for seamless mobile communication in small and medium-sized businesses and beyond

Highlights:

- One hardware concept, settings define function
- Supports:
 - Up to 250 users/SIP accounts/handsets
 - Up to 60 base stations/60 parallel calls
 - Up to 10 simultaneous calls per base station
- With N870/N870E in integrator only role:
 - Up to 4 Multicell DECT Manager
 - Up to 20 N670 singlecells
 - Up to 800 users/SIP accounts/handsets
 - Up to 240 base stations/240 parallel calls
- With Virtual Integrator software:
 - Up to 100 DECT Manager
 - Up to 20.000 users/SIP accounts/handsets
 - Up to 6.000 base stations
 - Up to 6.000 parallel calls
 - Up to 300 N670 singlecells
- Seamless handover and roaming
- Phonebook support: LDAP(10), XML, central phone book, Broadsoft, 3CX, xHTML
- Professional zero-touch configuration via auto-provisioning
- uaCSTA support for CTI-Integration
- XHTML applications by customer
- End-to-end signalling and voice encryption
- Redundancy



The Gigaset N870 Multicell System is an innovative breakthrough solution that combines DECT base stations and a DECT manager to create a highly scalable yet reliable solution for organizations that need guaranteed mobile communication across sites of any shape or size.

Each DECT multicell system supports up to 250 (20.000) handsets and 60 (6.000) simultaneous calls making it ideal for small and medium organizations. For those companies which go beyond the SMB level, widen the network with multiple DECT multicell systems up to the level of an Enterprise, where seamless handover and roaming is applicable in and between all zones.

With seamless connectivity with leading IP based on-premise and cloud telephony services, HD audio quality, seamless handover and roaming, the Gigaset N870 Multicell System provides complete coverage across even the most challenging sites. Simple deployment with absolute reliability is key.

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DECT technology with full security

DECT Technology is secure because its digital and encrypted. Eavesdropping on a conversation is not possible wirelessly. In the N870IP System, SIP Security is added to the security of the network. End to end security is now ensured. Security includes SRTP/SIPS/TLS, LDAP(S) and HTTPS.

Scalable and future-proof

The N870 DECT multicell system is an expandable solution for any organization. Start small and expand later when your business is requesting more users. The N870 IP PRO can support so called S, M, L, XL and XXL environments. L to XXL make use of the Gigaset Integrator, which integrates different locations, buildings and floors into one large communication network.

Connectivity

The N870 IP DECT multicell system is interoperable with many platforms and network providers. All recent professional handsets from Gigaset are compatible with the N870 system and integrate smoothly. A full and actual list from platforms, providers and handset compatibility can be found on our wiki.

Easy setup and configuration

Administrators benefit from zero touch provisioning. The intuitive web based interface with online help, XML based configuration files, profiles and support of standard protocols make configuration extremely easy and fast.

Technical specifications

Keyboard	Functions	<ul style="list-style-type: none"> Reset and role change
	Base station button	<ul style="list-style-type: none"> Illuminated button with status indication (two LEDs)
Audio	Codecs	<ul style="list-style-type: none"> G.711 G.722 G.729ab VAD/CNG (for G.729ab) Opus (On request) AMR-WB (On request)
Phonebook	Central contacts	<ul style="list-style-type: none"> Central phone book: 2000 entries or 2 MB Search function and reverse lookup online Name replacement from local phonebook and online directories (auto lookup)
	Online directories	<ul style="list-style-type: none"> Net directories via LDAP(S) Link to external LDAP(S) phonebooks (up to 10) XML directories XSI directories (BroadSoft)
	Call lists	<ul style="list-style-type: none"> Call lists for up to 50 entries (missed, received, dialed) Phone numbers can be saved from the call list Call lists with phone number (CLIP/CNIP) and date/time for all calls and for outgoing, received or missed calls Broadsoft XSI call list
Telephony	Telephony devices	<ul style="list-style-type: none"> Add and manage up to 250 DECT devices SIP deregistration if handset is out of range / switching off the handset or power failure does not lead to deregistration of the SIP account
	Functions	<ul style="list-style-type: none"> Display of the individual name of each telephone device Message display (MWI) adjustable Signaling of voicemail via SIP-MWI (Message Waiting Indicator) Country-specific ring tones
	VoIP	<ul style="list-style-type: none"> Up to 250 SIP accounts (per DM) Connect DECT sync/a-sync state with SIP registration (Handset off or out of range / de-register SIP) SIP (RFC3261, RFC2396, RFC2976) DTMF (SIP Info / RFC 2833, Inband)
	DECT	<ul style="list-style-type: none"> 60 concurrent calls per DECT Manager
Signalling & display indications	CLIP	<ul style="list-style-type: none"> CLIP, CNIP: Name indication for incoming calls, outgoing calls, missed call list, redial list
Power supply	Power over Ethernet	<ul style="list-style-type: none"> PoE IEEE 802.3af, class 1
	Power supply unit	<ul style="list-style-type: none"> EU: Order number: L36280-Z4-X706 UK: Order number: L36280-Z4-X745
Connectivity	Frequency	<ul style="list-style-type: none"> 1880-1900 MHz (Europe) 1910-1930 MHz (Latin America) 1910-1920 MHz (Brazil) 1880 MHz-1895 MHz (South-East-Asia/Taiwan)

		<ul style="list-style-type: none"> • US variant available
	LAN connection	<ul style="list-style-type: none"> • Ethernet RJ45 10/100 Mbps
Compatibility	Standards	<ul style="list-style-type: none"> • DECT EN 300 175-x • Standards: GAP / pnCAP • Support of 120 DECT channels
	Gigaset handsets	<ul style="list-style-type: none"> • Gigaset S700H PRO, R700H PRO, R700H protect PRO, SL800H PRO, SL850H PRO • For more information: wiki.gigaset.com
Functions	Desk operation	<ul style="list-style-type: none"> • Yes
	Wall mountable	<ul style="list-style-type: none"> • Yes
	Ceiling mountable	<ul style="list-style-type: none"> • Yes
Regulations / Specifications	Approvals	<ul style="list-style-type: none"> • Approvals: CE
	Protection class	<ul style="list-style-type: none"> • Protection class IP20 (indoor)
Dial functions	Functions	<ul style="list-style-type: none"> • Call forwarding: CFU, CFNR, CFB • Call forwarding (RFC5589) • Transfer call: with enquiry, without enquiry, blindly • Hold/Make/Resume Call • Reject call • Call waiting • CLIR • Distinctive Ring (internal / external / group / door / emergency / optional) • Call waiting can be activated/deactivated per telephone device • Display for number of missed calls/new voice messages can be activated/deactivated • Name display for incoming calls, outgoing calls, missed calls and the redial list
	Dialing functions	<ul style="list-style-type: none"> • Call forwarding • Call forwarding can be activated/deactivated (always, on busy and on no answer) • Broadsoft Feature Sync (DND and Call Forward)
	Area code	<ul style="list-style-type: none"> • Area code and prefix numbers editable • Dialing codes can be added to outgoing numbers (can be activated/deactivated) • Area code (country code and area code) • Country codes are selectable by presets
	Simultaneous calls	<ul style="list-style-type: none"> • 60 simultaneous external calls per DECT Manager, up to 10 per DECT base station
	Conference calls	<ul style="list-style-type: none"> • Conference calls with 3 participants
	Dialing procedure	<ul style="list-style-type: none"> • DTMF (Audio, RFC2833, SIP Info, automatically)
	Redial	<ul style="list-style-type: none"> • Direct dialing from the call list possible
Menu	Operation	<ul style="list-style-type: none"> • Simple configuration via web browser • Intuitive menu navigation for easy operation • Convenient menu navigation in different languages (ENG, FRA, ESP, ITA, GER, POL, RUS, CZE, GRC, PRT, NLD and TUR)
Range	DECT	<ul style="list-style-type: none"> • Outdoors: up to 300 m; indoors: up to 50 m • Antenna diversity

Operation of several handsets	Number of handsets	<ul style="list-style-type: none"> Up to 250 Gigaset DECT handsets can be registered For more information: wiki.gigaset.com
Configuration via web browser	Web configurator	<ul style="list-style-type: none"> Administrator friendly configuration via configuration file Firmware upgrade/downgrade Backup and restore functions Log to external syslog servers
Network specifications	LAN	<ul style="list-style-type: none"> Ethernet RJ45 10/100 Mbps 10/100 Base-T Auto MDI/MDIX Ethernet LAN Port IPv4 address type: static and automatic Subnet mask supported Standard gateway Preferred DNS server is supported Supports alternative DNS servers
	Network	<ul style="list-style-type: none"> SNTP DNS SRV-RR (RFC2782) Failover: DNS SRV, Failover Server VLAN (IEEE 802.1q), VLAN identifier (LAN), VLAN priority (LAN) Operation on routers with automatic assignment of the IO address (DHCP) DHCP (Option: 6, 42, 60, 114, 120) DHCPv4 (RFC2131) SIP (RFC3261, RFC2543, RFC2396) SDP (Session Description Protocol, RFC4566, RFC3264, RFC3555) RTP (RFC3551, RFC3555, RFC2833) SRTP HTTP HTTPS IPII provisioning xHTML applications (user specific)
	Network standard	<ul style="list-style-type: none"> Internet protocol: IPv4 (RFC0791) DNS SVR (Domain Name System) TCP, UDP
	Security	<ul style="list-style-type: none"> TLS 1.0/1.1/1.2/1.3 for HTTPS and SIP, SIPS SIP (RFC3261, RFC2396, RFC2976) HTTP/Digest Authentication (RFC2617) Locating SIP Server (RFC3263) Call transfer (RFC5589, RFC3515, RFC3891, RFC3892) MWI (RFC3265, RFC3842) SDP (RFC4566, RFC3264, RFC3555) RTP (RFC3550, RFC3551, RFC3555, RFC2833), SRTP, RTCP IPv4, IPv6, SNTP, DHCP (Option 1, 3, 6, 12, 15, 28, 42, 114, 120), DNS, TCP, UDP, VLAN (IEEE 802.1q) DNS SRV Accept/activate/deactivate all certificates Display of certificate name and type Edit certificates: Show details, remove Import certificates Client certificate support (certificate and private key uploadable) HTTP authentication (HTTP digest username, HTTP digest password)

		<ul style="list-style-type: none"> • HTTPS (Server/Client) • HTTPS web access to the device manager
	Quality of Service	<ul style="list-style-type: none"> • Class of Service (CoS) • Bandwidth management for prioritizing services • QoS (RFC2474, RFC2475) • SIP ToS, Diffserv • RTP ToS, Diffserv • DSCP • Differentiated Services Code Point (DSCP) support • IEEE 802.1q • IEEE 802.1p port-based priority on LAN port, application-based priority on WAN port • IEEE 802.1Q VLAN tagging
	Provisioning	<ul style="list-style-type: none"> • Auto-Provisioning via HTTP/HTTPS, TR-069 on request • User-specific auto-provisioning via MAC address and XML configuration file • Firmware upgrade/downgrade • Data server (URL) editable • Provisioning process can be started manually via Gigaset Redirect and Provisioning Environment (GRAPE)
	Maintenance and service	<ul style="list-style-type: none"> • Firmware update from server (file based, planned), automatically updating all base stations • Save and restore • Syslog • SNMPv3 • Sync over DECT, Sync over LAN or mixed mode • CLI - Command Line Interface for specific service cases • Base station remote reset by power procedure • uaCSTA • PCAP tracing via CLI • Virtualization tool

Gigaset N870 Integrator software	Administration	<ul style="list-style-type: none"> • Central management of up to 100 N870 and 300 N670 in different locations
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Alarm, Messaging, Location (AML) support	Alarm	<ul style="list-style-type: none"> • Handset can establish an alarm call/alarm event (MQTT) (Features and functions depend on the SIP-telephone-system. AML features dependent on application server, configuration and handset model. For more info visit wiki.gigasetpro.com) • Establish an alarm call via function key (Features and functions depend on the SIP-telephone-system. AML features dependent on application server, configuration and handset model. For more info visit wiki.gigasetpro.com) • Lone worker protection (DGUV certified) with Unify OpenStage M3 Plus / M3 Ex Plus handset and tetronik DAKS server
	Messaging	<ul style="list-style-type: none"> • Connection of up to 10 application servers (alarm/messaging server) via MQTT interface • Send messages to handsets with signalling and indication according to priority (5 priority levels) • Specific alerting tones • Collect user response via softkeys (up to 10 reply options) and send to alarm server • Offer call setup in context of the message response • Message inbox • SIP messaging for plain text, in use cases without alarm server

		<ul style="list-style-type: none"> • Volume can be set • Support of icons • Vibration • Overrule silence
	Location	<ul style="list-style-type: none"> • Alarm server can retrieve data about DECT environment (RSSI) and Bluetooth beacons from a handset for calculation of exact position (Features and functions depend on the SIP-telephone-system. AML features dependent on application server, configuration and handset model. For more info visit wiki.gigasetpro.com)

Energy efficiency	Power consumption	<ul style="list-style-type: none"> • Power consumption 2,1W: As networked equipment with high network availability, this HiNA-Device is fulfilling the (EU) 2023/826 ecodesign requirement for energy consumption <7W • The intended use is VoIP telephony, Alarm, Messaging and Location as well as xhtml online services. To fulfill this functionality without delay, the device does not offer power management or standby modes. This could result in increased power consumption
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Dimensions & weights	Base station	<ul style="list-style-type: none"> • Base station: 180 x 110 x 42 mm (L x W x H) • Weight (approximately): 200 g
	Packaging	<ul style="list-style-type: none"> • 223 x 163 x 65 mm (L x W x H) • Weight (approximately): 380 g

Ordering information	Color	<ul style="list-style-type: none"> • Polar-White
	Order number	<ul style="list-style-type: none"> • S30852-H2716-R101
	Licenses for central management	<ul style="list-style-type: none"> • N870 Virtual Integrator SW license: S30852-H2716-X1 • N670 DECT Manager license: S30852-H2714-X2 • N870 DECT Manager license: S30852-H2716-X2
	Power supply (optional, if no PoE/PoE injector available)	<ul style="list-style-type: none"> • EU: Order number: L36280-Z4-X706 • UK: Order number: L36280-Z4-X745
	Alarm, Messaging, Location (AML) licenses	<ul style="list-style-type: none"> • Messaging license N670/N870 (license per handset), order number: S30852-H2714-X11 • Location incl. Messaging license N670/N870 (license per handset), order number: S30852-H2714-X21

Environmental conditions	Operating temperature	<ul style="list-style-type: none"> • 5°C to 45°C
	Storage temperature	<ul style="list-style-type: none"> • -20°C to 70°C
	Relative humidity	<ul style="list-style-type: none"> • 20% to 75% (non-condensing)

Scope of delivery	1x	<ul style="list-style-type: none"> • Base station
	1x	<ul style="list-style-type: none"> • Security leaflet
	1x	<ul style="list-style-type: none"> • Screws & dowels

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