

S6

High performance Intercom Server for rack mounting

Up to 224
subscribersVirtuoSIS
on boardVoIP® and
SIPEasy to
expandBackwards
compatible16kHz
eHD Voice

The ultimate Intercom appliance

In 2013, Commend introduced the worldwide first 100% software-based Intercom Server. However, VirtuoSIS was only available for virtualised IT environments so far. The Intercom Server S6 brings all VirtuoSIS features into common server rooms as well.

The cost-efficient and compact total package of hardware and software can be extended flexibly. Therefore, no extra hardware is needed – it is only necessary to activate the desired licences.

A strong software provides all VirtuoSIS benefits. This means, that the S6 combines reliability, crystal-clear intelligibility, high video resolution, easy maintenance as well as low costs. And, of course, the S6 is fully compatible to earlier Commend systems – such as Intercom servers or stations.

Features and highlights

- Compact Intercom Server including VirtuoSIS Starter
- Easy to expand using the desired licences
- Backwards compatible to expand earlier Commend systems
- High energy efficient
- Supports IP-based, digital and analogue Intercom stations as well as Commend SIP stations and third-party SIP phones
- VoIP connectivity to PSTN via SIP gateways
- IPv4 for VoIP®
- IPv4 and IPv6 for SIP clients/trunk connections
- Supports all Intercom functions and feature levels
- Networkable via LAN/WAN – also with the Intercom Servers IS 300, GE 300, GE 800 and VirtuoSIS
- IP interfaces: ICX over IP, RTP, SIP and VoIP®
- Central configuration via the configuration software CCT 800
- Supports Commend Solution Apps, e.g. ComPLC
- Requires no key subscribers
- Optimised for rack mounting

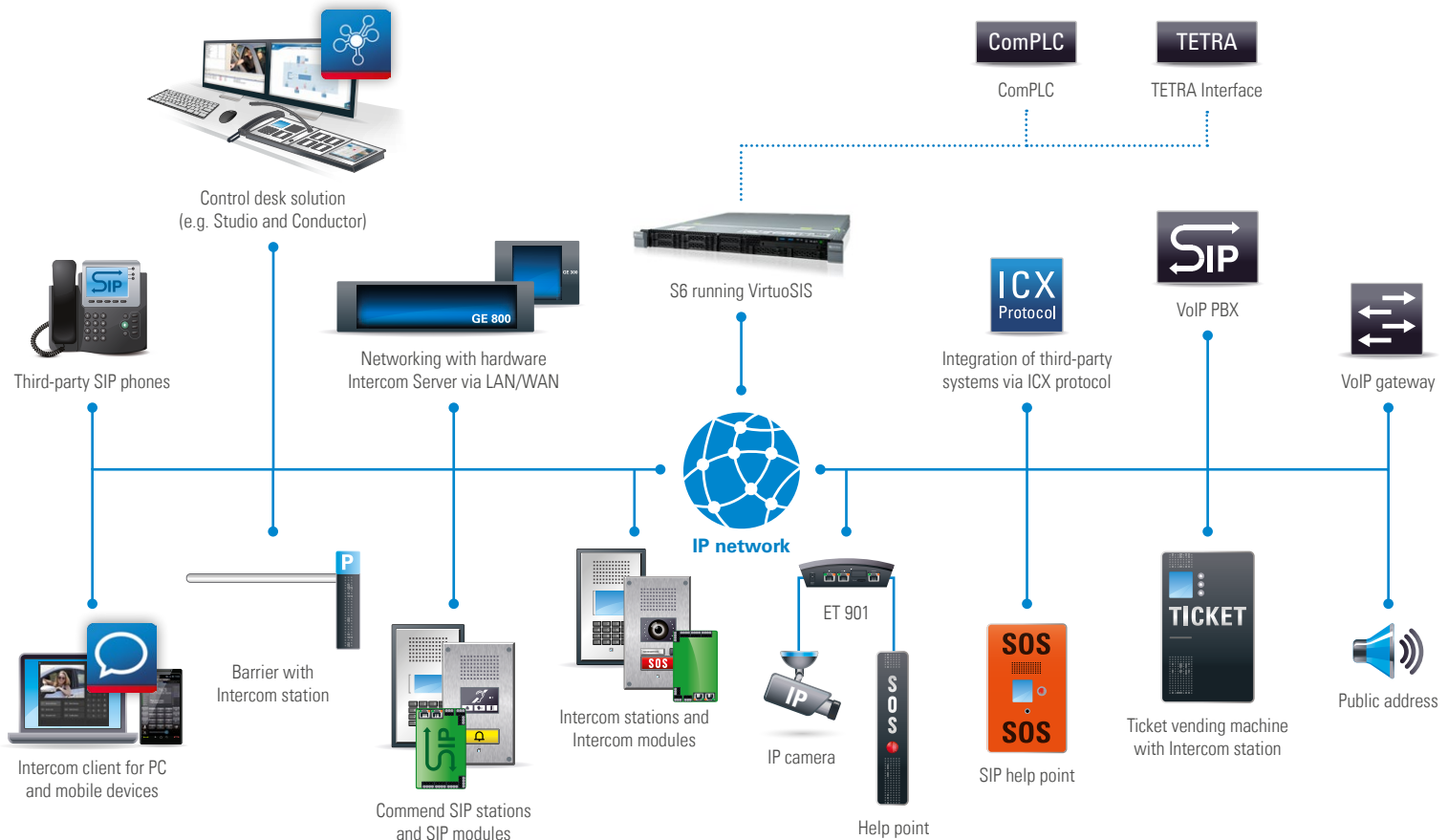
Commend Intercom platform

Voice communication with 16 kHz sound experience

Commend's 16 kHz audio standard transmits voice communication, emergency calls and especially music with previously (literally) unheard-of clarity. At the same time, the IP Intercom Servers double as PA servers to enable the combination of public address and Intercom on a single platform.

Intercom solutions by Commend

Data networks enable the transmission of all kinds of data. For Intercom transmissions, Commend has developed a specific technology: IoIP®, short for Intercom over IP. As a logical further development of the Voice over IP standard, IoIP® provides better speech quality and higher data security and serves as the Commend standard for the professional integration of Intercom stations, control and display functions, networking of Intercom Servers, and especially for security and communication solutions.



Ready for connection of

- IP Intercom stations
- Commend SIP stations and third-party SIP phones
- 2-wire Intercom stations (with IP Intercom box ET 901-D)
- 4-wire Intercom stations (with IP Intercom box ET 901-A)

100% flexible, 100% compatible

VirtuoSIS adapts easily and flexibly to your project requirements while remaining fully compatible with previous system generations. The server supports all IP-based, digital and analogue Intercom stations by Commend; third-party systems can be integrated easily via Intercom eXchange protocol (ICX).

Integration of Commend Solution Apps

Thanks to direct integration of any Commend Solution App into VirtuoSIS, no further hardware or software is needed. That's why it makes it easy to use third-party systems e.g. TETRA by simply licensing the appropriate interface on the Software Intercom Server.

Highlights from more than 150 features

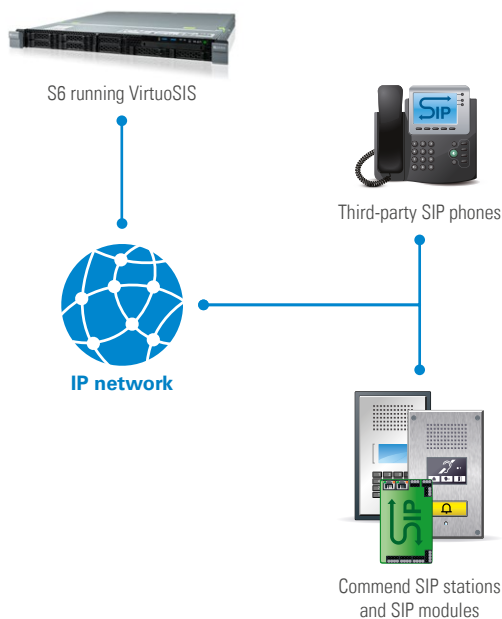
- Control desk functions
- Functional monitoring of microphone, loudspeaker and Intercom station lines
- Control functions (video, doors and gates etc.)
- Pre-recorded voice messages for customised announcements (waiting, information, alarm messages etc.)
- Audio monitoring for automated call triggering, e.g. at a scream or shout
- Audio recording interfaces
- All Calls and group calls with automated response function
- Conference calls with any number of subscribers
- Call forwarding
- Integration of third-party systems (OPC, TETRA etc.)
- Seamless VoIP integration via SIP
- And many more ...

Increased possibilities through SIP

SIP subscribers can be integrated – first and foremost the versatile and multi-functional Commend SIP series – directly into the Intercom network. This makes it possible for a vast range of VoIP devices to communicate with each other over the Intercom network and to fulfill basic Intercom features.

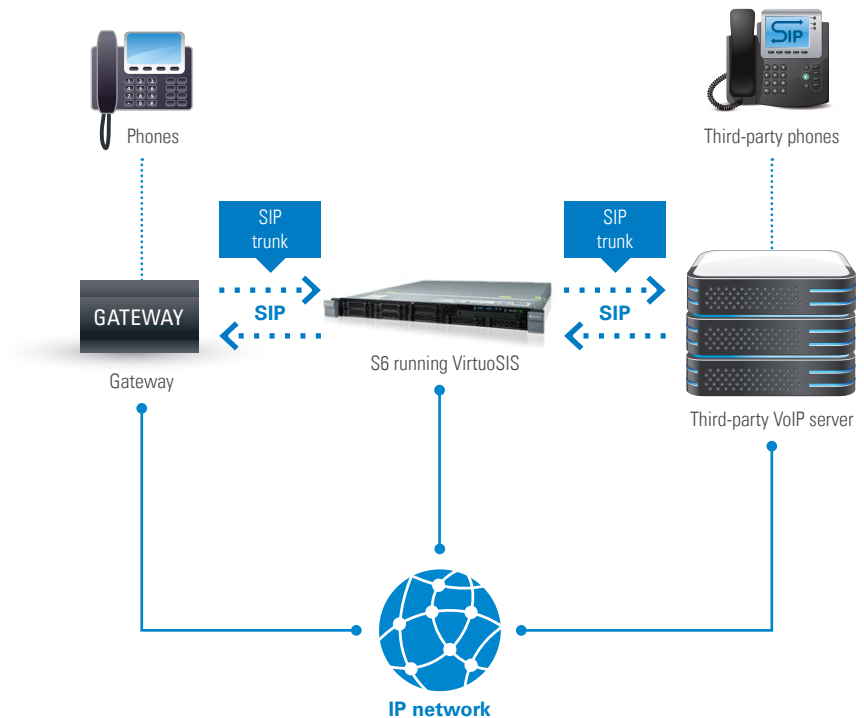
What is SIP-C?

Via the virtual SIP-C card, it is possible to use SIP clients (SIP-C) like third-party SIP phones and Commend SIP stations into VirtuoSIS directly. For this, only a simple IP network connection is necessary.



What is SIP-T?

Using a SIP trunk (SIP-T), VirtuoSIS can be connected to one or several third-party SIP servers. As soon as a SIP-T connection is established, there is a huge mutual benefit: all servers are able to use numerous features and functions of the other one.



Highlights SIP-C features

- Line monitoring for SIP-T and SIP-C subscribers
- Triggering call requests, optionally with calm down message and/or with assigned video camera
- Door station with a contact triggered via DTMF
- Listening to radio channels
- Receiving All Calls, group calls and door ringing calls
- Participant radio conference
- Control desk function
- Receiving call requests and corresponding ICX messages
- OpenDuplex® conferences

Start small with feature level A subscribers

- Ideal for small-sized systems
- Basic Intercom functions: privacy call, conversation, group ringing to group 0 and door opener via DTMF after-dialling
- Expandable to feature level B with the upgrade licence LUG-8B or to feature level D with the upgrade licence LUG-1D

Highlights SIP-T features

- Each channel can be assigned to a separate trunk
- Up to 8 SIP trunks per card
- The trunk automatically selects one of the free assignment channels
- Line monitoring
- Configuration of dial-prefixes, pre-dialling and code numbers for easy call numbers within the system
- Call history with up to 20 entries (OT)
- Basic Intercom functions (e.g. calls)
- Executive-secretary transfer chain
- Initiator conference
- Alarm receiver
- Control desk function
- Auto dialler mode
- Audio mixing for speech recording
- PA function (for phone call by direct outward dialling)
- Radio feed-in (4T, 6T)

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Technical specifications

Technical data

Registered subscribers:	IP/SIP: max. 224
Parallel calls:	conversations: max. 32 per VirtuoSIS Instance SIP audio connections (e.g. conversations, group/all calls or conferences): max. 112 ¹⁾
VirtuoSIS Instances:	max. 2
Compliance:	CB, RoHS, WEEE, GS, CE, CSAc/us, ULc/us, FCC Class A, VCCI-V3 Class A + JIS 61000-3-2, GOST, KC, CCC, C-Tick, BSMI
Operating system:	Linux Debian 8 (64 bit)
Intercom Server Software:	VirtuoSIS (pre-installed)
Intercom Server Hardware:	Fujitsu
Data rate:	up to 1 Gbps
Rated current:	max. 4.0 A (100 V)/max. 2.0 A (240 V)
Power Supply:	300 W, 92 % (Gold efficiency), 100–240 V (50/60 Hz)
Operating temperature range:	+6 °C to +40 °C (+43 °F to +104 °F)
Storage temperature range:	–25 °C to +60 °C (–13 °F to +140 °F)
Relative humidity:	10% to 85%, non-condensing
Installation:	rack installation (1 RU to 19"), rack mount kit included in extent of supply
Dimensions (W x H x D):	483 x 43 x 572 mm (19.02 x 1.69 x 22.52 in)
Weight incl. package:	approx. 16.5 kg (37 lbs)

¹⁾ For further information on parallel SIP audio connections, see manual "Intercom Server Configuration".



Line length in LAN

The maximum line length of Cat. 5 cabling in a LAN is 100 m (328 ft) – e.g. from switch to Intercom station.

Extent of supply

- Server
- Rack mounting kit
- VirtuoSIS Starter licence
- 2 cable ties
- Male-to-female extension power cord (1.8 m)
- Short reference

Power cable

For the S6, the power cable with country-specific plug is available separately:

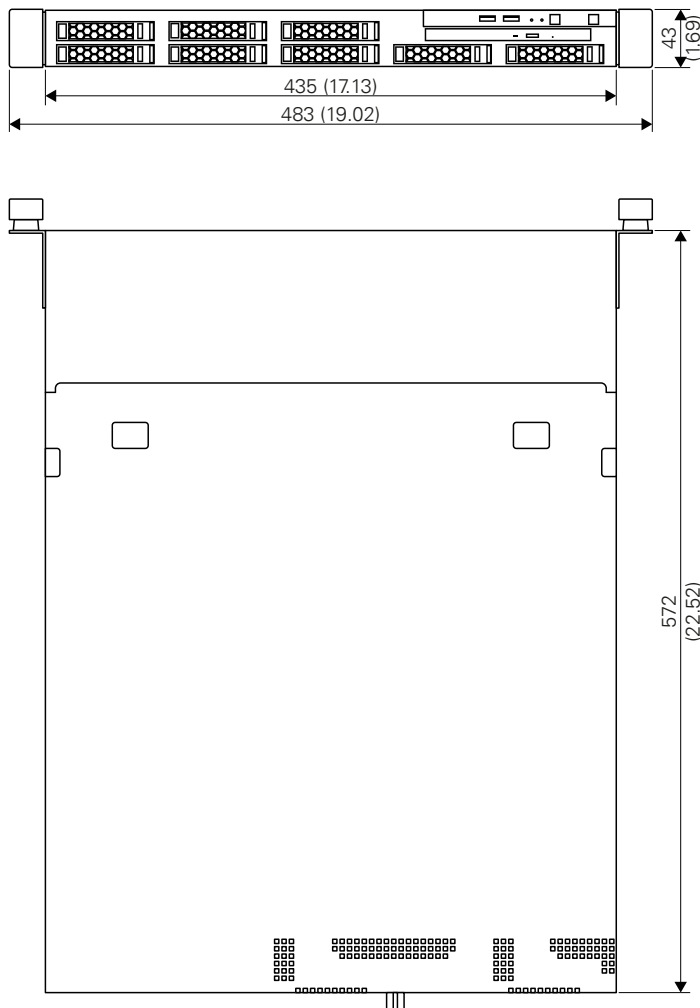
- C-KAB-C13-AU (Australia)
- C-KAB-C13-EU (Europe)
- C-KAB-C13-UK (United Kingdom)
- C-KAB-C13-US (USA)

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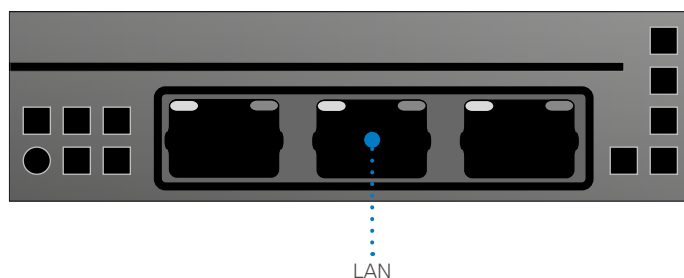
Installation instructions

Dimensions front panel

Measuring units in mm (in), not to scale!



Connection (rear left side)



Mounting instructions

- The server may only be installed by authorised service engineers.
- Do not expose the server to extreme temperatures (see "Technical data" on page TE | 1).
- Observe the country specific standards for installation, mounting and configuration.
- For installation in a rack, use the supplied rack mount kit and follow the mounting instructions in the respective short reference.
- For safety reasons and because of its weight and size, at least two persons are required to install the server in a rack.
- Never lift the server into a rack using the quick release levers on the front panel.
- When connecting and disconnecting cables, observe the relevant instructions in the manual supplied with the corresponding rack.
- When installing the rack, make sure that the anti-tilt mechanism is fitted correctly.
- Do not extend more than one unit out of the rack simultaneously – even if the tilt protection is in place. If several units are simultaneously extended from the rack, there is a risk that the rack could tip over. For further information, see the safety information supplied with the rack.
- For ventilation clearance, at least 200 mm space has to be left from the front and rear of the server.

Start-up



1. Install the S6 in a rack.



2. Power on the S6.



3. Set up VirtuoSIS via VirtuoBRO or PuTTY.



4. Configure VirtuoSIS via CCT 800.

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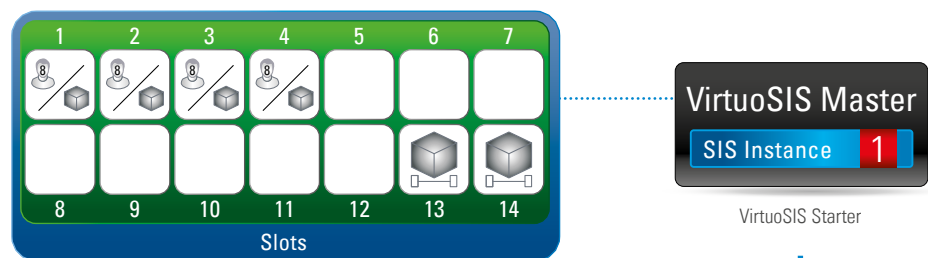
Complementary information

Licensing scheme

In order to offer suitable solutions for small as well as large systems, the Software Intercom Server is available in two expansion levels: VirtuoSIS Starter with one VirtuoSIS Instance and up to 32 IP/SIP subscribers and VirtuoSIS Professional with up to two VirtuoSIS Instances and 224 IP/SIP subscribers.

VirtuoSIS Starter

- for small systems
- upgrade option to VirtuoSIS Professional
- for up to 32 IP/SIP subscribers
- 1 VirtuoSIS Instance
- Slot 1 to 4 usable for subscriber and interface cards
- Slot 13 and 14 usable for interface and networking cards
- Slot 15 reserved for networking cards (NET or LAN)



VirtuoSIS Professional

- for medium-sized systems
- for up to 224 IP/SIP subscribers
- up to 2 VirtuoSIS Instances
- Slot 1 to 14 usable for subscriber and interface cards
- Slot 8 to 14 usable for networking cards
- Slot 15 reserved for networking cards (NET or LAN)

Using the upgrade licence L-SIS32-UPG, VirtuoSIS Starter can be upgraded to VirtuoSIS Professional at any time.



Available licences

Base licence

The S6 comes already with the base licence L-SIS32-PRO7 for VirtuoSIS Starter. This licence can be upgraded to a VirtuoSIS Professional.

IP licences

L-SIS-IP-2B	Licence for 2 subscribers, feature level B
L-SIS-IP-8B	Licence for 8 subscribers, feature level B
L-SIS-IP-32B	Licence for 32 subscribers, feature level B
L-SIS-IP-8C	Licence for 8 subscribers, feature level C
L-SIS-IP-32C	Licence for 32 subscribers, feature level C
L-SIS-IP-2D	Licence for 2 subscribers, feature level D
L-SIS-IP-8D	Licence for 8 subscribers, feature level D

SIP-C licences

L-SIS-SIP-8A	Licence for 8 SIP subscriber, feature level A
L-SIS-SIP-2B	Licence for 2 SIP subscribers, feature level B
L-SIS-SIP-8B	Licence for 8 SIP subscribers, feature level B
L-SIS-SIP-8C	Licence for 8 SIP subscribers, feature level C
L-SIS-SIP-2D	Licence for 2 SIP subscribers, feature level D
L-SIS-SIP-8D	Licence for 8 SIP subscribers, feature level D

Interface licence

L-SIS-ICX	Single licence for ICX interface
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SIP-T licences

L-SIS-SIPT1B	Licence for SIP trunk, 1 channel, feature level B
L-SIS-SIPT8B	Licence for SIP trunk, 8 channels, feature level B
L-SIS-SIPT1D	Licence for SIP trunk, 1 channel, feature level D
L-SIS-SIPT8D	Licence for SIP trunk, 8 channels, feature level D

Network licences

L-SIS-LAN8	Licence for 8 LAN connections
L-SIS-WAN8	Licence for 8 WAN connections

Upgrade licences

L-SIS32-UPG	Upgrade licence from VirtuoSIS Starter to VirtuoSIS Professional
L-UG-1D	Upgrade licence for 1 subscriber from feature level B or C to feature level D (for IoT and SIP subscribers)
L-UG-8B	Upgrade licence for 8 subscribers from feature level A to feature level B (for SIP subscribers only)

Further licences

In addition, various platform independent licences are available (e.g. Intercom Client, Mobile Client, Studio and ComPLC).

Quality tested. Reliable. Smart.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2008**.



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A strong worldwide network

COMMEND is represented all over the world by local Commend Partners and helps to improve security and communication with tailored Intercom solutions.

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