

## Recording system

CSP ecosystem is a telecommunication solutions designed to provide professional users with integrated network and services across heterogeneous technologies and to bring in professional broadband environment the same level of functionalities, services and reliability supplied by narrowband technologies.

The **CSP Recording system (CSP-REC)** is the network element that processes, manages and stores all voice communications of the CSP network. The CSP-REC is based on a client-server architecture based on two main units:

- > Recorder unit.
- > Replay station.

The Recorder Unit is necessary to record communications while the Replay Station allows accessing and playing back the recorded calls. The CSP Recorder Unit is industrial PC server HW based while the Replay Station is commercial PC workstation based.

The CSP communications recorded are stored as media files identified by the information contained in the assigned header:

- > Data and time of the call
- > Call duration
- > Call priority and type
- > Calling party identification
- > Called party identification
- > User identification
- > Call reference.

## MAIN FEATURES

### RECORDER UNIT

The Recorder Unit is based on a reliable and modular architecture providing the following main features:

- > Recording all CSP voice communications (individual and group calls)
- > Recording all SIP Enterprise communications
- > Managing the storage area where communications are securely stored
- > Managing the profiles of Playback operators according to regulate the access to the recorded communications.
- > Recording End-To-End communications.

### REPLAY STATION

The Replay Station provides an operator with the services to access, analyse and playback recorded communications.

- > Listen End-To-End communications from recorder
- > Listen encrypted communications by a dedicated USB key (dongle)
- > Reader smartcard (& card) available
- > Export recording communications on external devices (e.g. hard-drive or USB key).

The CSP-REC offers two different options for network connectivity in order to provide backward compatibility with legacy TDM networks:

- > IP connectivity
- > Conventional TDM connectivity (ITU-T G.703/ITU-T G.704 compliant).

## OPTIONAL FEATURES

- › Real time listening/viewing of ongoing communications may be supported.
- › It is possible to filter the visualization of the recording (e.g. by date, time, priority, type, etc.)
- › Advanced filtering of stored calls
- › Security of data transmission in proprietary format.

## TECHNICAL DATA

### INDUSTRIAL SERVER

Dimensions (HxWxD)	88 mm (2U) x 483 mm (standard 19" rack) x 450 mm [3,46x19,02x17,72 in]
Weight	About 10 kg (fully equipped) [22,05 lb]
Cooling system	Air forced cooling system front to rear
Power input	<ul style="list-style-type: none"> <li>› <u>Single VAC</u>: PS2 ATX12V PSU, 400W, AC input (90-240 VAC), PFC w/metal clip and powercord</li> <li>› <u>Redundant VAC</u>: Industrial redundant PSU 420W ATX w/PFC dual AC input (90-264 VAC)</li> <li>› <u>VDC</u>: PS2 ATX PSU, 400W, input -48VDC (range -36 to -72 VDC)</li> </ul>
Power consumption	Max. 150 W (fully equipped)
SBC Processor Unit	<ul style="list-style-type: none"> <li>› SBC full size over PCI -X - FSB 1333/1066 MHz</li> <li>› Intel Quad Core Xeon, with 2,33 GHz clock each and 12 MB cache</li> <li>› Dual GigaBit Ethernet Intel 82575</li> <li>› 2 x USB 2.0 port</li> </ul>
Backplane	PICMG 1.3 passive backplane 4 slot x PCI-X 64bit@100MHz (6.4Gbit)
RS 232	2x serial port RS-232
LAN4 GigaBitEth	Intel QUAD LAN 10/100/1000BASE-T

### ENVIRONMENTAL CONDITIONS

Storage	Compliant to ETSI ETS 300 019-1-1 class 1.2 standard
Operation	Compliant to ETSI ETS 300 019-1-3 class 3.1 standard (+5° to +40°C) [41°F to 104°F], (5% to 85% relative humidity)
Protection degree	IP 20
EC marking	CSP is compliant to the essential requirements of the directives 2014/30/EU, 2014/35/EU and 2011/65/EU
EMC	Compliant to CENELEC EN 55022 and CENELEC EN 55024 standard Emission limits class A.
Safety	Compliant to CENELEC EN 60950-1 standard.

### PERFORMANCE

Recording time	<ul style="list-style-type: none"> <li>› Up to 100,000 recorded hours (TETRA codec)</li> <li>› Up to 12,000 recorded hours (G.711 codec)</li> </ul>
Speech calls	Over 240 simultaneous
Replay stations	Up to 20 supported

### REPLAY STATION

Operating System	Genuine Windows® 10 64-bits
CPU & RAM	Intel Xeon - 4GB
Hard drive	One HD 500GB (minimum)
Networking	LAN server adapter PCI - 10/100/1000 Mbit/s dual (redundant)
Storage controller	SATA and PCI
Graphics controller	1GB DDR3 (video resolution 1280x1024)
Audio output	Stereo high definition, 24 bit conversion
I/O (input/output) ports	<ul style="list-style-type: none"> <li>› 1 x USB 2.0</li> <li>› 1 x RS-232 serial</li> <li>› 1 x LAN</li> <li>› 1 x VGA</li> </ul>
Optical drive	1 x 8x DVD +/-RW
Mouse	Optical
Power consumption	About 160 watt maximum (fully equipped)
Power supply	100-240 VAC, 47/63Hz

### ENVIRONMENTAL CONDITIONS

Storage	Compliant to ETSI ETS 300 019-1-1 class 1.2 standard
Operation	Compliant to ETSI ETS 300 019-1-3 class 3.1 standard (+5° to +40°C) [41°F to 104°F]
EMC	PC workstation shall be compliant to the standard EN 300 386. This standard concerns both emissions and immunity requirements. Emissions limits shall be those of the standard EN 55022 class A
Safety	Shall be compliant to the standard CENELEC EN 60950-1
CE marked	Shall be compliant to the essential requirements of the directive 2004/108/EC and then it is CE marked



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