



CSP-CM COMMUNICATION MANAGER

PERSEUS CSP 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 **Communication Manager (CSP-CM)** provides unified and integrated Professional and Emergency communication services to its subscribers independently from the access network technology adopted (e.g. enterprise VoIP phones, TETRA handheld terminals, LTE user equipment, Wi-Fi devices, military radio terminals, etc.).

The CSP-CM implements the call manager functionality to establish speech and data calls by processing PTT Supplementary Services (TETRA services) over IP protocols

MAIN FEATURES

The CSP-CM provides the following main features:

- Individual Half and Full-Duplex speech calls
- Group speech call
- PTT handling
- PTT priority handling
- Short Data Service (SDS)
 - Individual SDS
 - Group SDS
- Priority call
- Emergency call (only for busy user)
- Dynamic Group Number Assignment (DGNA)
- Pre-emptive call
- Talking Party Identification (TPI)
- Calling Line ID Presentation (CLIP)
- Virtual Private Network (VPN)
- Call forward (unconditional)
- Call forward (no-reply, no-reachable, busy)
- Call barring.

CSP-CM

Multimedia features

- Point-to-point video calls
- Group real-time video streaming
- Simultaneous group real-time video streaming and voice on the same group calls (planned on roadmap)

Enterprise features

- Enterprise PABX functions (e.g. call tacking capabilities for control rooms).

Subscribers database management

The CSP-CM manages a subscriber database inside the CSP Service Management Node (CSP-SMN).

Resilience

Resilient architecture can be achieved by duplicating the CSP-CM in active/stand-by configuration, with automatic change-over to the backup CSP-CM in case of unavailability of the main CSP-CM.

Physical structure

The CSP platform is a SW-based architecture that can be delivered on COTS HW. Typically, the CSP platform is deployed on a HW adaptable to 19" standard cabinets and 2U rack-mountable able to host different SW configurations and Linux OS.

FUNCTIONALITIES

- Call Control (CC)
- Short Data Message
- Group management
- Resource management (TETRA)
- User authentication
- Media GW
 - Voice multicast routing
 - Voice codec GW
 - Video & voice IP matrix.

Transport and Transport control functions

- L3 IP Quality of Service (QoS)
- L3 IP Routing
- GRE Protocol Support
- Configuration Planning tools:
 - SW download
 - Plug & Play installation & configuration.

TECHNICAL DATA

The technical data listed are refer to a typical CSP-CM server HW configuration.

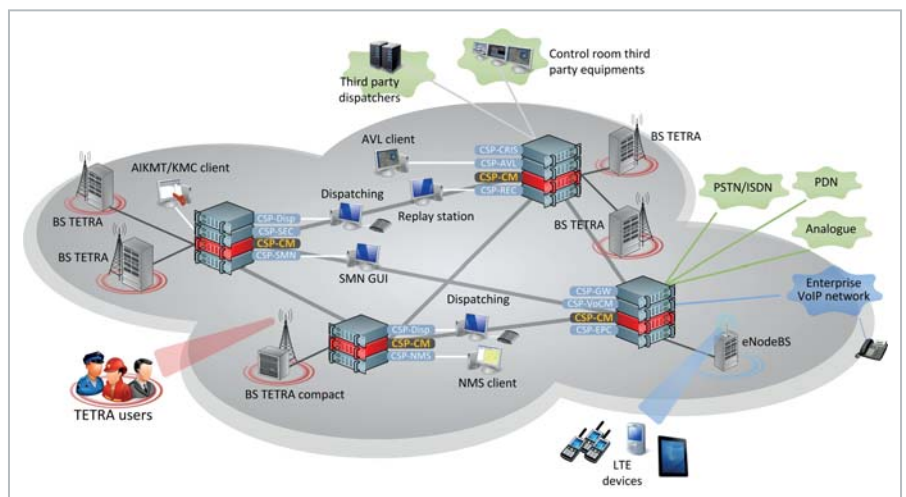
GENERAL

Dimensions (HxWxD)	88 mm (2U) x 483 mm (standard 19" rack) x 450 mm
Weight	About 10 kg (fully equipped)
Protection degree	IP 20
Cooling system	Air forced cooling system front to rear
Power supply	90-264 VAC, 50-60 Hz
Power consumption	Max. 150 W (fully equipped)
SBC Processor Unit	SBC full size over PCI-X - FSB 1333/1066 MHz Intel Quad Core Xeon, with 2,33 GHz clock each and 12 MB cache Dual GigaBit Ethernet Intel 82575 2 x USB 2.0 port
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
Transportation	Compliant to ETSI ETS 300 019-1-2 class 2.2 standard
Operation	Compliant to ETSI ETS 300 019-1-3 class 3.1 (+5° to +40°C) standard
EMC	Compliant to EN 300 386 standard (this standard concerns both emissions and immunity requirements) Emissions limits compliant to EN 55022 class A standard.
Safety	Compliant to CENELEC EN 60950-1 standard

NOTE: expansion cards are available for optional network connectivity



Typical TETRA network
CSP based