

- Virtual PBX
- Call-center functionality
- Full active-active redundancy
- Scalability
- Intuitive management interface
- Hot software update



### ECSS- 10 Softswitch

ECSS-10 is a software solution that is designed for construction of integrated infocomm networks based on packet technology. The software and hardware components of ECSS-10 were developed and manufactured by Eltex and have a high level of reliability.

### Application

4/5 level Softswitch ECSS-10 is a universal system for communication nodes construction on different levels:

- Enterprise networks
- Carrier level (local, zone, transit, intercity, international)

### Scalability

The module architecture of ECSS-10 provides flexible scalability and allows using the solution in small corporate communication nodes as well as in international transit stations.

### Key features

- Flexible modular architecture
- Scalability
- Local redundancy
- Can be used as SaaS platform
- Support for different types of Value Added Services
- Virtual PBX
- Support for Session border controller functions
- Management of geographically remote gateways for traffic routing optimization
- Full package of certificates
- Hot software update

### Fault tolerance

The cluster architecture of ECSS-10 Softswitch allows achieving 99.9999 % of reliability. The redundancy scheme provides active-active reservation of a call at any stage of its processing in case of a failure of any hardware component of the system.

### Virtual PBX

The scalable platform, ECSS-10, allows performing cloud service for call processing, that can replace a full function set of a hardware PBX. A corporate client might quickly combine remote offices in a unified VoIP network with required service set and short phone numbers. Multicast numbers, interactive voice menu, conference calls, mobile client service and call records are available from the cloud without installation and maintenance of a hardware PBX.

### Mobile VoIP

Due to the use of SBC-2000 session border controller, mobile VoIP service can be used anywhere in the world via the Internet. For accessing this service, you need to install SIP-client on a mobile device and activate an account. Mobile IP-telephony provides telecommunication services to a remote subscriber and helps to optimize roaming costs.

### Monitoring and management

A unified monitoring and control interface implemented via Eltex.EMS system provides customer with easy-to-use management tools: network elements aggregation, centralized configuration and firmware version management, scheduled maintenance, main parameters monitoring in a single window.

## Features and capabilities

### Supported protocols

- SIP 2.0 (RFC 3261)
- SIP-T/SIP-I
- H.248/Megaco
- T.38
- SNMP
- RADIUS AAA

### Protocols supported via gateways

- Signaling system №7
- R1.5, R2
- EDSS-1/Q.931
- V5.1, V5.2
- 2BCK

### Supported audio codecs

- G.729A/B
- G.711A/U
- G.726
- G.723.1 (5.3, 6.3 kbps)
- G.722
- GSM FR
- iLBC
- Speex
- L16
- AMR

### Supported video codecs

- H.263-1998
- H.264

### Telephone routing

- Routing by mask
- The route selection based on the parameters:
  - Caller number (CgPN)
  - Caller category (CPC)
  - Called number (CdPN)
  - Subscriber group ID
  - Nature of address (NOA)
  - Numbering Plan (NP)
  - Calling Party Address Presentation Restricted Indicator (Calling Party APRI)
  - Day of the week
  - Time of day
  - Gateway load levels/directions
  - By a tag
- Numbers modification
- Flexible management of calls processing by a graphical scenario
- Call-center organization, flexible routing among queues

### Rating

- RADIUS Accounting
- CDR files

### Management

The main functions that provide efficient management and access rights delimitation:

- MML console (SSH/Telnet)
- Web 2.0 interface (https)
- Subscriber card for VAS management
- Customizing WEB-interface of a Virtual PBX

### Back up

- Support for hardware redundancy (Active-active reservation)
- Support for software modules backup
- Support for geographical redundancy

### Call-center

- An operator can work with a phone only
- Lightweight Web workstation with the wide function set for an operator
- Supervisor functions in specialized automated workstation
- Call-center settings management via application for an admin
- A wide range of call distribution algorithms
- Flexible prediction of queuing time
- Statistics on a call-center
- Priorities and queues for routed calls
- Queue hierarchy

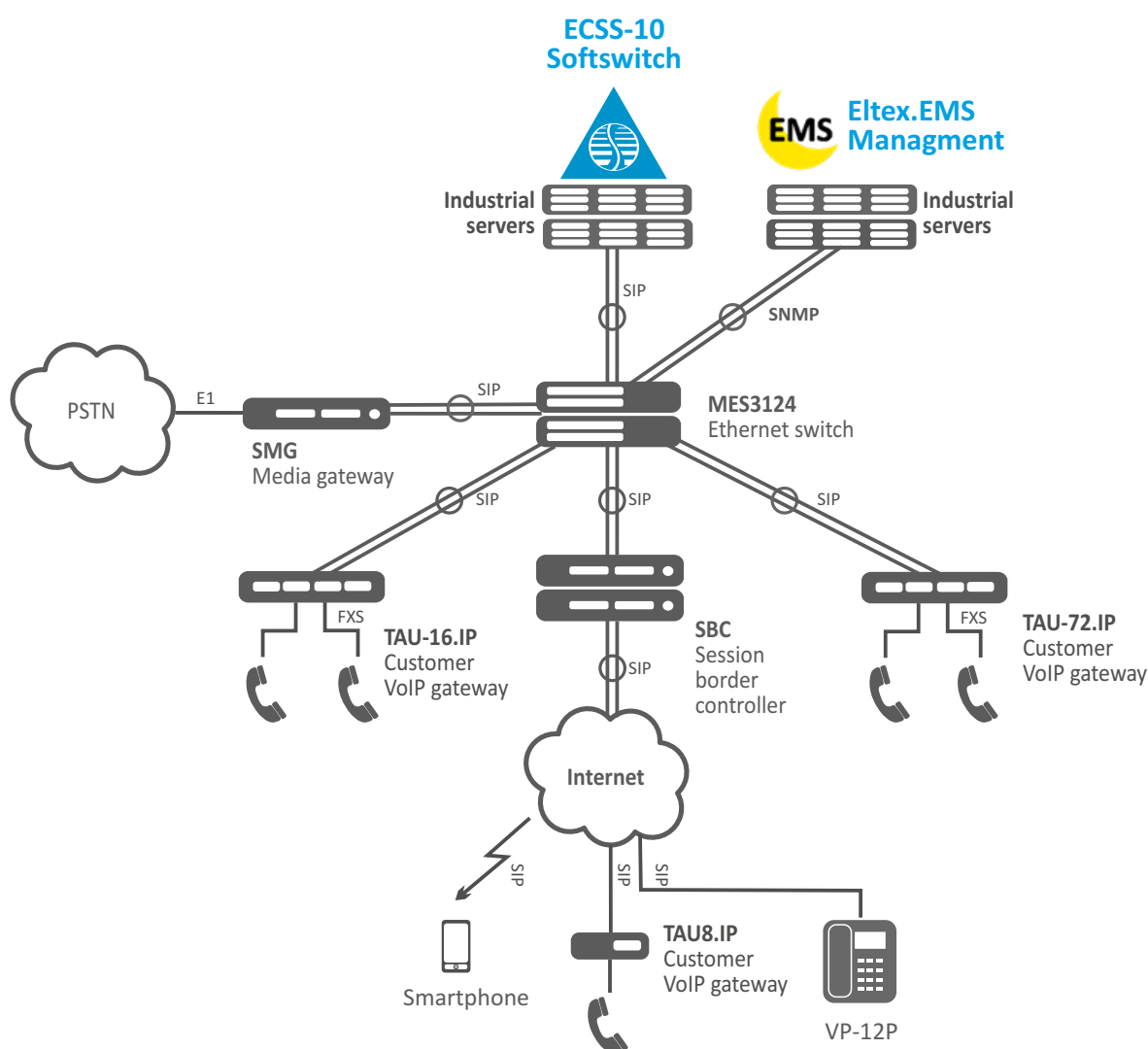
### Value Added Services (VAS)

- Calling Line Identification Presentation (CLIP)
- Calling Line Identification Restriction (CLIR)
- Calling Line Identification Restriction Override (CLIRO)
- Calling Name Identification Presentation (CNIP)
- Custom Ring Back
- Personal notification/intercom (Voice Page)
- Group notification (Zone Page)
- Intervention
- Find Me (Unconditional forwarding to a group of numbers)
- Find Me No Response (Forwarding on No Response to a group of numbers)
- Call record activation by a feature code
- Presence indicator (SIP presence and Busy Lamp Field)
- Search for the first available line in the list (Call Hunt)
- Anonymous call barring (ACB)
- Call Waiting service (CWAIT)
- Voice mail indication (MWI)
- Call forwarding (CFU, CFB, CFNR, CFOS, CFT)
- Call hold (CHOLD)
- Black and white lists
- Call transfer (CTR)
- Missed call notification
- VAS management via a phone
- Interactive voice menu (IVR)
- Call recording
- Fax-to-Email
- Auto Attendant
- Conference
- Selector connection
- Call Pickup
- Voice Mail
- Speed dial
- Follow Me
- Follow Me No Response
- Call Back
- Auto Redial
- Redial
- Do Not Disturb (DND)
- Alarm
- Call queuing service
- Malicious call Identification (MCID)
- 3-Way Conference
- My number
- Outgoing calls restriction (RBP)
- Group call (CGG)
- Direct call
- Forwarded call rejection (RFC)
- Call Park
- Conference call, Add-on

### Additional functions

- SIP Registrar
- Authentication via LDAP and/or Radius
- Session border controller functionality
- Switching of calls that have non-intersecting codec packs
- Hot-swappable software while operation
- Reconfiguration - the opportunity to increase performance and functionality
- Integration with Microsoft Active Directory
- Text message transmission
- Black and white lists per trunks
- CPS limiting per trunks
- Load limiting per trunks
- Support for media servers distributed on a network

## VoIP node design scheme



### ECSS-10 is a complete solution for integrated infocomm networks construction

All the software and hardware components (SBC, Ethernet switches, digital gateways, customer gateways) were designed and manufactured by Eltex:

- **ECSS-10 Softswitch** – a software complex
- **Eltex.EMS** – a centralized management system
- **Industrial servers** – the servers are selected by performance requirements and can be manufactured by different companies;
- **MES3124** – a carrier level Ethernet switch with stacking support and high capacity
- **SMG** – is a digital gateway (SMG-1016M or SMG-2016M) for interfacing the PSTN signalling and (E1) media streams and VoIP networks.
- **SBC** - a Session Border Controller (SBC-1000 or SBC-2000) which designed to hide the internal VoIP network topology as well as protection against external threats.

## Ordering information

Name	Description
<b>Customer license</b>	
<b>ECSS-SL-100</b>	ECSS-SL-100 for ECSS-10 Softswitch Class 5 software for 100 active SIP/H.248 subscribers
<b>ECSS-SRL-100</b>	ECSS-RSL-100 for ECSS-10 Softswitch Class 5 for redundancy of 100 SIP/H.248 subscribers
<b>License for simultaneous connection</b>	
<b>ECSS-CL-10</b>	ECSS-CL-10 for ECSS-10 Softswitch Class 4 software for 10 simultaneous connections
<b>ECSS-RCL-10</b>	ECSS-RCL-10 for ECSS-10 Softswitch Class 4 for active-active redundancy of 10 simultaneous connections on an additional host
<b>Selector connecton</b>	
<b>ICM-SL-10</b>	ICM-SL-10 for ECSS-10 Softswitch software for 10 participants who can be connected to a selector conference simultaneously
<b>ICM-SRL-10</b>	ICM-SL-10 for ECSS-10 Softswitch for redundancy of 10 participants who can be connected to a selector conference simultaneously
<b>Call-center</b>	
<b>CC-OL-5</b>	ECSS-SL-100 license extension: CC-OL-5 license for ECSS-10 Softswitch software for 5 active call-center operators without supervisor feature
<b>CC-ROL-5</b>	ECSS-SL-100 license extension: CC-ROL-5 license for ECSS-10 Softswitch software for redundancy of 5 active call-center operators without supervisor feature
<b>CC-SL-1</b>	ECSS-SL-100 license extension: CC-SL-1 license for ECSS-10 Softswitch software for 1 active call-center operator with supervisor function
<b>CC-RSL-1</b>	ECSS-SL-100 license extension: CC-RSL-1 license for ECSS-10 Softswitch software for redundancy of 1 active call-center operator with supervisor function
<b>Base servers*/EMS</b>	
<b>SRV-LIGHT</b>	LIGHT series server
<b>SRV-MIDI</b>	MIDI series server
<b>SRV-HEAVY</b>	HEAVY series server
<b>SRV-CORE</b>	CORE series server

\* There is an opportunity to order the system based on a Russian developed hardware complex by MCST Elbrus

## Contact us

## About Eltex



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**Eltex** company is a leading Russian developer and manufacturer of telecommunication equipment with 25 years of history. Integrity of solutions and seamless integration capability into Customer infrastructure is a priority area of company development.