ELTEX
Integrated Networking Solutions

- **Monitoring of the main devices characteristics**
- **Online display of the device failures in text and graphic forms**
- **Grouping line terminals into nodes with a capability to display all failures of a selected node**
- **Automatic search for Eltex devices in network**

Eltex.EMS

Eltex.EMS is a centralized management system of the network equipment which is manufactured by Eltex.

Eltex.EMS system is based on the client-server architecture. The single access server provides a web interface allowing independent and simultaneous control over different network elements.

Management automation subsystem (Northbound Interface)

Management automation subsystem (Northbound Interface) is designed to provide EMS system integration with superior OSS/BSS of a provider. Especially, it allows integrating with an operator billing system by standardized open protocols, which allows automating such routine operation as mass disconnection of subscriber ports with unpaid service, following connection of service in accordance with payment and changing device configuration.

System installation

Support is provided for Ubuntu Server 20.04 LTS / 22.04 LTS, Astra Linux Special Edition 1.7.5 (Voronezh, Orel), 1.7.1 (Voronezh), RedOS 7.3.1 (Murom). Eltex maintains its own public repositories, allowing quick and easy installation of the system for demonstration and operation on customer's servers.

Supported Eltex devices[1]

PON	Ethernet switches	VoIP	Wi-Fi	Transport	Routers	Servers	Power supply devices	DSLAM devices
LTP-4X	MES1024	SSW ECSS-10	WOP-12ac	ToPGATE-1E1-1FG	ESR-10	Eltex.ACS	UEP2-3	MXA-24
LTP-8X	MES1124x	MSR	WOP-12ac-LR	ToPGATE-2E1-1F	ESR-12V		UEP2-5	MXA-32
LTP-8N	MES2124x	SMG-2	WOP-2ac	ToPGATE-4E1-2FG	ESR-15		UEP3-3	MXA-64
LTP-16N	MES2208P	SMG-4	WOP-2ac-LR2	ToPGATE-8E1-2FG	ESR-15R		UEP4-1	
LTX-8	MES2308x	SMG-200	WOP-2ac-LR5	ToPGATE-16E1-2FG	ESR-20			
LTX-8C	MES2324x	SMG-500	WOP-2L	ToPGATE-24E1-2FG	ESR-30			
LTX-16	MES2348x	SMG-1016	WOP-20L	ToPGATE-2STM1-2FG	ESR-100			
LTE-2X	MES2300x-xx	SMG-1016M	WOP-3ax	SHDSL modem MXL2E	ESR-200			
LTE-8X	MES2408x	SMG-2016	WOP-30L		ESR-1000			
LTE-8ST	MES2411X	SMG-3016	WOP-30LS		ESR-1200			
MA4000-PX	MES2424x	SBC-1000	WEP-2ac		ESR-1500			
	MES2428x	SBC-2000	WEP-2ac Smart		ESR-1700			
	MES2448x	SBC-3000	WEP-2ac-Z		ESR-3100			
	MES3108x	TAU-16.IP	WEP-12ac		ESR-3200			
	MES3116x	TAU-24.IP	WEP-3ax					
	MES3124x	TAU-32M.IP	WEP-1L					
	MES3324x	TAU-36.IP	WEP-2L					
	MES3348x	TAU-72.IP	WEP-3L					
	MES3300-xx	MSAN	WEP-20L					
	MES3400x-xx	MC1000-PX	WEP-20L-Z					
	MES3508P		WEP-30L					
	MES3510P		WEP-30L-Z					
	MES3500I-xx		WEP-30L-NB					
	MES3710P		WEP-200L					
	MES5148		WLC-15					
	MES5248		WLC-30					
	MES5305-48		WLC-3200					
	MES5310-48							
	MES5312							
	MES53xxA							
	MES5300-xx							
	MES5410-48							
	MES5448							
	MES5400-xx							
	MES5500-32							
	MES7048							

[1] *The list of supported devices can be changed. For more information, contact Eltex Sales Department.*

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Features and capabilities

Key system capabilities
– System redundancy
– Monitoring of the main device parameters: operation time, temperature, CPU loading, work of coolers, firmware version, serial number
– Statistics monitoring by physical and logical interfaces
– Tracking temperature of terminals, drawing graphs and sending email notifications
– Group operations with devices
– Visualisation of device external view with the current status of ports and sensors displayed
– Subscriber profile management for all device types
– Power supply monitoring
– Automatic update of device firmware
– Automation of configuration files processing
– System for collecting and storing the alert messages received via SNMP
– Quick system launch for main configuration tools: SSH, TELNET, Web
– Centralized collection of device messages via Syslog with a possibility to filter and display them in text format
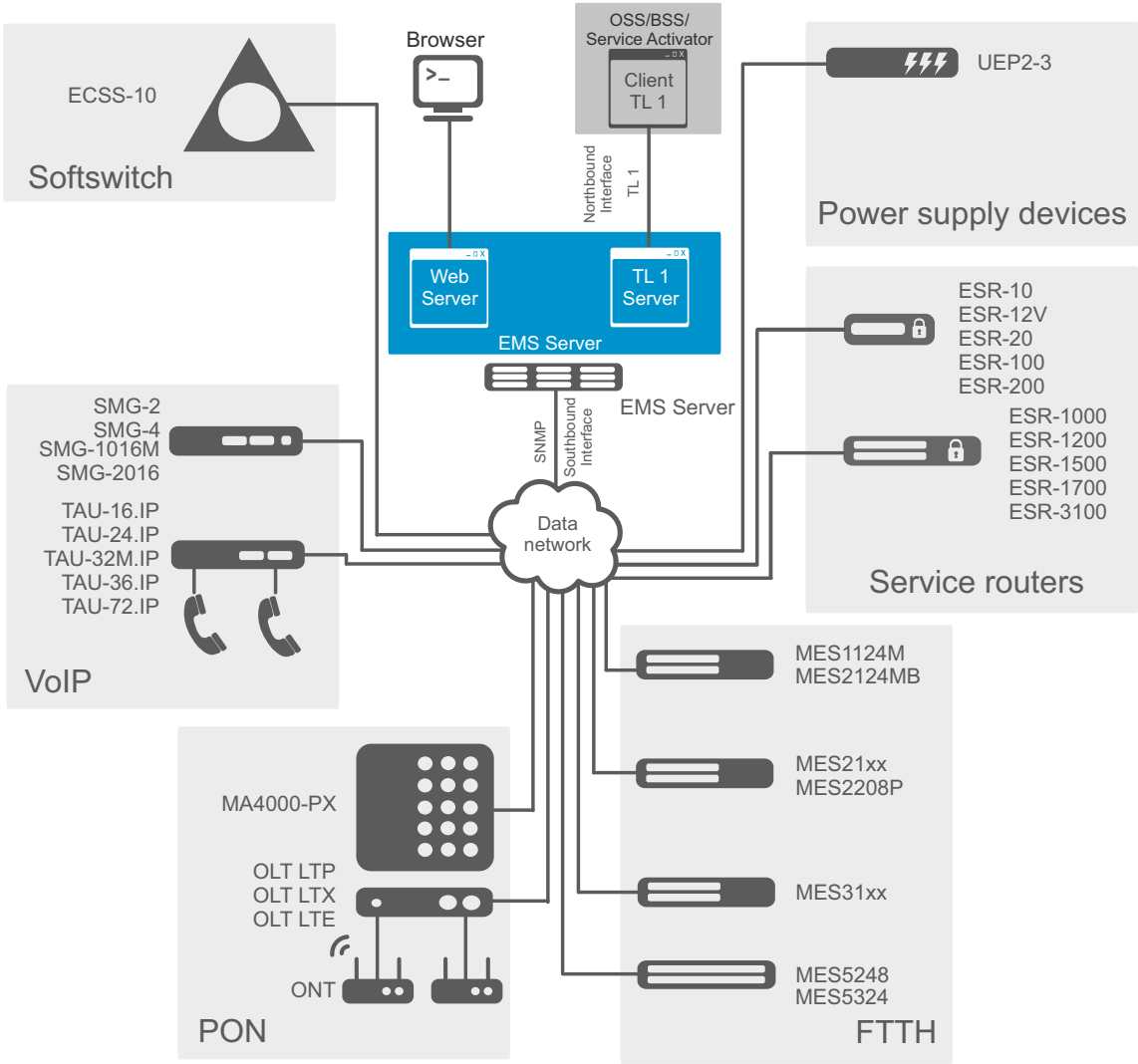– Subscriber port control: DSLAM, PON and VoIP configurations, profile assignment

Optional system capabilities for PON equipment
– Optical interfaces parameters: module type, optical power and level of a received signal, measured distance
– SFP module control
– Information on the number of PON active subscribers
– Status monitoring and Internet, VoIP, IPTV statistics gathering for GPON subscribers
– System of quick subscriber terminals search in optical trees among Eltex linear terminals
– Statistics on PON subscribers activity
– Management of the system for mass firmware autoupdate of subscriber PON devices
– Capability to monitor damaged ONT for frequent connection or RSSI parameter overrunning
– Information on installed PPPoE sessions

Optional system capabilities for VoIP equipment
– TAU devices ports testing
– Configuration of TAU devices ports, profiles, dialplans, serial groups and firewalls
– Receiving and displaying of alert messages from Softswitch ECSS-10

Use case

Diagram elements:
- ECSS-10 — Softswitch
- Browser
- OSS/BSS/Service Activator — Client TL 1
- UEP2-3 — Power supply devices
- Northbound Interface TL 1
- Web Server, TL 1 Server — EMS Server
- SNMP Southbound Interface
- Data network
- EMS Server
- SMG-2, SMG-4, SMG-1016M, SMG-2016
- TAU-16.IP, TAU-24.IP, TAU-32M.IP, TAU-36.IP, TAU-72.IP — VoIP
- ESR-10, ESR-12V, ESR-20, ESR-100, ESR-200
- ESR-1000, ESR-1200, ESR-1500, ESR-1700, ESR-3100 — Service routers
- MA4000-PX, OLT LTP, OLT LTX, OLT LTE, ONT — PON
- MES1124M, MES2124MB
- MES21xx, MES2208P
- MES31xx
- MES5248, MES5324 — FTTH

Eltex.EMS structure

Name	Description
EMS server	System for receiving, processing, interpreting, distributing and managing data
Data base	Storage built on the MariaDB DBMS. The database stores a list of network objects and individual access settings for each device (SNMP parameters). The database is also used to store user accounts, messages from devices, etc.
Java applet	Software for requesting, processing, and displaying information, the main control element (located in the operator's workstation)
TL1 module	Subsystem allows a service activator from the provider's OSS/BSS to connect via the TL1 protocol and directly manage PON subscriber devices

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About Eltex
Eltex Enterprise is a leading Russian developer and manufacturer of communication equipment with 30 years of history. Complete solutions and their seamless integrability into the Customer's infrastructure are the priority growth areas of the company.