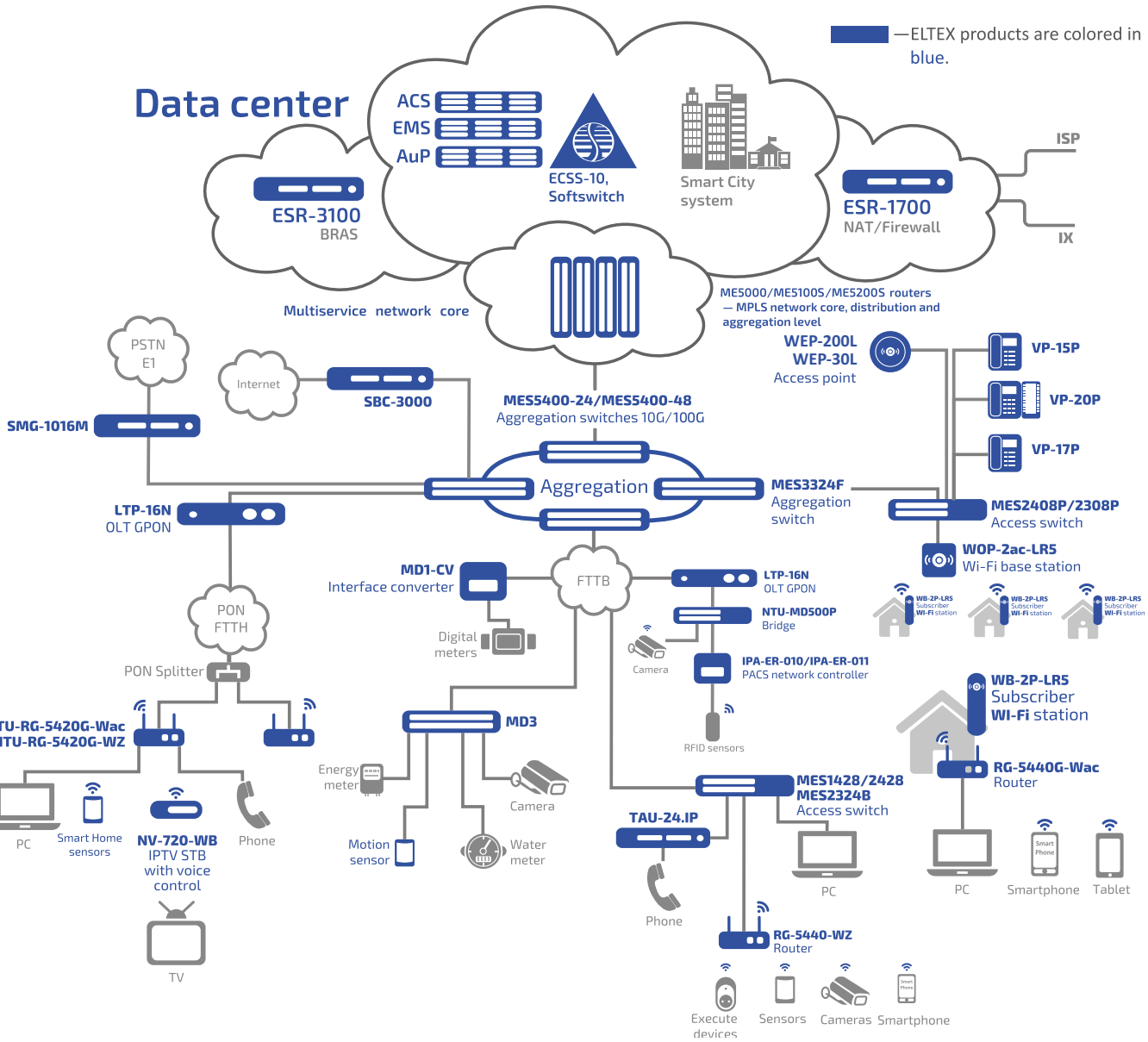
Catalog 2023

Russian designer and manufacturer of communication equipment

Eltex products

ELTEX manufactures a wide range of products for comprehensive projects



Quick delivery

Quick delivery of the equipment

Technical support

Twenty-four-hour technical support

Training

Opportunity for both off-site training and training at the ELTEX training center

Customization

Rapid/custom development of various services for the equipment

Testing

Opportunity to assess the equipment functionality and capacity specially for your business

About company

- **More than 30 years** of experience in designing and manufacturing telecommunication equipment
- **More than 1000** employees
- **14** software development laboratories
- **2** industrial complexes in Novosibirsk (Russia) and Almaty (Kazakhstan)
- **More than 100** partner companies in Russia, CIS, Europe, Asia and the Middle East
- **More than 1500** client companies

1 Development

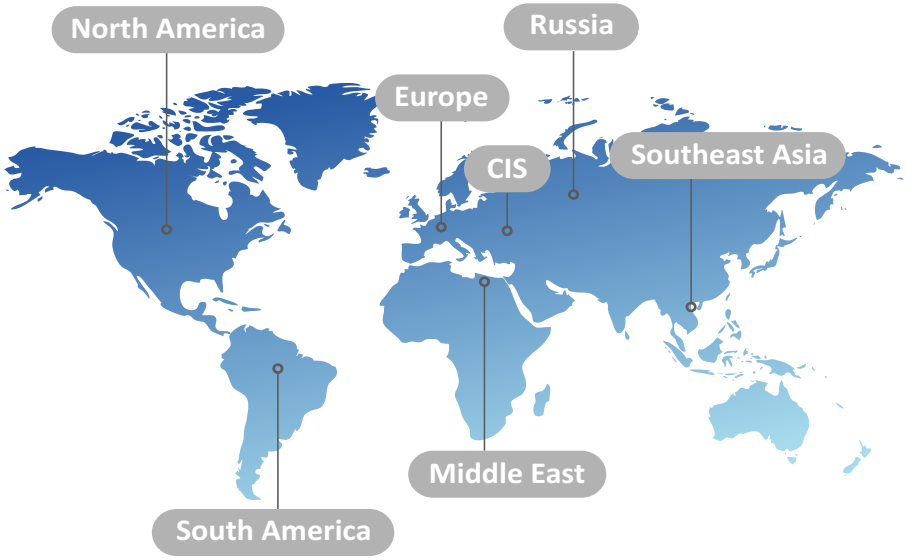
- Hardware
- Software

2 Manufacture

- Surface-mount technology
- Through-hole technology
- Assembling
- Software installation
- Testing of serial production equipment

3 Maintenance

- Technical support
- Service center
- Software updating
- Repair



- 8M PON OLT ports
- 3M Ethernet ports
- 6M VoIP ports
- 1.5M IPTV set-top boxes
- 1M TDM ports

Rostelecom SAT-TRAKT TELECOMMUNICATIONS m:tel GAZPROM BEYONDEDGE
SBER BANK ORION telekom iDtech SMART CONNECTIONS VimpelCom

GPON OPTICAL LINE TERMINALS (OLT)

	 LTP-4X	 LTP-8X	 LTP-16N	 MA-4000PX	 LTX-8 Under development	 LTX-16 Under development
Form factor	19”, 1U eurorack	19”, 1U eurorack	19”, 1U eurorack	19”, 9U eurorack, modular	19”, 1U eurorack	19”, 1U eurorack
Crate contents				up to 16 PLC8 modules up to 2 PP4X modules		
Performance	128 Gbps	128 Gbps	120 Gbps	680 Gbps	120 Gbps	120 Gbps
Data rate	4x2.5/1.25 Gbps GPON (SFP)	8x2.5/1.25 Gbps GPON (SFP)	16x2.5/1.25 Gbps GPON	up to 128x2.5/1.25 Gbps GPON	8x10/10 Gbps XGS-PON	16x10/10 Gbps XGS-PON
Number of PON ports	4x2.5/1.25 Gbps GPON (SFP)	8x2.5/1.25 Gbps GPON (SFP)	16x2.5/1.25 Gbps GPON	up 128x2.5/1.25 Gbps GPON	8x10/10 Gbps XGS-PON	16x10/10 Gbps XGS-PON
Number of Uplink ports	2x10GBASE-X (SFP+)/1000BASE-X (SFP) 4x10/100/1000BASE-T /1000BASE-X (SFP) (combo ports)	2x10GBASE-X (SFP+)/1000BASE-X (SFP) 4x10/100/1000BASE-T /1000BASE-X (SFP) (combo ports) 4x10/100/1000BASE-T	8x10GBASE-X (SFP+)/1000Base-X (SFP)	До 8x10GBASE-X (SFP+)/1000BASE-T/ 1000BASE-X (SFP) up to 4x10/100/1000 BASE-T/1000BASE-X (SFP) (combo ports)	4x100GBASE-SR-4/LR4 (QSFP28)	4x100GBASE-SR-4/LR4 (QSFP28)
Maximum number of ONTs	512	1024	2048	8192	1024	2048

GPON SUBSCRIBER DEVICES (ONT)

	WAN	LAN	FXS	RF	Wi-Fi	USB	PoE
NTU-1 rev.C	1xGPON	1x1 Gbps					●
NTU-1C	1xGPON	1x1 Gbps		1			
NTU-52V	1xGPON	1x100 Mbps + 1x1 Gbps	1			1xUSB 2.0	
NTU-52VC	1xGPON	1x100 Mbps + 1x1 Gbps	1	1		1xUSB 2.0	
NTU-52W	1xGPON	1x100 Mbps + 1x1 Gbps			IEEE 802.11n, MIMO 2x2, 2.4 GHz		
NTU-RG-1421G-Wac on request	1xGPON	4x1 Gbps	1		IEEE 802.11ac, MIMO 3x3, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	2xUSB 2.0	
NTU-RG-1421G-WZ* on request	1xGPON	4x1 Gbps	1		IEEE 802.11ac, MIMO 3x3, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	2xUSB 2.0	
NTU-RG-5402G-W	1xGPON	4x1 Gbps	2		IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5420G-Wac	1xGPON	4x1 Gbps			IEEE 802.11ac, MIMO 2x2, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5420G-WZ* on request	1xGPON	4x1 Gbps			IEEE 802.11ac, MIMO 2x2, 5 GHz+ IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5421G-Wac rev.B	1xGPON	4x1 Gbps	1		IEEE 802.11ac, MIMO 2x2, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5421GC-Wac	1xGPON	4x1 Gbps	1	1	IEEE 802.11ac, MIMO 2x2, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5421G-WZ* rev.B on request	1xGPON	4x1 Gbps	1		IEEE 802.11ac, MIMO 2x2, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5440G-Wac	1xGPON	4x1 Gbps			IEEE 802.11ac, MIMO 4x4, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-RG-5440G-WZ*	1xGPON	4x1 Gbps			IEEE 802.11ac, MIMO 4x4, 5 GHz + IEEE 802.11n, MIMO 2x2, 2.4 GHz	1xUSB 2.0	
NTU-MD500P	1xGPON	4x1 Gbps PoE+					●
NTU-SFP-200	1xGPON SC/APC	1x1 Gbps SFP					
NTX-1 under development	1xXGS-PON	1x10 Gbps					
NTX-1F under development	1xXGS-PON	1x10 Gbps SFP+					

*Embedded hub for Smart Home solution

Ethernet switches

A wide model range of managed Gigabit switches

Ethernet switches are a major part of the product range. Such devices are used by variety of companies, from small private companies to large plants, holding groups and corporations.

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	Battery connection possibility
Fast Ethernet						
MES1124M	24x100M Eth	4x1G Combo	12.8 Gbps	up to 3 devices	220 V AC / 48 V DC	
MES1124MB	24x100M Eth	4x1G Combo	12.8 Gbps	up to 3 devices	220 V AC / 12 V DC	●
MES1428	24x100M Eth	4x1G Combo	12.8 Gbps		220 V AC / 48 V DC	
Gigabit Ethernet						
MES2308R	8x1G Eth	2x1G Combo	20 Gbps	up to 8 devices	220 V AC	
MES2324	24x1G Eth	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 48 V DC	
MES2324B	24x1G Eth	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 12 V DC	●
MES2348B	48x1G Eth	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 12 V DC	●
MES2408	8x1G Eth	2x1G SFP	20 Gbps		220 V AC / 48 V DC	
MES2408B	8x1G Eth	2x1G SFP	20 Gbps		220 V AC / 12 V DC	●
MES2408C	8x1G Eth	2x1G Combo	20 Gbps		220 V AC	
MES2428	24x1G Eth	4x1G Combo	56 Gbps		220 V AC / 48 V DC	
MES2428B	24x1G Eth	4x1G Combo	56 Gbps		220 V AC / 12 V DC	●
MES2424	24x1G Eth	4x10G SFP+	128 Gbps		220 V AC / 48 V DC	
MES2424B	24x1G Eth	4x10G SFP+	128 Gbps		220 V AC / 12 V DC	●
MES2448B	48x1G Eth	4x10G SFP+	176 Gbps		220 V AC / 12 V DC	●
MES2300-24 under development	24x1G Eth	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC	
MES2300B-24 under development	24x1G Eth	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 12 V DC	●
MES2300B-48 under development	48x1G Eth	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 12 V DC	●
MES2420B-24D under development	24x2,5G Eth	4x10G SFP+	200 Gbps		220 V AC / 12 V DC	●

Ethernet switches

Gigabit Ethernet Fiber

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget
MES2324F DC	20x1G SFP, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	48 V DC	
MES2324FB	20x1G SFP, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 12 V DC	●
MES2424FB under development	24x1G SFP	4x10G SFP+	128 Gbps		220 V AC / 12 V DC	●
MES2300B-24F under development	20x1G SFP, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 12 V DC	●
MES2300-24F DC under development	20x1G SFP, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	48 V DC	
MES2411X	8x1G Eth	11x10G SFP+	236 Gbps		220 V AC	

PoE

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget
MES2308P	8x1G PoE/PoE+	2x1G Eth, 2x1G SFP	24 Gbps	up to 8 devices	220 V AC / 48 V DC	240 W
MES2324P	24x1G PoE/PoE+	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 48 V DC	380 W
MES2348P	48x1G PoE/PoE+	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 48 V DC**	1450 W
MES2408PL	8x1G PoE/PoE+	2x1G SFP	20 Gbps		220 V AC	65 W
MES2408P	8x1G PoE/PoE+	2x1G SFP	20 Gbps		220 V AC / 48 V DC	240 W
MES2408CP	8x1G PoE/PoE+	2x1G Combo	20 Gbps		220 V AC	120 W
MES2428P	24x1G PoE/PoE+	4x1G Combo	56 Gbps		220 V AC / 48 V DC	370 W
MES2424P	24x1G PoE/PoE+	4x10G SFP+	128 Gbps		220 V AC	370 W
MES2448P	48x1G PoE/PoE+	4x10G SFP+	176 Gbps		220 V AC**	720 W
MES2300-24P under development	24x1G PoE/PoE+	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC	380 W
MES2300-48P under development	48x1G PoE/PoE+	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 48 V DC**	1450 W
MES2410-08DP AC under development	8x2,5G PoE/PoE+	2x10G SFP+	80 Gbps		220 V AC	240 W
MES2410-08DU AC under development	8x2,5G PoE/PoE+/PoE++	2x10G SFP+	80 Gbps		220 V AC	720 W
MES2420-24DP under development	24x2,5G PoE/PoE+	4x10G SFP+	200 Gbps		220 V AC	380 W

Industrial

Access switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply	PoE budget
MES2328I	24x1G Eth	4x1G Combo	56 Gbps	up to 8 devices	220 V AC / 48 V DC**	
MES3508*	8x1G Eth	2x1G Combo	20 Gbps		48 V DC	
MES3508P*	8x1G PoE/PoE+	2x1G Combo	20 Gbps		48 V DC	240 W
MES3510P*	8x1G PoE/PoE+	4x1G SFP	24 Gbps		48 V DC	240 W
MES3708P	8x1G PoE/PoE+	2x1G SFP	20 Gbps		220 V AC	120 W
MES3710P* under development	8x1G PoE/PoE+	4x1G SFP	24 Gbps		48 V DC	240 W

Gigabit Ethernet

Aggregation switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply
MES3308F	4x1G SFP, 4x1G Combo	4x10G SFP+	96 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3316F	12x1G SFP, 4x1G Combo	4x10G SFP+	112 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3324	20x1G Eth, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 48 V DC**

*With power supply DRS-270-56, connection to 220 V is possible

**Redundant power supply

Ethernet switches

Aggregation switches	Downlink interfaces	Uplink interfaces	Bandwidth	Stacking	Power supply
MES3324F	20x1G SFP, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3348	48x1G Eth	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3348F	48x1G SFP	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3300-24 under development	24x1G Eth	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3300-24F under development	20x1G SFP, 4x1G Combo	4x10G SFP+	128 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3300-48 under development	48x1G Eth	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3300-48F under development	48x1G SFP	4x10G SFP+	176 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES3400-24 under development	24x1G Eth	4x10G SFP+	128 Gbps		220 V AC / 48 V DC**
MES3400-24F under development	24x1G SFP	4x10G SFP+	128 Gbps		220 V AC / 48 V DC**
MES3400-48 under development	48x1G Eth	4x10G SFP+	176 Gbps		220 V AC / 48 V DC**
MES3400-48F under development	48x1G SFP	4x10G SFP+	176 Gbps		220 V AC / 48 V DC**

10 Gigabit Ethernet

MES5316A	16x10G SFP+		320 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5324A	24x10G SFP+		480 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5332A	32x10G SFP+		640 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5324	24x10G SFP+	4x40G QSFP+	800 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5448	48x10G SFP+	4x40G QSFP+	1.28 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES7048	48x10G SFP+	6x100G QSFP28	2.15 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5400-24	24x10G SFP+	6x100G QSFP28	1.68 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5400-48	48x10G SFP+	6x100G QSFP28	2.16 Gbps	up to 8 devices	220 V AC / 48 V DC**
MES5410-48 under development	48x25G SFP28	6x100G QSFP28	3.6 Gbps	up to 8 devices	220 V AC**
MES5500-32 under development	2x10G SFP+	32x100G QSFP28	6.4 Gbps	up to 8 devices	220 V AC**

**Redundant power supply

ESR series service routers

ELTEX develops solutions for various areas: information networks of service providers, carrier operators, large, small and medium-sized manufacturing companies. The product range includes routers with support for L2/L3 VPN and MPLS.

ELTEX equipment is designed to perform a wide range of tasks related to network security.

Low-performance routers

Interfaces

	ESR-10	ESR-12V	ESR-12VF	ESR-15	ESR-15R	ESR-20	ESR-21	ESR-30	ESR-31
Ethernet 10/100/1000BASE-T	4	8	8	4	4	2	8	4	8
Combo 10/100/1000BASE-T/1000BASE-X SFP						2			
Ethernet 1000BASE-X SFP	2		1	2	2		4		6
Ethernet 10GBASE-R SFP+/1000BASE-X SFP								2	2
USB 2.0	2	2	2	2	2	1	1	1	1
USB 3.0						1	1	1	1
Slot for SD cards						●	●	●	●
FXS ports		3	3						
FXO ports		1	1						

Technical features

RAM	2 GB	2 GB	2 GB	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB
Integrated Flash memory	512 MB	512 MB	512 MB	8 GB	8 GB	4 GB	4 GB	8 GB	8 GB
Power supply	220 V AC/ 12 V DC	220 V AC	220 V AC	220 V AC/ 12 V DC	220 V AC	220 V AC	220 V AC	220 V AC	220 V AC

Performance

	ESR-10	ESR-12V	ESR-12VF	ESR-15	ESR-15R	ESR-20	ESR-21	ESR-30	ESR-31
Firewall/NAT/ Routing (large packets)	0.98 Gbps 81K pps	0.98 Gbps 81K pps	0.98 Gbps 81K pps	1.2 Gbps 102K pps	1.2 Gbps 102K pps	3.7 Gbps 307K pps	2.5 Gbps 212K pps	8 Gbps 666K pps	8 Gbps 666K pps
IPsec VPN (1456 B frames)	153 Mbps 13K pps	153 Mbps 13K pps	153 Mbps 13K pps	261 Mbps 22K pps	1.2 Gbps 102K pps	0.50 Gbps 43K pps	0.50 Gbps 43K pps	838 Mbps 72K pps	838 Mbps 72K pps
VPN tunnels	10	10	10	10	10	250	250	250	250
Static routes	1K	1K	1K	1K	1K	11K	11K	11K	11K
Concurrent sessions	4K	4K	4K	4K	4K	256K	256K	256K	256K
BGP routes	1M	1M	1M	1M	1M	2,5M	2,5M	2,5M	2,5M
OSPF routes	30K	30K	30K	30K	30K	300K	300K	300K	300K
RIP routes	10K	10K	10K	10K	10K	10K	10K	10K	10K
FIB size	1M	1M	1M	1M	1M	1.4M	1.4M	1.4M	1.4M

ESR service routers

Middle and high performance routers

Interfaces

	ESR-100	ESR-200	ESR-1000	ESR-1200	ESR-1500	ESR-1511	ESR-1700	ESR-3100	ESR-3200
Ethernet 10/100/1000BASE-T		4	24	12	4	4		8	
Combo 10/100/1000BASE-T/1000BASE-X SFP	4	4		4	4	4	4		
Ethernet 10GBASE-R SFP+/1000BASE-X SFP			2	8	4	4	8	8	
1000BASE-X/10GBASE-R/25GBASE-R									12
40GBASE-X QSFP+						2			
USB 2.0	1	1	2	2	2	2	2		1
USB 3.0	1	1						2	
Slot for SD cards	●	●	●	●	●	●		●	

Technical features

RAM	4 GB	4 GB	4 GB	4 GB	4 GB	4 GB	32 GB	16 GB	24 GB
Integrated flash memory	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	4 GB	8 GB
Power supply	220 V AC	220 V AC	220 V AC/ 48 V DC	220 V AC/ 48 V DC	220 V AC/ 48 V DC	220 V AC/ 48 V DC	220 V AC/ 48 V DC	220 V AC/ 48 V DC	220 V AC/ 48 V DC
Power module redundancy, hot sw apping			●	●	●	●	●	●	●
Redundant fan modules			●	●	●	●	●	●	●

Performance

	ESR-100	ESR-200	ESR-1000 ESR-1200	ESR-1500	ESR-1511	ESR-1700	ESR-3100	ESR-3200
Firewall/NAT/ routing (large packets)	1.28 Gbps 106K pps	1.89 Gbps 161K pps	8.86 Gbps 730K pps	12.25 Gbps 1001K pps	18.50 Gbps 1525K pps	39 Gbps 3217K pps	17 Gbps 1406K pps	47.103 Gbps 3878K pps
IPsec VPN (1456 B fra mes)	0.30 Gbps 26K pps	0.46 Gbps 40K pps	2.34 Gbps 201K pps	2.98 Gbps 256K pps	4.66 Gbps 400K pps	13 Gbps 1117K pps	1.94 Gbps 166K pps	3.207 Gbps 275K pps
VPN tunnels	250	250	500	500	500	500	500	500
Static routes	11K	11K	11K	11K	11K	11K	11K	11K
Concurrent sessions	256K	256K	512K	512K	512K	512K	512K	512K
BGP routes	2.5M	2.5M	5M	5M	5M	5M	5M	5M
OSPF routes	300K	300K	500K	500K	500K	500K	500K	500K
RIP routes	10K	10K	10K	10K	10K	10K	10K	10K
FIB size	1.4M	1.4M	1.7M	1.7M	1.7M	3.0M	1.7M	1.7M

ME series universal routers

The routers are included in ME5000 series and have the uniform software and management interfaces.

ME5100 devices support a full range of functions — IPv4/IPv6 routing, hierarchical QoS, IP Multicast routing and L2/L3 MPLS services.

	ME5100S ME5100 rev. X	ME5200S	ME5000 ME5000M
Form factor	19“, 2U eurorack	19“, 2U eurorack	19“, 15U eurorack, modular
Crate content			up to 2 management and switching modules (FMC) up to 12 LineCards
Performance	300 Mpps 200 Gbps	720 Mpps 720 Gbps	up to 2.8 Tbps for the ME5000 crate with two FMC16 modules installed up to 7.2 Tbps for the ME5000M crate with two FMC32 modules installed
Functional features	CPU 1200 MHz 8 GB RAM up to 1M IPv4 or up to 512K IPv6 routes up to 12K MPLS pseudowires 256K MAC address 4K bridge domains 4K sub interfaces 96K queues	CPU 1400 MHz 16 GB RAM up to 4M IPv4 or up to 2,7M IPv6 routes up to 16K MPLS pseudowires 750K MAC addresses 8K bridge domains 8K sub interfaces 96K queues	Management modules redunancy Graceful restart/ Non-stop forwarding Inservice software upgrade (ISSU)) **For LC18XGE (ME5000/FMC16):** up to 1M IPv4, up to 512K IPv6 routes up to 12K MPLS pseudowires 250K MAC addresses 4K bridge domains 4K sub interfaces 96K queues **For LC20XGE/LC8XLGE:** up to 4M IPv4, up to 2.7M IPv6 routes up to 16K MPLS pseudowires 750K MAC addresses 4K bridge domains 8K sub interfaces 96K queues
Interfaces	**For ME5100S:** 20x10GBASE-R/1000BASE-X (SFP+) **For ME5100rev.X:** 16x10GBASE-R/1000BASE-X (SFP+) 4x10GBASE-R (XFP)	32x10GBASE-R/1000BASE-X (SFP+) 4x100GBASE-R/40GBASE-R (QSFP28)	**LC18XGE (ME5000/FMC16):** 18x10GBASE-R/1000BASE-X (SFP+) **LC20XGE:** 20x10GBASE-R/1000BASE-X (SFP+) **LC8XLGE:** 4x40GEBASE-R (QSFP+) +4x 100GBASE-R/40GBASE-R (QSFP28)

Construction of L3 core of telecommunications carrier network

Objective

Construction of a distributed core/ distribution network using MPLS protocol stack

Equipment

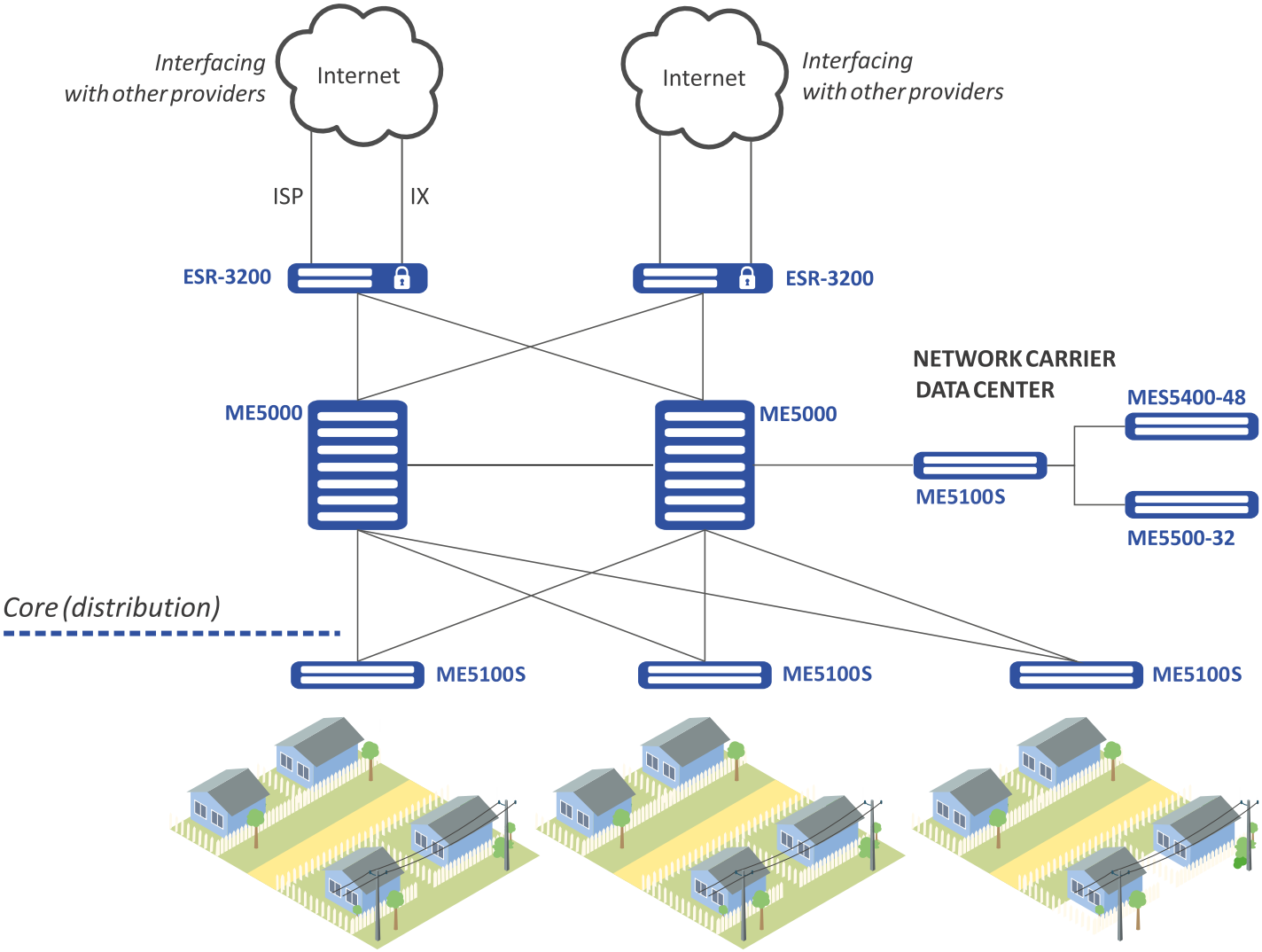
- ESR-3200
- ME5000M
- ME5100S

Benefits

Hardware redundancy on ME5000 core routers (management modules, line cards)

Scalability

Fault-tolerance (fast failure detection and redundancy switching)



GPON network construction in apartment buildings

Objective

Construction of GPON networks in apartment buildings using existing subscriber equipment or subscriber devices provided by a carrier operator

Equipment

- MES2424
- LTP-4X/LTP-8X/LTP-16N
- NTU-RG-5421GC-Wac
- NTU-52VC
- NTU-1 rev. C
- NTU-1C
- NTU-SFP-200

Benefits

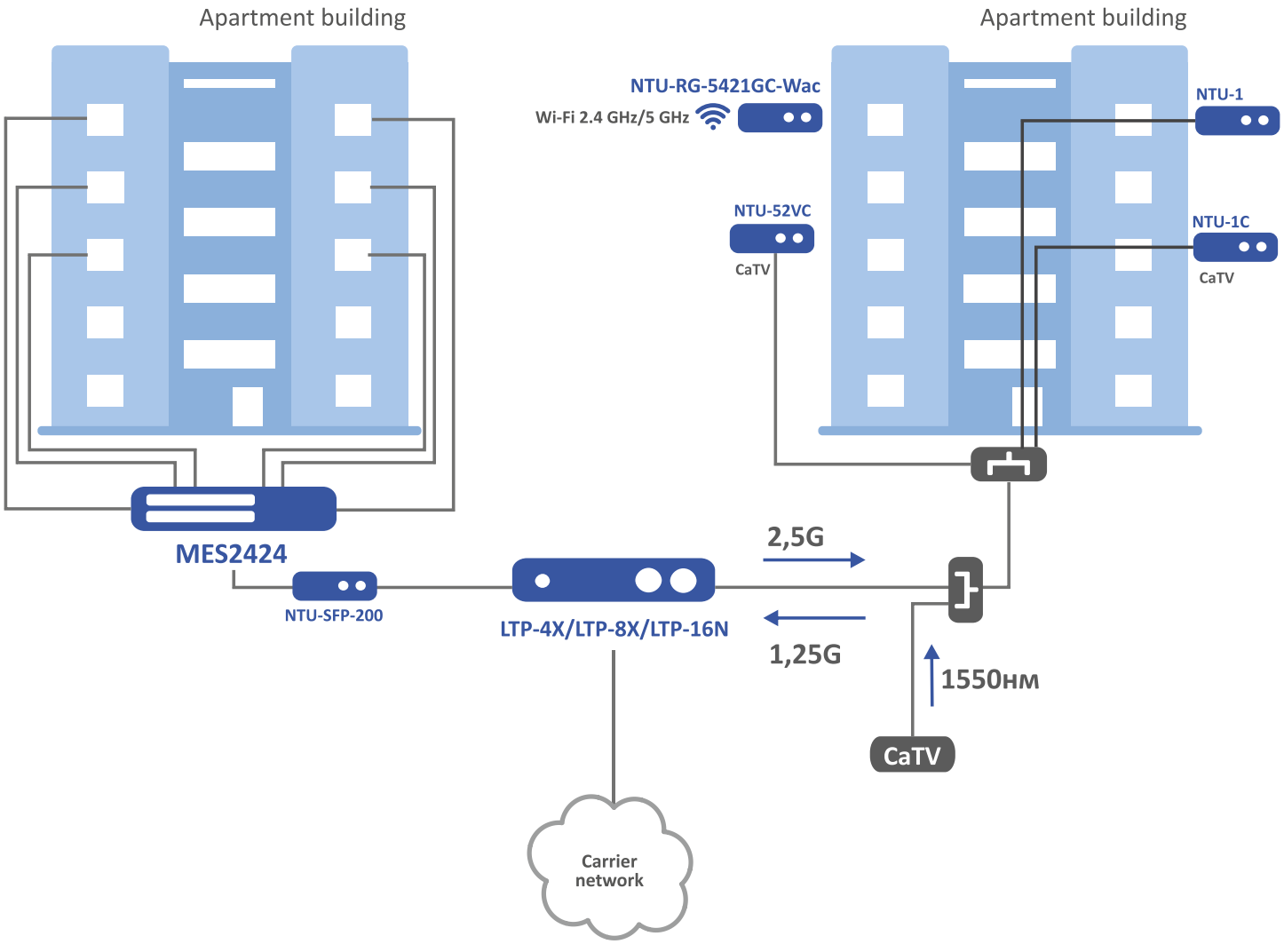
Reduction of optical passive part costs

Reduction of network construction costs due to the use of NTU-SFP-100 in conjunction with an Ethernet switch

High optical fiber transmission rate

Various splitting ratios (up to 1:128)

Centralized management and monitoring system



GPON network construction in detached houses

Objective

Detached house network coverage based on GPON technology

Equipment

- NTU-RG-5440G-Wac
- WEP-30L

Benefits

Reduction of optical passive part costs

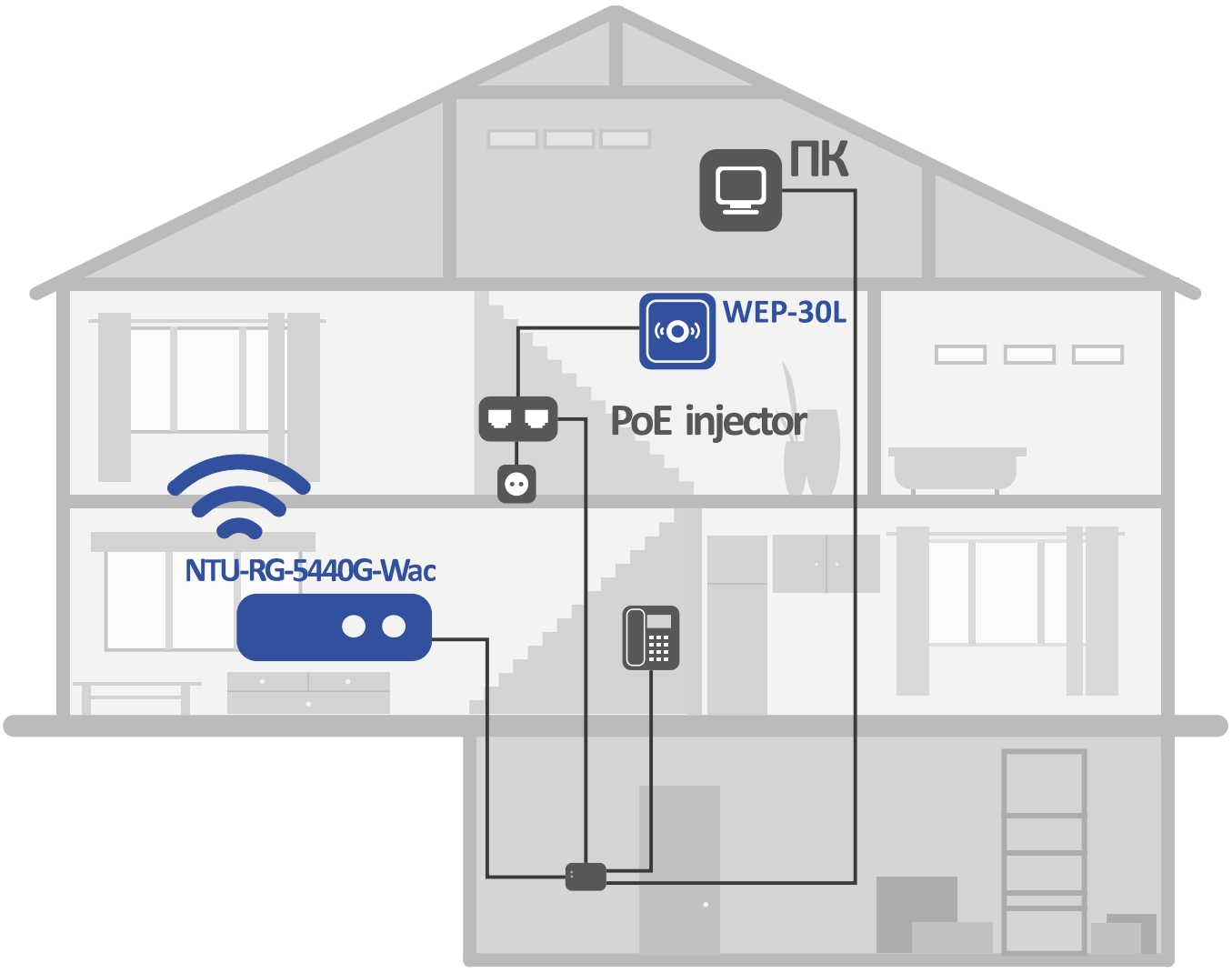
High optical fiber transmission rate

Provision of all services via the same cable

Centralized management and monitoring system

Wide range of subscriber terminals

Construction of networks with support for EasyMesh



ESR-based network construction using BRAS

Objective

Construction of an ESR-based network using BRAS

Equipment

- ESR service router

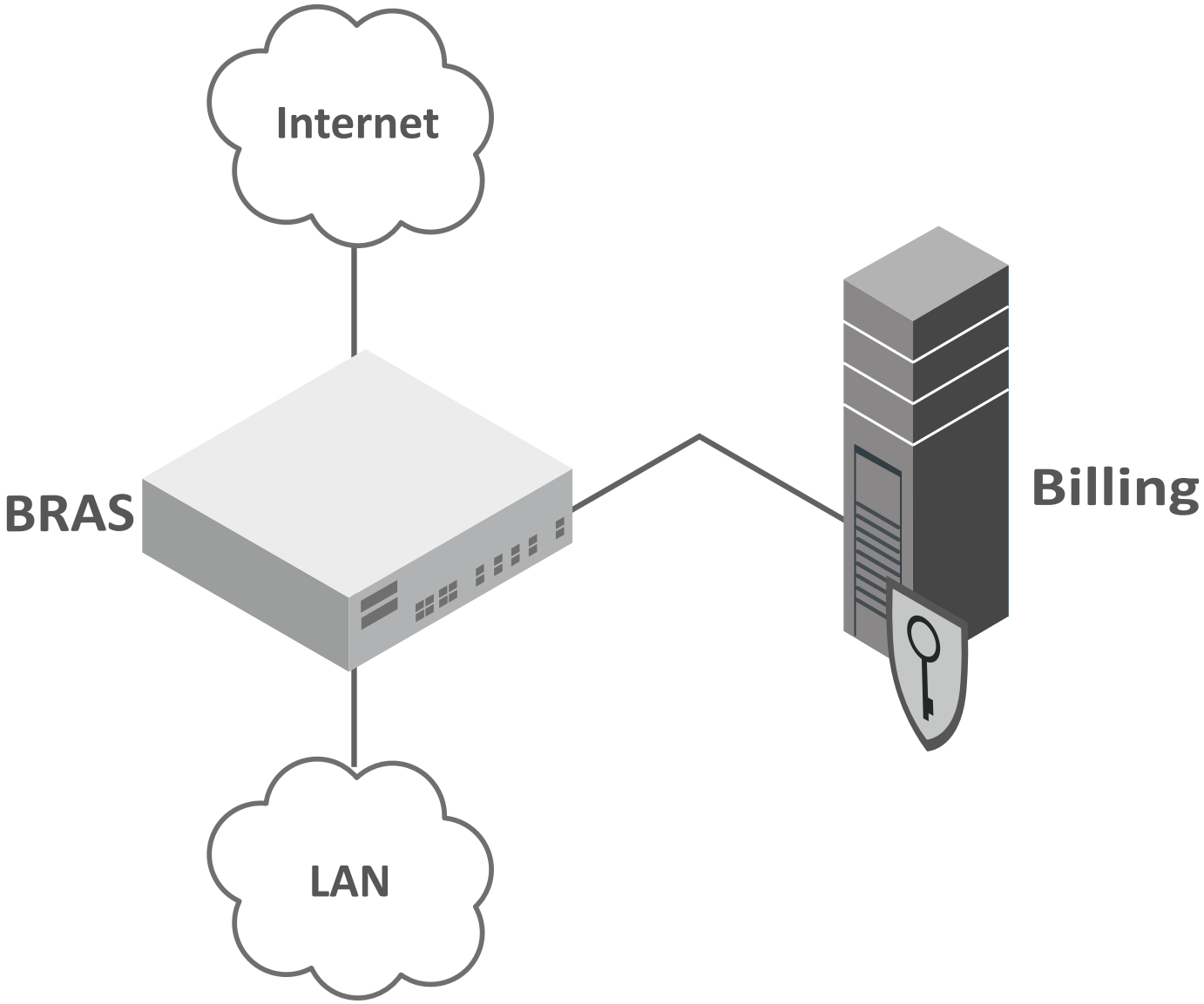
Benefits

User authentication

Traffic filtering and shaping

Rate limiting for users, traffic quota

User redirection



Construction of wide area network of a company with branch structure

Objective

Consolidation of company branches' data networks into a single enterprise network

Equipment

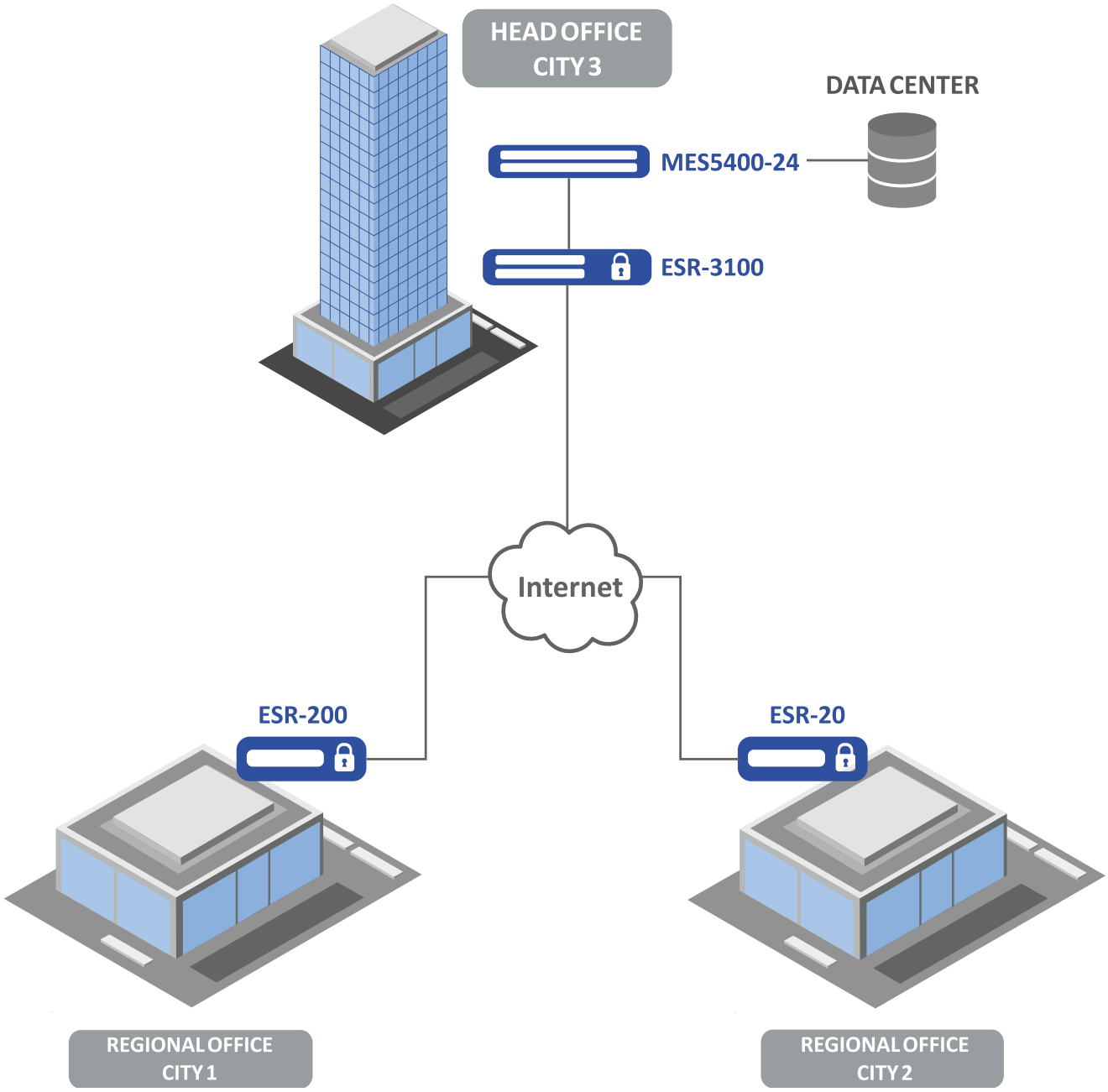
- MES5400-24
- ESR-3100
- ESR-200
- ESR-20

Benefits

VPN encryption for added security

Simplified scalability

Firewall/NAT Firewall/NAT



Construction of secure network infrastructure

Objective

Construction of infrastructure with network and computer security software system

Equipment

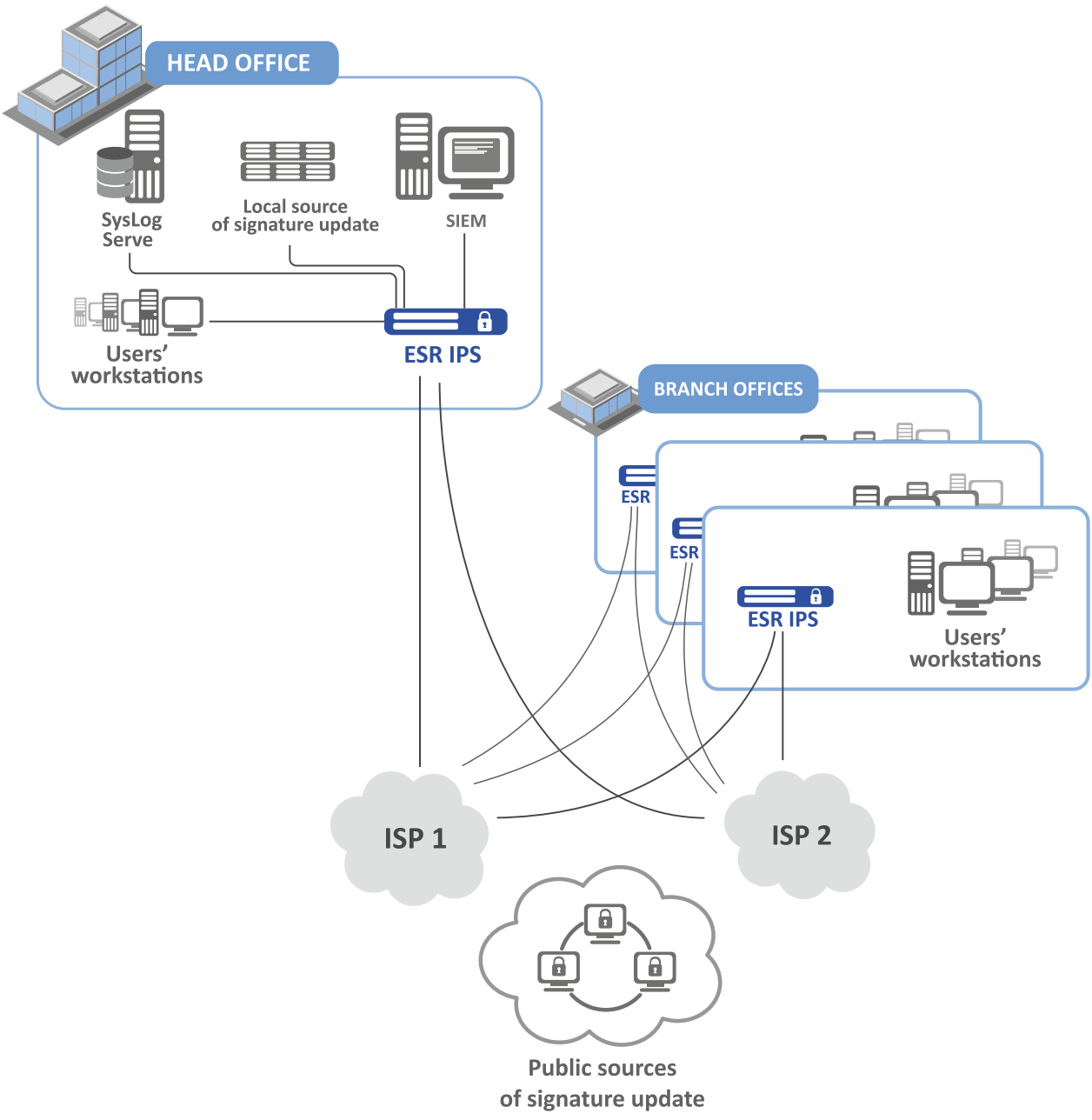
- ESR service router

Benefits

Network attacks prevention and monitoring (IPS/IDS)

High IPS performance: up to 1.1 Gbps

Flexible rule set sources configuration allows uploading signatures both from public and local network in Suricata rules format



Construction of secure network infrastructure. Joint solutions with Kaspersky Lab

Objective

Organization of “KASPERSKY LAB” rule-based streaming traffic filtering

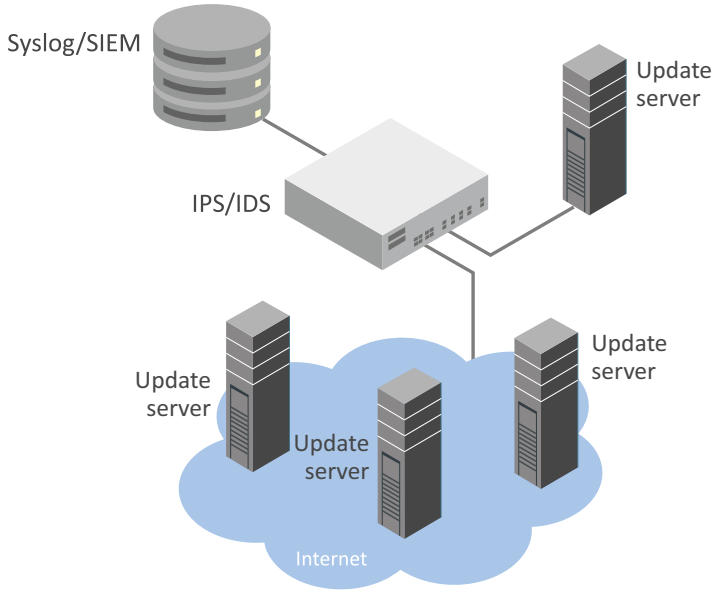
Equipment

- ESR service router

Benefits

Using the rule set from leading developer “KASPERSKY LAB”

Constant automatic updating of the rules online



Objective

Organization of content filtering based on “KASPERSKY LAB” data

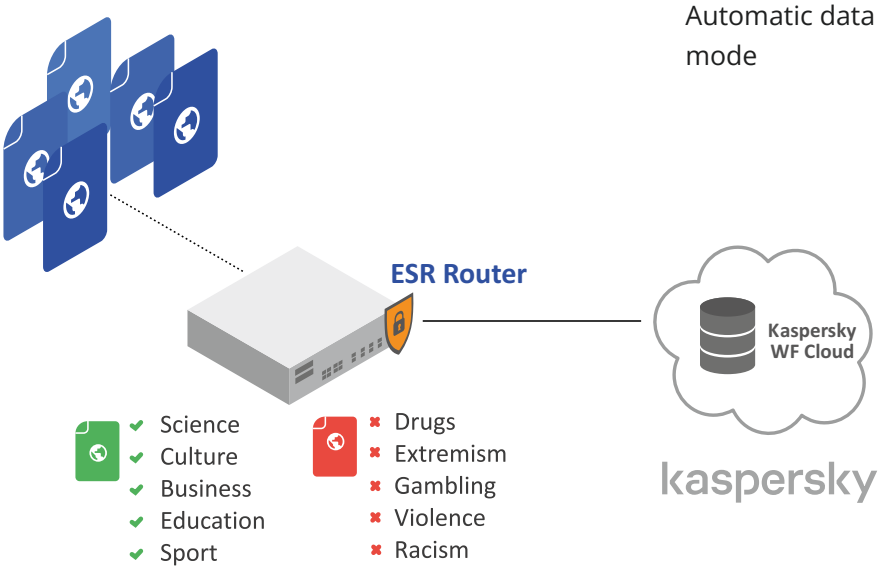
Equipment

- ESR service router

Benefits

Over 70 categories, including various blocklists

Automatic data update in the online mode



Construction of secure network infrastructure. Corporate email security

Objective

Corporate network spam and virus protection

Equipment

- ESR service routers

Benefits

Checking SPF, DKIM, DMARC policies

Checking email headers for RFC DNSBL and IPBL compliance

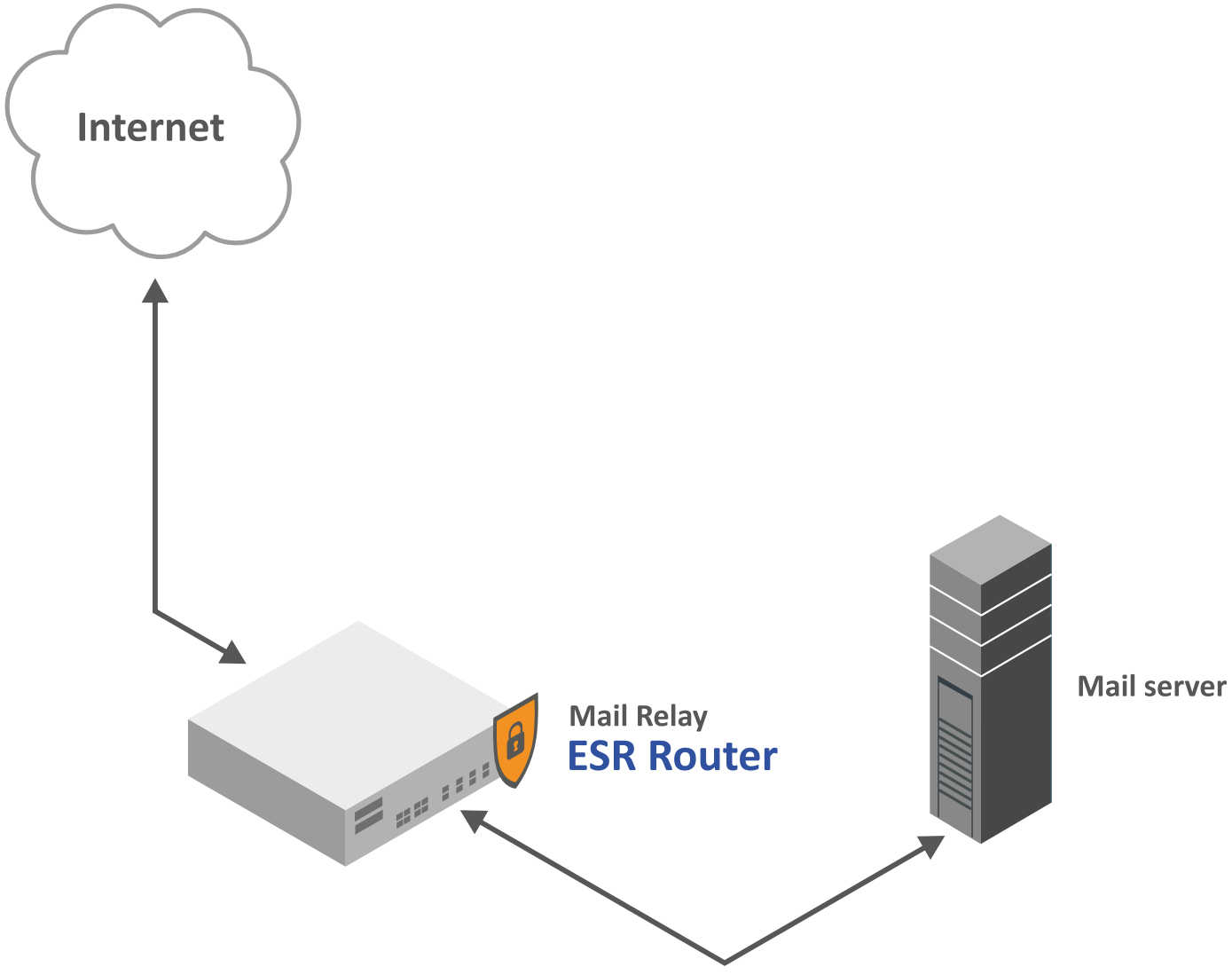
Checking links for phishing threats

Organizing a stream antivirus for email attachments in conjunction with Dr.Web

Checking email attachments processed by the anti-spam module

Heuristic and signature analysis

Constantly updated antivirus database from Dr.Web



Fault-tolerant cluster of service routers

Objective

Combining multiple ESR service routers into a single logical device for the purpose of high availability (high-availability cluster)

Equipment

- ESR service routers
- Switches

Benefits

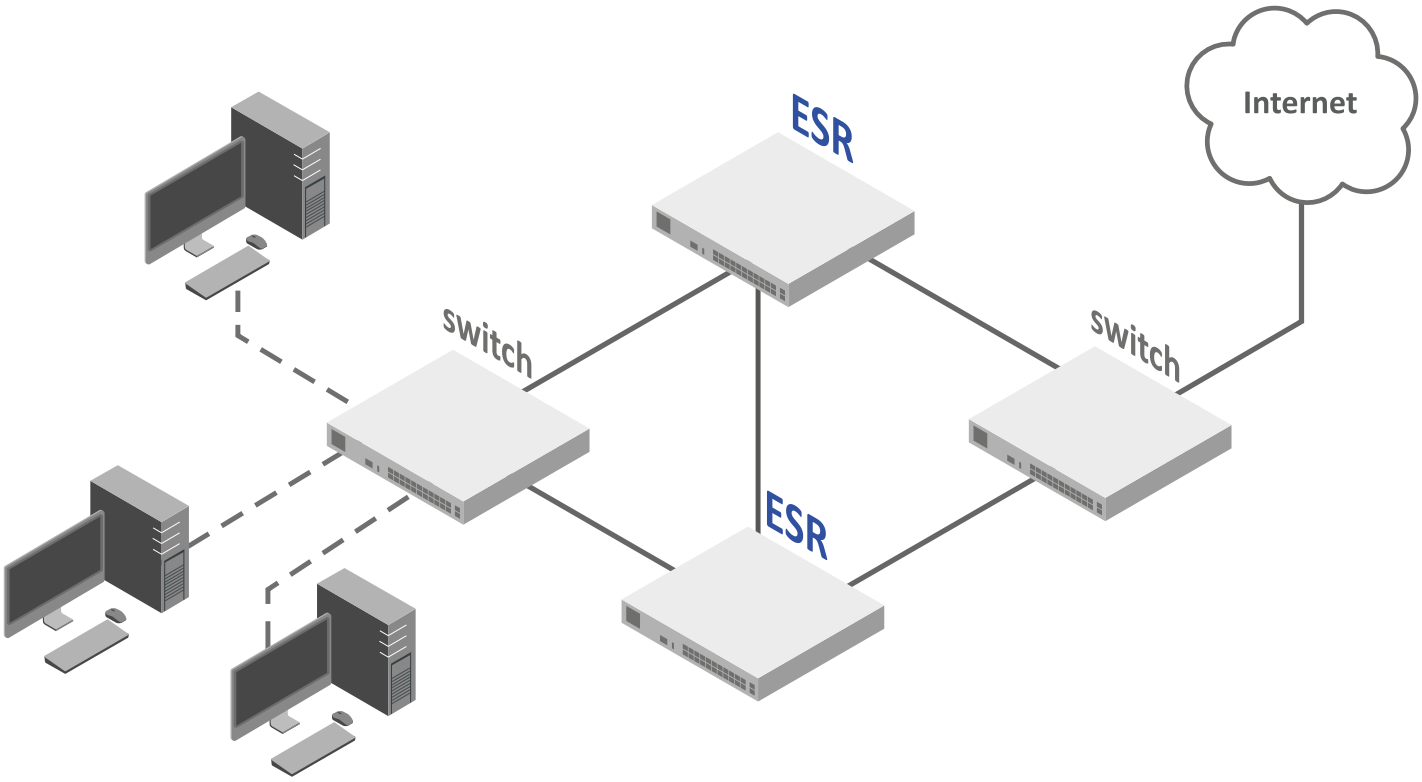
Redundancy of service routers

Synchronization of states for quick failover

Centralized device management, configuration and monitoring

Configuration synchronization

Replacing one router to a cluster does not require reconfiguration of neighboring devices



*To be available in 2Q 2023

High-performance solutions based on service routers

Objective

Combining multiple ESR service routers into a single logical device in order to increase bandwidth and redundancy

Equipment

- Master ESR
- Slave ESR
- Hardware and software solution LoadBalancer
- Cluster switch (with 40G ports)

Benefits

Bandwidth up to 40 Gbps

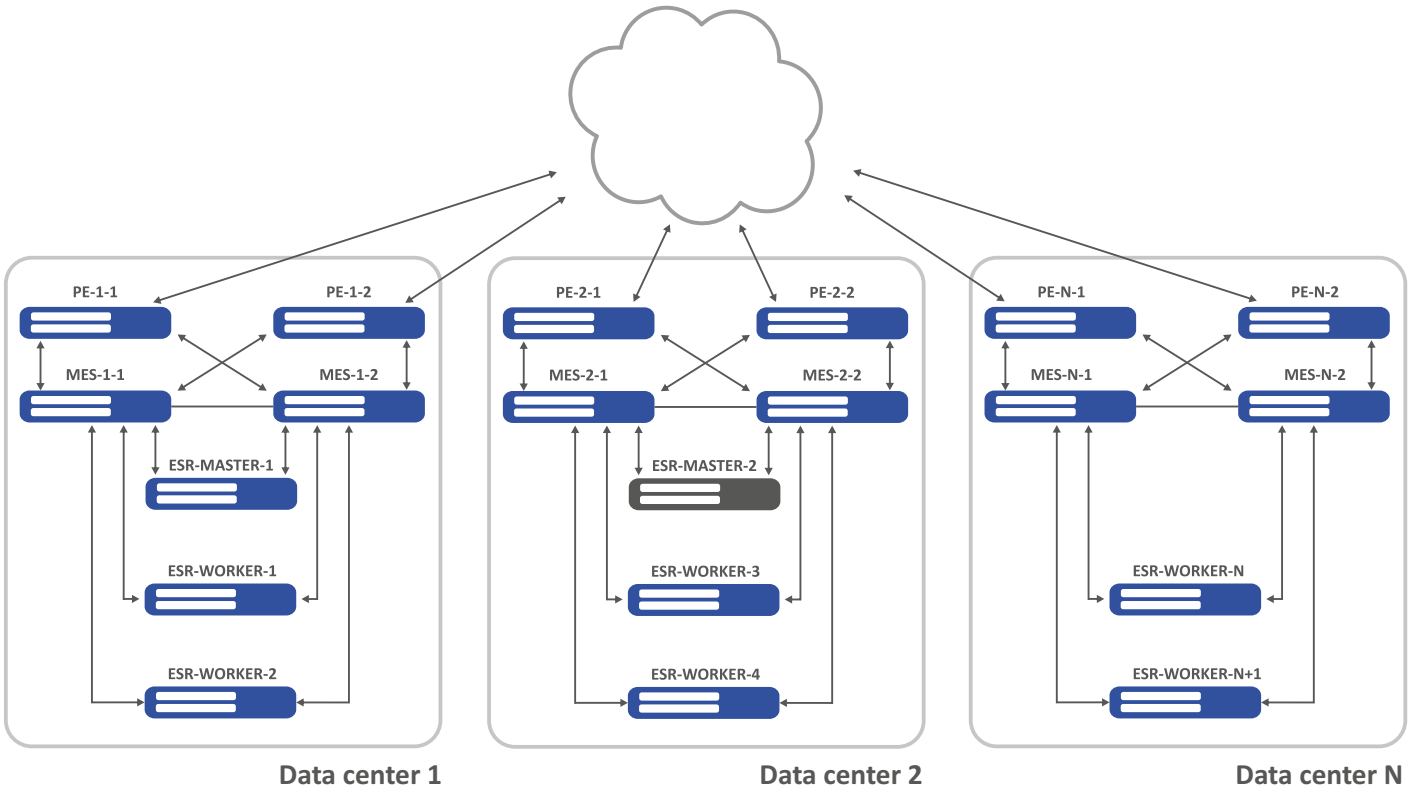
Load balancing within the network between ESR routers

Cluster nodes redundancy

Centralized device management, configuration and monitoring

Adding new routers to a cluster does not require additional configuration

Replacement of one router by a cluster does not require neighboring devices reconfiguration



Construction of distributed fault-tolerant network

Objective

Construction of an enterprise data network from access level to core level and interfacing with ISP

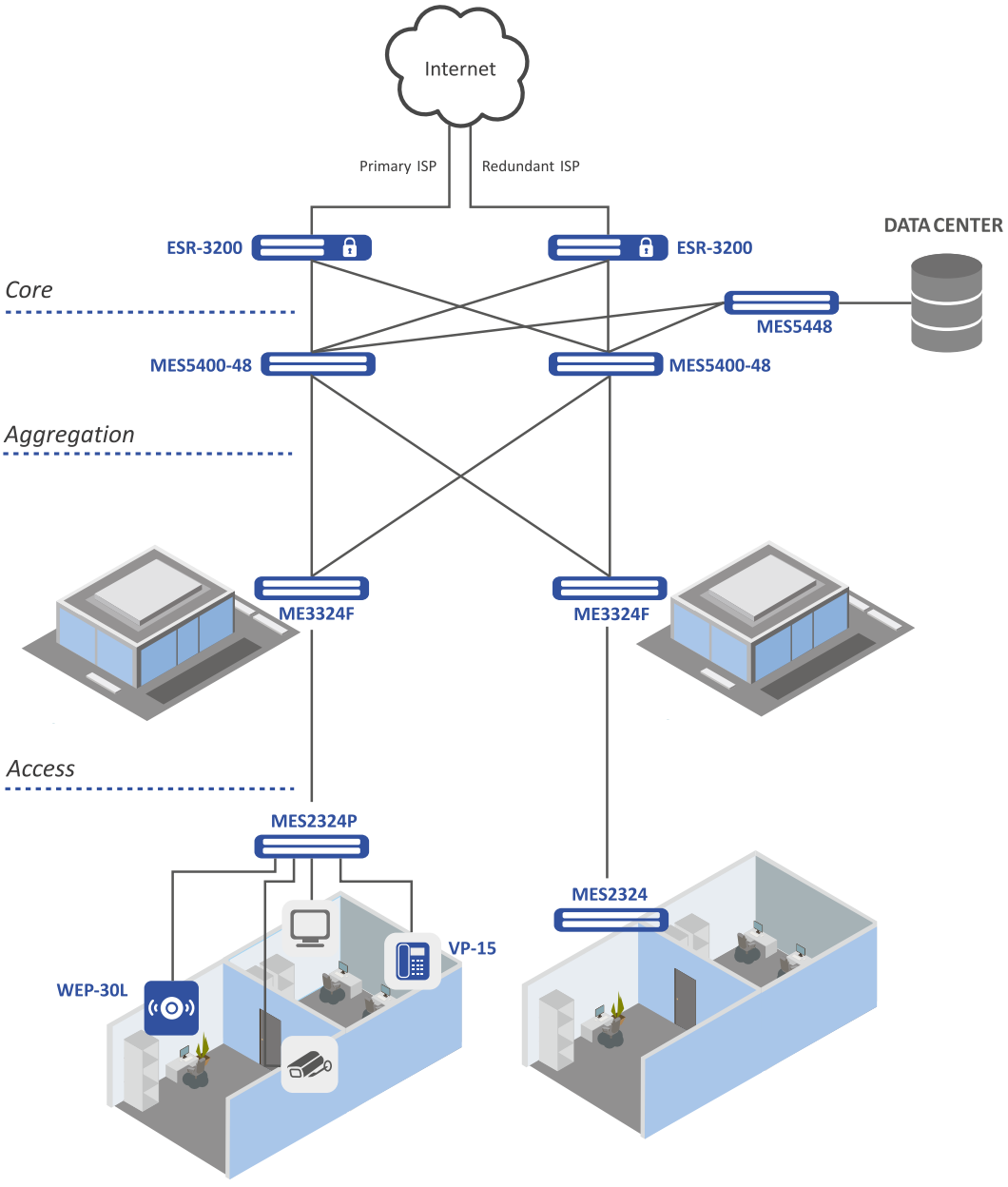
Equipment

- MES5400-48
- MES3324F
- MES2324P
- MES2324
- ESR-3200
- WEP-30L
- VP-15

Benefits

Redundancy of each distribution and aggregation node (MC-LAG, STP, ERPS)

Internet channel redundancy



Wi-Fi access points

Indoor

WEP-3L

WEP-30L

WEP-3ax

WEP-2L

WEP-2ac

WEP-200L

	WEP-3L	WEP-30L	WEP-3ax	WEP-2L	WEP-2ac	WEP-200L
Standard	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)
Bandwidth	2.4/5 KHz	2.4/5 KHz	2.4/5 KHz	2.4/5 KHz	2.4/5 KHz	2.4/5 KHz
Radio interfaces number	2	2	2	2	2	2
Antennas configuration	Built-in	Built-in	Built-in	Built-in	Built-in	Built-in
Antennas type	MIMO 2x2 MU-MIMO 2x2	MU-MIMO 2x2	MU-MIMO 2x2	MIMO 2x2	MIMO 2x2	MIMO 2x2 MU-MIMO 4x4
Roaming	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k	802.11r/k/v
Operation mode	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller In cluster Standalone	Managed by controller Standalone
Interfaces	1× Ethernet 1G	1 ×Ethernet 2.5G	1 × Ethernet 2.5G	1× Ethernet 1G	1 × Ethernet 1G	1× Ethernet 1G
Power supply	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/54 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/54 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)
Recommended users number	up to 40	up to 50	up to 100	up to 40	up to 50	up to 60
WIDS/WIPS	—	—	●	—	●	—
Airtune	●	●	●	●	●	●
Mesh	—	—	—	—	●	—
Hotspot 2.0 (Wi-Fi offload)	—	—	—	—	●	—

Outdoor

WOP-30L

WOP-30LS

WOP-2L

WOP-2ac

WOP-20L

	WOP-30L	WOP-30LS	WOP-2L	WOP-2ac	WOP-20L
Standard	802.11ax (Wi-Fi 6)	802.11ax (Wi-Fi 6)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)	802.11ac (Wi-Fi 5)
Bandwidth	2.4/5 KHz	2.4/5 KHz	2.4/5 KHz	2.4/5KHz	2.4/5 KHz
Antennas configuration	External	External	External	External	External
Antennas configuration	MU-MIMO 2x2	MU-MIMO 2x2	MIMO 2x2	MIMO 2x2	MIMO 2x2
Roaming	802.11r/k/v	802.11r/k/v	802.11r/k/v	802.11r/k	802.11r/k/v
Operation mode	Managed by controller Standalone	Managed by controller Standalone	Managed by controller Standalone	Managed by controller In cluster Standalone	Managed by controller Standalone
Interfaces	1 × Ethernet 2.5G	1 × Ethernet 2.5G	1 × Ethernet 1G	1 × Ethernet 1G	1 × Ethernet 1G
Power supply	PoE+ 48 V/54 V (IEEE 802.at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE 48 V/56 V (IEEE 802.3af-2003)	PoE+ 48 V/54 V (IEEE 802.3at-2009)	PoE 48 V/56 V (IEEE 802.3af-2003)
Recommended users number	up to 50	up to 50	up to 40	up to 50	up to 50
WIDS/WIPS	—	—	—	●	—
Airtune	●	●	●	●	●
Mesh	—	—	—	●	—
Hotspot 2.0 (Wi-Fi offload)	—	—	—	●	—

WLC wireless LAN controller

Solution for corporate wireless networks management

WLC XX series controllers are designed to configure corporate wireless networks. The solution allows implementing different schemes for connecting access points over L2/L3.

Combined with routing and firewall functions, WLC XX series controllers are a universal solution for enterprise, office and other networks.

Key features:

- AP autoconfiguration according to preset templates
- AP monitoring and management
- AirTune. Radio Resource Management
- WIDS. Detection of third-party access points, security monitoring
- Connecting access points via L2/L3
- User authorization, network statistics

WLC-30

WLC-30 is a solution for small (up to 150 APs) corporate networks. WLC-30 helps to quickly deploy wireless networks in offices, storage areas and other facilities.

WIDS and autoconfiguration mechanisms ensure a fast start-up of the controller.

Main functions:

- AP monitoring and management
- Device configuration via CLI
- WPA-Enterprise/WPA-Personal
- Monitoring via SNMP
- Authorization on external Radius server
- Airtune. Radio Resource Management and roaming (802.11 r/k/v)

Technical features:

- 4 x 10/100/1000BASE-T
- 2 x 10GBASE-R SFP+/1000BASE-X
- 1 x USB 3.0
- 1 x USB 2.0
- 1 slot for microSD card
- 1 slot for HDD
- Console
- Up to 150 APs
- Up to 3500 users

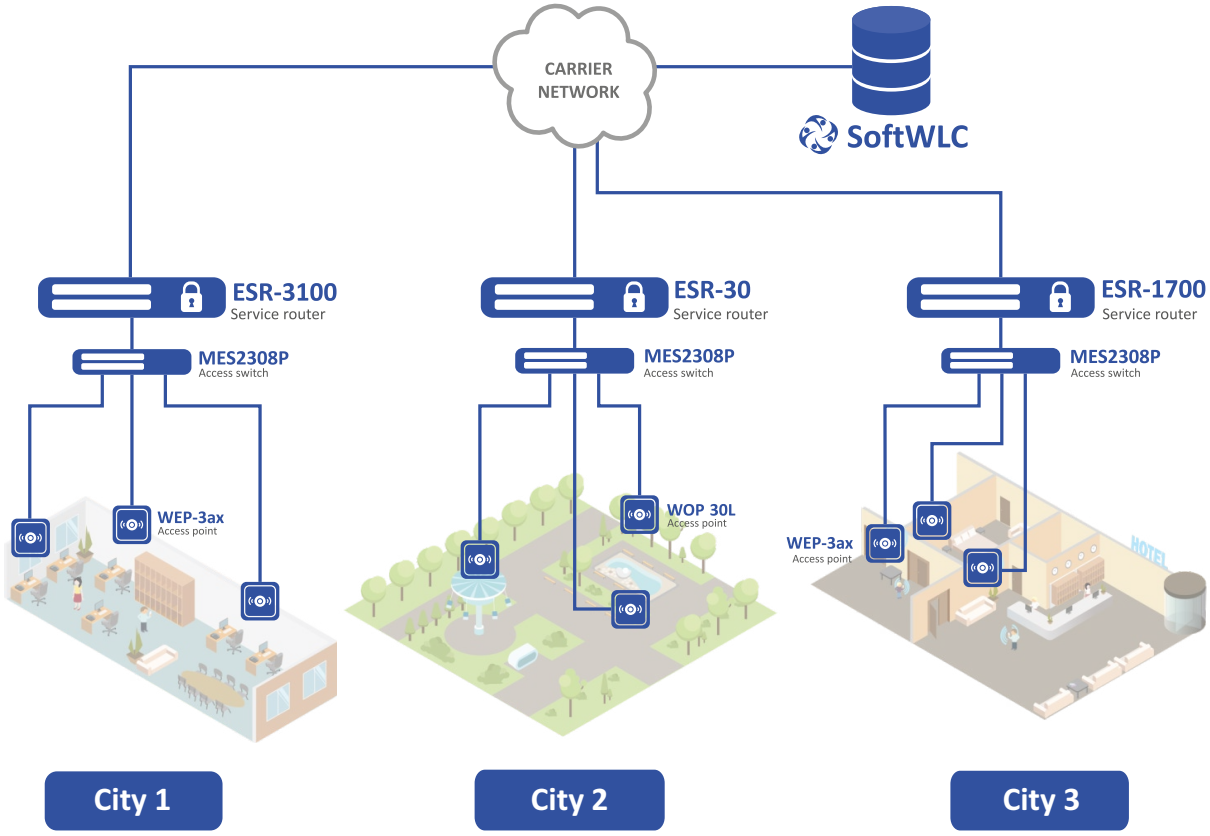
SoftWLC

Software controller for Wi-Fi networks

SoftWLC is a software package designed to manage wireless area networks via Wi-Fi technology.
The SoftWLC controller performs a variety of tasks for the organization of HotSpot zones and user authorization. SoftWLC is a flexible and convenient solution to monetize Wi-Fi dervices and provide quality service under the operator's control.

SoftWLC provides an interface for all WiFi management operations. Flexibility of the solution allows building both enterprise peer-to-peer networks with a basic set of services, and complex solutions with hierarchical, carrier-grade management. Hybrid applications are possible.

- Up to 100 000 access points
- Centralized solution for carriers
- Wi-Fi networks management and monitoring (group operations, autoconfiguration, monitoring and notification of failures)
- Multidomain architecture (distributed system of access rights for different departments of a company)
- Management of Wi-Fi provision scenarios (portal authorization, paid access, WPA – Enterprise)
- Redundancy



Wireless broadband access via Wi-Fi technology

Objective

Construction of a wireless broadband access network

Equipment

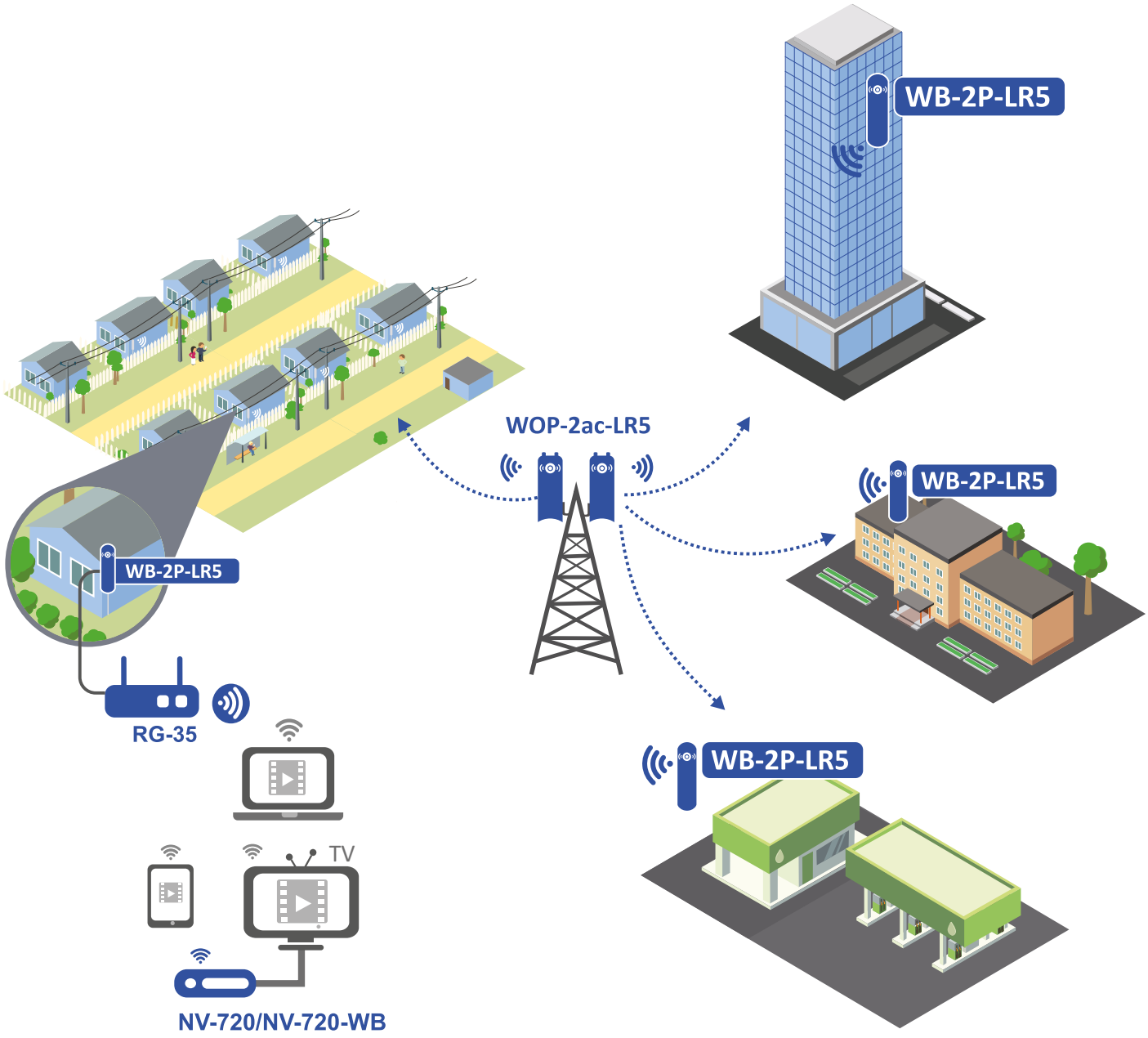
- User station WB-2P-LR5
- Base station WOP-2ac-LR5 SYNC

Benefits

Operating at 5 – 6 GHz

Wide coverage area

Intersectoral synchronization



VoIP

IP-phone

VP-12

VP-15P

VP-17P

VP-20P

VP-30

Under development

VP-100

	VP-12	VP-15P	VP-17P	VP-20P	VP-30	VP-100
OS	Linux	Linux	Linux	Linux	Linux	Android
SIP accounts	2	2	2	6	6	6
Interfaces	2x10/100 Mbps	2x10/100 Mbps	2x10/100/1000 Mbps	1x10/100/1000 Mbps	1x10/100/1000 Mbps	1x10/100/1000 Mbps
Display	Monochrome 128x64 px	Monochrome 128x64 px	Monochrome 128x64 px	Color 800x400 px	Color 800x400 px	Touch-screen, color
Extension console				●	●	
HD VOICE				●	●	●

Low-density-port VoIP gateways

TAU-1M.IP

TAU-2M.IP

TAU-4M.IP

TAU-8N.IP

	TAU-1M.IP	TAU-2M.IP	TAU-4M.IP	TAU-8N.IP
FXS	1	2	4	8
LAN	2	1	1	
WAN	1	1	1	1
USB 2.0	●	●	●	●
3G/4G redundancy	●	●	●	●
MGMT				●

Subscriber gateways

TAU-16.IP

TAU-24.IP

TAU-32M.IP

TAU-36.IP

TAU-72.IP

	TAU-16.IP	TAU-24.IP	TAU-32M.IP	TAU-36.IP	TAU-72.IP
FXS/FXO/E1	16 FXS	24 FXS	up to 32 FXO/FXS	36 FXS	72 FXS
VoIP protocols	SIP, SIP-T, H.323	SIP, SIP-T, H.323	SIP, SIP-T, H.323	SIP, SIP-T, H.323	SIP, SIP-T, H.323

Features:

- Current and voltage protection of ports
- Ability to measure line parameters
- PBX functionality
- Redundant SIP proxy
- FXS port can be hard-relayed to FXO port in case of power outage*

*Supported only by TAU-32M.IP

VoIP

Trunk gateways

	SMG-2	SMG-4	SMG-1016M	SMG-3016
Interfaces	1 × 1GE (RJ-45) up to 2 × E1 (RJ-48) 1 × console RS-232 port (RJ-45) 1 × USB 2.0	1 × 1GE (RJ-45) 4 × E1 (RJ-48) 1 × console RS-232 port (RJ-45) 1 × USB 2.0	3 × 1GE (RJ-45) 2 × 1G (SFP) 16 × E1 (CENTRONICS-36) 2 × SATA for SSD 1× console RS-232 port (RJ-45) 1 × USB 2.0	2 × 1GE (RJ-45) 2 × Combo 1G (SFP, RJ-45) 1 × 1G (RJ-45) OOB 16 × E1 (RJ-48) 2 × SATA HDD 2.5 1× console RS-232 port (RJ-45) 2 × USB 2.0
SIGTRAN/MGCP/H.248			•	•
Synchronization	From E1 stream	From E1 stream	From E1 stream From analog source	From E1 stream From analog source, 2 sync inputs/sync outputs
Capacity	Up to 2 E1 streams Up to 64 VoIP channels	4 E1 streams Up to 128 VoIP channels	Up to 16 E1 streams Up to 768 VoIP channels	Up to 16 E1 streams Up to 768 VoIP channels
Redundancy			Power redundancy	Master-Slave: by IP by E1 by power

Features and capabilities:

- VoIP protocols: SIP, SIP-T/SIP-I, H.323 (H.323 is available only for SMG-1016M, SMG-3016)
- TDM protocols: SS7, DSS1 (Q.931)
- Media stream transcoding
- **Semi-permanent connection mode for operation on satellite channels**
- DTMF support
- QoS: IP DiffServ; 802.1p
- CDR files creation
- RADIUS authorization and accounting
- Support for STUN, public IP, NAT comedia
- Management via WEB, CLI, SNMP
- Static and dynamic firewall
- Device access rights differentiation

ELTEX IP PBX

	SMG-200	SMG-500	SMG-1016M	SMG-3016	ECSS-10
Maximum number of subscribers	200	500	2000	3000	100.000+
Scalability	100–200	250–500	500–2000	1000–3000	•
Redundancy	Battery connection	Battery connection	2 power supply untis	Master-Slave: by IP by E1 2 power supply untis	High-availability cluster, geographical redundancy

Interfaces

E1		Up to 4	Up to 16	Up to 16	Depends on number and capacity of connected trunk gateways
FXS/FXO	Up to 16	Up to 16			Depends on number and capacity of connected subscriber gateways

VoIP

Services

	SMG-200	SMG-500	SMG-1016M	SMG-3016	ECSS-10
Virtual PBX					●
FMC	●	●	●	●	●
Call center with operator/supervisor workstation					●
Call queue	●	●	●	●	●
Subscriber personal account	●	●			●
Teleconference					●
Call recording	●	●	●	●	●
Voice mail	●	●	●	●	●

Session border controllers

	 SBC-1000	 SBC-3000	 E-SBC
Load	Up to 500 connections	Up to 2000 connections	Up to 50 000 calls
IP redundancy		Master-Slave	Local and geographical redundancy
DDoS attacks protection	●	●	●

Features and capabilities:

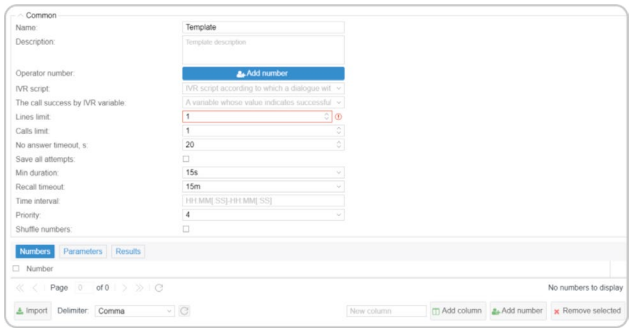
- Network topology hiding
- Port scanning protection
- Static and dynamic firewall
- SIP flood protection
- Client application filter
- RADIUS authorization

IP PBX ECSS-10

A modern software and hardware platform designed for building integrated infocommunication network connections. The complex is based on software and hardware components that provide a wide range of services and a high level of reliability.

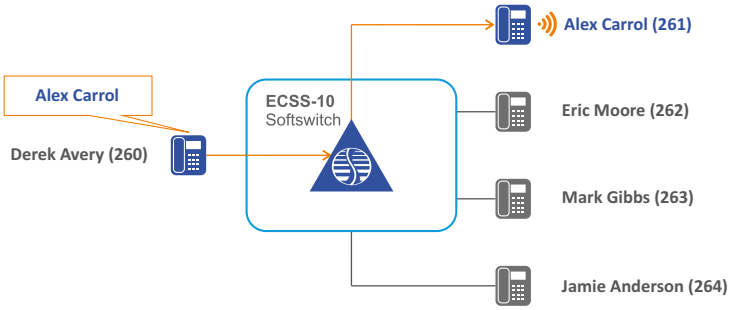
- 100 000+ subscribers
- Functionality of private-branch, rural, city, trunk line, combined and international telephone exchanges
- Virtual PBX
- Virtualization capability
- Support for Astra Linux
- Active-active redundancy mode
- Location based media traffic routing
- Geographical redundancy
- Scalability
- Web, CLI

«Auto Redial» Service



- Automated notifications of subscribers about debts, new services, etc.
- Integration with Yandex Speech Kit
- Keyword recognition
- Virtualization capability
- Web interface
- Voting
- Call statistics

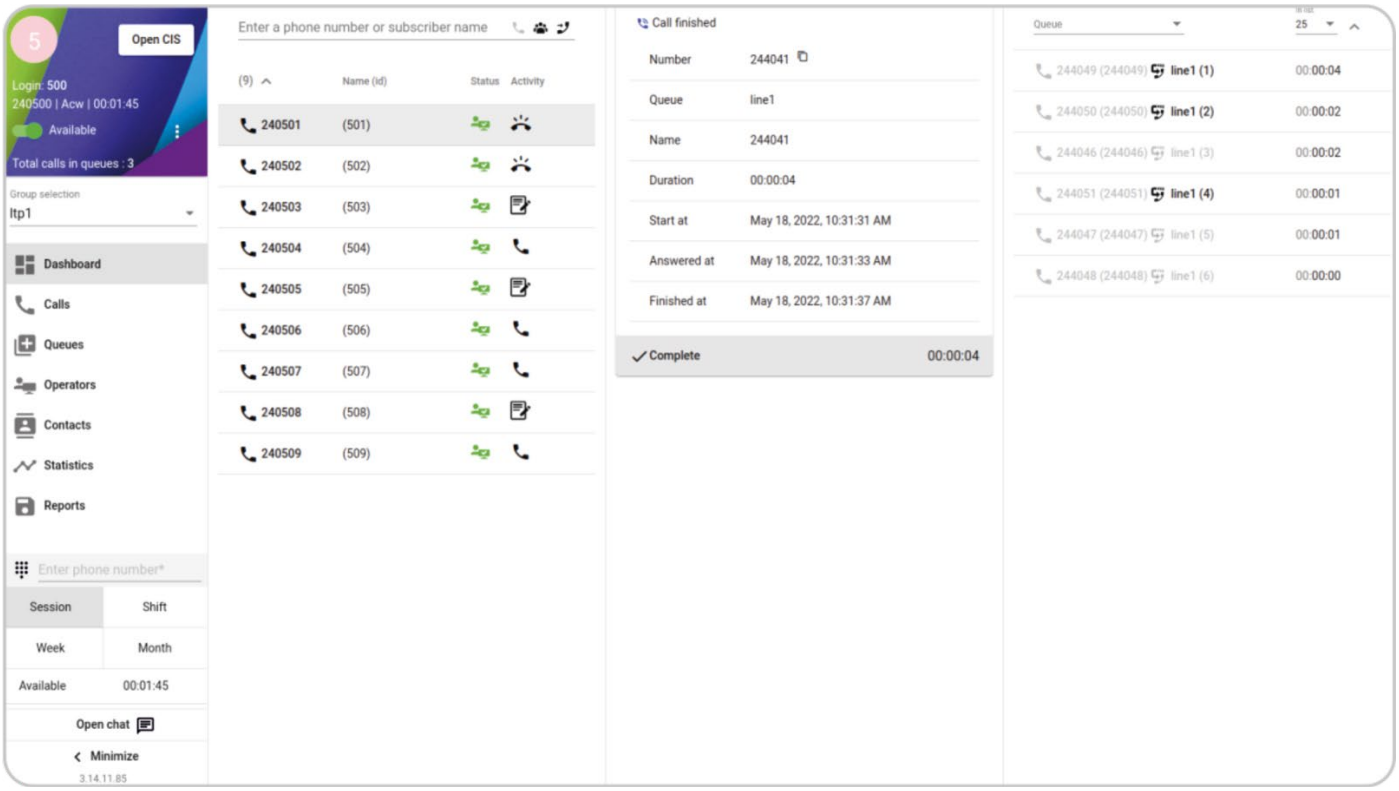
«Auto Attendant» Service



Speed dialing any phone number from an address book after saying the subscriber's name

IP PBX ECSS-10

Call center



- Opportunity for an operator to work with a phone only
- Operator workstation with a wide function set for calls processing
- Superviser workstation for call center monitoring
- Managing the call center settings via call center administrator application
- A wide range of call distribution algorithms
- Smart prediction of call waiting time in queue
- Selection and provision of a large amount of statistical information on call center performance
- Call prioritization when routing and queuing
- Call distribution according to operator's qualification
- Evaluating the performance of call center operators
- Queue hierarchy organizing
- Ability to pick up a call from a queue
- Manual mode for calls distribution in a queue
- Support for Callback feature in a queue

Geo cluster architecture

Objective

Organizing a distributed communication network in the regions with a full set of services

Services

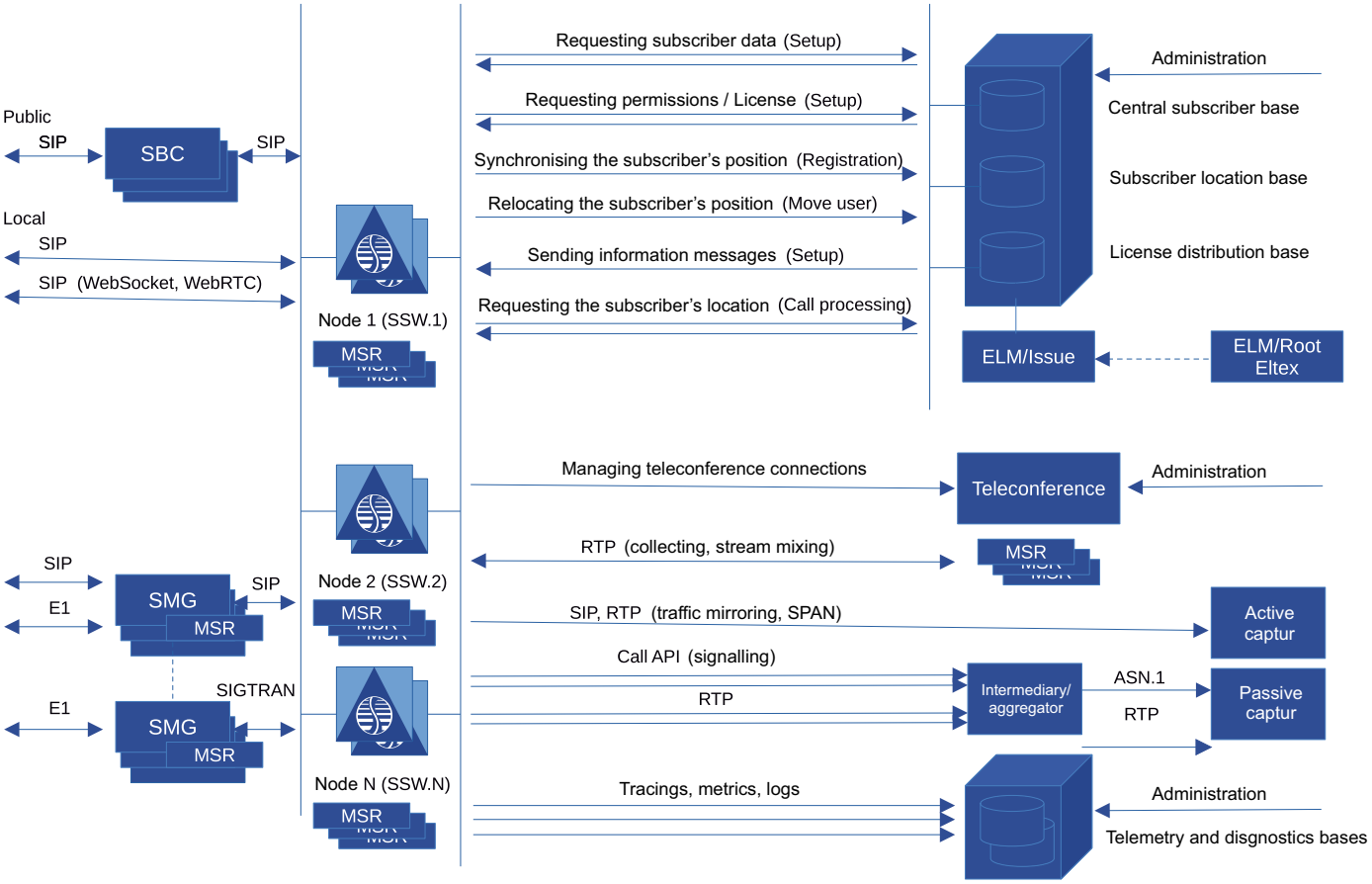
- Call center
- Virtual PBX based on ECSS-10
- Auto redial
- IVR
- Total call recording
- Intergration with various CRM systems

Benefits

User-friendly interface

Unified monitoring and management system

Automatic configuration of subscriber equipment



Organization of operator communication networks

Objective

Organizition of a transparent transmission of SS7 signaling via IP network

Services

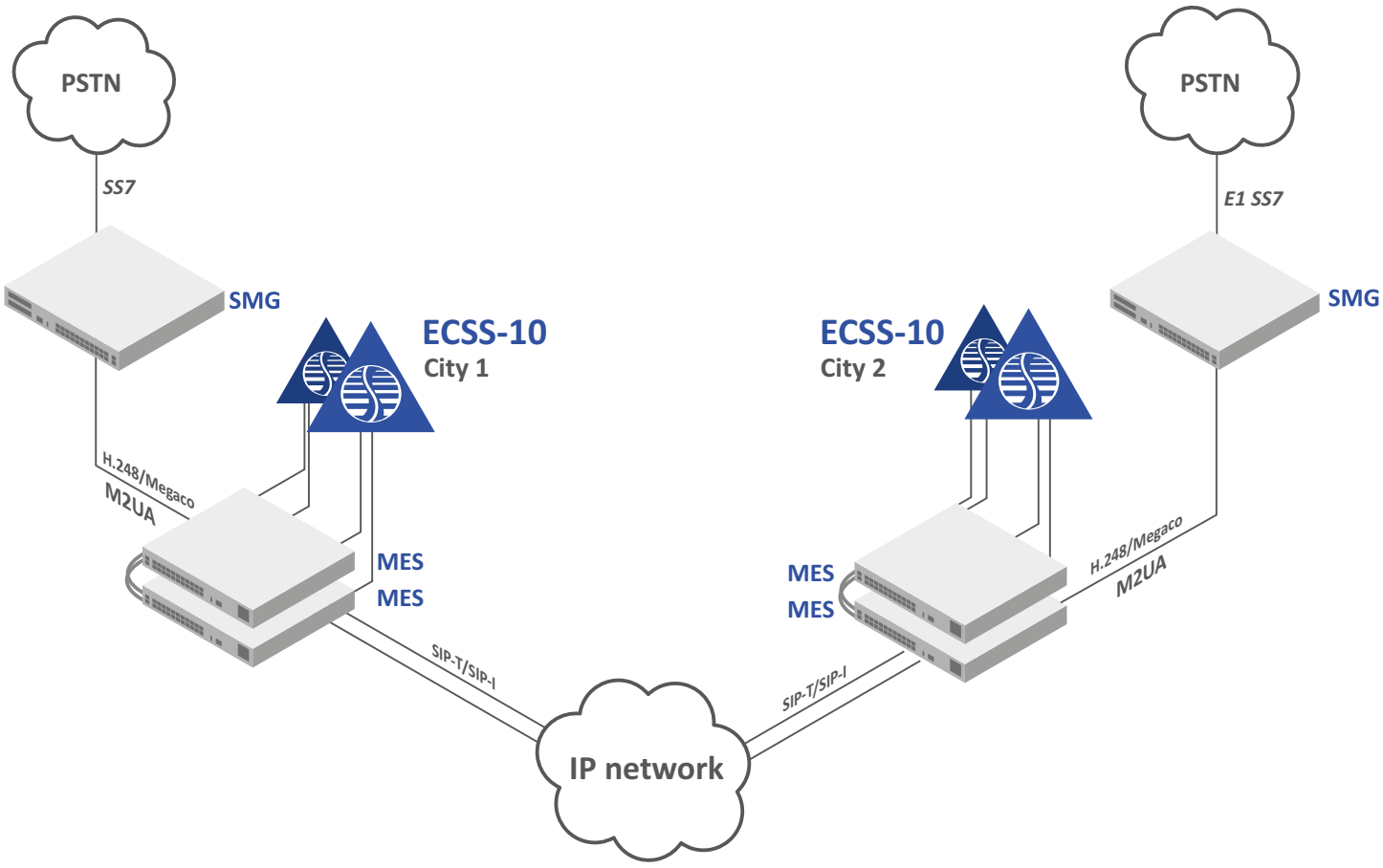
- Virtual PBX
- Call center
- Auto notification
- IVR
- Call recoring

Benefits

User-friendly interface

Unified monitoring and management system

Automatic configuration of subscriber equipment



Construction of fault-tolerant multiservice federal network

Objective

Construction of fault-tolerant multiservice corporate telecommunication networks

Services

- ECSS-10 Softswitch
- SMG
- SBC

Benefits

Multi-level redundancy (central node, geographic redundancy, local PBX)

Multi-domain architecture support

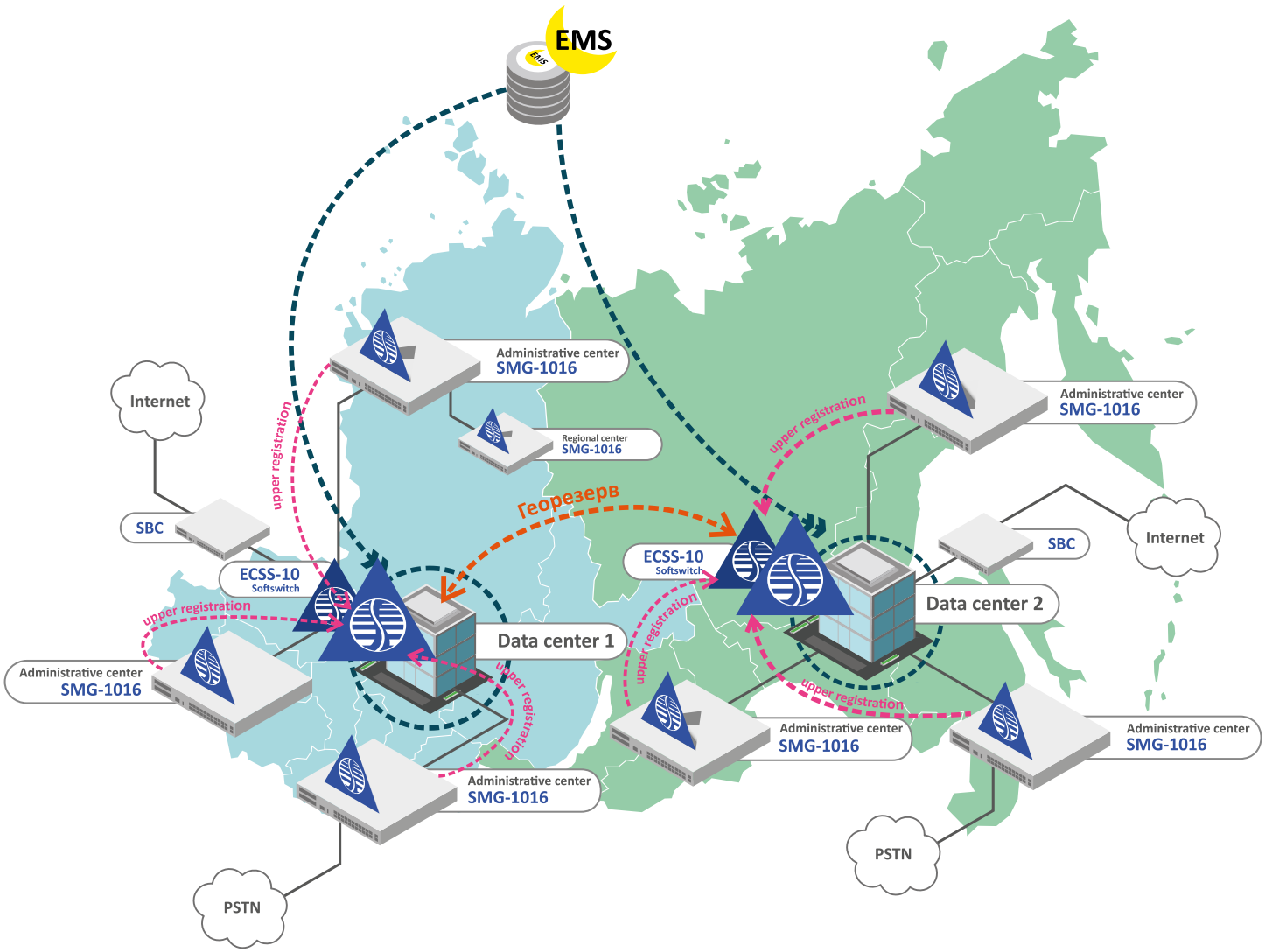
Corporate network protection

Cross-platform solution (servers, virtual machines)

Unified monitoring and management system

Autoconfiguration system for IP phones

A wide range of services



Organization of teleconferences and call centers

Objective

Organization of teleconferences and call centers for large enterprises

Services

- ECSS-10
- TAU-72.IP
- VP-15(P)
- VP-20(P)
- Elph

Benefits

Unified platform for corporate communication and teleconferences

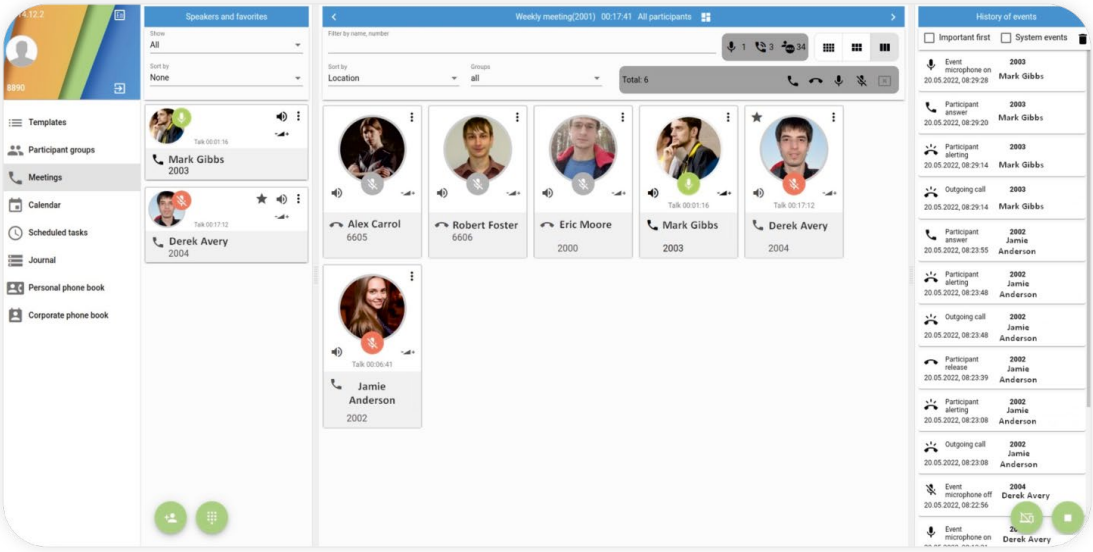
Conference history and templates

Different subscriber rights

Russian-language web interface dispatcher

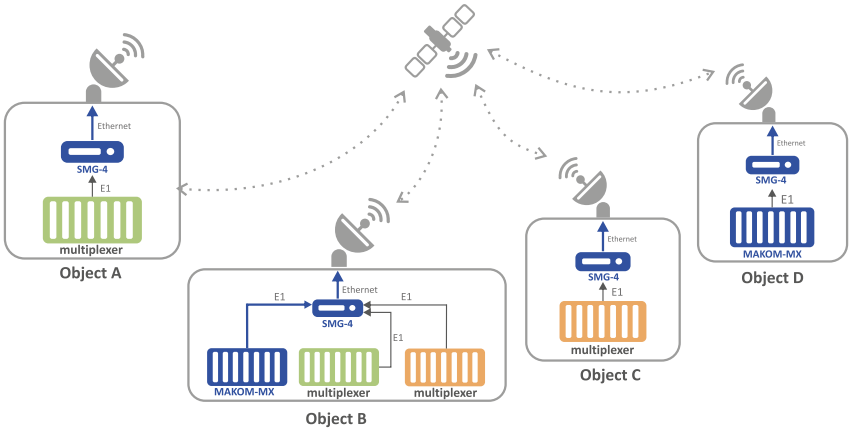
Up to 200 participants in a conference

Mute feature for all participants



Connection of remote objects via satellite communication channels

The special operation mode allows automatic maintaining a voice path between E1 streams of two devices (via channels with voice data packets switching) and providing effective echo cancellation on satellite communication channels.



Organization of networks for 100-3000 subscribers

Objective

Organization of network for 100-3000 subscribers

Services

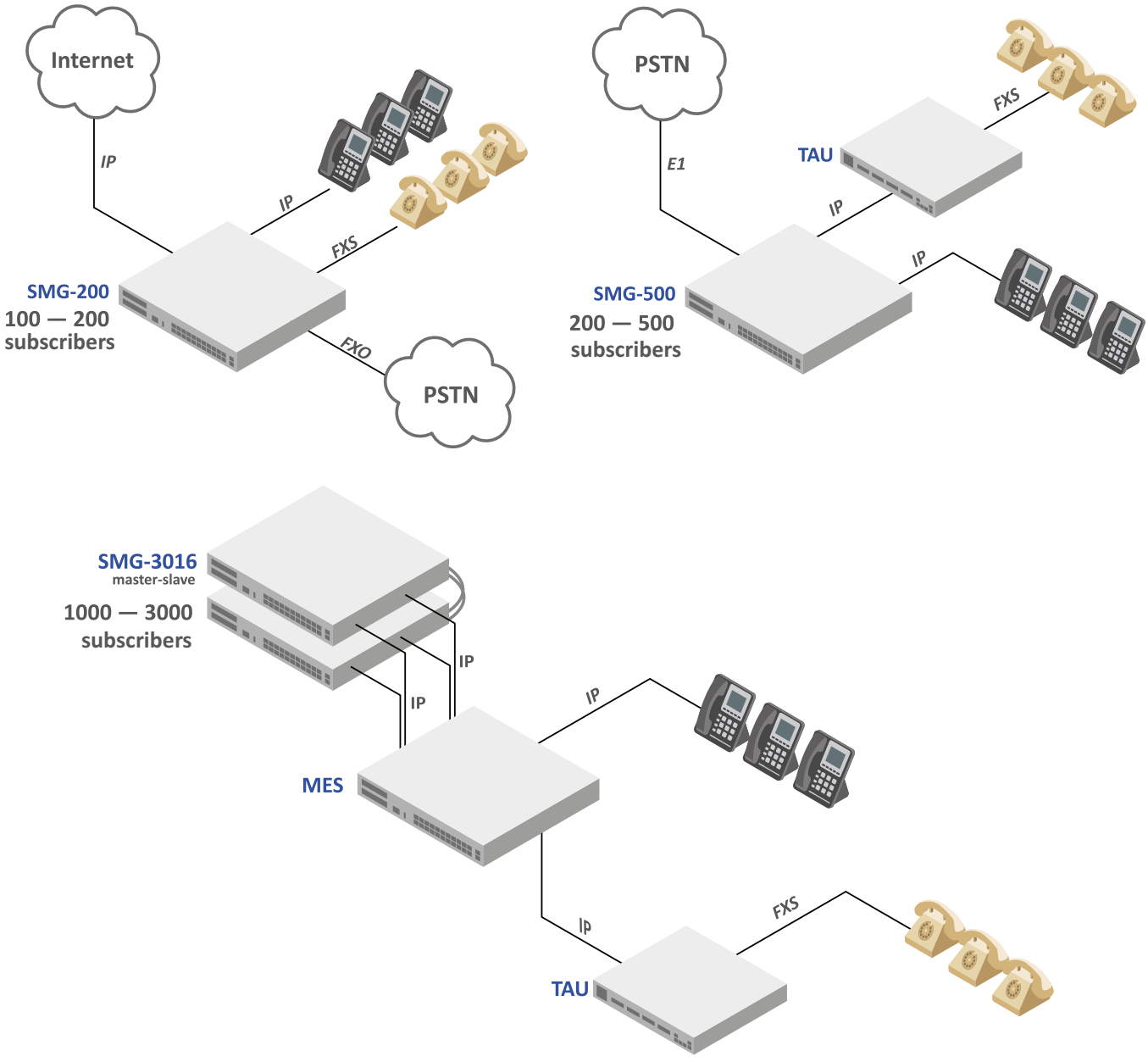
- SMG-200
- SMG-500
- SMG-3016
- MES
- TAU
- VP

Benefits

Easy management

Unified monitoring and management system

Automatic configuration of subscribers equipment



Organization of network for up to 100 000 subscribers

Objective

Organization of fault-tolerant network for 1000-100 000 subscribers

Services

- ECSS-10
- MES
- SMG-1016M
- SBC-3000
- VP-20(P)

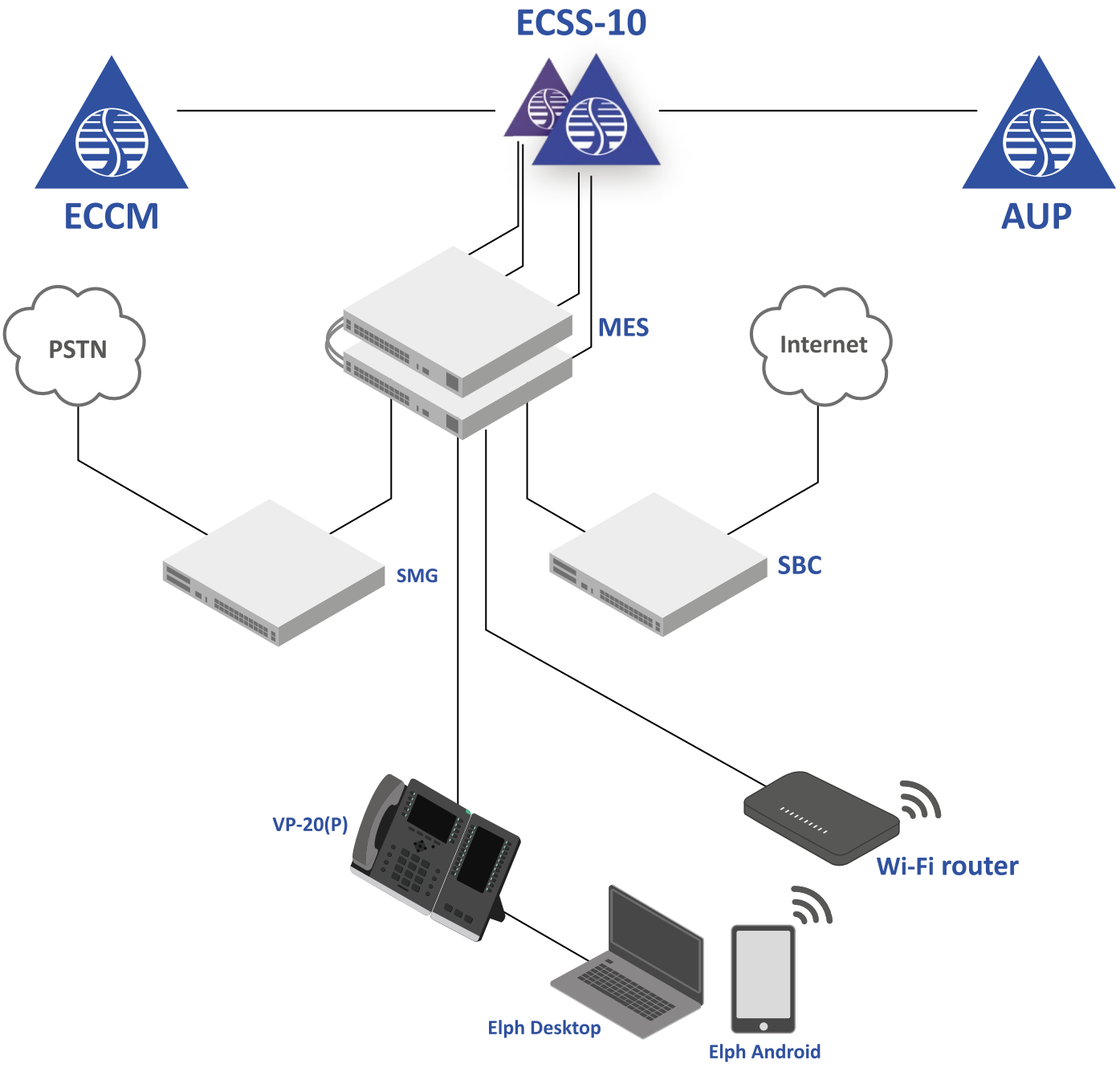
Benefits

Wide range of available services

Automatic configuration of subscribers equipment

High level of fault tolerance

Unified monitoring and management system



Unified communications. Elph

Objective

Organization of a modern network with a full range of services

Services

- ECSS-10 Softswitch
- SBC session border controller

Benefits

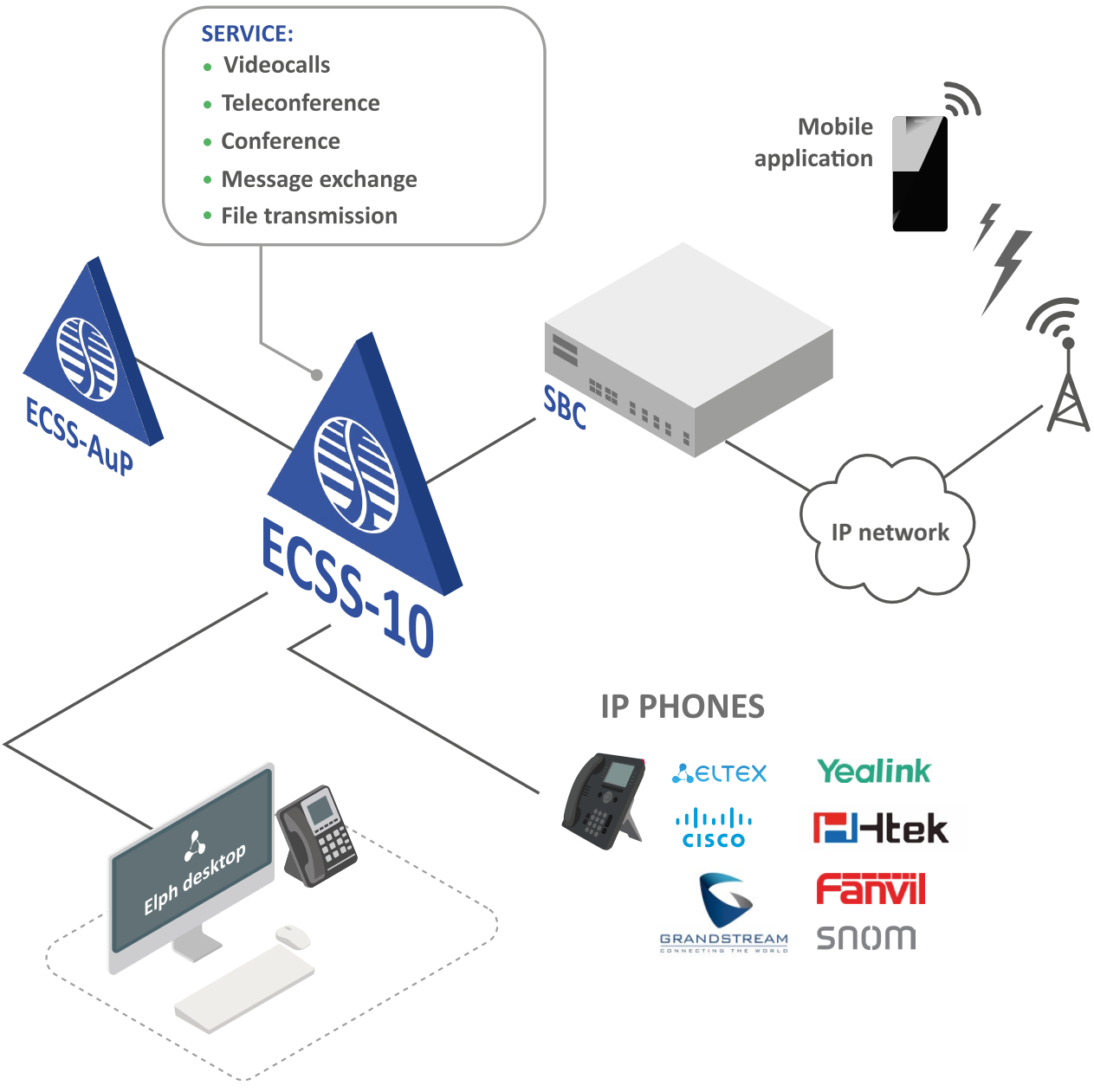
Support for «Auto Attendant» Service

Desktop assistant

Mobile application (iOS, Android)

Autoconfiguration system for IP phones and mobile clients

Corporate network security with SBC



IPTV Set-top box

In Russia, the CIS, near- and far-abroad countries, IPTV operators have already installed about 2.5 million Eltex subscriber media centers.

Benefits:

- Remote configuration
- Customization
- AppStore server, ACS-Box
- Software and hardware locking upon customer's requirements
- Voice control

NV-series Smart TV set-top boxes allow users to watch streaming multimedia and video content, as well as to install games and applications for Android.

Why do operators recommend buying a Smart TV set-top box?

- The high quality image transmitted by a Smart TV set-top box allows users to enjoy watching videos, clips, and movies.
- An easy-to-use, multifunctional and convenient media player with IPTV support will easily replace non-functional cable TV.
- Media center supports YouTube and other popular services.
  It can reproduce data over a local network or from USB sticks. The device easily functions even without access to the World Wide Web.

	Basic		Wi-Fi + BT	
	NV-731	NV-730	NV-731-WB	NV-730-WB
RAM	1 GB	2 GB	1 GB	2 GB
Flash	8 GB	8 GB	8 GB	8 GB
OS	Android 11	Android 11	Android 11	Android 11
4K	4Kp60	4Kp60	4Kp60	4Kp60
USB 2.0	2	2	2	2
HDMI	v2.1	v2.1	v2.1	v2.1
HEVC	H.265 L5.2	H.265 L5.2	H.265 L5.2	H.265 L5.2
Wi-Fi			802.11a/b/g/n/ac	802.11a/b/g/n/ac
Bluetooth			5.0 (BT)	5.0 (BT)
MicroSD	•	•	•	•
Additional equipment	IR remote control, RCA cable	IR remote control, RCA cable	IR remote control, RCA cable, Bluetooth voice remote control	IR remote control, RCA cable, Bluetooth voice remote control

Home devices

	 Wi-Fi router RG-35-Wac/ RG-35-WZ	 Wi-Fi router RG-5440G-Wac/ RG-5440G-WZ	 Wi-Fi router RG-5520G-Wax/ RG-5520G-WAX-Z	 Wi-Fi router NTU-RG-5420G-Wac/ NTU-RG-5420G-WZ
RAM	128 MB	256 MB	256 MB	256 MB
Flash	16 MB/32 MB	128 MB	128 MB	128 MB
OS	Linux	Linux	Linux	Linux
LAN	4x1FE	4x1GE	4x1GE	4xGE
WAN	1x1FE/1x1GE	1x1GE	1x2.5GE	1xGPON
Wi-Fi	2.4GHz 802.11b/g/n MIMO 2x2 5GHz 802.11a/n/ac MIMO 2x2	2.4GHz 802.11b/g/n SU MIMO 2x2 5GHz 802.11a/n/ac MU-MIMO 4x4	2.4GHz 802.11b/g/n/ax MU-MIMO 2x2 5GHz 802.11a/n/ac/ax MU-MIMO 2x2	2.4GHz 802.11b/g/n SU MIMO 2x2 5GHz 802.11a/n/ac MU MIMO 2x2
USB 2.0	●	●	●	●
Z-Wave protocol support	Only for WZ models	Only for WZ models	Only for WZ models	Only for WZ models
EasyMesh support	●	●	●	●

	 Wi-Fi router NTU-RG-5421G-Wac/ NTU-RG-5421G-WZ	 Wi-Fi router NTU-RG-5440G-Wac/ NTU-RG-5440G-WZ	 Repeater RR-10	 Repeater RR-11	 Smart Home hub SH-10-WZ
RAM	256 MB	256 MB	128 MB	128 MB	128 MB
Flash	128 MB	128 MB	16 MB	16 MB	16 MB
OS	Linux	Linux	Linux	Linux	Linux
LAN	4x1GE	4x1GE	4x1GE	4x1GE	–
WAN	1xGPON	1xGPON			1x1FE or Wi-Fi
Wi-Fi	2.4GHz 802.11b/g/n SU MIMO 2x2 5GHz 802.11a/n/ac MU MIMO 2x2	2.4GHz 802.11b/g/n SU MIMO 2x2 5GHz 802.11a/n/ac MU MIMO 4x4	2.4GHz 802.11b/g/n MIMO 2x2 5GHz 802.11a/n/ac MIMO 2x2	2.4GHz 802.11b/g/n MIMO 2x2 5GHz 802.11a/n/ac MIMO 2x2	2.4GHz 802.11b/g/n MIMO 2x2
USB 2.0	●	●	●	●	
Z-Wave protocol support	Only for WZ models	Only for WZ models			●
EasyMesh support	●	●	●	●	

Network controllers (PACS)

IPA-ER-010

IPA-ER-011

	IPA-ER-010	IPA-ER-011
Executive device relay output (NO-COM-NC)	1	2
Management interface	Ethernet 10/100Base-T (RJ-45)	Ethernet 10/100Base-T (RJ-45)
Wiegand	1	2
Binary output for low loads	1	2
“Dry contact” binary input	2	4
Binary input for external opening sensor	1	1
1-Wire	1	2
Fire alarm input	1	1
Real-time clock	●	●

Smart Home detectors and sensors

Temperature and humidity sensor SZ-AIR-HT01

Wireless water leak detector SZ-WLK rev.B

Wireless smoke detector (under development) SZ-SMK

IR remote control (under development) SW-IRC01

	Temperature and humidity sensor SZ-AIR-HT01	Wireless water leak detector SZ-WLK rev.B	Wireless smoke detector (under development) SZ-SMK	IR remote control (under development) SW-IRC01
Protocol	Z-Wave	Z-Wave	Z-Wave	Wi-Fi
Signal frequency	869 MHz	869 MHz	869 MHz	2.4 MHz
Signal range	Up to 100 m (direct unobstructed line of sight)	Up to 100 m (direct unobstructed line of sight)	Up to 100 m (direct unobstructed line of sight)	Up to 10 m
Power supply	CR123A lithium battery, 3 V or microUSB 5 V DC	CR123A lithium battery, 3 V	2 × CR123A lithium battery, 3 V	
Protection class	IP20	IP65	IP40	
Dimensions	70x31 mm (diameter x height)	90x57x34 mm	No more than 105x50x40 mm	
Operating temperature range	+5...+40 °C	+5... +45 °C	+5...+45 °C	+5...+45 °C
Operating humidity (at +40 °C)	No more than 95%	No more than 93%		
Maximum RF signal strength	+14 dBm	+14 dBm		+16 dBm

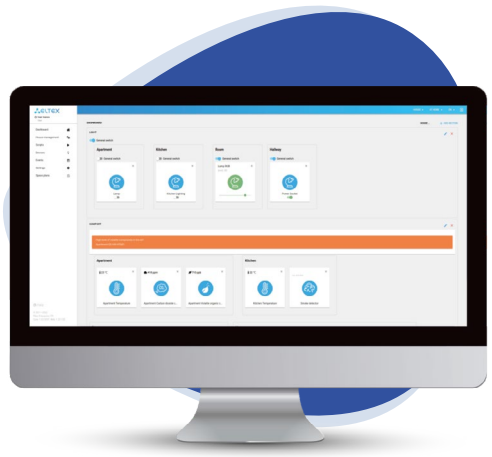
Smart Home detectors and sensors

	Wireless magnetic contact door/window sensor SZ-MCT	Wireless motion sensor SZ PIR
Signal frequency	869 MHz	869 MHz
Signal range	Up to 100 m (direct unobstructed line of sight)	Up to 100 m (direct unobstructed line of sight)
Power supply	CR123A lithium battery, 3 V	CR123A lithium battery, 3 V
Protection class	IP40	IP20
Dimensions	No more than 109x32x27.5 mm	No more than 90x58x45 mm
Weight with installed battery	No more than 80 g	No more than 100 g
Operating temperature range	+5...+45°C	+5...+45°C
Operating humidity (at +40 °C)	No more than 93%	No more than 93%
Maximum RF signal strength	+14 dBm	+14 dBm
FLiRS mode	●	●

	Wi-Fi lighting control relay SW-RLY01	Wi-Fi lighting control relay SW-RLY02	Wi-Fi socket SW-PLG01
WLAN	IEEE 802.11 b/g/n 2.4 GHz	IEEE 802.11 b/g/n 2.4 GHz	IEEE 802.11 b/g/n 2.4 GHz
Operating voltage	230 V	230 V	230 V
Connection type	Without neutral	With neutral	Plug type F
Number of channels	2	2	1
Maximum resistive load per channel	800 W	800 W	3000 W
Dimensions	43.5x18x43.5 mm	43.5x18x43.5 mm	51.5x80.5x38 (75) mm
Maximum LED load per channel	100 W	100 W	
Maximum current per channel	3.5 A (resistive load)	3.5 A (resistive load)	

	Wi-Fi microphone with a speaker RM-31W
Wi-Fi	802.1a/b
Digital microphone	DMIC
Speaker	Polyphonic 1 W
Sensitivity	Coverage area up to 5 m
Frequency range	From 20 Hz to 20 kHz
Power adapter	220/5 V

Eltex Smart Cloud platfrom



Eltex Smart Cloud (SC) is a platform for deploying IoT system and providing this service to users. Using it over the cloud, the interaction of software and hardware components of the system is carried out:

- hub collects data from Z-Wave and Wi-Fi sensors and smart devices, as well as user commands via Eltex Home application;
- data is processed and stored on the Eltex Smart Cloud platform.

Eltex SC has a client-server architecture. Corporate clients can install Eltex Smart Cloud in data center and individually configure the smart home system and manage it.

- Interaction with smart home platforms such as Yandex, Sber and VK
- Open API
- Alarm monitoring
- Remote firmware update
- Analytics
- Ability to integrate with operator's billing system for automatic account creation
- Ability to integrate with devices from other vendors
- User account management
- Device management
- Smart Home devices monitoring
- Sending event notifications
- Creating collaboration scenarios of devices
- Interaction with video surveillance systems

Eltex Smart Home center SL-10-WBZ

It performs the same functions as the cloud platform, but does not transfer information to shared storage — the user data do not go beyond the perimeter of home.

- Smart Home devices monitoring
- Device management
- Sending event notifications
- Creating working scenarios for devices
- Video surveillance
- Open API
- Remote firmware update

EVI Enterprise video surveillance

EVI is a professional software that provides a holistic solution for organizing video surveillance system at the enterprise with minimal delays and the most efficient use of workstation resources.

The software solution includes:

- EVI Videoserver is intended to receive streams from cameras and save them to the file archive.
  Customers deploy a video surveillance system at their own facilities.
- Client EVI is a unified connection point for admin and users, a client program designed to view video streams from cameras and to get access to the archive of video recordings.
  It is used by system administrator, security guards and personnel who need to control video streams from cameras (should monitor), work with archive and online broadcast.

Key capabilities:

- Getting video broadcast from surveillance camares
- Arrangement of streams from different cameras on one screen in various configurations (views)
- Forming and recording video stream data in the archive (motion recording, constant recording, scheduled recording)
- Access to video archive from a client interface
- Support for multiple video streams from a single camera
- Motion detection module
- Support for modern video codecs: H.264, H.265
- Support for standard protocols: RTP/RTSP
- Visual client on the Linux platform
- User rights system, roles supporting
- Import and export of cameras and settings

Solutions for telecom operators

Objective

Providing users with IPTV service at a high level with available remote configuration, service quality assessment and operative bug fixes

Equipment

- Smart TV set-top boxes NV-730 and NV-731
- AppStore server
- Eltex.ACS-BOX
- Subscriber routers
  - RG-5440G-Wac/WZ
  - NTU-RG-5420G-Wac/WZ
  - NTU-RG-5440G-Wac/WZ

Benefits

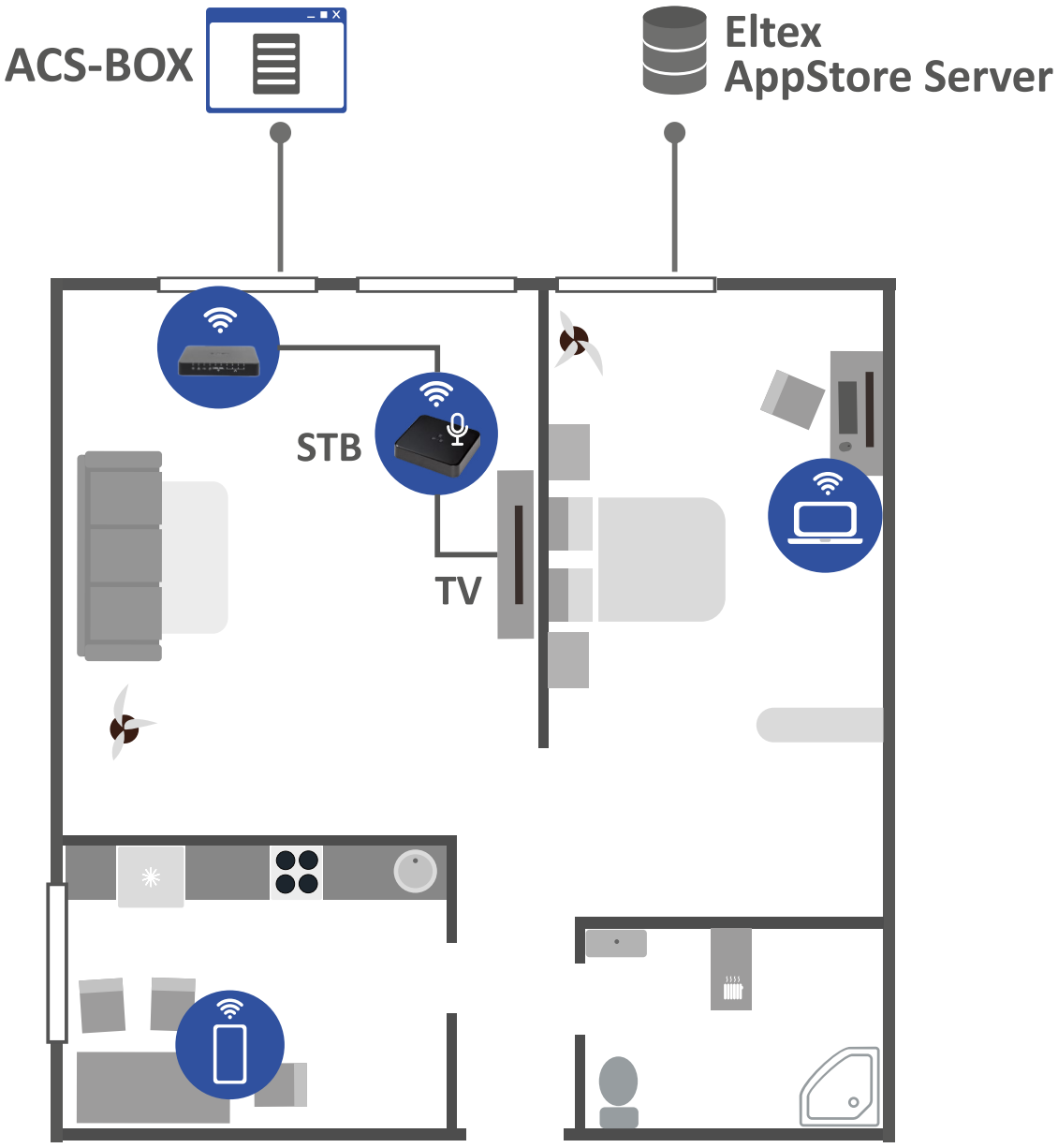
Remote configuration

Customization

AppStore

Software-hardware locking upon customer's requirements

Voice control



Corporate TV

Objective

Providing corporate customers with
equipment and management systems
for CorpTV service to solve internal and external tasks

Equipment

- Smart TV set-top box NV-730
- Eltex.ACS management system
- Eltex.ACS-BOX

Benefits

Ability to cooperate with CorpTV solutions, supplementing them with equipment and management software

Formation of corporate culture

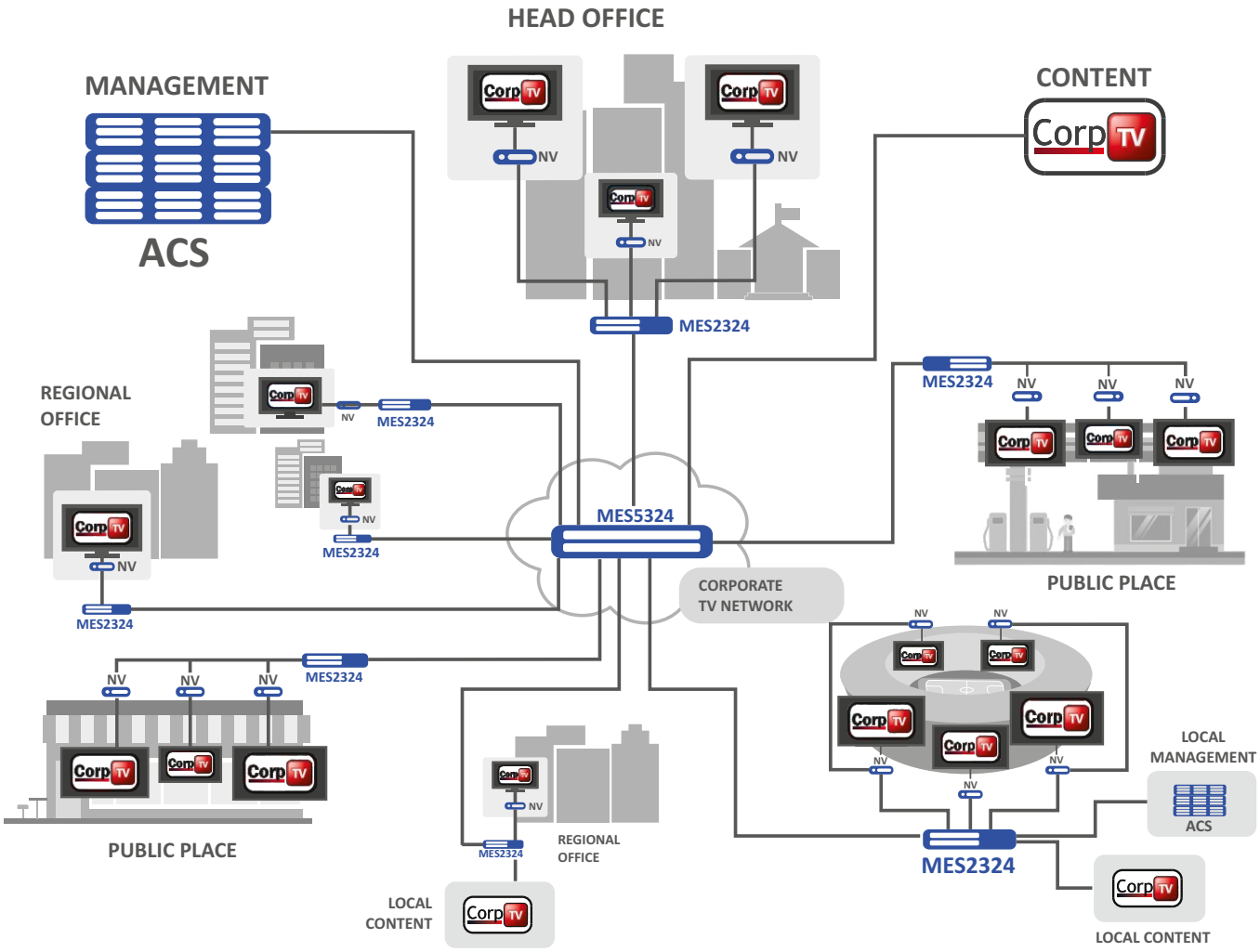
Informing employees

Training

Promotional video broadcasting

Informing clients

Emergency notifications



Smart Home

Objective

Providing builders with Smart Home equipment

Equipment

- ELTEX Smart Cloud/Box
- Hub systems with Wi-Fi/Z-Wave protocol support
- Sensors
- Executive devices
- Eltex Home mobile application

Benefits

Service providing on the basis of telecom operator existing infrastructure

Potential subscriber binding

User-friendly application

Voice control
(only for SL-10-WBZ)

Integration with voice assistants:

Alice, Salute, and Marusya (only for Eltex Smart Cloud)

Eliminating Wi-Fi zones with a weak signal

Objective

Coverage extension of home Wi-Fi network

Equipment

- Routers with EasyMesh support (Ethernet, PON)
- Repeaters:
  — RR-10
  — RR-11

Benefits

Guaranteed Wi-Fi coverage

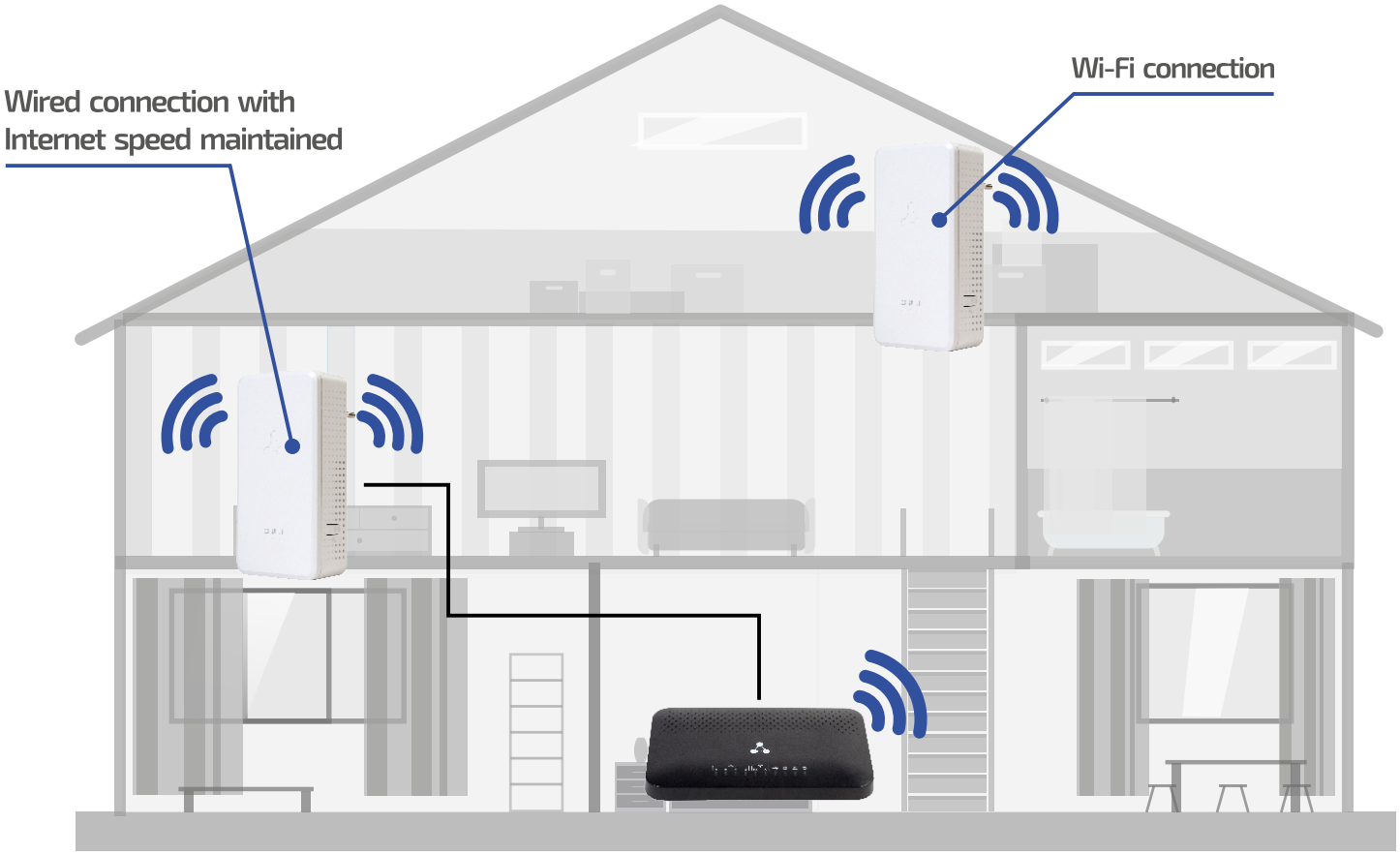
Decreasing subscriber calls to the telecom technical support related to Wi-Fi issues

Self-optimizing wireless network

Unified Wi-Fi network with a common name and password

Moving between Wi-Fi zones without losing connection

Unified intelligent network without «dead zones»

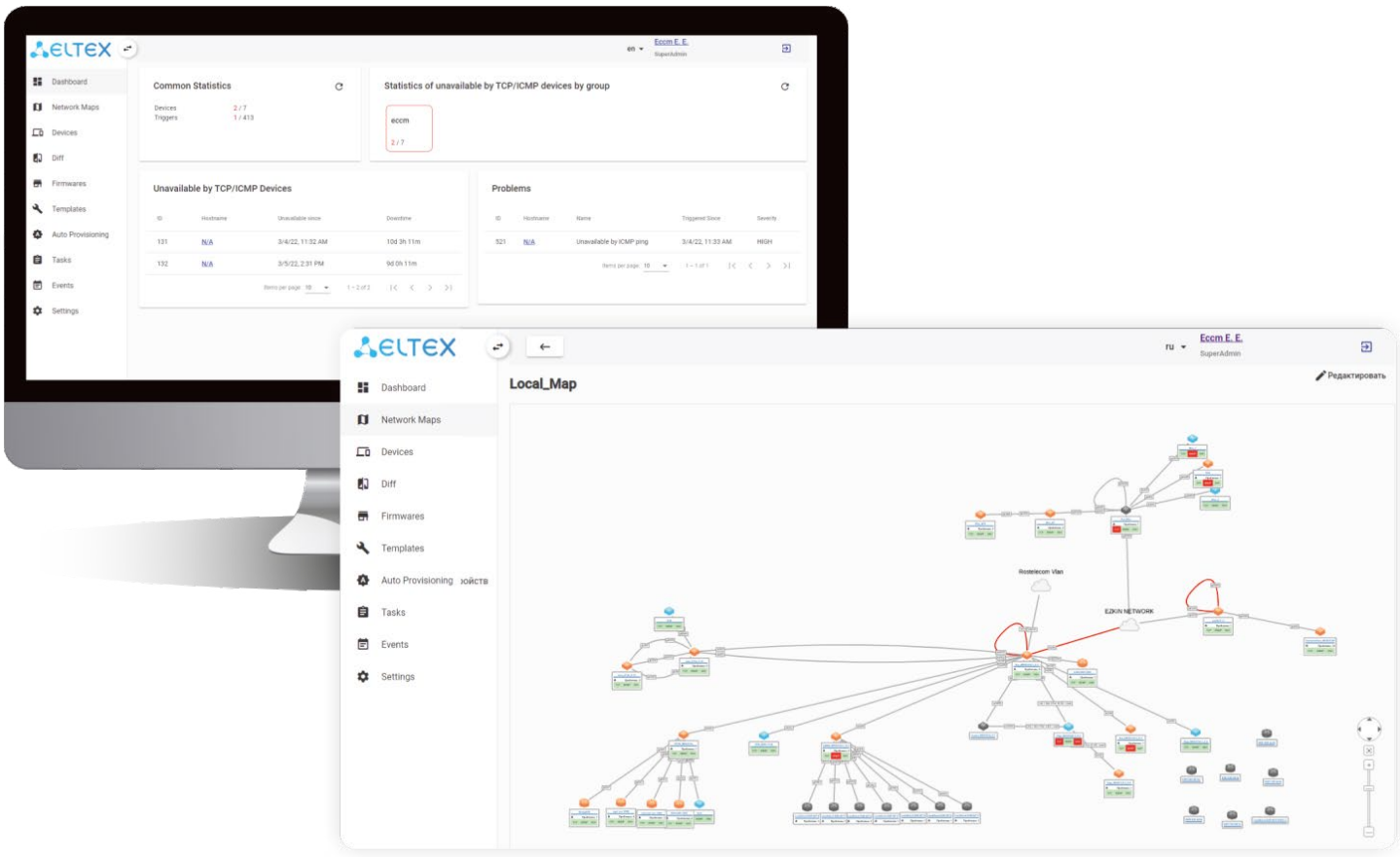


Software

ELTEX Cloud Configuration Manager is a centralized network equipment management system. The system is managed via a modern user-friendly web interface that provides convenient tools for configuring system and network
equipment to the user needs.

Key features:

- Status and inventory data monitoring
- Device configuration management
- Centralized management of firmware updates
- Selecting device groups with differentiation of access rights
- Setting rights and roles of system users
- Network maps with automatic discovery of connectivities between devices via LLDP
- Group configuration steps with support for Jinja templates
- Basic implementation of Zero Touch Provisioning (ZTP)



Software

Eltex.EMS

Centralized network equipment management system

- Monitoring of main device parameters
- Online display of device alarms in text and graphic forms
- Grouping line terminals into nodes with a capability to view all failures of a selected node
- Automatic search for ELTEX devices in network

Eltex.ACS

Subscriber devices management system

- Auto-configuration and dynamic provisioning
- Status and performance monitoring
- Firmware version management
- Centralized firmware updates
- Creating scheduled tasks

Eltex.ACS-box

Web application allows integrating and adapting ACS management system into an existing structure via NBI requests

AppStore server

Client-server solution that allows client devices to receive up-to-date versions of applications and firmware.

- Various Android applications based on MIPS/ARM architecture and current firmware versions for NV-series devices
- IPTV set-top box launcher customization
- Beta tester function for applications and firmware

Electronic version
of the catalog

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