



DEVELOPMENT AND MANUFACTURING OF
TELECOMMUNICATION EQUIPMENT



ELTEX ENTERPRISE

Russian developer and manufacturer of telecommunication equipment

- **26 years of** telecommunication equipment development and manufacturing
- More than **600 employees**
- **7 R&D laboratories**
- **2 production sites**
(Novosibirsk, Kazakhstan)
- **More than 30 partners** in Russia, CIS and Eastern Europe

- **More than 1500 clients**
- Complete cycle of development, production and technical support
- Modern automated production lines
- All the equipment, produced by Eltex, is designed by our engineers in-house



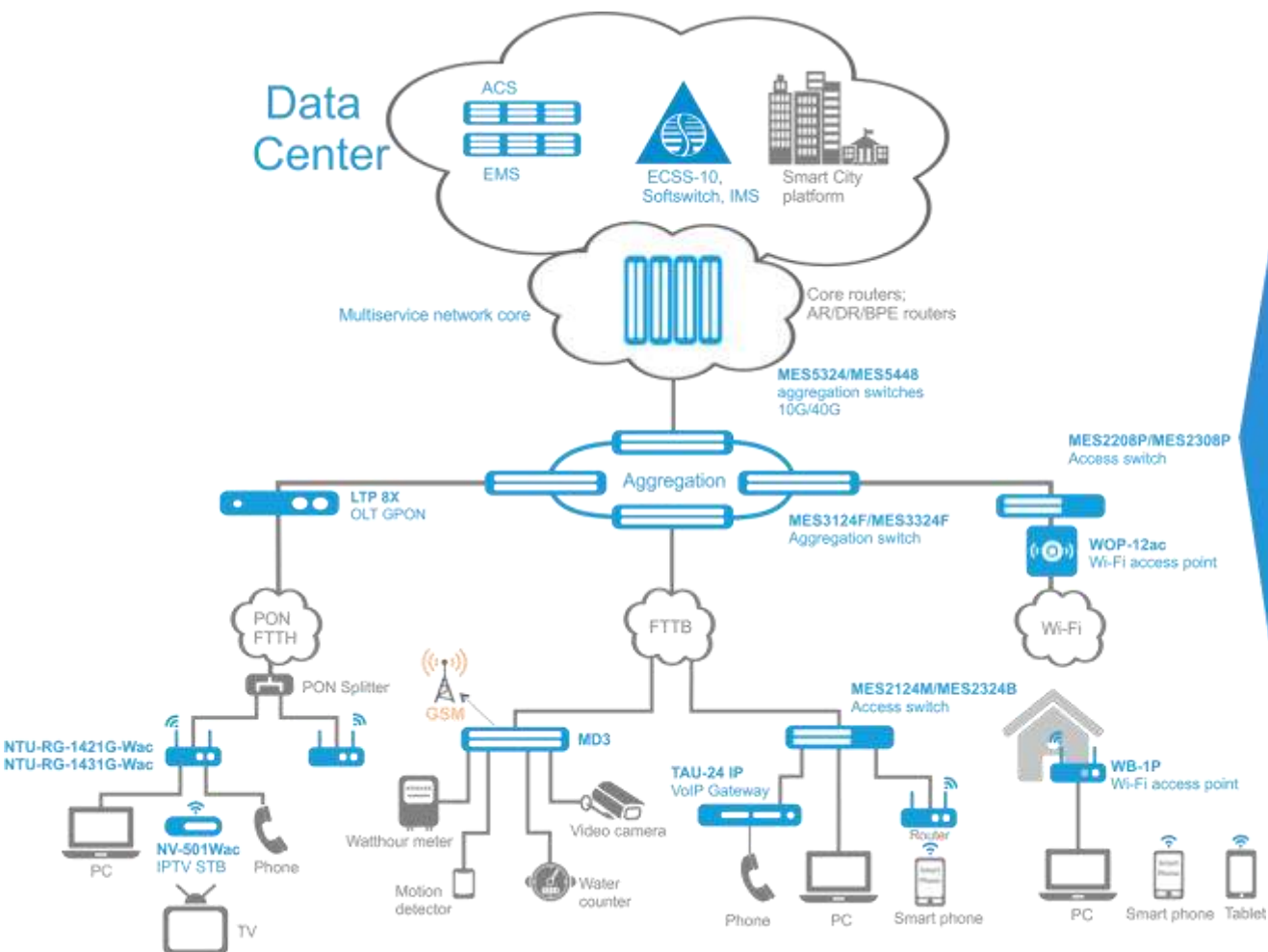
Industrial complex in Novosibirsk



Industrial complex in Kazakhstan

ELTEX EQUIPMENT

Eltex produces a wide range of solutions for modern networks



■ — Eltex equipment is shown in blue



Core routers



Edge/Distribution/PE and CE routers



Aggregation and access switches



xPON



Wi-Fi access points with controller



Monitoring and data acquisition controllers



VoIP gateways and Softswitch



Customer Premises Equipment



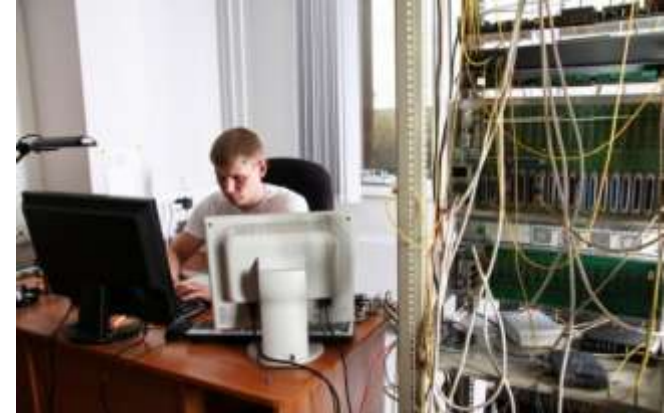
Management system



«Smart home» system



The complete cycle of development, production and technical support is implemented by the enterprise in Novosibirsk



1 Development

- Hardware
- Software

2 Manufacture

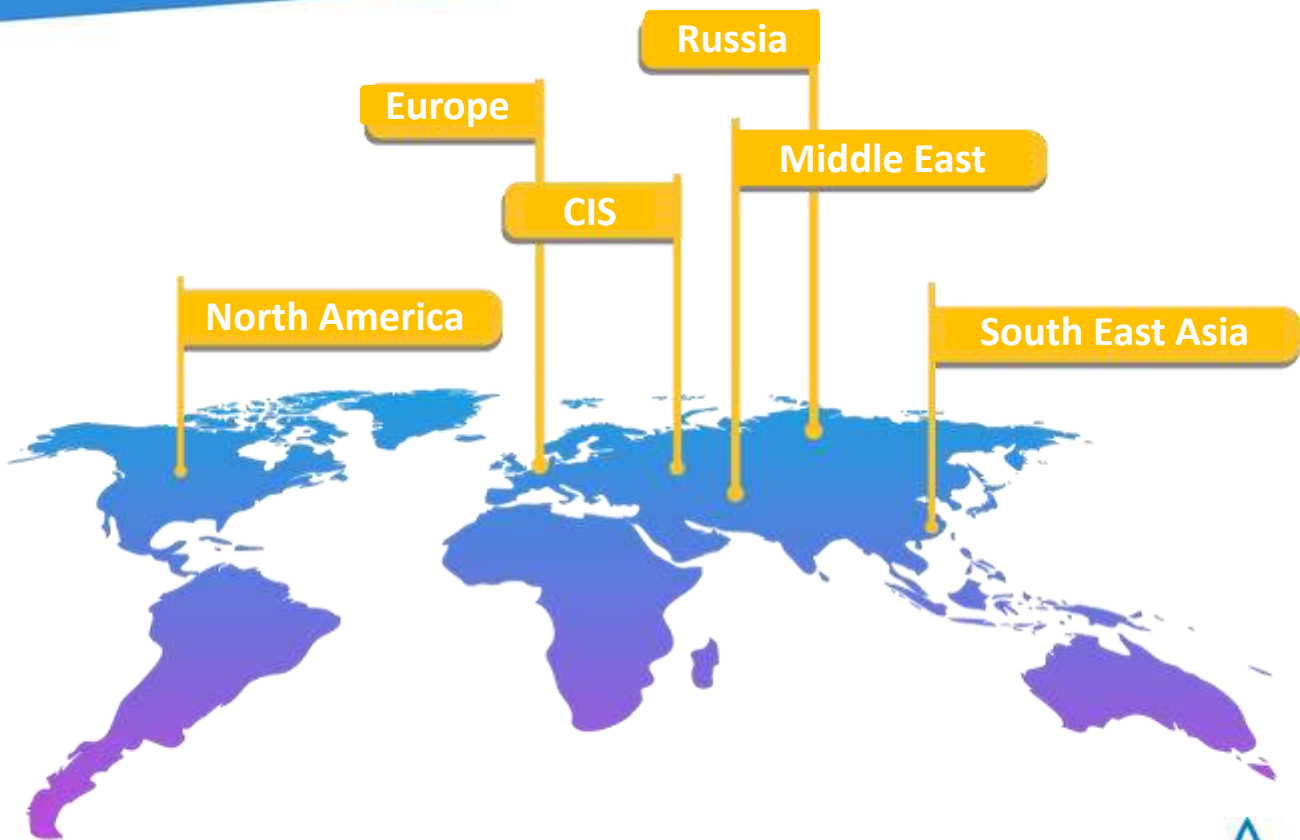
- Surface-mount technology
- Through-hole technology
- Assembling
- Software installation
- Testing of serial production equipment

3 Maintenance

- Technical support
- Service center
- Software updating
- Warranty service and repair



PROJECTS



- 8 millions of PON OLT ports
- 3 millions of Ethernet ports
- 3 millions of VoIP ports
- 750 thousand IPTV Set-top boxes
- 1 millions of TDM ports

iPHOTONIX

SAT-TRAKT
TELECOMMUNICATIONS

 **GAZPROM**

 **SBERBANK**

ORION
telekom

 **VimpelCom**

m:tel



Development and manufacturing
of telecommunication equipment

PON

Ethernet switches

Service routers

Wi-Fi access points

VoIP terminals

Trunk gateways

IP PBX / Softswitch

Media (IPTV set-top boxes,
home routers, Smart home)

Rural areas and low density environment



LTP-4X

- GPON (2.5/1.25 Gbps)
- 4 GPON ports
- 2x10G SFP+, 4x1G combo
- 128 ONT/GPON port
- Up to 512 ONT
- 1U



High density environment



LTP-8X

- GPON (2.5/1.25 Gbps)
- 8 GPON ports
- 2x10G SFP+, 4x1G, 4x1G combo
- 128 ONT/GPON port
- Up to 1024 ONT
- 1U



MA4000-PX

- GPON (2.5/1.25Gbps)
- 1 Tbps
- 8x10G SFP+, 4x1G
- 64 ONT/GPON port
- Up to 8192 ONT
- 10U
- redundancy control modules, power supply inputs



LTP-16N

- GPON (2.5/1.25 Gbps)
- 16 GPON ports
- 4x10G SFP+, 4x1G, 4x1G combo
- 128 ONT/GPON port
- Up to 2048 ONT
- 1U





LOW-COST

NTU-1



1xGE LAN, bridge

NTU-2V



100M LAN, 1GE LAN, 1xFXS

NTU-2W



2xGE LAN, 802.11n, 2*2 -300Mbps - 2,4GHz

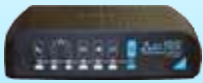
NTU-SFP-100



SFP ONU

CaTV

NTU-1C



1x1GE LAN, bridge RF connector (CaTV)



NTU-2VC



2x1GE LAN, 1xFXS RF connector (CaTV)



NTU-RG-1421GC-Wac



4x1GE LAN, 1xFXS, 2xUSB, RF connector (CaTV)
Wi-Fi:
802.11n, 2*2 -300Mbps - 2,4GHz + 802.11ac, 3*3 - 1.3Gbps-5 GHz



Dual-Band Wi-Fi

NTU-RG-1421G-Wac



4x1GE LAN, 1xFXS, 2xUSB
Wi-Fi:
802.11n, 2*2 -300Mbps - 2,4GHz + 802.11ac, 3*3 - 1.3Gbps-5 GHz

NTU-RG-5421G-Wac



4x1GE LAN, 1xFXS, 2xUSB
Wi-Fi:
802.11n, 2*2 -300Mbps - 2,4GHz + 802.11ac, 2*2 - 866Mbps -5 GHz

NTU-RG-1431G-Wac



4x1GE LAN, 1xFXS, 2xUSB
Wi-Fi:
802.11n, 3*3 -450Mbps - 2,4GHz + 802.11ac, 3*3 - 1.3Gbps-5 GHz

NEW! — Under development
2Q 2018



NTU-1C

- 1 GPON port
- 1 LAN (10/100/1000Base-T)
- Bridge RF connector (CaTV)

NTU-1C will be designed to provide broadband services to subscribers in apartment buildings, residential complexes and cottage settlements.

LAN port allows to connect customer PC or gateway to build a local home network.

Bridge RF port allows to provide CaTV service.



CONFIGURING AND MONITORING

- Remote control using OMCI protocol
- Software Update via OMCI or HTTP

SECURITY FUNCTIONS

- Speed restriction on ports
- AES coding



NTU-RG-5421G-Wac



- 1 GPON port
- 4 LAN (10/100/1000Base-T)
- 1xFXS, 2xUSB

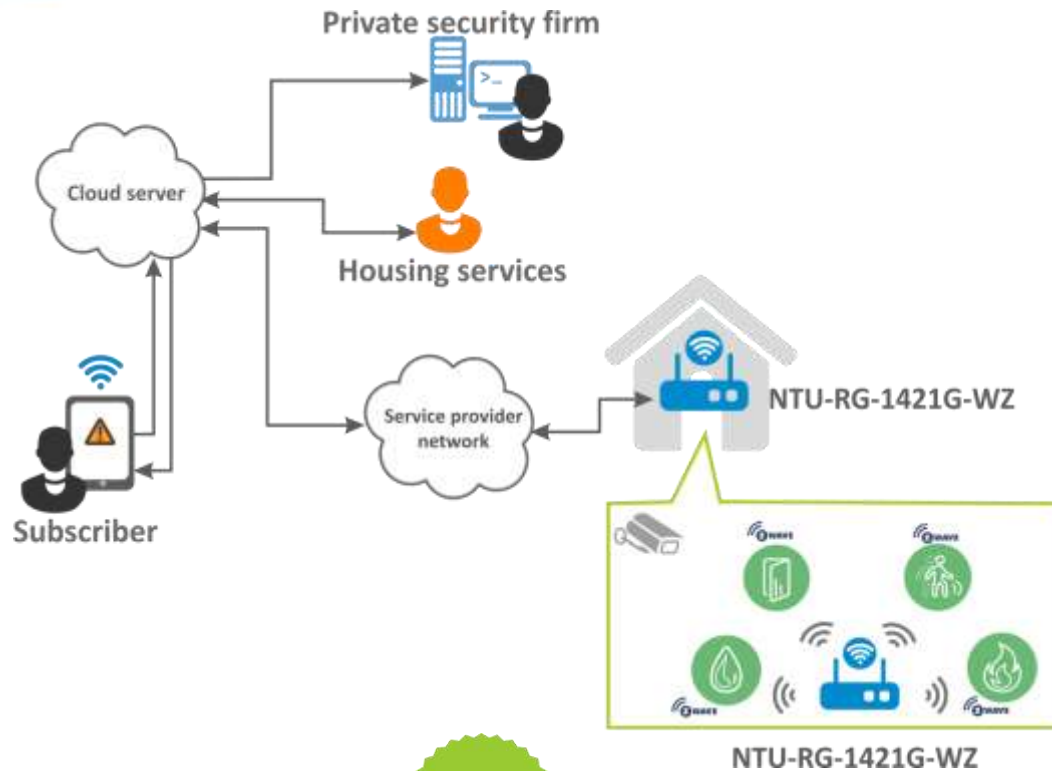
Wi-Fi:

- 802.11n, 2*2 - 300Mbps @ 2,4GHz
- 802.11ac, 2*2 - 866Mbps @ 5 GHz



Designed to provide broadband services to subscribers with high requirements to wired and wireless network in terms of data rates and security.

Recommended to use for urban customers living in city apartments with high level of interference, as well as business customers in city office buildings or campuses.



The Smart Home solution:

- **NTU-RG-1421G-WZ** with Z-Wave controller
- **sensors** (motion sensors, magnetic contact security alarms, temperature sensors, flood sensors, gas detectors, etc.)
- **surveillance cameras**

MANAGEMENT SYSTEM (Cloud server):

- event registration;
- user accounts;
- notification system for security and household purposes;
- push notifications on a smart phone in the app.

NTU-RG-1421G-WZ



4x1GE LAN, 1xFXS, 2xUSB

Wi-Fi:

802.11n, 2*2 - 300 Mbps - 2,4 GHz

802.11ac, 3*3 - 1.3 Gbps - 5 GHz



NTU-RG-1421G-WZ



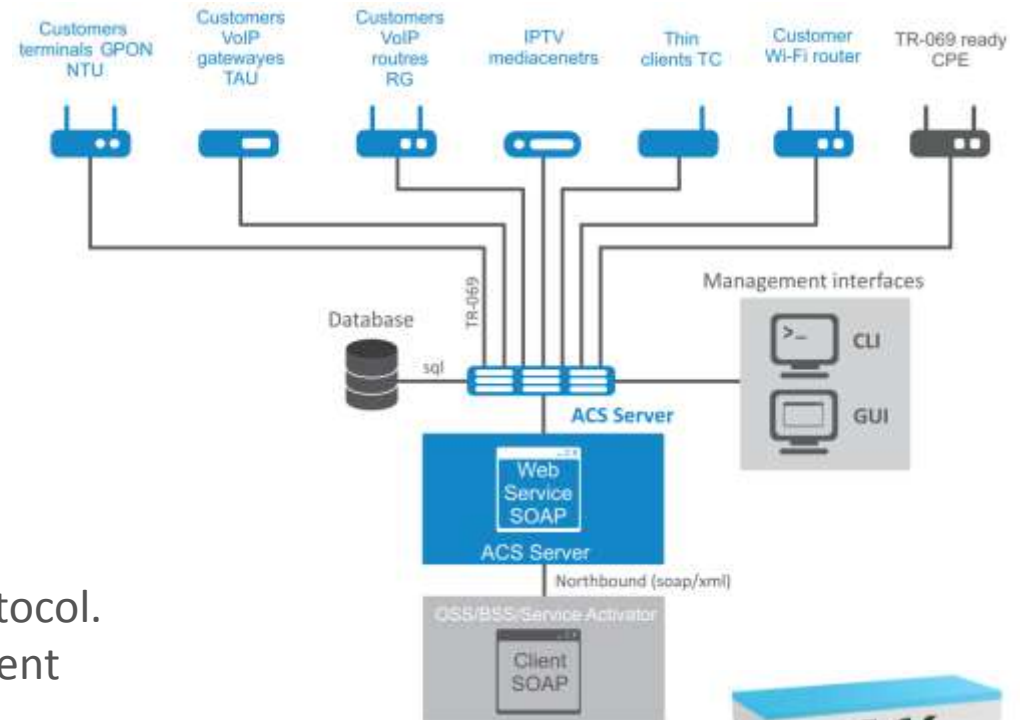
— Under development

Automatic Configuration Server (Eltex.ACS)

- Monitoring of all main parameters of the devices
- Online display of all CPE alarms in text mode and graphic view
- Grouping of subscriber terminals to manage and update multiple devices at the same time
- Auto registration of devices after installation

Eltex.ACS is designed to automate and ease the configuration of CPE using standard TR-069 protocol. Operator has remote management access to client equipment through his network.

Eltex.ACS is a single system for safe automatic CPE configuration and management functions.





MANAGEMENT AND MONITORING SYSTEM

A unified management and monitoring system – Eltex.EMS



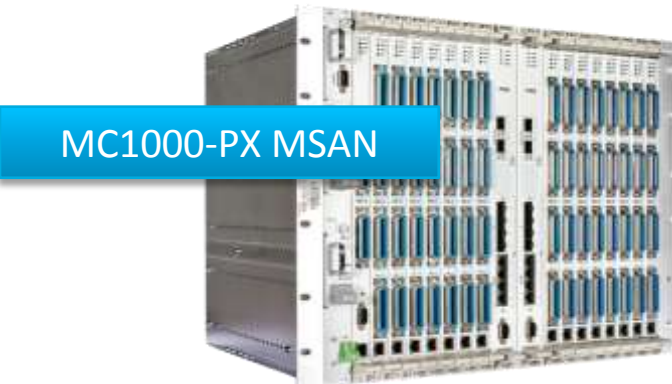
Softswitch



VoIP gateways



GPON OLT



MC1000-PX MSAN



Ethernet switches



Power supply units

Eltex.EMS

- Monitoring of all main parameters of the devices
- Text and graphic online display of device failures
- Grouping of linear terminal into nodes with possibility to view all failures of a selected node
- Automatic search of devices in the network



Eltex.EMS is a centralized management system for all network equipment provided by Eltex.

The Eltex.EMS system uses a client-server based architecture. With rich Web-based interface the operator can have simultaneous control under different network elements.



Development and manufacturing
of telecommunication equipment

PON

Ethernet switches

Service routers

Wi-Fi access points

VoIP terminals

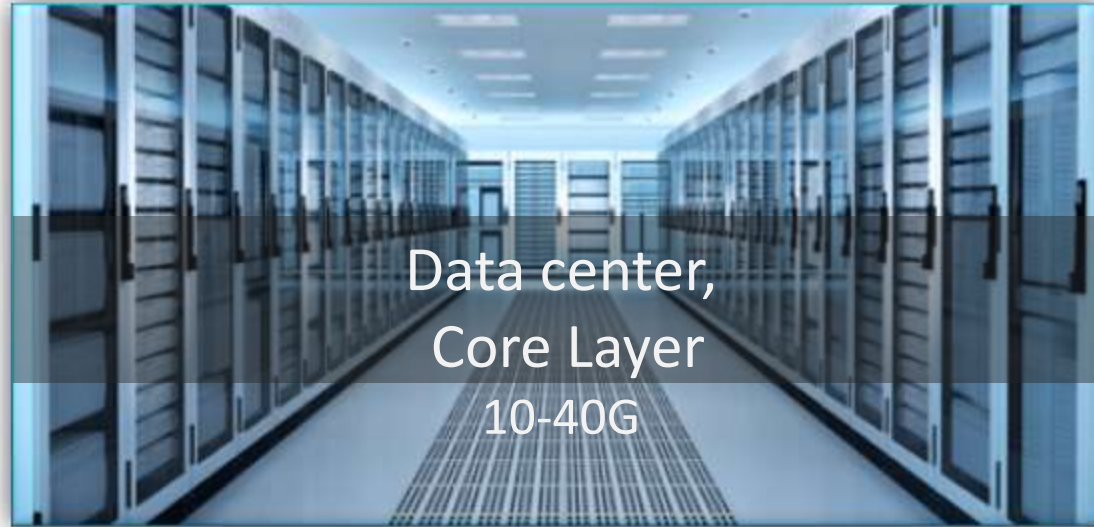
Trunk gateways

IP PBX / Softswitch

Media (IPTV set-top boxes,
home routers, Smart home)

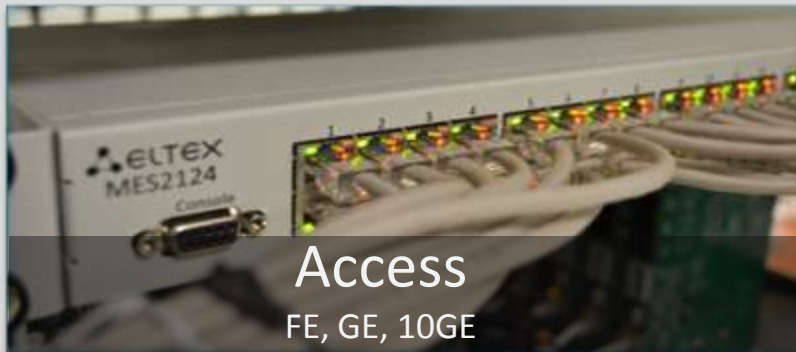


ETHERNET SWITCHES



Data center,
Core Layer
10-40G

Ethernet switches



Access
FE, GE, 10GE



Aggregation
10GE, 40GE



ETHERNET ACCESS SWITCHES

Fast Ethernet

MES1124M AC/DC



- 24 x 100M Eth
- 4 x 1G Combo
- L2
- 220V AC/48V DC

MES1124MB AC



- 24 x 100M Eth
- 4 x 1G Combo
- L2
- 220V AC+12V – rechargeable storage battery supply

Gigabit Ethernet

MES2308



- 8 x 1G Eth
- 2 x 1G SFP
- 2 x 1G Eth
- L2+
- 220V AC

MES2308R



- 8 x 1G Eth
- 2 x 1G Combo
- L2+
- 220V AC

MES2324



- 24 x 1G Eth
- 4 x 10G SFP/SFP+
- L2+
- 220V AC

MES2324B



- 24 x 1G Eth
- 4 x 10G SFP/SFP+
- L2+
- 220V AC+12V – rechargeable storage battery supply

MES2348B



- 48 x 1G Eth
- 4 x 10G SFP/SFP+
- L2+
- 220V AC+12V – rechargeable storage battery supply

Fiber

MES2324F DC



- 20 x 1G SFP
- 4 x 1G Combo
- 4 x 10G SFP/SFP+
- L2+
- 48V DC

MES2324FB AC



- 20 x 1G SFP
- 4 x 1G Combo
- 4 x 10G SFP/SFP+
- L2+
- 220V AC+12V – rechargeable storage battery supply

PoE

MES2308P AC



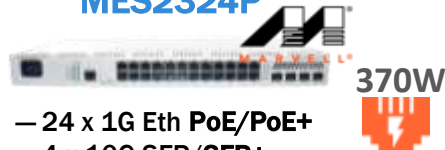
- 8 x PoE/PoE+
- 2 x 1G SFP
- 2 x 1G Eth
- L2

MES3508P



- 8 x GE PoE/PoE+
- 2 x 1G Combo
- L2
- Industrial

MES2324P



- 24 x 1G Eth PoE/PoE+
- 4 x 10G SFP/SFP+
- L2
- 220V AC

MES2348P



- 48 x 1G Eth PoE/PoE+
- 4 x 10G Eth/SFP
- L2
- 220VAC,
- up to 2 power supply modules

MES3124P



- 24 x 1G Eth PoE/PoE+
- 4 x 10G SFP/SFP+
- Advanced L3 functions

3Q2018

NEW! – Under development
3Q 2018

1 -> 10G

MES3308F



- 4x1G SFP
- 4 x 1G Combo
- 2 x 10G SFP/SFP+
- L3
- 220V AC/ 48V DC,
up to 2 power supply modules

MES3316F



- 12x1G SFP
- 4 x 1G Combo
- 2 x 10G SFP/SFP+
- L3
- 220V AC/ 48V DC,
up to 2 power supply modules

MES3324F



- 24 x 1G Eth
- 4 x 10G SFP/SFP+
- L3
- 220V AC/ 48V DC,
up to 2 power supply
modules

MES3324



- 20 x 1G Eth
- 4 x 1G Combo
- 4 x 10G SFP/SFP+
- L3
- 220V AC/ 48V DC,
up to 2 power supply modules

MES3348



- 48x1G SFP
- 4x40G QSFP
- L3
- 220V AC/ 48V DC, up
to 2 power supply
modules

MES3348F



- 48x1G SFP
- 4x10G SFP+
- L3
- 220V AC/ 48V DC,
up to 2 power supply
modules

2Q2018

NEW!

2Q 2018

– Under development



ETHERNET AGGREGATION SWITCHES and DATA CENTER SWITCHES

10 → 40G

MES5312

NEW!
2Q 2018



- 12 x 10G SFP+
- L3
- 32K MAC
- New generation chip

2Q2018

MES5324



- 24 x 10G SFP+
- 4 x 40G QSFP+
- L3
- 800 Gbps
- 64K MAC
- New generation chip

MES5332

NEW!
4Q 2018



- 32 x 10G SFP+
- L3
- 800 Gbps
- 64K MAC
- New generation chip

4Q2018

Data center switches

MES5448



- 48 x 10G SFP+
- 4 x 40G
- L3
- 1,28 Tbps
- 128K MAC

MES7048

NEW!
3Q 2018



- 48 x 10G SFP+
- 6 x 40G/100G
- L3

3Q2018

MES9032

NEW!
3Q 2018



- 32 x 100G SFP+
- L3

4Q2018

NEW!
3Q 2018

- Under development



Development and manufacturing
of telecommunication equipment

PON

Ethernet switches

Service routers

Wi-Fi access points

VoIP terminals

Trunk gateways

IP PBX / Softswitch

Media (IPTV set-top boxes,
home routers, Smart home)

Features and capabilities

L3 protocols and functions

- IS-IS protocol for IPv4, IPv6
- Minutes of OSPFv2, OSPFv3
- Border Gateway Protocol 4 (BGP4, BGP4 +) Support ECMP
- Filtering routes (route maps, prefix lists)
- Support Non Stop Forwarding
- Support Graceful Restart
- Minutes of BFD for OSPF, IS-IS, BGP and static routes, BFD over LAG

MPLS

- Label Distribution Protocol (LDP)
- L2VPN, VPWS
- RSVP

QoS

Application:

- Access router
- Edge router
- Core router



ME5100
ME5000
ME5200



ME5000

- 3.0 Tbps
- 15U
- up to 2 FMC /chassis
- up to 12 LC /chassis
- LC 1GE, 10GE, 40GE, 100GE

4Q2018



ME5100

- 20x 10GBASE-R (SFP+)
- CPU Broadcom XLP308, 1500MHz, 8GB RAM
- 200 Gbps, 300Mpps
- Up to 250K MAC
- FIB 1M routes



ME5200

- 40x 10GBASE-R (SFP+), 4x 40GBASE-X (QSFP)
- CPU Broadcom XLP308, 1500MHz, 8GB RAM
- 800 Gbps, 720Mpps
- FDB 750K MAC, FIB 1M

4Q2018



— Under development



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Solution for service providers

Main components of the network:

- **SoftWLC** – a unified Wi-Fi network controller that allows launching of small projects (i.e. café, park, etc.) as well as large ones (i.e. corporate Wi-Fi network for all bank branches in the country). SoftWLC provides unified system for monitoring, statistics and analytics.
- **Service router ESR-1000/1200** is used to create L3 connections between access points (distributed in different regions, cities) and SoftWLC controller (auto configuration of GRE tunnel). Due to the use of GRE tunnel, the access points can be connected to the network of another service provider.
- **Wi-Fi access points** – Indoor (WEP-12ac, WEP-2ac, WEP-2ac Smart) and Outdoor (WOP-2ac, WOP-12ac) form-factors.



Wi-Fi Access Points

Indoor WEP-2ac

WEP-2ac Smart



- 802.11ac - 2,4 and 5 GHz
- **MIMO 2x2:2**
- Seamless roaming 802.11r
- Airtime Fairness
- WDS
- Up to 50 users
- **Smart antenna mod.**

Indoor WEP-12ac



- 802.11ac - 2,4 and 5 GHz
- **MIMO 3x3:3**
- Seamless roaming 802.11r
- Airtime Fairness
- WDS
- Up to 80 users

Cluster



up to 64 access points

Outdoor WOP-2ac



- 802.11ac - 2,4 and 5GHz
- **MIMO 2x2:2**
- Seamless roaming 802.11r
- Airtime Fairness
- WDS
- Up to 4 external antennas
- Up to 50 users

Outdoor WOP-12ac



- 802.11ac - 2,4 and 5GHz
- **MIMO 3x3:3**
- Seamless roaming 802.11r
- Airtime Fairness
- WDS
- Up to 4 external antennas
- Up to 80 users

Carrier-class controller (WLC)



up to 100 000 access points

Roadmap Indoor/ Outdoor WEP/WOP-22ac (2018 year)



- 802.11ac Wave 2 - 2,4 and 5 GHz
- **MU-MIMO 4x4:4**
- **Smart antenna**
- **1024 QAM modification**

 — Serial production

 — Under development

SoftWLC



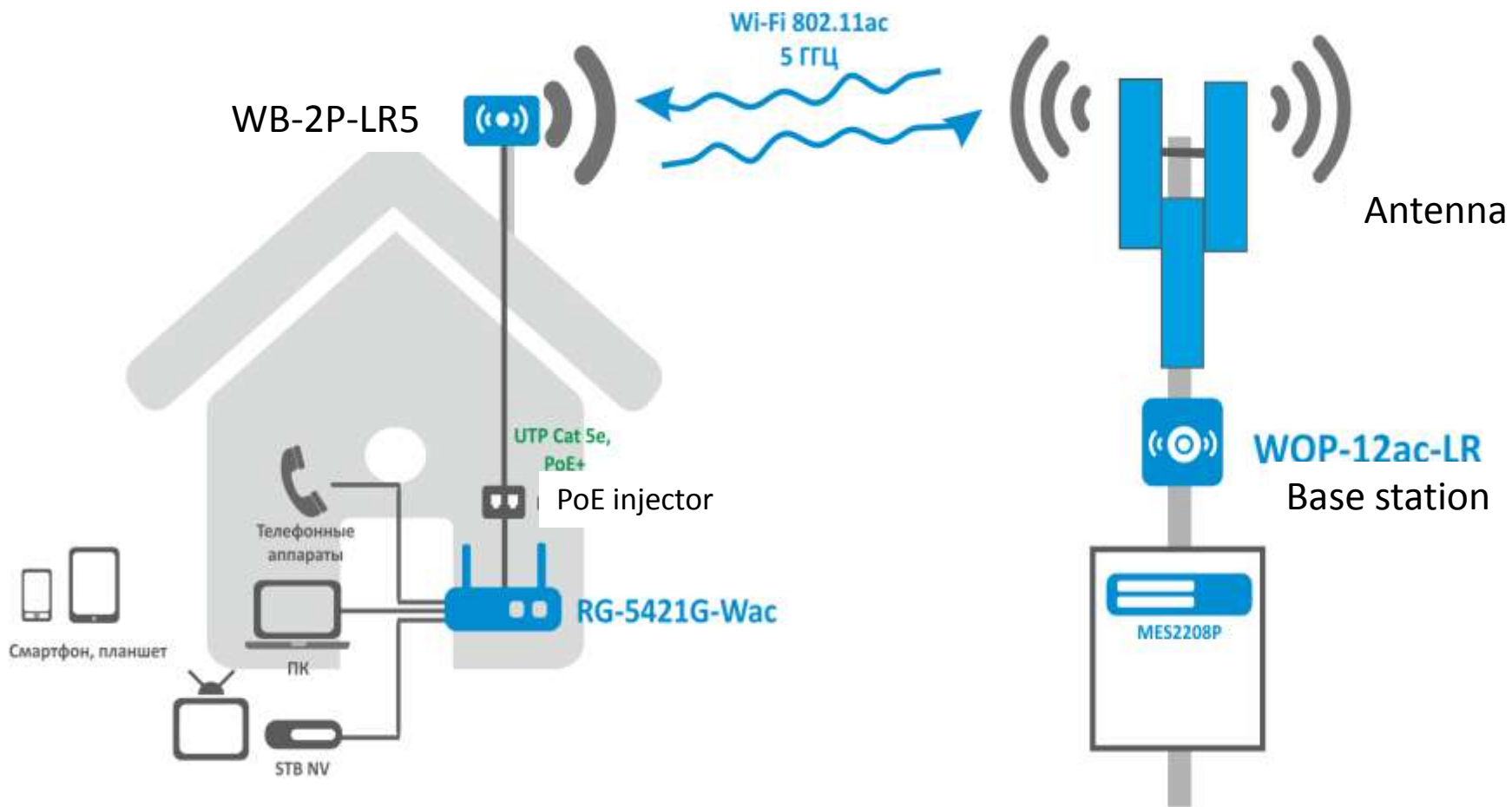
- Service provider class WiFi management controller
- Management and monitoring of Wi-Fi networks (AP grouping, auto configuration, monitoring and alarm notifications)
- **Multidomain architecture** (distributed access rights for different user profiles)
- Wi-Fi service provision scenarios (portal authorization, pay access, WPA – Enterprise)
- Support for up to **100 000** access points
- **Active-Active** reservation

SoftWLC main modules

- **EMS** – management and monitoring of network devices
- **Captive Portal + Portal builder** – a page for authorization and design management
- **Radius + Database + DHCP server** – passwords generation and storing, IP addresses distribution
- **Personal account** – personal accounts creation, access points statistics, analytics



Wireless broadband – Base station (BS) FBWA and user station (US)





Wireless broadband – Base station (BS) FBWA and user station (US)



WOP-12ac-LR



All-weather access point (BS) Wi-Fi 802.11ac

WOP-12ac-LR:

- Wi-Fi 802.11ac (5GHz)
- 3 independent radio interfaces (3 sectors)
- MIMO 2x2:2 per interface
- Data rate up to 1 Gbps
- 6 N-type connectors for sector antennas connection
- Power supply: PoE+, local (through the external adapter), dedicated power mains
- Up-to-date authentication and encryption
- Management and monitoring via Eltex.EMS
- Specific model with **SFP** optical port
- **Up to 30 clients per sector**

All-weather wireless user station

WB-2P-LR5



- Wi-Fi 802.11 ac (5GHz)
- Support for TR-069
- MIMO 2x2
- Power supply: PoE (802.3af), local (through the external adapter)
- Signal level indication
- Up-to-date authentication and encryption
- Management and monitoring via Eltex.ACS



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VOIP TERMINALS



Support for 2 SIP accounts

Support for PoE technology

Programmable keys
(soft keys)

Autoconfiguration
(TR-069,DHCP)

IP phone VP-12(P)



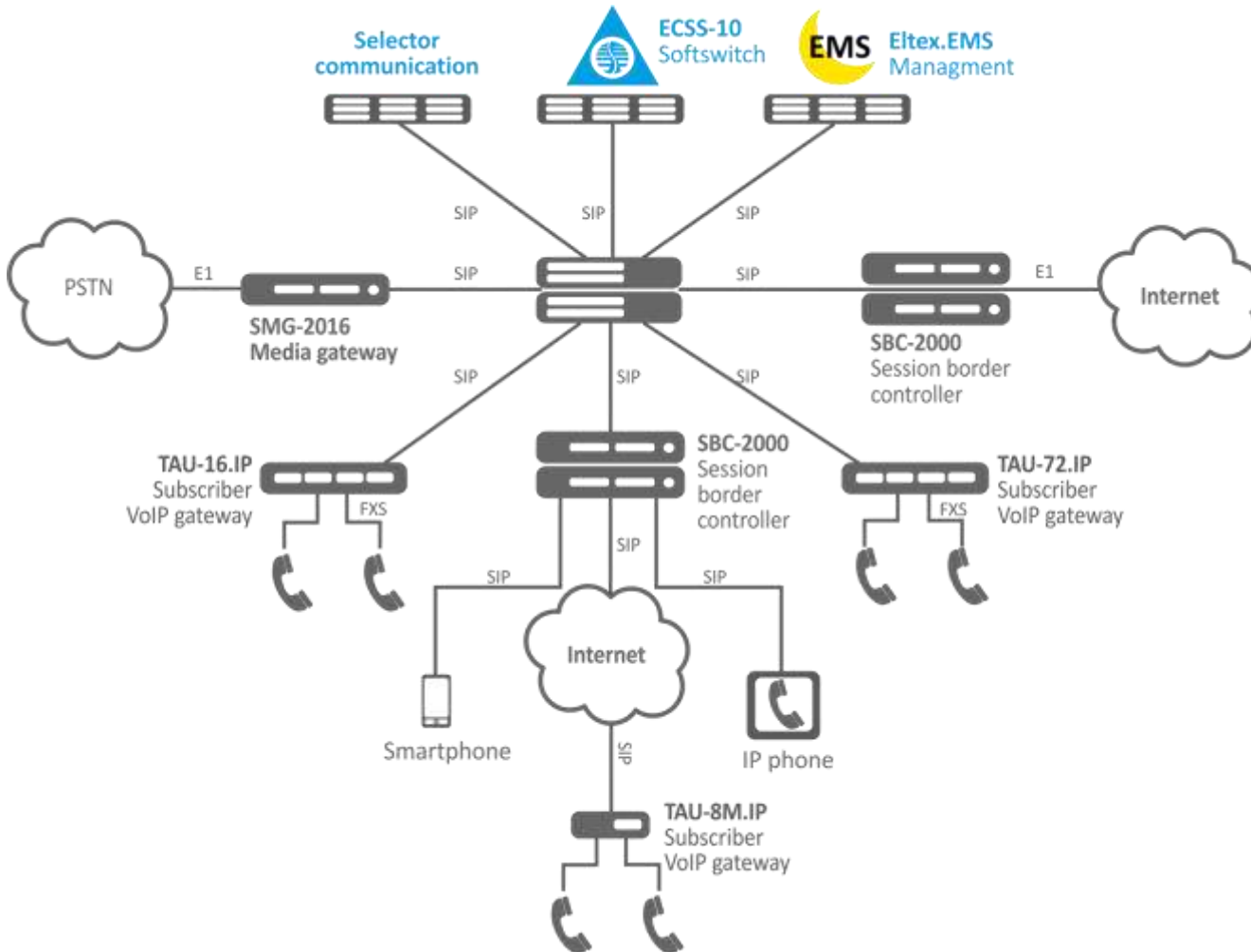
New designs

NEW!

3Q 2018



VOIP Solution



- Softswitch
- Session Border Controller
- Trunk gateways
- Subscriber gateways
- Home Routers with VoIP
- IP phones
- Management systems (SNMP, TR-069)



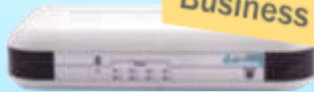
Customer VoIP gateways

TAU-1M, TAU-2M



- 1/2 FXS ports
- 2 LAN FE ports
- 1 WAN FE port
- 1 USB

TAU-8M.IP



- 8 FXS ports
- 1 LAN FE port
- 1 WAN port
- 1 USB 2.0

TAU-4M.IP



- 4 FXS ports
- 1 LAN FE port
- 1 WAN port
- 1 USB 2.0

RG-1404GF-W



- 4 FXS ports
- 4 LAN 1G ports
- 1 WAN (SFP) 1G
- 1 USB
- Wi-Fi 802.11b/g/n (2,4 GHz)

RG-5421G-Wac



- 1 FXS port
- 4 LAN 1G ports
- 1 WAN (SFP) 1G
- 2 USB 2.0
- Wi-Fi 802.11b/g/n (2,4/5 GHz)

TAU-16.IP, TAU-24.IP



- 16/24 FXS, SIP, H.323, H.248
- Office PBX functionality
- Main SIP proxy redundancy
- Unified management system
- Line parameters measurements
- 220 VAC/48 VDC

TAU-32M.IP



- Up to 32 FXS/FXO ports
- Modularizing
- Line parameters measurements
- Current and voltage port protection
- 220 VAC/48 VDC

TAU-36.IP, TAU-72.IP



- 36/72 FXS, SIP, H.323, H.248
- Office PBX functionality
- Main SIP proxy redundancy
- Unified management system
- Line parameters measurements
- 220 VAC/48 VDC

— Serial production



Multiservice platform MSAN MC1000-PX

Technical features

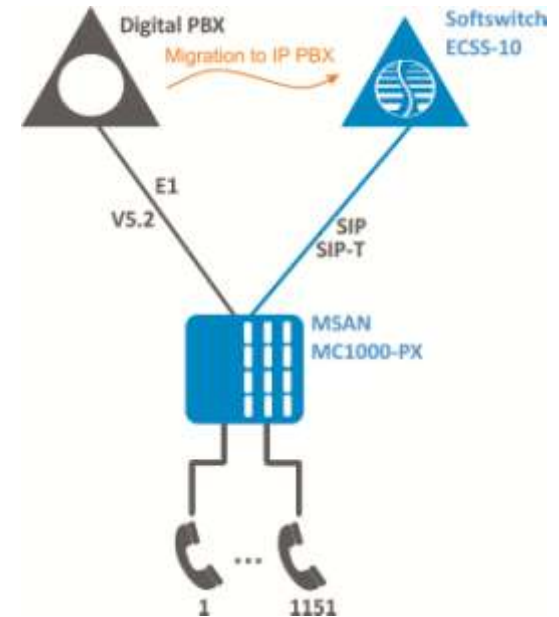
- up to 1152 FXS ports
- up to 16 E1 streams
- up to 4 x 10GE ports
- up to 8 x 1GE combo ports
- SIP, SIP-T/I, V5.2 AN

Inner switching is saved in case of external link loss

Two switches in backup mode

Current and voltage protection

2 supply connectors





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Trunk gateways SMG

SMG-2



SMG-1016M



SMG-2016



protocol converter	trunk gateway	trunk gateway
up to 2 E1 streams (RJ-48)	up to 16 E1 streams	up to 16 E1 streams (RJ-48)
64 VoIP channels	up to 768 VoIP channels	up to 768 VoIP channels
-	14 CPS	120 CPS



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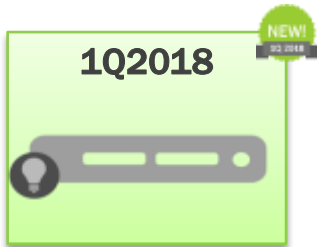
Media (IPTV set-top boxes,
home routers, Smart home)



Corporate PBX

SMG-200

SMG-500



Carrier PBX

SMG-1016M

SMG-2016

ECSS-10



up to 200 SIP registrations	up to 500 SIP registrations
VAS up to 200 subscribers	VAS up to 500 subscribers
16 lines (FXO or FXS)	up to 4 E1

up to 2000 SIP registrations	up to 3000 SIP registrations	scaling
basic VAS for 1000 subscribers	basic VAS for 3000 subscribers	VAS
14 CPS	120 CPS	active-active reservation

High-quality voice services

Service provider reliability

V5.2 LE and AN support by SMG1016M, 2016

RADIUS routing

Multiservice solutions

SS7, PRI



- Serial production



- Under development



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**Media (IPTV set-top boxes,
home routers, Smart home)**

Set-top boxes

NV-501/NV-501-Wac



Operating system	Android 4.4
Chip	Realtek RTD1195
Memory	RAM 1 GB, Flash 4/8 GB
Interfaces	1 x LAN 10/100/1000, 2 x USB2.0, HDMI1.4, microSD Card Reader, port for external IR receiver connection, Wi-Fi 802.11ac
Media containers	MPEG1, MPEG2(+HD), MPEG4(+HD), XviD, DivX, H.264, WMV9, VCHD, VC1, HEVC
Wi-Fi	IEEE 802.11ac







- Support for external USB storage
- RTSP, RTP, UDP, IGMP, HTTP
- Support for M3U and XSPF playlists

- Support for Android applications
- Online cinemas
- 2D/3D accelerators, support for OpenGL



TECHNICAL FEATURES

UNDER DEVELOPMENT

Name	NV-310-Wac	NV-501/501-Wac(WB)	NV-510/510-Wac(WB)	NV-503Wac(WB)	NV-701/701Wac(WB)	NV-710/710Wac(WB)
Image						
Hardware						
Chip	Broadcom BCM7241	Realtek RTD1195	Realtek RTD1295	Realtek RTD1195	Amlogic 805X	Amlogic 905X/XU
RAM	1GB	1GB	2GB	1GB	1GB	2GB
Flash	4GB	4GB	8/16GB	4GB	8GB	8/16GB
OS	Android 4.2	Android 4.4	Android 6.x	Android 4.4	Android 7.1	Android 7.1
Main features						
Support for 4K		4Kp30	4Kp60	4Kp30		4Kp60
USB 2.0	2	2	2	1	1	1
HDMI v1.4	•	•		•		
HDMI v2.0			•		•	•
Support for HEVC	H.264	•	H.265 L5.2	H.265 L5.2	H.265 L5.2	H.265 L5.2
Support for Wi-Fi	802.11a/b/g/n/ac 2x2		802.11a/b/g/n/ac 1x1	802.11a/b/g/n/ac 1x1	802.11b/g/n/ac 1x1	802.11a/b/g/n/ac 2x2
Access point mode		•	•	•		•
Bluetooth*			• 4.x (BT)	• 4.x (BT)	• 4.x (BT)	• 4.x (BT)
Supported protocols	IP, HTTP, DHCP, NTP, IGMP (multicast), ICMP, UDP, RTSP, PPPoE, HLS, DLNA, SAMBA, Bit-torrent					

* - only for WB








Middleware/OTT

<p>Media Alians</p>  <p>n3.ru</p>	<p>Vidimax</p>  <p>vidimax.ru</p>	<p>SPBTV</p>  <p>spbtvsolutions.ru</p>
<p>IPTV portal</p>  <p>iptvportal.ru</p>	<p>BCC group</p>  <p>bcc.ru</p>	<p>Inetra</p>  <p>cn.ru</p>
<p>Netris</p>  <p>netris.ru</p>	<p>NetUP</p>  <p>netup.tv.ru</p>	<p>Smartlabs</p>  <p>smartlabs.tv</p>
<p>PeersTV</p>  <p>peers.tv</p>	<p>СмотрЁшка</p>  <p>smotreshka.tv</p>	<p>CTI</p>  <p>cti.ru</p>
<p>WildRed</p> 	<p>Science.Communication</p> <p>НАУКА · СВЯЗЬ</p> <p>Многофункциональный оператор связи</p> <p>naukanet.ru</p>	<p>We invite partners</p>

CAS/DRM






<p>Verimatrix*</p>  <p>www.verimatrix.com</p>
<p>SecureMedia</p>  <p>www.securemedia.com</p>
<p>A.R.E.S.</p>  <p>2ip.tv</p>
<p>Widewine</p>  <p>www.widewine.com</p>
<p>We invite partners</p>

Services

<p>Media</p>  <p>СМОТРЕШКА</p>
<p>Online cinemas</p>  <p>MEGOGO.NET</p>
<p>Play services and apps</p>  
<p>Social networks</p>   
<p>Internet surfing</p>   

SET-TOP BOX **NV** — A PROVIDER-ORIENTED MODEL

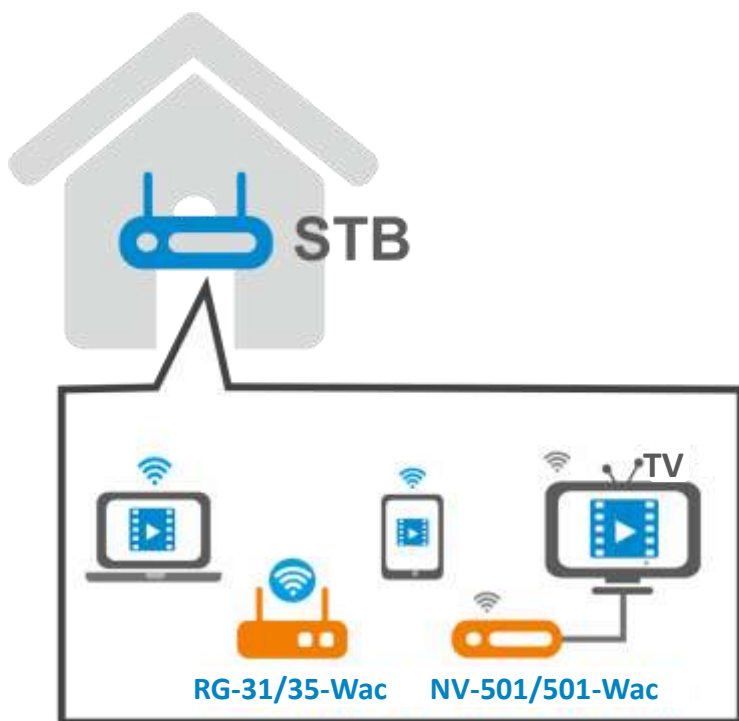




-  Customization
-  App store
-  ACS (ACS-BOX)
-  QMS
-  Firmware locking

PROVIDES A WIDE RANGE OF OPPORTUNITIES FOR CONFIGURATION

QUALITY OF SERVICE

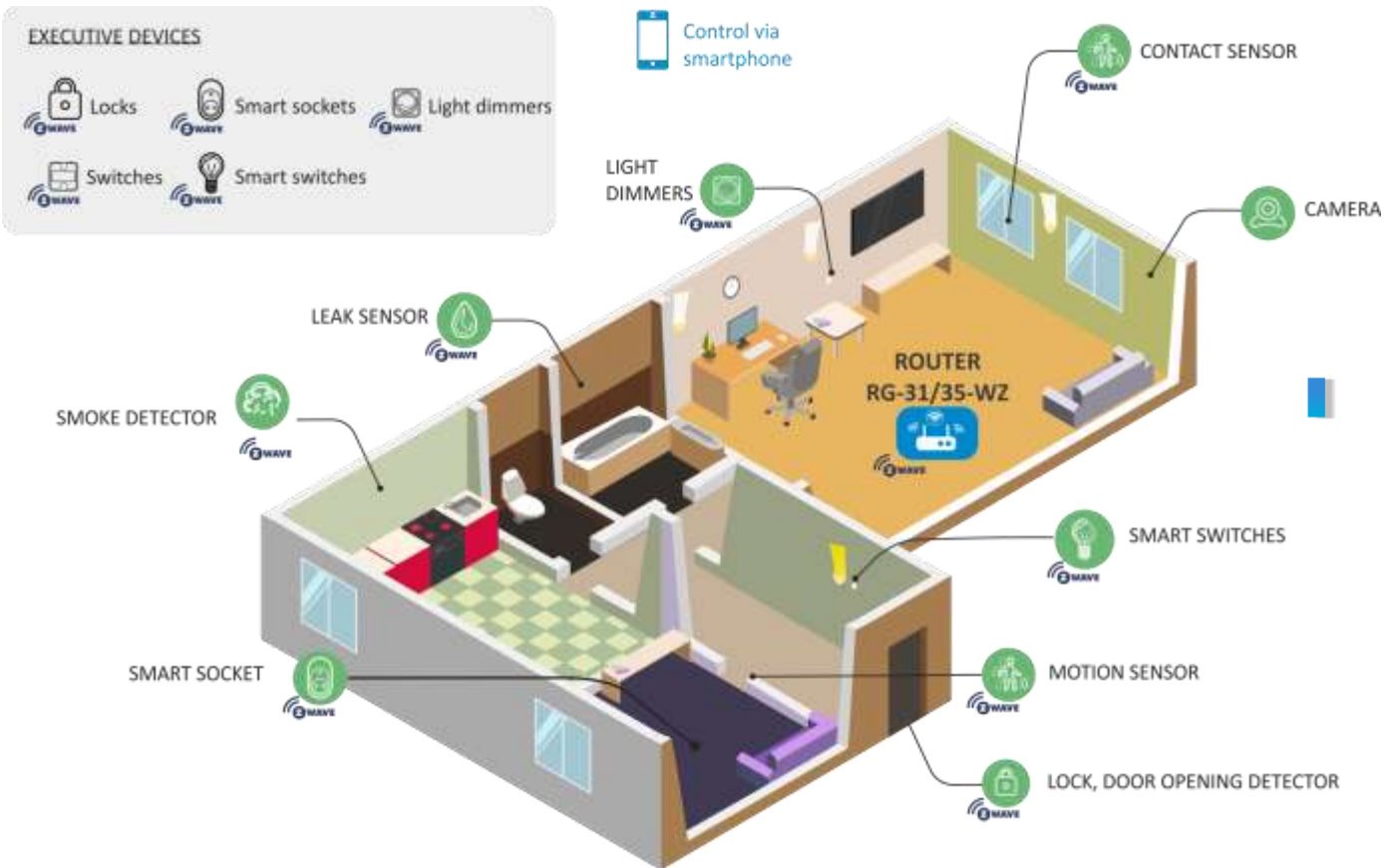
The use of **NV**-series set-top boxes with **RG** routers by **Eltex** provides high-quality media content transmission via Wi-Fi network and ensures auto configuring of the devices.



Name	RG-31-Wac	RG-35-Wac
Image		
Processor	Realtek RTL8197FN	Realtek RTL8197FH
RAM	128 MB	128 MB
Flash	16 MB	16 MB
OS	Linux	Linux
LAN	4x100M	4x100M
WAN	1x100M	1x1G
Wi-Fi	Wi-Fi 2x2 2.4 GHz 802.11n Wi-Fi 2x2 5 GHz 802.11ac	Wi-Fi 2x2 2.4 GHz 802.11n Wi-Fi 2x2 5 GHz 802.11ac
Support for 3G/4G modem	•	•

SMART HOME SOLUTION

Use case



The Smart Home solution:

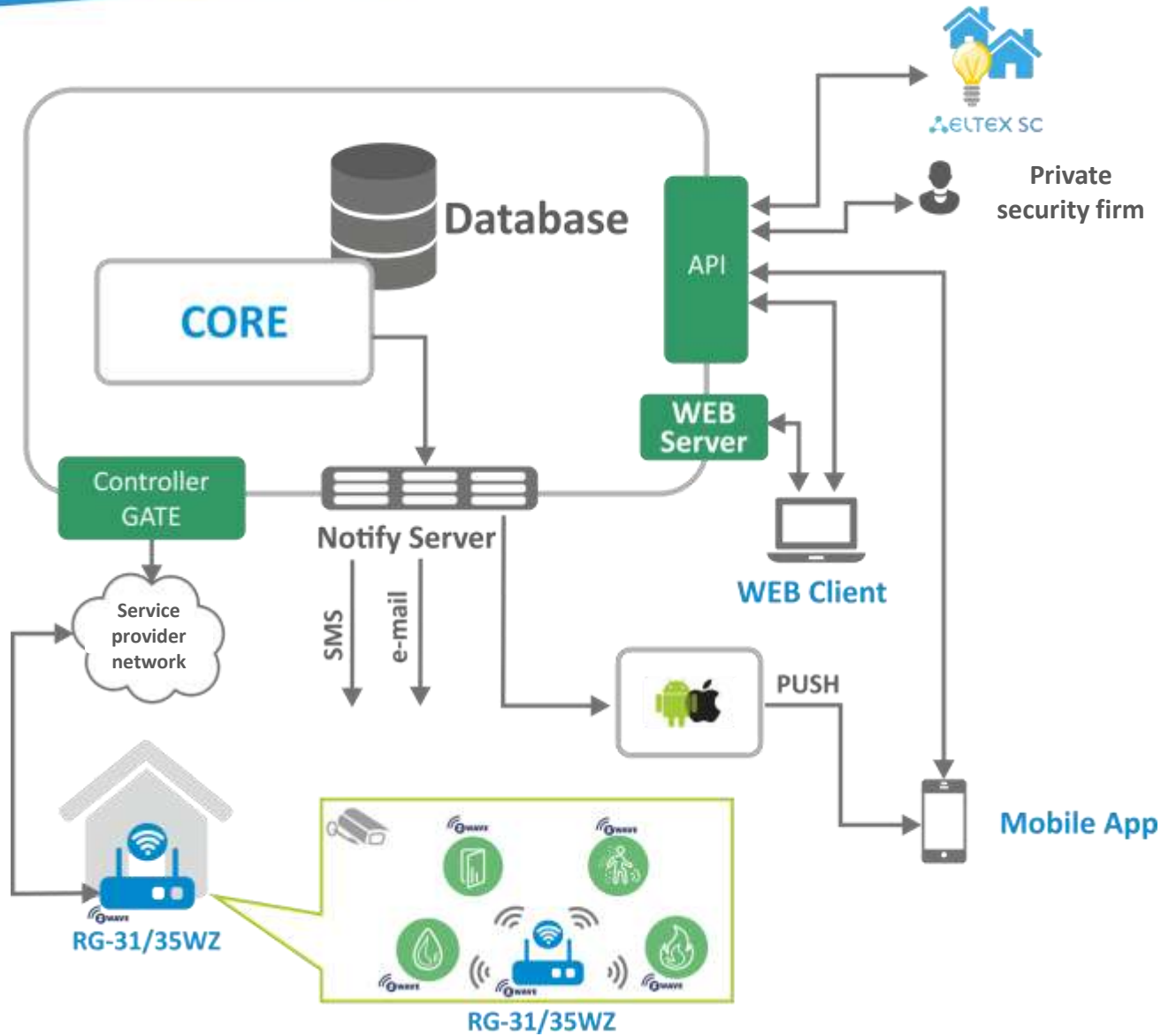
- **RG-35-WZ** with Z-Wave controller
- **sensors** (motion sensors, magnetic contact security alarms, temperature sensors, flood sensors, gas detectors, etc.)
- **surveillance cameras**

MANAGEMENT SYSTEM (Cloud server):

- event registration;
- user accounts;
- notification system for security and household purposes;
- push notifications on a smartphone in the app

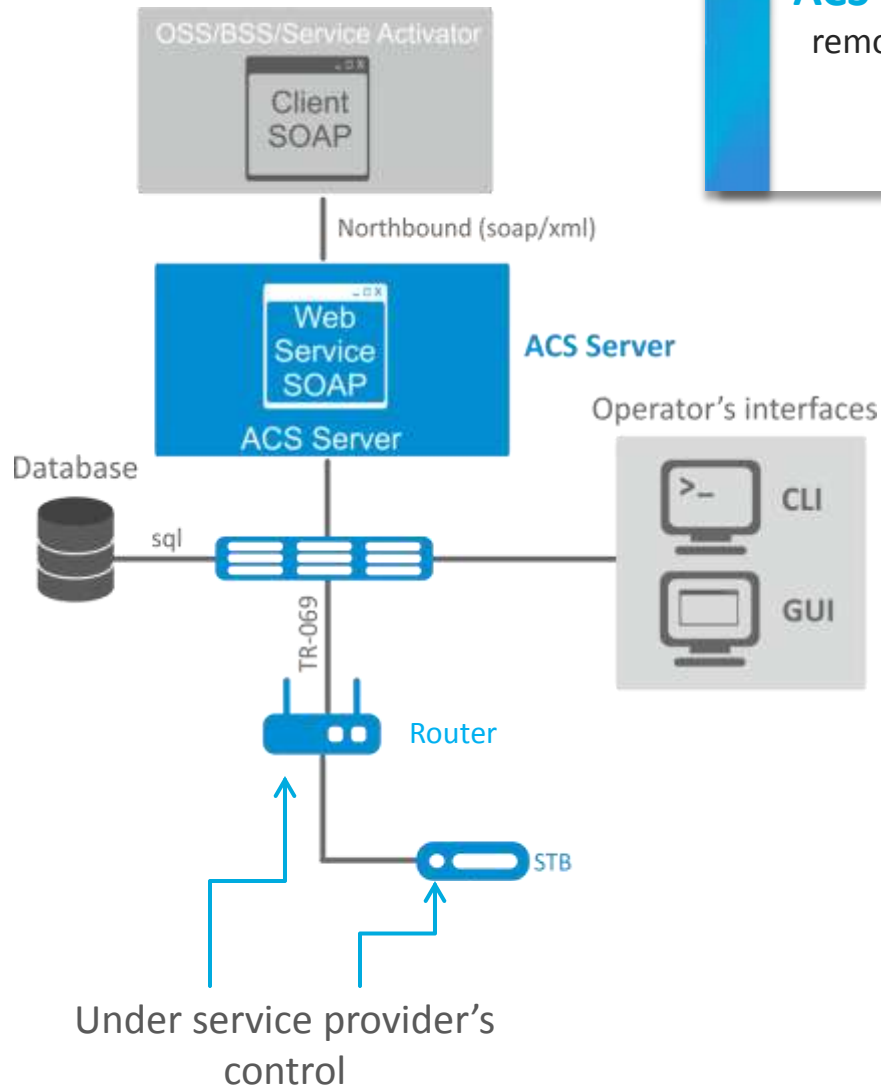
SMART HOME SOLUTION

Solution diagram





ELTEX. ACS – MANAGEMENT SYSTEM FOR CUSTOMER DEVICES



ACS (Automatic configuration system) — a multifunction software for remote management of routers, set-top boxes and other equipment supporting **TR-069**.

- Autoconfiguration and dynamic setting up
- Centralized firmware updating
- Devices state and performance monitoring
- Diagnosis
- Tasks performed by schedule



ELTEX.ACS-BOX — WEB APPLICATION THAT ALLOWS YOU TO CHECK ELTEX.ACS SYSTEM CAPABILITIES

ACS-BOX — a ready tool for integration and adaptation of ACS management system into the existing infrastructure through **NBI requests**.

The screenshot displays the ELTEX.ACS-BOX web application interface, which is used for managing ACS systems. The interface is divided into several sections:

- Navigation Menu:** Located on the left, it includes options like "Пользователи", "Настройки", and "Справка".
- Device List:** A table showing a list of devices with columns for "Свойственный номер" (Device ID), "Имя" (Name), "Версия ПО" (Software Version), "Версия железа" (Hardware Version), "Время в работе" (Uptime), "MAC адрес" (MAC Address), "IP адрес" (IP Address), "IP маска подсети" (Subnet Mask), "Модель" (Model), and "Вид интерфейса" (Interface Type).
- Device Details:** A detailed view of a specific device (SB1A022014) showing its IP address (192.168.254.120), software version (revA-elfex-1.0.26-640), hardware version (revA), and other parameters.
- System Capabilities Table:** A table listing various system capabilities and their status. The table has columns for "Вещание" (Broadcasting), "Wi-Fi", "Счётчики" (Meters), "Диагностика" (Diagnosis), "Прошивка ПО" (Software Update), "Параметры приложений" (Application Parameters), "QMS", "Установка приложений" (Application Installation), and "Блокировка STB" (STB Locking).

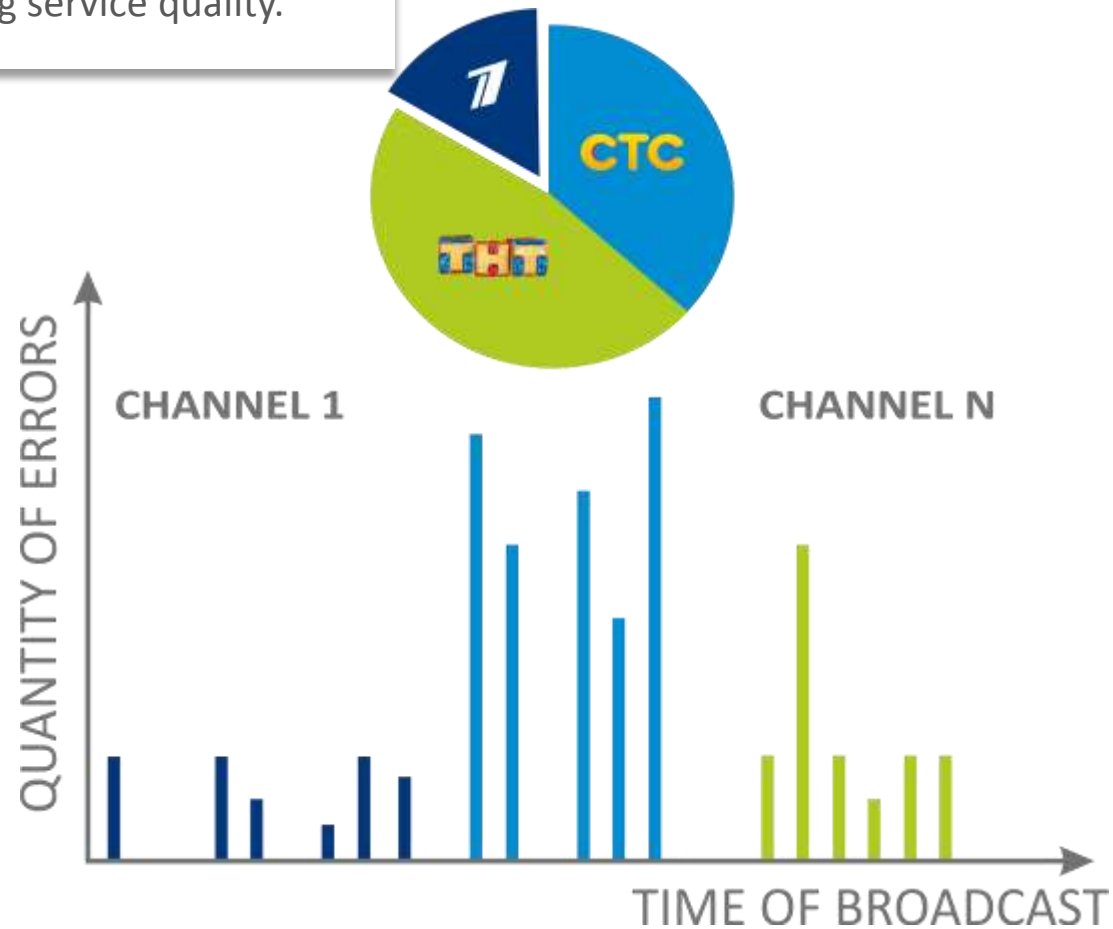
Вещание	Wi-Fi	Счётчики	Диагностика	Прошивка ПО	Параметры приложений	QMS	Установка приложений	Блокировка STB
45	Воспроизведение мультимедиа	Нет	Нет	Нет	1.0			
46	IPTV	Нет	Нет	Нет	2.213			
47	Часы	Нет	Нет	Нет	1.0.3			
48	Сторонние приложения	Нет	Нет	Нет	4.4.4			
49	Подавление из внешнего источника	Нет	Нет	Нет	4.4.4			
50	Сторонние приложения	Нет	Нет	Нет	4.4.4			
51	Контроль настроек	Нет	Нет	Нет	4.4.4			
52	Google Services Framework	Нет	Нет	Нет	4.4.4-227136			
53	KeyboardTestActivity	Нет	Нет	Нет	4.4.4			
54	Оболочка	Нет	Нет	Нет	4.4.4			
55	Датчикер загрузки	Нет	Нет	Нет	4.4.4			
56	Мультимедиа	Нет	Нет	Нет	1.04			
57	org.elfex.android.app.remote_player	Нет	Нет	Нет	0.36	8.36	org.elfex...	http://westrid-market.elfex.local/downloads/app/remote_player_v0.36.apk
58	RealTV 6.16.4-1430-сериал-сбл...	Нет	Нет	Нет	6.16.4	6.16.4	RealTV...	http://westrid-market.elfex.local/downloads/app/RealTV_6.16.4-1430-сериал-сбл...
59	tv.flytv.android.app.launcher	Нет	Нет	Нет	2.3	2.3	tv.flytv...	http://westrid-market.elfex.local/downloads/app/SmartFly-2.3-1430-сериал-сбл...
60	org.elfex.android.app.player	Нет	Нет	Нет	5.2.3	5.2.3	org.elfex...	http://westrid-market.elfex.local/downloads/app/player_v5.2.3.apk
61	com.mtech.video.player.ad	Нет	Нет	Нет	1.7.37	1.7.37	com.mtech...	http://westrid-market.elfex.local/downloads/app/com.mtech.video.player.ad...
62	RealTV 6.16.4-1430-сериал-сбл...	Нет	Нет	Нет	6.16.4	6.16.4	RealTV...	http://westrid-market.elfex.local/downloads/app/RealTV_6.16.4-1430-сериал-сбл...



ELTEX.QMS – A SYSTEM OF SERVICE QUALITY MONITORING

«**ELTEX.QMS**» system allows real time control under content parameters and guaranties content delivery. Due to the system, service providers save time and money spent on search and fixing of problems with deterioration of the providing service quality.

- Transport errors counters
- Playback errors counter
- Bandwidth statistics for HLS
- Global traffic
- Channel watching statistics





**Development and manufacturing of
telecommunication equipment**

Thank you for attention!