

epiCentro[™]

Broadband Multi-Service Operating System for Telco Operators

Enable Telco operators to provide reliable and ultra-fast broadband access and offer value-added services for connected home and office

Comprehensive broadband solutions developed by ADB

epiCentro[™] family provides operators with rich set of best-in-class broadband solutions:

epiCentro™ OS

Full-featured modular OS for broadband gateways, ready for next generation services

ADB Mesh

Comprehensive Wi-Fi Mesh system ensuring reliable Wi-Fi coverage and performance

epiCentro™

epiCure[™]

Monitoring, diagnostic and analytic platform ensuring best Quality of Service

epiCentro[™] PMP

Professional device management platform via TR-069 protocol

ADB broadband gateways

Rich portfolio of state-of-the-art gateway hardware

epiCentro[™] extends the capabilities of traditional broadband routers beyond data, voice and video.

It's already pre-integrated with applications for:

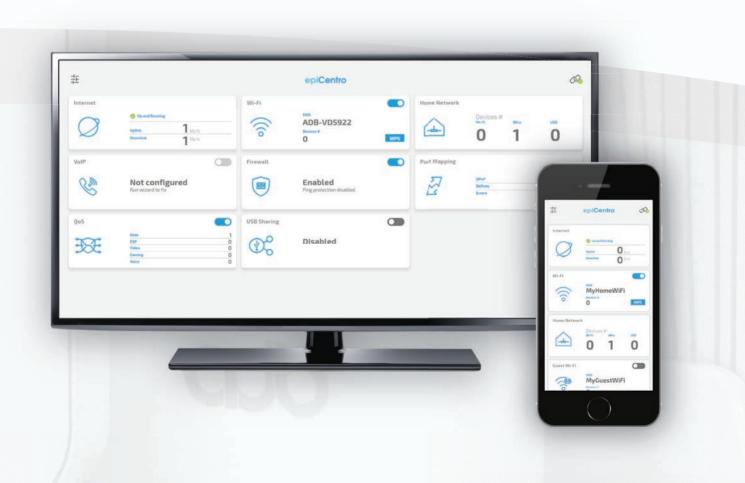
- Wi-Fi Cyber security (ensures privacy and provides parental control)
 - Wi-Fi based Motion Detection (useful for home security and health care)
- Nano-CDN (reduces latency and improves quality of video distribution at customer premises)
- Home Network Monitoring and Protection
- Home devices recognition based on cross fingerprinting analysis (network intruders prevention)
- Real-time network monitoring and analytics (enables continues view of the connected home environment and allows for remote troubleshooting)
 - Fixed & wireless LTE bonding (increase available bandwidth)

Benefit from a modular and scalable, application oriented epiCentro[™] OS

Designed for the gateways, $epiCentro^{TM}$ OS is a full-featured operating system deployed on millions of devices in both residential and enterprise environments.

Key features:

- Modular and scalable architecture easily expandable with next generation services (ADB or 3rd-party) such as home automation, IoT, security, etc.
- Extensive real-time diagnostic capabilities thanks to ADB proprietary QoE (Quality of Experience) agent
- Optimized performance for traffic acceleration, ACS, Wi-Fi Steering and in more areas
- Included Wifi Mesh
- Responsive consumer application for configuration and management
- Hardware agnostic
- Operates on chipsets from several vendors Broadcom, Realtek, Qualcomm, Mindspeed
- Fast time to market capitalized experience from the wide installed base, field proven, on the market since 2012, operates on 30M+ active and deployed devices



Provide outstanding performance and excellent coverage with Wi-Fi Mesh

ADB Mesh is an intelligent Wi-Fi network system for Broadband and TV operators that guarantees reliable Wi-Fi experience anytime, anywhere.

Key benefits:

- Complete proposition including companion App home devices monitoring system
- Fully integrated into ADB gateways 25% node cost saving
- · Wi-Fi improvement for in-field legacy gateways with standalone kit
- epiConnect application for optimal node positioning at end-user premises
- Integrated with epiCure[™] monitoring, diagnostics and analytics system



epiConnect - ADB Mesh companion application*

Key features:

- Network topology and devices list
- Wi-Fi coverage survey
- New node placement guide
- The app elaborates your home layout to suggest the best place where to install the new extender
- Installation guide
- Network monitoring
- Check in real time the Wi-Fi signal strength, the channel load and connected clients status



^{*} Companion app isn't available for stand-alone kit

Ensure highest quality of your service with epiCure™

epiCure[™] is a monitoring, diagnostic and analytic system for operators to ensure highest quality of service and reduce customer care cost.

It's applicable both to broadband gateways and set-top boxes.

Key features:

- Home network topology monitoring
- Deep CPE's monitoring with 100+ metrics
- Multiple sources of data collection (basic monitoring with TR-069, advanced with dedicated ADB software agent, gathered real-time with MQTT)
- Monitoring of ADB and 3rd party CPEs
 - "Atomic" and "Complex" KPIs based on ADB correlation algorithms
 - epiCure[™] capabilities allow to combine basic metrics into more advanced KPIs which efficiently help to recognize specific problems with CPEs or in the network
- Rich and customizable set of reporting and alarm configuration tools
- Multi-tenant architecture

Main benefits:

- Drastically reduces operational costs
- Assists help desk in troubleshooting process and predicts future problems
- Reduces churn and enables up-selling of new services
- Provides valuable insights into end-user's environment
- Field proven on the market since 2014, already monitoring 2M+ devices
- One system for several needs in your organization (help desk, technical teams and marketing activities)

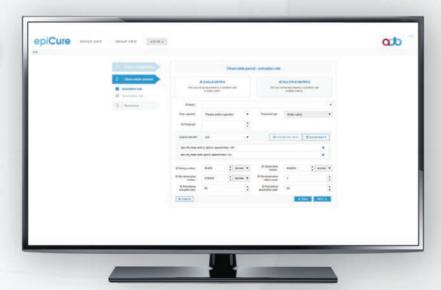


Reduce the churn and related maintenance costs by up to 20-30%

- Ensure stable and solid product performance
- Keep outstanding quality of experience
- Earn satisfied long-term customers
- Position yourself as a provider of the premium products and services



- Limit visits of technician only to specific cases
- Predict the issues in advance
- Fix it without intervention
- Prevent happening again
- Save on truck-rolls



Automatically activate new subscribers and remotely manage your installed-base of broadband gateways

epiCentro[™] **PMP** (Professional Management Platform) is a cloud-based carrier-class Access Control System (ACS) for remote provisioning and management of broadband gateways.

Key features:

- Zero Touch Activation; no need for installers at home; cost saving for an operator
- Automatic on demand provisioning of new services chosen by subscribers
- Allow to schedule and carry out both massive and selective firmware and configuration upgrade
- Support for TR-069 with TR-098 and TR-181 compliant devices (ADB and any third parties)



Enable your subscribers to enjoy the ultra-speed of Internet connectivity with state-of-the-art gateway platforms

Thunder AX

Thunder AX is a Residential and Small Business Gateway ensuring high-performance data routing and value-added services for home or office network.

Equipped with the latest ultra-high-speed GPON and EVDSL interfaces, provides a significant increase in the bandwidth available for the end-user. Integrated high-performance 11ax dual-band concurrent wireless guarantees seamless, reliable and secure connectivity to all connected devices with speeds up to 4.8Gbit/s.

Fiber optic and EVDSL WAN interfaces to provide much higher bandwidth for the end-users

Exceptional Wi-Fi performance thanks to 11ax dual-band concurrent wireless access point, optimal utilization of the Wi-Fi spectrum on both 5 and 2.4 GHz bands and the highest quality of video streaming over Wi-Fi

Wi-Fi MESH system, guarantees the perfect coverage of the entire location, delivering fast, reliable and full-strength Wi-Fi signal everywhere on the premises



Advanced voice capabilities

Operating on ADB epiCentro™ OS, a full-featured and scalable embedded middleware with modular architecture ready for "add-on" application and services

Based on application oriented architecture powerful CPU provides more power and "native" capability for hosting and running multiple different applications (similar to typical usage in smartphone and mobile domain)

Ready for Zigbee, Z-wave to support smart home services



ADB broadband gateways overview	ADSL/VDSL G.FAST Bonding	Fiber P2P GPON XGS-PON (10Gbit)	Integrated Mobile WLAN	Gigabit LAN/Wan USB	FXS ISDN BRI DECT	Zigbee Z-Wawe GbE 2,5
Thunder AX VH5 6722	EVDSL (option)	/ (option)	AX AX 5G (option)	4 2		(option) (option)
Hawk AC VP 5022	✓ EVDSL		N AC	5 2	2	
Eagle AC VG 4022		~	N AC	4 2	2	
Moon DC DW 2500			AC	2		
SU 5850	✓ ✓ EVDSL		N AC	5 1	2 1	
SB 5850	Y Y EVDSL		N AC	5 1	2 1	
ST 6840	✓ ✓ EVDSL	✓ SFP cage	N AC	4 2	2 1 🗸	
VT 5920	/ /	✓ SFP cage	N AC	5 2	2	
VD 5920	✓ EVDSL	✓ SFP cage	N AC	5 2	2	
VV 5822	*		N AC	5 1	2	

Operate Monitor Maintain

After Sales Service

Introducing our all new professional OMM services including operations support, maintenance and monitoring.

We proide a suite of services for our system solutions with a dedicated team of experts ready to provide 24/7 support for your operation.

Operating-Monitoring-Maintaining your network and ADB systems by us lets you focus entirely on business operation and your customers.

- Extended 24/7 technical support services
- Guaranteed response and service restoration times
- Service extended to customer integration points
- Fully automated infrastructure and system health, availability and performance monitoring
- Proactive system analysis, optimization and performance tunning
- Expert engineering team with best knowledge about the system
- Full insight into system's usage and performance with client devices monitoring and statistics





ADB has 25 years history in offering innovative and high-quality full system solutions for pay TV and Telco operators, content distributors and hospitality property owners, who want to deliver best-in-class video and broadband services to their customers.

ADB combines innovation, system integration, software and hardware expertise with user expectations to provide reliable and fully integrated products with a guarantee of on-time deployment and long-term support.



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