IOWRT SDK

The ultimate toolbox for developing your own broadband services

Let our SDK become your SDK! With IOWRT Service Development Kit (SDK), we combine the best from the open-source community with the requirements of carrier grade from the gateway industry, resulting in a platform independent gateway software based on OpenWrt*.

IOWRT allows you to put all focus on offering a broad variety of easy-to-install devices and new, innovative services with fast time-to-market (TTM) and low total cost of ownership (TCO).

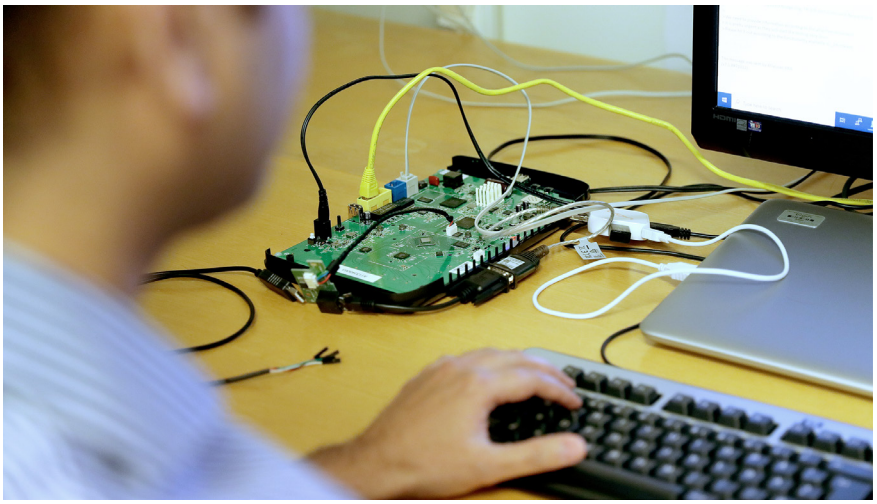
IOWRT Highlights

- Full Triple play services
  - Full Service routing
- Voice over IP
  - IMS and legacy SIP compliant
- Operator diagnostics
  - Operator log
  - Wi-Fi diagnostics of the home
  - Voice quality and statistics
  - Access speed measurements
- Support for DSL (ADSL2+ & VDSL2), G.Fast, Active Ethernet, PON and LTE
- Hybrid Multi-WAN
- WI-FI Multi SOC Access Point mesh solution
- Management solutions based on tr-069 and tr-369
- Managed LCM Support (CRUD)

IOPSYS is a strong supporter of open-source software and actively contributes to the open source community. Any solutions from IOPSYS will interact in today's connected home ecosystem and interwork with multiple devices and enable numerous services. IOWRT allows you to do exactly that!

Based on OpenWRT, IOWRT is a unique feature-rich toolbox and the perfect instrument for you to create and launch new services and broadband gateway platforms, as well as optimizing operational cost.

IOWRT allows operators, original equipment manufacturers (OEMs), 3rd party apps, original design manufacturer (ODMs), and service providers to easily and quickly build over the top solutions situated directly in their customers' home, inviting 3rd party applications into their eco system.



*OpenWrt is a trademark owned by Software in the Public Interest, Inc. Read more about OpenWRT.

Enhance your home gateway business

IOWRT SDK is built with the focus towards operator digitized home business. The features are fully managed and abstracted for ease of development on top of the platform. The SDK offers extensive operator tools to monitor not only the operator network from a gateway perspective, but also the subscriber home environment. The built-in operator log and whole home WI-FI analytics solution are valuable examples of such tools.

Network Services

- Service separation
  - Using 802.1p/q, DSCP
  - For Internet, VoIP, Management, IPTV, LAN port (bridge) based services.
- Routed any-port-any-service
  - Internet
  - IPTV (IGMP and RTSP proxy)
  - VoIP
- QoS
  - Port based rate limiting, Service based (re)tagging and prioritization
- IP address assignment using
  - Static IP, DHCP and PPPoE
- DHCP Server fully configurable
- Firewall and NAT services
  - Stateful Packet Inspection
  - IPv4 NAT, STUN, UPnP
  - Port forwarding, DMZ, bridge filters
- NTP, DNS proxy
- Dynamic DNS
- IPv6 Dual stack
  - Internet and Management service
  - SLAAC
  - DHCPv6 client/server

Secure Access

- HTTPS
- SSL
- VPN termination
  - L2TP-LNS, L2TP-LAC
  - L2TP, L2TP/IPSec
  - OpenVPN client and server
- IPSec connection support
- IPSec Server, IPSec Client support
  - Certificate support
- Certificate support
  - Import/Export of certificates via local GUI
  - Self signed certificate generation

Voice Services

- Legacy SIP and IMS support Wi-Fi
- Country specific adaptations
  - Tones
  - Impedances
  - Services
  - Dial plans
- Mid call services
- Supplementary service
  - Locally or in network
  - Using service codes
- VoIP specific services
- Local GUI with
  - Phone book
  - Call lists
- Service handling
- Built in PBX for local calls
- Wide band voice support*
- Voice codec support *
  - G.722, G.711, G.723.1, G.726, G.729, AMRNB
- Fax support
  - Using T.38 and G.711

Management and Diagnostics

- Auto provisioning scenarios
- Local management
- Via Web GUI
- Remote management via TR-069
- TR181 TR-104, TR-106,TR-140, TR-143, TR-069 Annex F,G, TR-157, TR369
- Software update, configuration, status and statistics via remote management and locally.
- Operator log support following TR-157
- Network event logging
- Service logging
- Active/passive notification to ACS (Auto-Configuration Server)
- USP support
  - Based on OBUSPA
  - Web Sockets MTP (Message Transfer Protocol)
  - USP JS v2.0
  - Controller Trust based Authorization

*hardware depentent

WI-FI mesh

IOWRT WI-FI life is a whole home WI-FI coverage software suite that is implemented with multi-platform support. The software suite includes an Optimization, Controller and Analytics module. Based on WFA Easy mesh R2 with some IOPSYS additions

- Easy Mesh R2 Certifiable
- SON (Self-Organising Network) – Channel Planning Backhaul Link
- VLAN and QoS (Quality of Service) Segregation across the whole mesh network
- RCPI (Received Channel Power Indicator) Base STA Steering
- Onboarding, Controller Discovery
- Loop detection
- Wi-Fi Data Elements via USP/TR-181,
- Full Network Topology

Next generation GUI

- NEXT-gen Web UI: USP and REACT based
- Uses USP (User Service Platform) MQTT as protocol adapter
- Supports Dynamic Page/Widget registration
- Auto Page/Widget generation from data model
- 3rd Party Developer ready Web SDK framework
- End-user ready Web GUI/Mobile App with UX touch

LCM

- Quickly create, deploy, delete, stop, and test application containers
- Vulnerability protection and compliance
- Heath Monitoring capabilities
- USP API-level integration
- Support for LXC (Linux Containers) and OCI (Open Container Initiative) style containers

IOPSYS

IOPSYS have created a unique position by developing a world-leading, open-source, hardware-independent software, that enables broadband operators to offer next-generation services in the connected home, independent of CPE platforms.

IOPSYS is a Swedish software company, founded 2018 and headquartered in Stockholm.

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