

Technical Details

Hardware

Cisco® / Linksys® design
Embedded system, 220 MHz MIPS architecture
Green IT: no fan, no noise, energy-saving (~ 5 watt in real terms)
Full RoHS conformity, casing with IP20 protection rating

Wireless Technology

Quasi-multiradio devices with auto-adaptive frequency selection
Broadcom® 4306 / 4318 chip set
High-quality HF output with high receiver sensitivity
Transmission power dynamically regulated within the legal limit values
IEEE 802.11b and 802.11g devices are also supported in asynchronous balanced mode
(Gross rates equivalent to 11 to 54 megabit/second)
Highly compatible access point mode for guest access
Ad hoc mode for transport or backbone network (mesh)

Software

System based on GNU openWRT Linux
Professional documentation for the entire system
Automatic update mechanism (e.g. security updates)
Highly optimised Layer2/3 error correction
System can easily be expanded to include new parts of a building, high system stability
Can be integrated with pre-existing WLAN systems where needed
Support from load-balancing and several Internet connections
Compilation of extensive statistical evaluations (user profiling)

Network

Mesh network with OLSRd-based Layer 3 as mesh routing protocol (RFC 3626)
Broadband adaptive routing (OLSRd extension)
Software features IPv4 and IPv6 data transfer
NAT-free data transfer
Wireless isolation / stateful firewall
Walled garden function, Internet pages can be „freely“ configured
5-stage Layer7 quality of service (QoS)
Layer7 application filter (use-oriented data flow classification)
Layer2 user administration (via MAC, HTTP cookies do not need to be saved)

User Interface / Login Page

HTTPS / SSL encrypted login process
Challenge / response login process (HTTP) for incompatible customer computers
Multilingual and barrier-free user interface that conforms with W3C
Compatible with mobile telephones and PDA / mini PCs
Landing page can be configured after successful login (e.g. to your website)

Security Concept

Administration system accessed via WAN
Password-protected, based on HTTPS – authenticated by certificate and encrypted using SSL