



Product information HiLCOS 9.12

Industrial Ethernet:Software:Software Platforms:HiLCOS:HiLCOS 9.12	
https://e-catalog.beldensolutions.com:443/link/57078-24455-278205-377857-400465-459989/en/conf/uistate	
Name	HiLCOS 9.12
	
	High performance operating system for the Hirschmann BAT products. Supports all WLAN functions, routing, firewall, VLAN, remote access, and redundancy. Introducing IPv6 routing. All OpenBAT devices operate as either standalone access points or as managed access points in combination with a BAT WLC Controller. The HiLCOS package includes cost free management tool LANconfig and monitoring tools LANmonitor and WLANmonitor.
Delivery informations	
Availability	available
Product description	
Description	High performance operating system for the Hirschmann BAT products. Supports all WLAN functions, routing, firewall, VLAN, remote access, and redundancy. Introducing IPv6 routing. All OpenBAT devices operate as either standalone access points or as managed access points in combination with a BAT WLC Controller. The HiLCOS package includes cost free management tool LANconfig and monitoring tools LANmonitor and WLANmonitor.
Type	HiLCOS 9.12
WLAN	
Supported Radio Standards	IEEE802.11a/b/g/h/n
Regulatory support	Support of DFS according to EN301893 and TPC. Selectable country profile enables channel and output power settings according to regulatory demands.Semi automatic adjustment of output power according to antenna gain and max. EIRP limits.
Security	Support of 3x3 MiMo for OpenBAT devices allowing up to 450Mbit/s.Support of 2x2 MiMo for BAT300 devices allowing up to 300Mbit/s. BAT54 devices allow up to 108MBit/s with turbo mode and 54MBit/s in single operation.All in gross data rate with automatic fallback to lower data rates. WIDS intruder identification. WIDS configuration.
Data rate	Support of 3x3 MiMo for OpenBAT devices allowing up to 450Mbit/s.Support of 2x2 MiMo for BAT300 devices allowing up to 300Mbit/s. BAT54 devices allow up to 108MBit/s with turbo mode and 54MBit/s in single operation.All in gross data rate with automatic fallback to lower data rates.
Roaming	Seamless handover between radio cells, IAPP support with optional restriction to an ARF context, IEEE 802.11d support. Dual radio roaming. Pre-authentication and PMK caching. Background scanning. Opportunistic Key Caching (OKC) for access point and client mode. Prioritized channel scan. Client bridge roaming support. Advanced roaming configuration options.
WLAN operating modes	
WLAN access point	Infrastructure mode (autonomous operation or managed by BAT WLAN Controller)
WLAN bridge	Point-to-multipoint connection of up to 16 wireless bridges (mixed operation optional), broken link detection, blind mode, supports VLAN. When configuring Pt-to-Pt links, pre-configured names can be used as an alternative to MAC Addresses for creating a link. Rapid spanning-tree protocol to support redundant routes in Ethernet networks. WLAN Coach-2-Coach (C2C) Coupling.
WLAN router	Use of the LAN connector for simultaneous DSL over LAN, IP router, NAT/Reverse NAT (IP masquerading) DHCP server, DHCP client, DHCP relay server, DNS server, PPPoE client (incl. Multi-PPPoE), PPTP client and server, NetBIOS proxy, DynDNS client, NTP server and client, port mapping, policy-based routing based on routing tags, tagging based on firewall rules, dynamic routing with RIPv2, VRRP.
WLAN client	Transparent WLAN client mode for wireless Ethernet extensions, e.g. connecting PCs or printers by Ethernet up to 64 MAC addresses. Automatic selection of a WLAN profile (max. 8) with individual access parameters depending on signal strength or priority.
WLAN Managed	Supported by all BAT WLAN Controller (separate optional hardware equipment for installation, optimization, operating and monitoring of WLAN networks)
WLAN Mesh	Automatic topology management for mesh-like networkswith AutoWDS (requires WLAN Controller)
Security	
RADIUS server	Integrated RADIUS server for MAC address list management
802.1x server	Authentication of an access point in WLAN client mode at another access point via 802.1x (EAP-TLS, EAP-TTLS and PEAP) EAP-server incl. CA available in BAT-Controller.
802.1x supplicant	Authentication of an access point in WLAN client mode at another access point via 802.1x (EAP-TLS, EAP-TTLS and PEAP)
Firewall	
Bridge	Stateful Inspection Firewall between bridged interfaces (z.B. WLAN clients), Notification via syslog or SNMP trap.
Router	Stateful inspection firewall, Packet filter with tagging, actions etc. Notification via e-mail, syslog or SNMP trap. Intrusion Prevention, IP spoofing, Access control lists, Denial of Service protection, URL blocker and password protection.
Quality of Service	
WLAN	Prioritization according to IEEE 802.11e



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Redundancy

Protocols Parallel Redundancy Protocol (PRP) with advanced queue management, VRRP, Firmsafe, Analog/GSM modem backup, RSTP

Routing

Routing functions OpenBAT: IPv6 router including support of VPN tunnels IPv4 router and dual IP stack for migration from IPv4 to IPv6.BAT54/300: IPv4 router

Supported protocols DNS client, DNS server, DNS relay, DNS proxy DHCP client, DHCP relay and DHCP server with autodetection, DHCP option 82. Cluster of several BAT DHCP servers per context (ARF network) enables caching of all DNS assignments at each router NetBIOS/IP proxy policy based routing dynamic routing NAT N:N IP address mapping PPPoE server in LAN

COM port server

COM port forwarding COM-port server for the serial RS232 interface. For a serial device connected to it, the server manages its own virtual COM port via Telnet (RFC 2217) for remote maintenance (works with popular virtual COM-port drivers compliant with RFC 2217). Switchable newline conversion and alternative binary mode. TCP keep alive according to RFC 1122 with configurable keep alive interval, retransmission timeout and retries

WAN protocols

Ethernet PPPoE, PPTP (PAC or PNS) and plain Ethernet (with or without DHCP), RIP-1, RIP-2, VLAN, IP, dynamic DNS client, MPPE (with VPN option), VPN, MPPPoE

Management

LANconfig Configuration program for Microsoft Windows, incl. convenient Setup Wizards. Optional group configuration, simultaneous remote configuration and management of multiple devices over IP connection (HTTPS, HTTP, TFTP). Configuration program properties per project or user. Automatic storage of the current configuration before firmware updates. Detection and display of the HIRSCHMANN BAT devices

LANmonitor Monitoring application for Microsoft Windows for (remote) surveillance and logging of the status of BAT devices and connections, incl. PING diagnosis and TRACE with filters and save to file. Search function within TRACE tasks. Wizards for standard diagnostics. Export of diagnostic files for support purposes (including bootlog, sysinfo and device configuration without passwords). Graphic display of key values (marked with an icon in LANmonitor view) over time as well as table for minimum, maximum and average in a separate window, e. g. for Rx, Tx, CPU load, free memory. Monitoring of the BAT devices

WLANmonitor Monitoring application for Microsoft Windows for the visualization and monitoring of BAT WLAN installations, incl. Rogue AP and Rogue Client visualization

WEBconfig Integrated web server for the configuration of BAT devices via Internet browsers with HTTPS or HTTP. Similar to LANconfig with a system overview, syslog and events display, symbols in the menu tree, quick access with side tabs. WEBconfig also features Wizards for basic configuration, security, Internet access, LAN-LAN coupling.

Software

Software VPN supporting 5, 50 or 100 IPsec based VPN tunnels, PublicSpot, PRP

Classification

Belden brand Hirschmann

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