HIRSCHMANN

A **BELDEN** BRAND

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Hirschmann Operating System HiOS 6.0

Hirschmann upgrades HiOS software to increase the power and performance of its Industrial Ethernet switches.

HiOS software offers intelligent and unique combinations of network redundancy protocols to meet every physical and application requirement.

- **PRP over Gigabit –** Increased connection speed from 100 Mbit/s to 1 Gbit/s
- **FuseNet™ –** The "Fusion of Networks" via redundant network coupling protocols
- **Ethernet Train Backbone –** A communication protocol family designed specifically for use in trains

Version 6.0 of the Hirschmann Operating System (HiOS) offers more redundancy protocols and enhanced security options to ensure maximum network availability. Network Address Translation increases the network deployment options. Extended backwards compatibility with devices running Classic Switch Software means that existing networks can be operated, maintained and expanded well into the future using HiOS-based components.

Easy Access Control Lists provide granular network security to devices using Layer 2 Standard (L2S) software. Extensive new design combinations such as Media Redundancy Protocol (MRP) sub rings with Link Aggregation are available for the higher value Layer 2 Advanced (L2A) switches. 1:1 NAT now runs on the RSP, RSPE (Expandable) and OCTOPUS Layer 3 switches.

HiOS 6.0 introduces FuseNet, the "Fusion of Networks". FuseNet uniquely identifies a family of redundant coupling protocols which are proprietary to Hirschmann. These protocols provide great flexibility in the way networks can be redundantly coupled, to suit every topology.

Applications

HiOS was developed specifically to meet the requirements of the automation sector. The Hirschmann switches in the RSP, RSPL (Lite), RSPS (Smart), RED, Embedded Ethernet (EES) families, and OCTOPUS series, as well as the modular MSP, RSPE (Expandable) and GREYHOUND systems, are ideally suited to virtually any application that calls for maximum network availability. Examples include automotive production, transportation and power transmission and distribution.

HiOS 6.0 now supports Ethernet Train Backbone. This communication network, standardized in IEC 61375-2-5, is specifically designed for use in rolling stock.

Your Benefits

Hirschmann HiOS software is well known as an operating system with unique redundancy and security features that enable it to provide high network availability and data security for efficient production processes.

This latest version adds further capability to your state-of-the-art hardware. It adds Parallel Redundancy Protocol (PRP) over Gigabit, Rapid Spanning Tree Protocol (RSTP) over High Availability Seamless Redundancy (HSR), RSTP Ring-Only Mode and FuseNet network coupling protocols for maximum network uptime.

A new product to serve your needs. Be certain.

HiOS

Hirschmann™ Operating System

With HiOS 6.0, you have access to the industry's widest range of standard functions and special features for the automation sector.

The latest Transport Layer Security (TLS) libraries enhance the security of network communication. The ability to disable unused slots on modular devices hinders unauthorized network access. Out-Of-Band management via a dedicated RJ45 port on the new GREYHOUND 1040 means that the devices can be managed even during high Central Processing Unit (CPU) load, for example if a network loop occurs.

HiOS also extends the range of applications for the latest generation of Industrial Ethernet products from Hirschmann. From cabling through switches and routers, supplemented by WLAN, firewalls and network management software, a seamless high availability solution for state-of-the-art automation networks is now available from a single supplier.

Benefits at a Glance

- Highest availability: A combination of standards-based protocols and FuseNet coupling protocols results in a high level of fault tolerance.
- Faster redundancy: PRP over Gigabit is now available for existing hardware. Only a software update is required.
- Backwards compatibility: The incorporation of Classic Switch Software functions into HiOS ensures that existing networks can continue to be expanded many years into the future.
- Security functions: Easy Access Control Lists allow control of what data crosses a network, even in standard switches.
- Address Translation: 1:1 NAT allows the connection of networks that use identical subnets. Ideal for machine builders, manufacturing, and train networks.
- Increased data rates: HiOS 6.0 supports the new 2.5 Gbit/s transmission rate. This provides faster speed without a significant increase in power consumption or heat generation. When used with Link Aggregation, it results in high speed data uplinks, at a significantly lower cost than 10 Gbit/s.
- User-friendly management: The Industrial HiVision network management software offers extensive configuration and monitoring functionality, both for products with installed HiOS software and for third-party devices. Now available free of charge for up to 16 devices.

HiOS 6.0 is focussed on redundancy technologies for maximum network availability. Devices running L2A software onwards offer unrestrained network topology design based on a combination of standards-based redundancy protocols and FuseNet coupling protocols.

About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

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