CS 115HE

Enel is a Leading Integrated Player in the Power and Gas Markets of Europe and Latin America

A Belden industrial security solution, EAGLE20 firewalls and Industrial HiVision network management software, is protecting Enel GEM hydro power plants, CCPP and Coal Fired PS from external cyber threats.

Photo from Enel archive

More than 50 Enel GEM Hydro Power Plants, which are equipped with Enel Control Systems, are secured by the EAGLE20 Industrial Security Routers, with Industrial HiVision deployed in CCPP and Coal Fired PS. The main objectives are to defend Enel Control Systems Servers and Associated Subnets against external Cyber Security threats, and through Industrial HiVision to increase the reliability, availability, monitoring and visibility of Enel Process Networks.

BELDEN

HIRSCHMANN
A BELDEN BRAND

- **Maximum security protection:** defends plants operations from cyber threats ensuring high availability.
- **High interoperability:** designed to be integrated into automation systems.
- **User friendly interface:** easy to configure via a graphical user interface. Configuration can be saved and transferred via the integrated USB port.
- **Cost efficiency:** low installation and maintenance costs by non-IT specialists, after a one-day training course.
- **Space saving:** compact design fits in dedicated control cabinets with DIN Rail mounting.
- **Bridging mode:** firewalls can be installed in an existing network, with no requirement to change IP address structure.
- **High visibility:** Industrial HiVision provides in-depth information about the network infrastructure.
- **Competent support:** local consultation and technical support.

Enel operates national and international power generation facilities, and robust cyber security is vital to its global business.

The EAGLE20 industrial security router from Hirschmann™ was specifically recommended by Enel's IATTPIA system supplier, due to its ease of integration into the automation system.

Since 2009, when Enel chose the EAGLE20 firewall as security solution for this kind of application, the product has fulfilled all expectations. These include protecting the plant operation from the potential impact of cyber threats, and maintaining a high level of plant availability.

Hirschmann™ RS20 and MS20 switches are now installed in a high redundancy topology, for many combined cycle thermal power plants (like Porto Corsini and La Casella in Italy) and Large Coal Fired PS (like Torrevaldaliga Nord).

Based on the successful deployment and its positive experience of EAGLE20 firewalls and Industrial HiVision, Enel is extending its cooperation with Belden.

System Requirements

- Industrial firewall
- Simple integration into automation systems
- Extensive security mechanisms
- Intuitive graphical user interface for simplified configuration
- Network protection without changing the network address scheme
- Industrial grade hardware with DIN Rail mounting
- Wide operating temperature range
- Dual power inputs

Be certain.
Belden.

Belden® Solution

After an initial consultation, the EAGLE20 was evaluated at a single Enel remote site. Following the success of the evaluation, the Belden solution was rolled out across the network in a timely fashion. Key networks are now secured against external threats by deploying EAGLE20 security routers in more than 130 hydro turbine generators for 7.4 GW installed in 50 hydro power plants, with their associated HV substations that are located in Italy. Industrial HiVision network management software is used for CCPP and Coal Fired PS in Italy. The Belden products, coupled with local technical support, provide a reliable system which is easy to maintain, while meeting the security requirements of Enel's remote networks.
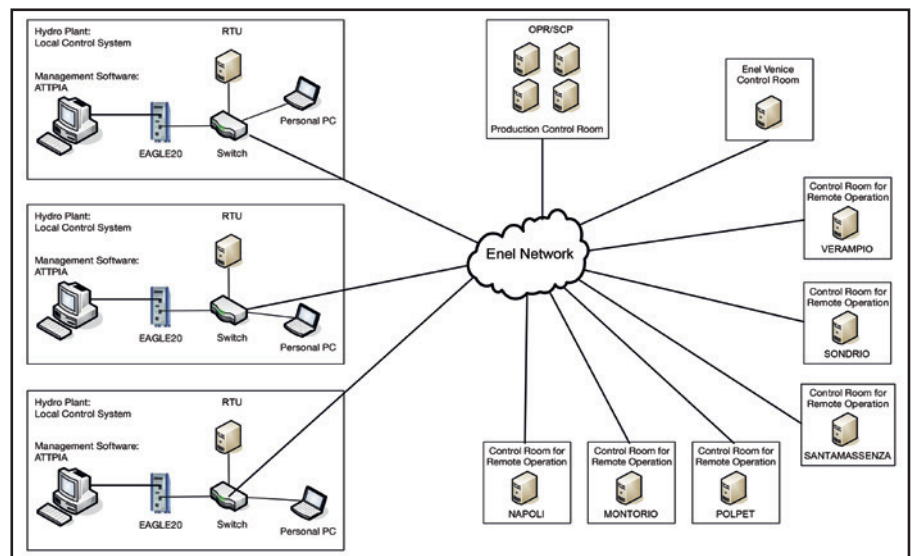
Why Belden?

Belden products maximize customers' network security, reliability and efficiency. The products are compatible with systems of substation automation suppliers, as well as being easy to install, configure and operate. They offer a user-friendly graphical user interface, which facilitates configuration by engineers who are not IT experts.

Products from Belden are designed for long-term operation. Ruggedized hardware makes them suitable for mission critical industrial environments.

Industrial HiVision network management software can supervise both Hirschmann™ and non-Hirschmann™ devices, to provide a comprehensive visualization of the network.

Belden provides comprehensive technical services including project managment, consultancy, training, certification, and technical support.

A network built with Belden products combines minimum maintenance and maximum availability.

About Enel

Enel is a multinational group based in Italy, a leading integrated player in the power and gas markets of Europe and Latin America, operating in 40 countries across 4 continents overseeing power generation from 98 GW of net installed capacity and distributing electricity and gas through a network spanning around 1.9 million km to serve 61 million customers.

"In our experience the EAGLE20 firewall is reliable, and easy to install and configure. It is a good solution to protect field automation network LANs in small/medium size industrial environments, especially in sites which are difficult to reach."

– Raffaele Bernardin
Enel Technical Support Engineer

Product Details

EAGLE20 TX/TX
- Scalable security functionality: stateful inspection firewall and VPN router
- Dynamic firewall rules
- Port forwarding and NAT
- Simple integration: no IP address changes needed to integrate into existing network

Hirschmann™ Industrial HiVision – Network management software
- Client/server architecture: several operators can work in parallel
- Flexible licensing: based on managed nodes
- Customizable display: topology can be displayed to map the physical structure of the network
- Faster installation and enhanced security: MultiConfig™ enables network devices to be configured simultaneously