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# Cisco Connected Grid Router Ethernet Switch Module

The new Cisco<sup>®</sup> Connected Grid Ethernet Switch Module (CGR 2010 ESM) greatly expands the capabilities of the Cisco 2000 Series Connected Grid Routers. This module integrates industry-leading Layer 2 and Layer 3 (optional) switching with feature sets comparable to those in Cisco 2520 Connected Grid Switches. It comes in two models, to provide both copper and fiber connectivity options.

The Cisco Connected Grid Ethernet Switch Module and the Cisco 2010 Connected Grid Router (CGR 2010) are designed specifically for use in connected energy applications such as:

- Grid automation
- Distributed generation
- Integrated renewable energy
- Trackside substations
- Water, oil, and gas applications

#### **New Features**

- Rugged industrial design and substation compliance: IEC-61850-3 and IEEE 1613 for utility substation environments
- Tools for easy deployment, management, and replacement
- · Extensive instrumentation and remote diagnostic capabilities
- Advanced quality of service (QoS) capabilities to support mission-critical substation applications such as Supervisory Control and Data Acquisition (SCADA) and IEC 61850 Generic Object-Oriented Substation Events (GOOSE) messaging
- · Comprehensive network security features based on open standards

Upgrade Paths: The CGR 2010 ESM requires Cisco IOS® Software Release 15.1(04)M or later on the CGR 2010.

## **Ordering Information**

Help customers understand all the components or parts they need to purchase in order to install and use the product. This section also provides a direct link to the Cisco Ordering Tool and lists part numbers for customer convenience.

To place an order, visit the Cisco Ordering home page. To download software, visit the Cisco Software Center. (See Table 1.)

#### Table 1. Ordering Information

Product Name	Part Number
Cisco Connected Grid 10-port Ethernet Switch Module Interface Card	GRWIC-D-ES-2S-8PC
Cisco Connected Grid 6-port Ethernet Switch Module Interface Card	GRWIC-D-ES-6S

### Cisco Services for the Substation

Cisco provides a team of internal experts and industry-leading partners with the mission of helping utilities to plan, build, and optimize communications networks. Based on their experience, Cisco Connected Grid Services:

- · Assesses business needs, security, and reliability requirements to support the 24/7 grid
- · Plans, builds, and optimizes forward-looking architecture designs to meet utility needs
- · Implements large-scale deployments that support service across distributed territories
- Reduces risk, delays, and the total cost of network deployments
- · Creates proof of concept and long-term roadmaps to serve as the foundation for decades to come

Our Cisco lifecycle approach defines the activities to help ensure a comprehensive approach to the smart grid. Automating the substation via the network allows utilities to manage, control, and automate remote assets more efficiently and securely, combining business and utility functions to streamline grid operations both now and into the future.

#### For More Information

For more information about the Cisco CGR 2010 ESM, visit <u>www.cisco.com/go/cgr2000</u> for product and datasheet information or contact your local account representative.



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