

Connected Grid Cisco Developer Network



Today's energy industry is increasingly focused on grid modernization, the expansion of the utility business, and implementing security to meet regulatory requirements. Cisco relies on experienced alliance partners to develop solutions that integrate with its Connected Grid architectures to support advanced smart grid capabilities. By partnering with Cisco, these organizations gain:



- Accelerated time-to-market for products and solutions
- Access to Cisco's depth of networking and technology experience
- Increased customer confidence based on co-branding

The Cisco Developer Network

The Cisco® Developer Network (CDN) has been in existence for seven years, and consists of more than 700 member companies as well as 30,000 individuals. This annual fee-based program provides a variety of opportunities to utility developers. Some of those include:



- **Interoperability and verification testing**—Cisco and/or the partner certify the product as interoperable to gain access to new markets; partners may list the product as “Cisco-Compatible”
- **Cisco and partner integration**—Cisco networks and the partner product exchange data through the API, adding value through aggregation of data
- **Embedded technology and OEM**—Cisco licenses networking technology to be embedded into the partner product. Cisco supports the partner to develop their solution and certifies its compatibility.

The interactive [CDN portal](#) provides developers with a variety of materials to help integrate their product with Cisco, including network interface software stacks, APIs, software development kits (SDKs), design guides, solution briefs, test plans, sample code, technical blogs, web forums, and case-based support.

Connected Grid is the newest of the technology communities within the CDN program. It consists of the following technology sub-communities:



IP-Enabled Grid Devices

Many grid monitoring and control technologies are for the first time being added to the utility communications network to support distributed generation, reduce outage response times, and meet regulatory requirements. Cisco licenses IP-enabling communications technology to work with network endpoint devices such as:

- Smart meters
- Distribution Automation sensors and control devices
- IP-enabled smart objects

The [IP-Enabled Grid Devices program](#) allows OEM developers to embed Cisco network technology to standardize for interoperability and reduce technology risk while building on a common layer of networking services for a diverse set of devices.



Field Area Network

The Cisco Field Area Network (FAN) architecture helps enable a highly secure multiservice communications infrastructure for the utility. Cisco helps enable applications delivery over a common network platform for:

- Advanced Metering Infrastructure (AMI)
- Distribution Automation and grid sensing
- Protection and control

Through the [FAN program](#), partner solutions integrate with ruggedized Cisco 1000 Series Connected Grid Routers (including rail and pole mount designs) to manage millions of endpoint devices.

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Grid Security and Management

Cisco highly secure, open standards-based architectures provide opportunities for partners to create solutions based on smart grid communications and security. Partners can develop value-added security and management capabilities for:

- Audit trail support to meet regulatory requirements such as NERC CIP
- Smart grid online security (SIEM, SCADA, etc.)
- Secure network management and data exchange
- Physical security and access control

The Cisco [Grid Security and Management program](#) can reduce risk and accelerate system design with certified interoperability with Cisco world-class security products.

Transmission and Distribution Substation

Cisco provides highly secure, multi-service wide area networking (WAN) architectures and substation automation switching solutions to help utilities:

- Comply with regulatory mandates
- Increase reliability of power delivery systems
- Support substation systems, timing devices, and IEDs
- Lower operational costs

[The Transmission and Substation program](#) supports partners integrating with the ruggedized Cisco 2010 Connected Grid Router and 2520 Connected Grid Switch (IEC-61850-3 and IEEE 1613 compliant).

Data and Control Center Operations

Cisco utility enterprise and grid operations solutions include Cisco Unified Computing System™ (UCS®) data center switching and storage products, low-latency WAN components, security products, and distributed intelligence capabilities in the network. The [Data and Control Center Operations](#) program offers opportunities for applications software partners in the areas of:

- Control center applications
- Outage management
- Data center and back-office applications
- Data analytics and visualization
- Grid operations and business services

CDN Program Benefits

- Reduced development costs through the Discount Purchase Program, relationship management, and CDN solution catalog systems and tools
- Accelerated development enabled by developer resources and technical support; each registered partner receives an allocated number of support cases each year based on tier of membership
- “Cisco-Compatible”: interoperability verification and certification
- Go-to-market support with Cisco co-branding, resources, and a series of partner programs
- Sales enablement through access to Cisco sales and channel teams

For More Information

For more information, please visit the Connected Grid [CDN portal](#).