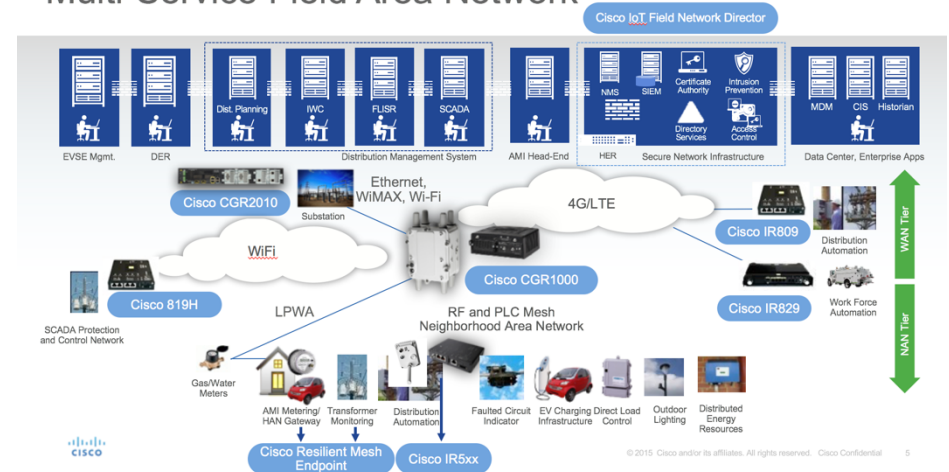# Cisco Field Area Network (FAN) at a Glance

Benefits

- Lower the total cost of ownership (TCO) by consolidating disparate communication networks used for advanced metering infrastructure (AMI), distribution automation(DA) and renewable energy applications.

- Deliver a communication platform for standards-based, interoperable, secured IoT application using IP-based technologies and innovations.

- Facilitate edge computing platform which transform IoT data into new digital business values.

- Provide graceful migration and integration
  of existing AMI and DA assets with support for various Industrial protocols

Multi-Service Field Area Network

Challenges of Traditional Utility Operation

The energy industry is rapidly evolving in size and complexity. Utilities are now focused on grid modernization to optimize the power supply chain. Smart meters, grid sensors, advanced distribution automation, substation automation, wide area measurements, etc. are proliferating in this area, typically known as operational technology (OT). Challenges the OT team are facing include:

- Increase reliability of grid operation

- Improve efficiency of grid operation

- Reduce overhead and maintenance costs and streamline network operation and eliminate the need for proprietary architectures

The Cisco Field Area Network Solution

The Cisco Field Area Network solution enables grid modernization and maximizes business outcomes by providing an end-to-end, IP-based reference architecture—from data centers responsible for grid operations to homes and industries. It provides communication platform for advanced applications such as Distribution Automation (DA), Automatic Metering Infra (AMI), Renewable energy applications. The Cisco FAN solution features:

· Multi-Service
· Security
· Fog computing
· Management & Automation
· Standards

Why Cisco?

- Technology Leadership
- Future proof architecture
- Global ecosystem partnerships

Cisco brings more than 30 years of industry networking experience to the utility industry. The Cisco FAN solution team has the experience, expertise, and portfolio of technology solutions to improve how the energy industry serves its customers and manages its day-to-day business. By uniting disparate networks through the field and out to the customers, Cisco enables utilities to operate more efficiently and cost effectively.

The Cisco Field Area Network Resilient Mesh Components:

The Cisco FAN Resilient Mesh comprises:

- Cisco 1000 Series Industrial IoT Routers providing FAR capabilities

- Cisco IR509 or IR510 (DA gateway)

- Cisco IR529 or IR530 (Range extender)

- Cisco Resilient Mesh End point reference design, which provide Resilient Mesh connectivity to end points such as DA devices, sensors and smart meters