# SNAP-Enabled Gateway

IoT solutions demand reliable and flexible wireless connectivity at scale. SNAPconnect Gateway devices are the interface between your SNAP mesh networks and the rest of the world. Whether performing data aggregation to quickly make real-time decisions, merging multiple IoT data streams, or connecting to on-site servers or the cloud, SNAPconnect Gateways provide the connectivity your network needs

#### Powered by Ubuntu - Easy to Customize

The **SNAPconnect E12 Gateway** is an embedded Ubuntu Linux computer with the flexibility to add custom or 3rd party software as needed for local databases, IoT platform clients, or other elements. It bridges SNAP edge networks over Ethernet or optional USB connectivity devices such as cell modems, Bluetooth, or Wi-Fi adapters.

#### Start Quickly with Included Tools

Custom programs can be created with the help of SNAPconnect software libraries making communications with IoT devices in edge networks easy, even in challenging environments.

## **Protect your Deployment**

SNAPconnect Gateways emphasize security using AES-128 to encrypt edge network traffic, and standard Linux security tools to secure the backhaul network. SNAP Thing Services utilizes tools like TLS and HTTPS to secure outbound interfaces.

## Features:

- SNAP mesh enabled RF:
  - 2.4 GHz, IEEE 802.15.4
  - +20 dBm TX power
  - Up to 3 miles LOS Range (5.5dBl Antenna)
- Ubuntu Linux OS allows custom software development
- SNAPconnect enabled out of the box
- uSD card expansion slot for system recovery, upgrades, and storage
- Wired Ethernet with additional connectivity and storage via USB



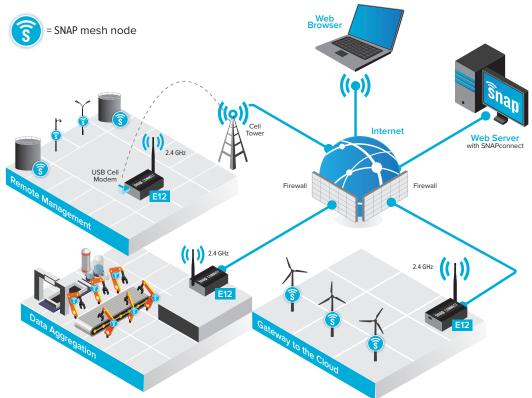




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In the example below, the E12 gateways serve three different roles with three different remote SNAP networks in real time.



Feature	Characteristic	
Processor	ARM® Cortex-A8 TI Sitara	
Processor Speed	1 GHz	
Operating System	Ubuntu Linux	
FLASH Memory	4GB NAND FLASH memory	
RAM	512MB DDR3	
Ports	10/100 Ethernet uSD card USB 2.0 Type-A USB Micro-B (serial)	
Operating Temperature	Industrial -40° to +70°C*	
Power	DC terminal block 12, 24VDC (Operating range 7-36VDC)	
Recommended accessories:		
AC012-001	AC power adapter for E12 - US Power	
AC012-002	AC power adapter for E12 - EU, UK Power blades	

<sup>\*</sup>UL certified for +60°C maximum operating temperature

Part Number	Description
SCK012-010	E12 SNAPconnect Gateway - 2.4 GHz- North America - packaged evaluation kit - Includes E12 SNAPconnect Gateway and antenna
SC012-010	E12 SNAPconnect Gateway - 2.4 GHz- North America
SCK012-020	E12 SNAPconnect Gateway - 2.4 GHz - CE - packaged evaluation kit - Includes E12 SNAPconnect Gateway and antenna
SC012-020	E12 SNAPconnect Gateway - 2.4 GHz- CE
SC012-030	E12 SNAPconnect Gateway - 2.4 GHz - w/o housing - North America
SC012-040	E12 SNAPconnect Gateway - 2.4 GHz - w/o housing - Europe