

# SNAPconnect E12

## 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

The E12 is ready-made to host SNAP Thing Services – a suite of software tools that unite IoT devices and applications via REST and MQTT for tasks such as data collection, device updates, and network management.

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:
  - 2.4GHz, IEEE 802.15.4
  - +20 dBm TX power
  - Up to 3 miles LOS Range (3.2dBi antenna)
- Ubuntu Linux OS allows custom software development
- SNAPconnect enabled out of the box
- SNAP Thing Services enabled out of the box
- uSD card expansion slot for system recovery, upgrades, and storage
- Wired Ethernet with additional connectivity and storage via USB



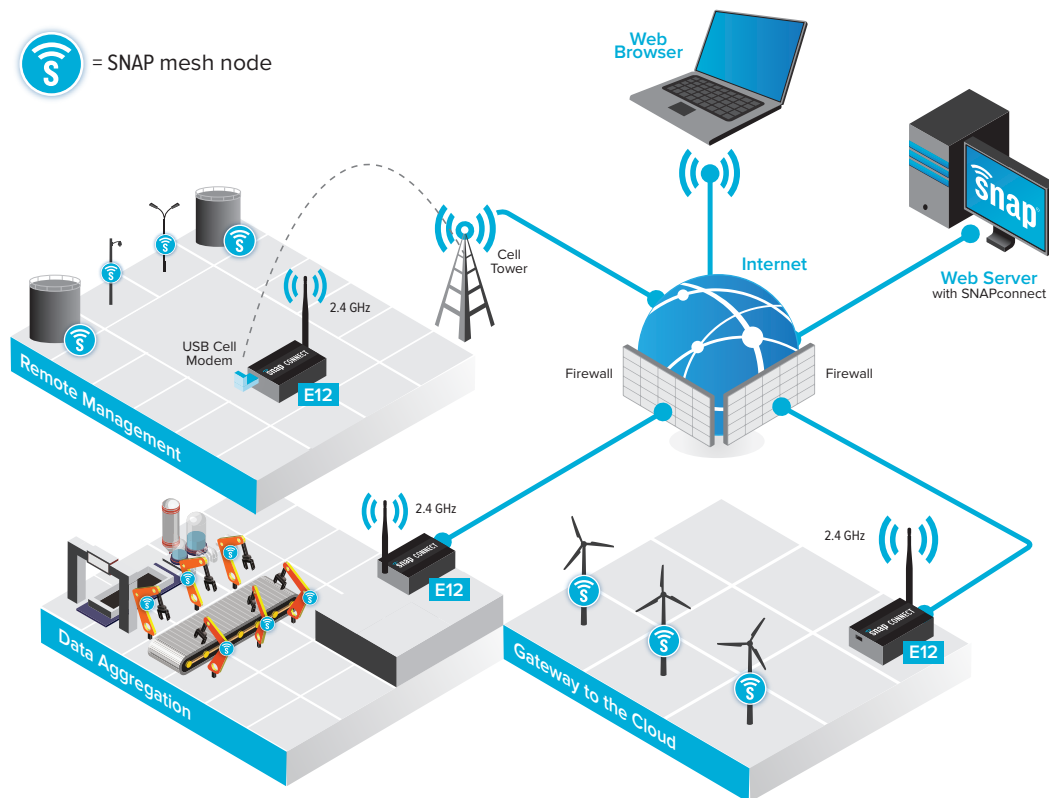
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The SNAPconnect E12 gateway connects SNAP networks to the internet using built-in Ethernet and various USB-enabled communications mediums.

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 +60°C
Power	DC terminal block 12, 24VDC (Operating range 7-36VDC)

Part Number	Description
SCK012-010	E12 SNAPconnect Gateway - North America - North America - packaged evaluation kit - Includes E12 SNAPconnect Gateway and antenna
SCK012-020	E12 SNAPconnect Gateway - CE - packaged evaluation kit - Includes E12 SNAPconnect Gateway and antenna
SC012-010	E12 SNAPconnect Gateway - North America
SC012-020	E12 SNAPconnect Gateway - CE
SC012-030	E12 SNAPconnect Gateway - w/o housing - North America
SC012-040	E12 SNAPconnect Gateway - w/o housing - Europe
<b>Recommended accessories:</b>	
AC012-001	AC power adapter for E12 - US Power
AC012-002	AC power adapter for E12 - EU, UK Power blades