

Cisco Connected Life Gateway Family

Service providers have exciting new service and revenue opportunities in the consumer home. With Cisco® Connected Life Gateway (CLG) family, you can offer a variety of new lucrative services and applications quickly and cost-effectively. This standalone, scalable platform provides one or multiple applications and services such as automation, control, monitoring of home security, and energy management applications. The Cisco CLG uses state of the art hardware that includes embedded support for the most popular wireless technologies.

Summary

The Cisco CLG family features a rich set of integrated device interfaces. These interfaces enable connectivity to various nodes such as sensors, actuators, key pads, thermostats, lamp controllers, power controllers, and fitness devices. The open, industry standards-based software architecture allows rapid and cost-effective development and implementation of new and innovative services. Cisco CLGs are easy for service providers to remotely manage using the industry-standard Broadband Forum® TR-069 protocol, including data models defined in TR-098, TR-181, and TR-157.

Features

There are two Cisco CLG models: Cisco CLG-8201 which contains just one Z-Wave or Zigbee interface as a configurable option and the Cisco CLG-8202 which contains both Z-Wave and Zigbee interfaces (Figure 1).

The Cisco CLG architecture is based on a highly integrated System on a Chip (SoC) utilizing a scalable ARM Cortex A8 processor. It provides clock speeds from 800 MHz up to 1 GHz while retaining 100% software compatibility across the entire range. The Cisco CLG is designed to be modular. Cisco can deliver multiple product variants with different processor speeds, memory sizes, and interface types based on your performance requirements and cost constraints.

Figure 1. Cisco Connected Life Gateway



Highlights

- **Open Software Environment** - Linux-based OS with a flexible Open Services Gateway initiative/Java Virtual Machine (OSGi/JVM) application framework offers third-party application support and shorter time-to-revenue for new services. The software architecture is modular and will also support alternative framework/middleware solutions.
- **Remote Management** - Industry-standard Broadband Forum TR-069 protocol, with associated data models provides device, software, and application lifecycle management.
- **ZigBee and/or Z-Wave** - Embedded controllers provide home automation, home security, and energy control applications. Since Z-Wave operates in the Sub-1 GHz frequency band, it is subject to region-dependent regulatory requirements. Cisco has different SKUs to support different regional requirements.
- **Bluetooth Smart Ready (4.0 and Low Energy)** - Bluetooth has been broadly adopted for use with fitness and other personal devices. Bluetooth also supports use cases for pairing and interaction with smartphones and tablets.
- **Near Field Communication (NFC)** - This optional technology promotes easy pairing of devices with an identification tag or as a notification or trigger for applications running in the Cisco CLG.
- **Flexible Deployment** - Fast Ethernet or wireless WAN allows deployment in most common existing home networks with broadband access.
- **Simplified Home Networking** - Powerful set-up, local management, and remote troubleshooting tools simplify deployment and reduce or shorten the duration of support calls.
- **Network Connectivity via 3G/4G/LTE** - The Cisco CLG is designed to support alternative or backup network connectivity via a 3G/4G/LTE dongle mounted in the base of the Cisco CLG using one of the USB 2.0 ports. This functionality is pending software support.
- **Leading-Edge, Highly Secure Bootloader Designed by Cisco** - This feature provides encryption and software integrity verification to help protect data and application software from being compromised.
- **Dedicated Security Processor** - The processor provides highly secure key storage, cryptography, and trust services.

Product Specifications

Specifications	Description
Host Processor	
ARM Cortex A8	Depending on SKU/model version Cisco CLG model variants - 800 MHz up to 1 GHz, (up to 2000 DMIPS*) *DMIPS Performance method for ARM cores v2.1 Dhystone
System Memory	
DRAM	Depending on SKU/model version Cisco CLG model variants DDR3 - 512 MB/1 GB
Application Storage	
NAND eMMC	4 GB (2 GB free to allocate for application and user data)
Embedded Security	
Data protection	Dedicated highly secure micro chip to encrypt/decrypt data

Specifications	Description
LAN/WAN Interfaces	
Ethernet	2x Fast Ethernet 10/100 Mbps (RJ-45) with Auto MDI/MDX
Wi-Fi	IEEE 802.11n 2.4 GHz (2 x 2 MIMO) IEEE 802.11b/g 2.4 GHz backwards compatible
Embedded Low Power HAN/PAN/device interfaces	
ZigBee	Global ISM band 2.4 GHz
Z-Wave	Sub-1 GHz - Regional dependent frequencies (SKU variants)
Bluetooth 4.0/BLE	Global ISM band 2.4 GHz
NFC	Global ISM Band 13.56 MHz Additional RF technologies can be supported via external USB dongles
USB 2.0	2x USB 2.0 host ports
Indicators	
Visual	LED 1: Power [Green] LED 2: software controlled - Status (Multicolor: Red, Yellow, Green) LED 3: software controlled - Radio #1 Active/Inactive [Green] LED 4: software controlled - Radio #2 Active/Inactive [Green] LED 5: software controlled - Cloud Application Connectivity [Green] Two integrated LEDs per Ethernet port (Link status [Green] Activity State [Amber])
Power	
External adapter	Class V switching auto range 100-240 Vac @ 50/60 Hz DC operating voltage 15V Average Power consumption less than 4W
Environment Specifications	
Operating Temp.	0 to +40 °C (32 to 104 °F)
Storage Temp.	-20 to +60 °C (-4 to 140 °F)
Operating Humidity	0% to 95% non-condensing
Storage Humidity	0% to 99% non-condensing
Compliance	ETS 300 019
Regulatory Compliance	
Certification	As required per country where the product will be sold and used.
Device Characteristics	
Dimensions	H x W x D = 130 x 150 x 60 mm (without base/stand) H x W x D = 172 x 224 x 78 mm (with base/stand)
Mounting	Desk/Tabletop on stand or wall mount
Weight	540 g (1 lb. and 3 oz.) with stand

Product Configuration Options

Feature/Model	Cisco CLG-8201	Cisco CLG-8202
Processor options	800 MHz up to 1 GHz Up to 2000 DMIPS	800 MHz up to 1 GHz Up to 2000 DMIPS
System memory options (DDR3)	512 MB/1 GB	512 MB/1 GB
General purpose storage (eMMC) NAND flash	2 GB application/user data storage	2 GB application/user data storage
WAN	802.11b/g/n client and Fast Ethernet (RJ-45) port	802.11b/g/n client and Fast Ethernet (RJ-45) port
LAN	2 nd Fast Ethernet (RJ-45) port	2 nd Fast Ethernet (RJ-45) port
USB port options	2x USB 2.0 host	2x USB 2.0 host
Embedded Home RF 1 options	ZigBee Pro OR Z-Wave (SKU/model option)	ZigBee Pro
Embedded Home RF 2 options	(none)	Z-Wave

Feature/Model	Cisco CLG-8201	Cisco CLG-8202
Embedded Home RF 3	Dual-Mode Bluetooth and BLE (BT 4.0 Compliant)	Dual-Mode Bluetooth and BLE (BT 4.0 Compliant)
Optional embedded multipurpose interface	Near Field Communication (NFC)	Near Field Communication (NFC)
Alternative WAN option (pending software support)	3G/4G/LTE via USB port in base	3G/4G/LTE via USB port in base
Alternative Home RF option (pending software support)	Can be supported via USB port	Can be supported via USB port
Visual Indicators	4 LEDs under software control	4 LEDs under software control



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