The bridge to possible

Cisco FM1000 Gateway

Fluidity network appliance

Contents

The Cisco® FM1000 Gateway is a rugged industrial-grade network appliance that makes the setup and management of a medium-scale Fluidity system fast and easy. It allows a Fluidity wireless infrastructure to scale to hundreds of radio devices without impacting overall system performance.
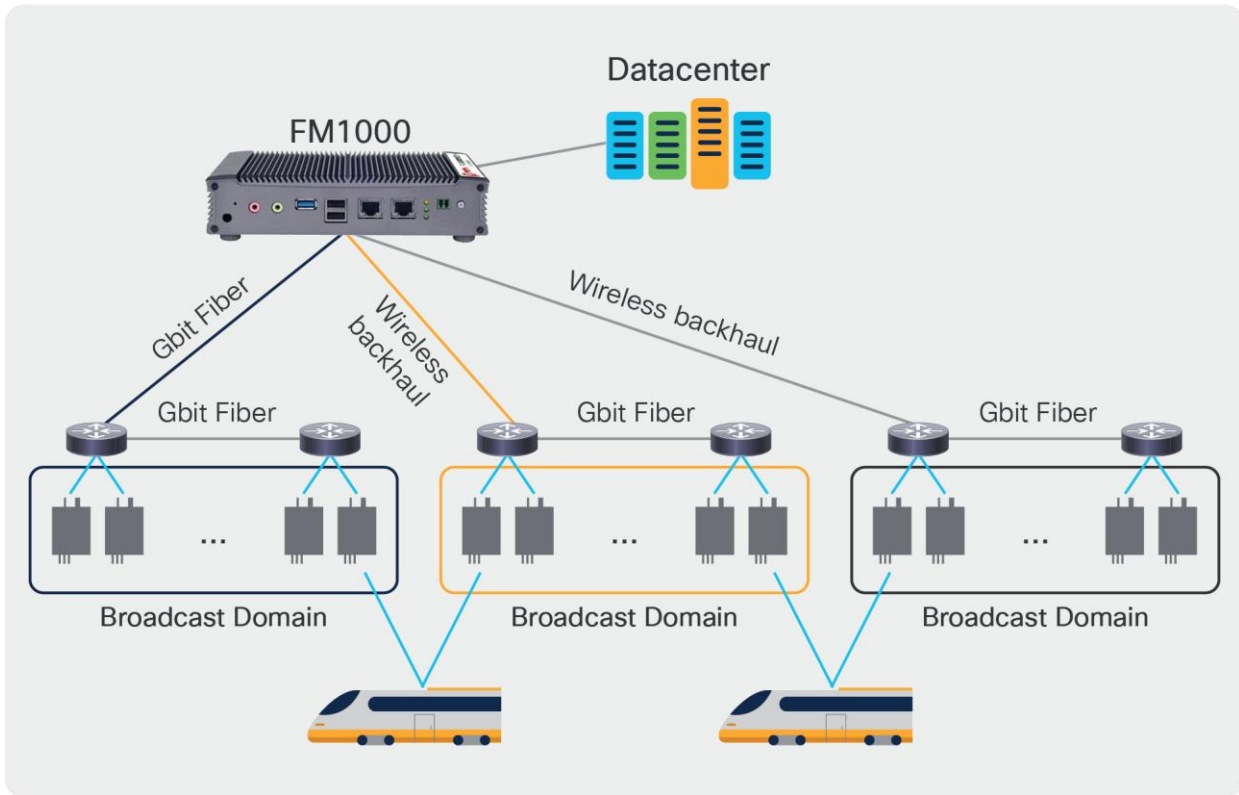

Scalability up to 1 Gbps

The Cisco FM1000 Gateway leverages its powerful network processor to handle a large number of packets per seconds, lowering the load on the Cisco FM radios installed in the field. It is equipped with two Gigabit Ethernet interfaces and is able to handle up to 1 Gbps of aggregate traffic coming from a Fluidity radio cluster.

Redundancy

More than one Cisco FM1000 Gateway can be installed for the same system to provide redundancy and automatic fault tolerance in the system. Multiple Cisco FM1000 Gateways can be co-located in the same data center or installed in different data centers to provide geographical redundancy.

Reachability

The Cisco FM1000 Gateway helps in connecting different clusters of Fluidity networks that are separated in different broadcast domains. The Cisco FM1000 Gateway will act as the aggregation point for all tunnels and will connect all different portions of Fluidity infrastructure across Layer 3 networks or WANs. Using the Cisco FM gateway, roaming across different clusters belonging to different broadcast domains will happen with zero hand-off time thanks to Fluidity's make-before-break patented technology.

Rugged design

The Cisco FM1000 Gateway is a rugged embedded network appliance that can be installed in the data center or in a shelter in the field. The device can be installed on DIN rail and operates with an extended temperature range.

Main features

- Quad-core system on a chip (SoC)
- 2x Gigabit Ethernet ports
- Integrated network management and logging

Technical specifications

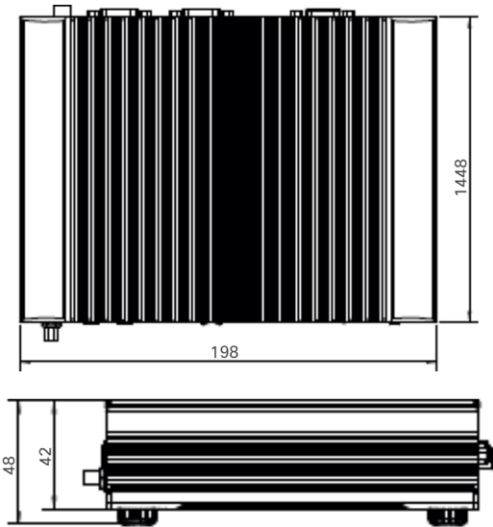| Processor system	CPU	Intel® Celeron® J1900
	Frequency	2 GHz
	Layer 2 cache	2 MB
Memory	Technology	DDR3 1333 MHz
	Socket	1x 204-pin SO-DIMM, 4 GB DDR3L 1066 MHz
Ethernet	LAN 1	10/100/1000 Mbps, autosensing, RJ-45
	LAN 2	10/100/1000 Mbps, autosensing, RJ-45
I/O interface	Serial ports	2x serial ports
	USB Interface	2x USB 2.0, 1x USB 3.0 Type A connector
Other	Digital I/O	2x DI and 2x DO with +5V TTL level
Storage	2.5-in. drive bay	1x 2.5-in. HDD/SSD 500 GB
Power requirement	Power input voltage	Single 12 VDC
	Power adapter	AC power adapter 60W 12V/5A
Physical	Construction	Aluminum housing
	Dimensions (W x H x D)	198 x 42 x 144.8 mm 7.79 x 1.65 x 5.7 in.
Environmental	Operating temperature	20° to 55° C (-4° to 131° F)
	Storage temperature	-20° to 70° C (-4° to 158° F)
	Relative humidity	5% to 95% (noncondensing)
	Vibration	IEC 60068-2-64, 0.5 Grms, random 5 to 500 Hz, 40 mins/axis
Regulation	EMC	CE/FCC

Dimensions (mm)

Table 1.   Cisco FM1000: Plugin and License Summary

Type of Plugin or License	Fluidmesh Part Numbers	Cisco PID	Description
Hardware P/N	FM1000-GWY	FLMESH-HW-1000-1	Cisco FM1000 Gateway for Fluidity up to 1 Gbps of aggregate throughput. Embedded Device with Fluidity Fast-Roaming Software Enabled. 3 x Gbit RJ45 Ports. Aggregate throughput up to 250 Mpbs. DOES NOT INCLUDE FLUIDCARE SUPPORT PLAN
Software upgrade	FM1000-GWY-500	L-FLMESH-1000-1	Software upgrade up to 500 Mbps (aggregate throughput)
	FM1000-GWY-UN	L-FLMESH-1000-2	Software upgrade to unlimited aggregate throughput (1 Gbps)
High availability	FM-TITAN	L-FLMESH-TITAN-1	TITAN Plug-in. Enables Fast Failover in case of network, radio or power failure on a single Fluidmesh product. All Fluidmesh devices in a network mush have a plugin-in to operate.

Product sustainability

Information about Cisco's Environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco's CSR and sustainability reporting.

Table 2.   Cisco environmental sustainability information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	Materials
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
	Countries and Regions Supported	Table: Technical Specification
Power	Power (Including Pluggable)	Table: Technical Specification
Material	Product packaging weight and materials	Contact: environment@cisco.com
	Dimensions	Table: Technical Specification

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