

Cisco Network Building Mediator

Product Overview

The Cisco® Network Building Mediator (“Mediator”) is the industry’s first solution that extends the network as a platform to transform the way buildings are built, operated, and experienced. The Mediator:

- Helps reduce energy usage across global operations
- Leverages Cisco's expertise in collaboration, convergence, and security to foster sustainable energy use
- Provides flexible integration of new technologies that deliver energy efficiency, clean energy, and environmental stewardship



The Mediator powers an energy-efficient intranet by enabling, converging, and balancing four key elements: building systems, IT, energy supply, and energy demand. The integration of these disparate systems onto an IP network leads to a truly converged, energy-efficient building.

The Mediator’s strategy is built on:

- Any-to-any connectivity: Building, IT, and “green” technologies
- End-to-end management: Efficiency, conservation, and de-carbonization
- Extensible platform: Third-party applications and cloud services

The Mediator collects data from the building, IT, energy supply, and energy demand systems, which use different protocols and are otherwise unable to communicate. It then normalizes the data into a common data representation. This enables the Mediator to perform any-to-any protocol translation and to provide information to the end user in a uniform presentation.

This network-based framework creates a common, standards-based, open platform that then allows enterprise applications, cloud services, and building/IT systems to communicate. The Mediator is protocol-agnostic and extends the network to serve as an effective foundation for sustainability management.

Benefits of the Cisco Network Building Mediator

The Mediator provides the following customer benefits:

- Reduced total cost of ownership (TCO)
- Simplified management of energy and facilities
- Flexible integration of building, IT, and clean technology systems
- Enhanced uptime and resiliency with networking technology
- Secure, high-quality delivery of concurrent building and IT services
- A future-proofed investment with third-party applications and cloud services



Features

Table 1. Cisco Network Building Mediator Key Product Features

Network features	<ul style="list-style-type: none"> • Supports Cisco EnergyWise technology to manage energy across IT and facilities • Supports network protocols such as SNMP and SOAP/XML
Multiprotocol translation	<ul style="list-style-type: none"> • Supports open standard building automation protocols such as BACnet and Modbus • Supports other third-party building automation protocols • Uses any-to-any protocol translation to allow communication between multivendor systems
Energy management	<ul style="list-style-type: none"> • Supports energy meters, including pulse meters and smart meters (Modbus or IP) • Flexibly integrates energy-generating and energy-consuming devices • Provides tools to monitor real-time energy consumption • Provides tools to create automated policies to control energy consumption • Supports automated demand response and automated fault diagnostics
Security	<ul style="list-style-type: none"> • Provides a hardened platform that is secured using the Cisco Self-Defending Network • Increases user security through role-based access control • Helps secure communications via certificate encryptions

Configuration and programming tools	<ul style="list-style-type: none"> • Provides interactive, menu-driven tools that allow the user to: • Configure the interfaces and protocols on the Mediator • Create and edit schedules, alarms, logs, and trends • Perform remote installation • Back up and restore configurations • Provides a graphical programming tool that allows users with a working knowledge of controls and automation to translate their knowledge into efficient and powerful control logic
Remote management	<ul style="list-style-type: none"> • Provides a web-based management framework • Allows administrators to control and manage devices over the Internet • Presents real-time information to users in web-based graphical views • Enables the creation of customized web pages for facility operations management
Cloud services platform	<ul style="list-style-type: none"> • Provides a standards-based open interface that allows third-party applications to integrate with the Mediator and offer services over the cloud • Examples of cloud services include: <ul style="list-style-type: none"> • Remote energy management • Automated demand response • Automated fault diagnostics • Remote facility management

Product Configurations

The Cisco Network Building Mediator is an appliance that is available in the following configurations:

Cisco Network Building Mediator 4800	NBM4800-K9	Designed for enterprise and campus. Supports up to 5000 points.
Cisco Network Building Mediator 2400	NBM2400-K9	Designed for branch and retail. Supports up to 1000 points.

Note: A “point” is a generic term used to describe a single item of information in a building control system. Examples of points include the temperature of a room, duct pressure of an air handling unit (AHU), and chiller water flow rate.

Licensing: The Mediator provides a flexible, “pay-as-you-grow” licensing mechanism that gives customers the option to add additional points and protocols as needed. There are two types of licenses:

1. **Point licenses:** Each Mediator comes with a certain number of built-in points that can be configured per appliance. Customers can purchase additional licenses to increase the number of points.
2. **Protocol licenses:** Each Mediator comes with a certain set of built-in protocols. Additional protocol licenses may be purchased according to the requirements of the project.

Product Ordering Information

Product Name	Part Number
Cisco Network Building Mediator 4800-Includes 2000 Pts	NBM4800-K9
Cisco Network Building Mediator 4800-Add 1000 Pts License	NBM4800-PL
Cisco Network Building Mediator 4800-Intermediate Protocols	NBM4800-INT
Cisco Network Building Mediator 4800-Advanced Protocols	NBM4800-ADV
Cisco Network Building Mediator 2400-Includes 250 Pts	NBM2400-K9
Cisco Network Building Mediator 2400-Add 250 Pts License	NBM2400-PL
Cisco Network Building Mediator 2400-Intermediate Protocols	NBM2400-INT

For more details on licenses and supported protocols, please contact your Cisco reseller or account representative.

Product Hardware Specifications

Processor	Pentium-class @ 266 MHz
Memory	512 MB of SDRAM and 512 MB of Compact Flash
Communications	1- Console port (RS-232)
	2- RS-232
	4- RS-485
	2- 10/100 BASE-T Ethernet ports
	4- Dallas 1-Wire® ports (for distributed I/O points)
	2- USB ports
Inputs	4- Counters (optional, general-purpose digital inputs)
Outputs	2- Solid-state single-pole relay outputs (0 to 60V, 1.0A AC/2.0A DC outputs, opto-isolated)
Power	24V DC or AC (24V universal DC power supply provided with unit)
Wattage	Typically 6W (maximum of 10W)
Weight	Approximately 35 oz.
Size	Approximately 8 x 6 x 1 in. (housing cover)
Temperature	Recommended ambient range: 0° to 70°C (32° to 158°F)
Agency listings	Safety: UL 60950-1, CAN/CSA-C22.2 No. 60950-1 EMC Emissions: 47CFR Part 15 (CFR 47) Class A, CISPR2 2 Class A, EN55022 Class A, ICES003 Class A, EN61000-3-2, EN61000-3-3

Warranty Information

The Cisco Network Building Mediator is supported by a Cisco 1-Year Limited Hardware Warranty. Find detailed warranty information on Cisco.com at the [Product Warranties](#) page.

Cisco Services and Support

Cisco and our partners offer a wide range of services programs to accelerate customer success and help improve your return on investment. These innovative programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help accelerate migration by assessing the readiness of your network, developing a sound design, and supporting a smooth implementation through effective planning and expert installation, configuration, and integration. Cisco services help you protect and extend the value of your network investment with award-winning technical support, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco services, visit [Cisco Technical Services](#) or [Cisco Advanced Services](#).

Cisco SMARTnet® Foundational Capabilities

The foundational capabilities included in most Cisco Technical Services help ensure that your basic network infrastructure is available to support your business every minute of every day. The foundational capabilities of Cisco SMARTnet for Cisco Network Building Mediator are:

- Around-the-clock, global access to the Cisco Technical Assistance Center (TAC) for accurate diagnosis and resolution of issues by Cisco support experts.
- Access to the extensive Cisco.com knowledgebase and tools.
- Next-business-day advance hardware replacement. Maintain business continuity by quickly restoring network operations. Replacement hardware is available eight hours per day (delivering the replacement hardware during normal business hours only), five days a week, with next-business-day delivery.

- Ongoing operating system software updates and upgrades, including minor and major releases within the licensed feature set. Extends the useful life of your Cisco network and increases the value of your technology investment with regular software updates and upgrades.

Technical Services ordering information for Cisco Network Building Mediator:

Support Name	Part Number
SMARTnet 8x5xNBD* NBM4800-K9	CON-SNT-NBM48
SMARTnet 8x5xNBD NBM2400-K9	CON-SNT-NBM24

* 8x5xNBD = Eight hours per day during normal business hours, five days per week with next-business-day delivery.

For More Information

For more information about the Cisco Network Building Mediator, visit www.cisco.com/go/mediator or contact your local account representative.

For more information about Cisco services, visit www.cisco.com/go/services.



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