Synergis

Synergis Master Controller
Get Hardware Freedom at the Door

The Synergis Master Controller (SMC) is an intelligent IP controller based on an open architecture that has been engineered to provide greater flexibility and functionality within your security system. Designed to address longstanding customer demand for non-proprietary access control solutions, the Synergis Master Controller provides native support of widely-deployed and non-proprietary security modules from HID Global and Mercury Security.

When modernizing an existing installation, the controller allows you to leverage your current access control infrastructure and upgrade to an IP-based solution. This solution also ensures your investment is protected with an open option that will provide you with greater flexibility for the lifetime of your system.

Equipped with native IP capabilities and encrypted to provide highly-secure communication over your network, the controller can support up to 64 readers, as well as monitor hundreds of zones and alarm points. When used in conjunction with Genetec's Security Center, the controller provides even greater efficiency and control of your security system; the Security Center platform unifies security applications and key operating tasks to enable you to manage Synergis access control and Omnicast video surveillance systems from within a single interface.

SMC Key Features

Native support for popular modules from

HID Global and Mercury Security

Complete offline decision-making capabilities

Threat level management

Hard and soft antipassback

Support for 32 downstream modules
(up to 64 readers)

Unrestricted number of card formats

Supports up to 100,000 cardholders and 150,000 offline events

Four RS-485 ports

Dynamic (DHCP) or static IP addressing

Encrypted communications with host software

Secure web interface for basic configuration

Synergis Software

Synergis is the IP access control system within Security Center that provides real-time monitoring of access events and alarms, as well as cardholder management and reporting capabilities. A few of the key Synergis features include:

Active Directory Integration allows the centralized management of Windows user accounts with Security Center, ensuring an automated synchronization of user and cardholder profiles between Active Directory and your Synergis systems.

Global Cardholder Management enables organizations to centrally manage and configure cardholders and credentials, while ensuring this information will be synchronized with all participating sites, no matter their location.

Unification with video in Security Center ensures that all access control events, alarms, and reports can be associated with recorded and live video.

Built-In Visitor Management allows you to check-in visitors by entering their information, assign new or existing credentials, assign individuals to a visitor group, and print their badge.

Innovative Solutions

Genetec

Open Your Door to Greater Benefits

Choose your hardware – The Synergis Master Controller brings a revolutionary and open approach to the world of access control. You can deploy non-proprietary hardware from readers to interface modules and know your security investment will be protected for years to come. Choose from industry-standard modules from Mercury Security and HID Global, either for an existing installation or a new one.

Unify Access Control & Video Surveillance – Genetec's Security Center ensures that you can centrally configure and monitor hundreds or thousands of networked controllers, while also enabling you to manage Synergis access control, Omnicast video surveillance, and 3rd party systems within the same security environment.

Experience design flexibility –Whether you are deploying a new system or upgrading an existing one, the Synergis Master Controller's architecture supports a variety of topologies. You can daisy chain a number of interface modules on a single communications bus, or you can choose to connect modules in a star topology, regardless of the hardware's make. Through this flexibility, the Synergis Master Controller is adaptable to any installation.
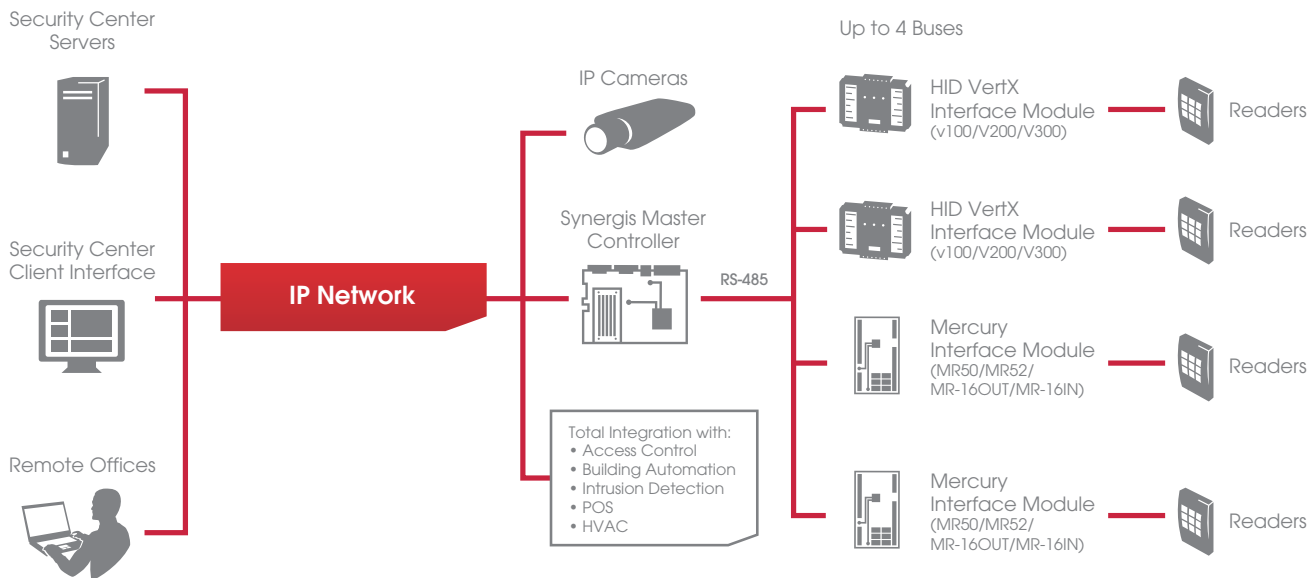
Leverage your network infrastructure – The Synergis Master Controller allows you to leverage your existing corporate or security network to transition into a fully IP-based access control system. A single IP address can be used to manage dozens of readers and hundreds of I/Os, thereby ensuring an efficient use of network resources.

Monitor in real time and enhance reliability – Unlike traditional panels, which employ a polling mechanism that result in added delays, the Synergis Master Controller's communication with Security Center is event-driven, ensuring security events are sent to the host when they happen. All access control logic is handled directly by the controller, so it will operate reliably even if communication to the host is down.

Speed up your deployment – Through a native web server running on the Synergis Master Controller, you can configure basic and advanced controller settings even before you install your access control software. To further simplify deployment, DHCP support and an advanced controller discovery tool virtually automate the enrolment process.

Architecture Overview

The Synergis Master Controller is fully integrated within Security Center and supports a variety of third-party interface modules. Simply install the controller on your network and connect to downstream interface modules over RS-485 or IP. Unlike most panels on the market that only support a single brand of modules, the Synergis Master Controller is designed to be an open platform, ensuring your investment is protected for years to come.

Security Center Servers

IP Cameras

Up to 4 Buses

Security Center Client Interface

IP Network

Synergis Master Controller

RS-485

HID VertX Interface Module (v100/V200/V300) — Readers

HID VertX Interface Module (v100/V200/V300) — Readers

Mercury Interface Module (MR50/MR52/MR-16OUT/MR-16IN) — Readers

Mercury Interface Module (MR50/MR52/MR-16OUT/MR-16IN) — Readers

Remote Offices

Total Integration with:
• Access Control
• Building Automation
• Intrusion Detection
• POS
• HVAC

Supported Interface Modules

Supported Modules	Description	Comms w/ SMC	No. of readers	Supported Readers	Inputs	Outputs
HID VertX® V100	Two-reader interface	RS-485	2	Wiegand Clock-and-Data	4 + 3*	4
HID VertX® V200	Input monitor interface	RS-485	-	-	16 + 3*	2
HID VertX® V300	Output control interface	RS-485	-	-	2 + 3*	12
Mercury MR52	Two-reader module	RS-485	2	Wiegand Clock-and-Data	8 + 2**	6
Mercury MR50	Single-reader module	RS-485	1	Wiegand Clock-and-Data	2 + 1***	2
Mercury MR-16IN	16-zone input module	RS-485	-	-	16 + 2**	2
Mercury MR-16OUT	16-relay output module	RS-485	-	-	2**	16

*   Includes three additional inputs for AC Fail, Battery Fail, and Enclosure Tamper monitoring.

**   Includes two additional inputs dedicated to Tamper and Power monitoring.

*** Includes one additional input dedicated to Tamper monitoring.

Supported Enclosure Options

Enclosures	Dimensions* (Height × Width × Depth)	Common Equipment	Interface Modules
Small enclosure	19 × 16 × 4.1 inches 48.3 × 40.6 × 10.4 cm	• Synergis Master Controller • Four-port RS-485 module • 4A power supply/charger • Fuse assembly	• Maximum of two HID V100 or V200 or V300 • Maximum of two Mercury MR52 or MR-16IN or MR-16OUT
Small enclosure	19 × 16 × 4.1 inches 48.3 × 40.6 × 10.4 cm	• None	• Any combination of HID V100 / V200 / V300 or • Mercury MR52 / MR-16IN / MR-16OUT (maximum of four interface modules)
Large enclosure	25 × 20 × 4.1 inches 63.5 × 50.8 × 10.4 cm	• Synergis Master Controller • Four-port RS-485 module • 6A power supply/charger • Fuse assembly	• Maximum of four HID V100 or V200 or V300 or • Maximum of four Mercury MR52 or MR-16IN or MR-16OUT
Large enclosure	25 × 20 × 4.1 inches 63.5 × 50.8 × 10.4 cm	• None	• Any combination of HID V100 / V200 / V300 or • Mercury MR52 / MR-16IN / MR-16OUT (maximum of six interface modules)

* Dimensions do not take into account the enclosure door. The door slightly protrudes the overall size of the enclosure by a very small percentage.

Seen right:

Four and eight enclosure configurations with Mercury and HID modules

Synergis Master Controller

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Hardware Specifications*

Processor and memory	• Onboard Intel® Atom™ N270 1.6GHz CPU
System memory	• 1 GB of SDRAM (run-time) • 8 GB Compact Flash (OS, firmware, database)
Communications	• Gigabit Ethernet • Four RS-485 ports (external module)
Electrical	• 12 VDC
Mechanical	• Form factor: 3.5 inches (8.9 cm) • Board dimensions (L × W): 5.7 × 4.1 inches (14.6 × 10.5 cm)
Environment	• Temperature: 32°F to 140°F (0°C to 60°C) operational • Relative humidity: Operating 10% to 90%, non-condensing • For indoor use only, or within a NEMA Type 4 enclosure
Warranty	• 24 months
Certifications	• CE approval, RoHS compliant, FCC Class A
Downstream device support	• 32 downstream devices over RS-485 (across four ports)

* Synergis Master Controller board only

Software Specifications

Management software	• Security Center 5.2 or higher (monitoring and configuration)
IP addressing	• Static or dynamic
Encryption	• Min. 128-bit encrypted communications with management software
Web server	• On-board, self-hosted pages, used for basic setup and configuration • Encrypted communications
Memory allocation	• Variable, based on configuration and use
Maximum number of readers**	• 64 readers
Maximum number of inputs**	• 512 inputs
Maximum number of outputs**	• 512 outputs
Number of cardholders	• 100,000
Offline event/transaction buffer size	• 150,000
Number of card formats	• Unrestricted
Number of credentials per cardholder	• Unrestricted

** When controller is interfaced with a single type of module: 2-reader interface module, or input module or output module.

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