

Secure High-Availability Remote Access to Industrial Devices



SiteManager™ is an off-the-shelf component in the Secomea Industrial Communications Solution program that in combination with Secomea's GateManager™ and LinkManager™ ensures unified, uninterrupted and secure access to remote devices.

SiteManager™ is security certified according to the highest industry standards of the industry, performed by the independent security organisation ProtectEM GmbH in Germany in close cooperation with the Deggendorf Institute of Technology.

The SiteManager™ 1139 4G and 3339 4G are robust DIN mountable appliances that install in the machine control panel, and provide remote access for on-demand servicing and programming of equipment, concurrently with static connections for monitoring and logging.

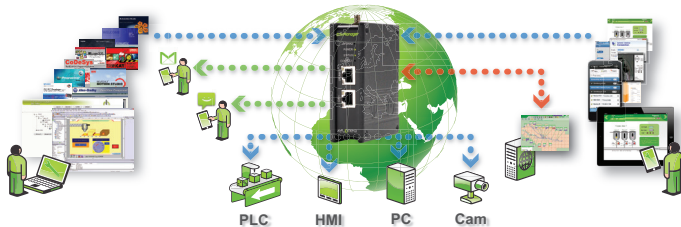
The SiteManager™ 1139 4G and 3339 4G provide remote access to all types of industrial equipment via Ethernet,- Serial- or USB, using the equipment's native protocols (e.g. Modbus, PROFINET, EtherCAT; EtherNet/IP etc.)

The SiteManager™ 1139 4G and 3339 4G establish access to the Internet through the firewall of the existing wired network infrastructure, or wirelessly by the integrated 4G(LTE)/3G/GPRS modem.

Additionally the SiteManager™ supports Secomea LogTunnel in both Client and Master mode. LogTunnel allows you by drag'n'drop to establish a complete static infrastructure for linking a central SCADA system to remote devices independent of IP subnets, firewalls etc.

- The SiteManager™ itself and its monitored devices are all centrally managed and accessible from the GateManager server.
- Built-in serial, USB and Ethernet access agents for most PLC, HMI and Servo vendors in the market, as well as agent templates for video, voice, PC and Scada systems (including optional support for Siemens PPI and MPI)
- Built-in Setup Assistant for intuitive first time network setup.
- Automatic discovery of Ethernet and USB devices for easy single click configuration
- All configuration, firmware and feature upgrades are done remotely through an intuitive web GUI accessible locally or via the GateManager.
- Firewall friendly communication,- uses standard web protocols, and only inside-out.
- No requirement for public or fixed IP address. SiteManager is by default DHCP enabled. No need to re-configure the PLC with gateway address etc.
- Can operate as carrier of alarms, email alerts etc. between devices and central logging servers over the Internet.
- Built-in firewall, AES and x.509 certificates for and security certified in accordance with leading standards methodologies specified by NIST, ISA/IEC, BSI and ISECOM.
- User-configurable email alerts for status monitoring and configurable I/O ports for custom alarms.
- Built-in SMS modem support on the Serial port and SMS Gateway support on the Ethernet port (typically used by Siemens and CoDeSys ready products)
- 4G/3G/GPRS internet access via integrated module
- WiFi support via external USB adapter, configurable for either Client mode (Internet access) or AP mode (devices access)
- Automatic failover between Ethernet, WiFi and Broadband for uninterrupted internet access.
- Includes Secomea EasyTunnel Client support for allowing easy enrollment in a standard VPN network.
- LogTunnel support allowing static tunnel connections to a central SCADA system, which operates concurrently with other services such as on-demand access and VPN.
- Unique built-in trouble shooting functionality for automatic discovery of networking conflicts and configuration issues.

Unique Specifications



GateManager™ Enabled

GateManager™ enabled for easy, centralized configuration, backup, monitoring and access for remote service and maintenance of Secomea SiteManager and industrial devices. The GateManager is available both as a hosted service and as a stand-alone software package.

LinkManager™ Enabled

The LinkManager is a one-step installation Windows application that runs on the support engineer PC. Working with GateManager™ it provides secure on-demand access to remote Serial, IP or USB devices through the SiteManagers. Once connected, it makes the remote device appear to the field engineer as if the Windows PC was connected directly to the device. So with LinkManager, any remote device is just a few mouse clicks away.

LinkManager™ Mobile Enabled

The LinkManager Mobile is designed for accessing your devices via a tablet, mobile phone or PC without needing installation of software. LinkManager Mobile allows access to devices using Web browser, VNC/ RDP Remote Desktop clients and selected iOS and Android Remote HMI apps.

Static Device/Server Relays connections

The SiteManager allows Static relays to a GateManager enabling a central server or SCADA system to monitor devices real-time, or to allow devices to push status updates back to the central server.

Configurable Routing/Forwarding rules

The SiteManager can be configured to port forward or route connections between its Uplink and Device network ports. It can even be used as secure Internet router via an integrated Web proxy.

Optional EasyTunnel™ VPN support

The SiteManager supports the unique Secomea EasyTunnel VPN concept. Enabling the included EasyTunnel Client in the SiteManager, will allow enrollment in a VPN network controlled by a TrustGate concentrator. EasyTunnel works like ordinary IPSec VPN, but without the need for juggling certificates or keys. Simply enter the serial number of the SiteManager, and it is instantly enrolled in the VPN network.

State-of-the-Art Security

The SiteManager solutions are using state-of-the-art security standards. This includes a built-in stateful Inspection Firewall, authentications using x.509 digital certificate and encryption using the strong AES standard with up to 256-bit. The entire solution is Security certified according to the most current standards of the industry.

Firewall Friendly

The end-user network security is priority number 1. With the SiteManager and the security standard that this includes, it is important that end-user do not need to compromise their own corporate security standards. Therefore all communication is encrypted, even when using port 80 from the inside and out.

Local Access Management and logging

The SiteManager allows local administered access management via its Web GUI or digital ports, in addition to the central user access management. On top of this, all user connections made to the SiteManager and its connected devices are logged centrally on the GateManager.

Drivers for any type device

The SiteManager has built-in preconfigured drivers "agents" for remote accessing any type of device such as PLCs, HMIs, IPCs, Robots, Servos, etc. In addition to this, it is possible to customize an agent for other requirements regardless of it being Serial, Ethernet, WiFi or USB attached.

WiFi operation in both Client and Access Point mode

Applying the Secomea USB WiFi adapter to the SiteManager will automatically enable WiFi Client mode, and the SiteManager will be able to access the Internet via a local access point. Optionally the WiFi module can be configured as Access Point for providing remote access to WiFi client enabled devices at the location

Wake-on-SMS

When connected via broadband the SiteManager can be configured to enter sleep mode, to prevent consuming data traffic charges when idle. Simply send an SMS to the SiteManager and it will be instantly available.

Fail-over / Fail-back (Wired / Wireless)

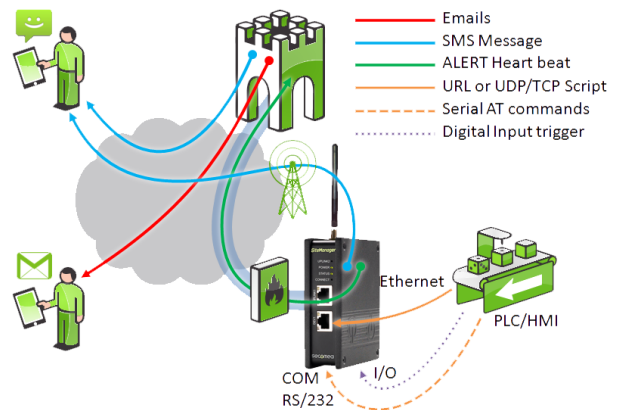
When enabling both the wired and Wireless Uplink (broadband or optional WiFi), the SiteManager can perform fail-over and thereby ensure maximum uptime. By prioritizing the wired uplink, the SiteManager will automatically fail-back to the wired connection, thus reducing consumption of broadband data charges.

Flexible Alert notification system

Any SiteManager can be used as gateway for alerts generated by local devices via Ethernet, Serial or digital input triggers, or by the GateManager monitoring status of the SiteManager and local devices. Alerts are administered by the central GateManager from where they can be sent as SMS or Email. In addition all generated alert are centrally logged.

True SMS Gateway - via Serial and Ethernet

The serial port of SiteManager 1139 4G and 3339 4G operates as a true SMS modem via the AT command set, and supports both outgoing SMSes generated e.g. by a PLC, as well as incoming SMS queuing that a PLC can scan for. Additionally the Ethernet port supports the SMS syntax typically used in Siemens and CoDeSys code blocks for sending SMS messages from a PLC.



Technical Specifications



Electrical Characteristics

- 536 Mhz ARM Cortex A5 CPU
- Input I2 - 24 V/DC, via screw terminals.
- Network Interfaces: 2 x 10/100 Mbit Ethernet (UPLINK, DEVI.) – RJ45 connection
- 2 x USB 2.0 full speed (Host)
- 1 x RS232 DB9 Serial port with full flow control
- Power consumption: max 5W excl. any optional USB devices (Calculate with a total of 8W incl. USB devices)
- 2 x digital input ports
- 1 x output relay (max 0,5A), 1 x digital output open drain (max 0,2A)
- Integrated broadband modem:
 - LTE Downlink: 50mbps (10MHz bandwidth)
 - LTE uplink: 25mbps (10MHz bandwidth)
- 4G/3G/GPRS standard polarity female SMA connector.

4G EU (EMEA) modem specs

- LTE Bands: B1 (2100), B3 (1800), B7 (2600), B8 (900), B20 (800DD), B38 (TDD 2600), B40 (TDD 2300)
- WCDMA/UMTS Bands: B1 (2100), B8 (900)
- GPRS/EDGE: B10 (900), B13 (1800)
- Certifications: CE, GCF (in planning)

4G US (USA) modem specs *

- LTE Bands: B2 (1900), B4 (1700/AWS), B5 (850), B17 (700)
- WCDMA/UMTS bands: B2 (1900), B5 (850)
- Certifications: FCC, PTCRB, IC, AT&T, Rogers

Note: Certifications apply to the embedded modem, and may not apply when combined with SiteManager.

4G CN (China) modem specs

- LTE Bands: B1 (FDD 2100), B3 (FDD 1800), B7 (FDD 2600), B38 (TDD 2600), B39 (TDD 1900), B40 (TDD 2300), B41 (TDD 2500)
- WCDMA/UMTS bands: B1 (2100), B8 (900)
- TD-SCDMA: B34 (2010-2025), B39 (1800-1920)
- GPRS/EDGE: B10 (900), B13 (1800)
- Certifications: CCC *, TA, CTA, NCC

Note: Certifications apply to the embedded modem, and may not apply when combined with SiteManager.

4G JP (Japan) modem specs

- LTE Bands: B1 (FDD 2100), B3 (FDD 1800), B8 (900), B18 (FDD 800/850 JP#4), B19 (FDD 800/850 JP#5), B41 (TDD 2500)
- WCDMA/UMTS bands: B1 (2100), B6 (850 JP#1) B8 (900)
- GPRS/EDGE: B10 (900), B13 (1800)
- Certifications: Telec, Jate

Regulations

- 4G EU: CE, RCM Compliant
- 4G US: FCC 47 cfr part 15, CAN ICES-3 (A)/NMB-3(A)
- 4G JP: [R] 003-150053, [T] D170047007
- UL Listed (file #E358541, ITE 4ZP8), IEC CB certified (DK-30193-A2-UL)

Physical Characteristics

- Operating temperature: -25° - +55°C, 5 to 95% RH
- Dimensions, unpacked: 107(H) x 32(W) x 97(D) mm, 500 g
- Aluminium Chassis, DIN mount bracket.
- Weight unpacked: 34.0g
- 2-years Warranty

Networking Capabilities

- Choice of Uplink (WAN) Internet access:
 - Ethernet,
 - WiFi (IEEE 802.11 b/g/n) via USB Adapter - 3G/GPRS
- Choice of Uplink IP-assignment mode: DHCP client, PPPoE client, manual/static
- Telnet to Serial routing (rfc2217). Siemens MPI/PPI is supported via an adapter
- DHCP server on Device LAN by Ethernet or as WiFi (IEEE 802.11 b/g/n) Access Point via USB adapter
- USB port for remote accessing USB enabled devices (directly or via USB hub)
- Secomea LogTunnel support for easy setup of remote SCADA logging infrastructure
- EasyTunnel™ support for enabling VPN via Secomea TrustGate
- Support for remote access by any UDP/TCP based protocol

Monitoring and Logging

- System log with System Watchdog

- Automatic event logging on GateManager™
- Alert notifications generated by SiteManager or GateManager and sent as email or SMS locally or centralized from the GateManager
- Bi-directional SMS Gateway support via Serial AT commands and UDP/TCP script commands
- **Unique built-in trouble shooting functionality for automatic discovery of networking conflicts and configuration issues.**

Configuration and Management

- Appliance Launcher for easy initial contact and connection to GateManager™
- Configuration and maintenance of SiteManager™ via browser (HTTPS/SSL - local or remote from GateManager™)
- Includes a Setup Assistant Wizard for guided configuration via the Web GUI
- Easy configuration with pre-defined configuration using a USB stick
- Configuration backup management (via GateManager™) including scheduled backup and fast hardware replacement (cold backup)
- Configuration export and import (XML)
- Pre-defined Device Agents for easy setup of access to all PCs, web devices and all common PLCs and HMI's.
- **Unique device scanning feature for automatic detection of IP and USB devices and configuration with a single click.**

LED Signaling and I/Os

- 4 LEDs for signalling Power, Status, 3G/GPRS status and LinkManager connection.
- Digital Input port for site operator control of remote access
- Digital or Relay output for signalling active LinkManager connections, and GateManager connection status.
- Configurable digital input port for custom Email/SMS alert triggering
- Output port for custom toggling from the SiteManager GUI

Partnumbers	Model / Description
30241	SiteManager 1139 4G EU, including 5 Device Agents
30251	SiteManager 1139 4G US, including 5 Device Agents
30231	SiteManager 1139 4G CN, including 5 Device Agents
30281	SiteManager 1139 4G JP, including 5 Device Agents
30242	SiteManager 3339 4G EU, including 25 Device Agents
30252	SiteManager 3339 4G US, including 25 Device Agents
30232	SiteManager 3339 4G CN, including 25 Device Agents
30282	SiteManager 3339 4G JP, including 25 Device Agents
27250	Secomea WiFi USB adapter with SMA adapter for operation with WiFi