

Vaisala Veriteq Continuous Monitoring System (CMS)

FAQ for IT Departments

What components make up a typical Vaisala Veriteq CMS?

A typical CMS comprises data loggers, network access devices (either vNet or Digi devices) for connecting the loggers and a viewLinc Server.

What are the server requirements for the CMS?

The CMS Server must be available 24/7, contain a minimum of 350 MB free application disc space. viewLinc is compatible with Microsoft Windows 2003 (32 & 64), 2008 (32 & 64). Other requirements are determined by the size of the installation.

How much hard drive space does the system need?

Installation Size:

CHANNELS	300-1000	20-299	<20
Dedicated machine	YES	NO	NO
CPU	3.2 GHz Quad Core	1.6 GHz Dual Core	1.6 GHz
Memory (RAM)	4 GB	4 GB	2 GB

The Historical database requires 200KB/channel/day.

What are the client computer requirements?

Microsoft Internet Explorer 7.0 and Mozilla Firefox 3.5 are preferred. viewLinc Administrator computers require 2.4 GHz, 2GB of RAM, supported Internet browser installed (Microsoft Internet Explorer 6.0 or later). viewLinc User computers require an Internet browser installed (Microsoft Internet Explorer 6.0 or later or Mozilla Firefox 2.0 or later).

What are the network specifications of the CMS?

The CMS monitors loggers attached (via vNet or Digi devices) to your LAN or WAN. By default, the server uses TCP port 771 to communicate with these network devices and their attached loggers.

Device configuration requires UDP messaging. The CMS requires that these devices be configured with Static or Reserved IPs, and if the devices are being installed on different subnets, they will need to be configured before being installed in their permanent locations.

The CMS supports wired (serial, USB, Ethernet and PoE) and wireless (WiFi) network infrastructures, or any mix. Power requirements for 1-8 port Ethernet Adapters include: 110/240VAC power supply (with a 5' cable) that provides 12VDC @ 0.4 Amps max.

What wireless configurations does the CMS work with?

The Digi network devices support most standard authentication and encryption technologies.

What wireless security is used by the CMS?

WEP (Wired Equivalent Privacy); 64/128-bit encryption (RC4); WPA/WPA2/802.11i; 128-bit TKIP/CCMP encryption; 802.1X EAP authentication; Dynamic WEP, LEAP (WEP only), PEAP, EAP-TLS, EAP-TTLS, PEAP/MSCHAPv2, PEAP/TLS, PEAP/GTC, PEAP/OTP, PEAP/MD5, EAPTTLS/EAP-MD5, EAP-TTLS/EAP-GTC, EAP-TTLS/EAP-OTP, EAPTTLS/EAP-MSCHAPv2, EAP-TTLS/EAP-TLS, EAP-TTLS/MSCHAPv2, EAPTTLS/MSCHAP, EAP-TTLS/PAP, EAPTTLS/ CHAP; Enterprise and Pre-Shared Key (PSK) mode.

What are the CMS's wireless interface specifications?

IEEE 802.11b standard; 2.4 GHz frequency; 16 dBm typical transmit power; -82 dBm @ 11 Mbps receive sensitivity. Supplied with AC adaptor; requires 9-30 VDC at 450 mA maximum.

Or IEEE 802.11g standard; 2.4 GHz frequency; 16 dBm typical transmit power; -73 dBm @ 54 Mbps receive sensitivity. Supplied with AC adaptor; requires 6-30 VDC power at 1 A maximum.

What are the Power-over-Ethernet specifications?

vNet PoE devices are 802.3af compliant and work with both end-point and mid-span systems. It is a class 1 device, which is the lowest power class. The power budget for a vNet device is approximately 0.75 to 1 W. For a Digi device power consumption is 4 to 6 W and it is a class 2 device.

What is the CMS's load on the network?

Typically, viewLinc produces network traffic equal to 1KB/logger/minute.

How does the CMS communicate alarms?

The CMS sends alarm notifications via SMTP. These messages will be relayed through the corporate mail server, so a sending account with valid credentials will be required. Alarming can be configured to notify different people for different reasons. Notifications can be emailed to PC, phone or pager, voice call-out (with OPC Dialer) or any combination. Emails can be converted to SMS if your phone provider offers this service.

Is there a preferred server backup method?

The CMS server should be attached to a UPS and managed by corporate IT to ensure system uptime. Backup applications should support open file backup.

How does the CMS back up data?

Each data logger records at the point-of-measurement and typically has on-board memory for a month or more of data. In case of network downtime, the system will automatically back fill any missing information to the CMS server and trigger alarms as appropriate.

How does the system handle security?

Users access the CMS with their username and password. Each user account can be assigned various levels of permission to the system. The system meets 21 CFR Part 11 compliance with tamperproof historical data and audit trail information.

Are there any conflicts with antivirus software?

None that we have experienced. Some antivirus software may require a change in settings, for example to enable email to be sent from the server.

What is the database structure?

Database structure is embedded and completely managed by the application.

Can the CMS use HTTPS and SSL?

The CMS system uses the configured port (443 by default) for HTTPS. The SSL certificate supplied by Vaisala must be replaced by your IT department to ensure that a completely unique key is used. The files that require replacing are in the config\keys folder, by default they are named viewlinc.key and viewlinc.crt. If the filenames of your new certificates are different, the viewlinc.cfg file must be updated to reflect these filenames.

```
[web]
privatekeyfile = viewlinc.key
certificatefile = viewlinc.crt
```

How can I use the Mobile Application when my Smart Phone does not have VPN access to the company network?

Your IT department will need to setup port forwarding for the internal address of the CMS server on the corporate firewall, and specify the TCP port that the CMS has been setup to use. This port may be changed in the viewLinc.cfg file if required.

```
[web]
# port for insecure (http) communications
port = 80
# port for secure (https) communications
https_port = 443
```

A service restart is required following this change.

Can I turn off the Mobile Application?

The viewLinc.cfg file contains the entry to enable/disable Mobile applications. Add a # to the start of line that contains mobile_agent_ids. Eg #mobile_agent_ids

How is the CMS licensed?

The CMS is site licensed based on the number of measurement points. There are no client licenses, this allows users with permission to access the system via a standard Web browser.

Does the system require any client software to be installed?

No. Users gain remote access via standard Web browsers such as Internet Explorer and Firefox.

How do you handle updates to the CMS?

We notify your company's designated contacts when Service Releases are available. For validated systems, an IQ/OQ change control document is also provided. Updates are delivered via web downloads or CDs.

What customer support is available?

Standard support is provided by phone, Web and e-mail. Support includes any questions about system operation or troubleshooting. Additional customer service that extends beyond normal business hours, warranties, and on-site service can be obtained through support agreements.

What kind of training do you provide?

Every Vaisala Veriteq CMS includes an extensive help section in the interface and one year of basic support by phone, email or live online assistance during regular business hours. We also offer user and administrator training that can be performed online or onsite, either one-to-one or for groups. Extended and enhanced support packages are available and can include unlimited technical support and onsite services.