Vaisala Observation Network Manager NM10

/ ONE PLATFORM IS ALL YOU NEED

VAISALA

Vaisala Observation Network Manager NM10

Vaisala Observation Network Manager NM10 is a fully integrated system for efficiently managing weather observation networks. It allows you to collect high-quality data from all your sites and keep your network up and running continuously.

Control your network with one integrated, scalable platform

Vaisala Observation Network Manager makes it possible to remotely monitor and manage multiple observation sites – from just one platform. Perfect for both small and large networks, it is fully scalable to make extending your system quick and easy.

Designed to keep your observation sites continuously operational, its advanced capabilities include network monitoring and remote diagnostics. Implementing a COTS software solution, tailored for your purpose, can help you cut overall system procurement and long-term maintenance costs. With a clear view of the true cost of your initial investment, you can avoid surprises. And because we continuously develop the product to meet your needs, we can help you maintain and upgrade the system for years to come.

Improve efficiency with a remote connection

Control and diagnose airport systems via a remote desktop connection (Remote Desktop Protocol).* Using the IO terminal application, you can send commands to the weather stations and other field devices. You can also configure the layout and displayed data to clearly visualize the weather conditions at each observation site.

Get alerts and notifications

Stay up to date and take timely action with regular email notifications. Alerts in your local language are sent via your own email server, eliminating the hassle and cost of managing and maintaining additional email servers. You can configure notification sending intervals, recipient lists, alert message content, and more.

Features

- Data acquisition
- Data storage
- Quality control
- Customizable views
- Network monitoring
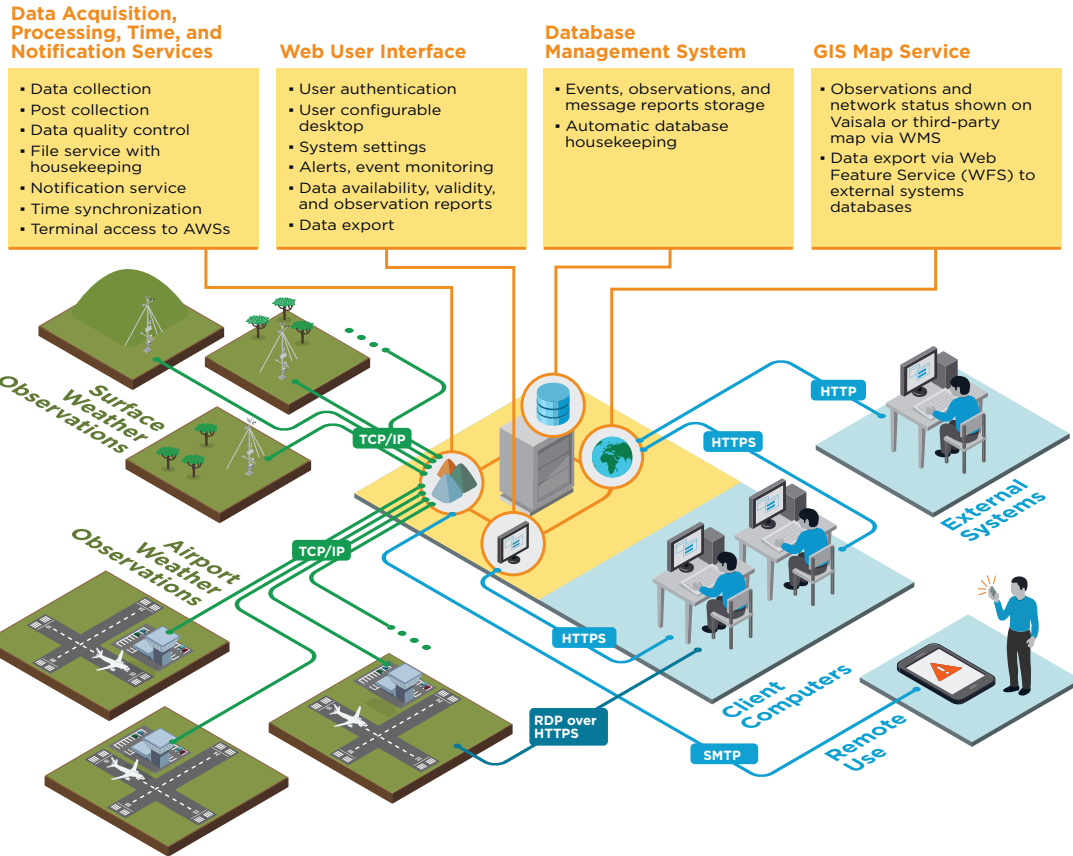- Reporting services
- Alert services

Benefits

- Full control of your network
- Uninterrupted operation
- See everything from one place
- Maintain data quality control
- Store and export data

See your network status at a glance using the browser-based user interface

Vaisala Observation Network Manager NM10

Data Acquisition, Processing, Time, and Notification Services
- Data collection
- Post collection
- Data quality control
- File service with housekeeping
- Notification service
- Time synchronization
- Terminal access to AWSs

Web User Interface
- User authentication
- User configurable desktop
- System settings
- Alerts, event monitoring
- Data availability, validity, and observation reports
- Data export

Database Management System
- Events, observations, and message reports storage
- Automatic database housekeeping

GIS Map Service
- Observations and network status shown on Vaisala or third-party map via WMS
- Data export via Web Feature Service (WFS) to external systems databases

Surface Weather Observations

Airport Weather Observations

TCP/IP

TCP/IP

HTTP

HTTPS

HTTPS

RDP over HTTPS

SMTP

External Systems

Client Computers

Remote Use

Network status and data at a glance

The browser-based user interface displays all your observation data in one place, making it easy to monitor data quality and view the status of the network and its components.

Displayed information includes:

- Network status list – See the status of the entire network, including observation sites, communication devices, and servers
- Events – See the latest system events and status changes
- Wind, text, and graph – View selected data in wind-rose, text, and graph formats
- Reports – Create data-quality and observation reports using graphs or tables
- All measurements – See a customizable list of data from the observation sites

The geographic information system (GIS) map view gives you complete visibility over observation sites, real-time status, and selected parameters. It includes zoom and pan features so you can quickly see data from multiple locations. Data can be drawn from the Vaisala GIS database or a third-party GIS server.

Ensure optimal data quality

Make informed, real-time decisions based on the best possible data. Gather information from Vaisala surface weather, AviMet® airport system, and third-party observation sites (optional); view site status updates and event logs; generate reports; and more.

The Vaisala Observation Network Manager has an integrated data quality control service to manage the quality of the data from individual surface weather stations, including range, step, and persistence checks.

A powerful, autonomous system with open interfaces

Typically, the data is automatically gathered from observation sites through a TCP/IP socket. The system can gather any missing data for data post-collection purposes. Fully automatic database and archive housekeeping removes old observations from the database and file system according to user-defined preferences.

A standard Open Geospatial Consortium (OGC) WFS interface is provided by the Vaisala GIS server for accessing stored observation data and retaining it for further processing.

Find out more at www.vaisala.com

* May not work with all airport systems and depends on the configuration and available services on location

Technical data

Features

Data acquisition	Vaisala surface weather stations
	Vaisala AviMet® airport systems
	ASCII string message parsing from third-party measurement systems
Data post collection	Vaisala surface weather stations
Data processing	Range, step, and persistence checks for surface weather station observations
Data storage	PostgreSQL database
	Observation and event text files
	Configurable database management system
Time services	Time synchronization for Vaisala surface weather stations
	NTP system time synchronization
Notification services	Configurable SMTP email alerts
Remote site access	Terminal connection for weather stations
	RDP over HTTPS for airport systems
Web user interface	Client connection via HTTPS
	User authentication and administration
	User configurable desktop and widgets
	Map, list, graph, wind-rose, and text widgets
	System settings
	Sound alerts, events monitoring
	Observation data reports
	Data availability and validity reports
	Translation for local language(s)
	Context sensitive help
GIS map service	GeoServer with OpenStreetMap world map
	Standard map max. zoom level: 1:433K
	Enhanced map max. zoom level: 1:6759
	WMS interface for third-party map data
Data export	CSV, WFS via HTTP

Minimum System Requirements*

Processor	2.0+ GHz, 4-core CPU or higher
RAM	8 GB or higher (without GIS map)
	16 GB or higher (with GIS map)
Hard drive	300 GB or higher (with standard GIS map)
	1 TB or higher (with enhanced GIS map)
Operating system	Microsoft Windows Server 2008 R2
Ethernet	10/100/1000 MB
Other peripherals	DVD-RW drive, keyboard, mouse
Web browsers	Microsoft Internet Explorer 9 or later
	Mozilla Firefox v.25 or later
	Google Chrome v.31 or later.
Monitor resolution	1366 x 768 or higher

*Exact system requirements for computer hardware is dependent on the number and type of observation sites connected, amount of data collected, data acquisition interval(s), data storage time, maximum number of concurrent web clients connected, and features selected by the customer. For further information and more detailed specifications, please contact Vaisala.

VAISALA

For more information, visit www.vaisala.com or contact us at sales@vaisala.com

CE