Vaisala Observation Network Manager NM10

/ EFFICIENTLY MANAGE YOUR WEATHER OBSERVATIONS

VAISALA

Cost-Effective, Configurable Off-the-Shelf Platform

Implementing a scalable, flexible management solution with autonomous systems and intelligent field devices of different brands and types which provide interfaces for efficient integration with other products and systems will allow you to optimize your network operations, improve safety and facilitate operation in remote locations.

Vaisala Observation Network Manager NM10 enables remote monitoring and control of your weather observation networks on one central, secure and automated platform. An off-the-shelf solution with extensive support and proven performance and functionality significantly reduces the implementation time and total lifetime costs, helping you stretch your budget further. Continuous modernization and efficient upgrades helps you utilize the most advanced technologies available to improve performance now and in the future.

Real-Time Monitoring with Alerts and Remote Diagnostics

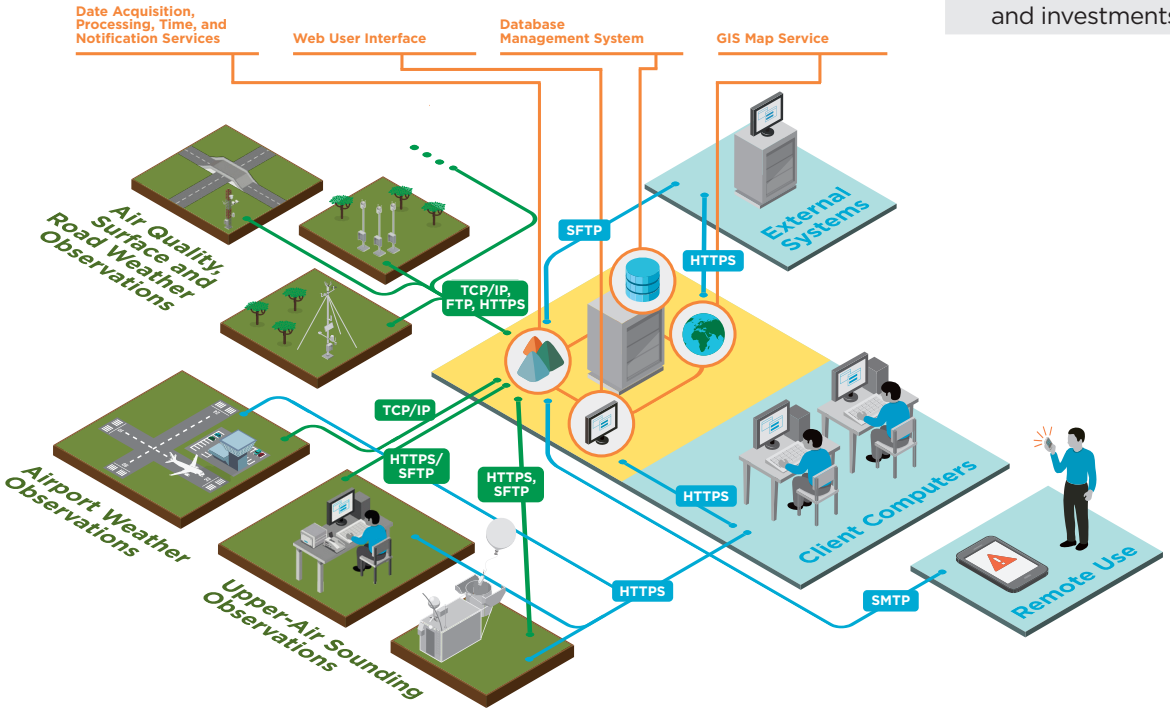
The NM10 provides the ability to monitor individual site status via secure web technologies and collect data 24/7 from one central network in real time. It allows your team to remotely access and control individual sites to fix the problems faster and optimize your network operation. With centralized event, alert and notification information quicker reaction to network and sensor failures, and faster problem identification and solution deployment can be achieved for improved network uptime and data availability. In addition, configure the layout and displayed data to clearly visualize and understand precisely real-time weather conditions throughout your country or region affecting your operations and observation site performance.

High Data Security, Availability and Validity

Perform automatic real-time data quality control and analytics services to feel confident that you will get the high-quality observation data you need, which is crucial when your data is used further in decision making for critical operations and public safety. Redundant hot-standby multi-server or virtual environments can be used with long-term data archiving capabilities to ensure further continuous, uninterrupted operation. Advanced data security and user management capabilities are utilized avoid network vulnerability and helping to mitigate the risks of intrusion and cyber threats.

Benefits

- Continuous reliable observations to improve performance of weather services and operations
- Shorter site visits and correct actions to save time and money
- Optimized lifetime support to achieve lower operational costs and investments



Surface Weather Display Views

Precisely understand current and past surface weather and environmental conditions affecting your operations on a single or a group of sites.

Default desktop view customizable by system administrator to include new pages and layouts for different users.

Surface weather alarm information optionally also visualized on GIS map and list views.

Text view to list observations in numeric and string format.

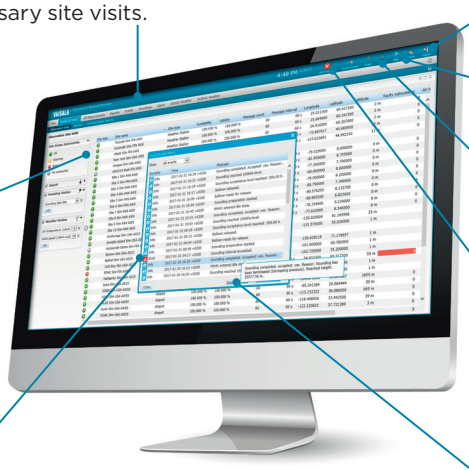
Chart view to inform about current and past surface weather and environmental conditions.

Wind rose view with optional road or runway direction indication to inform about current wind conditions.

Observation Network Management Views

Remotely monitor, access and control the sites connected to avoid unnecessary site visits.

Monitoring overall status of the observation network using GIS map, list and detailed site views.



Verify the quality of observation data.

Access to administrator view for user management and system settings.

Context sensitive help to use the application.

Remotely control observation sites directly from the application desktop.

Receive notifications when problems occur.

Remotely access observation sites to further diagnose issues.

Technical Data

Features

Data acquisition	Vaisala weather transmitters
	Vaisala air quality transmitters
	Vaisala surface weather stations
	Vaisala AviMet® airport systems
	Vaisala AUTOSONDE® systems
	Vaisala DigiCORA® sounding systems
	Vaisala RWS200 road weather stations
	ASCII string message parsing from third-party surface weather sensors and systems (when applicable)
Data post collection	Vaisala surface weather stations
Data processing	Range, step, and persistence checks for surface and road weather transmitter and 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 transmitters and stations RDP over HTTPS for airport, AUTOSONDE® and DigiCORA® sounding systems
	Web browser connection via HTTPS to AUTOSONDE®, DigiCORA® sounding and RWS200 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
	Alarm acknowledgement Grant or deny balloon release
	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	FTP/SFTP, WFS via HTTPS

Minimum System Requirements*

Processor	2.0+ GHz, 4-core CPU or higher
RAM	8 GB or higher (with standard GIS map)
	16 GB or higher (with enhanced GIS map)
Hard disk space	300 GB or higher (with standard GIS map)
	1 TB or higher (with enhanced GIS map)
Operating system	Microsoft Windows Server 2008 R2 Microsoft Windows Server 2012 R2 Microsoft Windows 7 Professional SP1 (64bit) Microsoft Windows 10 Professional (64bit) Microsoft Windows 10 Enterprise Embedded (64bit) Linux CentOS 7.2 Linux CentOS 7.3
Ethernet	10/100/1000 MB
Other peripherals	USB drive, UPS
Web browsers	Microsoft Edge latest versions
	Microsoft Internet Explorer 11
	Mozilla Firefox latest versions
	Google Chrome latest versions
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.

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