

OBSERVATION NETWORK MANAGER

NM10

One Platform is All You Need

- **Fully integrated system for efficiently managing weather observation networks**
 - Remotely manage a wide variety of data sources
 - See everything from one place
 - Collect and maintain high-quality data from all your sites and keep your network up and running - continuously.
 - Fully scalable - perfect for small and large networks
 - Reduce costs with the Commercial Off-The-Shelf (COTS) solution - tailored for your exact needs
 - Improve efficiency with a remote connection - control and diagnose the whole observation network
 - Stay up to date and take timely action
 - Store and export data

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

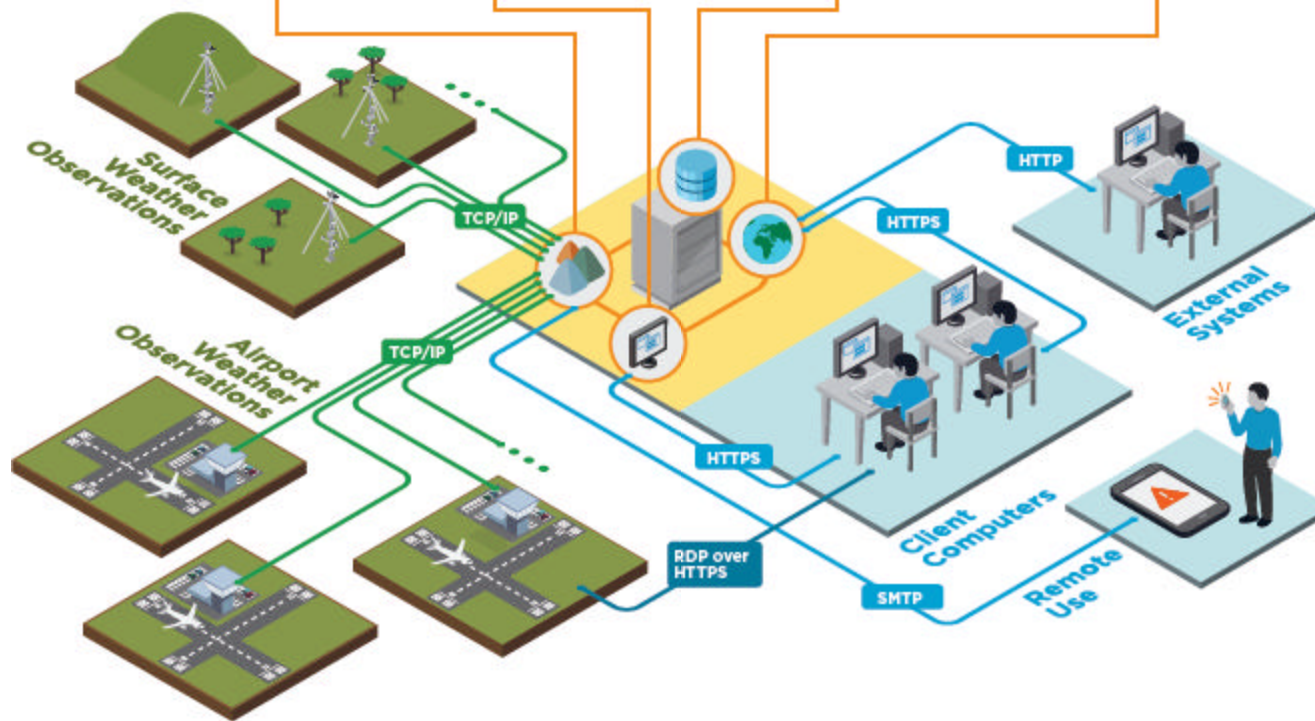
- User authentication
- User configurable desktop
- System settings
- Alerts, event monitoring
- Data availability, validity, and observation reports
- Data export

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

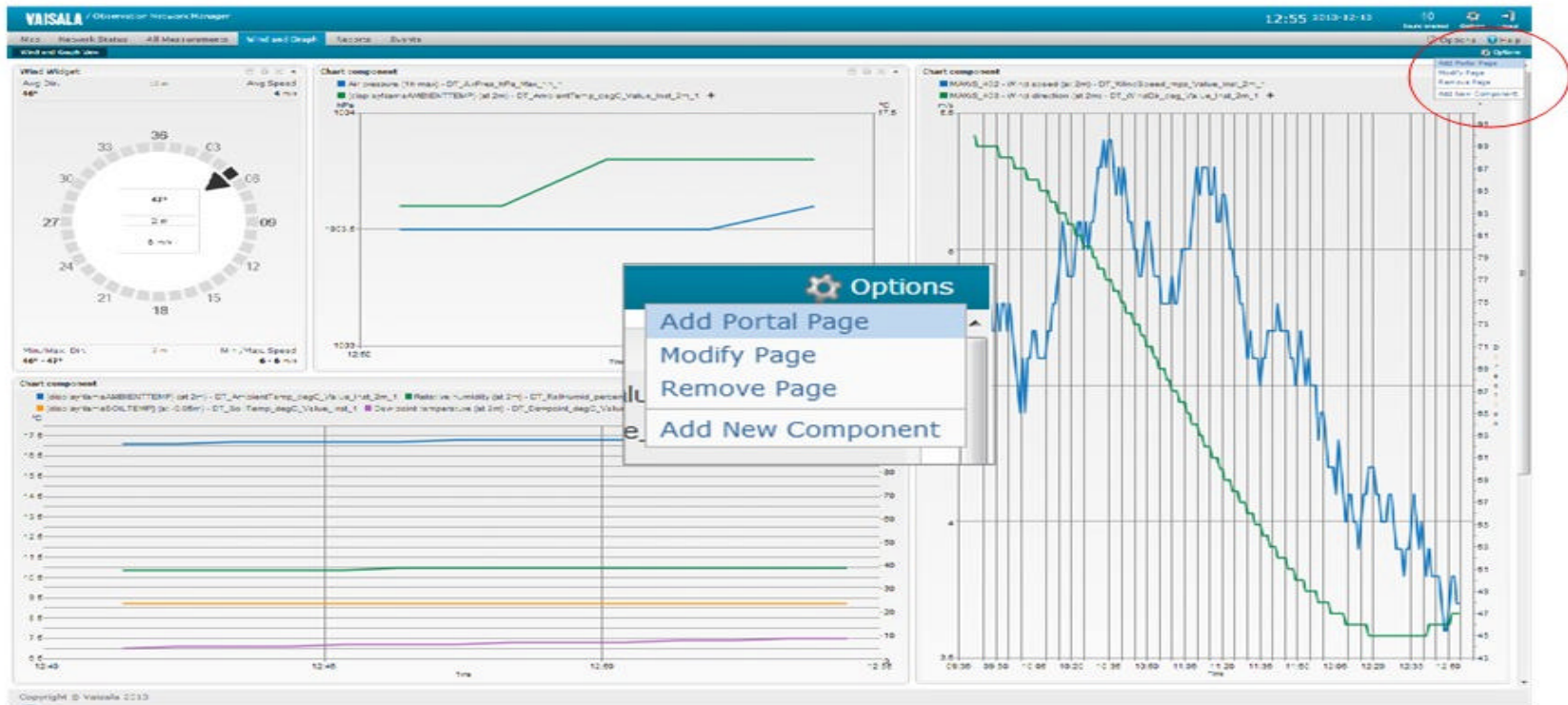




- Basic access authentication provided using HTTPS
- Access to the system restricted by username and password
- When the web client user logs out from the system the changes made are saved and they will be available the next time the user logs in






The screenshot shows the login interface for the Vaisala Observation Network Manager. At the top left, it says "VAISALA / Observation Network Manager". The main heading is "Vaisala Observation Network Manager Login". Below this, there is a "Login" section with two input fields: "User name" and "Password". A "Login" button is positioned below the password field. The interface is clean and professional, with a light gray background and a blue header.

WebUI / Desktop Configuration Service



- Supported web browsers Microsoft Internet Explorer (v. 9 or later), Mozilla Firefox (v. 25 or later) and Google Chrome (v. 31 or later).

Network Status List View





VAISALA / Observation Network Manager 9:24 AM 6/18/14     

Map **Network Status** All Measurements Reports Events Airport Systems Weather Stations Options

Observation Sites Servers Communication Devices Options



















All Measurements Options

Table Information

-  Status: OK
-  Status: Warning
-  Status: Error
-  Status: No connection

Additional information

- Availability ▼
- Validity ▼
- Message count ▼
- Message interval ▼
- Longitude ▼
- Latitude ▼

Status	Site name	Last data received	Availability	Validity	Message c...	Message in...	Longitude	Latitude	Altitude	Faulty subs...	Degraded ...
	405	2014-06-18 08:49 +0300	6.667 %	6.667 %	4	60 s	25.0293	60.2526	32 m	0	0
	407	2014-06-18 08:49 +0300	6.667 %	6.667 %	4	60 s	24.7148	60.1175	30 m	0	0
	401	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	24.9081	60.1555	5 m	0	0
	402	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	24.9282	60.1527	3 m	0	0
	403	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	24.9671	60.1671	6 m	0	0
	404	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	25.0830	60.1656	12 m	0	0
	406	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	24.8593	60.2506	40 m	0	0
	408	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	25.1685	60.2078	53 m	0	0
	409	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	25.0205	60.4011	62 m	0	0
	410	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	25.1838	60.2164	37 m	0	0
	411	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	24.3296	60.4149	132 m	0	0
	412	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	25.6653	60.3975	220 m	0	0
	413	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	23.8402	61.4852	532 m	0	0
	414	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	29.1564	65.9780	478 m	0	0
	415	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	27.7144	64.2092	352 m	0	0
	416	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	26.5746	67.4179	611 m	0	0
	417	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	28.8653	61.8778	122 m	0	0
	EFHK	2014-06-18 09:22 +0300	96.667 %	96.667 %	58	60 s	24.9633	60.3172	55 m	0	0



- Error and info events generated by the system regarding
 - Data quality control service status
 - Database inserter and reader service status
 - Data collection/post-collection service status
 - Communication device (Sensor IO) service status
 - Server hardware status
 - Observations and events (ASCII) file log service status
 - Message parser service status

VAISALA / Observation Network Manager 15:23 2013-12-16

Map | Network Status | All Measurements | Wind and Graph | Reports | **Events** | Options | Help

Event table

Pause updates

Type	Time	Source	Message
✘ Error	2013-12-16 15:22 +0200	DCP0/001_AWS_SENSOR	C01 AWS sensor missing data
✘ Error	2013-12-16 15:22 +0200	MAWS_401/001_AWS_SENSOR	Unknown message type
✘ Error	2013-12-16 15:20 +0200	MAWS_421/021_AWS_SENSOR	MESSAGE_ID: 0 MEASUREMENT P15 FAILED PERSISTENCE CHECK WITH VALUE
i Info	2013-12-16 15:20 +0200	MAWS_415/015_AWS_SENSOR	OVER - MESSAGE_ID: 0 MEASUREMENT P6 FAILED PERSISTENCE CHECK WITH

Events List View

VAISALA / Observation Network Manager

Map Network Status All Measurements Reports **Events** Southern Finland Northern Finland

Event table

Pause updates Display: **all events** Source filter: Apply changes Clear filters

Type	Time	Source	Message
i Info	20:4-C5-23 13:08 -0300	DCP0/DC1_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 401
i Info	20:4-C5-23 13:08 -0300	DCP0/DC2_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 402
i Info	20:4-C5-23 13:08 -0300	DCP0/DC3_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 403
i Info	20:4-C5-23 13:08 -0300	DCP0/DC4_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 404
i Info	20:4-C5-23 13:08 -0300	DCP0/DC5_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 405
i Info	20:4-C5-23 13:08 -0300	DCP0/DC6_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 406
i Info	20:4-C5-23 13:08 -0300	DCP0/DC7_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 407
i Info	20:4-C5-23 13:08 -0300	DCP0/DC8_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 408
i Info	20:4-C5-23 13:08 -0300	DCP0/DC9_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 409
i Info	20:4-C5-23 13:08 -0300	DCP0/D10_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 410
i Info	20:4-C5-23 13:08 -0300	DCP0/D11_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 411
i Info	20:4-C5-23 13:08 -0300	DCP0/D12_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 412
i Info	20:4-C5-23 13:08 -0300	DCP0/D13_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 413
i Info	20:4-C5-23 13:08 -0300	DCP0/D14_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 414
i Info	20:4-C5-23 13:08 -0300	DCP0/D15_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 415
i Info	20:4-C5-23 13:08 -0300	DCP0/D16_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 416
i Info	20:4-C5-23 13:08 -0300	DCP0/D17_AWS_SENSOR	CVER - POST-COLLECTION ACK TIMEOUT FOR SITE 417
x Error	20:4-C5-23 13:03 -0300	DCP0/DC1_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C1
x Error	20:4-C5-23 13:03 -0300	DCP0/DC2_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C2
x Error	20:4-C5-23 13:03 -0300	DCP0/DC3_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C3
x Error	20:4-C5-23 13:03 -0300	DCP0/DC4_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C4
x Error	20:4-C5-23 13:03 -0300	DCP0/DC5_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C5
x Error	20:4-C5-23 13:03 -0300	DCP0/DC6_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C6
x Error	20:4-C5-23 13:03 -0300	DCP0/DC7_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C7
x Error	20:4-C5-23 13:03 -0300	DCP0/DC8_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C8
x Error	20:4-C5-23 13:03 -0300	DCP0/DC9_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 4C9
x Error	20:4-C5-23 13:03 -0300	DCP0/D10_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 410
x Error	20:4-C5-23 13:03 -0300	DCP0/D11_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 411
x Error	20:4-C5-23 13:03 -0300	DCP0/D12_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 412
x Error	20:4-C5-23 13:03 -0300	DCP0/D13_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 413
x Error	20:4-C5-23 13:03 -0300	DCP0/D14_AWS_SENSOR	POST-COLLECTION ACK TIMEOUT FOR SITE 414

Requirements*

- Processor 2.0+ GHz, 4-core CPU or higher
- RAM 8GB or higher (without GIS map)
16GB or higher (with GIS map)
- Hard drive 300GB or higher (with standard GIS map)
1TB or higher (with enhanced GIS map)
- Operating system Microsoft Windows Server 2008 R2
- Ethernet 10/100/1000MB
- Other peripherals DVD RW drive, keyboard, mouse
- Monitor resolution 1366 x 768 or higher

*Exact system requirements for computer hardware is dependent on 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.