DATA SHEET

i2O Network Analytics

Network Monitoring, Analytics, and Control

The i2O Intelligent Network software service brings together in one place what you need to know and can do remotely in relation to the clean water distribution network.



FUNCTIONALITY

The i2O Intelligent Network software service is provided as SaaS, hosted by Amazon Web Services, and is accessible from any internet-connected device. The following browsers are supported: MS Edge, Google Chrome, and Firefox.

The software service derives insights from data, provides visualization of the data and insights, notifies people of issues, enables devices and control settings to be configured, imports data direct from devices or from other systems, and exports data to other systems.

MAIN NAVIGATION

- Search (using OpenStreetMap)
- Map
- Data tables
- Tenant
- User details
  - Contact
  - Downloads
  - Sign out
  - Terms of use
  - Legal

VISUALIZATION

MAP	GRAPH	TABLE

• **OpenStreetMap**
  • Zoom
  • Scale
• **Layers**
  • Alarms
  • Events
  • Locations
  • Areas
  • Transients
• **Location details**
  • Location name
  • Data last logged
  • Location type
  • Last date of position location update
  • Updated by
  • View location details (link to graph)
• **Locations**
  • Network hierarchy
	• **Hierarchy navigator**
	• **Graph**
	  • Location or areas with multiple locations
	  • Rollover values with date/time
	  • Data channel selection with multiple y axes
	  • Timeline
	  • Y axis
	  ▫ Auto-scaling
	  ▫ Y-axis zoom and reset
	  • Date selection
	  ▫ Fixed timeframes
	  ▫ Date range picker
	  ▫ Jump forward/ backward
	  ▫ X-axis zoom and reset
	  • Data download
	  • Select insights
	  • Show statistical values
	• **Alarms table**
	• **Events**
	• **Settings (see Settings below)**
		• **Table selection**
		  • Alarms
		  • Data Availability
		• **Table manipulation**
		  • Timeframe (if applicable)
		  • Click to sort column
		  • Pin, autosize and reset columns
		  • Filter columns
		  • Search and select within a column
		  • Drag and drop columns
		  • Remove columns
		  • Save configuration, reset configuration

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NOTIFICATION

Notifications can be created for Alarms in Settings (see Settings below).

ANALYTICS

The following analytical functions are available:

- Automated threshold setting (see Settings below)
- Transient detection (available as a layer in the Map)
- Event detection

SETTINGS

LOCATION SETTINGS

- **Location type**
- **Location name**
- **Location reference**
- **Location address**
- **Location latitude and longitude**
- **Location elevation – by default from OpenStreetMap**
- **Location notes**
- **Additional location data**
- **Device assigned to the location**
  - Device serial number
  - Device firmware version
  - Device datastreams
- **Location map**
  - Refer to map above for functionality

ALARM SETTINGS

- **Threshold graph**
  - Refer to graph above for functionality
  - Threshold settings for each data channel
    - Low low
    - Low
    - High
    - High high
    - Delta (to avoid repeat unnecessary alarms)
    - Automatic thresholds
    - Enable
  - Nightline (for different thresholds at night)
    - Start time
    - End time
- **Notification settings**
  - Email address
  - SMS name
  - SMS number
- **Decaying alarm enable (pre-set schedule of reducing frequency of connections following an alarm)**
- **Automatic threshold settings**
  - Number of weeks of historic data used to calculate thresholds

LOGGING SETTINGS

- **Logging settings**
  - Logging frequency
  - Acquisition interval
  - Enable enhanced statistics (max, min and standard deviation in acquisition interval)
  - Flow volume/ pulse settings
  - Pressure offset
- **Datastreams**
  - Enable/disable individual datastreams

CONNECTION SCHEDULE

- **Connection settings**
  - Connection interval
  - First connection time
  - Last connection time
- **Visualization of connection schedule**

Note that the availability of Alarm, Logging and Connection settings will depend on the functionality of the logging devices. For detail on these for Mueller devices, refer to the relevant datasheet.

DATA IMPORT AND EXPORT

The i2O Intelligent Network software service for is hardware neutral. It can receive data direct from monitoring devices, including those supplied by Mueller. It can receive data from other systems that gather data from monitoring devices.

Data can be exported from the software service in a number of ways. Data is available within some of the visualization tools as noted above. It can also be exported via sFTP on a schedule determined by the customer and with the content tailored to a specific customer's requirements.

RELIABILITY

A software service on which people rely needs to be reliable. The i2O software service for Network Monitoring, Analytics and Control is totally dependable.

AVAILABILITY

Availability for the last 12 months is 99.99%. Scheduled downtime is notified to customers in advance and is kept to a minimum.

SECURITY

The software service has been ISO27001 certified since June 2018. Employees involved in the software service are security screened. Annual penetration tests are undertaken and the results are available to customers. Only Authorized Users can access the software service and user permissions determine what each user can do.

Security features include:

- ISO 27001 certified
- Annual CREST external penetration tests
- Role based access control
- Multi Factor Authentication support
- Industry standards based data encryption at rest and in transit
- Redundant high-availability platform
- Employees trained in data handling and classification

TECHNICAL SUPPORT

The technical support team will train customers in how to use the software service. Periodic update training can be provided. If a customer does ever have a problem or a question, then they can access an online help center or the global technical support team round the clock with a guarantee of availability during a customer's office hours; they run a fully ticketed helpdesk with defined service levels.