



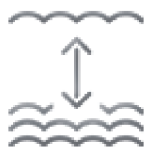
# Hydromet Cloud

## Secure Web-Based Data Hosting Solutions

Hydromet Cloud provides secure real-time data access from almost anywhere in the world via Hydromet Cloud.com and the Hydromet Cloud Mobile App. This includes the backend infrastructure to receive, ingest, decode, process, display, and store measurement data from nearly any remote Hydromet monitoring station via a cloud-based data hosting platform. Hydromet Cloud provides a secure web-page for users to view their data graphically, on a map or in tabular and report forms. Conversely, if you prefer to do your own processing, Hydromet Cloud delivers raw data (as it is transmitted by the station) using a dedicated, secure download page, updated immediately as your data arrives.



Water Level



Depth



Flow



Precipitation



Water Quality

# Anytime access to measurement data collected from monitoring stations

## Applications:

- Hydrology – water level, flow/velocity, and precipitation
- Groundwater – water level and water quality
- Water quality – pH, DO, conductivity, salinity, temperature, turbidity, nutrients, ...
- Meteorology – air temperature, relative humidity, wind speed, wind direction, barometric pressure, ...

## Stations/Systems:

- OTT, Sutron, and third party systems collecting and transmitting data
- Satellite GOES DCS, DOMSAT, NOAAPORT, Iridium, Meteosat, GMS
- IP-Accessible Contact static IP on schedule,
- Connects to station with fixed IP on a schedule
- Cellular GPRS/HSPA/CDMA Modems

## Features/Benefits

### Anytime access to current and historic measurement data collected from remote hydrometeorological monitoring stations

- Secure password protected log-in for multiple users
- User-established management / administration
- Measurement data backed-up in the cloud and stored for at least one year

### Quickly view current data to check current conditions and know the station is running properly

- Map view, based on Google Maps, provides quick view of station location and most recent station data
- Station tab provides quick access to current and recent data, including graphs
- Design your own dashboard to quickly view and export current and recent measurement data
- Customize mobile App to quickly view select stations or sensors

### Plot data to view and analyze recent and historic trends to identify how the data is trending and the duration of the trend

- Quickly plot predefined range (ex: 24 hrs, 2-day, 7-day, month, etc or customized date range)
- Compare current or recent measurements from multiple sensors or stations
- Create and save custom plot templates using the mobile App to quickly view current and historic measurement data from one or more sensors

### Receive automatic alarm messages via email, text message, or voice message for sensor values triggering alarm limits

- User definable value limits, rate of change limits, and alarm groups
- Automatic limit checking includes data value and rate-of-change limits



Hydromet Cloud can help you assess when a site visit is required and retrieve data as needed to create data product, e.g., reports

- Separate limits can be set for warning/critical levels
- Colored coded (green, yellow, red) map pins, data values, and limit lines based on received alert and level

### Create and download custom data reports in tabular or graphical format

- Export predefined range (ex: 24 hrs, 2-day, 7-day, etc...) or customized date range
- Export data report as an Excel or OTT MIS file
- User configurable Dashboard to retrieve frequently viewed data displayed as a plot, table, or values
- Use mobile App to view and send/share data directly from your smart phone

### Use data corrections to reject or correct measurement data

- Reject or accept provisional data
- Enter correct value for individual measurements
- Apply offset to multiple measurement values

### Option to create derived parameters

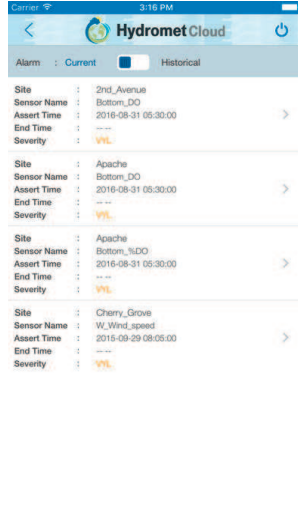
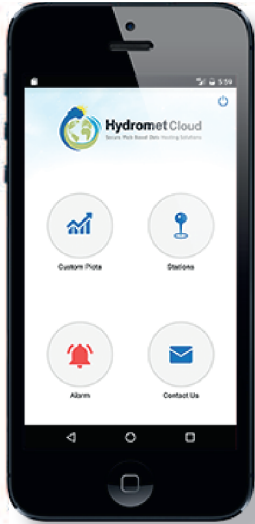
- Combine parameters (e.g. add coefficients), stage/flow rating calculation, periodic averages, incremental precip, sum, min /max, etc.



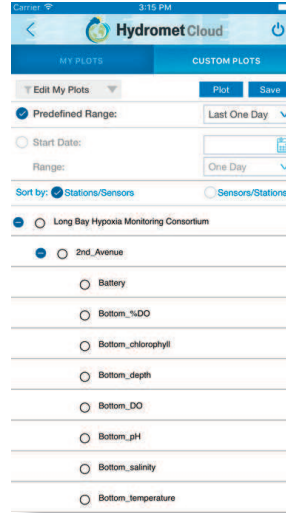
Quickly view current measurements, identify how data is trending, and confirm stations are functioning properly- collecting good data

# Hydromet Cloud App: Quickly view data, alarms, and graphs from almost anywhere

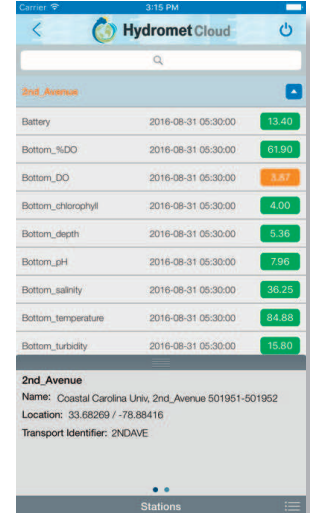
Hydromet Cloud allows users to easily access their remote data from their field stations. Hydromet Clouds provides the latest station data and alarm status. Users can quickly view data in tabular and graphical form and save frequently graphed data as shortcuts for future use and recall.



View Alarms



Custom Plots



Push Notifications

iOS



You can install the app on your iPhone using this link: <https://itunes.apple.com/de/app/hydromet-cloud/id1149267443?l=en&mt=8>

Android




You can install the app on your Android smartphone or tablet using this link: <https://play.google.com/store/apps/details?id=com.hydrometcloud&hl=en>

## Ordering/Licensing

9400-0400	Hydromet Cloud Client Set Up (1-time fee for new Web Account)
9400-0402	Hydromet Cloud Station Set Up (1-time fee per new station)
9400-0403	Hydromet Cloud per Station Annual Fee for first 25 Stations
9400-0404	Hydromet Cloud Service Discounted Recurring Fee for Stations 26-50
9400-0405	Hydromet Cloud Service Discounted Recurring Fee for Stations 51+
9400-0406	SutronWIN Service Discounted Recurring Fee for Stations 31-50



**Hydromet Cloud**  
Secure Web-Based Data Hosting Solutions

- 
- Satellite**
- GOES DCS
  - DOMSAT
  - NOAAPORT
  - Iridium
  - Meteosat
  - GMS

- Cellular**
- GPRS
  - CDMA
  - HSPA

## HOW IT WORKS

1



Data collected from remote Hydromet stations is transmitted via satellite or cell phone modem to Hydromet Cloud.

*\* Also works with Line-of-Sight and repeater radios as well as serial direct connection, multiplexer, terminal server, etc.*

2

Data (including units of measurement) is decoded, time-stamped & processed based on user specifications.



**Hydromet Cloud Servers**

3

Data is stored in our SQL database where user-defined derived parameters & limit checks are automatically performed. Warnings & alarms are issued if triggered.

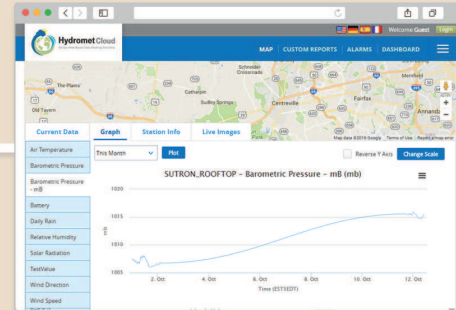


**Hydromet Cloud SQL Database**

Access and view data directly from the station using a secure webpage updated immediately as your data arrives

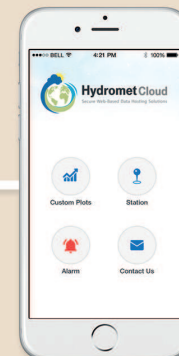
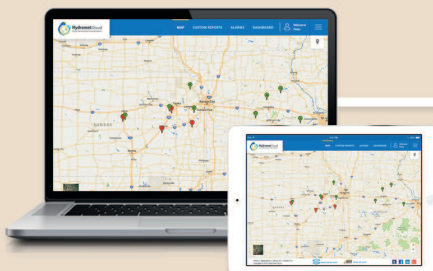
4

Hydromet Cloud enables quick access to view and graph time series data, check alarms / limits, and create reports including corrected data.



Station Name	Sensor Name	Alert Time	End Time	Severity
3110A02_GPRS	SWR	2016-10-07 09:40 EDT	-	CRIT
Apache	Surface_Airinity	2016-09-12 07:30 EDT	-	VOL
Cherry_Grove	W_Wind_Speed	2016-09-28 08:05 EDT	-	VOL
HCD	Pool_Surge	2016-06-25 19:00 EDT	-	CRIT
Heard_Creek	Heard_Level	2016-02-04 17:00 EST	-	CRIT
SLPK_BOOFS	Surf	2016-10-03 16:00 EDT	-	CRIT
SUTRON_ROOFTOP	Air Temperature	2016-03-10 16:13 EST	-	CRIT

Anytime access to current and historic measurement data collected from remote Hydromet monitoring stations



**Hydromet Cloud Mobile App**