# The Data Value Chain

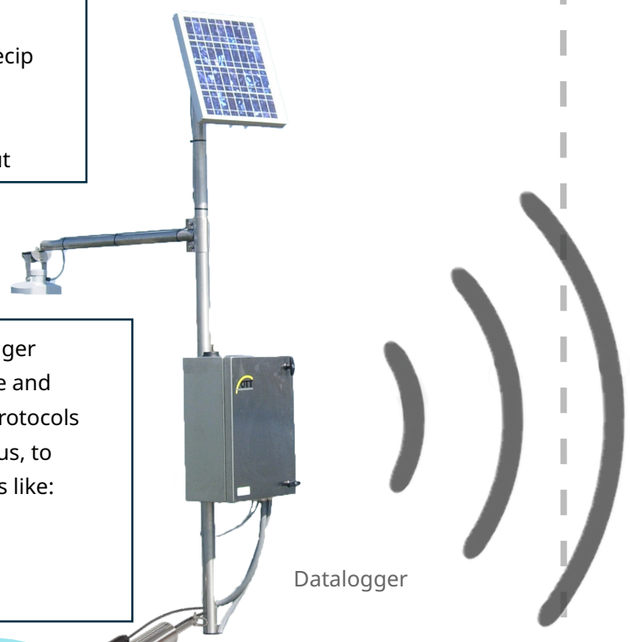
Sensors & Loggers | Remote Communication

Physical Interfaces

- RS-485
- RS-232
- SDI-12
- Counter/Precip
- ModBus
- Digital
- Analog input

Alarms and notifications sent:

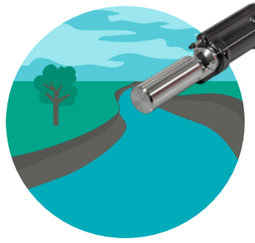
- Thresholds



Datalogger

Connects to Datalogger through an Interface and communicates via Protocols like SDI-12 or ModBus, to measure parameters like:

- Water level
  - Discharge
- Conductivity



Sensor

Collect Measurements

- User defined intervals
- Program custom transmissions
- Post-processing on raw data
- Store measurements
- (promote Link family, Python programming)

Satellite GOES

Recommended Data Formats:

- SHEF
- Pseudo Binary B

Iridium

Recommended Data Format:

- SHEF
- Pseudo Binary D

Cell Tower

Data sent using modem and IP protocols:

- HTTP(S)
- FTP(S)
- SMS

GOES data received by NOAA in Virginia --> LRGS --> Receive data via:

- LRGS
- Hydromet Cloud

Iridium data received by Gateway in Arizona --> Receive data via:

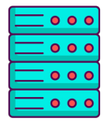
- Email
- Direct IP/Port
- Hydromet Cloud

Receive data via:

- Server
- Static IP address via FTP
- SMS
- Hydromet Cloud

Receive data using On-Premise servers and view using a monitoring tool like Tempest

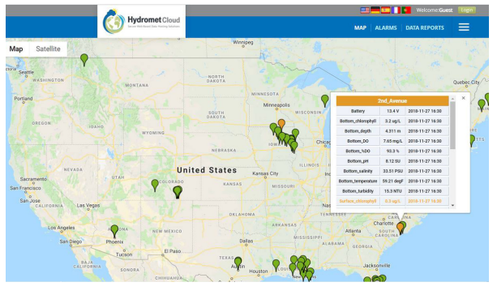
Server



Time Series Database

Monitoring Tool

View data using monitoring tools like Hydromet Cloud from your browser




Iridium and cell allow for two-way communication between your station and your computer

Measure | Collect | Transmit | Receive | View

OTT HydroMet