

Synoptic.

Sharing Earth's Data

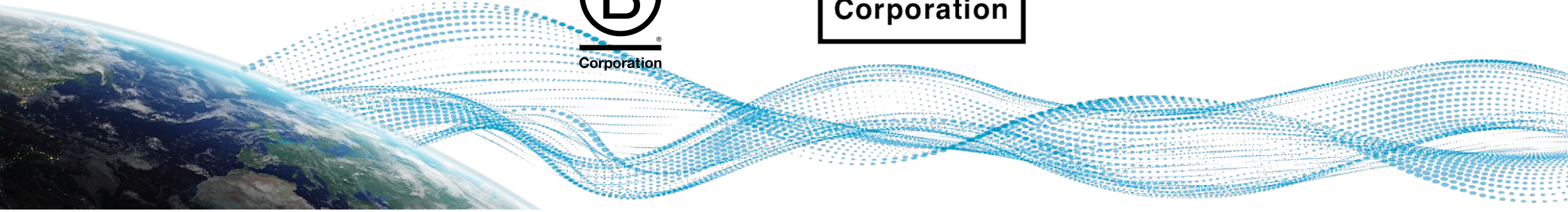
**Sustainable WIS 2.0 Services
Empowering NMHS's to do more with less**

Certified



Corporation

**Public Benefit
Corporation**



Public Benefit Corporation and B Corp

Synoptic is committed to provide expanded access to environmental data to enhance public safety, improve the productivity of government agencies and commercial entities, and assist in research and educational initiatives to advance the understanding of Earth systems.

- 20 years experience in observational data aggregation, quality control, and data management
- Contracted with NOAA as a foundational data partner
- WMO implementation partner for UK/US Global Cache and WIS2 Node for the USA (NOAA/NWS Stations)



Daily Observations

144M+



Observation Stations

150,000+



Data Providers (networks)

320+



Data Parameters

140+

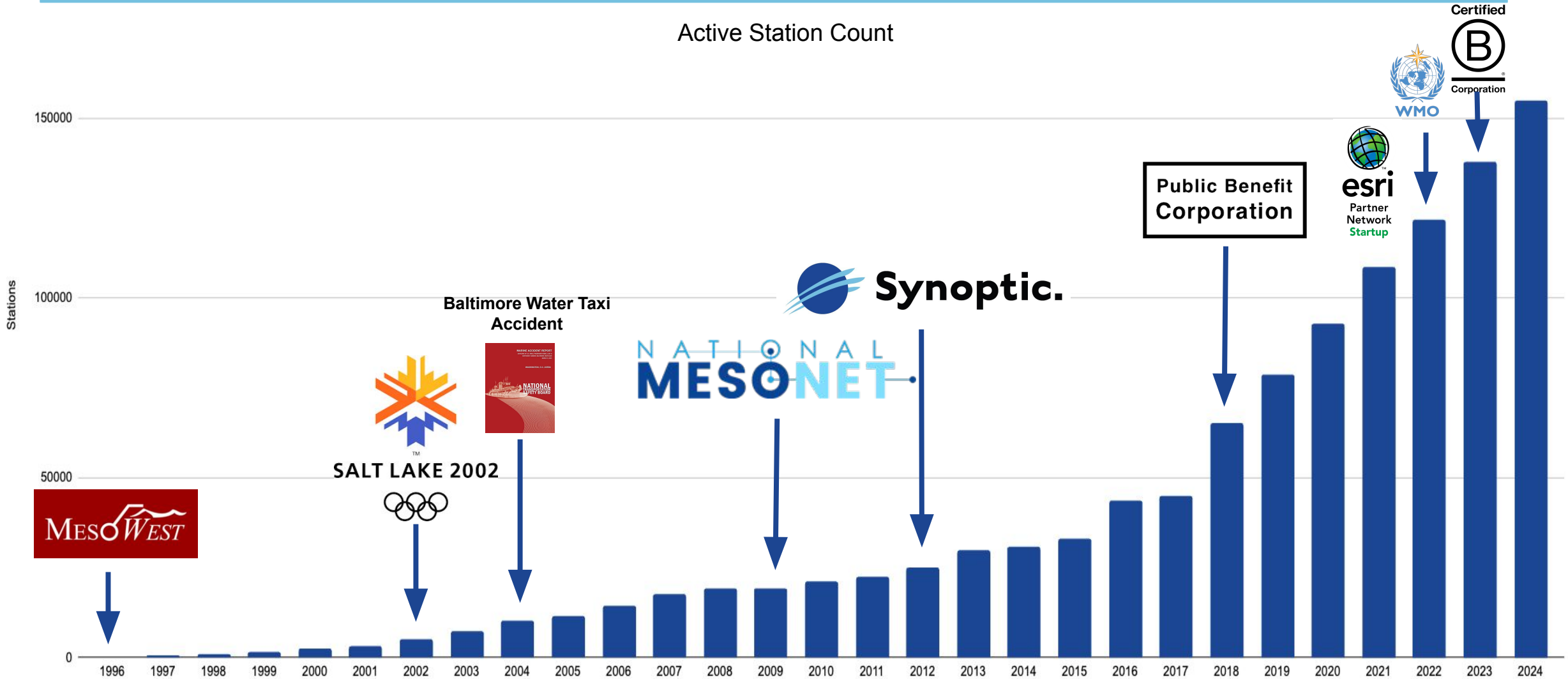


Daily API Data Requests

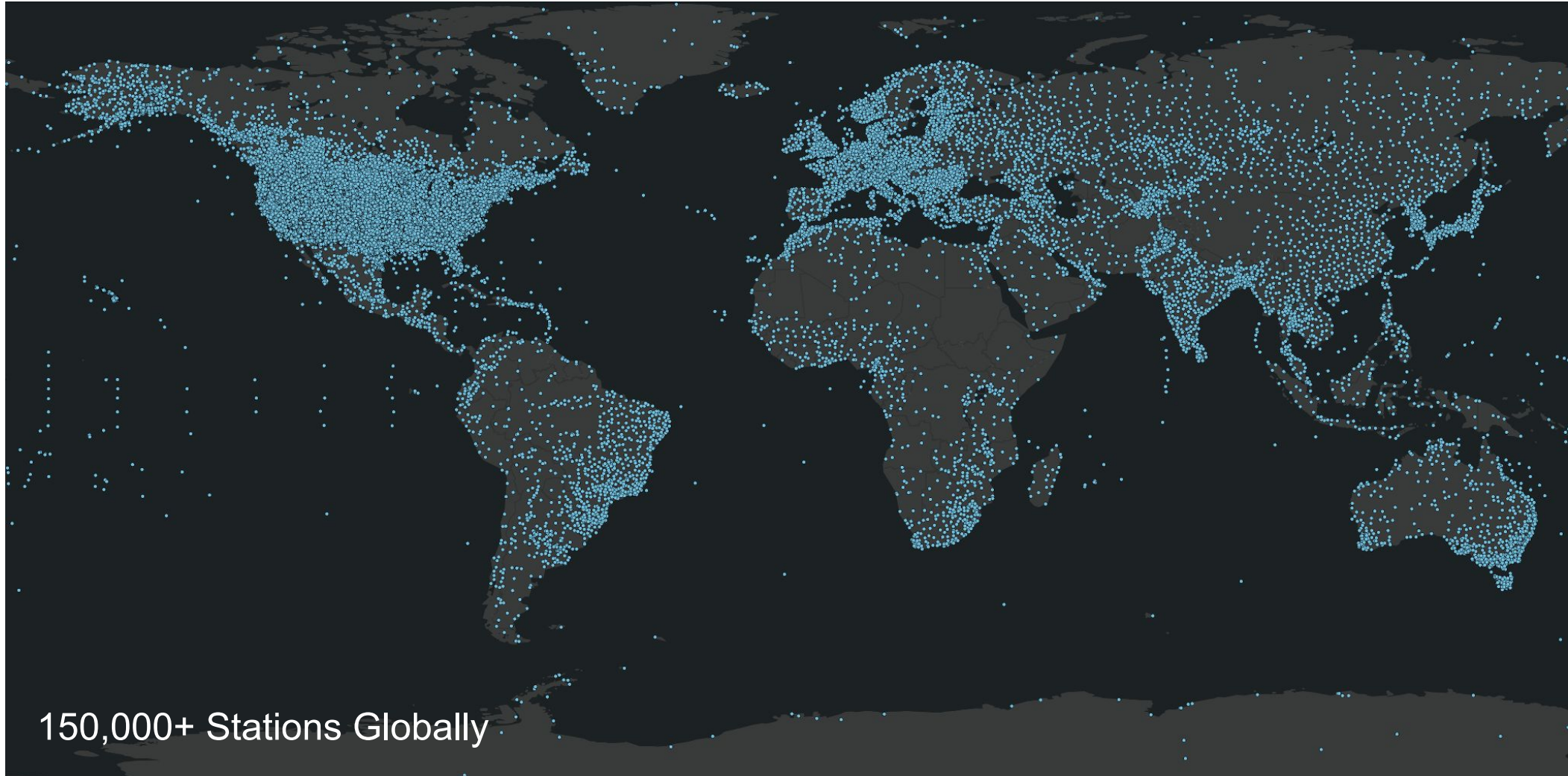
10M+



Synoptic's History



Active Stations Available through Synoptic



WIS2 Services Offering

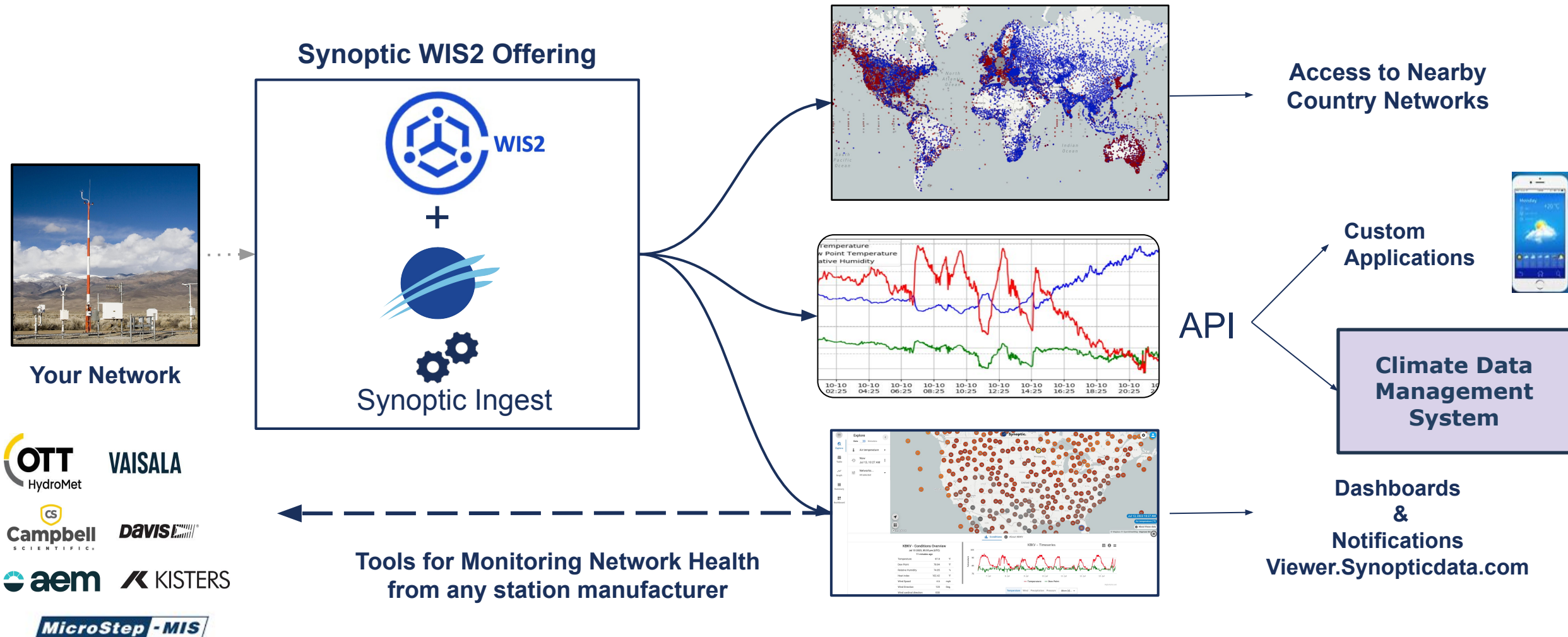
Synoptic offers a range of options for WIS2 Node

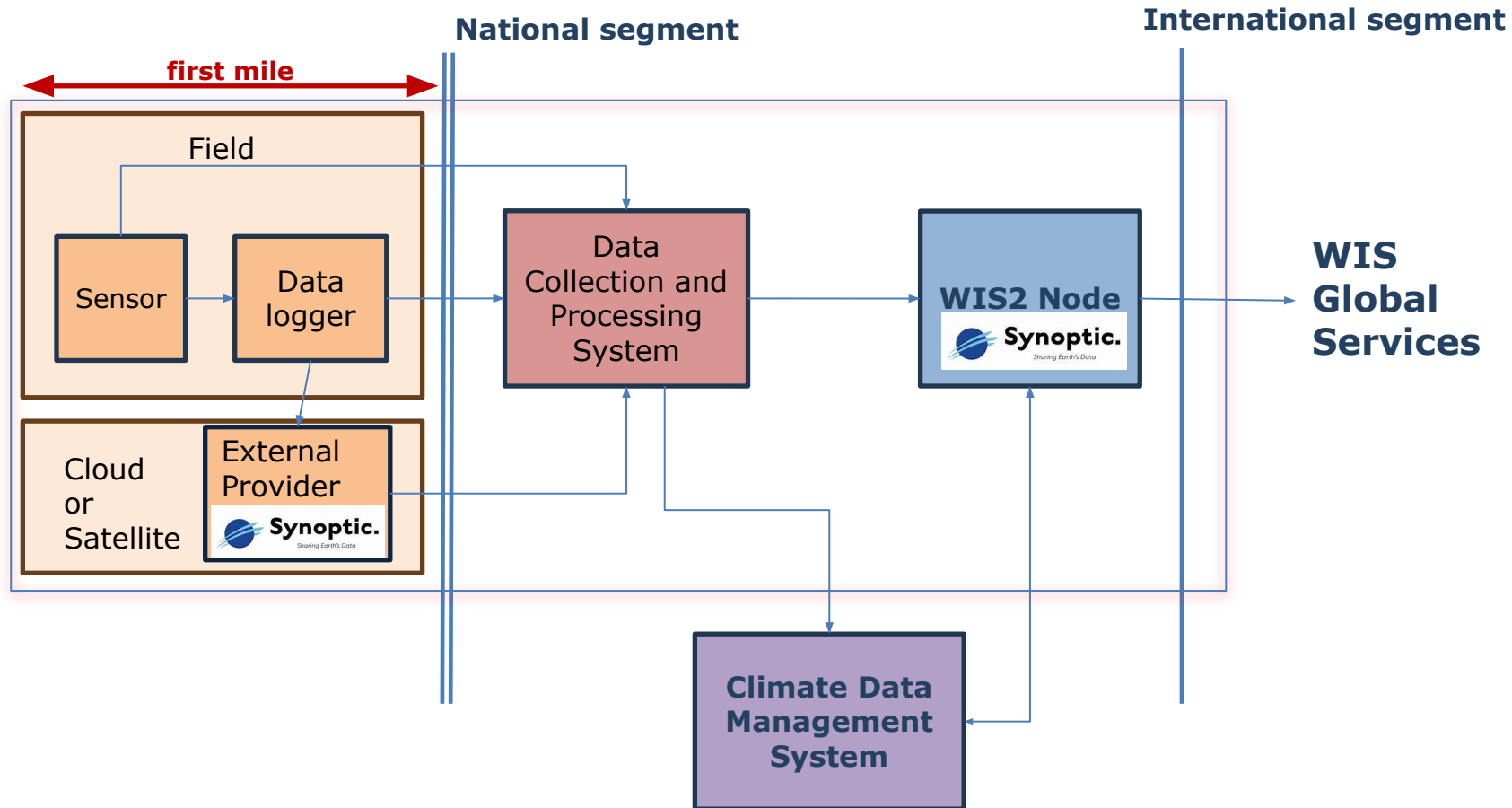
- **WIS 2.0 in a Box (On-Prem or AWS Cloud Hosted)**
 - Using Open Source WMO Software
 - Deploy, Train and Transfer to NMHS
 - Ongoing annual Maintenance and Operation
 - Includes Viewer/Dashboard/Notifications
 - Dedicated Customer Support with 24 hour response time
 - Build, train and Transfer to End-User
- **WIS 2.0 Node as a Service (AWS Cloud)**
 - Synoptic Managed Solution
 - Design, Build, Operate and Maintain with 99.99% uptime
 - Includes Viewer/Dashboard/Notifications
 - Owned and operated by Synoptic
- **Consulting, Support & Maintenance Service - 3rd Party supplied**
 - a. Includes Viewer/Dashboard/Notifications



Note: All options include Dedicated Customer Support with 24 hour response time

Synoptic WIS 2.0 Workflow

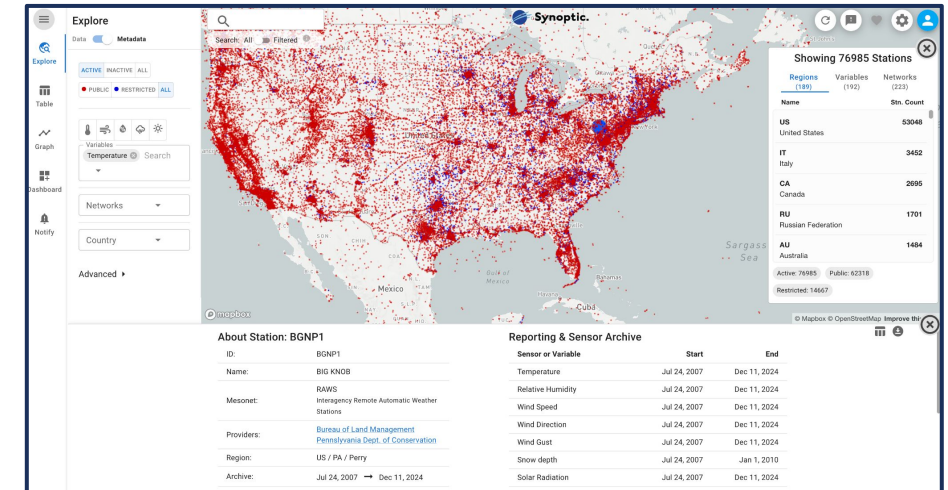




- External Provider Can be WIS 2.0 Node (Synoptic Data can accept data directly from any Data logger using MQTT, CSV, FTP etc)
- WIS 2.0 Node can also be setup as input from the manufacturer or end-users Data Collection and Processing System

Metadata Support

- Expert Metadata Management:
 - Synoptic can help streamline the creation, validation, and submission of high-quality metadata compliant with WMO's OSCAR metadata standards.
- Seamless Integration with WIS2:
 - We ensure metadata aligns perfectly with WIS2 requirements.
- Proven Expertise:
 - Synoptic is trusted by meteorological organizations worldwide to manage and process metadata efficiently and reliably.



OSCAR Observing Systems
Capability Analysis
and Review Tool

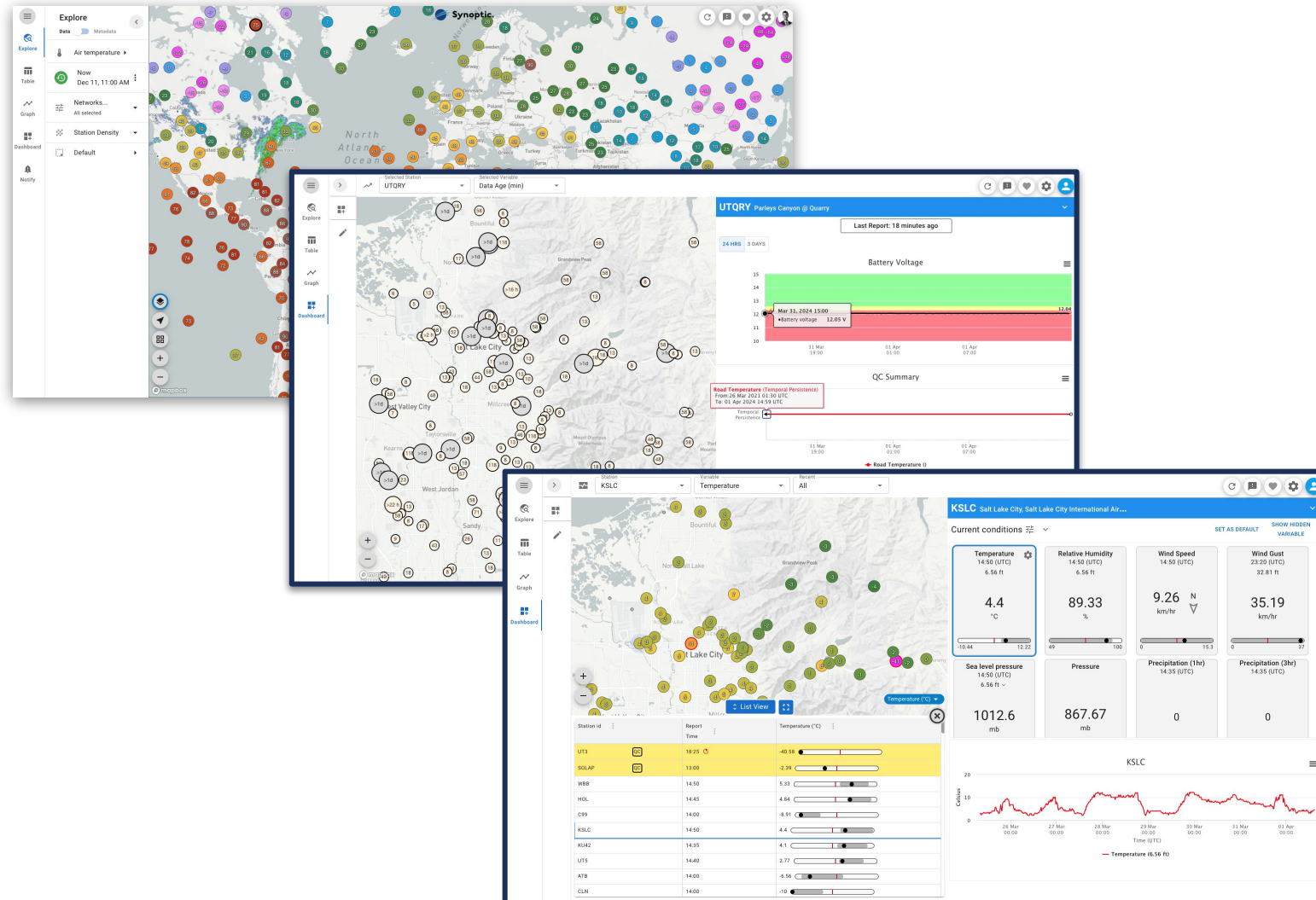
Data Discovery Tool (viewer.synopticdata.com)

Free Features:

- Global Data Discovery Tool For All
- Access any Open Station/Network Data Display
- Detailed Metadata
- View, Graph, Explore Data from around the world
- Download open data sets

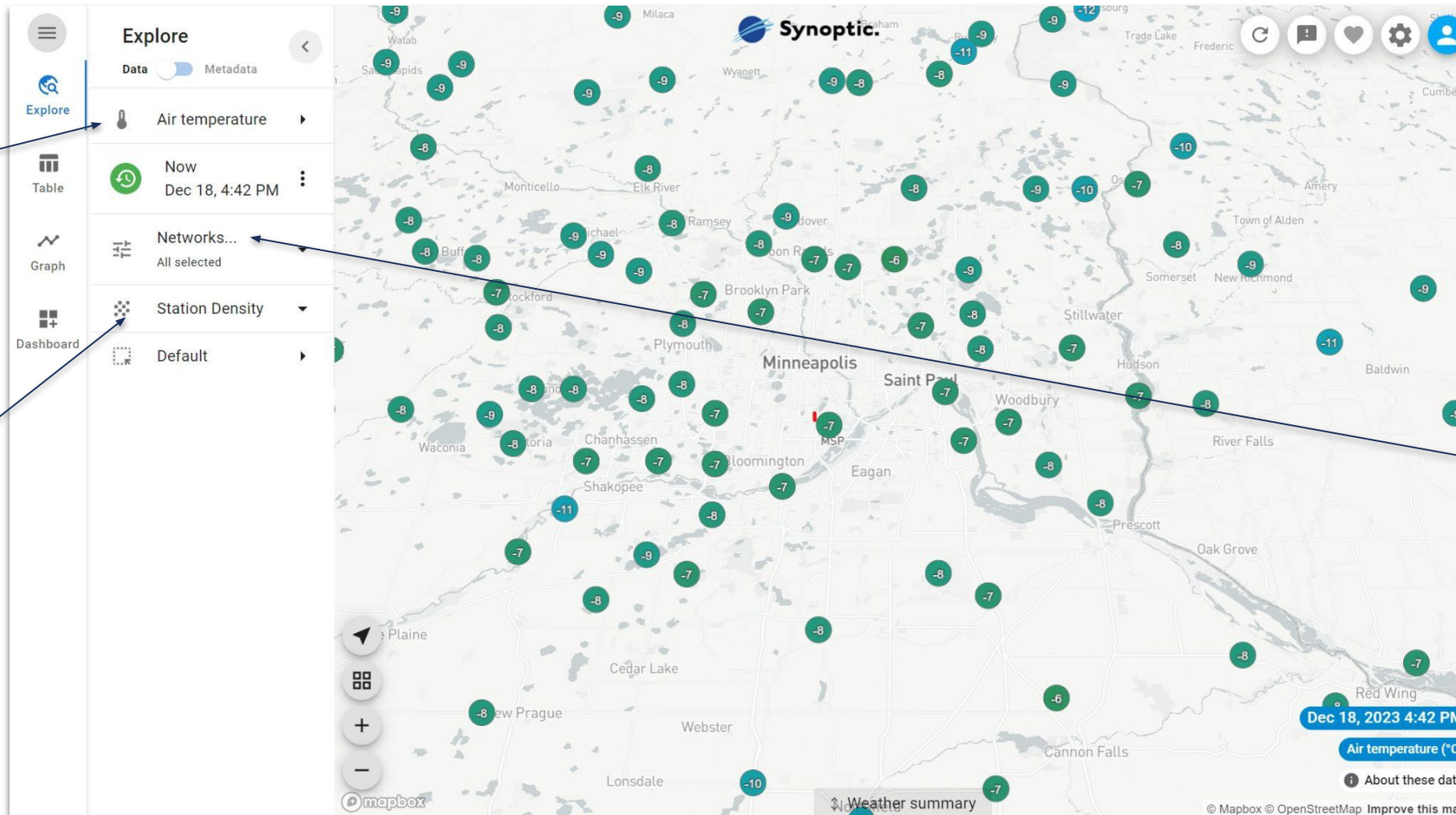
Premium Value Added Features:

- Free for WIS 2.0 Synoptic Customers
- Real-Time Dashboards
- Real-Time Alerts using SMS and Email
- Health Monitoring of entire network



Synoptic. 
Data Viewer

Real Time View WIS 2.0 Network



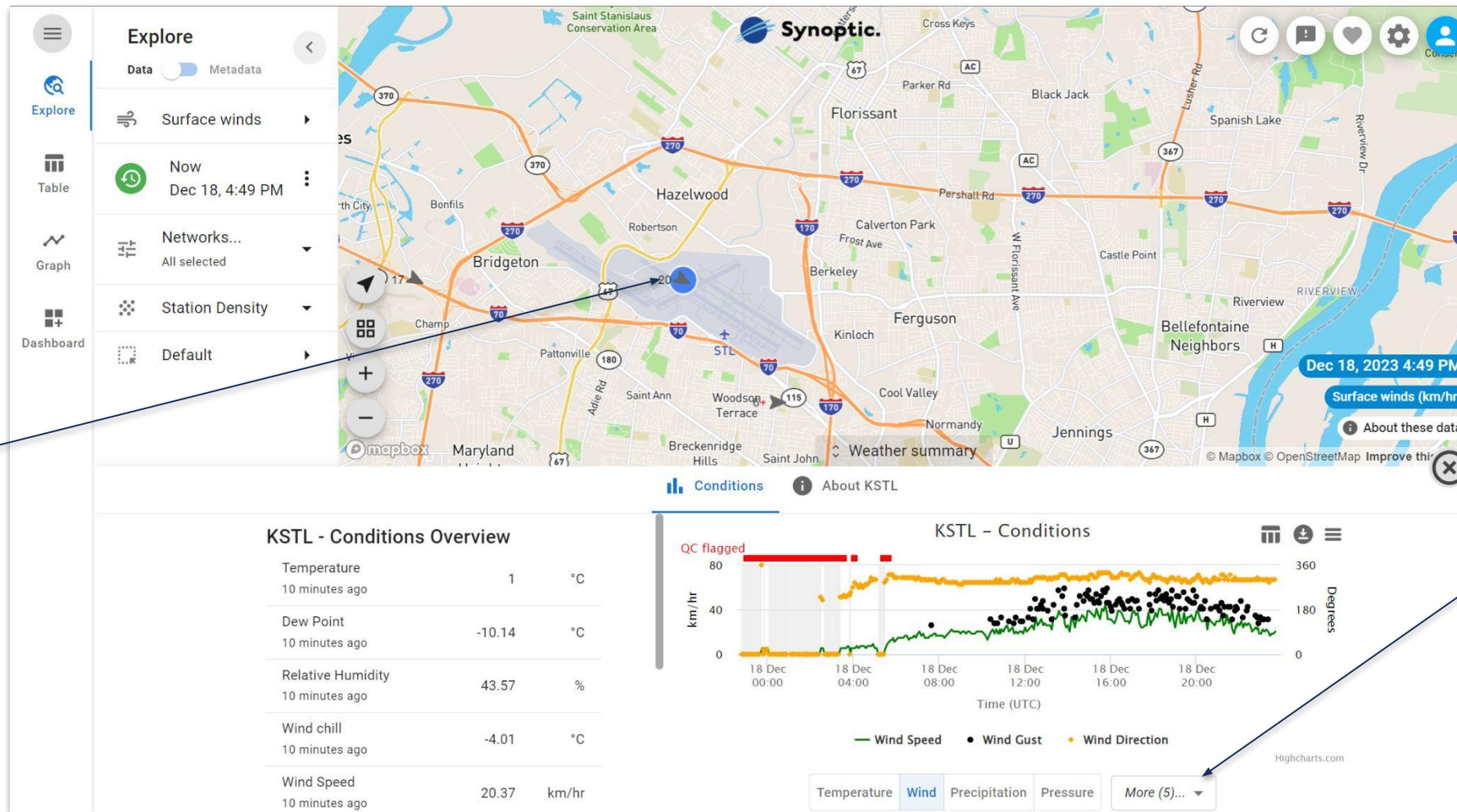
Additional variables are located here

Customize station density

Select a network or all stations

<https://viewer.synopticdata.com/map/data/now/air-temperature#map=9.66/44.9356/-93.4121&networks=259>

Graphing on the Explore Page



The screenshot displays the Synoptic Explore interface. On the left, a sidebar contains navigation options: Explore, Table, Graph, and Dashboard. The main area features a map of St. Louis with a blue dot indicating the location of station KSTL. Below the map, the 'Conditions Overview' table is visible, and a 'KSTL - Conditions' graph shows wind speed, gust, and direction over time. A 'More (5)...' dropdown menu is located at the bottom of the graph area.

Parameter	Value	Unit
Temperature	1	°C
Dew Point	-10.14	°C
Relative Humidity	43.57	%
Wind chill	-4.01	°C
Wind Speed	20.37	km/hr

Click on any station

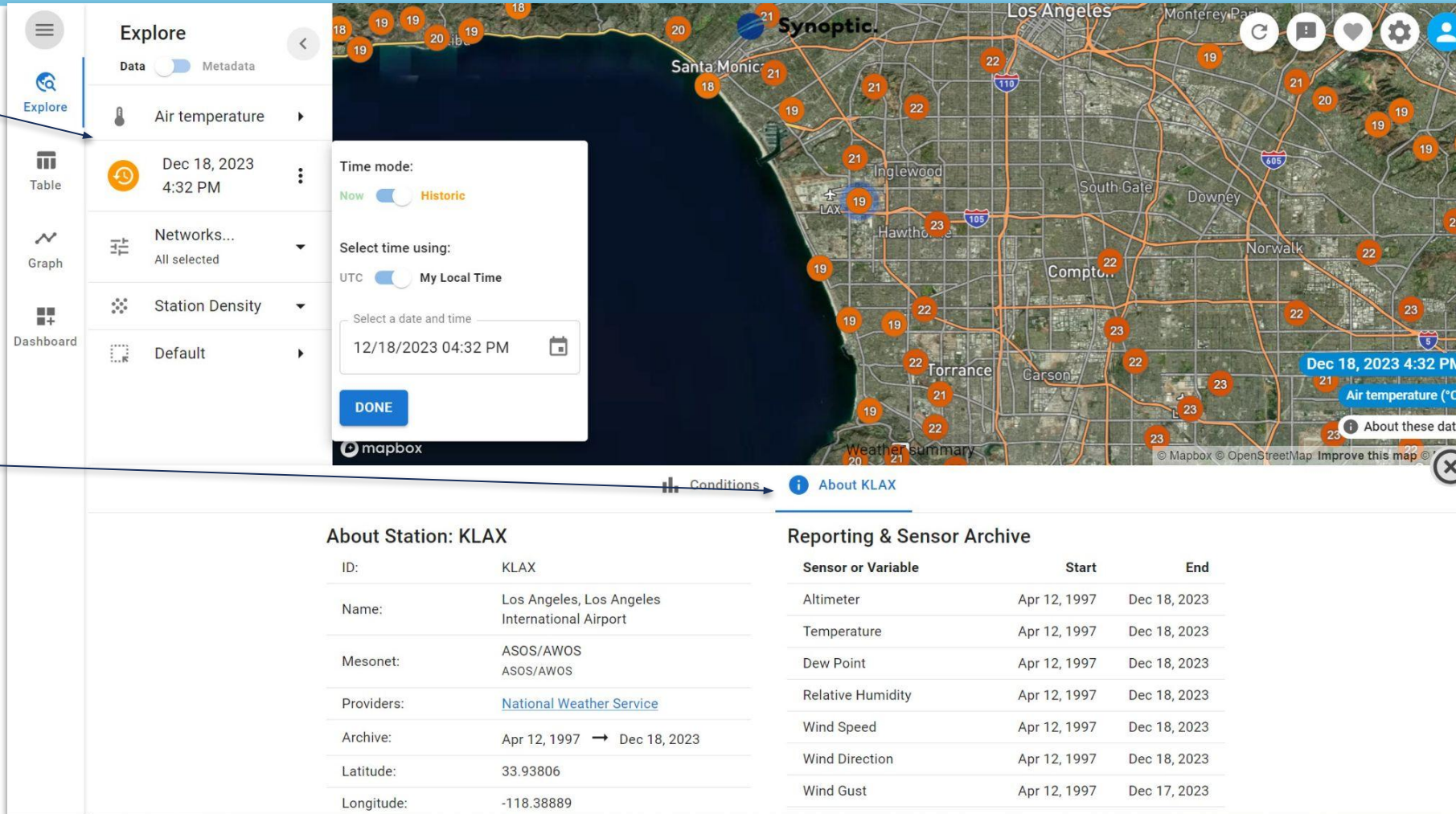
Additional Graphing Options

<https://viewer.synopticdata.com/map/data/now/surface-winds/KSTL/plots/wind#stationdensity=0&map=11.33/38.7238/-90.3113>

Detailed Data & Metadata for Every Station

Change the Date

Access Metadata



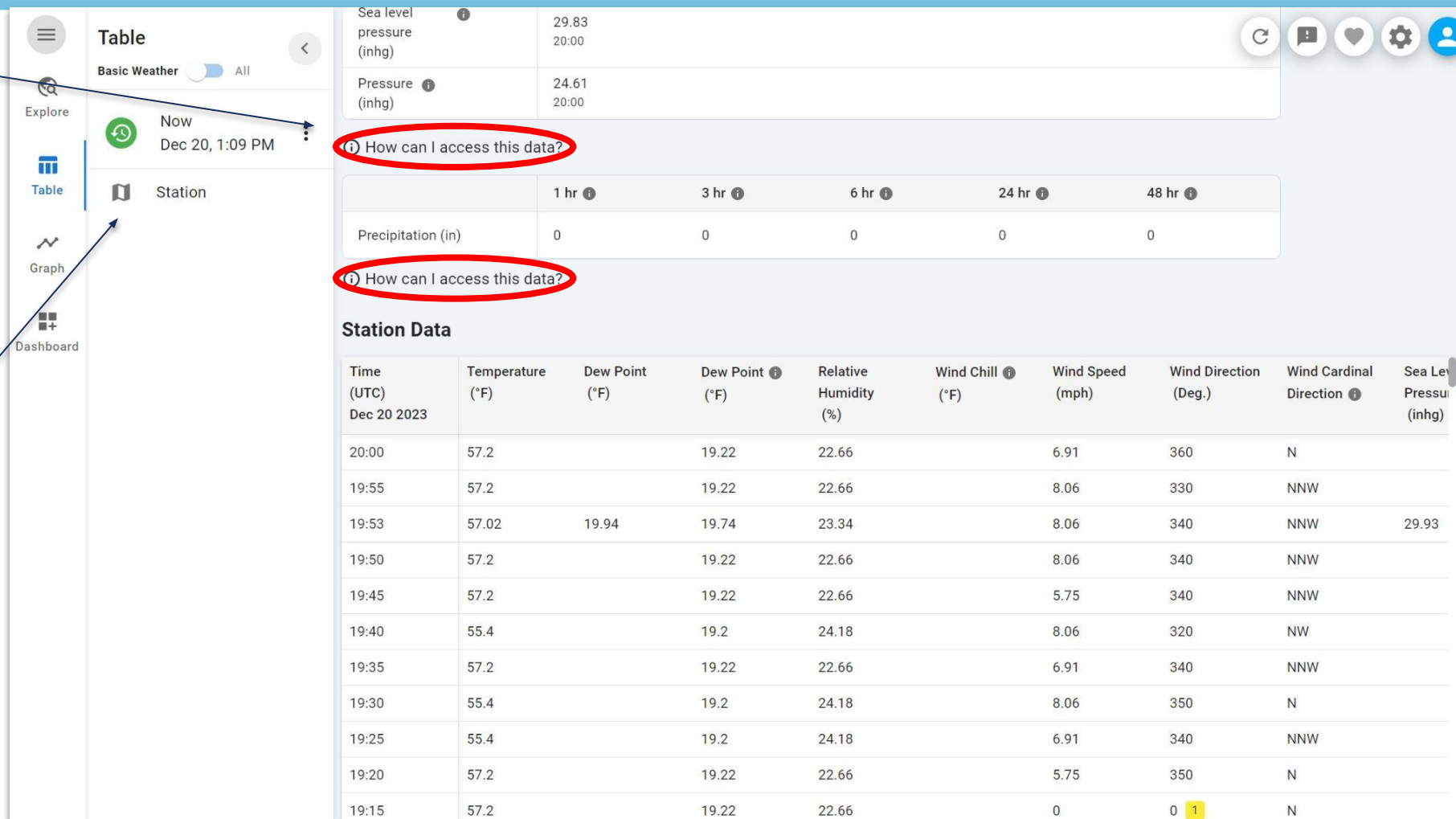
The screenshot shows the Synoptic Data viewer interface. On the left is a navigation sidebar with options like 'Explore', 'Table', 'Graph', and 'Dashboard'. The main area displays a map of Los Angeles with station markers. A 'Time mode' dialog is open, allowing selection of 'Now' or 'Historic' data, and 'UTC' or 'My Local Time'. Below the map, there are tabs for 'Conditions' and 'About KLAX'. The 'About Station: KLAX' section provides details about the station, and the 'Reporting & Sensor Archive' section shows a table of data variables and their reporting periods.

About Station: KLAX	
ID:	KLAX
Name:	Los Angeles, Los Angeles International Airport
Mesonet:	ASOS/AWOS ASOS/AWOS
Providers:	National Weather Service
Archive:	Apr 12, 1997 → Dec 18, 2023
Latitude:	33.93806
Longitude:	-118.38889

Reporting & Sensor Archive			
Sensor or Variable	Start	End	
Altimeter	Apr 12, 1997	Dec 18, 2023	
Temperature	Apr 12, 1997	Dec 18, 2023	
Dew Point	Apr 12, 1997	Dec 18, 2023	
Relative Humidity	Apr 12, 1997	Dec 18, 2023	
Wind Speed	Apr 12, 1997	Dec 18, 2023	
Wind Direction	Apr 12, 1997	Dec 18, 2023	
Wind Gust	Apr 12, 1997	Dec 17, 2023	

<https://viewer.synopticdata.com/map/data/202312182332/air-temperature/KLAX/about#stationdensity=0&map=9.94/33.8109/-118.3578>

Easily Access API call for Data



API call

Find nearby stations for any public network

Table

Basic Weather All

Now Dec 20, 1:09 PM

Station

Sea level pressure (inhg) 29.83 20:00

Pressure (inhg) 24.61 20:00

How can I access this data?

1 hr 3 hr 6 hr 24 hr 48 hr

Precipitation (in) 0 0 0 0 0

How can I access this data?

Station Data

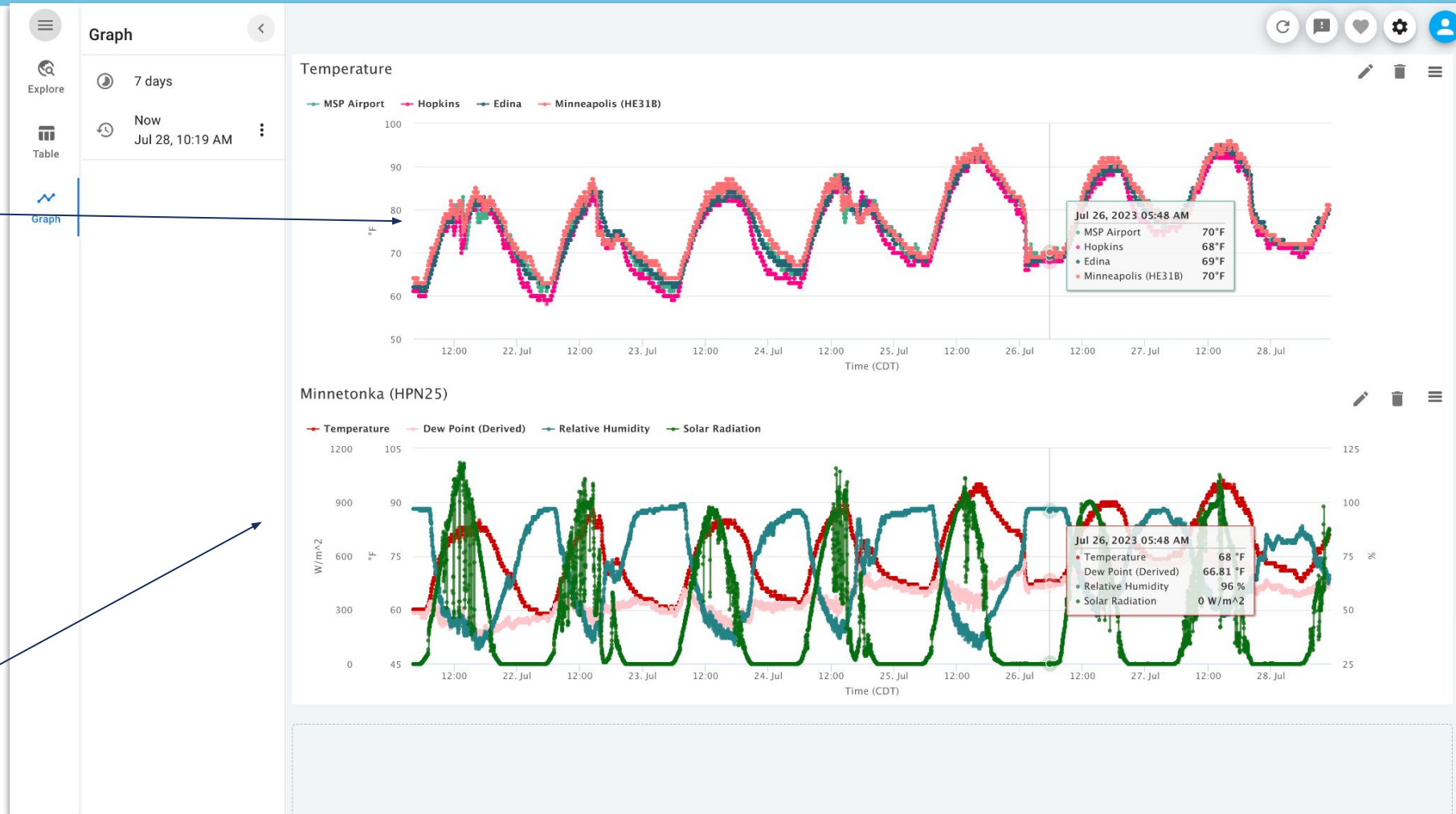
Time (UTC)	Temperature (°F)	Dew Point (°F)	Dew Point (°F)	Relative Humidity (%)	Wind Chill (°F)	Wind Speed (mph)	Wind Direction (Deg.)	Wind Cardinal Direction	Sea Level Pressure (inhg)
Dec 20 2023									
20:00	57.2		19.22	22.66		6.91	360	N	
19:55	57.2		19.22	22.66		8.06	330	NNW	
19:53	57.02	19.94	19.74	23.34		8.06	340	NNW	29.93
19:50	57.2		19.22	22.66		8.06	340	NNW	
19:45	57.2		19.22	22.66		5.75	340	NNW	
19:40	55.4		19.2	24.18		8.06	320	NW	
19:35	57.2		19.22	22.66		6.91	340	NNW	
19:30	55.4		19.2	24.18		8.06	350	N	
19:25	55.4		19.2	24.18		6.91	340	NNW	
19:20	57.2		19.22	22.66		5.75	350	N	
19:15	57.2		19.22	22.66		0	0	N	

<https://viewer.synopticon.com/table/KDEN/basic-weather/now#map=10.94/39.8466/-104.6562>

Advanced Graphing Capabilities

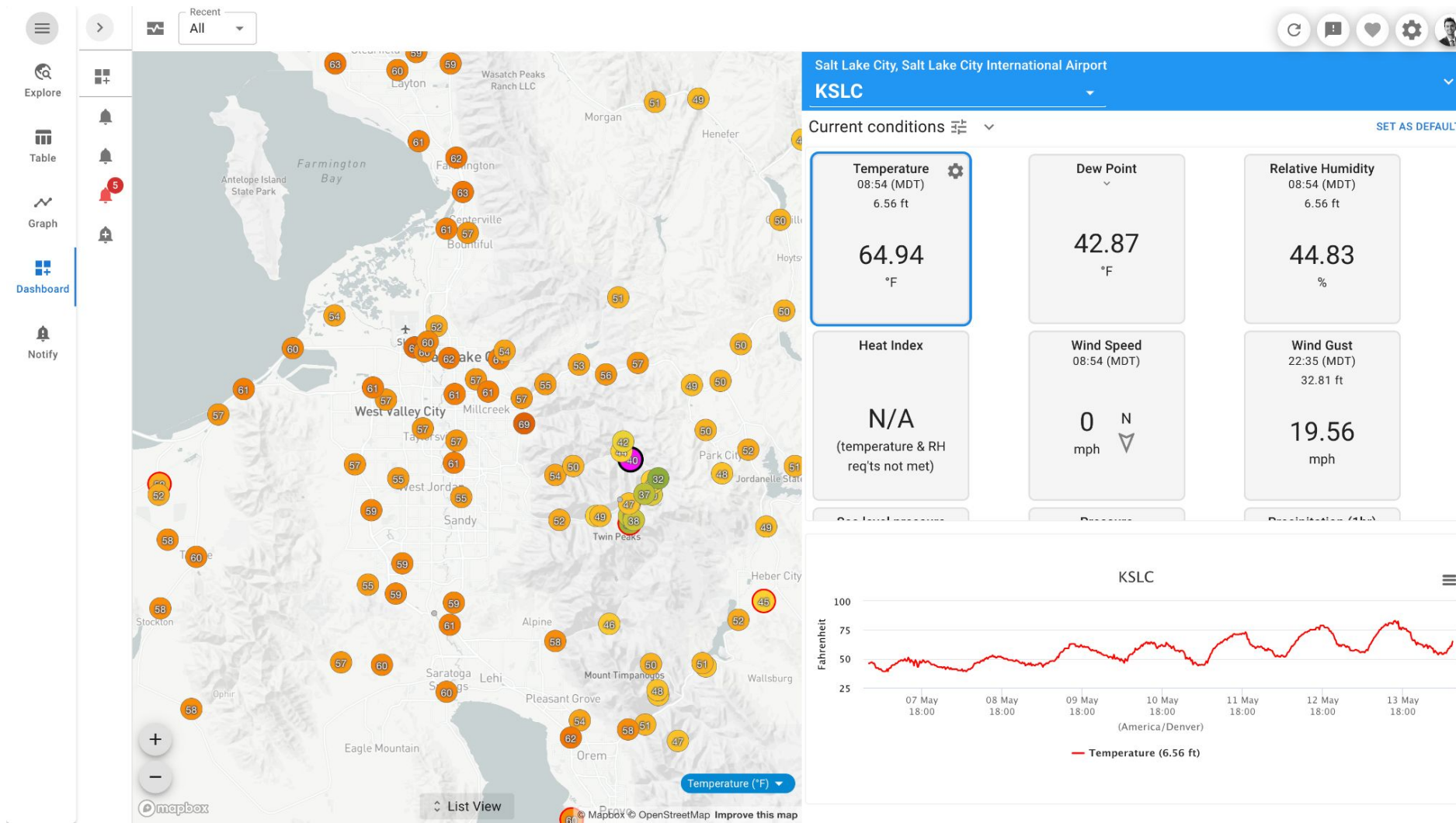
1 variable
Many
Stations

1 station
with many
variables



https://viewer.synopticdata.com/graph/now/10500/HPN24,HPN07,HPN39,HPN20;air_temp%7CHPN25;air_temp,dew_point_temperature,relative_humidity,solar_radiation#map=9.66/44.9356/-93.4121

Dashboarding and Alerting



Customize layout of graphs, see alerts based on custom thresholds

Customer Support & Success

- Synoptic uses ZOHO Desk,
 - receive, and log customer emails for support
 - assign and track all tickets in one place
- With over 4,000 total users of our products, Synoptic still resolves
 - 76.4% of tickets within 4 hours
 - 83.1% of tickets within 8 hours
- Synoptic will provide a dedicated email support@synopticdata.com and a dedicated customer service representative will provide the first response for a support request within one business day.



Budgetary Pricing Option for WIS 2.0 On-Prem

Year 1	Hours	Pricing
Training on WIS2 Architecture	6	\$720
Training on Data conversion to BUFR	24	\$2,880
Training on WIS2BOX	24	\$2,880
Training on Data Upload and Automation	24	\$2,880
Training on Troubleshooting	12	\$1,440
Synoptic WIS2 Support - 16 hours per month	192	\$23,040
Metadata Management	24	\$2,880
WIS2 Node - PC with 3 Year Warranty		\$6,000
Travel Expenses for two trips**		\$10,000
Total	306	\$52,720
Dashboards and Alerts for Monitoring station feed	Includes access to Viewer.Synopticdata.com	\$12,000
Year 1 Total	306	\$64,720

Year 2	Hours	Pricing
Synoptic WIS2 Support	192	\$24,192
Total	192	\$24,192
Dashboards and Alerts for Monitoring station feed	Includes access to Viewer.Synopticdata.com	\$12,600
Year 2 Total	192	\$36,792
Year 3		
Synoptic WIS2 Support	192	\$24,250
Total	192	\$24,250
Dashboards and Alerts for Monitoring station feed	Includes access to Viewer.Synopticdata.com	\$13,230
Year 3 Total	192	\$37,480
Grand Total for a 3 year Period		\$138,992

Budgetary Pricing Option for WIS 2.0 Node as a service

Year 1	Hours	Pricing
Data Conversion (i.e. csv to bufr)	24	\$2,880
Pipeline configuration (i.e. bufr file upload to global broker)	24	\$2,880
Testing and Alerting Setup	24	\$2,880
Synoptic Data Support	15	\$1,800
Metadata Management	24	\$2,880
Virtual training	24	\$2,880
Total	135	\$16,200
Dashboards and Alerts for Monitoring station feed	Includes access to Viewer.Synopticdata.com	\$12,000
Year 1 Total		\$28,200

Year 2	Hours	Pricing
Synoptic Data Support	96	\$12,096
Total	96	\$12,096
Dashboards and Alerts for Monitoring station feed	(Optional)	\$12,600
Year 2 Total		\$24,696
Year 3	Hours	Pricing
Synoptic Data Support	96	\$12,125
Total	96	\$12,125
Dashboards and Alerts for Monitoring station feed	(Optional)	\$13,230
Year 3 Total		\$25,355
Grand Total for a 3 Year Period		\$78,251



Presenter

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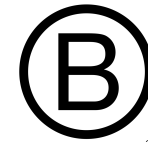
 Synoptic Data PBC

Contact

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Certified



Corporation

