

Unisys NOAAPort Gateway System

Reliable Access to Real Time Weather Data and Products



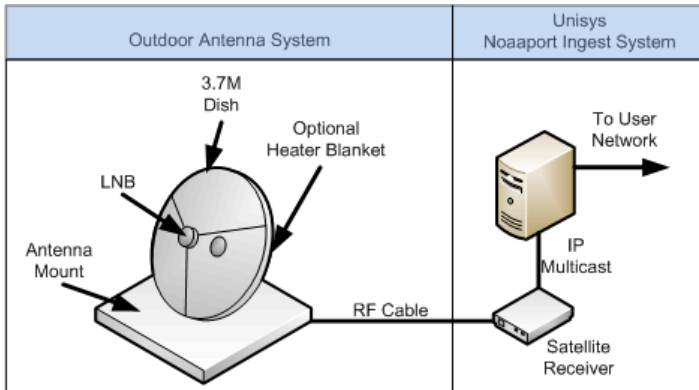
Fully Operational “Turn-Key” Access to the Expanded NWS NOAAPort Broadcast

The Unisys NOAAPort Gateway system is a fully integrated system that is configurable to receive the NWS NOAAPort broadcast data stream, to receive the Unisys Weather data stream (satellite or landline), the NOAA Weather Wire Service (NWWS), or receive both the NOAAPort and the Unisys Weather data streams through diverse communication paths.

The Unisys NOAAPort Gateway is built, tested, and shipped from our Malvern, Pennsylvania based Weather Data Center and provided as a turn-key system fully capable to receive the 70 Mbps NWS broadcast. The system is built on an Intel platform using CentOS 7 as the Linux operating system, and supports up to 32 simultaneous users. Users connect using TCP/IP choosing between four protocols: LDM, Unisys Product Manager, IBL Visual Weather or Unisys GWIP.

Each NOAAPort Gateway is configured based on the customer’s needs. Users may elect to receive the NOAAPort only, requiring hardware and associated cabling to an external satellite receive station. Users acquiring the full NOAAPort Gateway including the Unisys Weather data stream will have the option to connect to the Weather Data Center via landline. The landline option provides a redundant connection with automatic failover capability if satellite service is degraded or interrupted.

The Unisys NOAAPort Gateway ingest and processing functions are fully configurable to allow users to select products based on their needs. Alerts can be generated using Product Arrival Notification (PAN) messages, allowing users’ systems to process high priority products such as NWS advisories or warnings. Commercial weather products, such as Unisys weather radar mosaics and VAR lightning data, are also available via the Unisys Weather data stream.



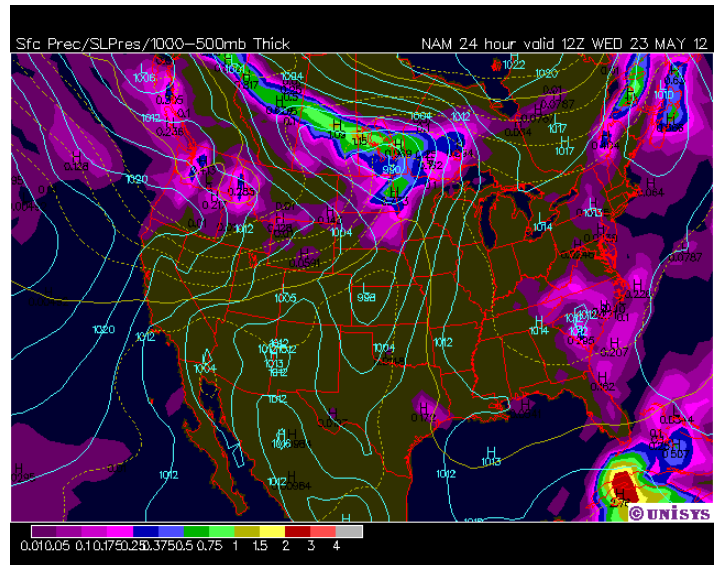
A fully integrated Unisys NOAAPort Gateway System including 3.7 meter C-Band antenna, Novra S-300 DVB-S2 receivers, ingestor and product server.

Configurable to Meet our Clients' Needs

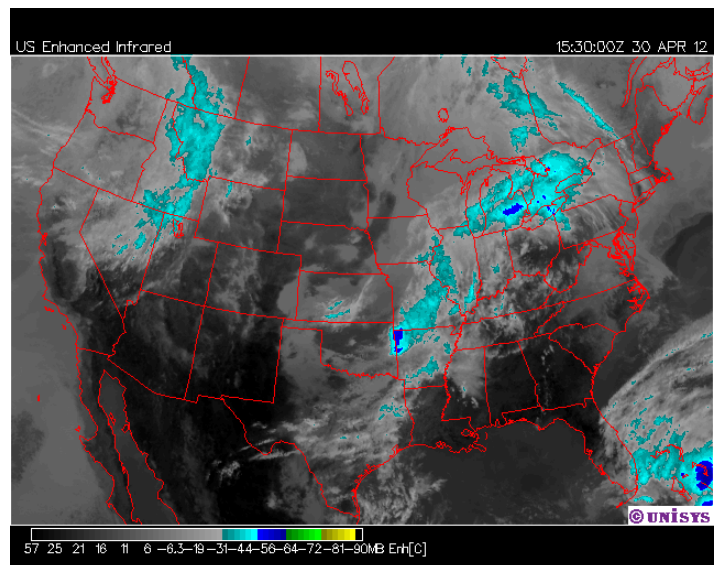
The Unisys NOAAPort Gateway is pre-configured to accept several data streams, increasing the reliability to over 99.9% for weather product receipt and processing:

- **NWS NOAAPort Satellite Broadcast Network (SBN)**
This is the operational NWS broadcast feeding all NWS Weather Forecast Offices, National Centers, and other users. The Unisys NOAAPort Gateway has been tested to exceed the new 70+ Mbps broadcast standard and is configured to accept all NWS broadcast channels:
 - **NCEP/NWSTG (PID 101)** includes the NCEP models in GRIB and BUFR formats.
 - **GOES/NESDIS (PID 102)** includes all GOES Ingest and NOAAPort Interface (GINI) calibrated and navigated GOES West imagery.
 - **NCEP/NWSTG2 (PID 103)** includes additional NCEP model data, BUFR products, NCEP graphics, and National Digital Forecast Database (NDFD) grids.
 - **OCONUS Imagery/Model/DCP (PID 104)** includes "Off CONUS" satellite and model data (Hawaii, Alaska, Puerto Rico).
 - **NPP (PID 105)** includes granules from the Soumi-NPP polar orbiting satellite.
 - **GRW (PID 107)** includes the new GOES-17(West) Satellite.

- **GRE (PID 108)** Sectorized Cloud and Moisture Imagery (SCMI) from GOES-16 Advanced Baseline Imager, 16 channels.
- **Additional Channels (EXP)** the Unisys NOAAPort Gateway is configurable to add new channels as they come online.

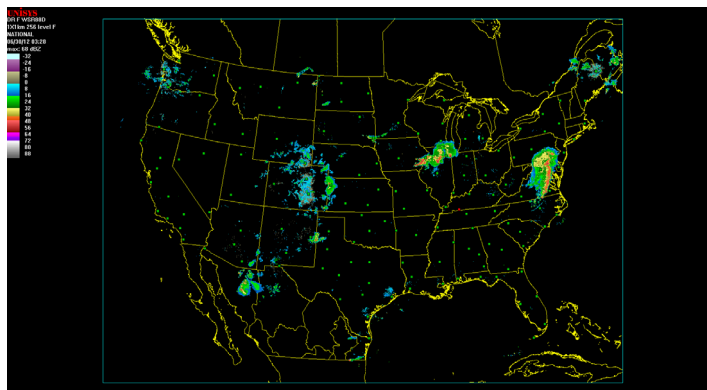


- **Unisys C-Band Satellite Channel**
The Unisys C-Band channel provides backup data product services (for select products) as well as broadcast of Unisys Value Added weather products. These include the Unisys Radar Mosaics, single site NEXRAD and TDWR products, composited satellite imagery and FAA NOTAMS.



- **Unisys Weather Landline Services**

The Unisys NOAAPort Gateway is built with dual NIC cards to allow users to connect to the Unisys Weather product dissemination system via the internet. Unisys Weather distributes all data and products available over the NOAAPort SBN, Unisys C-Band, and other value added products. This allows users high reliability and redundancy. The Unisys NOAAPort Gateway includes software to "fold in" duplicate products from both streams, and to allow for automatic failovers to alternate communication methods. Landline distribution protocols include TCP/IP, Unidata LDM, and Unisys WXP (Product Manager).



Technical Specifications

	Unisys Weather	Unisys NOAAPort NWS SBN	Unisys C-Band
Data and Products	All NOAAPort, Unisys C-Band, and additional products aquired by Unisys Weather	NWS SBN products (Model, GRIB satellite, single site NEXRAD and TDWR, NDFD, NCEP graphics)	Single site NEXRAD and TDWR, Unisys Radar Mosaics, satellite composites, FAA NOTAMS and Unisys DIFAX products
Bandwidth	500 Mbps	70 Mbps	8 Mbps
Satellite	N/A	Galaxy-28	Galaxy-28
Unisys NOAAPort Gateway Specifications			
System	Rack mount Dell Server, 8 core CPU		
OS	CentOS 7 Linux or Red Hat 7 Linux (Optional)		
RAM	8 GB		
Drives	Four 7200 RPM Drives	300 GB each	RAID 1+0
Network	2 GB NIC Cards		
Software	Unisys NOAAPort ingest v9+	Unidata LDM v6.13.1	Unisys GWIP, Product Manager

**Contact us today at weather@unisys.com
or visit weather.unisys.com for more information.**

For more information visit www.unisys.com

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