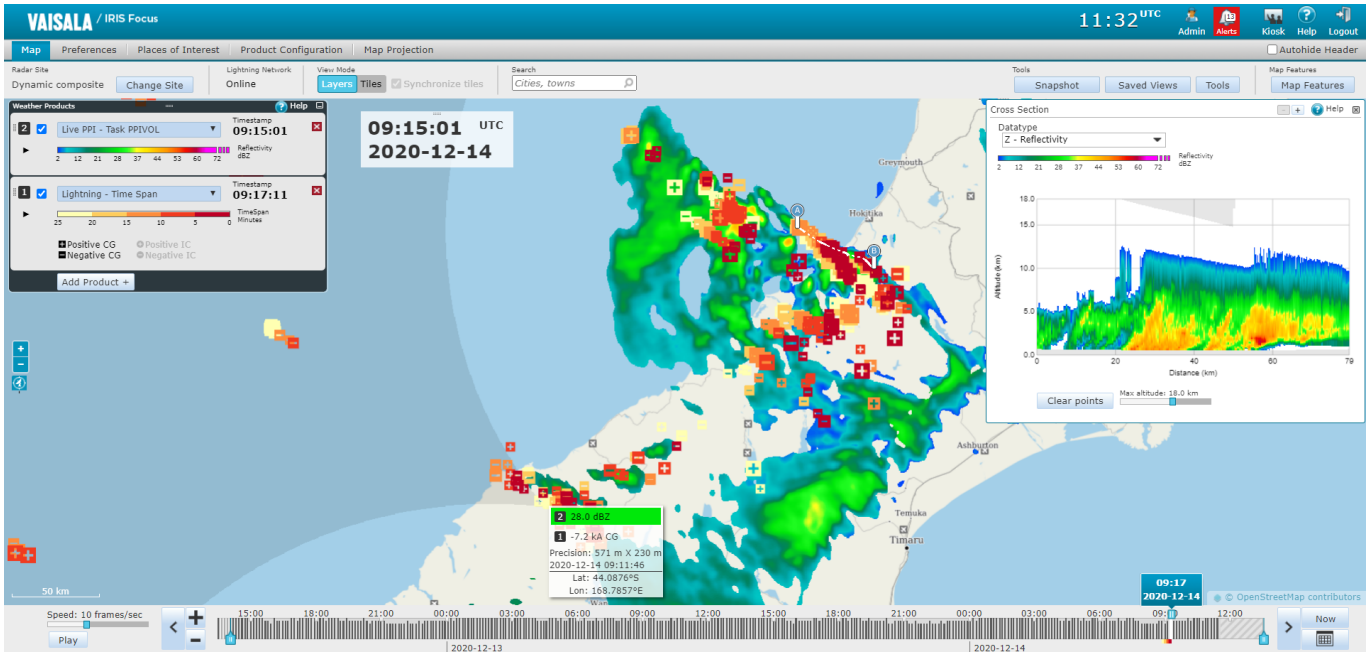
IRIS Focus

Remote Sensing Application Software



Weather radar data: courtesy of Meteorological Service of New Zealand Ltd. Lightning data: courtesy of Transpower New Zealand Ltd.

Features

- Web-based application
- Easy-to-configure events and alerts
- On-demand data regeneration at high resolution
- Tested and audited with the latest security standards

IRIS Focus Remote Sensing Software provides a rich set of unique tools for viewing and analyzing your weather data from various sources: weather radars, lidars, and lightning networks. IRIS Focus helps you better understand storms for quicker decisions and more accurate precipitation classification.

IRIS Focus weather products

Weather products are graphical representations of the data captured by the remote sensing devices, such as weather radars, lightning networks, and lidars.

On-demand products are based on raw data from the IRIS back-end systems (IRIS - Interactive Radar Information System and/or TLP - the Total Lightning Processor). IRIS Focus processes this data and generates on-demand products in real time. On-demand products provide control over the presentation of this data.

You can combine data from several remote sensing devices into composites to provide an expanded area of coverage.

Integrated weather data visualization

Integrated data from various sources enables you to better understand storms and other weather phenomena for more accurate forecasts and earlier alerts.

Radar-based nowcasting

Nowcasting performs advection calculations on motion data from radar products to predict weather movement and severity up to 2 hours in the future.

Lightning Network Health

With the Network Health product, you can visualize the performance of the lightning sensor network.

Events and alerts

IRIS Focus can provide alerts for weather phenomena, such as the approach of a severe storm, turbulence, or flood potential for user-defined areas of interest. This feature is available for radar products.

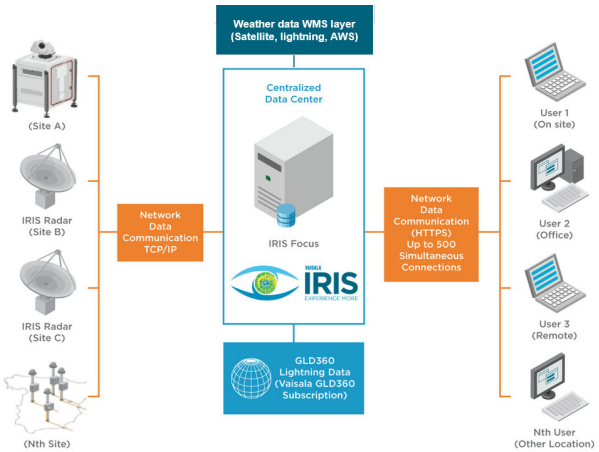
Customizable map view

The map view can be customized by adding WMS layers from external sources, such as satellite images or radar data from external radar networks.

Technical data

Network requirements

Communication from IRIS Analysis and the TLP to IRIS Focus		
Network data transfer	>100 Mbit/s (1000 Mbit/s recommended)	
Communication from IRIS Focus to IRIS Analysis and the TLP		
Single user (1 seat)	Network data transfer	> 650 kbit/s
	Latency	~150 ms
Multiple simultaneous users	5 seats	> 3.5 Mbit/s
	10 seats	> 7 Mbit/s
	20 seats	> 14 Mbit/s



IRIS Focus in Remote Sensing Networks

Hardware requirements

Minimum	Recommended[1)]
• Modern 4-core CPU (Intel Xeon E5 series or similar) • 24 GB RAM [2)] • 1 TB HDD • 1400 x 1050 minimum screen resolution	• Modern 8-core CPU (Intel Xeon E5 series or similar) • 32 GB RAM • 2x 1 SAS TB HDD in RAID 1 configuration • 1920 x 1200 screen resolution

1) The pre-installed IRIS Focus system delivery option uses the Dell PowerEdge R440 rack server unit, which meets the recommended hardware setup.
2) For a small installation with only a few users, 16 GB of RAM is sufficient.

Software requirements

Browser	IRIS Focus supports current Microsoft Edge®, Mozilla Firefox®, and Google Chrome™ browsers.
Operating system	CentOS 7
IRIS Analysis	IRIS 8.13.6 or later. IRIS Analysis provides radar products through a proprietary socket server connection.
TLP	TLP 1.2.7 (CentOS 8)

Weather products

On-demand product	Weather product
✓	**BASE** Echo Base
	BEAM Antenna Beam Pattern
✓	**CAPPI** Constant Altitude PPI
	HMAX Height of Maximum Intensity Product
	LAYER
✓	**MAX** Maximum Data
	MLHGT Melting Level Height
	MVF Motion Vector Field
	Network Health Lightning network performance
✓	**PPI** Plan Position Indicator
	RAIN1 Hourly Rain Accumulation
	RAIN-N N-Hour Rain Accumulation
	RHI Range Height Indicator
	RTI Range Time Indicator
	SRI Surface Rainfall Intensity
	SHEAR Wind Shear
	SLINE Shear Line (frontal boundary)
✓	**THICK** Echo Thickness
✓	**TimeSpan** Lighting event evolution
✓	**TOPS** Echo Tops Map
	VAD Velocity Azimuth Display
	VIL Vertically Integrated Liquid
	VVP Velocity Volume Processing
	WARN Warning/Centroid
	WIND Wind Speed and Direction

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Published by Vaisala | B211811EN-B © Vaisala 2021