RFsentry™

SOPHISTICATED SPECTRUM MONITORING CAPABILITY

RFsentry grew out of our extensive experience providing customized spectrum monitoring systems.

RFsentry is perpetually adaptable to fulfill specific customer requirements. The fixed or portable setup satisfies the need for real-time automated spectrum monitoring and management of the electromagnetic environment. Users can track spectrum use, recognize changes or anomalous signals, and identify potential sources of transmissions, unintentional interference, or jamming.

CAPABILITIES

RFsentry uses a combination of antennas, receivers, interfacing hardware, and customized software developed by HII. After installation the system is expandable to address new or changing mission requirements.

The system conducts long-term continuous monitoring and reporting of the spectrum or performs short-term characterizations of the RF environment. The system allows for 24/7 unattended operations for monitoring and evaluating the spectrum, with remote access control and notification. It can store data for retrieval and analysis using signal playback, spectrum plots, and signal correlation with frequency assignment databases. RFsentry notifies users to threshold violations as they occur and allows for ML algorithms to detect unusual EM activity and classify signals based on characteristics.

FEATURES

- Intuitive user interface and controls
- Identifies and classifies the nature and severity of intentional or unintentional electromagnetic interference
- Allows traversing through historic trace records
- Extracts key signal characteristics
- Multiple notification options and criteria
- Determines signal direction of arrival
- Stores signal data for post analysis
- Locate and identify signals of interest
- Adaptable to customer infrastructure
  - » Portable version does not require infrastructure and is easy to quickly set up and take down in a wide range of environments
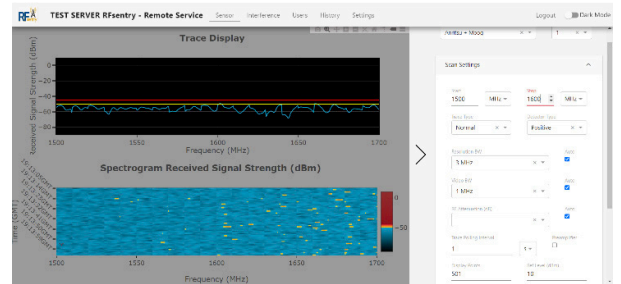
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ADVANCED SPECTRUM MONITORING

Once we've determined the best path forward, our engineers work directly with each customer to implement and integrate the appropriate solution for each activity to optimize your cloud environment for cost and performance, while maintaining continuity of operations.

INTUITIVE USER INTERFACE

- Default view contains a spectrum graph, detected energy signals, and azimuth chart key signal characteristics such as frequency, amplitude, and bandwidth
- Main menu allows user to control keys functions
- Set threshold mask to receive signals of interest based on user-defined criteria
- Automated notifications of threshold violations as they occur or when signals meeting user-defined criteria are detected

CUSTOMIZED AUTOMATED SOLUTION

- Permits control of the spectrum monitoring service and provides reporting and visualization of the RF signals detected
- Central dashboard application offers an at-a-glance summary of all sites and the status of the RF environment with color codes that indicate the level of severity
- Detailed view for each monitoring station shows individual
- interference event data for a specific site
- Visualization and archival backup of interference data
- Features secure login with configurable user permissions for different levels of access
- Stores signal records collected overtime for post analysis

CLOUD SERVICE

- Central dashboard offers an at-a-glance summary of all sites
- Status of the RF environment displayed with color codes indicating levels of severity
- Detailed view each monitoring station shows individual interference event data for a specific site
- Provides reporting and visualization of the RF signals detected
- Visualization and archival backup of interference data
- Features secure login with configurable user permissions for different levels of access

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