

In-Building System Monitoring

Ubiquitous coverage

It's the objective of all wireless operators. Seamless connectivity no matter where, no matter when. Unfortunately, existing RF technology requires service providers to complement the coverage of large corporate, retail—and even residential—buildings with additional infrastructure to ensure a quality customer experience.

Corporate users represent a rising percentage of premium subscribers who demand access to their business-critical voice and data content. This demand is often contractually binding through Service Level Agreements (SLA). Churn at this level can be extremely costly and consequently, monitoring and maintenance of this important sector is crucial.

A Solution That Keeps You One Step Ahead

Reacting to potential network issues before the customer experiences performance degradation is integral to providing quality corporate service. Kentrox offers a complete solution for remote supervision of in-building infrastructure and the related customer experience. The result is that quality-conscious service providers have the means to acquire, measure, and retain key corporate accounts while minimizing unnecessary—and costly—site visits.

In-building Infrastructure Monitoring

Bi-directional amplifiers, repeaters and distributed antenna systems (DAS) are used to extend coverage for wireless service providers within offices, retail centers, and buildings suffering from less than ideal service for wireless handsets, PDAs and data cards.

The Kentrox In-Building System Monitoring solution gives wireless service providers a centralized multi-vendor alarm collection system and an economical method to verify the operational status of deployed infrastructure.

Quality of Experience Monitoring

Monitoring the RF system availability is the first step to ensuring satisfied customers, but what about the performance delivered over the RF infrastructure? How do you measure the user's Quality of Experience (QoE)?

The Kentrox In-Building System Monitoring solution provides an operational view of a corporate subscriber's network service experience. The Kentrox solution initiates and monitors web-browsing, file downloads, or SMS services via an integrated 1x/EVDO-capable phone module.

The results are captured and immediately delivered as:

- Key Performance Indicators (KPIs) to performance personnel for analysis
- Troubleshooting data to operations technicians
- Service quality management applications for correlation with other network-centric statistics

For example, if data throughput dips below a pre-configured, customer-specified threshold, technicians, support personnel and the NOC can be immediately notified.

Troubleshooting capabilities allow authorized users to perform on-demand tests or to schedule hourly, daily and weekly tests that provide the basis for unparalleled remote visibility.



Data service test results are stored and can be shared with other authorized personnel, including:

Connectivity Measurements: Ensures integrity of the end-to-end path between the phone and a desired network location such as a corporate file server.

Data Throughput Measurements: Ensures the loading of web pages, applications and files meet key quality objectives and customer expectations.

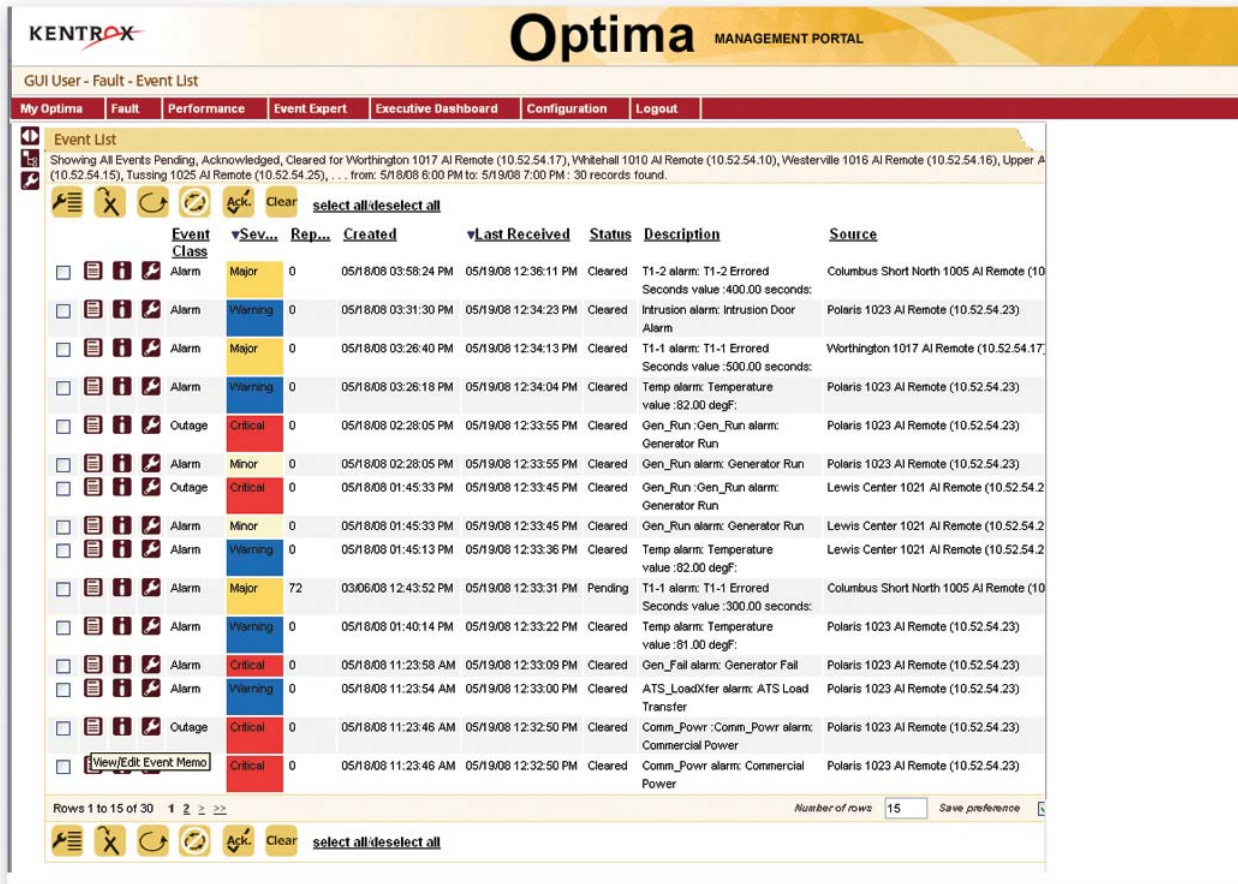
Pilot Strength Measurements: Ensures the optimal power configuration. Used in RSSI calculations to determine the number of coverage 'bars' seen on a subscriber's handset.

Scalability and Access

The Kentrox In-Building System Monitoring solution is comprised of two technology innovations:

Extend PDM (not shown): a cost-effective platform that provides a centralized multi-vendor alarm collection point.

Optima: an operations management console accessed from the regional operations center, MSC and/or a mobile laptop computer, which centralizes alarm status and provides bi-directional control of RF availability and data quality testing. Optima will host applications to provide several additional remote site management functions.



Optima screenshot showing event fault list

For more information, visit www.kentrox.com, email info@kentrox.com, or call **800-733-5511 (US)**, **+1 614-798-2000 (outside US)**.