



# Network Center

## Data sheet

### NEXT-GENERATION NETWORK MANAGEMENT SYSTEM

Network Center manages network infrastructure for Itron solutions such as Advanced Metering Infrastructure (AMI), Distribution Automation (DA) and Streetlights. Network Center is built on a highly scalable, secure and modular architecture that is easily extensible to connect an ecosystem of Internet of Things (IoT) devices and to interoperate with other management systems.

Itron smart grid networks already connect more than 22 million devices. The rapid increase in new intelligent device types such as smart street lights, smart gas meters and smart water meters can create new challenges for utilities and cities. As utilities and cities begin to add these new devices to their existing Itron networks, there will be a significant increase in network traffic and higher demand for current network resources such as bandwidth, memory and CPU.

Network Center combines network management best practices and visual intelligence to ensure a streamlined infrastructure for your smart grid. Users can view the data to diagnose issues and run commands to monitor devices and execute configurable event policies for efficient and secure handling of important network events.

### END-TO-END VIEW OF THE NETWORK

Network Center provides an end-to-end view of the network embedded on Google Maps. This view includes:

- » Neighboring devices
- » Data and control path of the traffic from Access Points (AP)s to endpoints
- » Routing tree of the AP
- » Received signal strength (RSSI) from the neighboring device at every hop
- » The total number of hops between an endpoint and an AP
- » The total sum of link costs for data from an AP to reach a device

### RICH DIAGNOSTICS

Network Center offers fine-grained troubleshooting features that can be exercised either at an individual device level or across a large number of devices. These features help network operators to:

- » Narrow the area of concern, whether is in on a single device or a range of devices
- » Perform root-cause analysis
- » Identify the necessary corrective action



Network Center shows the number of available devices during a given time period.

## EVENTS AND ALERTS

Network Center's flexible alert configuration policies let you configure important network events driven by both static and dynamic thresholds. These thresholds can be set based on a variety of conditions, including:

- » WAN bandwidth utilization
- » Device availability
- » Events at network devices

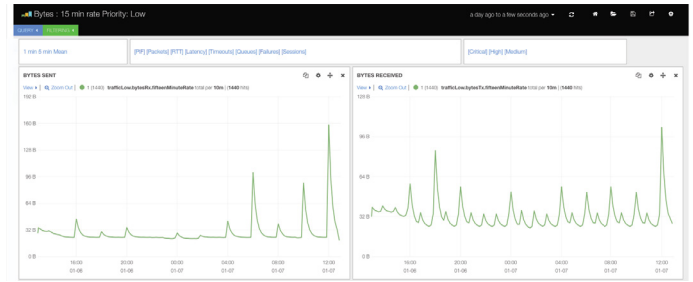
When a threshold is violated, Network Center can generate an SNMP trap syslog message that can be processed by a higher level management system.

## HISTORICAL DATA ANALYSIS

Network Center displays historical data about routes used, AP availability and count of devices for which an AP was the primary or the secondary AP.

## PERFORMANCE MANAGEMENT

All events and statistics reside in Network Center's database for easy access, with the ability to sort the output and export it to standard comma-separated values format. Network Center provides predefined system-wide key performance reports to monitor, diagnose and troubleshoot device and administrative issues in your network. It also provides simple dashboards that display statistical information and metrics for an easy-to-interpret visualization, allowing performance issues to be judged strictly by metrics or by relative inconsistency across devices.



A query shows the number of bytes sent and received.

## GATEWAY STATISTICS

Network Center also acts as a front end for Gateway, another key component of the Itron GenX Control Platform. Network Center interacts with Gateway to gather and display key traffic statistics such as queue length at each AP, packets by priority, latency and timeouts. These statistics help network operators to observe and predict network behavior when traffic from multiple applications are criss-crossing the network.

## RECOMMENDED HARDWARE CONFIGURATION

The following table shows the hardware configuration for running Network Center to manage a network with 2.5 million endpoints.

Server and IOPS Specifications	2.5M Devices (Medium Deployment)
Processor	8-core Intel® Xeon® CPU ES-2630 @ 2.3GHZ
Memory	64 GB
Storage	2 TB*
IOPS	500/sec
Supported Browsers	Firefox Internet Explorer 11

\* Storage requirements could be higher, depending on the number of devices.



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