

# RUCKUS® SmartCell® Insight

Comprehensive reporting and dashboards for RUCKUS enterprise networks



## DEPLOYMENT OPTIONS

- Virtualized on-premises (Hyper-V™, VMware® or KVM)
- Customer-managed cloud deployment (Microsoft™ Azure™, Amazon™ Web Services™, Google Cloud Platform™)

## BENEFITS

- Delivers visibility into your RUCKUS® network
- Accelerates network troubleshooting for faster problem resolution
- Aids in capacity planning

Users and devices place ever-increasing and often unpredictable demands on the wired and wireless network. BYOD brought one wave of device proliferation, and IoT is bringing another.

More devices and data-intensive applications inevitably mean more traffic than ever before on your RUCKUS® network. IT teams need ready access to detailed network intelligence to meet high end-user expectations for network service levels. RUCKUS SmartCell® Insight is software that delivers powerful reporting, informative dashboards and query capability for RUCKUS wireless and switching deployments. It helps enterprises and service providers manage the network more effectively and improve user experience.

## Wired and wireless network intelligence

The software provides wired and wireless network intelligence by collecting and aggregating data from applications, devices, access points, controllers and switches. IT teams get a single unified repository for data related to operation of their RUCKUS deployment. The massive database in SmartCell Insight stores three years of historical data for up to 100,000 wireless access points and millions of clients. A high-performance reporting engine retrieves large data sets quickly and easily, and intuitive data visualizations help you interpret the information gathered.

SmartCell Insight aids in capacity planning by helping you identify which access points are over- and under-used. It also helps identify the root causes of lapses in service levels. Ready access to detailed network intelligence saves you time. You can focus on strategic priorities rather than day-to-day network service problems.

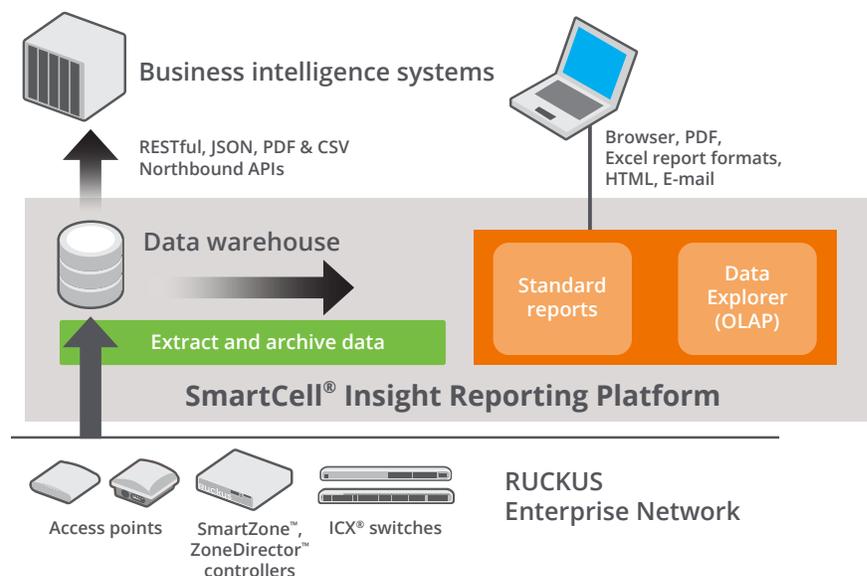


Figure 1. SmartCell Insight architecture diagram

## Insight into network operations with standardized reports

A wide variety of standardized reports provides visibility into network performance, traffic patterns, application usage and more. Summary views provide high-level information, and you can easily drill down to granular detail at the level of individual network components and devices. Examples of standardized reports include:

- **Device activity**—client profile, client health, number of sessions, number of unique devices, traffic by application, session bytes transferred and leading traffic generators
- **Network operations**—operational status of network elements
- **Inventory**—switches, WLAN controllers, access points, clients, sessions and more
- **Traffic**—access point traffic and top APs by traffic volume
- **AP-specific dashboard**—complete visibility into health and performance
- **Client-specific dashboard**—roaming patterns, connectivity status and quality of service metrics

The software lets you export reports as raw data, a PDF file or a CSV file. Run reports on demand or schedule them to run at pre-defined intervals for delivery by email. Forward the results to stakeholders inside or outside the organization.

## Customizable dashboards with Data Explorer

The SmartCell Insight Data Explorer tool lets you create customized dashboards for on-the-fly insight into your network ecosystem. Drag-and-drop report creation makes it easy to design views tailored to your needs. You can easily position and reposition dashboard tiles, edit tiles at will and toggle between different views. Filter data by a wide variety of attributes—including device, traffic type, application type, controller, access point, band and SSID. You can view data in a pivot table, grid, line chart, bar chart, heat map chart and more. Data Explorer also gives you the power to flexibly explore your entire warehouse of network data.

## Network anomaly detection

SmartCell Insight automatically establishes a normal behavior envelope for each network element. The system requires no input from IT. It automatically detects anomalous behavior in network elements—thereby enabling IT to proactively address potential service-affecting issues.

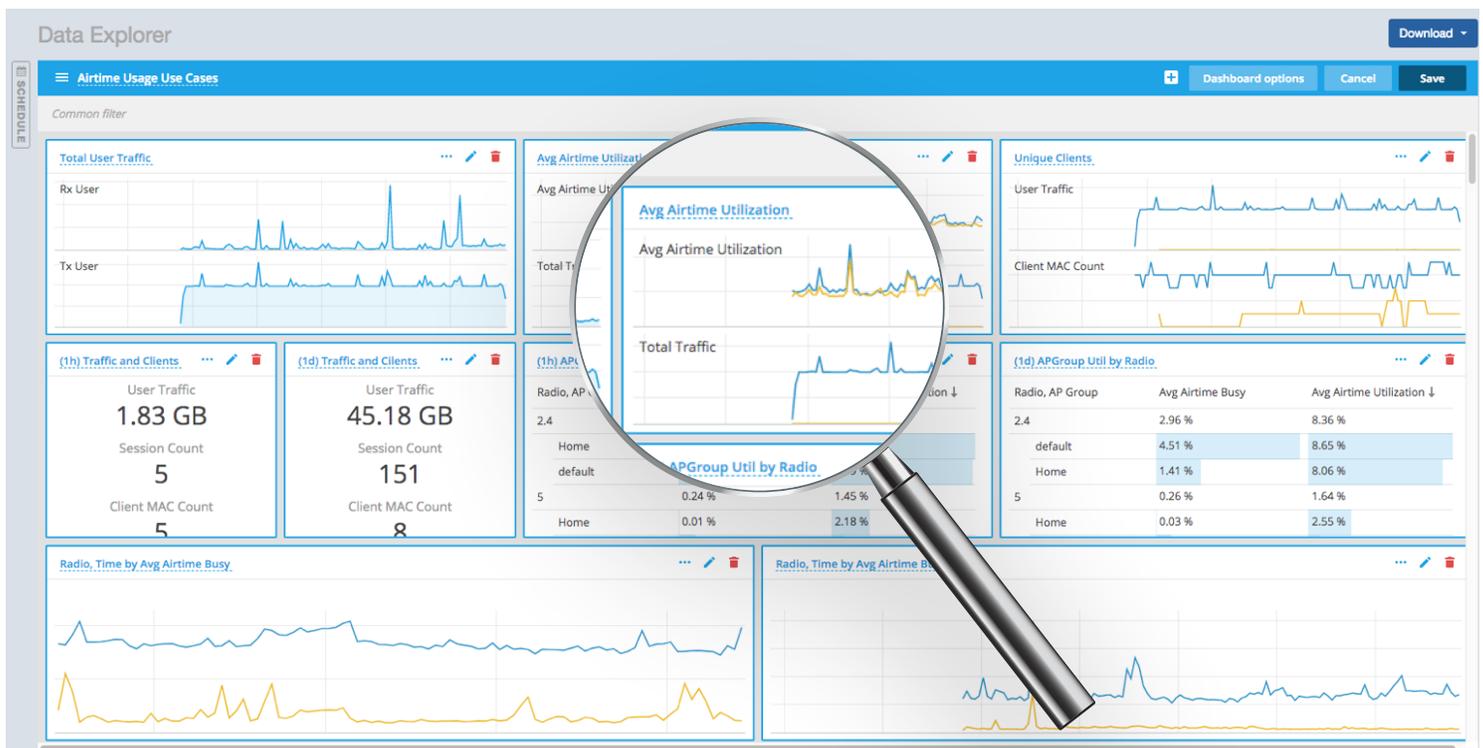


Figure 2. Use the SmartCell Insight Data Explorer tool to create custom views tailored to your requirements.

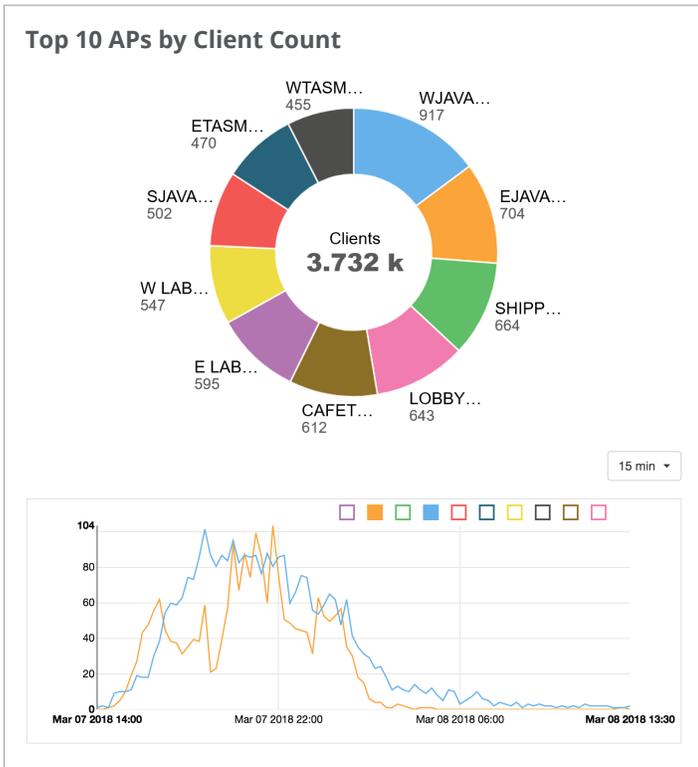


Figure 3. A variety of standard reports provide valuable network intelligence out of the box. This report shows top access points by client count.



Figure 4. SmartCell Insight provides a variety of standard summary views with drill-down capability.



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PA-115138-EN (11/20)

## Virtualized deployment

You can deploy the software on-premises in a virtualized environment using VMware, Hyper-V or KVM. You can also deploy as a cloud-based instance on Microsoft Azure, Amazon Web Services or Google Cloud Platform.

## APIs for easier integration

SmartCell Insight has a comprehensive set of northbound JSON RESTful APIs that let it easily integrate with a wide range of other platforms. Every chart and table in the standardized reports comes with a corresponding JSON API. The software also provides a user-friendly API Explorer GUI that lets you quickly test out and understand the syntax and parameters for each API endpoint.

## Technical specifications

### Virtual machine specifications

	Master node	Data node
vCPU	8	4
Memory	32 GB	20 GB
Root HDD	80 GB	80 GB
Secondary data HDD	500 GB	500 GB

Required data storage is 1 GB per 1,000 access points per day.

### Hardware requirements

	Number of access points supported			
	ZoneDirector™ (APs)	SmartZone™ 3.4 or earlier	SmartZone 3.5 or later (15-minute granularity)	SmartZone 3.5 or later (3-minute granularity)
Master data node	3,000	3,000	3,000	1,000
Each additional data node	10,000	10,000	5,000	3,000

SmartCell Insight installation requires a minimum of one master data node. Add data nodes as needed to support larger RUCKUS WLANs. A master node can control up to 20 data nodes in an SCI cluster.

### Ordering information

Model SKU	Description
L09-SCIP-WW00	SmartCell Insight VM application license rights
L09-001-SCIW	SmartCell Insight one AP service license