RUCKUS™ SMARTCELL™ INSIGHT
Comprehensive Wireless Network Reporting and Data Analytics

RUCKUS — an ARRIS company

DATA SHEET

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 and insight into your wireless deployment with comprehensive network intelligence
- Automates network anomaly detection, saving IT time and accelerating problem remediation
- Reduces costs by letting you make the most of existing infrastructure

FEATURES

- Pre-packaged and customizable reports, dashboards and correlations
- Granular drill-down capability—to the level of individual sessions, clients and access points
- Predictive analytics powered by machine learning
- Three-year data storage capacity for up to 100,000 access points and millions of clients
- Open APIs for integration with network management and business intelligence systems

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

More devices and data-intensive applications inevitably mean more Wi-Fi traffic. IT teams need ready access to detailed network intelligence to meet high end-user expectations for wireless service levels. Ruckus SmartCell Insight is software that delivers powerful reporting and predictive analytics for Ruckus wireless LAN deployments. It helps enterprises and service providers manage the wireless network more effectively and improve user experience.

COMPREHENSIVE WIRELESS NETWORK INTELLIGENCE

The software provides comprehensive network intelligence by collecting and aggregating data from applications, devices, access points and controllers. IT teams get a single unified repository for data related to operation of their wireless 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 visualization charts 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 to identify the root causes of lapses in service levels. Detailed wireless network intelligence saves you time with ready access to wireless network data. You can focus on strategic priorities rather than day-to-day wireless service problems.
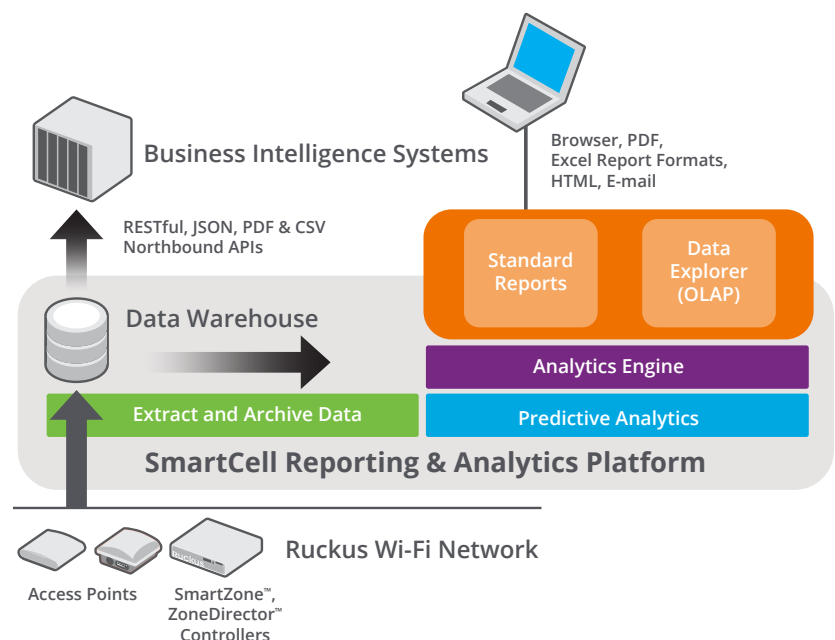

Business Intelligence Systems

Browser, PDF, Excel Report Formats, HTML, E-mail

RESTful, JSON, PDF & CSV Northbound APIs

Standard Reports

Data Explorer (OLAP)

Data Warehouse

Analytics Engine

Extract and Archive Data

Predictive Analytics

SmartCell Reporting & Analytics Platform

Ruckus Wi-Fi Network

Access Points

SmartZone™, ZoneDirector™ Controllers

Figure 1. SmartCell Insight Architecture Diagram

DEEP INSIGHT 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:** 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 Wi-Fi 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

The SmartCell Insight Data Explorer tool lets you create customized dashboards for on-the-fly insight into your wireless 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 or heat map chart.

PREDICTIVE ANALYTICS

Machine learning algorithms automatically establish a normal behavior envelope for each network element. The system requires no input from IT. Predictive analytics automatically detects anomalous behavior in network elements—thereby enabling IT to proactively address potential service-affecting issues.

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.
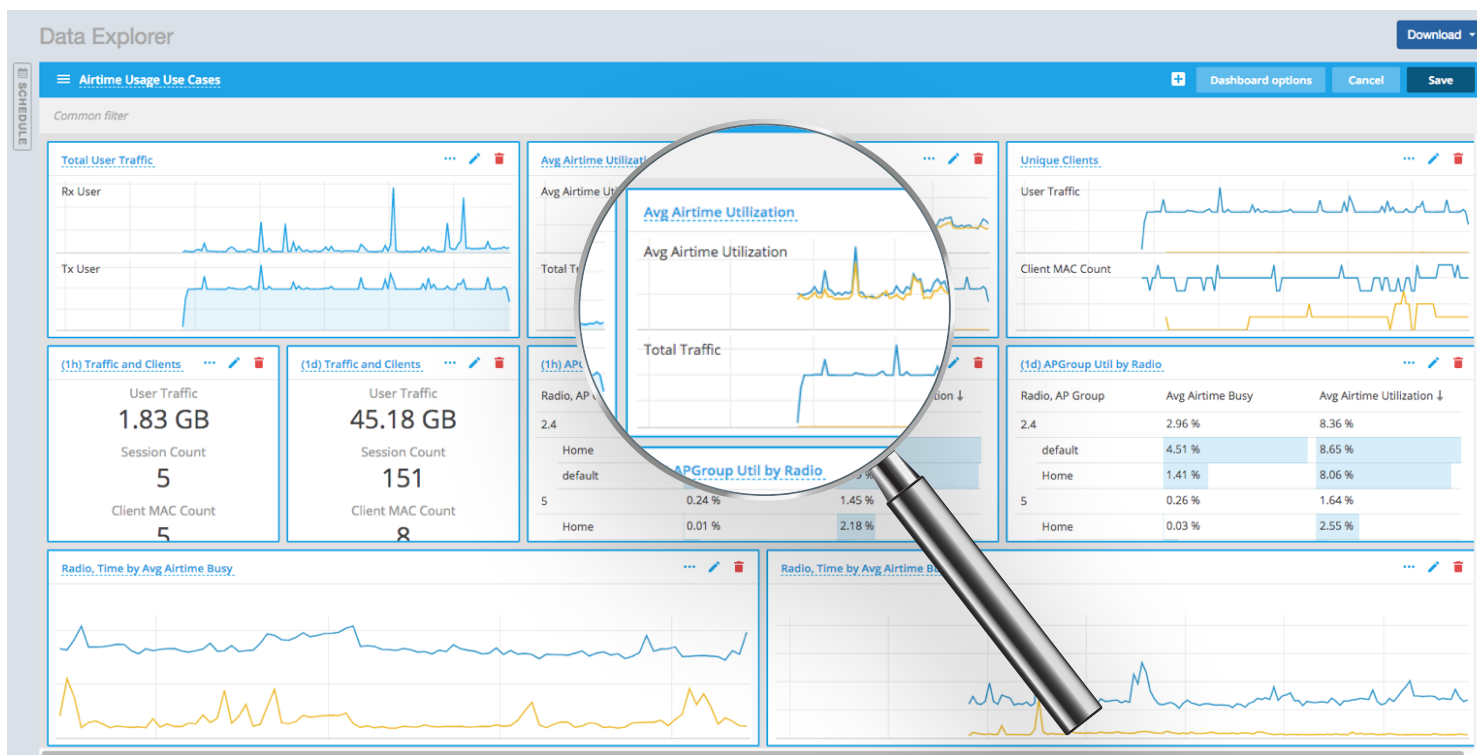

Figure 2. Use the SmartCell Insight Data Explorer tool to create custom views tailored to your requirements

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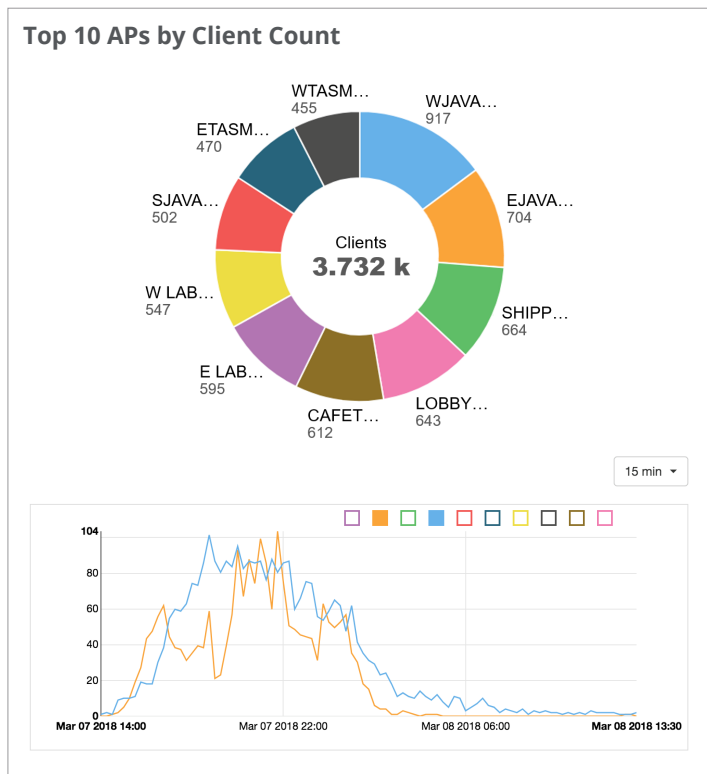
Top 10 APs by Client Count

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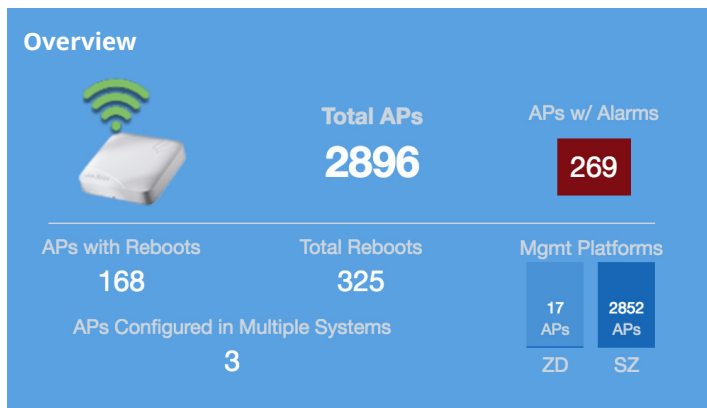

Figure 4. SmartCell Insight provides a variety of standard summary views with drill-down capability

TECHNICAL SPECIFICATIONS

Virtual Machine Specifications

	MASTER NODE	DATA NODE
vCPU	8	4
Memory	32GB	20GB
Root HDD	80GB	80GB
Secondary Data HDD	500GB	500GB

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

Hardware Requirements

	NUMBER OF ACCESS POINTS SUPPORTED			
	ZoneDirector	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 addition data node	10,000	10,000	10,000	3,000

SmartCell Insight installation requires a minimum of one master data node. Add additional data nodes as needed to support larger Ruckus WLANs.

Ordering Information

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