



data sheet

SPoT THE BENEFITS:

Retail

Analyze marketing and merchandising effectiveness, shopper trending and improve customer engagement and Q buster features such as real-time heat-map views for floor managers

Hospitality

Improve loyal customers' satisfaction with on-device features such as auto check-in, way-finding, and instant coupons for amenities

Transportation Hubs

Enhance traveller experience with intuitive on-mobile engagements; improve efficiency of the entire venue or sub-zones with real-time heat maps, statistical footfall and dwell-time data. Track passenger wait time and manage platform passenger congestion

Shopping Malls

Identify areas of heavy usage, improve traffic flow, engage customers with way-finding and contextual coupon serving

Healthcare

Accurate location data provides asset tracking, indoor navigation, and personnel locations. Track patient wait times to improve patient services

Education

Tracks assets such as tablets. Navigate guests and students around campus

Ruckus SPoT™ Smart Positioning Technology

INDUSTRY'S MOST FLEXIBLE SMART WI-FI POSITIONING SERVICE

Ruckus Smart Positioning Technology - SPoT™ - combines unique advantages, including options for both public and private cloud-based services, and a choice of location metrics with either SPoT Point (drop-pin) or SPoT Presence (proximity). Enterprise or Managed Service providers can use the SPoT APIs to incorporate location data into their own applications. A robust ecosystem of partners provides additional leverage of SPoT for applications in retail, transportation, entertainment and other vertical markets.

Ruckus SPoT™ can be purchased either as a cloud-based subscription service or as Virtual SPoT [vSPoT], a virtualized instance of the service deployed on-premise. vSPoT works with VMWare to deliver presence or location services from Enterprise or Service Provider data centers.

Both versions of SPoT include Engagement APIs — a set of APIs to power a new generation of mobile apps, giving them "Location Intelligent" features such as the ability to locate users and engage or send them highly targeted messages in any venue enabled with Ruckus Smart Wi-Fi and Ruckus SPoT.

Both versions of SPoT offer two levels of service.

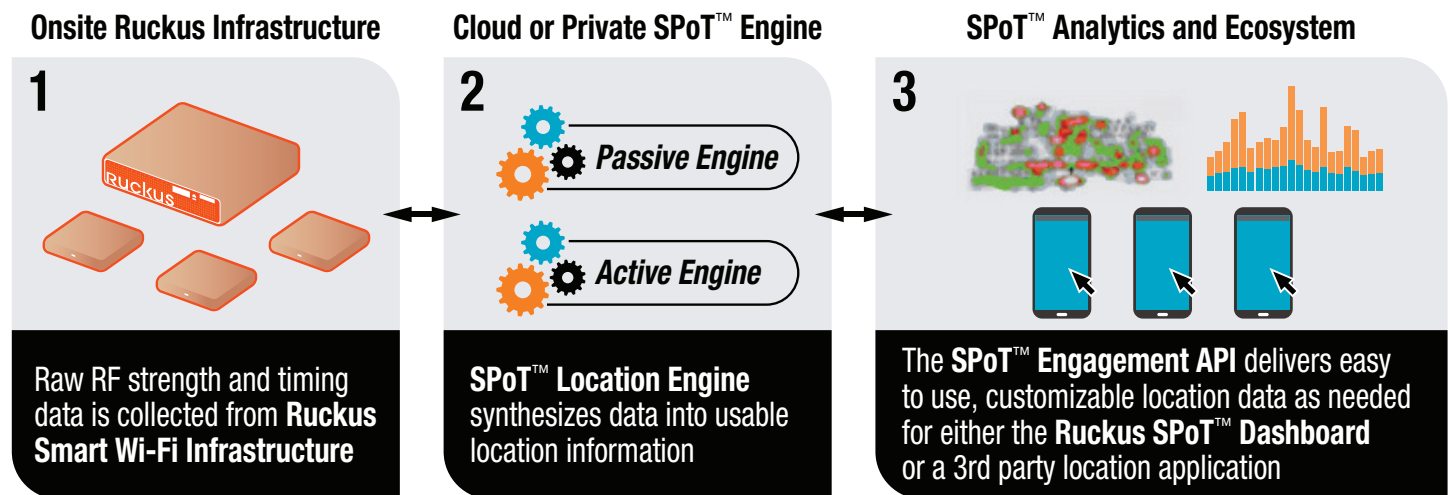
- **SPoT Point** can pinpoint client locations in real time with a granularity of 5-8 meters accuracy with a calibrated venue. In addition, SPoT Point has a calibration-free mode which supports ~10 meters accuracy without the requirement of venue calibration.
- **SPoT Presence** services provide venues with low access point density with footfall analytics and device positioning at proximity accuracies.

Ruckus SPoT™

Smart Positioning Technology

HOW IT WORKS

Using RF fingerprinting, Ruckus SPoT is capable of better pinpointing the location of devices, depending on the number and density of access points used.



SPoT Key Advantages

- Virtually unlimited scale for device positioning
 - True cloud architecture allows a citywide SPoT deployment, the largest train station or busiest airport—half a million device count per day or per week
- True real-time positioning
 - Dynamically selectable update intervals allow up to per-second positioning
- Listens to probes and data packets—higher probability to locate a device
- Multi-venue single dashboard
- Up and running within a day for any venue size
 - Built-in mapping, mobile app for on-site provisioning/testing, minimal configuration on controller

SPoT Ecosystem

Ruckus offers the SPoT Location Ecosystem, a program for third party mobile and analytics application developers, including service provider, enterprise, and consumer applications. Ruckus SPoT provides an open API set for the delivery of comprehensive, accurate and up to near-real-time location information to enable services such as Presence or SPoT Point for better customer insights, and enhanced user engagement and experiences on mobile apps. Ruckus SPoT Location Ecosystem partners include location analytic companies such as Euclid and SkyRove, and mobile application development partners including companies such as: Phunware, RaGaPa, FrontPorch, Sanginfo, PurpleWi-Fi, TechStudio, ITC Infotech, AisleLab, Smartac and Entropy.

Ruckus SPoT™

Smart Positioning Technology

Features and Supported Platforms

Features and Supported Platforms	<ul style="list-style-type: none"> • All Zone Director and RuckOS platforms (SmartZone series, SCG200 and virtualSCG controllers) support SPoT™ • All ZoneFlex 802.11n/ac APs supported • Min OS version supported: Zone Director 9.8 or RuckOS 3.0
SPoT Location Engine (cloud-based)	<ul style="list-style-type: none"> • Web scale Service running in the cloud • Cloud scaled to support virtually limitless venues and customers • Secure connectivity to downlink ZD/AP • Secure RESTful API support for north-bound eco-system solution integration • Both SPoT Point and SPoT Presence available • Create Your Own Maps allows for simple map creation and map updating. Maps can be created within minutes. • Accuracy enhanced by client RSSI and venue RF fingerprinting methodology • SPoT Point with 5-8m accuracy expected, with 90% confidence (venue specific dependencies such as types of venue, AP placement and AP density will impact overall system accuracy) • Engine algorithms are enhanced continuously to improve accuracy and efficiency
vSPoT (customer hosted)	<ul style="list-style-type: none"> • Uses VMWare Vsphere version 5.x or higher. • vSPoT is dependent on user hardware. It supports single venue deployments in it's first release. • Secure connectivity to downlink Controller and AP • Secure RESTful API support for north-bound eco-system solution integration <ul style="list-style-type: none"> - Both Point and Presence available - Create Your Own Maps allows for simple map creation and map updating. Maps can be created within minutes. • SPoT Point with 5-8m accuracy expected, with 90% confidence (venue specific dependencies such as types of venue, AP placement and AP density will impact overall system accuracy) • Engine algorithms are enhanced continuously to improve accuracy and efficiency
Analytics features	<ul style="list-style-type: none"> • Footfall traffic visualization via heat-map, by zone, by floor, by venue • PRESENCE—Presence will display clients to be positioned at the nearest AP. Heat map will appear as red spots around an Access Point . Each Access Point is considered as a Zone and footfall in that Zone can be tracked individually • View hourly, daily, weekly and monthly views & data up to 2yrs • Instant heat-map (per-minute, auto-refreshed) & Total footfall counter • Repeat vs. new counter • Repeat count distribution • Average dwell time and dwell time distribution
Supported APIs	<ul style="list-style-type: none"> • Venue, Zones, floors information access • Wi-Fi client location data in, timestamp, zone-info, in/out • RSSI readings
Mapping of the Venue	<ul style="list-style-type: none"> • Maps can be created by using any map image (jpg, jpeg and png format)
Calibration of the venue	<ul style="list-style-type: none"> • Optional one-time calibration of the venue is available to train the location engine for higher accuracy location calculation. This optional calibration process is completed using a freely available Ruckus SPoT mobile app for Android and iOS devices.
Security and privacy	<ul style="list-style-type: none"> • All data is encrypted end-to-end: south-bound between controller/AP and SPoT engine, and also between SPoT engine and analytics/mobile app APIs • Customer has option to hash the PII data (MAC address)
Cloud Service	<ul style="list-style-type: none"> • Cloud service hosted by world-leading IAAS vendors • Data center presence around the world