

FlexMaster™

First Global Wi-Fi Managed Service Platform
for Enterprises and Service Providers

Complete Management Platform Enabling Enterprise and Carrier-Grade Wi-Fi Service Infrastructure

The Ruckus FlexMaster Management System (9.0) is a comprehensive Wi-Fi management platform for building and managing enterprise and carrier-grade Wi-Fi service infrastructures.

FlexMaster is a fully-featured, intuitive Wi-Fi management platform for all sizes of enterprises. FlexMaster enables network administrator to perform all critical functions necessary to set up, maintain, and optimize the deployment of their business Wi-Fi networks all from a single point.

Ideal for carriers, multi-service operators, and broadband providers looking to monetize Wi-Fi services, FlexMaster offers tiered administration, making it the perfect platform for offering managed WLAN service or cloud-based WLAN management services. This allows end customers to remotely view, securely control, easily manage and automatically configure only their network infrastructure and assets.

Designed for simplicity, FlexMaster provides a unique collection of automated and customized facilities not found in other management platforms such as an automated and customized super dashboard, trending reports and customized graphs, detailed client data for planning and troubleshooting and comprehensive events management.

Fitting seamlessly into existing operational support systems (OSS), FlexMaster uses industry-standard protocols to manage Wi-Fi service infrastructures. It provides a comprehensive set of capabilities for configuration, fault detection, performance management, and reporting of Ruckus Wireless ZoneDirectors, ZoneFlex Access Points (APs), and MediaFlex APs. FlexMaster can manage the Ruckus Smart Wi-Fi APs either in standalone mode or via the ZoneDirectors.

FlexMaster allows administrators to view remote environments, bulk configure and manage groups of devices, securely monitor and manage Wi-Fi services.

Easy to install and use, FlexMaster reduces the total cost of ownership by automatically discovering the deployed devices in your network, eliminating the need for tedious remote configuration, troubleshooting, and maintenance.



BENEFITS

Single platform for Wi-Fi service management

Simple to use, install, and deploy Web-based management platform for managing discrete Ruckus Smart Wi-Fi APs or wireless LAN systems

Direct device access and detailed client troubleshooting

Instant and secure access to Ruckus Smart Wi-Fi products as well as detailed client data over the Internet or any private IP network

Comprehensive management

Leverages industry-standard protocols such as SNMP, TR-069, TCP, and HTTP/S for secure communication across the entire network

Carrier-grade scalability

Automatically discover, configure, monitor, and troubleshoot tens of thousands of remote devices

At-a-glance customizable network dashboard

Provides system health overview of events, device connectivity, status of associated clients and much more

Bulk configuration and firmware upgrades

Upgrade individual or groups of Ruckus devices with a mouse click

Sophisticated filtering, searching and grouping

Easily group and manage devices by geography, device type, serial number, and customer

Advanced reporting

Administrators can define, configure, and select a variety of criteria to quickly run detailed historical reports such as device downtime, connected clients, mesh changes at a specified time

Reduce support costs per subscriber

Access to detailed client stats such as connectivity status, signal quality and throughput minimizes need to dispatch support personnel

Hierarchical administration rights

Provides multi-tiered access to the partitioned views of the networks' statistics, status, and reports

Cloud services

FlexMaster lets operators offer managed services from a single platform giving each customer remote visibility and control of their own network elements and network services



Complete, End-to-End, Wi-Fi Service Administration

FlexMaster is the first complete management service platform that lets providers securely control, monitor, and upgrade Smart Wi-Fi systems anywhere in the world, whether over the Internet or a private IP network.

Simple to install, and easy to use with an intuitive look and feel, FlexMaster provides a comprehensive solution for configuration, fault detection, audit, and performance management.

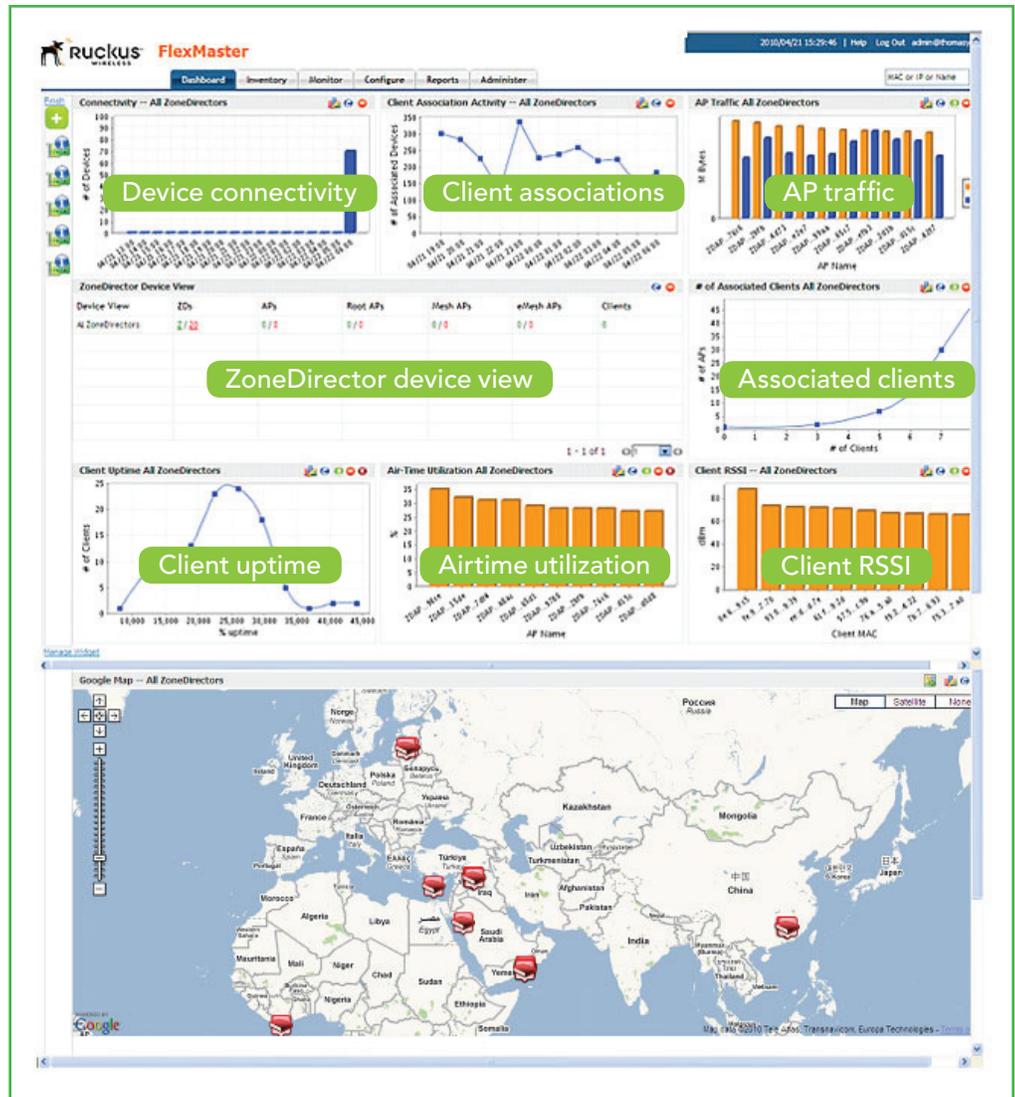
It fits seamlessly into existing network management architectures by leveraging a variety of industry-standard protocols such as SNMP, TR-069, TCP, and HTTP/S. FlexMaster also provides the scalability expected for large scale infrastructures.

Enabling Managed Services

With FlexMaster service providers create unique configuration parameters on a bulk basis, and can load different versions of firmware for each customer. Managed MediaFlex and ZoneFlex devices can be grouped by geographic region, device type, serial number, MAC address range, or client's name.

Multi-tiered access provides a partitioned view for each customer and lets them view statistics, status, and reports related to their Wi-Fi networks. Using the administrator access privilege, the provider can access all of the devices in the management domain. IT managers and providers can create unique Service Level Agreements for each client or department in order to offer revenue generating services.

FlexMaster communicates with Ruckus Smart Wi-Fi systems using industry-standard SNMP, SOAP/HTTP protocols, and takes advantage of TR-069 to establish safe and reliable links between the managed devices and the FlexMaster server. This enables remote access to devices on the LAN that normally might be inaccessible due to



The Google map view lets network administrators see the entire network including mesh access points, mesh links, point-to-point connections and much more.

network address translation issues. Ruckus Smart Wi-Fi APs can also be directly queried by other third-party SNMP or auto configuration server (ACS) systems using TR-069.

Additionally, MediaFlex and ZoneFlex APs automatically reports to the FlexMaster server during initial installation, and at pre-specified periods. The FlexMaster can manually initiate instant communication, or schedule tasks to be performed at an opportune time.

At-a-Glance Dashboard

The FlexMaster Dashboard View provides at-a-glance summary of all of the connected Ruckus Smart Wi-Fi devices that the FlexMaster is managing. The Dashboard View, which is fully customizable, allows for views based on selected criteria such as devices, clients, Google map overview and many more.



Detailed statistics on a per client basis provide comprehensive picture of client health, allowing administrators to perform advanced client troubleshooting and faster problem resolution.

An intuitive Events View gives network administrators a quick reference about the condition of the network. And a detailed event timeline provides trend and historical records of all important events that have occurred over the previous period. The network administrator can easily configure widgets that present what the user wants to see.

Detailed Inventory View

The FlexMaster Inventory view provides a detailed report of all of the Ruckus Smart Wi-Fi devices in the network. Network administrators can easily navigate to any device and drill down for more detailed information.

Integrating with the Google Map application, each of the devices can be geographically displayed on the map to provide a more physical presence to the network administrator. The devices can be tagged into different groups (for example, access points for hot spot chain, access points for hotel chain, access points for Northern City, etc.) to improve the manageability.



FEATURES

- Multi-tiered management access
- Auto discovery of Ruckus devices
- Group configuration of devices
- Relational database
- Manual or scheduled firmware upgrades for selected devices
- Geographic representation of devices on the networks using Google maps
- Customized Dashboard View settings on a per administrator basis
- Trending reports and customized graphs such as packets sent and received by the busiest APs, AP airtime utilization and the APs with the most associated clients.
- Service level agreement graphs and reports that include percentage uptime for AP groups and specific clients, backhaul uptime and client potential throughput.
- Secure access with remote SSL
- Client throughput data such as connectivity throughput, connectivity status, signal quality, etc.
- Connection and association reports
- Audits of user actions and system logs

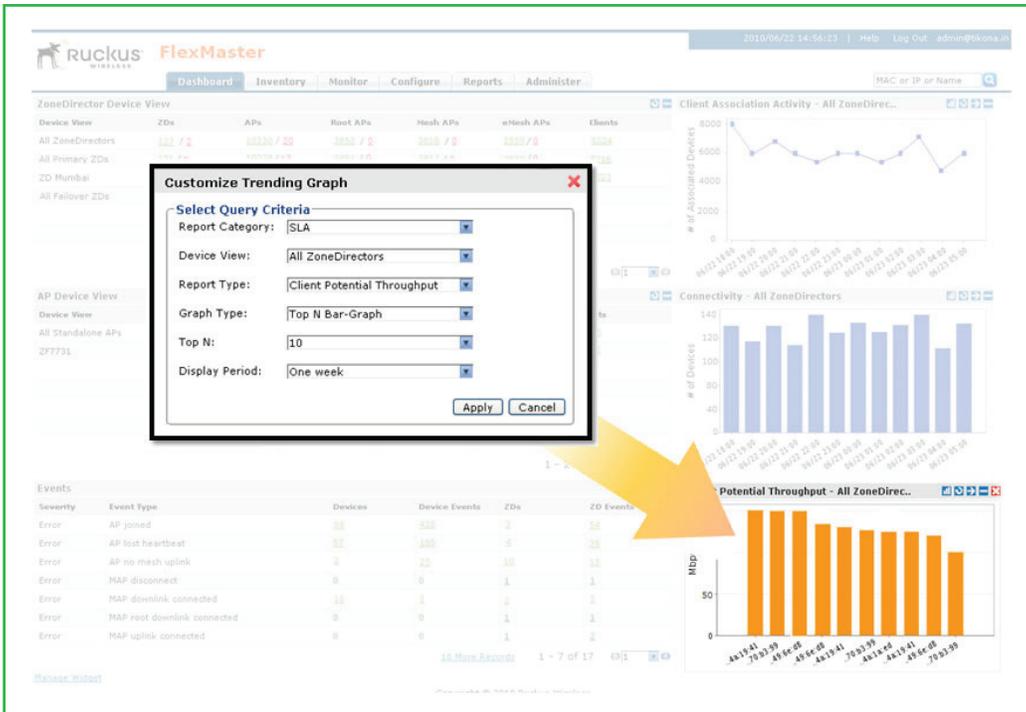


Flexible Managed Services Configuration Templates

The FlexMaster Template view gives service providers a simple way to set up the configuration profiles for different parameter settings of devices. For example, if an administrator wants to configure ZoneFlex APs for a hot spot chain differently than for a hotel chain, then two templates with different parameters can be set up, saved or modified before applying the configuration to the devices.

Bulk Firmware Upgrades

Ruckus Smart Wi-Fi system firmware can be upgraded individually or in bulk. FlexMaster allows the operator to select a set of devices, schedule the firmware upgrade, and receive notification when the upgrade is complete. With a simple click of the mouse, the operator has the flexibility to perform bulk firmware upgrades on all of the remaining units in the field, or schedule upgrades for a specific time.

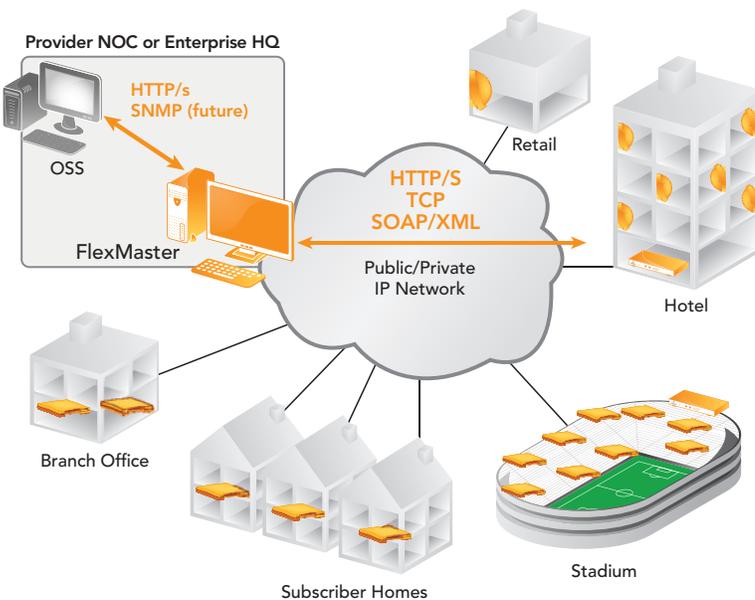


FlexMaster features a completely customizable super dashboard with an on demand widget wizard.



Powerful Provisioning

The Provisioning View is a powerful tool that gives administrators the option to permanently save the configuration of each device. In the event a user resets a pre-configured Wi-Fi device from the provider, the configuration can be restored to a known state quickly and easily without user intervention.



MINIMUM SYSTEM REQUIREMENTS

CPU	• 2.5 GHz
Memory	• 4 GB
Hard Drive	• 160 GB
O/S	• Red Hat Linux Enterprise Edition 5.0 or higher

Product Ordering Information

Model	Description
ZoneDirector Smart WLAN Controllers	
901-0100-FME0	FlexMaster software to manage up to 100 APs (software CD including user manual)
901-0250-FME0	FlexMaster software to manage up to 250 APs (software CD including user manual)
901-0500-FME0	FlexMaster software to manage up to 500 APs (software CD including user manual)
901-1000-FME0	FlexMaster software to manage up to 1000 APs (software CD including user manual)
901-2500-FME0	FlexMaster software to manage up to 2500 APs (software CD including user manual)
901-5000-FME0	FlexMaster software to manage up to 5000 APs (software CD including user manual)
901-0000-FME1	FlexMaster software to manage up to 10000 APs (software CD including user manual)

Ruckus Wireless, Inc.
880 West Maude Avenue, Suite 101, Sunnyvale, CA 94085 USA

(650) 265-4200 Ph \ (408) 738-2065 Fx

