

FlexMaster™

First Global Wi-Fi Managed Services Platform



First Complete Management Platform Enabling Carrier-Grade Wi-Fi Service Infrastructures

BENEFITS

Single platform for Wi-Fi carrier managed services in the home, hot spot and enterprise

Simple to use, install, and deploy Linux-based management platform for managing Ruckus Wireless Wi-Fi systems.

Direct device access

Instant and secure access to individual access points (APs) over the Internet or any private IP wide area network.

"Split" management support

Manage remote Ruckus ZoneFlex APs with existing OSS tools using SNMP, or enhanced management with Ruckus FlexMaster using TR-069.

Comprehensive carrier-class management

Leverage industry-standard protocols such as TR-069, TCP, and HTTP for secure communication across the entire network.

Carrier-grade scalability

Automatically discover, configure, monitor, and troubleshoot tens of thousands of remote access points.

At-a-Glance network dashboard

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

Bulk configuration and firmware upgrades

Upgrade all Ruckus devices, or groups of Ruckus devices, with a simple click of the mouse.

Sophisticated filtering, searching and grouping

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



The Ruckus Wireless FlexMaster Management System is the industry's only complete management platform for building and managing carrier-grade Wi-Fi service infrastructures.

FlexMaster gives providers a unique and exciting new way to extend their network footprint, enabling new revenue streams and offering managed Wi-Fi services.

Fitting seamlessly into existing operational support systems (OSS), FlexMaster is ideal for telecommunications carriers, multi-service operators, and broadband providers looking to monetize Wi-Fi services in growing new services markets, including hot spots, hot zones, home spots, IPTV services, and enterprise Wi-Fi managed sites.

FlexMaster is the first platform with carrier-class scalability to use common 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 ZoneFlex devices.

Visualize remote RF environments, bulk configure and manage groups of Ruckus access points, securely monitor and manage Wi-Fi services, FlexMaster was designed for enabling a managed Wi-Fi service whether users are at home, in the office or in a hot spot.

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.

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Introducing the Ruckus FlexMaster Managed Services Platform

Wi-Fi has become an essential access method for all types of devices, in all types of environments. With the invention of Smart Wi-Fi technology, Ruckus Wireless has made Wi-Fi, carrier-class. The key for providers now, is how to monetize and manage large-scale Wi-Fi networks, and offer innovative managed Wi-Fi services. FlexMaster is the only product purposely designed with this goal in mind.

The Ruckus FlexMaster System is the first complete managed service platform that lets providers securely control, monitor, and upgrade Ruckus ZoneFlex 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 provider OSS network management architectures, uniquely leveraging a variety of industry-standard protocols such as SNMP, TR-069, and HTTP/S.

FlexMaster also provides the carrier-grade scalability expected for large service infrastructures.

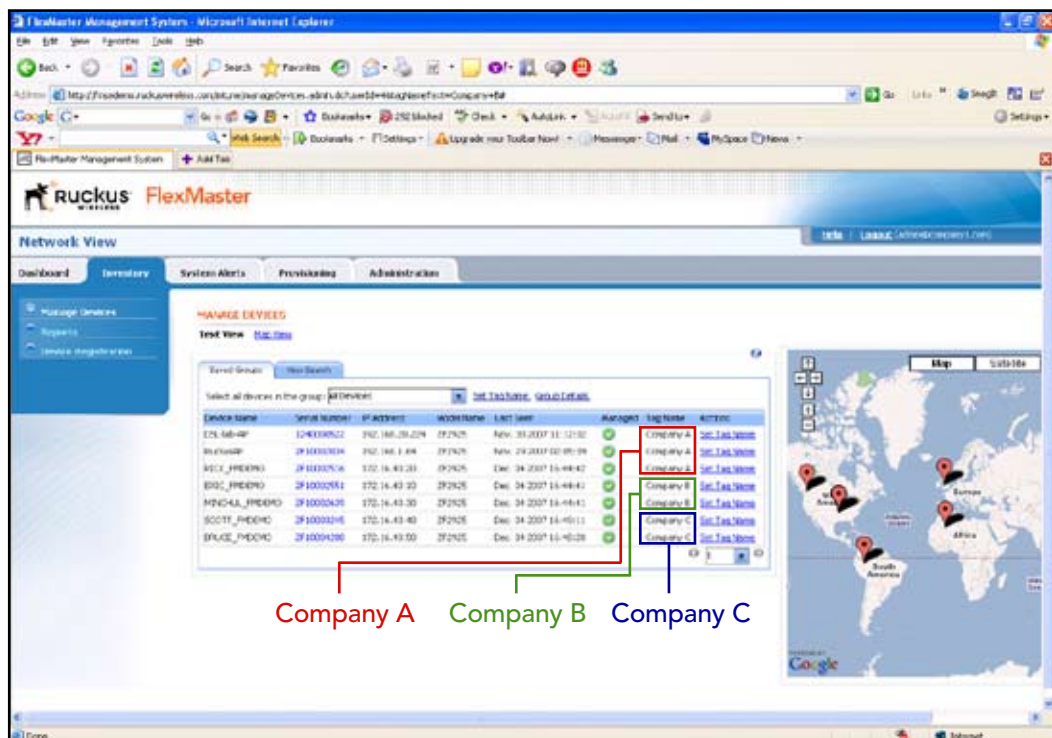
Enabling Managed Services

FlexMaster lets providers create unique configuration parameters on a bulk basis, and load different versions of firmware for each customer.

Managed ZoneFlex devices can be grouped by geographic region, device type, serial number, MAC address range, or even client's name.

Multi-tiered access provides a partitioned view to the provider's customers that 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. In turn, the service provider can create unique Service Level Agreements for each client in order to offer revenue-generating services.



The Inventory View gives providers the power to manage different Wi-Fi infrastructures of different customers on a single screen using a single platform. Clients can also access the system to view only the stats and reports related to the devices on their network.

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FlexMaster communicates with Ruckus ZoneFlex Wi-Fi systems using industry-standard SOAP/HTTP protocols, taking 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 network address translation issues. ZoneFlex APs can also be directly queried by other third-party SNMP or auto configuration server (ACS) systems using TR-069.

Additionally, ZoneFlex 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.

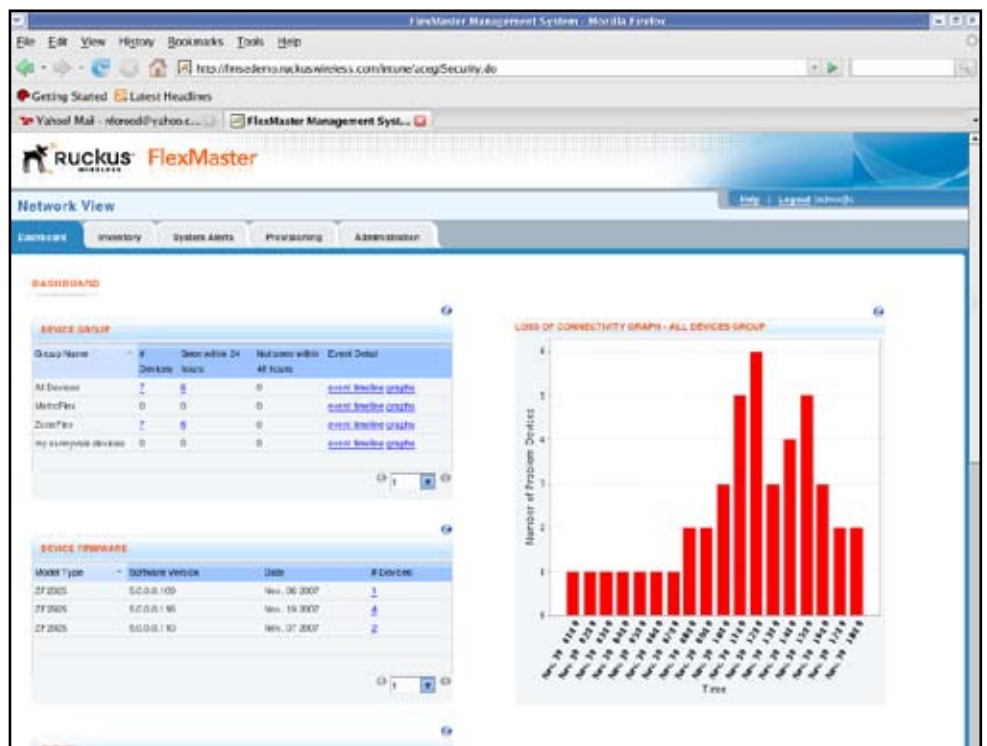


At-a-Glance Dashboard

The FlexMaster Dashboard View provides at-a-glance summary of all of the connected ZoneFlex devices that the FlexMaster is managing.

The Dashboard View categorizes all the different types of Ruckus ZoneFlex devices in the network, as well as the firmware version of the devices. An intuitive Events section gives the network administrator 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 quickly return to a specified time to troubleshoot and analyze any abnormal conditions.



Detailed Inventory View

The FlexMaster Inventory view provides a detailed report of all of the ZoneFlex 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

A comprehensive dashboard view lets operators see all the Ruckus devices by group, region or customer providing model, types, software versions being run throughout the entire global network.

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The FlexMaster Device View allows administrators to manage, configure and monitor individual Ruckus ZoneFlex devices.

groups (for example, access points for hot spot chain, access points for hotel chain, access points for Northern City, etc.) to improve the manageability.

Flexible Configuration Templates

The FlexMaster Template view gives the user a simple way to set up the configuration profiles for different parameter settings of devices. If an administrator wants to configure ZoneFlex APs for a hot spot chain, and then configure ZoneFlex APs differently for a hotel chain, the operator merely sets up two templates with different parameters, and saves or modifies these parameters, before applying the configuration to the devices.

Bulk Firmware Upgrades

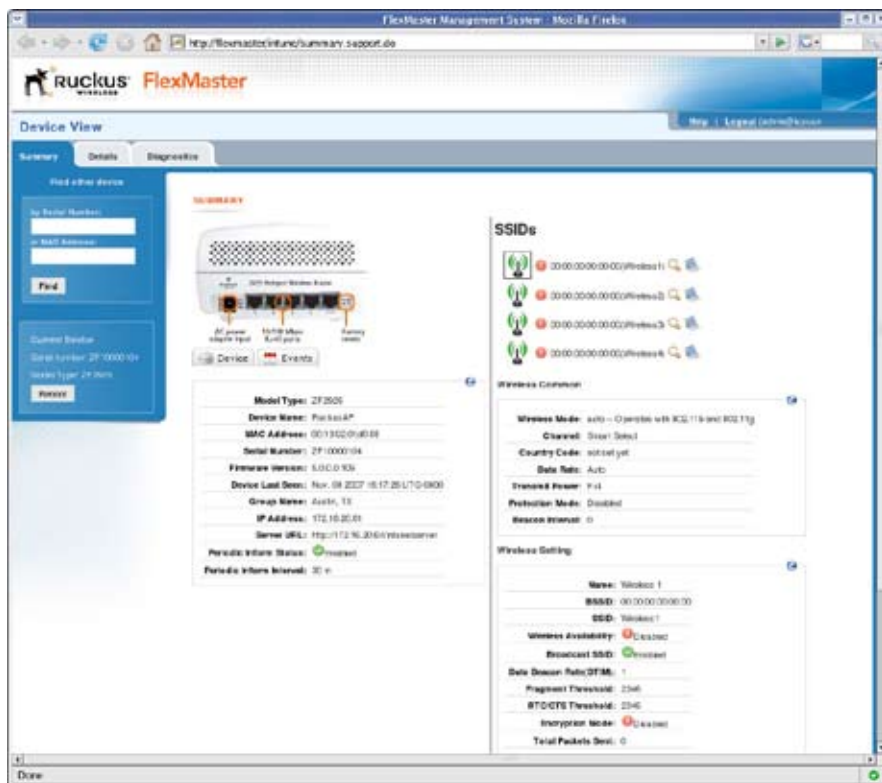
ZoneFlex device firmware can be upgraded by individual device or groups of devices. The Ruckus FlexMaster system allows the operator to select a set of devices, and schedule the firmware upgrade — receiving notification when the upgrade has completed. With a simple click of the mouse, the operator has the flexibility to perform bulk firmware upgrades on all of the remaining units in the field, or schedule upgrades for a specific time.

Comprehensive Reporting

The Report View allows network administrators to define, configure, and select a variety of criteria upon which to run detailed reports at a specified time. Reports such as analyzing the uptime of all of the ZoneFlex APs for a given hot spot provider, or historical trend reports, can be generated by leveraging the FlexMaster database. These reports can be viewed by network administrators or senior management for a quick summary of the condition of individual parts, or the entire network.

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.

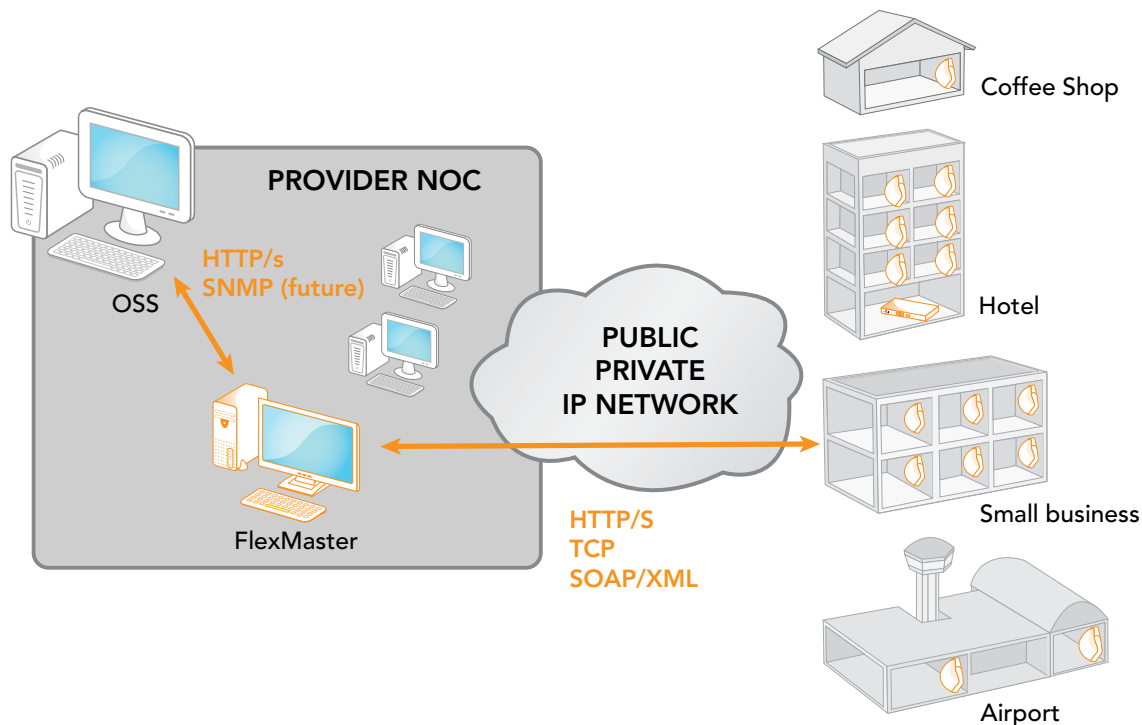


FEATURES

- Multi-tiered management access
- Auto discovery of Ruckus devices
- Group configuration of devices
- Embedded database
- Manual or scheduled firmware upgrades for selected devices
- Geographic representation of devices on the networks using Google maps
- Custom reports
- Secure access with remote SSL
- Comprehensive data through real-time network and user level monitoring
- Connection and association reports
- Audits of user actions and system logs

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Minimum System Requirements

CPU	• 1.6 GHz
Memory	• 2 GB
Hard drive	• 120 GB
O/S	• Red Hat Linux Enterprise Edition 4.0

Product ordering information

Model	Description
901-0100-FME0	FME-100 FlexMaster for Enterprise application (up to 100 APs)
901-0250-FME0	FME-250 FlexMaster for Enterprise application (up to 250 APs)
901-0500-FME0	FME-500 FlexMaster for Enterprise application (up to 500 APs)
901-1000-FME0	FME-1000 FlexMaster for Enterprise application (up to 1000 APs)

LICENSE UPGRADE

Contains the license to enable up to the number of managed APs. User must already have purchased the FlexMaster application

909-0250-FMEU	FlexMaster for Enterprise license upgrade for up to 250 APs
909-0500-FMEU	FlexMaster for Enterprise license upgrade for up to 500 APs
901-1000-FME0	FlexMaster for Enterprise license upgrade for up to 1000 APs



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