

# Ruckus Unleashed Multi-Site Manager Release Notes, 2.1

Supporting Unleashed Multi-Site Manager Release 2.1

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# About this Release

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## Overview of Unleashed Multi-Site Manager

This document provides release information about the software including new features, enhancements, known issues, caveats, workaround, upgrade details and interoperability information.

Unleashed Multi-Site Manager (UMM) is a centralized WiFi Management application that securely manages, monitor, and controls Ruckus WiFi system (such as Unleashed networks, ZoneDirector networks and wireless bridge AP P300) over the internet or IP network. It is a network management system (NMS) that provides capabilities such as configuration, fault detection, audit, performance management and optimization of remote Smart Wi-Fi networks from a single point

## Platforms Supported

Unleashed Multi-Site Manager securely manages and controls Unleashed APs and ZoneDirector WiFi networks. You must be aware of the platforms it supports to manage them.

This release supports the following ZoneDirector models:

ZoneDirector Model	Software Version Supported
<b>10.1 ZoneDirector</b>	
ZD3000	zd3000_10.1.0.0.1515.ap_10.1.0.0.1515.img
ZD1200	zd1200_10.1.0.0.1515.ap_10.1.0.0.1515.img
<b>10.0 ZoneDirector</b>	
ZD3000	zd3000_10.0.0.0.1424.ap_10.0.0.0.1424.img
ZD1200	zd1200_10.0.0.0.1424.ap_10.0.0.0.1424.img

This release supports the following Unleashed AP models:

Unleashed AP Model	Software Version Supported
<b>200.6 Unleashed Networks</b>	
R610	R610_200.6.10.1.308.bl7
T610	T610_200.6.10.1.308.bl7
T610-S	T610s_200.6.10.1.308.bl7
T710	T710_200.6.10.1.308.bl7
T710-S	T710s_200.6.10.1.308.bl7
R720	R720_200.6.10.1.308.bl7
R710	R710_200.6.10.1.308.bl7
H320	H320_200.6.10.1.308.bl7
R510	R510_200.6.10.1.308.bl7

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Unleashed AP Model	Software Version Supported
H510	H510_200.6.10.1.308.bl7
R500	R500_200.6.10.1.308.bl7
R600	R600_200.6.10.1.308.bl7
R310	R310_200.6.10.1.308.bl7
T300	T300_200.6.10.1.308.bl7
T300-E	T300e_200.6.10.1.308.bl7
T301-S	T301s_200.6.10.1.308.bl7
T301-N	T301n_200.6.10.1.308.bl7
T310-D	T310d_200.6.10.1.308.bl7
T310-N	T310n_200.6.10.1.308.bl7
T310-C	T310c_200.6.10.1.308.bl7
T310-S	T310s_200.6.10.1.308.bl7
E510	E510_200.6.10.1.308.bl7
C110	C110_200.6.10.1.308.bl7
<b>200.5 Unleashed Networks</b>	
R610	R610_200.5.10.0.291.bl7
T610	T610_200.5.10.0.291.bl7
T610-S	T610s_200.5.10.0.291.bl7
T710	T710_200.5.10.0.291.bl7
T710-S	T710s_200.5.10.0.291.bl7
R720	R720_200.5.10.0.291.bl7
R710	R710_200.5.10.0.291.bl7
H320	H320_200.5.10.0.291.bl7
R510	R510_200.5.10.0.291.bl7
H510	H510_200.5.10.0.291.bl7
R500	R500_200.5.10.0.291.bl7
R600	R600_200.5.10.0.291.bl7
R310	R310_200.5.10.0.291.bl7
T300	T300_200.5.10.0.291.bl7
T300-E	T300e_200.5.10.0.291.bl7
T301-S	T301s_200.5.10.0.291.bl7
T301-N	T301n_200.5.10.0.291.bl7

This release supports the following wireless bridge AP model:

AP Model	Software Version Supported
P300	P300_100.1.0.9.60.bl7

**NOTE**

This release of Unleashed Multi-Site Manager does not support standalone APs (except the wireless bridge P300). Unleashed Multi-Site Manager can only monitor P300.

## Browsers and Languages Supported

Ruckus strongly recommends that you use the latest release of an officially-supported browsers to view the Unleashed Multi-Site Manager user interface.

Officially Supported Browsers include Firefox and Chrome.

Internet Explorer and Safari are not supported.

This release of the software only supports English language.





# New Features and Enhancements

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This section provides a high-level overview of several key features that are introduced in this release of Unleashed Multi-Site Manager. For detailed descriptions of these features and configuration help, refer to the Unleashed Multi-Site Manager User Guide for this release.

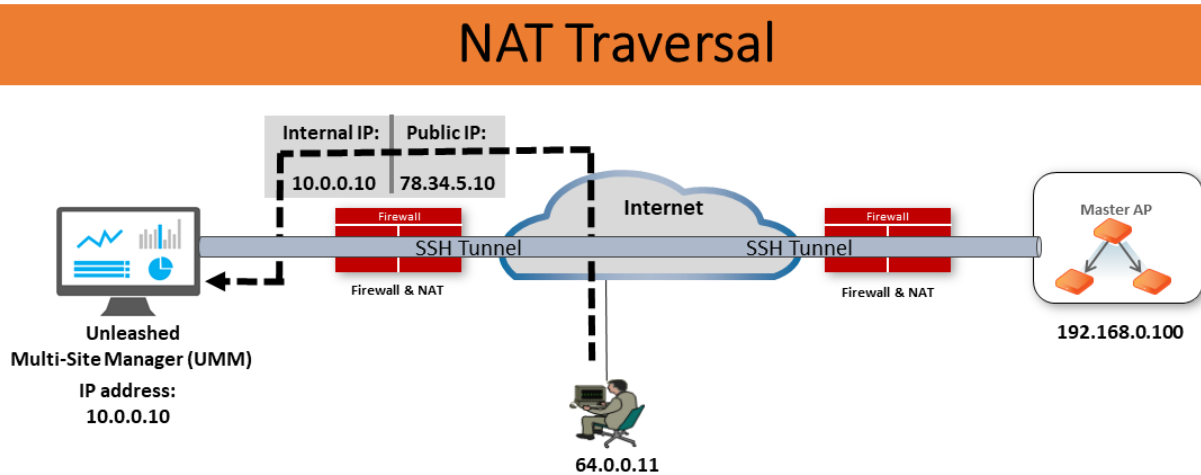
## NAT Traversal Support

Unleashed Multi-Site Manager provides Single-Sign-On (SSO) access to centrally manage Unleashed APs, ZoneDirector networks, and wireless bridge APs (P300). In the previous UMM release, if firewall policies are deployed in the network between UMM and the managed devices, or between the administrative PC and the managed devices, this SSO function becomes inept due to inaccessibility.

The function is enhanced in this UMM release if UMM is used to manage Unleashed APs running 200.6 release. Secured tunnels are established between Unleashed Master APs and UMM for firewall penetration. Therefore as long as UMM is reachable via TCP port 443 (for HTTPS) and TCP port 9443 (for the administrative PC to navigate managed devices through secured tunnels), the managed devices can be reached through UMM Web UI.

The following figure illustrates an example with an administrative computer, with IP address 64.0.0.11, located outside the firewalls of UMM and the managed devices. Assuming UMM's firewall port mapping is properly configured so that the administrative computer can reach UMM's TCP port 443 and 9443 via its external IP address 64.0.0.21, the administrator can reach any managed devices Web UI from UMM Web UI, penetrating the managed devices' firewalls.

FIGURE 1 NAT Traversal Support



### Scenario

- Both UMM and Unleashed networks are **behind Firewall & NAT**
- User login to UMM through public IP (78.34.5.10) from Internet

## Configuring the SSID and PSK for Standard WLANs

Unleashed Multi-Site Manager provides the capability to synchronize configuration from one Unleashed network to multiple networks. However, you need to restart the networks involved for the configuration changes to take effect. To ease management, this UMM release provides the capability to edit SSID names and PSK settings for standard WLANs.

For more information, see the *Editing WLAN SSID* section of the *Ruckus Unleashed Multi-Site Manager User Guide*.

## Support for Wireless Bridge P300 AP

The outdoor 802.11ac point-to-point/multipoint bridge P300 APs can be monitored by this release of Unleashed Multi-Site Manager. After the devices are accepted and registered by the software, their details are listed in the **Devices** menu.

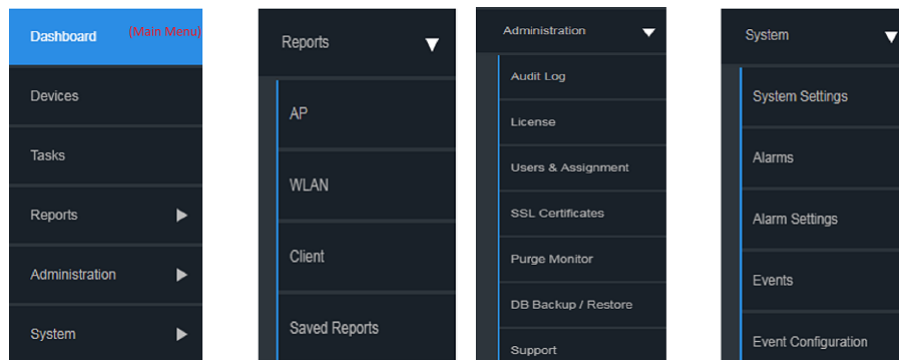
## User Interface Changes

This Unleashed Multi-Site Manager 2.1 release presents many changes to the user interface.

The important ones are as follows:

- **AP Trend** and **Client Trend** within **Monitor** menu is now moved under **Devices**.
- **ZD&Unleashed** is renamed **Devices**.
- **Alarms** and **Events** are moved under **System** menu.
- **System Setting** under **Administer** is moved to **System** menu.
- New **Task** menu introduced.
- No support for SpeedFlex.

FIGURE 2 Changes to the User Interface



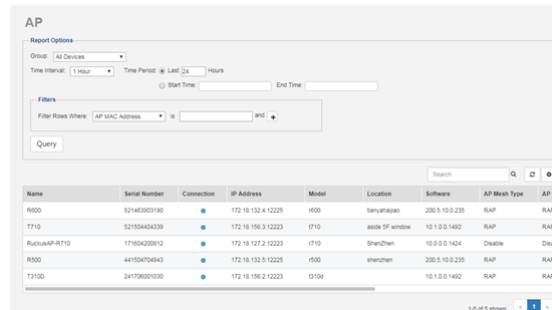
## Report Generation and Reorganization

Unleashed Multi-Site Manager 2.1 enhances reports generation through the Web UI.

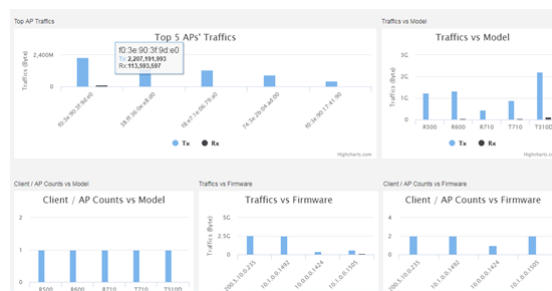
Following are the changes:

- Reports are categorized to AP, WLAN, Client and Rouge. For each report, there is a filter area, table area and graph area in one page.

**FIGURE 3** Report Options and Table Area



**FIGURE 4** Graph Area



- Reports can be generated based on:
  - Interval: Defines time granularity of each data point for the time series data. Options include 15 minutes, 1 hour, 1 day and 1 month.
  - Range: Limits the start time and end time. Range value changes with changes in Interval.
  - Boolean Value: indicates whether end time must be included in the report data. It is set to **True** by default.

## OVA Installation File

In addition to an ISO image, this release of Unleashed Multi-Site Manager also provides an OVA (Open Virtual Appliance, in Open Vitalization format) installation package to facilitate deployment in a virtual machine.

# Caveats, Limitations and Known Issues

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This section lists the caveats, limitations, and known issues for Unleashed Multi-Site Manager 2.1.

- The Unleashed Multi-Site Manager server does not get updated in real time. Some tasks such as backing up or restoring the ZoneDirector/Unleashed configuration is not updated until the software server receives the INFORM interval from Unleashed or ZoneDirector devices.
- The following features are not supported on Unleashed networks: Event Configuration (in the **Monitor** menu) and Resource Monitoring (in the **Reports** menu).
- When you upgrade the unleashed network from version 200.5 (beta) to 200.5, its **Unleashed ID** changes automatically, and Unleashed Multi-Site Manager process the unleashed network as a new device since its ID has been changed (Bug FLEX-213)
- The *Connected AP number* value on the **Dashboard** is updated every 15 mins, but the one in **Device** is updated in real time. Therefore, the value of *Connected AP number* on both these panels may vary.



# Software Installation

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## Hardware Requirements and Specifications

The amount of memory and CPU power required on the Unleashed Multi-Site Manager server depends on the number of ZoneDirector devices and APs that software is to manage, and on the system configuration.

Refer to the following table as the examples of the minimum recommended RAM and CPU for the hosting computer.

**TABLE 1** Recommended hardware specifications

Managed Devices	RAM	CPU	Hard Disk Space	Purge Policy
80 Unleashed or ZoneDirector networks with a total of 2000 APs  300 Unleashed networks with a total of 600 APs	16 GB	4 core processor such as 3.30 GHz Intel® Core i5-3550 or equivalent	300 GB	7 days
400 Unleashed or ZoneDirector networks with a total of 10,000 APs  1000 Unleashed networks with a total 1000 APs	48 GB	32 core processor such as 2 GHz Dell R710 platform with Xeon® E5-2650 or equivalent	1 TB	7 days

## Software Requirements and Specifications

You must ensure that the following software requirements are met before installing or upgrading Unleashed Multi-Site Manager to the latest release.

- Officially Supported Linux operation systems:
  - CentOS release 6.5 (64 bit)
  - CentOS release 7.1 (64 bit)
  - Red Hat Enterprise Linux Server release 6.5 (64 bit)
  - Red Hat Enterprise Linux Server release 7.1 (64 bit)
- Ruckus recommends that you use the 'Web Server' option during RedHat Enterprise or CentOS installation. Do not use the 'Minimal' option, since that causes application to fail during startup (ZF-6874).
- Before installing this version of Unleashed Multi-Site Manager you must install jemalloc. Follow these steps to install jemalloc:
  1. Download jemalloc based on your linux version from [http://pkgs.org/download/libjemalloc.so.1\(\)\(64bit\)](http://pkgs.org/download/libjemalloc.so.1()(64bit))
  2. Upload jemalloc to the software server and install it with command:

```
rpm -Uvh jemalloc-3.6.0-1.el6.x86_64.rpm
```

For more information about jemalloc, see <http://jemalloc.net/>.

3. Install and upgrade the software application.

- Before installing this version of Unleashed Multi-Site Manager, you must upgrade Openssl and its library to the right Linux version as specified:
  - RedHat or CentOS 6.x: Openssl 1.0.1 or later
  - RedHat or CentOS 7.x: Openssl 1.0.2 or later

For example, you can issue this command to upgrade Openssl version with Linux

```
yum upgrade openssl 1.0.2
```

- Ports Configuration:

The Unleashed Multi-Site Manager software may have port conflicts with the hosting computer, especially if the hosting computer is used to serve other purposes. Modify the port numbers during installation, as necessary.

- DB (TCP Port 3306)
- Apache and Tomcat (TCP Port 80)
- If the managed devices are not Unleashed APs running 200.6 or later, make sure UMM can establish a HTTPS connection to the managed devices so the UMM administrator can navigate the managed devices through UMM's Web UI. The firewall policy has to ensure UMM can reach the managed device through TCP port 443.
- Unleashed Multi-Site Manager uses a secured tunnel for traffic redirection, configuration backup and editing WLANs for Unleashed APs running 200.6 release. Therefore, you do not have to map the ports on the firewall for these Unleashed APs.

**NOTE**

UMM functions (traffic redirection, configuration backup, WLAN edition) are effective only after the secured tunnel is established, which takes some time after the device first registers in UMM. To shorten the time, on the Unleashed Web UI, a shorter TR069 info interval can be configured.

## License Information

You must be aware of how licenses are used.

- Unleashed Multi-Site Manager uses separate licenses for APs under ZoneDirector and Unleashed APs. By default, 1 Unleashed AP and 0 ZoneDirector-managed AP are supported.
- Unleashed Multi-Site Manager consumes its license count for APs under ZoneDirector according to its ZoneDirector's AP capacity; and not the number of APs that have joined the ZoneDirector. For example, ZD3500 consumes 500 Unleashed Multi-Site Manager licenses even if it manages 100 APs. Standby ZoneDirector will not consume any AP license on UMM.
- Unleashed Multi-Site Manager consumes its Unleashed AP license count according to the connected Unleashed AP number.
- Any AP license updates on UMM can take a while (1~60 minutes) to be reflect.
- Unleashed Multi-Site Manager may delete a device if the license has expired.



# Software Upgrade

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## Upgrading Unleashed Multi-Site Manager

For better upgrade process control, the software application is delivered in tar format. There are new upgrade scripts and patch files in this tarball.

Follow these steps to upgrade the software:

1. Upload the patch file (e.g. 2.0.0.0.55\_2.1.0.0.27.tar) to the Unleashed Multi-Site Manager server.
2. Copy the patch file (e.g. 2.0.0.0.55\_2.1.0.0.27.tar) to the Unleashed Multi-Site Manager folder (for example, **/opt/UMM/**) using the following command:

```
# cp /home/2.0.0.0.55_2.1.0.0.27.tar /opt/UMM/
```

3. Extract the patch file using the following command:

```
# tar -vxf 2.0.0.0.55_2.1.0.0.27.tar
```

4. Upgrade the software using the following command:

```
# ./upgrade.sh 2.1.0.0.27
```

### NOTE

Before you upgrade, ensure that the \*.patch file (9.13.1.0.9.patch) is extracted from the tar file.

## Upgrade Path

If you are running an older version of the software, you can upgrade it to the latest released versions and must also ensure that the ZoneDirector devices managed by the software application are also upgraded.

The official upgrade path supported is from Unleashed Multi-Site Manager 2.0.0.0.53 to Unleashed Multi-Site Manager 2.1.0.0.27.

The software and ZoneDirector controllers are updated in the following order:

1. Upgrade Unleashed Multi-Site Manager first, and then upgrade the ZoneDirector controllers or the Unleashed APs.
2. Upgrade Unleashed Multi-Site Manager and the managed devices one release at a time.

### NOTE

Ruckus recommends that you clean the Web browser's cache and cookie after upgrade for better performance.