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What's New in Unleashed Version 200.7?

This application note describes the new features available in Ruckus Unleashed version 200.7. This document assumes familiarity with the Ruckus Unleashed product line and the features till earlier release version 200.6.

Highlights of this Release

Ruckus Unleashed is a controller-less Wireless LAN (WLAN) solution that enables Small-Medium Business (SMBs) to deliver an optimal wireless experience to their users at an affordable price.

Customers can expand their business to multiple locations seamlessly with Unleashed Multi-Site Manger (UMM). If the business scales even further, Ruckus Unleashed offers migration options to on premise WLAN controllers Ruckus ZoneDirector and SmartZone, or Ruckus Cloud Wi-Fi.

Key features and enhancements in this release are:

Feature	Brief Description and Benefits
Increase Scale to 50 APs and 1,024 Clients	Unleashed now supports up to 50 APs (up from 25), and 1,024 concurrent clients (up from 512). As of this release, this increase applies only to Unleashed 802.11 ac Wave 2 or newer generation AP models.
AP Groups	Allow admins to apply different configuration profiles to different groups of APs. For example, APs deployed in reception and cafeteria area can be grouped together and configured to broadcast Guest WLAN. Other APs inside the office building/campus will not broadcast Guest WLAN.
CLI Setup Wizard	Provides a new way to perform the initial network deployment, in addition to the existing mobile app and browser-based setup methods.
802.1x Authentication Caching	This feature allows the APs to cache 802.1X client credentials at the AP, so that clients will not have to perform additional authentications in case of disconnection from the RADIUS server within a specified time limit.
Bonjour Fencing	Bonjour Fencing provides a mechanism to limit the scope of Bonjour service discovery in the physical/spatial domain. This is useful because logical network boundaries (e.g. VLANs) do not always correlate well to physical boundaries within a building/floor. This feature can be configured via CLI commands only in this release.

Ethernet Port VLAN Support	Allows VLAN configuration for Ethernet ports on wall-plate type APs (H320 and H510).
Merge Guest and Social Media WLAN types	Social Media WLANs are now a subcategory of Guest WLAN rather than being a separate WLAN type as in previous releases.
Captive Portal Customization	Provide several new options for customizing the Captive Portal login page for Guest WLANs.
Portal Page Multi-Language Support	This feature is enabled by default for the Guest WLAN login portal page when the web interface language is not English.
Client Connect Diagnostics Enhancement	Client connection troubleshooting can now be run on clients connected to Web Auth, Hotspot (WISPr), and Social Media Guest WLANs, in addition to standard usage WLANs.
Save Debug Info Progress Indication	A progress indicator is now displayed when the Save Debug Info button is pressed to download a debug log file.
Display Unleashed Version on First Installation Page	The firmware version number currently being configured is now displayed on the first installation wizard screen.
Favorite Client Support	Mark a client as "favorite" to receive notifications when the client connects or disconnects.
L3 Fast Path Performance Enhancement	This feature improves throughput performance when the AP is in gateway mode, increasing efficiency by allowing certain packets to bypass bridge and route processes based on information learned from traffic analysis.
Event Level Setting in Diagnostics Logs	Provides a configuration option to set the level of debug logs to display on the Events page.
Display "Uploading" Progress Bar on Upgrade Page	A progress bar is now displayed to indicate the image file upload progress.
Increased Max Bind IP Addresses	Increased Max Bind IP Addresses for DHCP Server to 128 from 32.
Setup Wizard Process Enhancement	Improved speed of Setup Wizard process.
MAC Auth Cache	MAC Auth authentication can now use local database as the auth server.

Managed Wired Clients	Lists connected dot1x authenticated wired clients.

Supported AP models in Unleashed 200.7

Unleashed version 200.7.10.2.339 supports the following Ruckus indoor Wi-Fi access point models:

Note: *Unleashed R500, R600, T300 series, and T301 series are on End of Sale notice. Unleashed 200.7 is the last software release for these APs, and also for Unleashed R310.*

Indoor Wi-Fi Access Points	
Unleashed R720	Indoor 802.11ac Wave 2 Wi-Fi Access Point with Multi-gigabit Backhaul for Ultra-Dense Device Environments
Unleashed R710	Indoor 802.11ac Wave 2 Wi-Fi Access Point for Ultra-Dense Device Environments
Unleashed R610	Indoor 802.11ac Wave 2 Wi-Fi Access Point for Dense Device Environments
Unleashed R510	Indoor 802.11ac Wave 2 Wi-Fi Access Point for Dense Device Environments
Unleashed R320 ★	Indoor 802.11ac Wi-Fi Access Point
Unleashed H510	Wall-mounted 802.11ac Wave 2 Wi-Fi Access Point for Dense Device Environments
Unleashed M510 ★	Mobile Indoor 802.11ac Wave 2 Wi-Fi Access Point with LTE Backhaul
Unleashed H320	Wall-Mounted 802.11ac Wave 2 Wi-Fi AP and Switch
Unleashed C110	Wall-Mounted 802.11ac Wave 2 Wi-Fi AP, Switch and Cable Modem
Unleashed R600	Indoor 802.11ac Wi-Fi Access Point for Dense Device Environments
Unleashed R500	Indoor 802.11ac Wi-Fi Access Point for Dense Device Environments
Unleashed R310	Indoor 802.11ac Wi-Fi Access Point
★ Added newly to Ruckus Unleashed portfolio as part of software version 200.7	

Outdoor Wi-Fi Access Points	
Unleashed T710 Series (T710, T710s)	Outdoor 802.11ac Wave 2 Wi-Fi Access Point family with Fiber Backhaul
Unleashed T610 Series (T610, T610s)	Outdoor 802.11ac Wave 2 Wi-Fi Access Point family
Unleashed T310 Series (T310c, T310d, T310n, T310s)	Outdoor 2x2:2 2.4/5GHz 802.11ac Wave 2 Wi-Fi access point family with omni and directed antennae
Unleashed E510	Embedded 802.11ac Outdoor Wave 2 Wi-Fi AP with External BeamFlex+ Antennas
Unleashed T301 Series (T301n, T301s)	Outdoor 2x2:2 2.4/5GHz 802.11ac Wi-Fi access point family with directed coverage
Unleashed T300 Series (T300, T300e)	Outdoor 802.11ac AP family with integrated omni or external antennas (5GHz)

New Feature Details

Details for each new feature and enhancement in Unleashed 200.7 appears below.

1. **Support for 802.11ac Wave 2 Access Points R320 and M510**

   Unleashed R320
   The Ruckus Unleashed R320 delivers consistent, reliable 802.11ac wave 2 wireless networking at an affordable price. It features the patented Ruckus BeamFlex adaptive antenna technology for performance optimization and interference mitigation found in our premier access points, delivering superior user experiences at extended ranges. But it provides them in an ultra-compact form factor built for small venues—with a price tag to match. The Unleashed R320 is an ideal choice for low-density enterprise and hotspot environments including small and medium-size businesses, retail locations, restaurants, and multi-tenant small offices and branch offices.

   Key Features

   - Provides great performance with extended range at an affordable price.

   - Designed to operate on existing PoE switches and CAT 5e cabling to minimize costly upgrades.

   - Extends coverage with patented BeamFlex™ adaptive antenna technology while mitigating interference by utilizing multi-directional antenna patterns.

   - ChannelFly dynamic channel technology uses machine learning to automatically find the least congested channels. You always get the highest throughput the band can support.

Unleashed M510

The Ruckus Unleashed M510 mobile-wireless access point (AP) is an 802.11ac 2x2:2 Wave 2 Wi-Fi AP designed to leverage LTE networks as a backhaul and connect wirelessly back to any network without the need for an Ethernet cable connection.

Because of the wireless LTE backhaul capability, the M510 addresses multiple deployment scenarios not previously served, including mobile "in-vehicle" Wi-Fi ("mobile AP"), rapid Wi-Fi deployment for pop-up retail or first-responders and temporary Wi-Fi deployments at a construction site. M510's LTE backhaul can serve as a failover or redundancy for the WAN connectivity. Additionally, the M510 satisfies an operator's requirement to deliver branded Wi-Fi connectivity for mobile outdoor hotspots for transit hubs or isolated public locations where a wired connection is too expensive or impossible.

Key Features

- Superior performance, managed Wi-Fi without cable pulls using an LTE connection to support mobile hotspot requirements.

- GPS support location aware services for tracking the mobile unit.

- Extends coverage with patented BeamFlex+™ adaptive antenna technology while mitigating interference by utilizing up to 64 directional antenna patterns.

- ChannelFly™ dynamic channel technology uses machine learning to automatically find the least congested channels. You always get the highest throughput the band can support.

- Connect more devices simultaneously with two MU-MIMO spatial streams and concurrent dual-band 2.4/5GHz radios while also enhancing non-Wave 2 device performance.
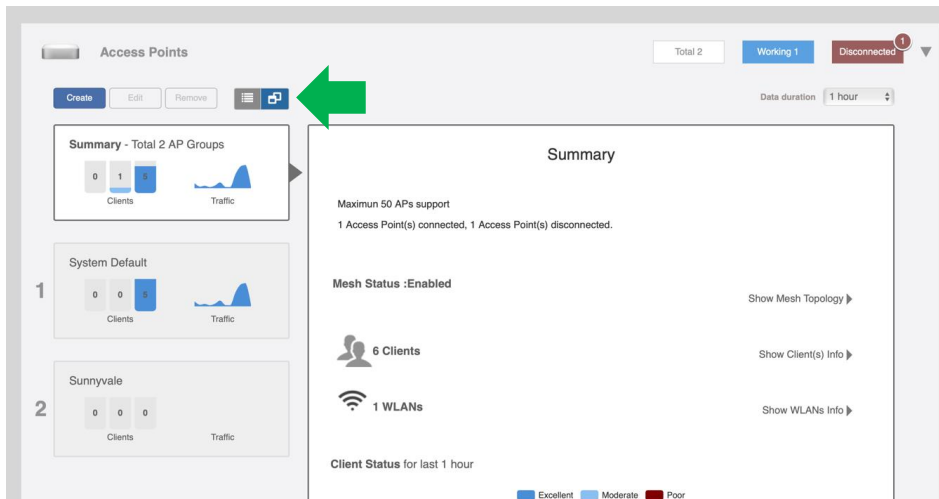
2. **Increase scale to 50 APs**
Unleashed now supports up to 50 APs (up from 25), and 1,024 clients (up from 512). As of this release, this increase applies only to Unleashed 802.11 ac Wave 2 or newer APs.

Customer Benefits

- Increases the use cases that Unleashed can serve

3. **AP Groups**
Allow admins to apply multiple configuration profiles to different groups of APs.

Customer Benefits

- Provide a simpler way to configure multiple APs together.
- Easily monitor all APs in the group at once.

4. **CLI Setup Wizard**

Provides admins a new way to perform the initial network configuration, in addition to the existing mobile app and browser-based setup methods.

Customer Benefits

- Admins can apply a pre-configured profile through CLI script to all the APs at once. This greatly simplifies configuration in cookie cutter deployments.
- Provides technically savvy admins with more tools to deploy and troubleshoot.

5. **802.1X Authentication Caching**

This feature allows the APs to cache 802.1X client credentials at the AP, so that clients will not have to perform additional authentications in case of disconnection from the RADIUS server within a specified time limit.

Customer Benefits

- Simplifies the connectivity to network in case a client gets disconnected.
- Improves overall user experience.

6. **Bonjour Fencing**

Bonjour Fencing provides a mechanism to limit the scope of Bonjour service discovery in the physical/spatial domain. This is useful because logical network boundaries (e.g. VLANs) do not

always correlate well to physical boundaries within a building/floor. This feature can be configured via CLI commands only in this release.

Customer Benefits

- Helps contain the Wi-Fi within the boundaries, which is very useful with increase in scale.

- Fencing provides control of services by single AP or a group of APs. For instance in a school, Fencing will limit the broadcasting traffic to a single AP such as in a classroom or a group of APs such as in an auditorium or a large laboratory that requires sharing of multiple Bonjour services.

7. **Ethernet Port VLAN Support**
   Allows VLAN configuration for Ethernet ports on wall-plate type APs (H320 and H510).

   Customer Benefits

   - Segregate traffic based on VLANs to get greater network control and prioritization.

   - Create different broadcast domains for greater security.

8. **Merge Social Media and Guest Type WLANs**
   Social Media WLANs are now a subcategory of Guest WLAN rather than being a separate WLAN type as in previous releases.
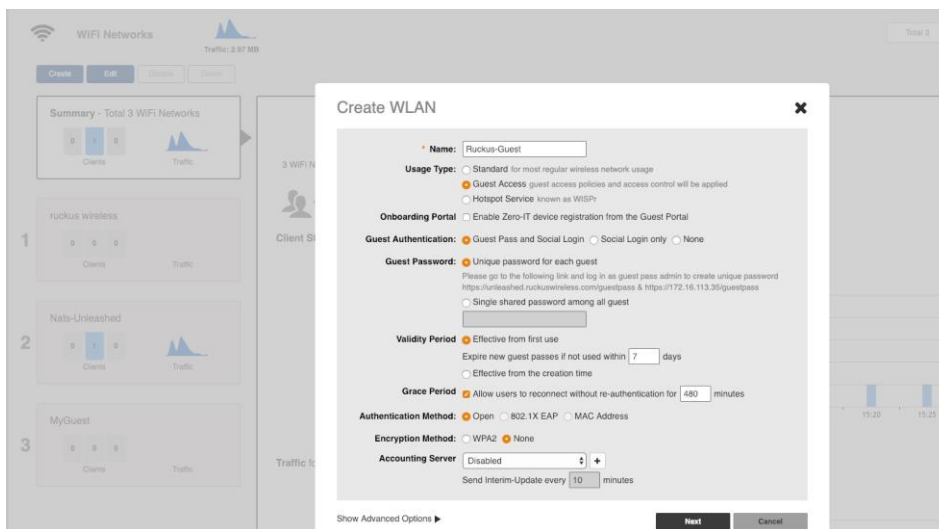
Customer Benefits

- Simplify setting of guest networks for administrators.
- Provide a great user experience for logging into Wi-Fi networks.

9. **Partner Portal Multi-Language Support**

This feature is enabled by default for the Guest WLAN login portal page when the web interface language is not English.

Customer Benefits

- Provide a great user experience for logging into Wi-Fi networks.

10. **Client Connection Diagnostics Enhancement**

Client connection troubleshooting can now be run on clients connected to Web Auth, Hotspot (WISPr), and Social Media Guest WLANs, in addition to standard usage WLANs.

Customer Benefits

- Provides simpler way for troubleshooting client connectivity issues for different client types.

11. **Save Debug Info Progress Indication**

A progress indicator is now displayed when the Save Debug Info button is pressed to download a debug log file.
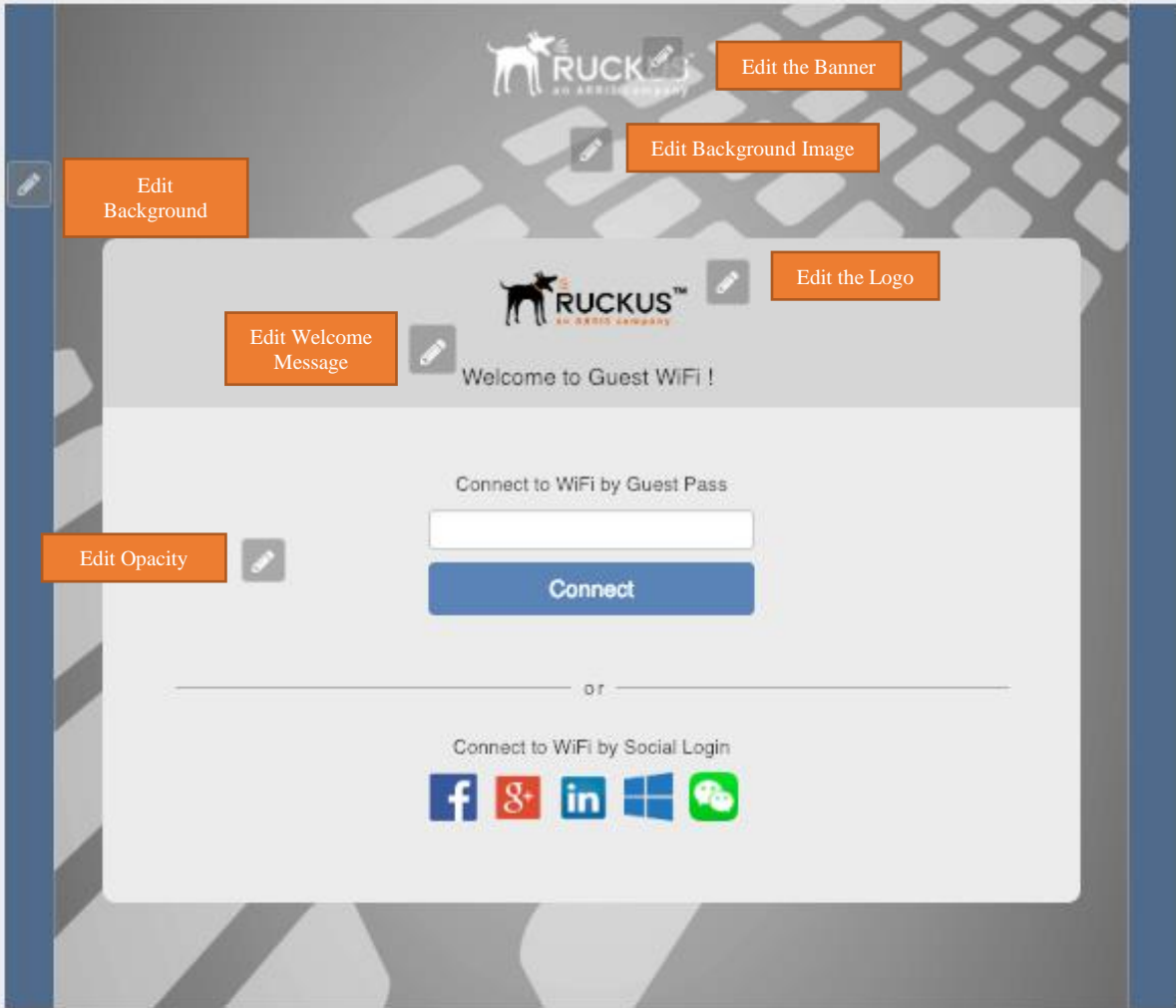
Customer Benefits

- Improves user experience while accessing the debug log file.

- Eliminates confusion while trying to download the debug log file.

12. **Captive Portal Customization**

Provide several new options for customizing the Captive Portal login page for Guest WLANs.

Ruckus Networks

Customer Benefits

- Provides more flexibility to administrators while setting up guest networks to deliver a branded captive portal page.
- Provide a customized user experience for logging into Wi-Fi networks.

**13. Display Unleashed Version on First Installation Page**
The firmware version number currently being configured is now displayed on the first installation wizard screen.

Customer Benefits

- Improves user experience and keeps user informed while installing Unleashed network.

14. Favorite Client Support
Mark a client as "favorite" to receive notifications when the client connects or disconnects.
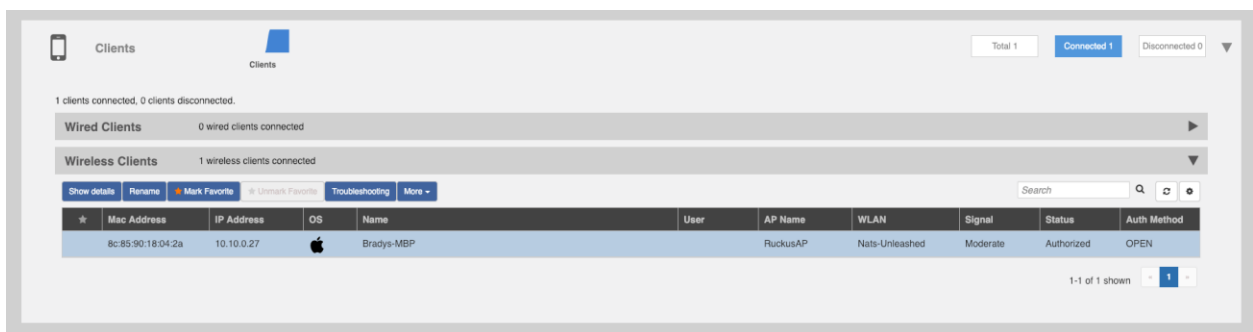
Customer Benefits

- Get instant updates about key clients if they get disconnected.
- Stay up to date on what's going on with the network.

**15. L3 Fast Path Performance Enhancement**
This feature improves throughput performance when the AP is gateway mode, increasing efficiency by allowing certain packets to bypass bridge and route processes based on information learned from traffic analysis.

Customer Benefits

- Improves end user experience while accessing Wi-Fi.

16. Event Level Settings in Diagnostic Logs
Provides a configuration option to set the level of debug logs to display on the Events page.
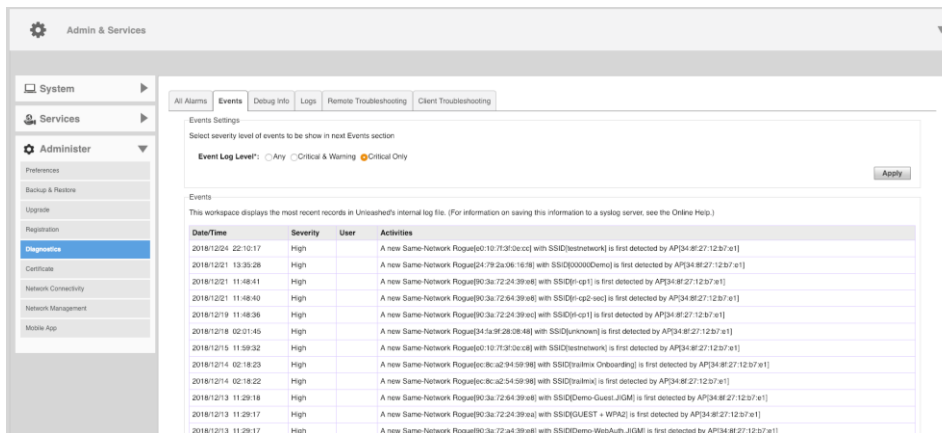
Customer Benefits

- Improves troubleshooting experience for admin.

17. Display "Uploading" Progress Bar on Upgrade Page
When customer upgrades their Unleashed network from 200.7 to a future version a progress bar is now displayed to indicate the image file upload progress.

Customer Benefits

- Improves user experience and eliminates confusion while uploading new image file during Unleashed network upgrade.

18. Increased Max Bind IP Addresses
Increased Max Bind IP Addresses for DHCP Server to 128 from 32.

Customer Benefits

- Improves end-user network connectivity experience especially with increase in scale from 512 to 1024 clients.

19. Setup Wizard Process Enhancement
Improved speed of setup wizard process

Customer Benefits

- Improves user experience.
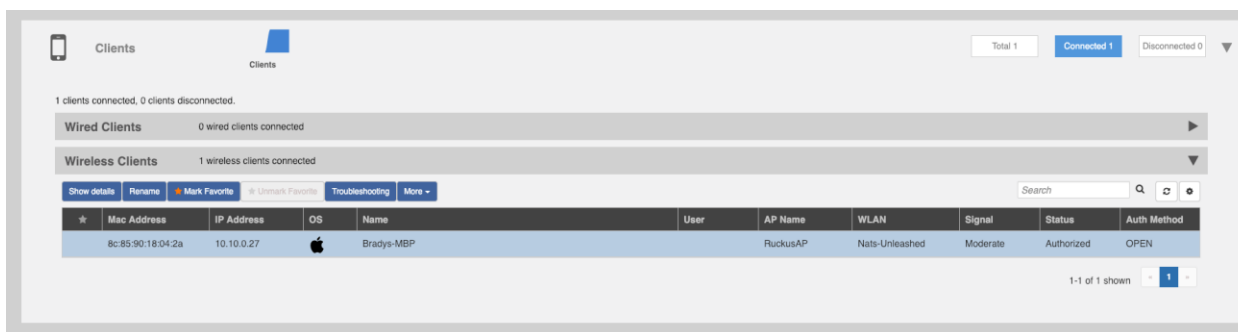
20. MAC Auth Cache

MAC Auth authentication can now use local database as the auth server.

Customer Benefits

- Improves end-user network connectivity experience especially with increase in scale from 512 to 1024 clients.

21. Manage Wired Clients

Lists connected dot1x authenticated wired clients.

Customer Benefits

- Get greater network control with view of both connected wired and wireless clients on the dashboard.