GE MDS *PRODUCT RELEASE NOTES Rev L*

RELEASE NOTE For: MDS ORBIT MCR Firmware Version 3.0.3
RELEASE DATE: January 23, 2015

FIRMWARE

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MDS™ Orbit MCR

COVERING FIRMWARE – REV 3.0.3

Overview

This section describes Software/Firmware updates for the MDS Orbit MCR platform.

Products: MDS Orbit MCR
Firmware Version: 3.0.3

Orbit™ MCR Learning and Development YouTube Channel

New Features

1. **Enhanced WebUI**
   - The WebUI has been completely restructured to provide easier access to status and configuration parameters of various features on Orbit. In particular, the following enhancements have been made:
     1. The web pages for all the main Orbit features (system, interfaces, services, routing, logging etc.) have been structured following a common template that consists of four tabs:
        1. Status –This tab displays all read-only status and statistics parameters of the feature.
        2. Basic Config – This tab displays basic configuration parameters of the feature.
        3. Advanced Config - This tab displays advanced configuration parameters of the feature.
        4. Actions – This tab displays remote procedure calls (RPCs) also known as actions that are provided by that feature.
   - In addition, the following new features have been added:
     1. Device firmware reprogramming via Web browser (HTTP upload using local firmware file on PC).
     2. The user can now click 'refresh' button to manually refresh the status/statistics displayed in the accordion panels under 'Status' tab. Also, user can specify the time period in seconds to periodically auto refresh the status.

2. **New Cell Functionality**

- The following cellular configurator options has been made available to support LTE networks in North America:

  1. 4G1 -3G/4G GSM/LTE AT&T
  2. 4G2 -3G/4G GSM/LTE Rogers
  3. 4G3 -3G/4G GSM/LTE Telus
  4. 4G4 -3G/4G GSM/LTE Bell

  The above options use the same cellular module (but with different modem firmware) that supports the following technologies/bands:

  - 4G LTE
    - Band 2 (1900 MHz)
    - Band 4 (AWS 1700/2100 MHz)
    - Band 5 (850 MHz)
    - Band 13 (700 MHz)
    - Band 17 (700 MHz)
    - Band 25 (1900)
  - 3G UMTS/HSPA+
    - Band 1 (2100 MHz)
    - Band 2 (1900 MHz)
    - Band 5 (850 MHz)
    - Band 6 (800 MHz)
    - Band 8 (900 MHz)
  - 2G GPRS/EDGE
    - GSM 850 (850 MHz)
    - EGSM 900 (900 MHz)
    - DCS 1800 (1800 MHz)
    - PCS 1900 (1900 MHz)
  - CDMA (1xRTT, EV-DO Rev A)
    - BC0 and B10 – 800Mhz
    - BC1 – 1900Mhz

3. **Layer-2 MAC Filtering**

- MAC filtering support has been added to the firewall (see Operational Notes and Limitations).

Changes to Existing Features

1. Per customer feedback, "VPN Setup" menu item has been moved to the end of the Wizard list and "Basic Interface Wizard) has been renamed to Interface Setup (Connectivity).

Resolved Issues (Fixed)

1. The issue associated with 3G unit (with default factory configuration) rebooting after upgrading to 2.0.9 has been fixed.
2. The issue associated with multicast terminal server not working when using certain multicast addresses (e.g. 224.100.0.1) has been fixed.

Known Errata

1. Unable to configure TCP-Client Mode via GUI. TCP-Client Mode configuration is still available via the CLI. This will be addressed in the next release.
2. When using hex as a custom ethertype in a QoS classifier it is incorrectly labeled as "T #".
3. Wizards which require a 'Ruleset' name, cannot include spaces or other special characters.
4. Geographical Location is not available in the Web Interface.
5. When operating as a WiFi AP, information about the associated Stations is not available on the Web Interface.

6. The device may become alarmed if a Cell interface is disabled then enabled. Operation will work correctly, but the alarm will persist until the device is rebooted.
7. Event logs are not fully viewable from the Web GUI. To view the full log entry, use the CLI or export the event log.
8. Reprogramming using a local file may fail and get into a bad state. Reboot the device to regain local file reprogramming functionality.
9. If multicast terminal server operation fails, disabling the Wi-Fi interface may restore functionality.
10. The DHCP server does not support IPv6.
11. Modifying a static route may not apply changes to the routing table until the Orbit interface associated with the static route is disabled then enabled.
12. The Web GUI may fail to login after a firmware upgrade. It is recommended to clear your web browser's cache.
13. When modifying existing 802.1x Radius Server configuration in the Orbit, the interface affected must be disabled and re-enabled.
14. When using multiple Orbits as WiFi Access Points, they must be located on separate broadcast domains.
15. On the Web Interface, after creating VLAN interface(s) and selecting the VLAN mode on the physical interface(s), the option to select which VLAN to use is missing. At this point as a workaround use the Interface Setup Wizard.
16. Currently there is no way to modify the IP Address of an existing interface, instead add the new IP Address and Subnet Mask, then delete the old one and commit your changes.
17. When using the CLI from the Web Interface, the text may jump out of view. Using the scroll bars on the sides will bring it back into view.
18. On NxRadio interface status tab, refresh of NxRadio panel at the rate of 1 sec can cause the loader to be always running, thereby preventing the user from clicking 'stop' to stop the automatic refresh. It is recommended that nx-status be refreshed no more than every 5 secs. In the event, the user gets in this state, normal operation can be restored by clicking browser's reload/refresh button.
19. Wi-Fi interface interruptions may occur in the presence of high RF interference. If a service interruption occurs, the ORBIT MCR will detect and reset the Wi-Fi interface to restore service.
20. Changing the Wi-Fi configuration may cause station-bridge clients to stop passing data. A reboot is required to recover.
21. When a Commit is aborted by the ORBIT MCR, the device may misrepresent the current configuration. It is recommended to confirm the configuration is correct and re-commit.
22. Rebooting a Station Bridge may cause a service outage to other Wi-Fi connected devices.
23. When using Dual SSIDs, changes to ap-config parameters may cause the device to reboot upon commit.
24. Monitoring a disconnected interface may cause a *netmgr* failure. (See #20 under Operational Notes and Limitations).
25. Changing a Wi-Fi interface from an enabled Station with an IP address and filters to a disabled, bridged, Access Point without an IP address and filter may cause a *netmgr* failure.
26. When a Wi-Fi Station is in the bridge, the STP status information for the Wi-Fi device is not available.
27. The "Local IPs" configuration parameter for Terminal Servers is not currently functional.

Special Notes

1. **This release features updated configuration data models that are not backwards compatible with older releases (pre 2.0.9). When a unit running an older release is upgraded to this release, a snapshot of its configuration will be made and stored on the unit. The unit's configuration will be automatically migrated to newer data model. The user will be allowed to downgrade to older firmware version only by choosing to go back to legacy configuration snapshot.**

Operational Notes and Limitations

1. The Firewall (Access Control List) Wizard currently does not support configuration of MAC filtering rules. However, these rules can be configured by going to services->firewall page.
2. When using an Orbit on both sides of an IPSec tunnel there is an IKEv1 issue. IKEv2 is recommended regardless of this IKEv1 limitation.
3. In the CLI, deleting a single entry in a leaf-list will delete the entire list. Do not use brackets in the command when deleting an element in the list.
4. Internal software alarms cannot be cleared unless the ORBIT MCR is rebooted. (The Alarm *will* be in Event Log after reboot for record).

5. Configuring multiple Terminal Servers on the *same* TCP port does generate a warning, but operation will not work correctly.
6. Configuration of the station-max parameter, on the Wi-Fi interface, is not limited to 7 Stations, even though the ORBIT MCR currently supports 7 Stations.
7. To delete all IPv4 addresses from an interface use the following command:

   % delete interfaces interface *myInterface* IPv4
8. The ORBIT MCR NTP service may not accept time from Windows W32Time Time service (SNTP).
9. Wi-Fi Station Bridging is not interoperable with other vendor's Wi-Fi devices.
10. When the Wi-Fi interface is enabled with Dual SSIDs, Station Bridging operation is restricted to the first alphanumeric SSID.
11. When using Dual SSIDs maximum throughput is achieved only on the first SSID; the second SSID will have reduced capacity (details are system dependent)
12. There is currently no SCEP configuration WebUI support. SCEP must be configured via the CLI.
13. SCEP operations require certificate information to contain a Common Name, otherwise the operation will fail. No direct indication of failure is provided.
14. On a Microsoft CA server, the SCEP template used should not include Extended Key Usage.
15. In WebUI, there are no preconfigured file servers. This facility is only accessible from the CLI.
16. The USB port is currently intended for console access only
    - Note: If the USB port is in use as a Terminal Server and the ORBIT MCR is rebooted (or connection interrupted) the USB cable must be disconnected and reconnected and the Terminal Session on the connected device must be restarted.
17. Any member of a disabled bridge will be disabled. Members must first be removed from the bridge in order to regain access to the interface.
18. A Wi-Fi Station will not age out in the event that its corresponding Wi-Fi Access Point is no longer present.
19. Date/Time settings on ORBIT MCR are expressed in GMT format.
20. Some CLI command sequences, particularly those involving device configuration or repeat status monitoring, may rarely cause an internal error known as a *netmgr* failure. The system will effect recovery, but to ensure proper operation a reboot is recommended.
21. In rare conditions DHCP may fail to provide IP addresses; in this case a manual reboot is required.
22. The "\" character is an escape character for the CLI. If you want to enter a "\" into a text field (such as a user password), you will need to use "\\".
23. Changes to the Wi-Fi interface mode may result in loss of data for several minutes.
24. STP is not functional over interfaces belonging to a VLAN.
25. Configuration files cannot be imported while there are any active WebUI sessions.
26. Tab completion is not available on the CLI when deleting list entries. The entry name must be manually entered using the name as displayed by the show command.
27. Not all certificate upload or download actions create proper events in the event log.
28. Displaying the active routes will not show all configured routes, when connectivity to an affected subnet cannot be established.
29. When changing a Wi-Fi Station to put it into a VLAN, you must reboot the device.
30. Attempting to perform simultaneous reprogramming operations on more than four NxRadio remotes, via the Over-the-Air link, may result in reprogramming failures. This will be more noticeable at lower modem modes.
31. The NxRadio connected-remotes database will not show an IP address if the Remote is configured to participate in VLANs.
32. The configuration parameter to enable a specific Wi-Fi Access Point, overrides the higher level configuration to enable the Wi-Fi interface.
33. Long association times for Remotes may occur when an NxRadio Access Point interface is flooded with traffic.
34. QoS may not affect the Ethernet interfaces or bridging of Ethernet traffic between a Wi-Fi Access Point and a Wi-Fi Station in a bridge.
35. A bridged link between a Wi-Fi Access Point and a Station will only pass <1492 byte frames.
36. When using a Public Dynamic IP Addressed SIM card, On-Demand IPsec Mode is not supported. Always-On mode must be used instead.