openGear Release Notes

MFC-8310-N, MFC-8320-N, MFC-8322-N, MFC-OG3-N Frame Controller with Networking

Software version 2.91
August 19, 2015

Contents

Version 2.91 released 2015-08-19

This is a consolidated release the family of MFC-xxx-N controllers. It includes several corrections for the MFC-OG3-N and MFC-8322-N. All of these fixes, including previous ones from v2.7x and v2.8x, have been back-ported to the older MFC-8320-N and MFC-8310-N controllers.

The most significant corrections include: 39332 (Loss of DashBoard communication), 39360 (Devices in tree view cannot be opened), 25807 (Loss of NTP is not reported), and 38382 (DataSafe failing with 1024 or more OIDs). For details on these fixes, please see the descriptions under version 2.7x and 2.8x below.

Feature enhancements

Fan speed reporting

There has been a change to fan speed reporting via reserved OID 0xFF0D. Card developers should refer to the openGear development guide for details. This functionality was added for MFC-OG3-N and MFC-8322-N and is now also present on the MFC-8320-N and MFC-8310-N controllers.

Resolved issues

46583 – DataSafe upload failure for specific file sizes

When uploading a previously saved configuration (.OGD file), there is a 1 in 256 chance that DataSafe file upload may fail, so the card will not be restored to the saved settings. This was caused by a miscalculation of the number of packets to be exchanged. This issue has been corrected for all MFC controllers.

47937 – Audio alarm may not function on MFC-OG3-N

The audio alarm could intermittently become disabled even when the jumper was correctly positioned to enable the alarm. This issue affected the MFC-OG3-N controller only, and has been corrected.

48981 – Holding alarm mute button does not clear DataSafe

The user manual explains that when a DataSafe mismatch error occurs, the condition can be cleared either by clicking the **Update** button in DashBoard, or by holding the Alarm Mute button for 5 seconds. On the DFR-OG3 frame (eg. MFC-OG3-N and MFC-8322-N controllers) the alarm mute button on the front door did not work as described. This has been corrected in v2.91 software.

49047 – SNMP access to IpAddress is endian-swapped

On the MFC-OG3-N controller, the SNMP agent returned incorrect values for parameters encoded as IpAddress data types. This has been corrected for get and set operations on individual and array parameters.

Known issues

DBLite web applet

The DashBoard-Lite web applet may not run on modern systems with Java 7. Various security warnings occur, and often prevent the app from running. Note that DB-Lite app has not been updated in some time, and has fallen far behind DashBoard in terms of feature set. The DB-Lite applet may be removed in future versions.

Version 2.88 released 2014-02-26 for MFC-OG3-N

This release improves gigabit switch performance and corrects several other minor issues. There are no new features added.

Resolved issues

39456 – Gigabit switch performance

The gigabit switch was found to forward packets unnecessarily, resulting in poor performance, particularly under stress-test. The configuration of the gigabit switch has been corrected.

39619 – Gigabit switch reset sequence

A logic error in the gigabit switch initialization has been corrected. This issue could prevent the switch from being initialized during soft-reboot of the MFC-OG3-N.

39470 – LCD behavior in DHCP mode

When using DHCP, prior to obtaining an IP address, the LCD would show `255.255.255.255`, rather than `0.0.0.0` as documented in the manual. This has been corrected.

Version 2.87 released 2013-12-11 for MFC-OG3-N

This release corrects several issues found during testing. There are no new features added.

Resolved issues

39269 – OK/Alarm LED not behaving correctly

The OK/Alarm LED did not behave as documented in the manual. This has been corrected, it now works as in the MFC-8322-N.

39332 – Loss of DashBoard communication

A race condition in the processing of messages from DashBoard has been identified and corrected.

39360 – Devices in tree view cannot be opened

A condition in which devices appear in the DashBoard tree view, but cannot be opened, has been corrected.

39362 – Momentary communication interruptions

If the NTP server is left un-configured (eg. `0.0.0.0`), then MFC communication to DashBoard is interrupted for three seconds out of every ten seconds. This has been corrected.

Version 2.86 released 2013-12-09 for MFC-OG3-N

Initial release of the MFC-OG3-N network control card, for use in the OG3-FR high power frame.

Initial release for MFC-OG3-N

The MFC-OG3-N is functionally equivalent to the MFC-8322-N controller. It has been introduced primarily due to a component obsolescence issue.

Resolved issues

The following issues, present on MFC-8322-N, have been corrected in the MFC-OG3-N.

25807 – Loss of NTP is not reported

The MFC controller now correctly reports its Network Time Protocol (NTP) status to other devices in the frame. Previously, if the controller managed to synchronize, but then lost connection to NTP, it would continue to report successful lock status.

Version 2.78 released on 2013-10-24 for MFC-8322-N

Fix false fan speed alarms, and correct an issue with DataSafe.

Resolved issues

False power supply alarms

Some PS-OG3 power supplies trigger alarms due to fan speed exceeding the expected range. Now these events are filtered out.

38382 – DataSafe failing with 1024 or more OIDs

An openGear card with more than 1024 parameters would fail to load, and a DataSafe error would be flagged. This limitation has been removed.

Version 2.76 released on 2013-05-07 for MFC-8322-N

Enable the internal gigabit switch.

Feature enhancements

Enable internal switch ports

Ports on the internal switch are now enabled automatically when a card supporting this interface is inserted. The link status is reported in DashBoard on the “Network” tab.

Version 2.75 released on 2012-12-14 for MFC-8322-N

Initial release for MFC-8322-N

Initial release for the MFC-8322-N network controller and OG3-FR high power frame. Compared to the previous DFR-83x0 series frames, the new design offers:

- Higher total power (350W versus 150W)
- Gigabit Ethernet to each slot in the frame
- LCD display on front door for status reporting

The MFC-8322-N supports all functionality of previous MFC-83x0 controllers, including openGear protocol via the CAN bus, DataSafe hot-swap configuration management, and SNMP monitoring/control.

Version 2.66 released 2013-10-24

Minor corrections to DataSafe.

Resolved issues

38382 – DataSafe does not handle 1024 or more OIDs

An openGear card with more than 1024 parameters would fail to load, and a DataSafe error would be flagged. This limitation has been removed.

Version 2.65 released 2012-07-09

Added power supply monitoring and a few minor issues.

Feature enhancements

Power Supply Monitoring

An alarm has been added for monitoring power supply presence. By default, the alarm is disabled, to avoid false warnings. The alarm can be enabled for each power supply individually.

Once enabled, an alarm will be triggered if the corresponding power supply is removed from the frame. As well, SNMP traps are sent whenever power supplies are inserted or removed.

Resolved issues

25806 – NTP may fail to start

The NTP service could fail to start when the MFC is booted without ethernet cable attached, or if DHCP address negotiation takes more than 25 seconds to complete. To correct this issue, the NTP service is now monitored and will be automatically restarted as needed.

27865 – SNMP license text change

At the request of an openGear partner, we have changed the wording of the text shown on the SNMP tab, when the SNMP feature has not been licensed. Rather than referring to Ross Video, the text now directs users to contact their openGear provider.

28847 – Network settings text

On the Network tab, the text warning about the DIP switch position has been changed to red color for better visibility.

22583 – Cannot clear NTP Server

It is now possible to enter `0.0.0.0` into the NTP server field in order to stop using NTP. A similar issue with the Default Gateway field has also been corrected. The error message when an invalid IP address is entered has also been made more visible.

Version 2.50 released 2011-03-30

This release adds support for User Rights Management (URM).

Feature enhancements

User Rights Management (URM)

When enabled, this feature can be used to limit access on a frame, card, menu, or individual parameter basis. DashBoard version 4.0 is required to make use of this feature.

This build allows password protection of the frame. The default password is **password** and can be changed through DashBoard 4.0 by right-clicking on the frame and selecting **Lock/Unlock Access**. In the same dialog, select **Prevent unauthorized access to this frame** can be used to prevent older versions of DashBoard from accessing the frame (eg. to prevent circumvention of the URM system).

A previously unused DIP switch allows the password to be forcibly set to its default value. It is recommended to review DIP switch settings, particularly on older MFC controllers.

Resolved issues

24909 – Long Card Slot Names

The MFC crashes if a card slot is renamed with a 26 or 32-character long name. This issue has been corrected and the maximum length remains at 32 bytes.

Software upgrade

A potential issue with flash unlocking prior to upgrade has been corrected.

CAN bus startup

A race condition during startup that could lead to CAN bus lockup has been corrected.

Version 2.25 released 2010-06-23

This release adds DB-Lite web applet and corrects several minor issues. Interim version 2.20 was available to openGear partners for testing purposes.

Known issues

When entering the license key for SNMP, avoid entering space or tab characters before the key. This tends to happen when using WebKeys to copy'n'paste the key.

Feature enhancements

Software upgrade improvement

Memory usage during software upgrade of the MFC has been streamlined. This allows larger upgrade files to be handled reliably.

DashBoard web applet

DashBoard can now run as an applet in a Web browser. Certain features are not available (multi-upgrade, card dump, etc).

Resolved issues

20602 – Extra digits shown after serial number

On the MFC-8320-N the serial number field showed a few extraneous digits at the end.

20930 – Revert to DHCP after software upgrade

Cards configured with a static IP address would appear to switch to DHCP when upgrading from v2.05 software. This was a UI issue only, the card was using its static IP address.

21933 – SNMP support for IpAddress data type

Cards can now override the default SNMP base type on a per-parameter basis. A new OGP message type has been introduced for this, please see the openGear Development Guide.

21994 – SNMP failure to set strings parameters

Attempts to set string parameters longer than 10 characters via SNMP would sometimes fail, due to the null-terminator being dropped.

22078 – SNMP write community name lost on reboot

The SNMP write community name (`private` by default) was being overwritten when a SNMP trap notification exceeding 31 characters was entered.

Version 2.15 released 2009-09-28

This is the first official release to support the DataSafe feature. Several interim versions (2.10, 2.12, 2.14) were available to openGear partners for testing purposes.

Feature enhancements

DataSafe

DataSafe monitors card parameters for each slot, and restores the parameters if a card is hot-swapped with an identical card. This feature is disabled by default, but can be enabled on a per-slot basis using the new DataSafe tab in the MFC device page.

Configuration save and restore

In conjunction with DashBoard 2.3, card parameters can be dumped to a file, and can be restored from files to one or more active cards.

Slot renaming

Cards can be renamed at will, using the Setup tab in the MFC device page.

SNMP improvements

SNMP agent now allows the Access Right change between Read-Only and Read-Write for the parameter on the card.

Resolved issues

19740 – SNMP issue on slot 20

On a DFR-8321 frame, the SNMP agent failed to enumerate slot 20 during initialization, resulting in inability to control a card in that slot, until the card was rebooted.

19617 – SNMP agent initial configuration

When SNMP is enabled for the first time on an MFC-83x0-N, the agent does not start due to a missing configuration file. Only after the user makes changes on the SNMP configuration tab, does the agent accept connections. The missing configuration file has now been included.

19428 – SNMP request code changing too often

The SNMP request code was regenerating too frequently. Now it changes only upon reboot. This is necessary to enable “trial” license keys.

19099 – SNMP access to array elements off-by-one

When writing to arrays via SNMP on cards that do not implement individual array element access methods, elements were being shifted by one position.

19859, 18847 – Issues with frame name

Frame name is now limited to 32 bytes. Special characters such as comma are now handled correctly. To display such characters correctly requires using DashBoard 3.0.

17399 – Frame power value does not update

Frame power for the MFC-8310-N was not updating automatically in DashBoard.

17181 – First birthday IP address

Cards were not shipping with DHCP as the default network configuration, resulting in inability to communicate with DashBoard.

Version 2.05 released 2009-02-13

Feature enhancements

Consolidated DashBoard interface

Controls for the MFC-83x0-N have been consolidated into a single **Slot 0** device tab in DashBoard. Ethernet settings and SNMP license management is now integrated alongside the power consumption and other parameters.

Consolidated software upgrade

The software upgrade process has been streamlined—there is now a single upgrade package for all network-enabled MFC-83x0-N cards. Upgrades are now done consistently across all cards, using the **Upload** button in DashBoard.

SNMP improvements

SNMP agent now supports `StringArray` and `INT32Array` types. The SNMP feature is now licensed using Ross Keys. Existing keys are migrated automatically during upgrade.

Version 1.12 released 2008-06-27

Usage changes since v1.11

New DashBoard control port

DashBoard now connects to the MFC using TCP port 5253. This change was made to resolve common conflicts on the previous port 6666. This change is transparent to most users, as the Service Location Protocol (SLP) used by DashBoard will automatically handle the change. For manually connected frames, the correct port must be provided.

Feature enhancements

SNMP improvements

The SNMP agent now supports arrays, floats and strings.

Time broadcast

When the MFC is synchronized via NTP, it broadcasts the time to all cards every 10 seconds.

Faster bootup

The startup sequence for the network card has been optimized, reducing the bootup time for the card by about 15 seconds.

Resolved issues

11195 – Changing network settings

Sometimes it was necessary to reboot the card after changing network settings. Now settings are applied immediately.

11859 – Loss of network connection

Occasionally DashBoard was unable to reconnect to the frame following a network outage.

Important upgrade notes

Please note carefully the following restrictions on software upgrade.

Prior to v1.12

The card must be upgraded to v1.12 as follows:

1. Open the MFC-8310-N in DashBoard and click the **Upload** button.
2. Send the file `8310ER_011_02_v1_12.bin`.
3. Close the dialog when upload is completed.
4. Right click on the frame and select Open. A web page will open.
5. Select the **upload firmware** button on screen.
6. Browse to the file `8310_v1_12.zip` that you downloaded.
7. When the file upload is finished, select the Reboot button.

From v1.12 to v2.x

Upgrade to v2.x must be done starting from v1.12 only.

1. Right click on the frame and select Open. A web page will open.
2. Select the **upload firmware** button on screen.
3. Browse to the file `mfc_v2_05_upgrade.bin`.
4. When the file upload is finished, select the Reboot button.

Note: it is suggested to upgrade from v1.12 to v2.05 or v2.15, rather than directly to the latest v2.x version.

Between v2.x versions

In v2.x all upgrades are done via the Upload button in DashBoard.

1. Double click on the frame to open its Device page.
2. Click the Upload button at the bottom of the screen.
3. Browse to the upgrade file you downloaded.
4. When the upload is finished, select the Reboot button.

Downgrade from v2.x to v1.12

To downgrade from v2.x back to v1.12 version, please contact Ross Technical Support. A special version of the v1.12 build is necessary. The original `8310_v1_12.zip` file cannot be used.

DIP switches on MFC-8310-N

Please verify the DIP switch settings when upgrading MFC-8310-N controllers. Normally all DIP switches should be in the OFF position.