Release Title:	6.8.1
Date	08-Nov-2022
Version:	6.8.1

1. Remarks

This is the release note for OKI product. This release contains all the improvement and fixes done in V6.8.1.

V6.8.1
This release contains new firmware for OKI device. The updates to the firmware are
1. Miscellaneous ST2110 routes reporting issues to IPedit
2. ST2110 device capability reporting to IPedit.

V6.8.0
This release contains new firmware for OMI, OKI and OEI2 devices. The updates to the firmware are
3. Native ST2110-30 functionality available for OMI, OKI and OEI2 devices. This does not require the use of Dante Domain Manager
4. ST2110-30 configuration which includes PTPV2 settings, Tx and Rx streams is available via IPedit
5. OMI can support max of 48 ST2110-30 Tx and Rx streams; this is due to limitation of memory available.
6. Fix: In some instances, OMI-OMI and OMI-ODIN audio route connections would not be set-up.
7. Fix: Key status incorrectly processed at OMI, which resulted in false indication.

V6.7.5
This release contains only OKI firmware with following
1. Missing key assignments after powerup when 8 pages configured with alpha assignments (With or without an EKP attached) problem fixed
2. OKI would reset when sending large changes (multiple set-up pages changes)

V6.7.1
This release contains only OMI
1. Improvements in the OMI to address intermittent OMI resets
2. New OMI FPGA vesion3.2.0.

V6.7.0
1. Support for the new device type OMS and digital belt pack

V6.6.0
1. This release adds the support for Glitch Free option in the OMI card
2. This option is only available for the OMI cards that supports dual Mac Address (identified by the Serial number)
   ** Only hardware capability is available in this release.**

V6.5.4
1. AES67 gets disabled in OMI/OKI/OEI2 after enabling – fixed
2. Sometimes latch disabled keys get stuck in KP when connected to OMI – fixed
3. Clear config option provided for OMI/OKI/OEI-2 via IPEdit to reset the Dante config to factory
4. Telnet password for OMI changed
5. Support for ST-2110-30 included (needs Dante Domain Manager). Following to be noted
   1. If devices are enrolled in DDM, then firmware upgrades using FWUT requires that DDM to be online when upgrading the firmware. If DDM is offline, then firmware upgrade fails.
   2. Audio routes needs to be set-up again when enrolling the devices. This can be done using the Teardown command using IPEdit. Recommendation, set-up audio routes after enrolling both the source and receiver. This is only applicable to routes set using IPEdit.

3. If the devices are enrolled in DDM make sure that any changes to the device 's network configuration is made
    i. After un-enrolling the device from the DDM domain or
    ii. DDM is able to connect to the new network configuration
4. Audio is not available if the source and receiver are in different domains

V6.5.0

6. Added security features for compliance with California Senate Bill 327
    For new devices that are manufactured with v6.5.0, authentication must now be configured when first connecting to the device. This is necessary for compliance with California Law, re: SB327: An act to add Title 1.81.26 (commencing with Section 1798.91.04) to Part 4 of Division 3 of the California Civil Code, relating to information privacy.
    No change needs to be made to existing devices when this version of firmware is downloaded; however, if the authentication table is reset, or a factory reset is performed on the device, it will then enter the state where it requires authentication to be configured.

7. With IPedit v3.6.2 or later, IPedit will switch to the Authentication tab, and display a message notifying the user of this requirement. Until authentication has been configured, the device will not allow any changes to be made; and IPedit (v3.6.2 or later) will switch to read-only mode. With earlier versions of IPedit, no notification will be displayed, but the device will still refuse to accept any changes until authentication has been configured.
8. Open Source software information (OSS components used and the corresponding license text) can be uploaded by typing in the device's IP address in any browser such as Firefox, Chrome, or Edge.
9. Telnet access enable timeout: the telnet access is disabled after 15 minutes. To access again Telnet needs to be enabled
10. Added new IPedit command: Reset authentication. If a user (logged in with Admin permissions) holds down **Shift+Ctrl** while right-clicking the OMNEO device in the catalog on the left-hand side, the pop-up context menu now includes the item "Reset Authentication Table".This commands requires IPedit v3.6.2 or later.
11. Added security for various IPedit commands. The following operations have been re-implemented so that they are more secure, and difficult to spoof: These commands now require IPedit v3.6.2 or later
    1. Clear channel statistics
    2. Tear down channel(s)
    3. Reset Device
    4. Clear Pass through statistics
    5. Enable Telnet
12. Some of the Audio Routes are not set -up when 64 channels routes are set-up at the same time. This has been fixed

V6.4.0

1. Based on the OMNEO Platform that support Dante Domain Manager .Devices are discovered in Dante Domain Manager
2. Support for PAP-5032 device in OMI
3. Report dipswitch status (read-only) of the OMI in IPedit.
4. OMI/OKI/OEI-2 support secure authentication with IPedit.

V6.2.28

1. Random OMI resets. To address the issue following fix and improvements have been done
    a. Proper freeing and deleting of memory ,so that invalid memory is not accessed or deleted
    b. Code clean-up for redundant code
    c. Proper socket handling, code checks for valid sockets. Invalid sockets are ignored .This was causing resets in some instances. This has been added to all the modules that handle sockets.

V6.2.26

2. OMI firmware supports ODIN device type. Support for this has been added in the 6.2.26 version

3. This version onwards only signed capfw files are released. This required upgrading to V5.40 of the FWUT and the associated plugins.
4. Dante Controller reports the same number of channels as the device is licensed for. For eg:
   OMI-16 will show only 16 channels in the Dante Controller.
5. Fixed OMI reset when executing snmpwalk command.

V6.1.13

1. The maximum number of TCP connections that an OMNEO device can make is increased from 5 to 12.
2. OMI now forwards scroll lists only if it detects there is a Keypanel or Beltpack connected
3. New version of the OMI FPGA V2.0.2 This address the Control Bus Issue of communication with MCIIe.
4. The FPGA version display fixed for OMI
5. OKI/OEI-2 supports connection to OMNEO device channels greater than 64

V6.1.10

OMI, OKI, OEI-2 and KP-Series

1) Continuous reset of devices when using unmanaged switches has been resolved
2) Hot swap of KP's has been resolved

Issues fixed in V6.1.8

3) Fiber Ports on OMI/OKI/OEI-2 now work in both RSTP and no RSTP mode. In previous release fiber port did not work in RSTP mode.
4) Junk characters were displayed on the KP-series when operating in Katakana mode. This has been resolved.
5) KP-12 operating in Katakana mode requesting "KP Power-up" data continuously has been resolved.
6) New version of OMI-FPGA released to address the issue of intermittent audio distortion observed on some of the channels in OMI, caused by a TDM bus timing issue.
7) OMI continuously resets when the OMI back card is not connected. This has been fixed.
8) In event of OMI resetting continuously (caused by ports not being allocated or failure to communicate with MCIIe), the OMI channel configuration was erased in some instances. This has been addressed in this release.

New Feature in V6.1.8

1) IPEdit now displays connection information if the OMI/OKI/OEI-2/KP-series audio routes are set-up by Dante Controller. When 3rd party Dante devices are connected, the Device Type is shown as "Others" in the channel configuration grid and connection status is shown as updated. The channel bitmap indicates the connection status.
2) This release is based on OMNEO Platform version V5.0.0.

Issues fixed in V6.1.4

1) Fixing the Phantom Cross-points
2) Fixing the issue of removal of the 256th entry in Listen Audio Mixer Map.
3) Putting valid range checks when the audio mixer maps were being updated
4) Provided Diagnostics to clear and read the ASIC maps

Issues fixed in V6.1.3

1. OMI is not able to transmit audio in the Port range of 400 to 500. The OMI was internally using a limit of 500 timeslots. This resulted in the Audio not driven from the backplane by the OMI card. Now it is changed to maximum supported timeslots (880 ports).
2. Intercom Alpha names were not displayed correctly for OKI and OEI-2 connected devices.

New Features V6.1.2

1. Telnet is disabled by default for all the OMNEO devices. Telnet can be enabled from IPEdit using special keyboard and mouse combination. Right click on the device with Ctrl+Shift down.
2. Intercom Port numbers along with the Matrix name and Alpha are shown on the OMI card in IPEdit under channel configuration as shown in the picture below

3. The OKI , OEI-2 and KPSeries keypanel will display the Intercom port, matrix name and Alpha to which they are connected as shown in the picture below

4. In AZEdit, the version string for the OMI card will display "Firmware Download in Progress" when the OMI firmware is downloaded using the FWUT. This string will alternate with the regular version string during the Firmware Upgrade process.
5. Tear down channel Command has been implemented for OMI, OKI and OEI-2 devices. From IPEdit select a channel and it will show a Teardown channel menu item. Clicking this will temporarily teardown the channel and the connection is re-established automatically.

Issues Fixed
Following issues have been fixed in this release
1. The SetupOMNEOXXXFirmware.msi file for NIOS, OEI-2 and OKP did not update the latest files for the firmware upgrade. This has been fixed. The set-up files in this release will remove the old files and install the new files.

Features in V6.1.0:
1. New version of the OMNEO (OCA) integrated for OMI/OKI/OEI-2. The new version is 4.40.4085
2. Support for switching from RSTP to noRSTP and vice versa is now provided via IPEdit. There is no need to upgrade the firmware. If RSTP needs to be disabled then "Disable RSTP" should be checked. If RSTP needs to be enabled then "Disable RSTP "should be unchecked. The option is shown in picture below
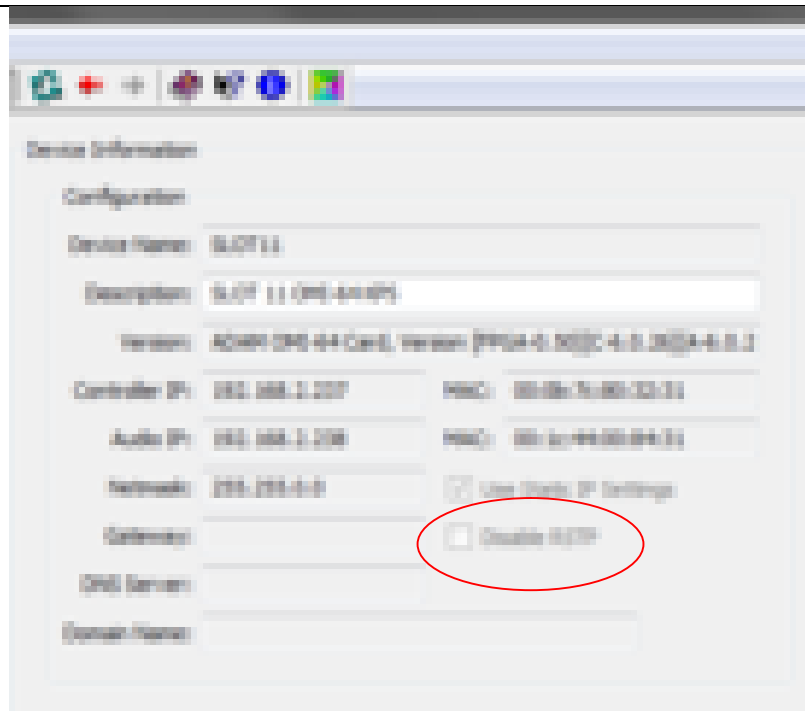
3. In earlier version 5.x.x Receiver Latency was always fixed at 1ms, but with 6.x.x onwards the receiver latency can be configured per channel from the OMI. The OKI, OEI-2 and KP-Series will display the set latency value from the OMI when the Audio Routes are established. The Receiver latency values cannot be changed from the OKI, OEI-2 and KP-Series, they are read-only. The default value is still 1 ms. The following Receiver Latency values can be set on per channel basis 1,2,5,10,15 and 20 ms. Refer the picture below for options in IPEdit.

OMI Screen in IPEdit

Destination Channel Description	1 an F (K1)	1 an KeyPanel			
Channel Input Gain	0 dB	0 dB	0 dB	0 dB	0 dB
Channel Output Gain	0 dB	0 dB	0 dB	0 dB	0 dB
Receiver Latency	1 ms	1 ms	1 ms	1 ms	1 ms
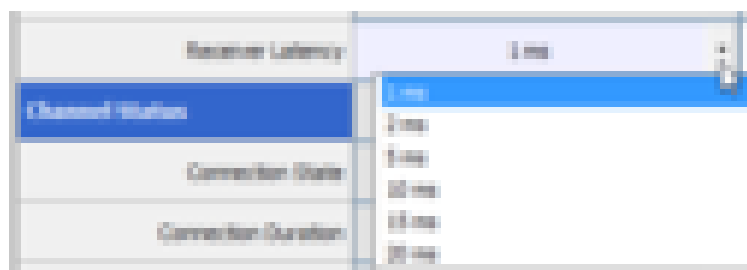
OKI/OEI-2/KP-Series Screen in IPEdit

4. FWUT /DNS-SD Version 4.40 is released
5. ARNI Configuration Tool and Firmware V4.40

.2. Software Compatibility Matrix

The Version 6.x.x firmware requires following version of the software/firmware. Please refer to release notes of the individual products. All the below firmware is available in the RTS Software Suite 2020.11

Nr	Device	Latest Released Version	Earlier versions (compatible)
1	OMI	6.7.1	6.2.26/6.1.0/6.1.2/6.1.3/6.1.4/6.1.8/6.1.10/6.1.13/6.2.26/6.4.0
	OMI-FPGA	3.2.0	0.48/0.50/0.75/2.02/
2.	OKI	6.7.5	6.2.26/6.1.0/6.1.2/6.1.3/6.1.8/6.1.10/6.1.13/6.2.26/6.4.0
3.	OEI2	2.7.0	2.2.6/2.1.0/2.1.3/2.1.4/2.1.7/2.1.0/2.4.0
6.	IPEdit	3.7.1	3.3.0 and above releases
7.	AZEdit	5.5.0/5.6.0	5.2.1 and above releases
8.	MCIIe	3.6.0	3.0.4 or above releases
9.	FWUT	6.20	Please check the Application note migration guide for details
10.	Bosch DNS-SD	6.20	
11.	KP32-CLD	1.7.10	V1.6.0 onwards Omneo Support Added
12.	KP12-CLD	1.4.9	V1.3.0 onwards Omneo Support Added
13.	KP32-Classic	2.5.2	V2.4.0 onwards Omneo Support Added. Requires update to boot loader
14	RP-1000	2.1.4	

Please note:
Version 5.x.x is not compatible with Version 6.x.x or vice versa. For eg: OMI V5.x.x will not connect to OKI version 6.x.x or OEI-2 version 2.x.x or KP-Series version 2.x.x. The OMI needs to be updated to V6.x.x. Similarly OMI version 6.x.x will not connect to OKI version 5.x.x or OEI-2 version 1.4.x or KP-series version 1.2.x. These need to be updated to V6.x.x or 2.x.x

3 Firmware Versions

The precondition for upgrading the OMI-firmware to 6.x.x is that the existing OMI-Firmware version must be at V5.2.12. If the OMI firmware is at version lower than V5.2.12, upgrade the firmware to version 5.2.12 and then proceed with upgrading to V6.x.x. If the OMI firmware is already at 6.x.x then the firmware can be updated to this released version.
Please refer to the Application note "OCP-OCA Migration" for upgrading the firmware from V5.x.x to 6.x.x for further information

Component	Version	Comment

The following firmware file contains images for the both the OMI controller and Audio Device and should be used for upgrading OMI card with Versions 4.02 and above.		
OMI-Firmware_RSTP_V6.x.x.capfw OMI-Firmware_noRSTP_V6.x.x.capfw	6.7.1	This file has to be used for upgrading OMI cards with version 4.02 and above. Please read the FWUT instructions
OMI-FPGA_Firmware_V3.2.0.capfw	3.2.0	This updates only the NIOS FPGA
Component	**Version**	**Comment**
The following firmware file contains images for the both the OMI controller and Audio Device and should be used for upgrading OMI card with Versions 4.0.0 and above		
OMI-Firmware_Controller_V6.x.x.capfw	6.7.1	This file is used for upgrading the OMI board set with the above versions using FWUT. This only updates the NIOS processor
OMI-Firmware_AudioDevice_RSTP_V6.x.x.capfw OMIFirmware_AudioDevice_noRSTP_V6.x.x.capfw	6.7.1	This file is used for upgrading the OMI board set with the above versions using FWUT

3   LED Diagnostic Information

Following are description of the LED's on OMI Front card that can be used for diagnostic purposes. This section mentions the changes and additions with respect to the LED's.

Red LED	#	Green Led
	23	
ON- Config from MCIIe OFF- Config form card Indicates Dip Switch 4 status	22	
ON - Static Mode OFF- DHCP Mode	21	
ON- NO RSTP Mode OFF- RSTP Mode	20	
ON- Device Name Mismatch OFF- Device Name in Sync	19	
	18	ON - IP Address in Sync OFF - IP address not in Sync
	17	
	16	
	15	
	14	
	13	
	12	
	11	
OMI Firmware States.	10	
	9	
	8	
	7	
	6	
	5	
	4	
	3	
	2	
	1	
Blinking – Indicating the OMI is Good	0	

During the Firmware download of the OMI, the LED's 1 to 9 turn on and off is sequence, indicating the OMI controller download is in progress.
Following is the OMI state when booting up.

Red Led #	Status	Remarks
1	ON	OMI validating the configuration information
2	ON	Identifying the OMI-Audio Device
3	ON	Verifying the Network Configuration
4	ON	Verifying the Audio Device Name
5	ON	Establish Connection with Audio Device