Overview

This document describes the new features and changes included in software version 2.00 for the Cisco® D9804 Multiple Transport Receiver (MTR) since the previous version 1.18.

New Features

The following new features and enhancements are included in MTR software version 2.00.

1. Added Deterministic Remultiplexing (DM)
   - Four simultaneous, independent decombine operations
   - One independent remultiplex output supported
   - Operates in legacy mode with original Base FPGA (FPGA 1.0) and DM mode with new DM FPGA (FPGA 2.0)

2. Added support for Over-the-Air application download from the IBCC

3. The following changes were made to the web user interface:
   - Summary page includes additional information requested by the customer.
   - ASI output setup pages include parameters to configure remultiplexed streams for the ASI outputs.
   - ASI output status pages show additional status information pertaining to deterministic remultiplexing.
   - Added a page to set specific control parameters for remultiplexing time thresholds for alarm indication and duration of null stuffing in place of corrupted or missing content.
   - Added a ‘Flash Verification’ page to show the flash memory area checksums to support device comparisons.

4. The following changes were made to the front panel interface
   - ASI output setup screens expanded to include parameters for configuring remultiplexed streams for the ASI outputs.
   - ASI output status screens show additional status information pertaining to deterministic remultiplexing.
Overview

c  Added menu items to permit setting specific control parameters for remultiplexing time thresholds for alarm indication and duration of null stuffing in place of corrupted or missing content.

d  Added a ‘Flash Verification’ screen to show flash memory area checksums to support device comparisons.

5  Reduced noise due to fan start-up during device restart.

6  Added a number of new alarms and warnings related to deterministic remultiplexing.

7  Improved the set and reset description texts of many previously defined alarms and warnings to facilitate network diagnostics.
Improvements

The following improvements were made in version 2.00.

1. Corrected an issue where the ASI outputs were not muted if the required RF carrier was removed from the NIT.

2. LNB power supplies are reconfigured after 30 seconds of continuous loss of RF lock. This corrects an issue where LNB power supply loses configuration after AC power brown-out.

3. Corrected issues that resulted in the ASI outputs being stuck in the mute state, with or without alarms, after network control changes.

4. Corrected an issue where the ASI output was inadvertently muted.

5. Corrected an issue where the ASI output was muted after group assignment changes.

6. Improved the ability of the MTR to lock to the bit rate of the decombined stream when there is a significant difference between system element clock rates (e.g., DTF, MTR).
Limitations

The following limitations are noted in this release.

1. This application provides legacy 6+0 functionality when operated with Base FPGA R1.00. Functionality for the 4+1 remultiplexing feature is provided when the application is operated with DM FPGA R2.00.

2. The DM FPGA supports four simultaneous, independent decombine operations.

3. Decombine can be routed to any one or more of the ASI outputs.

4. Decombine is configured per ASI output and is identical to prior releases.

5. ASI outputs with the same decombine configuration use the same MTR resource. This reduces resource usage if multiple, independent outputs perform the same function.

6. The DM FPGA supports one remultiplex output.

7. The remultiplex configuration can be applied for each remux ASI output to any ASI output. In this case, the remultiplex configuration must be identical as the MTR has only one resource available to perform the remultiplex function.
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