Dialogic® DSI Signaling Components
MST Binary for Windows® - Release Notes

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Contents

Binary for Windows® - MST V1.04 2

Binary for Windows® - MST V1.02 4

Binary for Windows® - MST V1.01 8

Binary for Windows® - MST V1.04

1 Overview

This release of the MST Binary corrects the handling of the configuration of port IP Addresses and port device names. It also corrects the handling of messages received for an invalid port.

This is the first publically available release since V1.02. The use of trial mode is now limited to one hour but in all other respects this release is backwards compatible with the previous release.

1.1 Applicability

All users are advised to upgrade to this release.

1.2 Resolved Customer Issues

Updates to resolve the following customer issue is included in this release.

IPY00082242

2 New Functionality

2.1 Support for dual license tokens

This release supports both the old style "INTEL" tokens and the new style "dialogic" tokens within the license file allowing it to function with existing deployed licenses and support future enhancements. It is the first release of this binary to support the Dialogic named license token. This change should be of no consequence to the user.

3 Changes

3.1 Windows IP Address (IPY00082242)

In the previous release the Configure MST Port message (MST_MSG_CFG_PORT) would reject an IP address for a Windows system device name parameter containing a zero in the decimal dot notation. For example, an IP address 172.28.0.15 (configured as 0xca1c000f) would be rejected. This has been corrected. Handling of virtual packets for an invalid ports

In the previous release an IP Message (MST_MSG_IP_MSG) received for an invalid port (out of range or not configured) was not previously handled correctly. In this release the IP message will be discarded correctly.

3.2 Port device names

The Configure MST Port message (MST_MSG_CFG_PORT) in the previous releases would reject an empty device name for ports of port type “virtual”. This is now accepted. Empty device names for ports of port type “Ethernet” will still be rejected.

3.3 Trial Mode

When operating in trial mode (using the –t command line option), the period of operation is now restricted to one hour after which the binary will terminate

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Binary for Windows® - MST V1.02

1 Overview

This release of MST is the first to support the reception of IP packets from 'Virtual Ports' as opposed to Ethernet ports. IP packets may be received by the system externally to MST and then encapsulated in a GCT Message and passed to MST for processing as normal.

This release also fixes two problems, including one resulting in the generation of messages of type 0x0000.

This release is backward compatible with the previous release.

2 New Functionality

2.1 Virtual Ports

If a system receives IP packets from a source other than an Ethernet Device then these may now be encapsulated and sent to MST for processing as normal. Virtual ports allow the reception of IP packets encapsulated in GCT Messages of type MST_MSG_VPORT_PKT defined below.

The 'Configure MST Port' message (MST_MSG_CFG_PORT) is used to define the source of messages to be monitored. This has a parameter called 'port type' used to specify what type of port the messages are received on. This will now support Virtual ports in addition to Ethernet ports.

Table 1. Port Type Table

Port Type Mnemonic	Value
PRTTYPE_ETHERNET	1
PRTTYPE_VIRTUAL	2

When a virtual port is configured the device name parameter is unused and should be set to zero.

2.1.1 MST Message Virtual Port Packets

Synopsis:

This message is used to encapsulate and send IP packets to MST. It requires the configuration of an MST Port of 'port type' Virtual.

Message Format:

Message Header	
Field Name	**Meaning**
type	MST_MSG_VPORT_PKT (0xce4d)
id	MST Port Id
src	Originating Module Id
dst	MST Module
rsp_req	0
hclass	0
status	0
Len	Packet Length

Parameter Area		
Offset	**Size**	**Name**
0	len	IP packet starting with the IP header

Description:

This message is used to encapsulate and send IP packets to MST. It requires the configuration of an MST Port of 'port type' Virtual.

The parameter area starts with the IP header in network byte order unmodified as seen on the network. Any header in front of the IP header must be removed and not included in this message.

Note: Care should be taken when receiving IP packets of length greater than 320 bytes. Normal GCT Messages have a maximum length of 320 bytes meaning the IP packet would require truncation. To accommodate messages in excess of 320 bytes Large GCT Messages should be allocated by using the NUM_LMSGS command as defined in the Software Environment Programmer's Manual.

Parameters:

MST Port Id

The ID field of the message identifies the MST Port the message is for. This must match a preconfigured MST Port with a port type of Virtual Port. If the port id has not been configured, or if the port type is not of Virtual Port then the message will be rejected and an event indication message with status set to MST_INVALID_PORT_ID will be generated.

Packet Length

The maximum permitted length of the IP packet is 1500 bytes; this corresponds to the maximum MTU size defined for Ethernet in IEEE 802.3. Messages in excess of this will result in an event indication message with status set to MST_OVERLENGTH_PACKET being generated as defined below.

If an MST_MSG_VPORT_PKT is received with the length field in the message header less than that in the IP header then the message is rejected and an event indication with status MST_IP_PKT_TRUNC is generated as defined below.

Message Data

Data as seen on the link in Network byte order, starting with the IP header and continuing with the SCTP header, the SCTP chunks (including the SCTP chunk header) and other data contained in the message as seen on the link.

2.1.2 MST_MSG_EVENT_IND Additional Event Codes

The MST_MSG_EVENT_IND message has been extended to support the following new event indications.

Table 2. MST_MSG_EVENT_IND Additional Event Code Table

Value	Event Mnemonic	Description	Id	Param
0x02	MST_IP_PKT_TRUNC	The amount of data received for an IP packet differs from that indicated in the IP header	port id	0x0000
0x03	MST_INVALID_PORT_ID	Virtual IP Message received for an invalid port	port id	0x0000
0x04	MST_OVERLENGTH_PACKET	Over-length Virtual IP Message received.	port id	len

3 Changes

3.1 Generation of messages of type 0x0000

MST can be configured to format messages received from the network with or without their IP, SCTP, M3UA or M2PA headers. If configured to not include these headers then only the M3UA or M2PA user payload is formatted and forwarded to the TAP.

MST can also be configured to select what types of messages are forwarded to TAPs. This includes options for SCTP, M2PA and M3UA control messages in addition to M2PA and M3UA payload messages.

Previously MST failed to handle configurations selecting the monitoring of non-payload messages formatted as payload messages resulting in the generation of messages of type 0x0000. Now MST will automatically format Non-Payload messages as messages of type MST_MSG_IP_MSG.

3.2 MST command line license test option

In the previous release, if MST was started with the License Test command line option (-Lt), the process would not automatically exit. This has been corrected.

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Binary for Windows® - MST V1.01

1 Overview

This is the first release of the Dialogic® DSI SIGTRAN Monitoring binary for Windows. Full instructions on the installation and use of this product can be found in the Dialogic® DSI SIGTRAN Monitoring Programmer's Manual - Issue 4.

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