GTS V2.2.0

Release Notes, Patch # 37

036R903-22037, August 1999

General DataComm

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Release Notes for GTS V2.2.0 Patch #37

Date: July 26, 1999

NOTE: This patch supersedes Patch #29.

1.0 Media

Patch #37 is delivered on one 3 1/2" diskette, Part Number:

036Z612-301A-P37

2.0 Patch Contents

1. TMS Controller task ESINTEG
2. TMS Controller task M2DIAG
3. CDA-T1 cdat_220L.0b
4. CDA-E1 cdae_220L.0c
5. ESCC Master escm_220K.09

3.0 Reason for Patch

This patch addresses the following symptoms:

3.1 Symptom:

In the Network status and Network Integrity screens, new pages other than the first page were slow to display their data.

3.1.1 Fix:

The polling in the network status and network integrity applications has been tuned based on number of controllers configured. This patch improves network polling performance for the first pass of data collection whenever a new page is displayed.

3.2 Symptom:

Loss of Supervisory Communications to random nodes on random Controllers with six redundant Controllers. Without the patch, system communications could stop using four controllers (in our worst case test system).

With this patch, this system can support all 6 controllers displaying the Network Status Screen.

NOTE: It is still not recommended to have many Controllers in Network Status screens simultaneously, since this can reduce the speed of an IAR, should one occur.

These improvements in communications through-put result in muxed comms now being capable of handling six instead of four controllers under a full load with six subaggregates.

3.2.1 Fix:

Reduced or eliminated the number of lost data packets. Sped up the message transport software in the CDA. Reduced the amount of extraneous information sent by the CDA, ESCC, and TMS Controller.

A number of enhancements were made to the CDA to help reduce the demand of CPU power by some processes thereby allowing more CPU time for other time critical processes.

Added packet routing capability to the CDA card to allow the CDA to route packets locally between subaggregates instead of passing all packets up to the ESCC to make routing decisions, thereby increasing transport speed.

Re-prioritized levels for packet discarding when CDA buffering reaches saturation to further minimize the possibility of a system communications failure.

Reduced number of idle or unnecessary packets from the CDA, ESCC, and TMS Controllers.

The communications buffering capacity of the CDA has been increased.

The message transport speed of the CDA has been increased.

Greatly reduced the chance of lost communications and lost node ownership in the "Muxed comms" and "Non-Muxed comms" configurations.

3.3 Problems Discovered in Patch #29

1. If the CDA set flow-control because a destination queue was too full and there were no subsequent messages for that queue then the flow control was never cleared. This has been fixed.
2. The ESCC could set flow-control on the Controller link if the Controller link was busy. This could cause the comms lockup. This has been fixed.

3. When the ESCC downloads the routing tables to the CDAs, it might skip a CDA or a pair of CDAs. This would cause all messages to be routed through the ESCC rather than routed on the CDA. This has been fixed.

4.0 Loading Instructions

To load this patch, follow these instructions:

1. Go to the "Main Menu" screen and select the "Controller Maintenance" option.
2. Install this patch via the "Load a Software Release" option on the “Controller Maintenance” screen.
3. Software is now residing in the controller. Revision "2.2.0L" of the CDA-E1 and CDA-T1 files should be selected using the "Select Stored File Revisions" poke-point from the "Modify/Activate Software Revision List" poke-point of the "Download" screen. Similarly, select revision "2.2.0K" of the ESCM file. This stores the software in the background.
4. After all the nodes receive the code, select the "Modify/Activate Software Revision List" poke-point in the "Download" screen. Finally, activate the code by hitting the "Activate Stored Software Files" poke-point.

4.1 Special Instructions for Large Networks

1. During software activation, it is recommended to temporarily disconnect some or all subordinate Controllers until the activation is completed and the network stabilizes with the master Controller. This will allow the network to stabilize and return to normal operation much more quickly.
2. It is still not recommended to have many Controllers left in Network Status/Integrity screens simultaneously for long periods of time, since this can reduce the speed of an IAR, should one occur.

NOTE: The files on this patch are Year-2000 compliant.

The installation of this patch WILL cause a software download to the TMS nodes. Therefore, some temporary disruption of the network will occur when activated. To minimize network disruption, disable IAR before activating the stored code.

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