8250 Token Ring Mangement Module

Release Notes

PN 59G0174

(EC C38331)

TRMM V2.10

Document to be attached to TRMM installation instruction and Op-
erating guide ref SA33-0213-2(Doc PN 59G0172)

1.0   Table of Contents

1.1 Introduction

This Release Note describes the known problems with the Token Ring Management Module (TRMM) B2.10 software for both the TRMM Basic (feature 3823) and the TRMM Advanced (feature 3884) models. This note also describes the features provided in the TRMM Advanced. For future reference to this material, add this note to the binder containing your Token Ring Management Module Installation and Operation Guide.

1.2 New features

The following features are available :

1. Ability to enable the TRMM to segment a beaconing device rather than the entire concentrator via the commands:

   SET TRUNK (slot) RING_IN (trunk port)
   EXTERNAL_BEACON_RECOVERY (setting)

   SET TRUNK (slot) RING_OUT (trunk port)
   EXTERNAL_BEACON_RECOVERY (setting)

   (slot) = 1-17

   (trunk port) = 1 or 2 (only required on the 3822TR module)

   (setting) = exists or no_exists(default)

   Devices that do not support beacon recovery (example 8228) may cause a multi-hub ring to segment at all Ring In and Ring Out ports. To prevent this problem, set the external_Beacon_recovery parameter to no_exists for trunks connected to devices that do not support beacon recovery. Trunks connected to devices that do perform beacon recovery should have this parameter set to exist.

2. SNMP alarms are generated when the port security MAC address is changed, and when a beaconing port has been disabled.

3. Ability to allow the TRMM to participate in Active Monitor Contention via the SET DEVICE MONITOR_CONTENTION command. The status of the Monitor Contention parameter is reported in the Show Device display.

4. The identity of the Active Monitor is reported in the Show Network_Map Token_ Ring Logical display.

5. The Show Device display reports memory size and quantity.

6. The multi-station traffic counter display reports Time Since Last Cleared.

7. The Monitor command and the Show Counter Top_Errors/Receivers /Senders commands include the Number of Stations parameter.

8. The SHOW COUNTER NETWORK ERRORS command can be issued for TRMM Basic.

9. The SHOW COUNTER NETWORK TRAFFIC has an additional TRAFFIC parameter for TRMM Advanced.

10. The CLEAR ARP_TABLE command enables you to clear the Address Resolution Table, and allow the TRMM to rebuild the table with updated IP to MAC information.

These features are described in Chapter 4, and examples of command usage are provided in Chapter 5 of the Token Ring Management Module Installation and Operation Guide. Note that Advanced features require the installation of the Advanced board onto the Basic board.

1.3   Improvements

1. Traps are displayed during a Monitor session. Traps also display during an outbound Telnet session. The Monitor command is fully functional. Previously, queuing trap information affected SNMP performance.

2. Monitor Top_Errors/Receivers/Senders displays correctly.

3. The MONITOR command works properly when run during a Telnet session, and when the Telnet session ends ungracefully.

4. The TRMM accesses the TopN tables in large configurations without resetting.

5. The TRMM successfully resolves a beaconing MAC-less station.

6. Network Counters are cleared properly when interfaces are switched.

7. Ports with security enabled work properly when:

    *   a security breach occurs.

    *   inserting an invalid port on another security port.

    *   the ring configuration changes externally.

8. Token rotation time zeroing out has been fixed.

9. The SHOW ERROR_LOG command has changed to SHOW LOG SYSTEM_EVENT.

10. The Token Ring Bridge and ring numbers display in hexadecimal format.

11. The following SNMP counters are now supported:

- ifInUnknownProtos - incremented on all no-IP packets received

- icmpInTimestampReps - incremented when received

- icmpInAddrMasks - incremented when received

- icmpInAddrMaskReps - incremented when received

- snmpOutGetResponses - incremented when received

- snmpInTotalReqVars - incremented when received

- snmpInTotalSetVars - incremented when received

- snmpInBadTypes - obsoleted

- snmpOutReadOnlys - obsoleted

- ipRouteMetric5 - added support

- ipRountInfo - added support

- ipRoutingDiscards - added support

12. Fix to shut down copper trunks on TRMM, feature 3822, or 3820 if excessive noise detected on trunk. This is not a situation which has been seen in the field. It has only been duplicated in lab using noise generation equipment.

13. Fix to hub segmentation due to beaconing on external segments that due not have beacon recovery. Addition of trunk attribute external _beacon_recovery and supporting terminal and SNMP commands to support this feature. This allows the user to specify which trunks are connected to devices that can not perform beacon recovery.

14. Fix to problem with beaconing on ports in hub located between 2 external trunks causing beaconing to never resolve

15. Fix to possibility of reboot occuring when performing a 'monitor' on a telnet session.

16. Fix to allow response to ICMP request packets with a data field greater than 172 bytes.

17. Fix to allow 'set device ip address' command through a telnet session to allow a 'reset device' following the set.

18. Fix to send trap for security mode change through SNMP. Fix to send trap for security MAC adress change.

19. Change to put state of disabled port/trunk in beaconing trap.

20. Fix to problem with beaconing LED occasionally staying on after beaconing repaired.

21. Fix to inband download problem in high traffic network and thru bridges.

22. Fix to not disable other external trunks when connected to 8230 and beaconing due to wire fault wire between the two devices.

23. Change to information on initial monitor top_error,Top_Sender, Top_Receiver screens to indicate if there are no non-zero values.

24. Change to message when clearing ports that do not exist.

25. Change to message when showing counter on module with no statistics.

26. Implementation of --more-- on 'show counter port x.all' to prevent information from scrolling off the sreen.

27. Fix to decrease number of stations shown in 'show network_map Token_ring logical' to prevent scrolling off the screen.

28. Fix to send trap when admin_state for a group set by SNMP.

29. Fix to occasional invalid MAC address shown when doing 'show module verbose' on module with MAC address through a telnet session.

30. Increased string length for SNMP variable chipTFTPfile-Name from 33 to 128 to allow same number of characters in download file name to be entered from SNMP or terminal.

31. Fix to TRMM hang when performing a monitor on a telnet session and telnet session ends unnaturally (pulling cable, switching interface).

32. Fix to accessing TopN tables without greater than 250 stations causing a reset of TRMM.

33. Fix to problems with ports with security enabled getting shutdown due to a security breach. Problem happened when external trunks were connected with ports and a change in the ring was introduced (i.e. enable/disable ports/trunks, remove ports/trunks).

34. Fix to beaconing problem in which mac-less station caused cable break after successfully enabling port. Change was to handle mac-less stations in beaconing algorithm.

35. Fix to beaconing problem in which TRMM is on a network with external trunks, is switched to network without externals, and beaconing is introduced. The TRMM erroneously disabled the trunks from the previous network in recovery process.

36. Fix to token rotation time (went to 0 after a few days)

37. Fix to clear network counters when switch interfaces

38. Change for 'show error_log' to be 'show log system_event'

39. Change to display TRB bridge and ring numbers in hex

40. Fix to prevent reset during SNMP access of olTopNSummaryTable

41. Fix to prevent SNMP timeout during access of
    olTRTrafControlTotalStations and olTRTrafPortTable

42. Partial fix to Slot up/down on slave problem with slave on network
    and master isolated

43. Fixes for SNMP variables for FDDI feature 3826 module.

44. Fix to report FDDI network paths correctly

45. Fix to allow olTRTrafControlClear to be set

46. Fix to allow chipEchoAddr to be correctly set through SNMP
    (allows 0 to be used in middle of IP address)

47. Fix to make chipEchoResponseCounts Read-only

48. Fix to set ifAdminStatus to 2 for interfaces that are down

49. Fix to filter out Trunk Up/Down traps due to Lost Lock on
    backplane trunks

50. Fix to prevent disabling ports on old network when switch to
    another network and beaconing occurs before map resolves

51. Fix for garbage characters displayed when a TRMM set up as trap
    receiver, telnets to another TRMM which is set up to send traps
    to the originator.

    The originator then sets security MAC address for a port. The
    response to the command and the trap were received at the same
    time.

52. Beaconning problem causing isolating in certain situations

53. Beaconning status to be indicated in Port trap

54. TFTP download problem through certain routers

55. Change of IP address of TRMM through telnet session between 2 TRMMs causing telnet session to hang.

56. Fix to string displayed when six slot is not in correct concentrator master TRMM on same ring

57. Fix to prevent ports erroneously disabled due to security when slave TRMM on ring, master TRMM isolated, and ring map changes.

58. Fix to prevent slave from attempting to disable security ports when master TRMM on same ring

59. Fix to not disable logical ports when a module with logical ports is inserted into a slot that previously contained ports configured for security

60. Fix to logical mapping algorithm to help prevent slave Slot Up/Down when slave is on a ring with large number (-250) of stations.

61. Fix to clear Top_Error counters through clear counter all'

62. Support for Six-Slot Advanced functionality

63. Increase of stacks to accomodate more stations in TopN tables

64. fix to pSOS error due to continuous XID request packets

65. fix to reponse for set device <> enabled/disabled' not sent to telnet session.

66. fix to remove unnecessary second authentification trap

67. Fix to string displayed when six-slot is not in correct concentrator

68. Fix to Telnet negotiation problem which cause telnet monitor displays not to refresh.

69. Fix to TRMM 6 initial banner, with advanced card attached.

1.4   General information

1. The SHOW ERROR_LOG command has changed to SHOW LOG SYSTEM_EVENT.

2. The Token Ring Bridge and ring numbers display is hexadecimal format.

3. The TRMM will support pings (icmp requests) of 1400 bytes or less.

4. When using command completion to specify the ALL option in the MONITOR or SHOW COUNTER STATION command lines, you must type ′al′ for the the TRMM to recognize the ALL option. Otherwise, the TRMM assumes the ′a′indicates the beginning of a MAC Address.

5. The SHOW COUNTER and MONITOR STATIONS displays may indicate extra entries with erroneous station addresses. These entries are caused by ring error conditions (e.g., line errors, burst errors), which are a result of normal ring events (e.g., stations inserting onto the ring).

1.5   Known Problems

1. When a TRMM with diagnostics enabled and an Ethernet Management Module reside in the same concentrator and the concentrator is reset or a power cycle occurs, the TRMM may not become master, even if it has a higher priority. To avoid this situation, issue the SET DEVICE DIAGNOSTIC DISABLED command. If you do not issue this command, the administrator must instead issue the RESET MASTERSHIP command after the diagnostics are completed.

2. The TRMM will not respond to SNMP frames when you use the
    Pause, Scroll, Lock, or Control-S keys to freeze a terminal display
    for an extended period of time, and with large amounts of messages
    being sent to the screen (e.g enabling all ports on an 8250 Ethernet
    24-ports Module). This situation occurs because the messages are
    buffered and ressources become unavailable for the SNMP task.
    Once scrolling resumed, the SNMP response will continue. The
    same situation must occur if Modem is attached to the TRMM.
    Make sure the echo mode on the modem is disabled.

3. If you install or remove a feature 3820 module or a feature
    3805,3806 or 3807modules after the TRMM has been installed, a
    mastership election may occur. If you issued any TRMM SET
    commands, issue the SAVE ALL command before installing or
    removing a feature 3820 module or a feature 3805, 3806 or 3807
    module. This will prevent the TRMM from losing any configura-
    tion information during a mastership election.

4. When piping command displays to MORE during a Telnet session
    with certain Telnet servers, - MORE - is not displayed. Instead, the
    screen flashes and beeps at the bottom of each page. Press the
    space bar to page to the next screen.

5. Negative values will be displayed when the error frame/octet
    counters wrap (at two billion plus counts). Issue the appropriate
    CLEAR COUNTER command to reset the values. Once the
    counters are reset, correct values will be displayed when a subse-
    quent SHOW COUNTER command is issued.

6. When the TRMM has the highest MAC address on the ring and
    the first station to realize that monitor contention is required, it
    will become active monitor even if monitor contention is disabled.

7. When switching Token Ring modules from one ring to another,
    the rings will be momentarily joined. To avoid this scenario,
    switch the modules to isolated before switching them to another
    ring. This scenario will not adversely affect the ring, nor will it
    have any effect on user applications.

8. If a packet is sent to a subnet associated with an interface subnet other than the one on which the TRMM is currently configured, it may not reach its destination. This is because all interface addresses and subnets defined in the TRMM, it will be sent locally to the actual address. However, if the frame destination doesn't match any of the TRMM, it will be sent any of the TRMM's configured subnets, the frame will be sent out to the default gateway. This is not a problem in a bridged environment.

 To avoid this situation, set all device IP addresses to the same subnet specification. If you switch the TRMM to monitor a different subnet you must also :

> Set all interface to that subnet

> Issue The SAVE command to save the new configuration

> Issue the RESET DEVICE command in order for the new subnets to take effect.

 You may also access a TRMM using Telnet and SNMP to monitor networks through routers.

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