Technical Support

TECHNICAL NOTE

TECHNICAL NOTE TN-1057-SR

T1510/T1511/T1711 Main Processor Software Version 7.07

27 July 2005

Applicability   T1510/T1511 Channel Control Modules (CCM)
T1711 Channel Management Modules (CMM)

1.   Introduction

This is the third release of the version 7 T1510/T1511 CCM and T1711 CMM Min software. (Main Processor)
It has been released to operate in conjunction with the latest release of SMM software - SMX V7.10.

2.   Issues Resolved

The following issues have been resolved between MIN V7.05 (test trial) and MIN V7.07.

NPD calls do not use pressel gating of receiver audio.
Radios sending NPD data will not send pressel messages. NPD calls now use carrier to detect activity, even if pressel messaging has been enabled in the configuration.

MST transmissions did not work in fallback mode.
The control channel in fallback mode now processes MST transmissions correctly.

The response from a radio polled with AHYP on traffic channel was ignored.
The CMM will wait longer for the acknowledgment to come back from a radio, in response to an AHYP sent on the traffic channel.

The D bit was not set in the GTC message for NPD calls in fallback mode.
This bit indicates if a call is an NPD or a normal speech call.

Low forward power alarm will not stop a channel working in fallback mode.
In fallback mode, there is no SMM to record the alarms, which means the low-forward power alarm should be ignored. The high-reverse power alarm should still disable the channel.

Site now sends DCW fillers.
The control channel will now send DCW fillers if required. These fillers are required after odd length SST transmissions and extended AHY messages. In previous MIN software, withdrawn ALOHA messages were being sent.

Site was sending an interprefix report for MST transmissions when it was not required.
The CCM will now only send interprefix reports to the SMM, if the SST to be sent is actually for an interprefix call. The fault this fixes did not stop the SST from working, but was wasting sitebus bandwidth.

ANN numbering is implemented in fallback mode.

This feature requires flash parameters in the CMM to be configured with the CFG tool.

Call answer timeouts on answered FOACSU call.
When the b-party answers a FOACSU call, both radios were sent to channel. If neither party transmitted, the call would timeout after the call answer timeout, rather than inactivity timeout.

FFSK was sometimes sent in temporary traffic mode.
In certain situations, when the control channel converted to a temporary traffic channel, if would keep sending FFSK during the call.

De-bouncing added to low forward and high reverse power alarms.
The T800 PA has a keying signal from the exciter. For a few 10's of milliseconds, the PA would show a low forward power alarm until the exciter and PA were at an output level over the alarm threshold.
The Min software will now only raise an alarm if it detects that the low forward or high reverse power lines have been asserted for longer than 800mS.

Jammed control channels operating incorrectly.
When the "inhibit jammed channel" feature was enabled, a control channel that was jammed would intermittently take over as the control channel every 2 seconds.
Now, once jammed, a channel can not become the control channel until the jammed status is cleared.

3.   Known issues and Limitations

Control channel does not ignore invalid replies to AHYC requests.
When the control channel is expecting a SAMIS reply back from a radio (ESN, interprefix, phone digits), it does not ignore all invalid codewords.

Memory read and write modem processor is not possible.
The ability to read/write to the CCM/CMM modem memory has been removed. Almost all the useful modem processor parameters are stored in the common ram, and can be accessed via reading/writing to the main processor software.

Channel faults not displayed while in fallback mode.
Normally when a channel has a fault, and is taken out of service and will show the fault on it's numeric LED display so users will know it is out of service. In fallback mode, a traffic channel fault will not be displayed.

The number of CLEAR messages sent at the end of a call is incorrect.
The number of CLEAR messages to send is set in the SMM configurable parameters. The number sent by the traffic channel is as follows for each parameter value:

SMM parameter:	Number of CLEAR messages sent:
1	1
2	1
3	2
4	2
5	3

The channel control RF number can be set beyond 1023.
The channel control RF number can be set beyond 1023 using the

configuration utility and hex switches. The behaviour of the channel controller is not defined beyond 1023.

4. Compatibility

Products this Software is approved for inclusion in:
- T1510 Channel Control Module;
- T1511 Channel Control Module;
- T1711 Channel Management Module.

Hardware compatibility:
- Q1510MIN can be programmed in to either a 32k*8 EPROM (27C256) or a 64k*8 EPROM (27C512). Used in T1510 CCM hardware. If Q1510MIN software is to be used on 32K EPROMS, the software should be loaded from 0x8000 onwards.
- Note: Technical Instruction 430 can be performed to accommodate 64k EPROMS on CCMs with PCB IPN 220-01212-02 or later.
- Q1511MAX requires a 128k*8 FLASH (29F010). Used in T1511 CCM hardware.
- Q1711MAX requires a 128k*8 FLASH (29F010). Used in T1711 CMM hardware

Software compatibility:
- CMM Modem Processor: Requires Q1510MOD / Q1511MOD / Q1711MOD version 7.00 or later.
- Site Management Module (SMM) processor: Requires Q1722SMX version 7.06 or later

5. Issuing Authority

Name and Position of Issuing Officer	Jeff Northcott Senior Technical Support Engineer.
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