

# Gemini Communication Ltd.

*Innovation & Leadership*

Product Troubleshooting – Aperto Packetwave BSU

Ref. 1060001100

# ***APERTO CHECK POINT ERRORS***

# Check Point Error 94

This checkpoint indicates that the WMAC scheduler encountered an unexpected condition during the processing CIR service flows. This will result in a reset of the WMAC subsystem.

## BSU sector rebooting due to race condition between the service grant and the Constellation, Symbol Rate and FEC Adaptation (CSRF) change

**A race condition between the service grant and the CSRF change causes checkpoint 94 on the WSS causing it to reboot. This problem could manifest itself when a sector successfully grants service to a specific SID and immediately after that CSRF change request comes for the CPE to which the above SID is associated with and sector tries to deny BW request for the same SID.**

# BSU sector rebooting due to TxFree Buffer count

This problem could occur itself under one or more of the following conditions:-

- very heavy downstream traffic.
- severe radio conditions
- excessive re-transmissions (ARQ).
- TxFree Buffer count is zero.

The TxFree Buffer is utilized whenever the WSS transmits packets. When the TxFree Buffer Count reaches zero, the watchdog task gives one warning and initiates the reboot process of the specific WSS if the buffer count is still zero at the next iteration.

# Check Point Error 98

This checkpoint will be seen when the WMAC has issued an error interrupt . This typically indicates some sort of hardware error. In the field , we have typically seen the following conditions trigger this error :

1. Excessively high bit error rate that the ASIC chip cannot tolerate.
2. A condition on the clock signal board that causes a register to left – shift a sequence number.( This is in the PHY – MAC interface for received data.)

# Checkpoint Error 89

This is caused by drifting of the synthesizers, and detectors re-correcting for this. No need for alarm if an isolated occurrence, and the synthesizer comes back into lock. If the synthesizer2 stays out of lock, it means that the radio is very likely transmitting out of the configured channel and the software will shut down WMAC so as not to cause interference.

# Checkpoint Error 43

If the frame started out of sync, the most likely cause of this error would be an issue with the frame sync cable (BNC connector fail - not proper crimped, short-circuit or cable break itself) then it's indicates message Checkpoint 43 (ChkPt 43). Or if the BSU got rebooted the message can be monitored from EMS or Syslog server.

# Checkpoint Error 150

1. Cable issue between WSS and Radio
2. DC Voltage approx 10-18 Volt at Radio from WSS port.
3. Internal communication between MSS- WSS.
4. Traffic on BS Ethernet port and each WSS ports at the time of error occurred

# Radio control error

- From BSU fault log it is observed that "Radio control error". this issue can be any one of the followings.
  - 1.cable between IDU and UDU
  - 2.Bad Radio
  - 3.IDU port

**check the followings:**

  1. verify RG-6 cable and Control is perfect.
  - 2.Connect a tested ODU with the IDU ports and see if Radio is detected.
  - 3.if possible connect these ODUs to tested IDU(PW760 or PW1000) and see if Radio is detected.

# CHECK POINT ERROR 90

The check point error 90 will be monitored in the BSU event logs, If the Syslog server is Configured in the BSU and in the SU and If the events logs are not able to send the syslog server ,then this type of Check point errors will appears in the BSU event logs.

“ Chkpt error 90 error can't sent to Syslog Server”

***Thank You***  
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