

Customer Handbook for TDM Circuits

Dear Customer,

We thank you for your continued support as our valued customer. At RCOM, we always strive to provide our customers with our best services.

At times, during downtimes and network failures, we have noticed that there are issues which can be well managed from customer's end thus reducing Mean-Time-To-Resolve (MTTR). We have collated this understanding in the form of Handbooks.

This effort comes to you in the form of '**Customer Handbook for TDM Circuits**'. This handbook will help your team in reducing the time spent to resolve issues of following nature:

- ❑ Link Down
- ❑ CRC Errors
- ❑ Packet Drops
- ❑ Link Flapping
- ❑ Latency

We sincerely hope that simple guidelines given in the handbook, will improve the overall service experience drastically.

In case of any support, clarification or feedback, please contact your Service Account Manager

Regards,

Reliance Communications – Enterprise Business

www.rcom.co.in

Link Down



1. Check the interface status on Router viz. Down/Down or Up/Down

Down / Down: Check on the physical connectivity within your network namely between the Router/Passport/Switch & Modem/Converter, check the WAN cable connectivity from Modem/Converter till MUX and also check the connectivity (V.35 cable) between the modem & the router

Up / Down: First, check the setting at the Router/Passport/Switch i.e. as per the encapsulation protocol set for the link PPP, HDLC etc and then check the frame settings at the Router/Passport/Switch. Convey this status to RCOM and we will take it forward for any media testing

2. Check the status or alarms on the Modem viz. Line LED, TD & RD LED and Sync LED

Modem: Check the power status of the Modem/Converter. It should be on & stable with the LED glowing on your Modem.

Link Down

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CRC Errors



1. Make sure that there are No inter-equipment lose connections right from Router/Passport/Switch up to the RCOM MUX.
2. Please check for electrical interference on the cable LED between the MUX and Router
3. Check the V.35 cable and ensure that there is no loose connectivity between the Router & Modem
4. If possible please loop the Router interface and check if CRC errors are still occurring. If errors persist, then we suggest you arrange to change the Interface port.
5. If no errors are found, inform the status to RCOM for further troubleshooting.

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Packet Drops



1. This problem is mainly due to high CPU utilization by end users and Router/Passport/PABX Interface port related issues.
2. Check the Ethernet interface settings(Ethernet parameters, speed, duplex, flow control etc.) and ensure that they are correctly set
3. Check the physical connectivity (copper wire) and see if there is any breakage or bending.
4. Check the Router port by providing loop on it at local end & test for some ping responses.
5. Test for ping responses with loop on it at remote end.
6. If no errors are found, inform the status to RCOM for further troubleshooting.

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Link Flapping



1. This may happen due to high CPU utilization by end users on Router/Passport or due to some Interface/Port issues etc.
2. Check if the configuration (Incl. CRC) settings on both ends Routers/passport are matching.
3. Check for the framing of the circuits at either ends for T1/E1/DS3 interfaces.
4. Please check and ensure that the Carrier Delay/ SONET Trigger setting on the Router port is $> 50\text{msec}$.
5. For the Serial port, check if the reliability is decreasing or CRC errors are increasing and convey the same during TT booking procedure.
6. Check the Router port by providing loop on it at local end & test for flapping in the ping responses.
7. Test for flapping in the ping responses with loop on it at remote end..
8. If no errors are found, inform the status to RCOM and for further troubleshooting.

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Latency



1. Check if there is any over-utilisation. In case of over utilisation, the load needs reduction.
2. Also check for the Router/ Passport whether the CPU utilization is well within limit.
3. Please check the Router port by providing loop on it at local end & test for round-trip delay in the ping responses.
4. Test for round-trip delay in the ping responses with loop on it at remote end.
5. If no errors are found, inform status to RCOM and we will check the TX media and resolve the issue

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Thank You
