# Customer Handbook for DIA & L3 VPN 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 DIA /L3 VPN Circuits**'. This handbook will help your team in reducing the time spent to resolve issues of following nature:

❑ Link Down
❑ Reachability
❑ Protocol not working
❑ Link Flapping/Packet drops
❑ 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 (Physical/ Line Protocol):** Check on the physical connectivity within your network Viz. between the Router/Passport/Switch & Modem/Converter.
Check the WAN cable connectivity from Modem/Converter till MUX and also the connectivity  (V.35 cable) between the modem & the router

**Up / Down (Physical/ Line Protocol):** 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 Power LED glowing on your Modem.

| Link Down | Reach ability Issue | Protocol Not Working | Link Flapping /Packet Drops | Latency |
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# Reachability issue

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. Check Ping and trace from CPE to the destination IP with source as WAN IP.

6. If no errors are found, inform the status to RCOM for further troubleshooting.

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# Protocol not working

1. Check the negotiation setting for Ethernet interfaces (Ethernet parameters, speed, duplex, flow control etc.) and ensure that they are correctly set.

2. Check the physical connectivity (copper wire) and see if there is any breakage or bending.

3. Activate - Deactivate interface and check the status.

4. If link is working on BGP/ OSPF protocol, clear BGP/OSPF neighbor and check the status..

5. If no errors are found, inform the status to RCOM for further troubleshooting.

Link Down    Reach ability Issue    Protocol Not Working    Link Flapping /Packet Drops    Latency

# Link Flapping/Packet Drops

1. This may happen due to high CPU utilization by end users on Router/Passport/Switch or due to some Interface/Port issues etc.

2. Check the negotiation setting for Ethernet interfaces (Ethernet parameters, speed, duplex, flow control etc.) and ensure that they are correctly set.

3. Check for the framing of the circuits at either ends for T1/E1/DS3 interfaces.

4. For the Serial port,check if the reliability is decreasing or CRC errors are increasing and convey the same during TT booking procedure.

5. Check the utilisation of the link if it is within 85-90% of the subscribed capacity.

6. If possible please verify the Earthing/Power voltage.

7. If no errors are found, inform the status to RCOM and for further troubleshooting.

Link Down | Reach ability Issue | Protocol Not Working | Link Flapping /Packet Drops | Latency

# Latency

1. Test for round-trip delay in the ping responses and trace route to destination IP. We request you to share the Trace route & Ping report during the TT booking procedure.

2. Check the utilisation of the link if it is within 85-90% of the subscribed capacity.

3. Please check the latency in the LAN segment if the high latency is observed from WAN to destination IP or from LAN segment to the destination IP.

4. Check for the Router/Passport/Switch whether the CPU utilization is well within limit. If there is any over-utilization, then the load needs reduction.

5. If no errors are found, inform the status to RCOM for further troubleshooting.

Link Down      Reach ability Issue      Protocol Not Working      Link Flapping /Packet Drops      Latency

Thank You