SLOW SPEED ISSUES
CERTAIN FACTS

Certain factors which hamper the speed are:

1. Virus infected PC

2. Low SNR ratio due to poor line condition/improper punching at the MDF side

3. Wrong line profile attached to the DSLAM port for high speed plans

4. Packet loss at the connected Network element

5. Low Power in the RPR ring

6. Cascading of the OCLANs/ Dslams which may in turn affect the uplink traffic of master OCLAN

7. Wrong AAA policy attached in the LDAP

8. High DNS resolution time

9. High latency at MPLS

Point No 1 -3 is for individual customer & Point 4-9 will affect a bulk of customers

FACTORS HAMPERING THE BROWSING SPEED

1. Virus Infected PC

    Check for the virus infection. Scan thoroughly to remove complete traces of virus. Make sure that the system is virus free and not performing in a sluggish way without connecting to the internet

2. Low SNR

    Line attention is in relation to the "loop loss" on your line. The further you are away from the exchange the higher your attenuation figure will be as the signal loss increases. The lower your attenuation figure the more chance you have of getting the faster speeds. In general higher Signal To Noise Ratio will result in less error.

CONTD…

SNR MARGIN	REMARK
6db or low	Bad and will experience no line synchronization or intermittent synchronization problems.
7db – 10 db	Fair but does not leave much room for variances in conditions.
11db – 20 db	Good with little or no synchronization problems
20db – 28db	Excellent
29db or above	Outstanding

3. WRONG ADSL LINE PROFILE ATTACHED IN DSLAM PORT FOR HIGH SPEED PLAN

- Check for the correctness of the Speed profile attached to the connected port

- Normally for ADSL ports are configured for 2Mbps profile.

- For high speed plans configure the port manually

4. PACKET LOSS AT THE CONNECTED NE

- Packet loss at the connected network element impart slow speed to the customers connected from the concerned Network element.

- Ping with certain packet size for checking packet loss (Command: ping –l Size IP Address)

- Example for 10 Bytes packet size: ping –l 10 218.248.240.79

- If there are any loss please check the media/connectivity.

- Make sure that the no packet loss are incurred

5. LOW POWER IN THE RPR RING

- Low power in the RPR ring may inversely affect the speed. Ensure the power levels are well with in limit. Threshold set for RPR rings

Ring	Threshold set
1 G Ring	-22db
10 G Ring	-14.1 db

- In case of low power please check transmission media termination/joints.
- In case of high power level please use pads to reduce the power level pads.

6. CASCADING OF OCLANS

Many OCLANs are cascaded with out master OCLAN Uplink media up gradation to GE. Many places the mater OCLAN uplink is still FE and cascading is done with out taking in consideration that the traffic from the cascaded OCLANs also will flow through the Master OCLAN UPLINK.

Calculate the expected traffic which will flow through the master OCLAN UPLINK after cascading and go for the media up gradation . Cascading of too many OCLANs with out proper planning will definitely hamper the service

7. Wrong AAA Policy Attached in LDAP

- Check for the correctness of the AAA policy assigned in LDAP for the customer

- AAA policy in turn will define the speed

- If the AAA policy is not assigned as per the plan speed may vary

- Consult with NOC for the correctness of the AAA policy as per the Plan.

8. HIGH DNS RESOLUTION TIME

- Resolution time may be high in case of the connected DNS failure/ DNS overloading

- Will affect all the customers connected to the concerned DNS

- perform nslookup from the field as a first level for trouble shooting . (Please see next slide for procedure of nslookup)

- Inform to NOC in case of any issue or change the DNS in LAN setting to some other working DNS.

- Note: DNS changing may in turn affect the password/ Redirection

Contd…

- Procedure for nslookup:

a) Click Start, Run , type " cmd " in the box and press enter to open command prompt alternatively in the windows operating system click programs, accessories, and command prompt to open command prompt window.

b) In the command line type " nslookup " and press enter to get the DNS

c) IP address of the network is shown (Please see the screenshot on next slide).

d) type " server 218.248.255.141 (OR type the IP address you got in the command line) and press enter

e) type " www.yahoo.com" and enter (OR type your problematic url)

- Result of the above commands has been shown in the screen shot on next slide. If you see like screen shot result, it means that site is resolved by DNS. If not, please mail to bbnoc_mp@bsnl.in by attaching the screen shot of the result.

Contd....

9. HIGH LATENCY AT MPLS

- Check the latency from one hope to another using trace route command for the problematic sites.

- Latency of 350- 400 ms are permissible between two hopes

- Inform MPLS NOC/ MP NOC in case of any abnormality/High latency

- **Procedure:**

a) Open the command prompt.

b) type " tracert www.yahoo.com " and press enter (OR type the problematic site instead of www.yahoo.com)

- In the result you will see the latency taken to reach the destination IP hop by hop. In the See screen shot on next slide there are latency observed at any hop is less than the maximum allowed range i.e., 350ms to 400 ms**.** If the latency is more than the allowed range at any hop please escalate the issue with the screen shots to bbnoc_mp@bsnl.in with a copy to mplsnms@gmail.com.

Contd….

REVERSE TRACE ROUTE (TRACE ROUTE OF IP ADDRESS ALLOTED TO SUBSCRIBER)

- Procedure:

a) Go to the site http://network-tools.com/

b) In the box the dynamic public IP address allotted to the customer is displayed.

c) Select the " Trace" radio button and click Go.

d) The result showing the latency taken to reach the source IP hop by hop. Please see screen shot on next slide there are the latency observed at any hop is less than maximum allowed range i.e. (350 to 400 ms).

- If the latency is more than the allowed range at any hop please escalate the issue with the screen shots to bbnoc_mp@bsnl.in with a copy to mplsnms@gmail.com.

File   Edit   View   Favorites   Tools   Help

Back

Address http://network-tools.com/default.asp?prog=trace&host=117.192.0.1   Go

Google networktools   Search   Sidewiki   Bookmarks   Check   Translate   Sign In

Simple DNS Plus
DNS Server For Windows

☐ Convert Base-10 to IP

117.192.0.1   GO!

117.192.0.1 is from India(IN) in region Southern and Eastern Asia

TraceRoute to 117.192.0.1

Hop	(ms)	(ms)	(ms) IP Address	Host name
1	8	6	6 72.249.128.109	-
2	6	6	6 206.123.64.82	-
3	9	13	6 216.52.189.9	border4.te4-4.colo4dallas-5.ext1.dal.pnap.net
4	8	22	8 216.52.191.34	core3.tge5-1-bbnet1.ext1.dal.pnap.net
5	8	6	6 207.88.185.73	207.88.185.73.ptr.us.xo.net
6	14	8	6 207.88.82.221	207.88.82.221.ptr.us.xo.net
7	13	6	6 207.88.15.45	te1-0-0d0.cir1.dallas2-tx.us.xo.net
8	13	17	17 206.111.5.206	206.111.5.206.ptr.us.xo.net
9	58	51	54 209.58.53.1	vlan2.icore1.laa-losangeles.as6453.net
10	46	44	45 209.58.53.82	if-1-0-0-1976.mcore3.laa-losangeles.as6453.net
11	226	225	225 209.58.85.22	if-14-0-0-1834.core1.s9r-singapore.as6453.net
12	323	323	323 216.6.13.41	if-5-0-0.core2.mlv-mumbai.as6453.net
13	265	265	263 216.6.13.38	-
14	264	262	265 115.113.128.18	115.113.128.18.static-mumbai.vsnl.net.in
15	269	266	271 218.248.255.13	-
16	292	291	309 117.192.0.1	-

Trace complete

Done, but with errors on page.

start   TRACE...   SLOW ...   http://...   http://...   Microso...   Tracero...   12:17 PM Sunday 10/17/2010
         My Doc...   Gmail - ...   TRACE...   chock - ...   10.238...