

# Slow Speed Faults

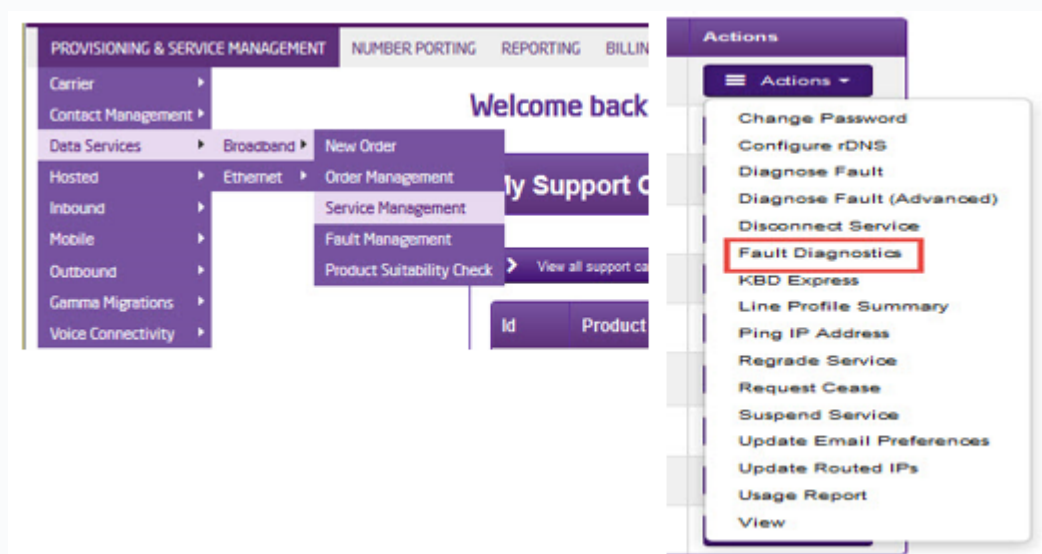
Sometimes what appears to be a slow connection issue may be an intermittent connection; where the router is constantly dropping. In these instances please follow the Intermittent Connection diagnostics.

Please note:

Before you start diagnostics, it is worth checking if there are any known outages in your area which may affect the service.

## Step 1

From the Gamma Portal, go to “Provisioning and Service Management”, “Data Services”, “Broadband” and then select “Service Management”. Select the relevant account, and search for the affected line using the one of the available search options available. Once you’ve found the line, using the Actions menu select “Fault Diagnostics”.

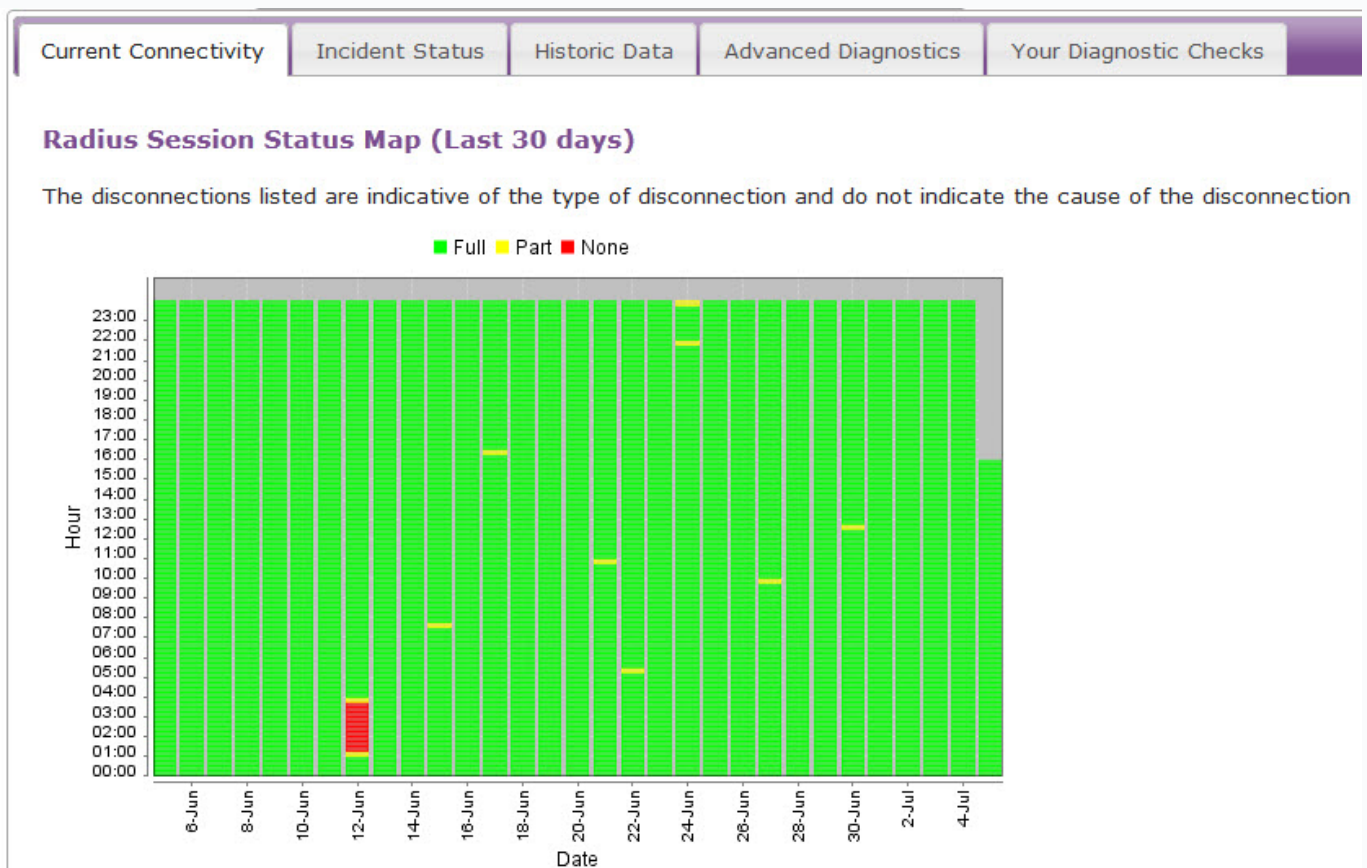


## Step 2

The “Radius Session Map” will be the first screen displayed.

If the connection is stable (green segments) then continue to Step 3.

If you are seeing drops (red segments) throughout this period, then please follow the Intermittent Connection diagnostics.



## Step 3 (Only Applicable for ADSL)

Now check the xDSL stats, found under the “Current Connectivity Tab”. Scroll all the way to the bottom of the page to see these stats.

We need to ensure that there are no HEC Errors or Errored Seconds. Upstream errors usually indicate a fault with the customer's equipment (run through steps 7-13). Downstream errors could still be problems with the customer's equipment or with the BT line. It is worth doing some equipment checks before raising a fault.

### xDSL Status Check

	Downstream DSL Link Information	Upstream DSL Link Information
Loop Loss	41	23
SNR Margin	9	23
Errored Seconds	0	0
HEC Errors	0	0
Cell Count	352	152
Speed	6464	448
Maximum Stable Rate (KBPS)		5696
Fault Threshold Rate (KBPS)		4556
Mean Time Between Errors Upstream (Seconds)		43200
Mean Time Between Errors Downstream (Seconds)		28800

### Step 4

Check the Historic Data tab and check the sync speed max/min/average results and compare with the xDSL status. These will indicate if the sync speed is fluctuating. If the sync speed is fluctuating, go to Step 5.

Current Connectivity	Incident Status	Historic Data	Advanced Diagnostics	Your Diagnostic Checks	
<b>Local Access Network Detail</b>					
<b>Prognosis</b>					
Prognosis for a period of 14 days from 27-Jun-2012 to 10-Jul-2012. The circuit was in sync throughout the specified analysis period. Please refer to the other sub tests within the KBD including the Status Check to confirm whether the circuit is currently in sync and logged on. If the circuit is currently out of sync please carry out internal wiring, filters, modem/router checks with the End User at the master socket where possible. The circuit has no dropping syncs. Please carry out internal wiring, filters and modem/router checks with the End User at the master socket where possible. Also, refer to the other sub tests within the KBD and use the Performance Tester.					
<b>Parameter</b>	<b>Downstream Trends</b>			<b>Upstream Trends</b>	
Line Rate	MN : 5408 KBPS The line rate has varied by a small amount and frequently on most of the days during the analysis period. The line rate is very high (good). Please see the average value.	MAX : 8464 KBPS	AVG : 5987 KBPS	MN : 448 KBPS The line rate is stable over the period. The line rate is very high (good). Please see the average value.	
Noise Margins	MN : 9 DB The noise margin has varied by a small amount but occasionally on just a few days during the analysis period. This is normal behaviour for a DSL product and is not affecting the service in any way. The Noise margin is within acceptable limits. Please see the average value.	MAX : 14 DB	AVG : 11 DB	MN : 20 DB The noise margin has varied by a small amount but occasionally on just a few days during the analysis period. This is normal behaviour for a DSL product and is not affecting the service in any way. The Noise margin is high. Please see the average value.	
Transmission Errors	MN : 113 High during Thu Jul 05 00:00:01 BST 2012 to There have been insignificant errors on the line during almost all parts of the day. This behaviour happens on almost all days during the analysis period. This is normal behaviour for a DSL product and is not affecting the service in any way.	MAX : 3600	AVG : 3391	MN : 592 High during Thu Jul 05 00:00:01 BST 2012 to Multiple There have been insignificant errors on the line during almost all parts of the day. This behaviour happens on almost all days during the analysis period. This is normal behaviour for a DSL product and is not affecting the service in any way.	
Line Attenuation	MN : 41 DB The loop length is quite long, so errors on this line are expected.	MAX : 41 DB	AVG : 41 DB	MN : 23 DB The loop length is quite long, so errors on this line are expected.	
<b>Parameter</b>	<b>Trend</b>				
Uptime	MN : 900 s This circuit is up for an average 86.0% of the time.	MAX : 86400 s	AVG : 74110 s		
<b>Parameter</b>	<b>Trend</b>				
Initialisation	MN : 0 The circuit is very stable and no initialisations occur.	MAX : 1	AVG : 0		
<b>Line Profile</b>					
BRAS Profile Name	adi5000	BIP Update Time	2012-07-10T08:39:15+01:00	Sync Rate	5696
Max Downstream Line Requested		Max Upstream Line Requested		Sync Timestamp	2012-07-10T08:48:22+01:00
Headline Rate (Downstream Line Rate)	5000	Upstream Line Rate	448	Traffic Weighting	
Downstream Maximum Stable Rate	5696	Upstream Maximum Stable Rate	0	Stability Option (Service Option)	1
Downstream Fault Threshold Rate	4556	Upstream Fault Threshold Rate		Interleaved	Auto
Downstream Target Margin	0	Upstream Target Margin	0		

[Return To Service Details](#)

[Refresh Supplier Data](#)

[Fault Diagnostics Guidelines-Home](#)

## Step 5

Run speed tests to identify if the connection is facing throughput issues. Please run the test on the following [speedtest.btwholesale.com](http://speedtest.btwholesale.com) and [speedtest.gammatelecom.com](http://speedtest.gammatelecom.com)\*

\* [speedtest.gammatelecom.com/ethernettest](http://speedtest.gammatelecom.com/ethernettest) (to be used for FTTC)

The full test needs to be run via the further diagnostics option entering the CLI. If this is not fully completed then we are unable to raise a speed fault on the line with our supplier.

## Step 6

Please note:

All checks should be run with everything removed from the router with only a single PC connected via ethernet. You should also disconnect all devices connected via wireless. This is to eliminate the possibility of malware or viruses or software using the internet connection which would affect the lines true throughput (for example torrents).

Check the physical phone line.

**\*\*Please note that this test only applies to ADSL & VDSL and do not apply to SOGEA and FTTP as there is no voice component of the line to carry these tests out on. Skip these tests SOGEA & FTTP circuits.**

To check the phoneline:

- Plug a telephone into the test socket, lift the receiver and listen for any audible noise
- Dial 17070 and press option 2, this will carry out a quiet line test
- Make a phone call and ensure the quality of the call is good
- If you own the line, carry out a WLR line test

If all of these checks are OK, proceed to Step 7.

- If you hear noise or the line test fails, you should raise a fault with the line provider before further diagnosing any broadband issues

## Step 7

Power off the router for 30 seconds, then power back on. This can be done by removing the power supply.

You should then monitor your connection for any improvements. To refresh the data, click the "Refresh Supplier Data" at the bottom of the screen. If the service has stabilised the issue has been resolved.

If you are still experiencing slow speed please proceed to Step 8.



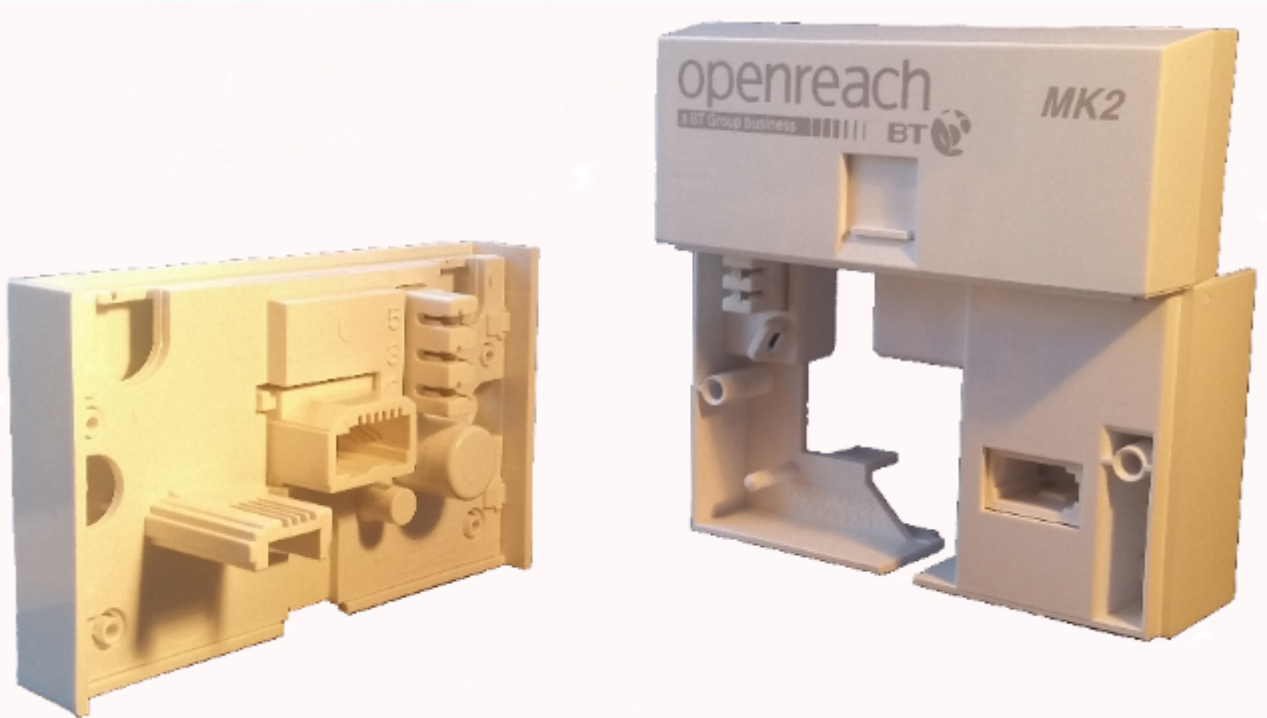


### **Step 8**

Connect your broadband to the NTE5 test socket and monitor. You should remove the faceplate of your socket and connect your broadband to the socket as shown. This will bypass any internal wiring issues. You should then monitor your connection for any improvements.

If the service has stabilised the issue has been resolved and the problem lies with internal wiring, not the broadband.

If you are still experiencing slow speed please proceed to Step 9.



## Step 9

Change the filter, Gamma routers come with 2 x micro filters, you should switch to the second or use a different one.

If the service has stabilised the issue has been resolved and the problem lies with a faulty micro filter.

If you are still experiencing slow speed please proceed to Step 10.



## **Step 10**

Try an alternate router on the connection. If you have an alternate router, test this on the connection. If this is not possible, proceed to Step 12.

You should then monitor your connection for any improvements. If the service has stabilised the issue has been resolved and the problem lies with a faulty router.

If you are still experiencing an intermittent connection please proceed to Step 11.

## **Step 11**

If none of these checks have worked, you'll need to raise a fault on the Advance Diagnostics page.

Please note:

If you already have a fault raised for this service, you'll be unable to raise a new fault.

Select the "Your Diagnostic Checks" tab and follow the drop down menus.

Current Connectivity Incident Status Historic Data Advanced Diagnostics **Your Diagnostic Checks**

Please note that it is important that these 1st line checks are completed. Please note that by not completing these tests it may elongate the time taken to resolve your issue as we will need to do these with you once the fault is logged.  
Please note that providing incorrect information may result in the fault being incorrectly diagnosed or unnecessarily progressed to a SFI visit. Should your fault progress to an SFI visit then should no fault be found then the visit will be chargeable.

1. Has the customer ever had a working service, and if yes, when was the first fault experienced ?  
Please select...

2. Select fault type from the drop down list :  
**Intermittent DSL Connection**

- When the connection drops, does the router need to be rebooted to restore the connection or does the connection come back up on its own?
- Are there any devices other than the broadband router and filter attached to the broadband line? (fax machines, alarm systems, cordless phones etc)
- What kind of environment is the broadband line installed in? (business office, home, portacabin, industrial unit, etc)

3. If you intend to raise a fault, please confirm you have completed the following checks (follow links to test/data)

Line Test completed	Please select... <input type="text"/>
Microfilter changed	Please select... <input type="text"/>
Router tested from test socket	Please select... <input type="text"/>
Checked sync profile for any patterns in the drops	Please select... <input type="text"/>