

# Supporting Document Checklist Access Trouble Ticket for ISP

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## 1 Introduction

This document shall support the FDA creating BBCS trouble tickets. Compliance with the following indications ensures the quality of the trouble tickets, avoids queries and delay in processing the trouble tickets and allows a rapid restore of the BBCS Services for the end customer.

The manual for BBCS on copper is in process and will be available soon.

## 2 General

The end customer has to be informed that the CPE will remain switched on during the entire troubleshooting. The availability by phone (number, time of day) has to be mentioned on the ticket.

The end customer must be informed as well about the SLA of the interruption. A prioritized troubleshooting can be inducted by increasing the SLA to „Event Based “(see manual service agreement)

The trouble ticket policies:

- ISP\_TT\_Ruleset\_Copper\_V1.0 ff
- ISP\_TT\_Ruleset\_Fiber\_V1.0 ff

serves as an amendment to this document.

## 3 BBCS on fiber optic

### 3.1 No Signal 900

To eliminate errors on customer side all products need to be checked with the end customer.

Work to be carried out:

- Remove router cabling entirely and regenerate it together with the customer
- Ensure the correct plug is used
- Make sure the OTO ID is in conformity with the one in the system
- Release Reconfig Line in WSG
- Reset router (attention: router configuration will be reset)
- Access the router from the PC to ensure connectivity between PC and router
- Set up connection from the router to the internet manually by using GUI (as far as PPP is concerned the login data must be configured on the router)

### 3.2 No Connection 901

Is there a signal but no connection to the internet the same points as mentioned above for No Signal have to be checked with the customer. In most of the cases the reason for no connection is a wrong router configuration.

Work to be carried out:

- Remove router cabling entirely and regenerate it together with the customer

- Ensure the correct plug is used
- Make sure the OTO ID is in conformity with the one in the system
- Reset router (attention: router configuration will be reset)
- Release Reconfig Line in WSG
- Access the router from the PC to ensure connectivity between PC and router
- Set up connection from the router to the internet manually by using GUI (as far as PPP is concerned the login data must be configured on the router)

### 3.3 Performance 902

Performance problems are very difficult to be analysed. To reach a speed of 1 Gb the whole equipment needs to be designed accordingly (router, LAN cable, PC / laptop, operating system). By using WLAN 1Gb cannot be achieved.

To be taken into account:

- Powerline in the home network
- Simultaneous internet usage by several users (inclusively TV)
- Outdated network components (e.g. 100Mbit Switch or LAN cable)
- Speed test has to be executed correctly (FAQ available on the website) and on different days and at different times
- A Port Reset effected by Reconfig Line in WSG may also help

#### Speed test

##### Requirements Client

- The Hardware, the network card must support 1 Gbps. The operating system and the drivers need to be up to date
- A Cat. 7 network cable must be used (with Cat. 6 only values up to 600Mbps are possible)
- Especially as it comes to the network card there are partly big differences in quality which influence the result significantly
- Note as well FAQ of HP: <http://support.hp.com/in-en/document/c01530828> (most of the Clients support up to 300 Mbps)

##### Implementation Speed Test

For a 1Gbps measurement, the following Speed Test has to be used:

<http://hsi.bluewin.ch/speedtestJavaV2>

Important: For a Gigabit Speed Test JAVA is mandatory. The Speed Test has to be executed with a JAVA supporting browser. (e.g. Internet Explorer). If the Speed Test is for example started by using a Google Chrome Browser the connection will not be built on the new Speed Test. For the analysis, note the values of the hsi.ip-plus server.

#### Network capacity

The availability respectively the load of the measure servers is an essential component of the Speed Test measurement. Thus it might be that due to a high occupancy of the Speed Test Server the measurement results vary.

Differences in occupancy of the different nets and components can affect as well. It is definitely possible that in function of the time the load on the net is varying a lot. We recommend to execute different measurements at different times.

#### **WLAN**

A Speed Test over WLAN is not meaningful due to different influence factors such as e.g. distance to the router, channel load, external troublemaker.

#### **Test arrangement**

To get a proper statement about the Speed Test (considering the points above) it must be ensured that only the one device is connected to the router with which the Speed Test is executed. All the other device (TV and IP phone as well) must be disconnected during the measurement.

### **3.4 Interruptions 903**

Interruptions on a fiber connection are rarely due to the physical connection. Often it is caused by an intermediate device (converter, SFP module) or by the router configuration itself. Therefore, it must be ensured that these interruptions also occur by using a LAN cable.

Work to be carried out:

- Check cabling of the router and regenerate
- Check correct installation of the SFP module
- Reset router (attention: router configuration will be reset)
- Release Reconfig Line in WSG
- Remove intermediate device from the network
- Set up the connection from the PC to the router by using a LAN cable