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# Troubleshooting Circuit Switched Networks

## Course Description

Even with the introduction of packet based 4G systems, circuit switched networks are still a major part of Service Assurance. This course requires access to your own service assurance monitoring and troubleshooting tools to aid in the investigation of potential network issues. In so doing, accessibility, retainability and mobility scenarios and workflows are examined.

**Prerequisites:** Analyzing the 2G and 3G Core Network.

2

Days  
(LiveOnsite)

12

CPD Learning  
Credits



Level: 3  
(Advanced)

**This course will contain the following sections:**

## **1. Applications for Troubleshooting**

### **Topic areas covered include:**

- Applications for Troubleshooting.
- Troubleshooting Workflows.
- Troubleshooting Node and Interface Issues.
- User Plane Performance.

## **2. Principles of Network Performance Monitoring**

### **Topic areas covered include:**

- 3GPP Counters and KPI Definitions.
- KPI Hierarchy.
- Performance Monitoring Reports.
- Example Reports.

**Activity:** Identifying Key KPIs used for Troubleshooting.

## **3. Troubleshooting CS Accessibility**

### **Topic areas covered include:**

- IMSI Attach Failures.
  - GSM and UMTS KPIs.
- Performance Examples.
- Identify Interface and Node Monitoring Options.

## **Troubleshooting CS Accessibility (cont.)**

**Activity:** CS Accessibility KPIs, Troubleshooting CS Attach Issues, Investigating Current Network Issues.

## **4. CS Retainability Troubleshooting**

### **Topic areas covered include:**

- Troubleshooting:
  - Access Issues.
  - RAN Release Issues.
  - Dropped Calls.

**Activity:** KPIs for Call Failures, Investigating Current Network Issues.

## **5. CS Mobility Troubleshooting**

### **Topic areas covered include:**

- Troubleshooting:
  - Location Updates.
  - GSM Handovers.
  - UMTS Handovers and Relocations.

**Activity:** KPIs for Mobility Issues, Investigating Current Network Issues.

**2**

**Days**  
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**12**

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**Credits**



**Live Onsite**



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+44(0)1524 844669



[enquiries@mpirical.com](mailto:enquiries@mpirical.com)

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