MPIRICAL

Innovating Telecoms Training

🎥 Watch our course intro video.
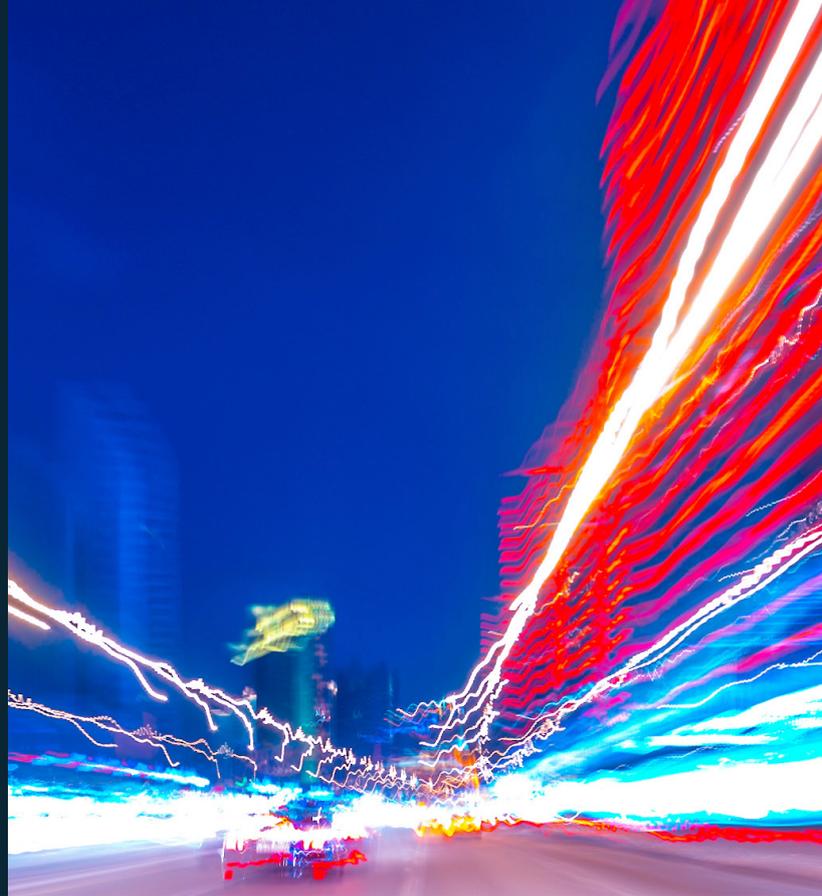
Troubleshooting the EPC

Course Description

Troubleshooting a complex system such as the EPC relies on a good foundation knowledge of the network and familiarity with the procedures which routinely take place within the network. Based on this knowledge, this course will explore the key KPIs and failure scenarios associated with Accessibility, Retainability and also Mobility. In each case, examples based on the service provider's own service assurance tools will be explored.

Prerequisites: Analyzing the EPC, or equivalent knowledge.

2 **days** **(LiveOnsite)**	**12** **CPD Learning** **Credits**	💡 **Level: 3** **(Advanced)**

This course will contain the following sections:

1. Principles of Network Performance Monitoring

Topic areas covered include:

- 3GPP Counters and KPI Definitions.

- KPI Hierarchy.

- Performance Monitoring Reports.

- Example Reports.

Activity: Identifying Key LTE KPIs used for Troubleshooting.

2. Troubleshooting LTE Accessibility

Topic areas covered include:

- Initial Context and additional E-RAB Setup Success Rate.

- Attach Failures.

- Monitoring Related Diameter, GTP and DNS KPIs.

- Session Establishment.

- Session Performance KPIs.

- Identify Interface and Node Monitoring Options.

Activity: LTE Accessibility KPIs, Troubleshooting Session Establishment Issues, Investigating Current Network Issues.

3. Retainability and Mobility Troubleshooting

Topic areas covered include:

- Troubleshooting:
    - UE Context Release Issues.
        - Identify Radio/RAN related Issues.
    - E-RAB Drop Rate.
    - LTE Data Session Drop Rate.

- Failure in Mobility Procedures.

- X2 and S1 Handover Issues:
    - Unknown Target ID.
    - Cell Not Available.
    - Handover Failure in Target EPC.
    - Interaction with Other Procedure.

Activity: KPIs for Mobility, Investigating Current Network Mobility Issues. Top N Failures.

4. Troubleshooting LTE User Plane Performance

Topic areas covered include:

- KPIs to Monitoring User Plane:
    - HTTP, DNS, etc.
    - Unknown Protocols.

- Nodes/Cells to Improve in the Network.

Activity: Monitoring User Plane Performance and Troubleshooting Issues.

2
days
(LiveOnsite)

12
CPD Learning Credits

LiveOnsite

Managed Learning Services

As part of our managed learning service we can offer you and your organisation a full range of services including:

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- Bespoke content and courseware development
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