Diameter in LTE and IMS

Who Should Attend?

The training is targeted at engineers who want to learn about use of the Diameter in LTE and IMS networks.

Course Scope

1. Introduction to LTE.
   - 3GPP Core Network Evolution.
   - EPC Architecture.
   - Protocols in EPC – overview.
2. VoLTE.
   - Circuit Switched Fallback (CSFB).
   - IMS – based.
   - VoIP Over-the-top (OTT).
   - CS over PS.
   - Road towards VoLTE – various deployment strategies.
3. Introduction to IMS Concept & Architecture.
   - IMS introduction.
   - IMS standardisation.
   - IMS architecture & functional elements.
   - IMS identities.
   - IMS interfaces & signalling protocols.
4. Introduction to Diameter.
   - Diameter architecture.
   - Diameter agents: Relay, Proxy, Redirection & Translation.
   - Diameter message structure.
   - Diameter peers and peers association.
   - Diameter user session.
   - Diameter accounting session concept.
5. Detailed discussion of selected Diameter applications.
   - Cx, Dx.
   - Dh, Sh.
   - S6a.
6. IMS procedures over SIP & Diameter.
   - Registration (initial registration, re-registration, deregistration).
   - IMS –to-IMS Call.
   - Non-IMS – to IMS call.
   - IMS to non-IMS call.
7. Q&A, open discussion.

Prerequisites

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None.

Training Structure

Three-day training divided into logical sessions.

Methodology

Instructor-led training, presentation, and discussion; signalling trace analysis.