TK140: Evolved GTP Protocol

Duration

2.0 Days

Course Content

1. LTE-EPS Introduction

2. LTE-EPS architecture and interfaces

3. GTP-C introduction

- 3.1. GTP-C tunnel
- 3.2. Protocol stack
- 3.3. GTP Header
- 3.4. GTPv2 vs GTPv1
- 3.5. GTPv2 Timers and parameters
- 3.6. Reliable delivery of signalling messages
- 3.7. GTP-C Message Types and Message Formats

4. Path management messages

5. Tunnel management messages

- 5.1. Create session request
- 5.2. Create session response
- 5.3. Modify bearer request
- 5.4. Modify bearer response
- 5.6. Delete session request
- 5.7. Delete session response

6. eGTP based reference points

- 6.1. S11 interface messages, IE, procedures and related errors

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6.2. S5/S8 interface messages, IE, procedures and related errors

6.3. S10 interface messages, IE, procedures, related errors and inter-MME handover

6.4. S3 interface messages, IE, procedures and related errors

6.5. S4 interface messages, IE, procedures and related errors

6.6. S2a interface messages, IE, procedures and related errors

6.7. S2b interface messages, IE, procedures and related errors

6.8. Sv interface messages, IE, procedures and related errors

7. GTPv2 related call flow example

7.1. Attach procedure with IMSI

7.2. Attach procedure with GUTI

7.3. TAU with MME and S-GW Change

7.4. UE-triggered Detach

7.5. MME-triggered Detach

7.6. Handover with MME/S-GW Change

7.7. SRVCC to WCDMA with PS HO

7.8. UE Requested PDN Connectivity

7.9. UE Requested PDN Disconnection

7.10. MME Requested PDN Disconnection

7.11. Network Initiated Dedicated Bearer Activation

7.12. UE Initiated Dedicated Bearer Activation

7.13. MME Initiated Dedicated Bearer Deactivation

7.14. PGW Initiated Dedicated Bearer Deactivation

7.15. Paging

8. GTPv2 testing

9. Other tunnelling protocols (GTP', GRE, L2TP, PPP)

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