Certification & Training on GSM to GPRS
Course Duration (1 Month)

Course Content

1).Characteristic of Packet Switched & Circuit...........(Half Day)
   Switched Networks-
   - Differences between packet switched & circuit switched networks.
   - Inefficiencies and limitations of circuit switched data.

2).Motivation for GPRS-...(Half Day)
   - Limitations of a circuit switched network.
   - Requirements to support packet switched data.
   - The limitations of circuit switched data.
   - New GPRS applications.

3).Evolution from GSM to GPRS-......................................(1 Day)
   - Introduction and Background of GPRS.
   - New GPRS Components.
   - Benefits and limitations of GPRS

4).New Services with GPRS-...(1 Day)
   - Service capabilities of GPRS.
   - "Always Connected".
   - Bandwidth on demand.
   - GPRS data rates.

5).GPRS Key Features-...(1 Day)
   - Overview of GPRS
   - Overview of the enhancements provided by EDGE
   - GPRS and EDGE expected data rates.

6).GPRS Architecture-...(2 Days)
   - Overview of GSM
   - Introduction to the GPRS Architecture & its main Components
       - SGSN
       - GGSN

Quality   Cost Effective   Wireless Engineering   Service

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- Required modifications to the existing network components

7).GPRS Radio Network-...(2 Days)
- Physical layer operations
- Error Protection techniques
- GMSK and 8PSK modulation
- MCS and CS classes
- Physical and logical channels

8).GPRS Mobility and Roaming-..................................(3 Days)
- Cell Update process.
- RA Update.
- GPRS roaming exchange
- GPRS global roaming issues
- Functions and limitations of the GPRS
- Roaming exchange(GRX)
- Requirements of roaming between two operators

9).Attach Procedure..(2 Days)
- Overview and purpose of the Attach Procedure
- Function and contents of the SGSN
- Subscriber Data Profile
- Introduction to the packet mobility
- Management layer in the SGSN

10).PDP Context Activation Procedure......................(2 Days)
- Functions of the Packet Data Context
- Activation Procedure
- Introduction to the session management layer in the SGSN
- GPRS Tunneling Protocol and transmission of data between the SGSN and GGSN

11).Session Maintenance... (2 Days)
- "Always on"
- Receiving an incoming voice calls during a data session

12).GPRS Mobiles.. (2 Days)
- Main types of GPRS Mobiles
- Requirements on the mobile to support packet data services
- Mobile synchronization with the radio network
- Operations between the mobile and GPRS core network

13).Evolution of GSM to GPRS and GPRS to UMTS.......(1 Day)
- Impact of GPRS on GSM
- Strategy to evolve to GSM/GPRS

Holiday for Test Preparation..............(2 Days)
Course Assessment through written test & mock interview