



NSCET E-LEARNING PRESENTATION

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

III YEAR / VI SEMESTER

EC8004– WIRELESS NETWORK

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UNIT IV

INTERNETWORKING BETWEEN WLANS AND WWANS

INTRODUCTION

- Internetworking – routing between two networks
- Standard – Open System Interconnection(OSI)
- Provides a layering approach to the problem of exchanging data across a network

Integration of WLAN and 3G

- Highly significant to make wireless multimedia and other high data rate services
- Access high bandwidth data Services

Internetworking schemes to connect WLANS and 3G Networks

Three types

- Mobile IP Approach (loose Coupling)
- Gateway approach
- Emulator Approach (Tight Coupling)

Session Mobility

- IP Packet flow between the end-user and an external entity, such as an FTP or HTTP session
- Mobile device that can be connected through WLANs and 3GPP networks to the data network

Internetworking Architectures for WLAN and GPRS

Two generic approaches for Internetworking,

- ❖ Tight coupling
- ❖ Loose Coupling

Advantages

- Seamless service continuation across WLAN and GPRS
- Reuse of GPRS AAA
- Common provisioning and customer care

System Description

- System description with Tight Coupling
- System description with Loose Coupling

Local Multipoint Distribution Service (LMDS)

- Frequency Range – 28 to 31 GHz
- Good for medium range, LOS
- Access Schemes – FDMA, TDMA, CDMA
- Long range and broad antennas beams ensure significant multipath
- Large bandwidth available

Multichannel Multipoint Distribution Service (MMDS)

- Frequency range – 2.5 to 2.7 GHz
- Good for short range , LOS
- Access Schemes – FDMA, TDMA, OFDM, CDMA
- Short range and highly directive antennas mean little or no multipath
- Residential, small enterprises



THANKS!