

Bluetooth

Introduction

Profiles
Protocols
Frames

- Introduction
- Profiles
- Protocols
- Frame Structure

Architecture

Introduction

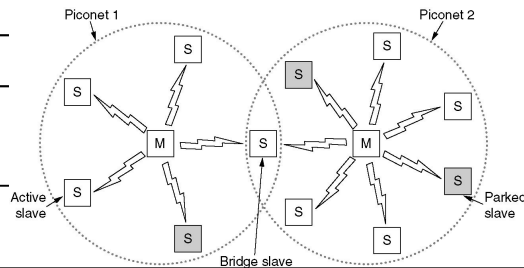
Profiles
Protocols
Frames

■ Piconet _____

- Master Node: _____
- Slave Nodes: _____
 - Active _____
 - Parked _____
- Centralized TDM system

■ Scatternet _____

- Bridge nodes



Generic Profiles

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- Generic Access: _____
 - Main job to _____
- Service Discovery: _____
- Serial Port: _____
 - It emulates _____
- Generic object exchange: _____

Networking & Telephony Profiles

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- LAN access: _____
- Dial-up networking: _____

- Fax: _____
- Cordless telephony: _____

- Intercom: _____
- Headset: _____

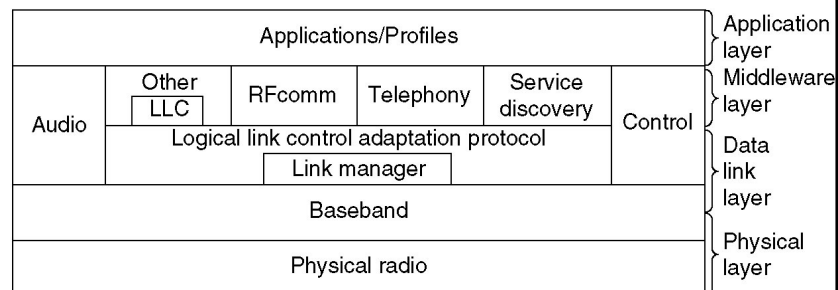
Object Exchange Profiles

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- Object push: _____
- File transfer: _____
- Synchronization: _____

Protocol Stack

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Physical Radio Layer

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- 2.4GHz band: _____
 - Divided into _____
 - FSK: _____
 - To allocate channels fairly FHSS _____
 - 1600 hops/sec
- Bluetooth vs. 802.11: _____
 - Ban Bluetooth? _____

Baseband Layer

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- TDM
 - 50-50: _____
 - Frames _____
- 625μsec dwell time
 - 260μsec _____
 - 126μsec _____
 - 240μsec _____
- If we put five slots together
 - 2781μsec _____

Baseband Layer (2)

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■ Links

- ACL _____
 - For Packet switched _____
 - Best-efforts _____
- SCO _____
 - For _____
 - Fixed slots _____
 - No retransmission _____
 - Forward Error Correction _____
 - Capacity _____

L2CAP Layer

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- Packets ↔ Frames: _____

- Multiplexing: _____

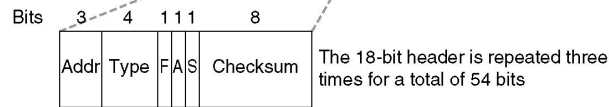
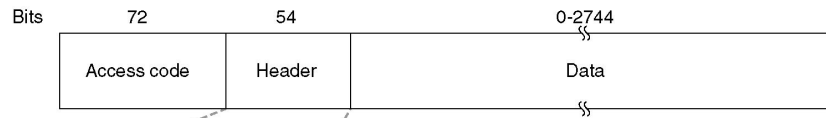
- Quality of Service _____

Frame Structure

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■ Access code _____

■ Data _____



■ Header _____

– Repeated _____

■ Payload: _____