

車載電信服務整合技術

Telecom Service Integration for Intelligent Transport System

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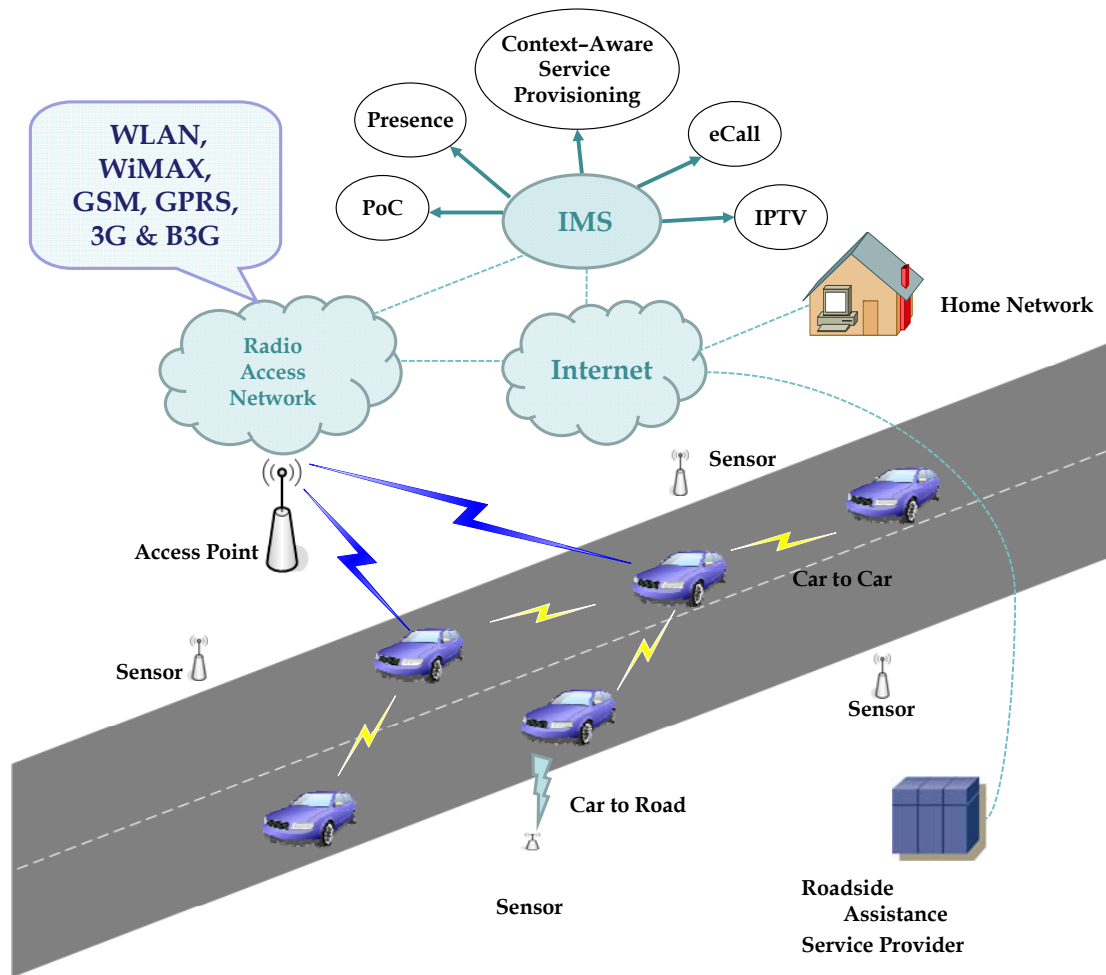
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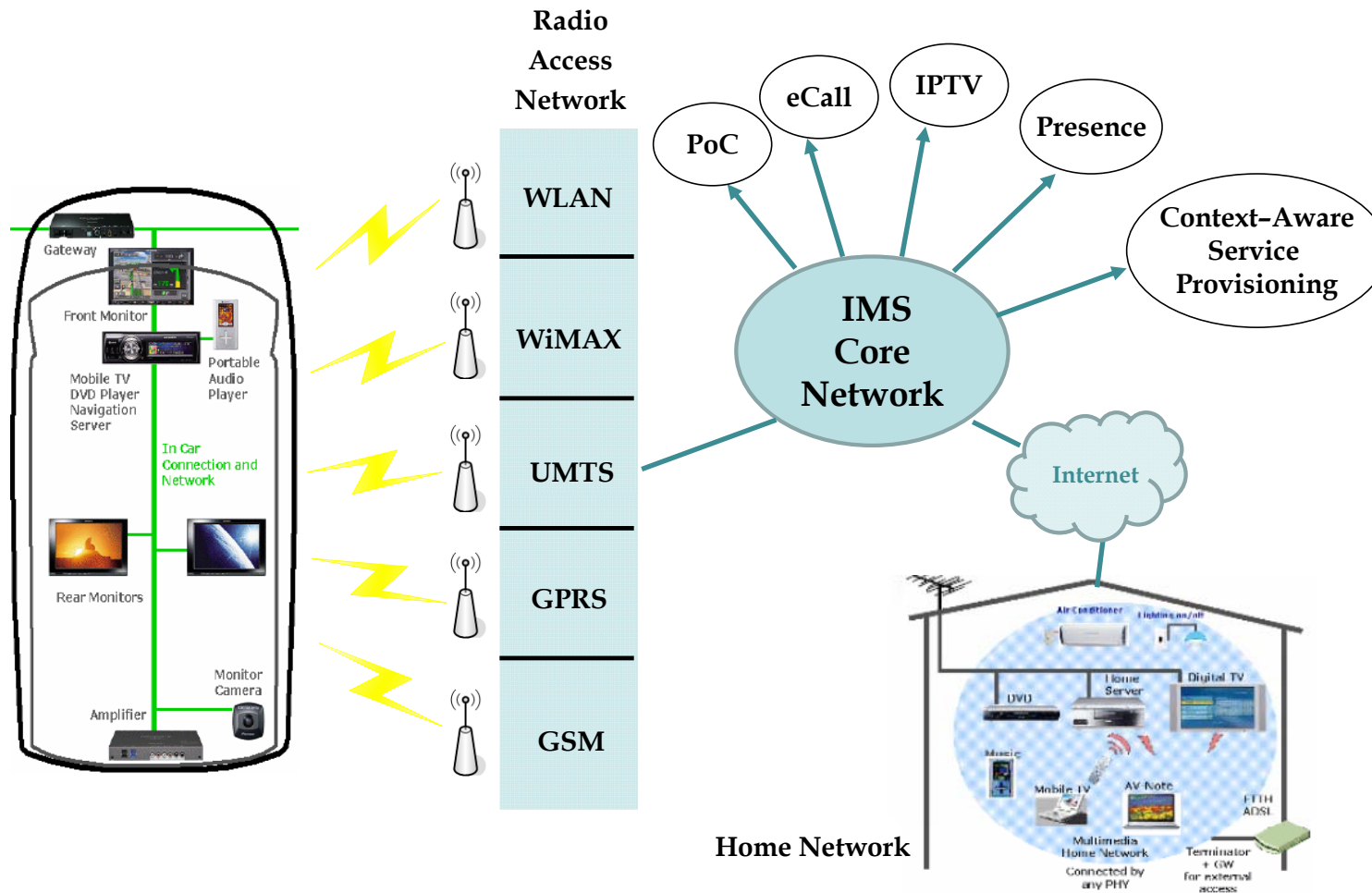
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IMS + ITS (1/2)



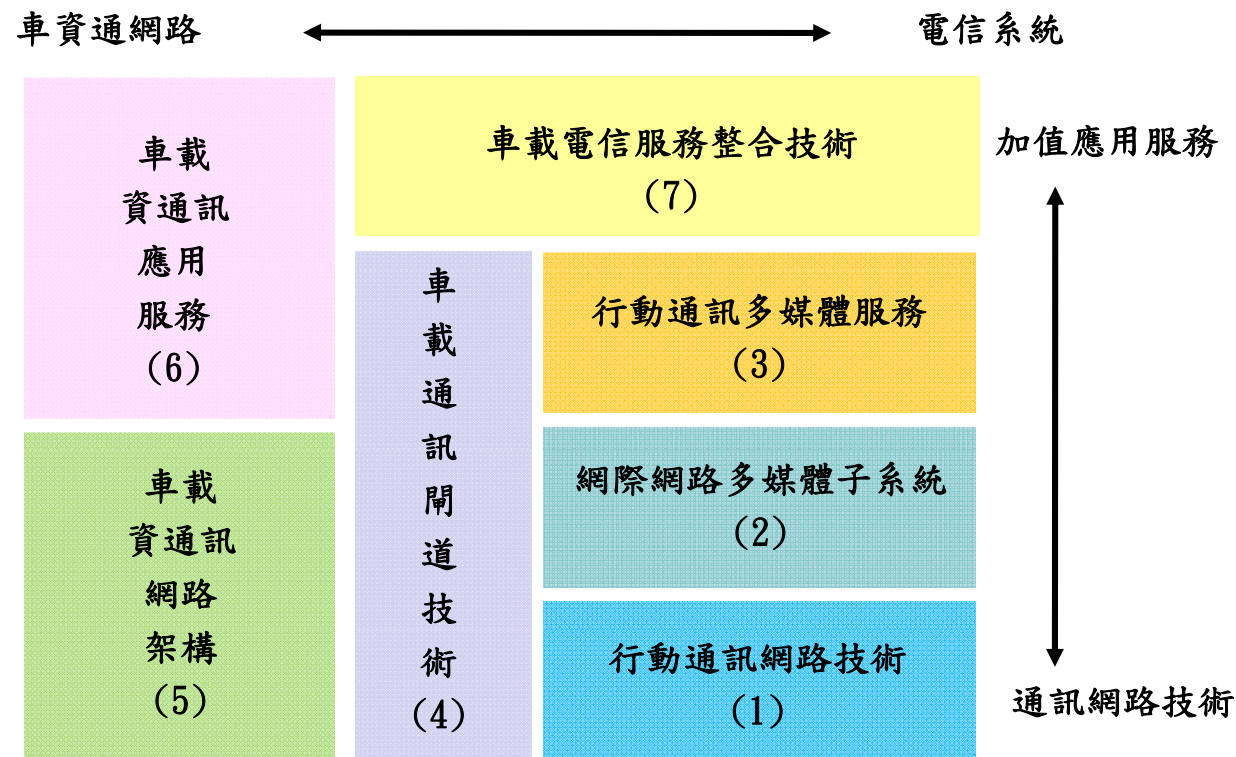
IMS + ITS (2/2)



Contents

- **Introduction to services of ITS**
 - *Introduction*
- **Network architecture of Vehicle Communication**
 - *intra-vehicle, vehicle-to-vehicle, vehicle-to-roadside*
- **Heterogeneous Radio Access Networks**
 - *WLAN, WiMAX, GSM, GPRS*
- **IP Multimedia Subsystem (IMS)**
 - *SIP, CSCF*
- **IP Multimedia Services**
 - *IM Call Model, Presence, PoC*
- **Vehicular Communication Gateway (VCG)**
 - *OSGi*
- **Telecom Service Integration for ITS**
 - *eCall*

Lecture Plan (1/2)

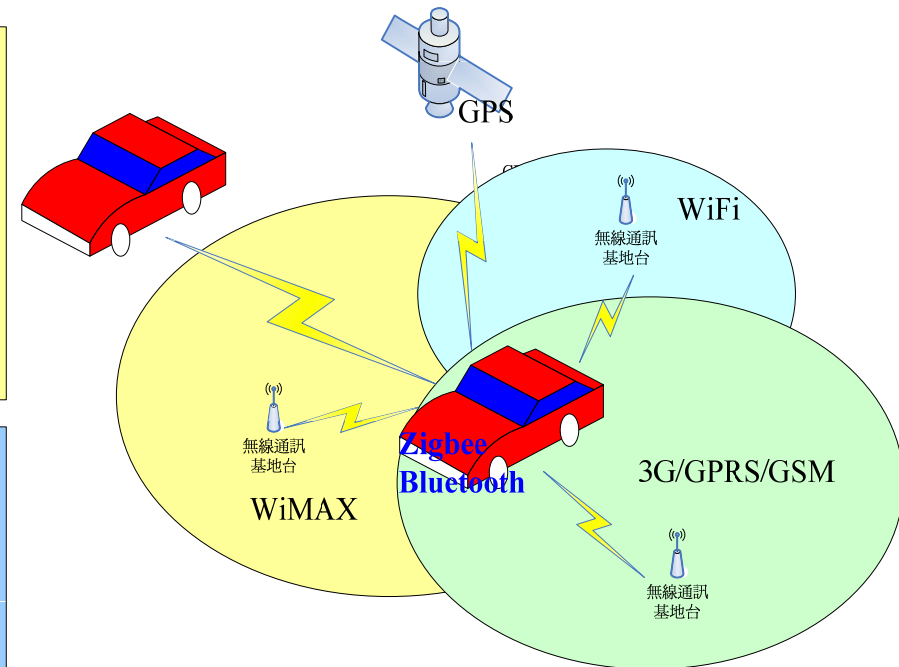


Lecture Plan (2/2)

- **Cellular Networks**
 - *GSM, GPRS, IN/CAMEL*
- **IP Multimedia Subsystem (IMS)**
 - *SIP, All IP Network, IMS, CSCF, IM Call Model*
- **IP Multimedia Services**
 - *Presence, PoC*
- **Vehicular Communication Gateway (VCG)**
 - *OSGi, SIP-UPnP Mapping*
- **Introduction to services of ITS**
 - *Related Standards & Specs*
- **Network architecture of Vehicle Communication**
 - *intra-vehicle, vehicle-to-vehicle, vehicle-to-roadside*
- **Telecom Service Integration for ITS**
 - *Emergence Call (eCall)*

Lab Plan (1/2)

車內無線環境架設與多媒體應用實驗 藍芽技術應用與Zigbee技術應用實例	車載電信服務eCall開發實驗
異質網路環境架設與應用 移動熱點上網環境建置 (802.11+802.16)	
車間網路架設與效能實驗 (一) 802.11p車用網路環境建置與效能量測	SIP-OSGi Gateway開發實驗
車間網路架設與效能實驗 (二) 802.16車用網路環境建置與GPS全球地位系統	IMS系統模擬環境架設實驗



Lab Plan (2/2)

- **IMS系統模擬環境架設實驗**
- **SIP-UPnP Mapping開發實驗**
- **車載電信服務開發實驗**
- **車間網路架設與效能實驗一**
- **車間網路架設與效能實驗二**
- **異質網路環境架設與應用**
- **車內無線環境架設與應用實驗**

Course Materials

- **Next Generation Intelligent Networks**
 - *2002 by Johan Zuidweg (Artech House)*
 - ↳ *GSM, GPRS, CAMEL*
- **IETF RFCs**
 - *RFC 3261 - SIP*
- **3GPP Specifications**
 - *TS 23.228, TS 23.218 - IMS*

Grading

■ Midterm Exam	35%
■ Final Exam	25%
■ Projects	40%
● 車間網路架設與效能實驗一	5
● 車間網路架設與效能實驗二	5
● 異質網路環境架設與應用實驗	5 (2選1)
● 車內無線環境架設與應用實驗	5 (2選1)
● IMS系統模擬環境架設實驗	5
● SIP-UPnP Mapping開發實驗	10
● 車載電信服務開發實驗	10

Any Question?

