



WirelessCabin

Development and Demonstrator of Wireless Access for Multimedia Services in Aircraft Cabins



WirelessCabin's Goals:

- ♦ Wireless communication access in aircraft cabins:
 - ñ UMTS for mobile telephony
 - ñ W-LAN for IP
 - ñ Bluetooth
- ♦ Integration of different cabin services over satellite
- ♦ In-flight demonstration in A-340

Project Motivation

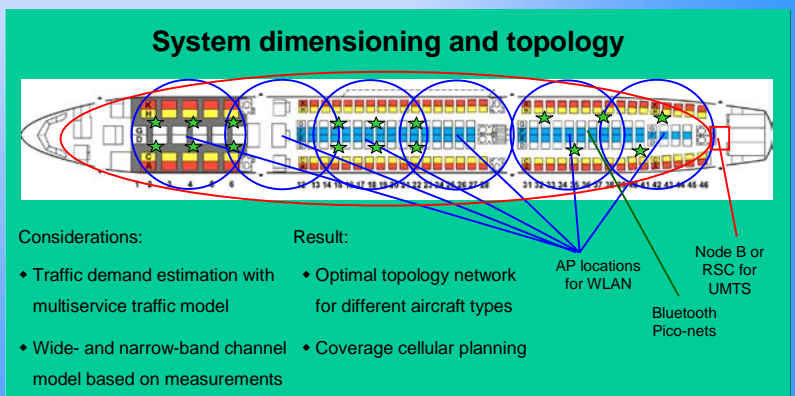
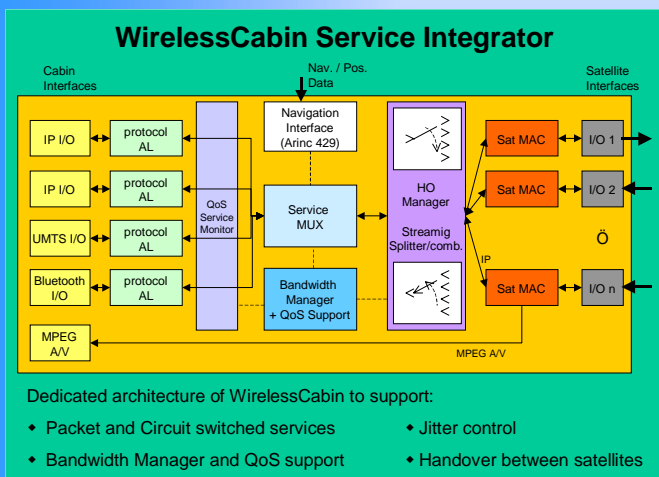
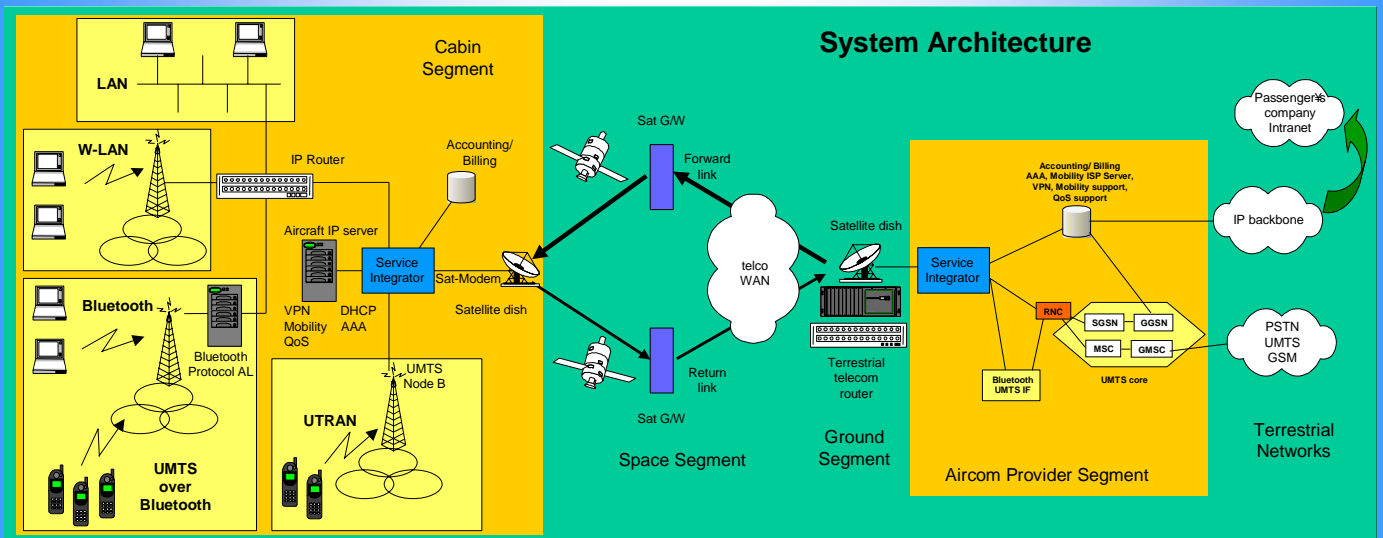
WirelessCabin will make air travel:

- ♦ more productive: Use of cellular phone
Passenger can be reached
WLAN IP connection to laptops
- ♦ more pleasant: Infotainment to seats
IP to laptops
- ♦ more secure: Cabin surveillance
Wireless crew communication
Wireless telemedicine equipment



Project Challenges

- ♦ Interference to avionics
- ♦ Interference to ground infrastructure
- ♦ Service integration over satellite
- ♦ Handover between satellites
- ♦ L/Ku-band systems with limited bandwidth
- ♦ Asymmetric bit rates
- ♦ QoS support in different access segments
- ♦ Cabin cellular planning



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