Requirements for an IAPP
Agenda

- Boeing Wireless LAN Environment
- Scenarios
  - Campus Network (Multiple wireless LANs)
  - Building Network (Wireless LAN/floor)
- Elements of an IAP Protocol
  - Handoff
  - Cross Subnet
  - No Dropped Elements
Boeing Wireless Mobility Model

Level 3 - National/Intl Low Speed

Level 2 - Regional Low Speed Wireless

Level 1 - Campus High Speed Wireless LANs
Wireless LANs minus Cell Handoff

Boeing Off Campus Portable Voice/Data

Satellite

Cellular

Boeing Internet (Data)

Wireless Cell

Boeing Campus
Wireless LANs with Cell Handoff

Start of Cross Subnet Requirements
Wireless LANs with Cell Handoff

Cross Subnet Requirements
Wireless LAN + WPAN Service

- Bluetooth-like
- Digital Voice, Paging, and Messaging
- Data Terminal
- Notebook Digital
- Two Way Paging & Messaging

OLD

Ethernet

Router

Controller
Cross Subnet Requirements
Handoff Requirement

Handoff

Controller

Controller

Subnet 1

Subnet 2
Boeing Requirements

- Maintain authentication through handoff
- Maintain Security through handoff
- QoS Mechanisms through handoff
- IP Multicast/IGMP Snooping through handoff
What is being said elsewhere?

“Smart Phones Will Become the Most Common Computer”

Source: Dataquest, IC Insights
“Gilder Technology Report”
User Devices Trends

INFO APPLIANCES WILL OUTNUMBER HOME PCs

U.S. UNITS IN MILLIONS

- HOME PC SHIPMENTS
- CONSUMER INFO APPLIANCES


DATA: INTERNATIONAL DATA CORP. ©BW
Emerging Technologies

Chart 4: Client Platforms
Directions in Client Hardware

- Unix clients (i.e. RS-6000, Sun, etc.)
  - Sunset
- Windows 9x and NT Workstation 4 & 5 Portables
  - Sunset
- NT Workstation 5 Desktops
- Ultra-portable fusion* devices (Windows CE)

* Fusion devices combine elements of portable computers, personal digital assistants (PDAs), 2 way pagers, and cellular phones. There will be thin clients that bring elements of fusion hardware technology to at least some desktops.
The Future
The Proposal

- Cannot ignore IAPP in the standard
- Proposed IAPP PAR
- IAPP Working Group
- IAPP Section Added to 802.11
- IAPP Finalized 7/00?
Regional Low Speed Wireless

Boeing Intranet

Planned Encryption Envelope

Data Terminal

Bluetooth-like

PC Card (PCMCIA) Radio

Notebook Digital

Bluetooth-like

PC Card (PCMCIA) Radio

Digital Voice, Paging, and Messaging

Bluetooth-like

PC Card (PCMCIA) Radio

Two Way Paging & Messaging