



International Telecommunication Union

Connexion by Boeing

Internet services to
airline passengers and crew

Bob Phillips

Director of International Regulatory Affairs

Workshop on Satellites in IP and Multimedia
Geneva, 9-11 December 2002



Customer Requirements - Results of Market Research

Passengers Want



- Home/Office-like experience
- Real-time connectivity
- Personalized content
- User-friendly search capabilities
- Seamless, secure access

Airlines Want



- Simple cabin design
- Reliable and robust system
- Less weight and power
- Real-time crew information services



Market Research – The Numbers

- 75% of business travelers carry laptops onboard
- 62% of business travelers say they are “very interested” or “extremely interested” in broadband in-flight access
- 20% of frequent fliers said they would be willing to pay \$35 per flight for broadband in-flight access
- 18% of frequent fliers said they would be extremely likely to switch flights in order to have broadband in-flight access
- 6% of frequent fliers said they would abandon their frequent-flier plan airline if necessary to obtain broadband in-flight access



Connexion by Boeing Services



Passenger Communication Services

- Company Intranet Access – real-time, two-way
- Internet Access – real-time, two-way
- Travel and Destination Information
- Airline Specific Information
- Internet based Audio, Video, Entertainment & E-commerce

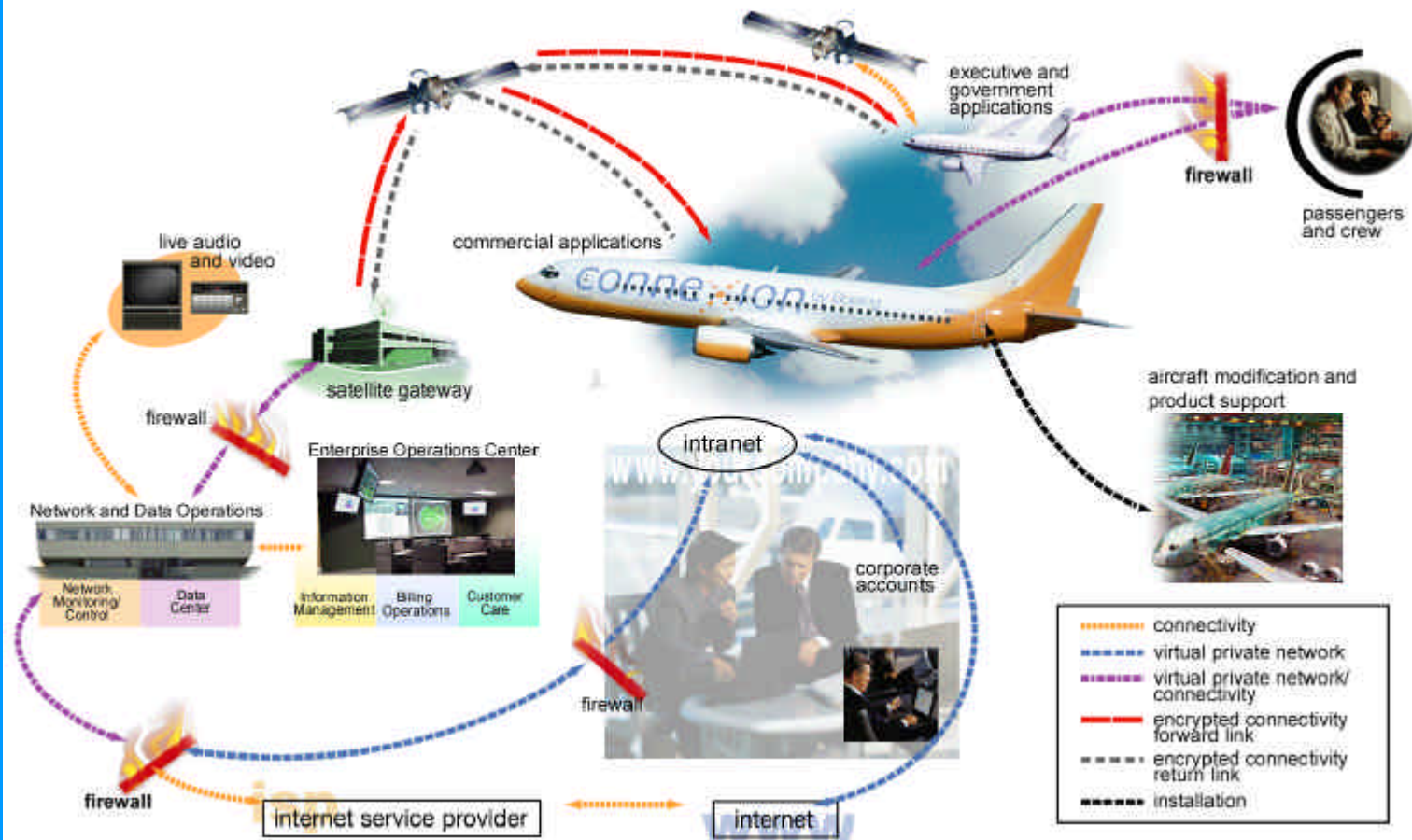
Airline Operational Services

(non safety services)

- Scheduling
- Weather Updates
- Cabin Crew Applications
- Aircraft Health Monitoring
- Flight Data Services



Connexion by BoeingSM Service





Connexion by BoeingSM System Overview

- Service will use leased Ku-band transponders
- Negotiations with Ku band system operators are underway
- Transponder lease contracts in place to support North Atlantic commercial trials
- Transmit / receive terminal includes high gain antenna mounted on top of the aircraft fuselage
- Network Operations Centre (NOC) manages system resources and avoids interference to other authorised users



Connexion by BoeingSM Service Attributes

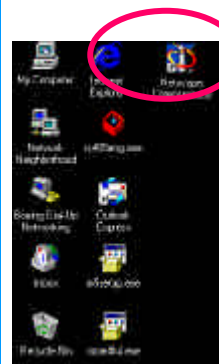
- Aggregate data rate to aircraft up to 20 Mbit/s (multiples of 5 Mbit/s)
- Aggregate data rate from aircraft up to 1 Mbit/s
- On board server caches frequently accessed web pages



User Set-up



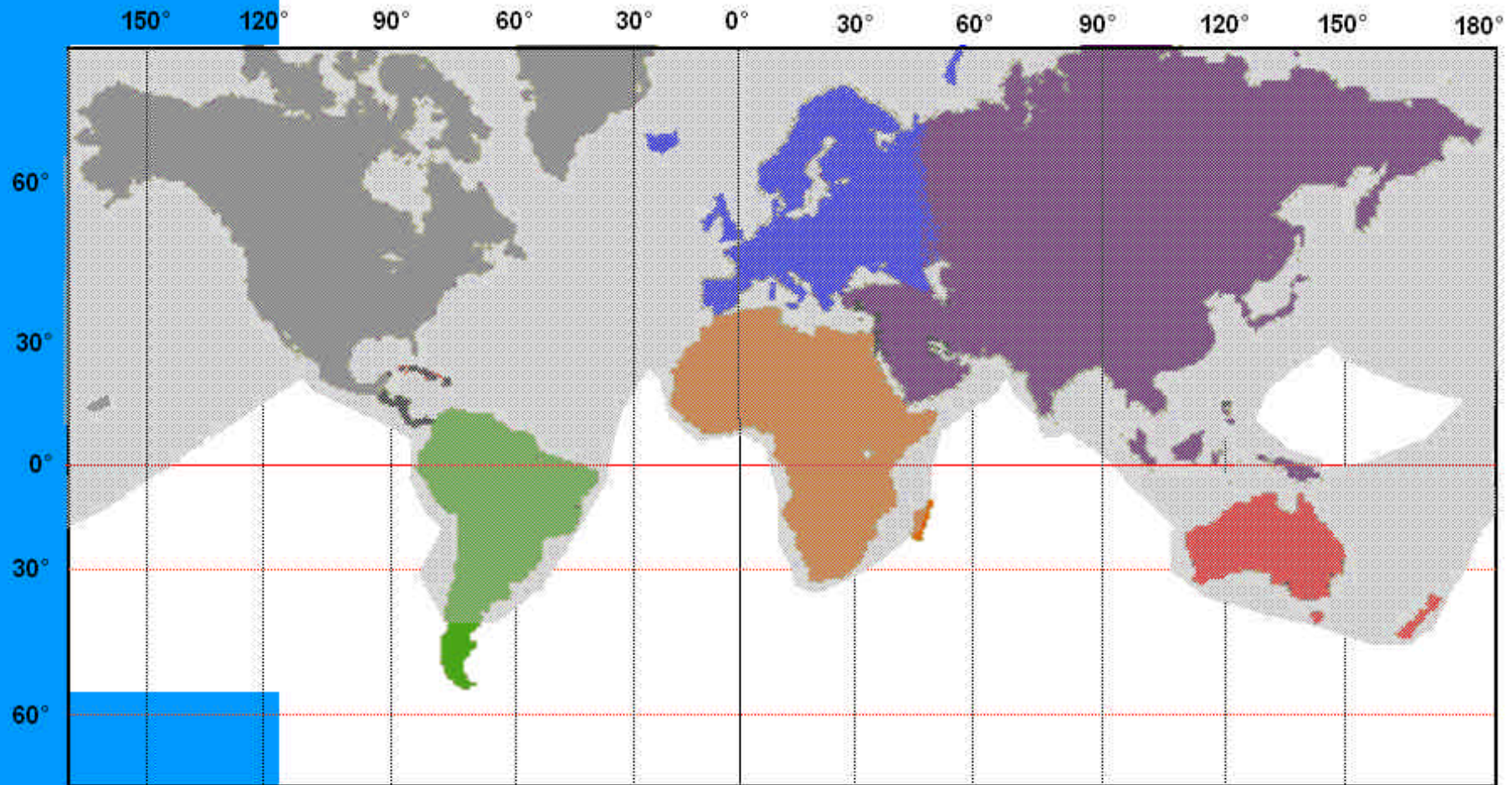
- To connect with the service, the passenger/User:
 - Plugs in their Ethernet LAN port connection (or USB port) and powers up their Laptop
 - Initiates web browser (e.g. Netscape or Internet Explorer)
 - Connexion by Boeing home page appears automatically



No unique set-up required
No separate email account required



Planned satellite coverage





Progress to date

- Lufthansa commercial trial scheduled to start January 2003
- British Airways commercial trial scheduled to start February 2003
- Japan Airlines signed contract for installation on 10 aircraft
- Start full scale service launch from first quarter 2004



The future isairline connectivity

