

AeroMobile Programme Update

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Airborne Cellular Connectivity

- ▄ Voice
- ▄ Short Messaging Service (SMS)
- ▄ GPRS (Blackberry™)





“...my wife could not believe I was on the aircraft. Call quality was excellent...”

Greg Mashlan – V Australia. Emirates flight from Dubai to Frankfurt



“...I was extremely impressed with the voice quality and speed with which I could communicate with a colleague via SMS messaging...”

Patrick Brannelly – VP Communication and Visual Services.
First flight from Dubai to Casablanca



“... a really innovative service that brings extreme value for either professional or personal use. When I rang my friend it sounded like she was next door – just like a local call on the ground”

A DiGi subscriber on Malaysia Airlines flight
MH0388 Kuala Lumpur to Shanghai



“.....I was absolutely amazed with the quality, I was having dinner in a restaurant in Montreal when I received the call, I exchanged text messages and rang a colleague back on the plane.....”

Aircraft OEM head of Product and Business Strategy



*“The evaluation of this new technology
[AeroMobile] was a great success”*

Mr John Borghetti – Qantas Executive General Manager

Over two years in commercial service...



proven, high quality service

valued by the customers

no social issues have materialised

Briefly... about us

- An independent cellular operator - aviation sector
- World's 1st operational in-flight mobile device service
- **In commercial service for over two years**
- Commitments from major airlines for 300+ aircraft
- Established as a Joint Venture in 2006, UK Headquartered, between ARINC and Telenor

- **A turnkey solution:** hardware, installation design, installation / certification & operation of cellular voice and data services

Uniting the Best in Aviation, Telecoms and IFE



- Leader in aviation communications
- World Class global mobile operator



- Largest IFE supplier
- Award winning partnership – Best Technology Achievement



powered by



**Avion Technology
Achievement Award
2008**

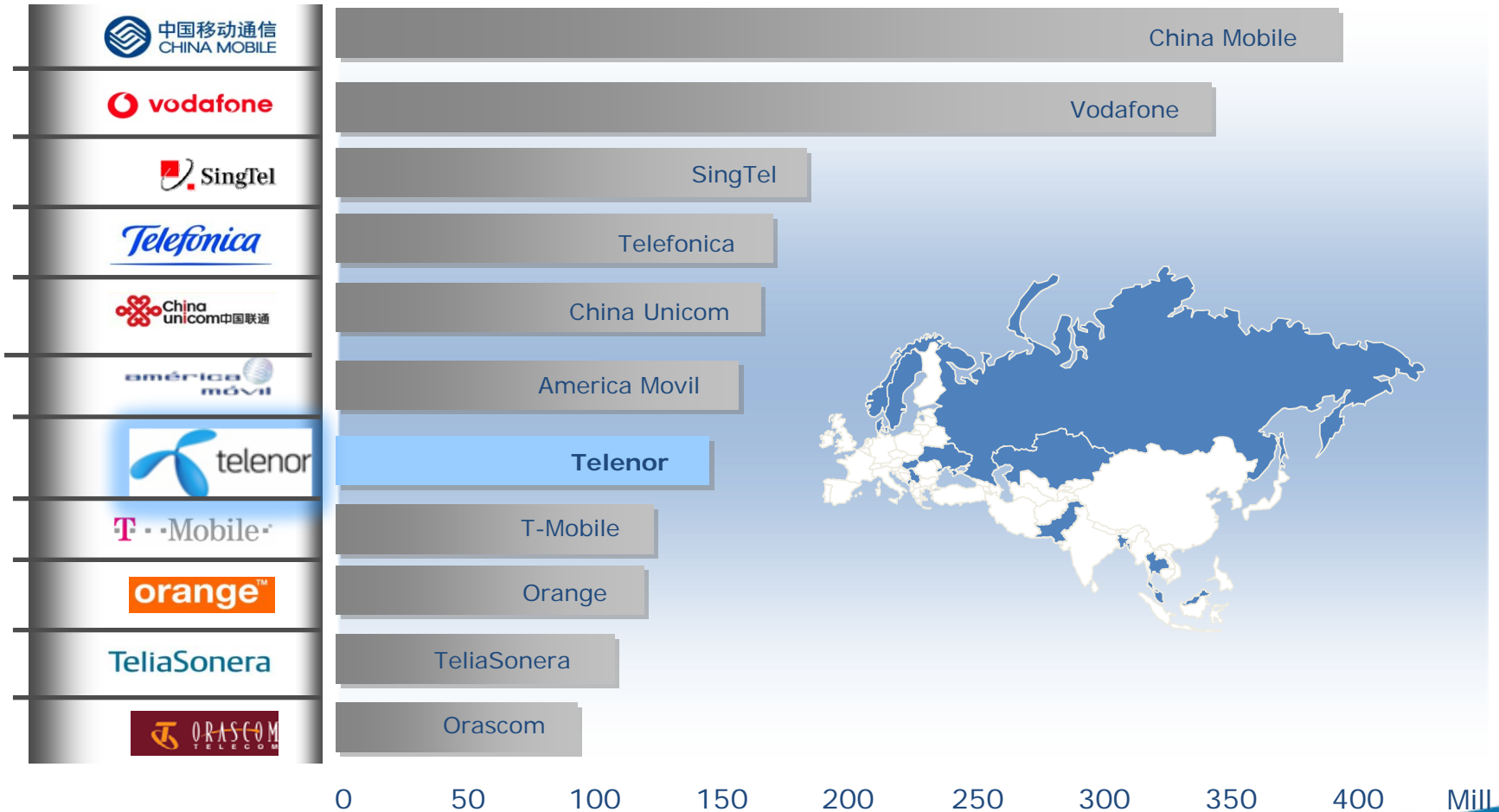
■ eXPhone: Panasonic hardware on board

- Panasonic is the hardware distributor
- Panasonic part numbers
- Installation, certification, maintenance and support
- Global field support team
- Standalone or integrated into X-Series IFE

■ AeroMobile: on board service provider

- Bespoke certification
- Regulatory approvals and Roaming agreements
- Responsible for operating the service
- Billing and back office functions
- Innovation in Value Added Services

Telenor Ranking



Number of mobile subscribers in million, based on total group figures Q108 (source: Wireless Intelligence). Operators only included in group if ownership is 20% or more

Owned 99% by Telenor



The image depicts a woman in a green shirt and scarf looking down at a white reindeer in a stylized landscape. The background is dark with a satellite in the upper right, a bar chart with three red and white bars on the left, and blue leaf-like shapes on the right. The overall theme is technology and nature.

Telenor Group is among the largest mobile operators in the world

- 39,250 employees
- 166 million subscribers
- 13 countries
- 154 years of history

**A Heritage Rich in Innovative
Mobile Services**

AeroMobile Value Added Services Pipeline

- Off board WAP based passenger portal
 - Information, CRM
- Bluetooth marketing
- Real time credit card authentication
- Onboard WAP based portal.
 - Content download (ringtones, Music, Games, Podcasts)
- Concierge service linked to IFE
 - In-flight ordering
- Access to IFE content via mobile
 - Licensing conditions permitting
- Enhanced SMS services and mPayments
- Automated IFE scripting



WAP portal

- Ground based WAP site can be used in conjunction with the airline mobile site, to provide access to basic information such as latest headline news items - including sports & finance to customers whilst in-flight
- Enable passengers to download specific types of content for free or for a fee - e.g. MP3's, webisodes, ringtones, screensavers, sports & music video clips, mobile games



WAP based advertising / CRM



- Portal can also be used for providing brand specific adverts and other promotional type offers. Potential opportunity to generate revenue from key brands who want to provide specific in-flight advertising content that could be viewed by in-flight users via their mobile device
- CRM integration so that cabin crew can provide enhanced services to pax - e.g. Request special services at destination, sort out onward services for passengers, link to the FFP program for earn/spend of FFP points

Real time SkyBuy and Chip and PIN solutions

- SkyBuy - the world's FIRST turnkey solution for supporting credit card purchases on aircraft and inventory control
 - Hand held credit card authorization services.
 - Reduce fraud & raise floor limit of duty free sales
 - AeroMobile provides real time checking with ground servers
- Generic Chip and PIN - the same technology can be used for any on-board purchasing system
 - All transactions are secure and handled via the AeroMobile real time satellite links to ground servers
 - Cabin crew will simply be able to use the same sort of hand-held credit card machines used in restaurants on the ground



Enhanced SMS services and mPayments

- ▄ Enables PAX to pay for additional services via the mobile SMS payments platform
- ▄ Allows end users to use mobile phone like a virtual wallet/credit card
- ▄ Makes payment for services, goods, media simpler – reduces fraud



Local GSM Provider Marketing Programs



malaysia **maxis.**

THE IN-FLIGHT MOBILE SERVICE

Maxis, together with Malaysia Airlines, is proud to introduce the first in-flight mobile service in Asia.

NOW WE CAN FLY TOO

For airborne coverage that lets you make ground contact, just dial ST followed by number.

DiGi

AeroMobile

How much does it cost?

Receiving SMS	FREE
*Sending SMS	≈2/SMS
Making calls	≈15/min
Receiving calls	≈15/min
Data charge	≈100/MB

*Rate in Singapore dollars only. For non-Malaysia numbers, please check with your operator for further information.

*International rates apply for DiGi AeroMobile charge area only. Data charges are based on actual usage.

Completely safe

It's safe to use your phone because of the way the system works.

Because AeroMobile controls your phone during flight, there is no risk to the plane's systems. The AeroMobile system has been intensively tested and fully approved by some of the most respected aviation bodies in the world.

malaysia **maxis.**

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Operating approvals

Airworthiness approval

- Issued by EASA / FAA, and an endorsement of compliance with the necessary aviation airworthiness standards.

Operating approval

- Granted by National Airworthiness Authority following review of revised cabin crew operating procedures.

Regulatory approval

- As a GSM operator we require over flight approvals to operate each country we overfly. Approvals are not required on oceanic routes.

Telco roaming approvals

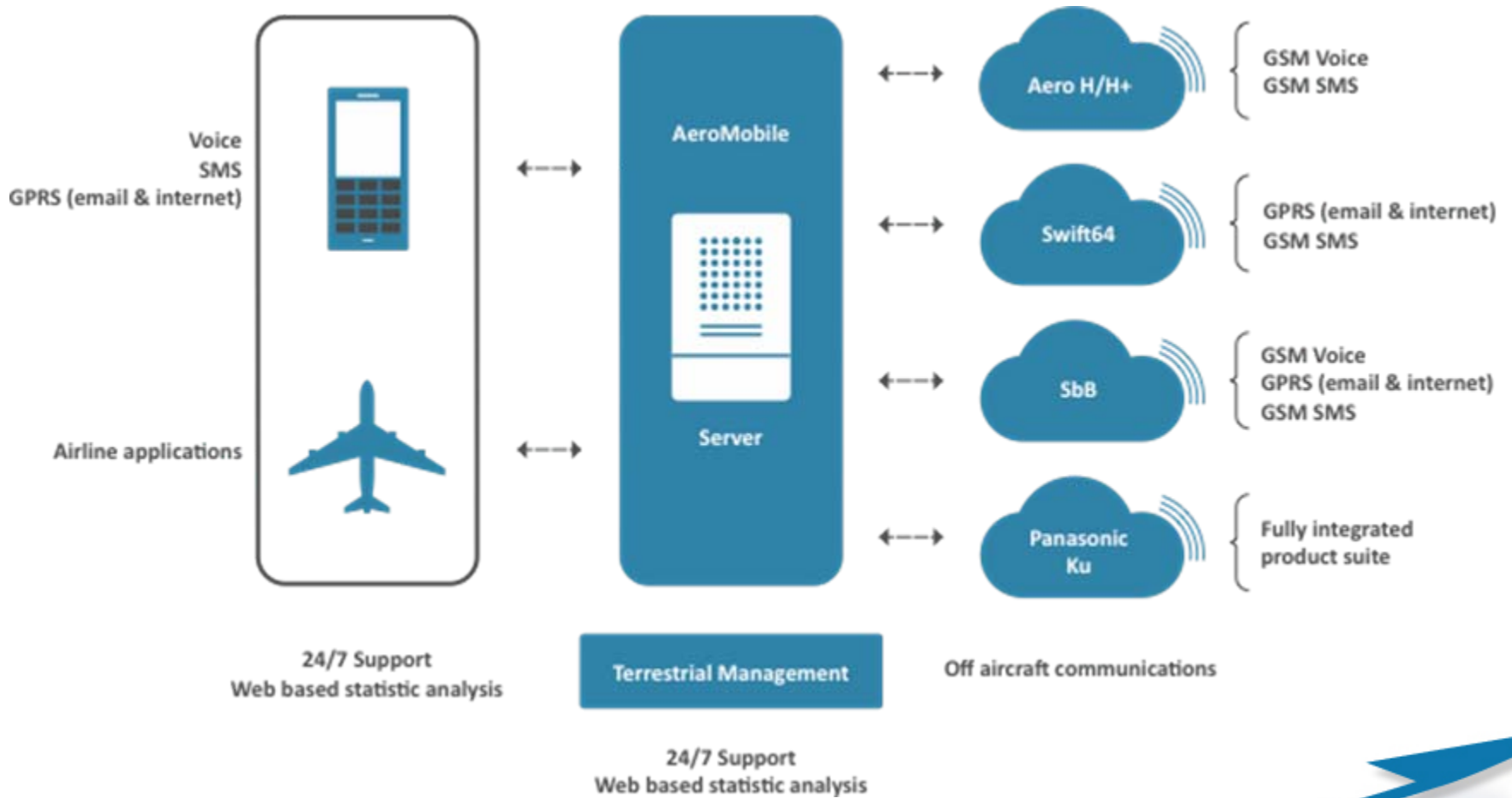
- Agreed between AeroMobile and global Telco's. Allows operation and billing of passenger's phone in flight.

EASA certified on:
B777-200
B777-300
B777-300ER
A340-300
A340-500
A330 platforms

Regulatory approval in
70 countries

Over 180 Roaming
Agreements

AeroMobile Satellite Communications Flexibility



Satcom System Maturity

Satcom Manufacturer	Variant
Honeywell	MCS6000 MCS6000+HD710 MCS7000 MCS7200+Swift64 MCS7200+SbB
Rockwell Collins	SAT906 SAT906+HST900(Swift64) SAT906B+HST2110b (SbB) SAT2100B (SbB) SAT2200
Thales	Topflight

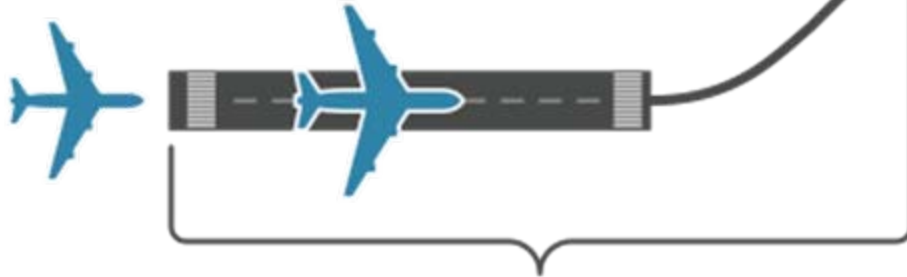
Supported Applications

	Voice Calls	Short Messaging Service	E-GPRS (Blackberry, MMS, Email)	Managed Internet
Inmarsat Classic Aero H/H+	Typically 6 simultaneous calls	Supported (Unlimited)	Not Supported	Not Supported
Classic + Swift 64	Typically 6 simultaneous calls	Supported (Unlimited)	Supported	Not Supported
SwiftBroadband	Up to 14 simultaneous calls (per pico cell)	Supported (Unlimited)	Supported	Supported

Passenger experience – take off



Departure terminal



Critical phase of flight: No PED use consistent with FAR 91.21

Start of cruise:

1. System auto-enables
2. PA made, video shown
3. 'Welcome' text message sent



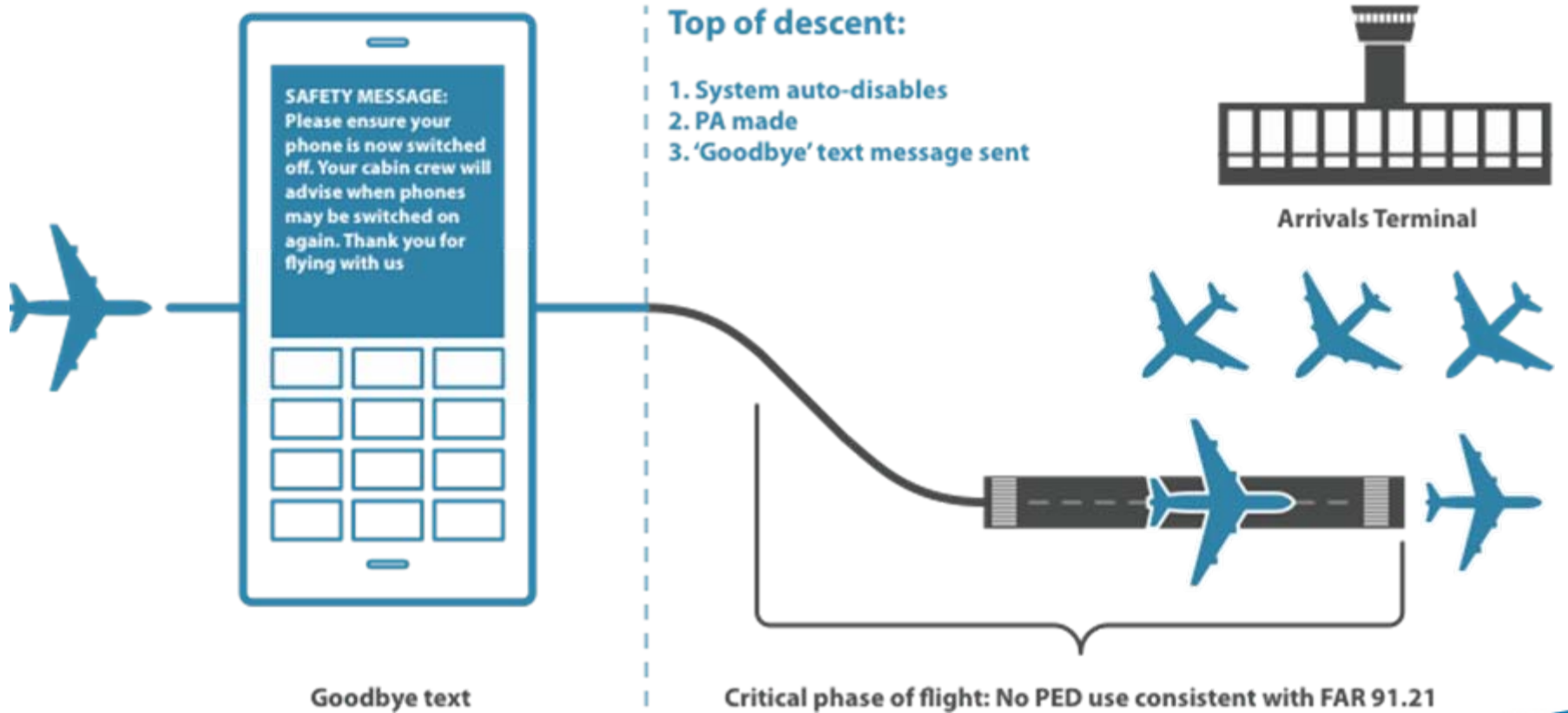
Welcome text

Passenger experience – in flight

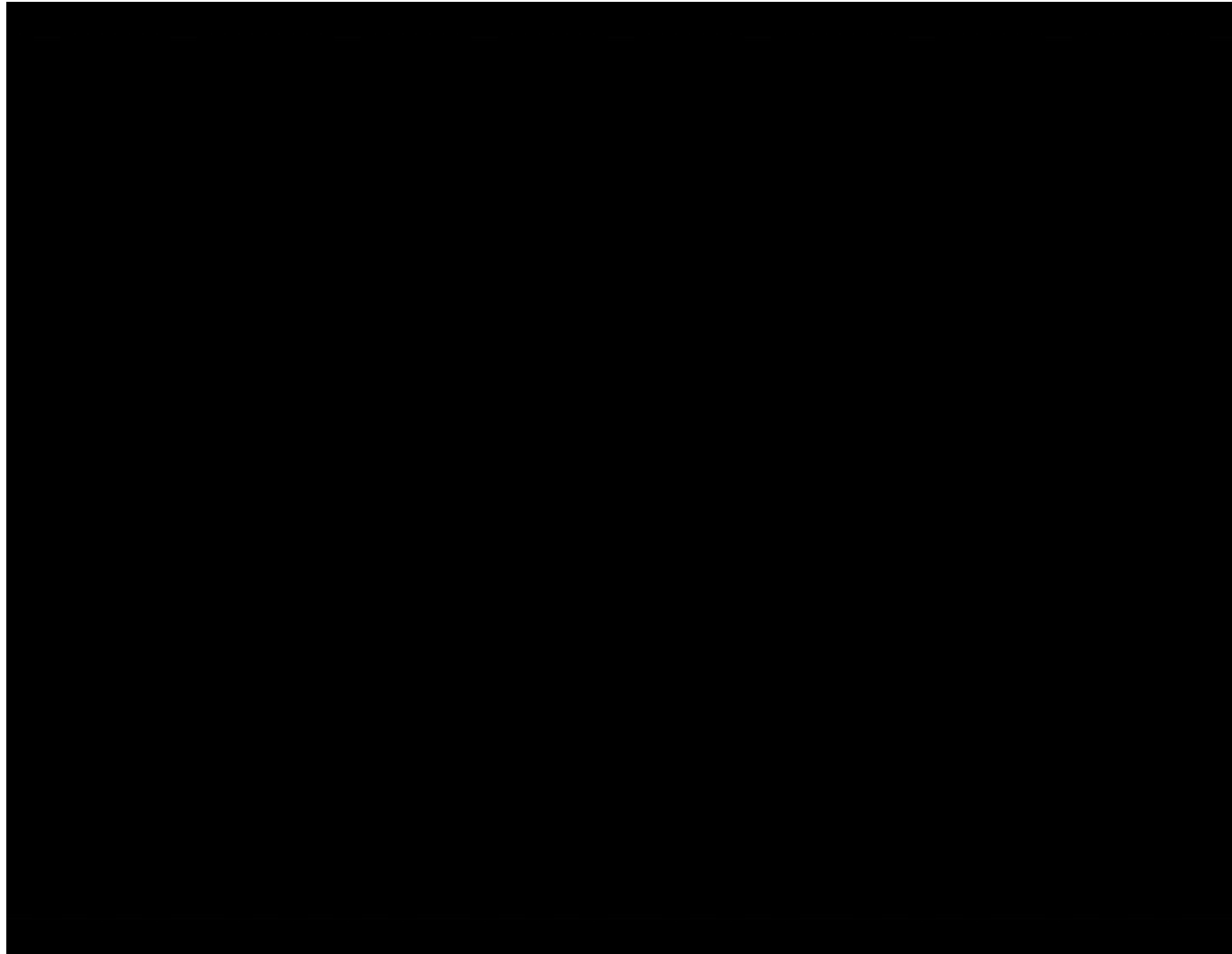


Service control

Passenger experience – landing



In Flight Video – Malaysian Airlines



Customer Commitments and Take-Up Rates



- **Announced Commitments from major airlines:**
 - Over 40 aircraft in commercial service with committed rollout plans for 300+
- **In operation since April 2007; in commercial service for over two years**
 - 10,000 flights going to 76 destinations in 36 countries across 3 continents
 - Over 100 flights per day now AeroMobile capable
 - Over 310,000 people have used the system since inception
- **Average take up is 30% of cabin; up to 50% achieved with marketing**

Summary

▄▄▄ Strong Telco heritage with innovation at its core

- Value Added Services to drive revenues

▄▄▄ Can be cost effectively scaled across an airline's entire fleet

- Currently the industry's only solution capable of supporting cellular voice and data services over all current and planned aircraft satellite systems

▄▄▄ Maturity of Aircraft installation and certification

- Airbus and Boeing aircraft, short and long haul

▄▄▄ Successful in-service operations

- High quality service and strong take-up rates

Pragmatic Pioneers

'We chose AeroMobile because they are pragmatic...We were looking for something that works with our existing situation, but that is proofed for the future.'

Thank you for listening – Any Questions?

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