

Outline



- ✦ Brief history
- ✦ Lessons learned
 - ◆ Challenges
 - ◆ Successful E - Business deployments
- ✦ Road map to the “EFB” and E-Business solutions for airline operations
- ✦ EFB business model
- ✦ EFB hardware & Displays
- ✦ Summary

Lessons learned

Historical reasons for EFB concepts not being implemented:

- ✦ Lack senior management vision and commitment (corporate goal)
- ✦ Coordination and resource requirements were extensive including multiple divisions
- ✦ Not considered a core business activity thus given a lower priority level for capital

Lesson learned Cont'd

Successful deployment of E-Business solutions in Marketing & Distribution

- ✦ Marketing & Distribution a core business activity
- ✦ Supported & championed by executive levels of management
- ✦ The concepts & requirements defined by the customer and developed by the service provider
- ✦ Most were considered “turn key” applications with a limited requirement for resources
- ✦ Had resident performance systems to measure performance against goals and objectives

Road map to E – Business solutions For airline operations



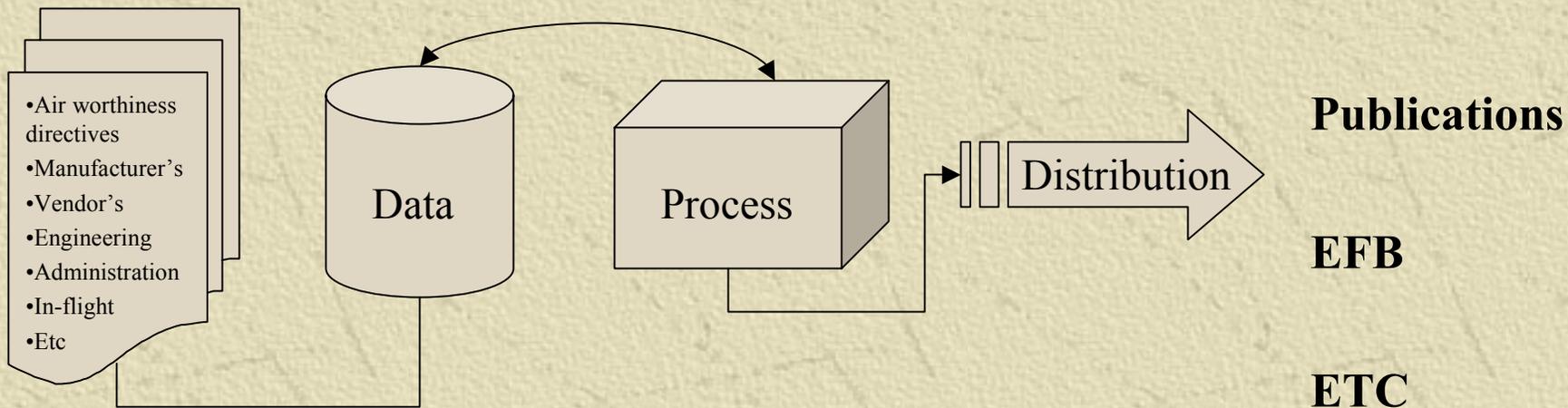
- ✦ Operations concept document
- ✦ Recognition and support from the regulatory authorities
- ✦ Define customized applications for customer
- ✦ Build business model
- ✦ Design a technology demonstrator to validate concept and performance goals
- ✦ A successful validation leads to implementation

E - Business tools

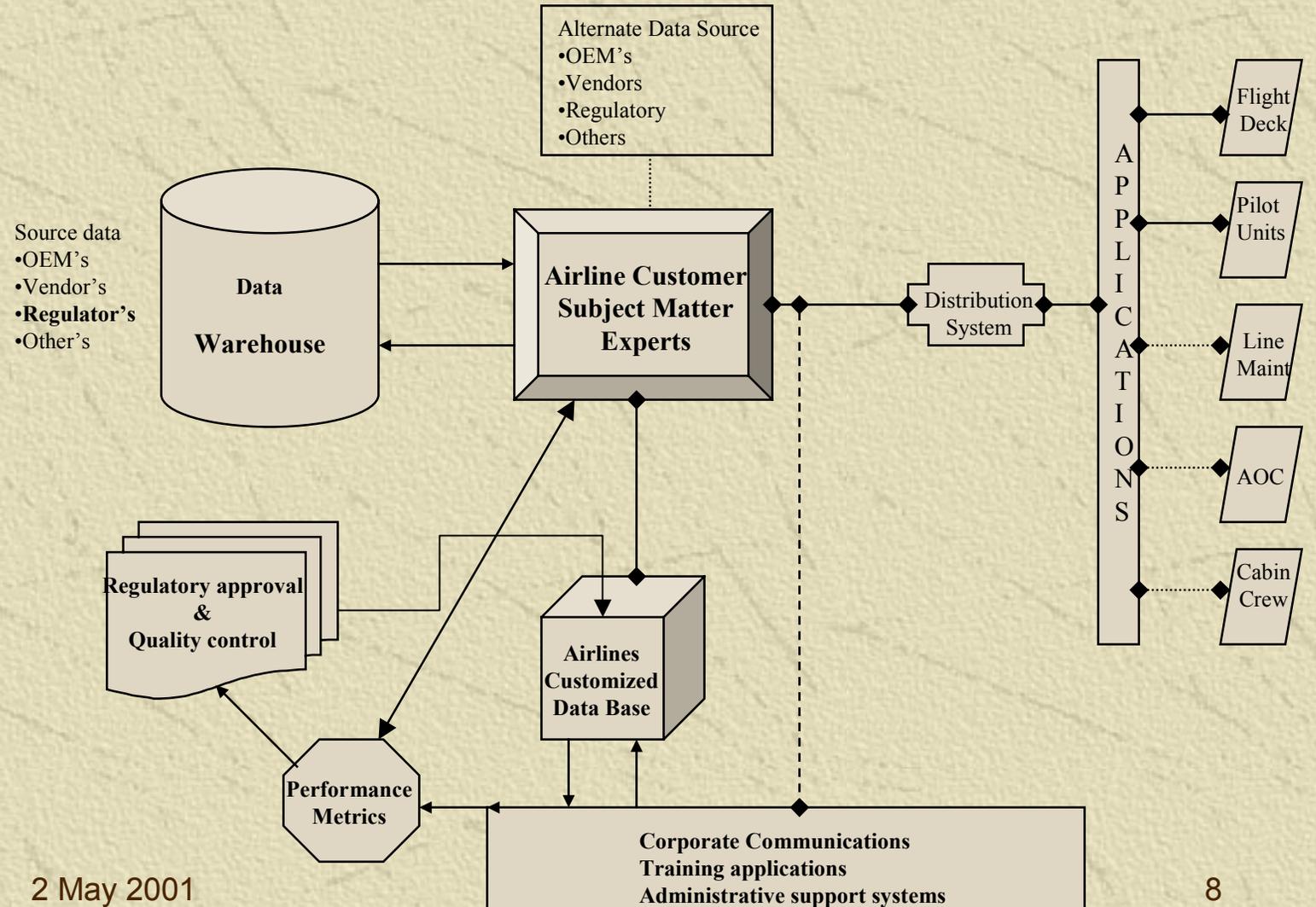
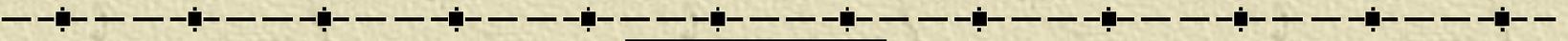
- ✦ Data warehouse
- ✦ Subject matter expert interface tools
- ✦ Customized airline data base
- ✦ Peripherals for Corporate/Administrative applications
- ✦ Distribution system
- ✦ Applications
 - ◆ Aircraft hardware
 - ◆ Mobile units

Data

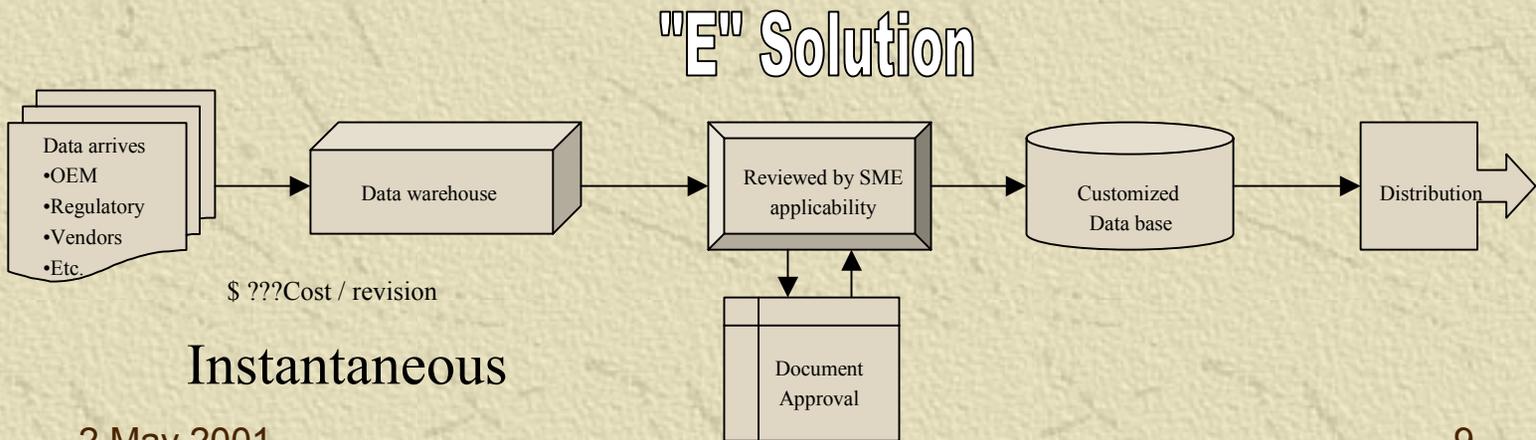
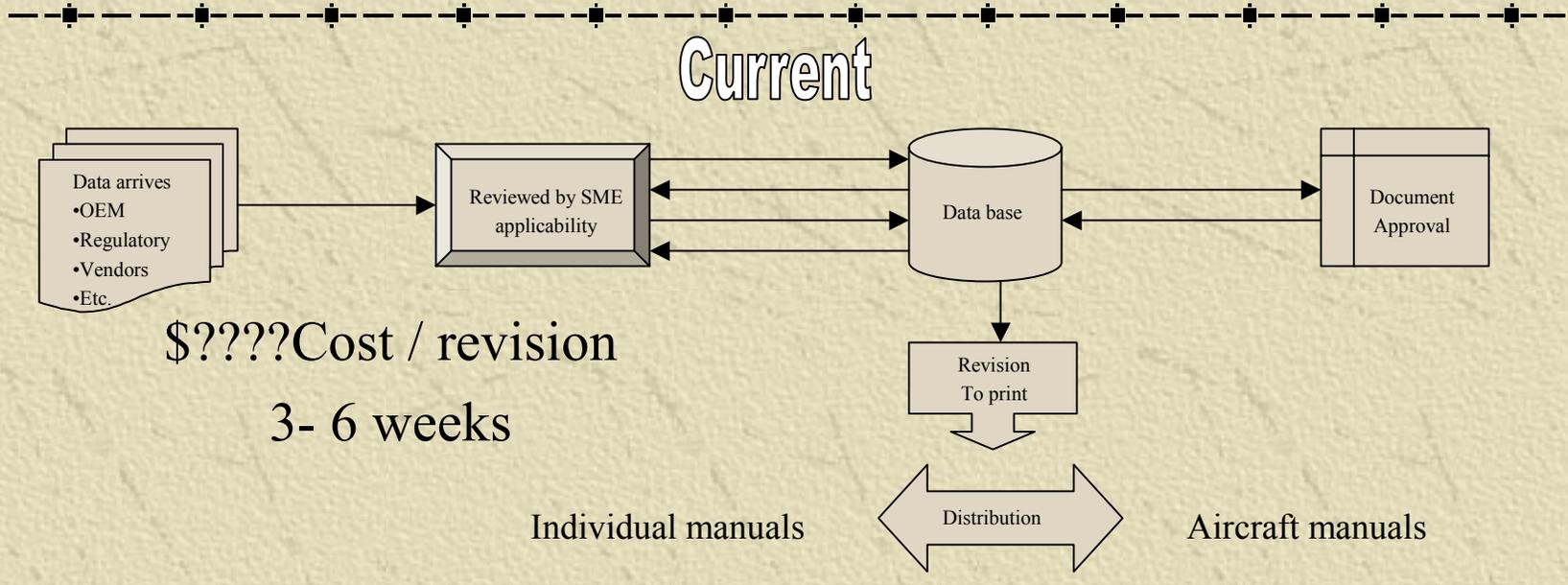
Assembly & Distribution process



Business Model (Neural network/Digital backbone)



Business process comparison



Astronautics

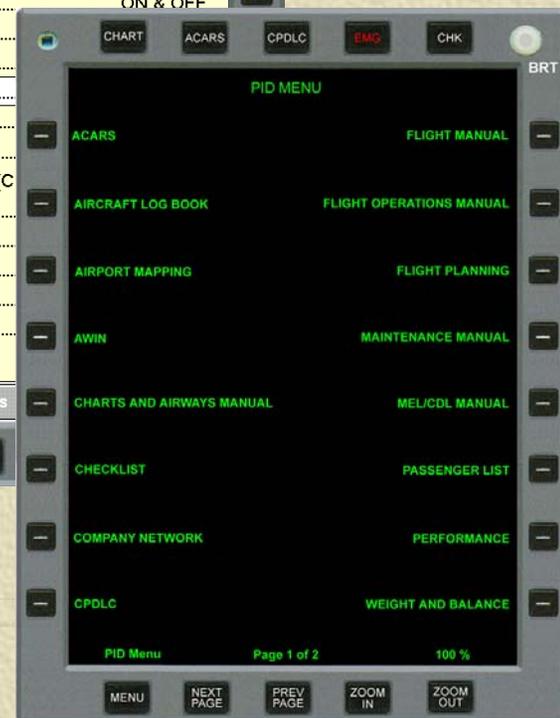
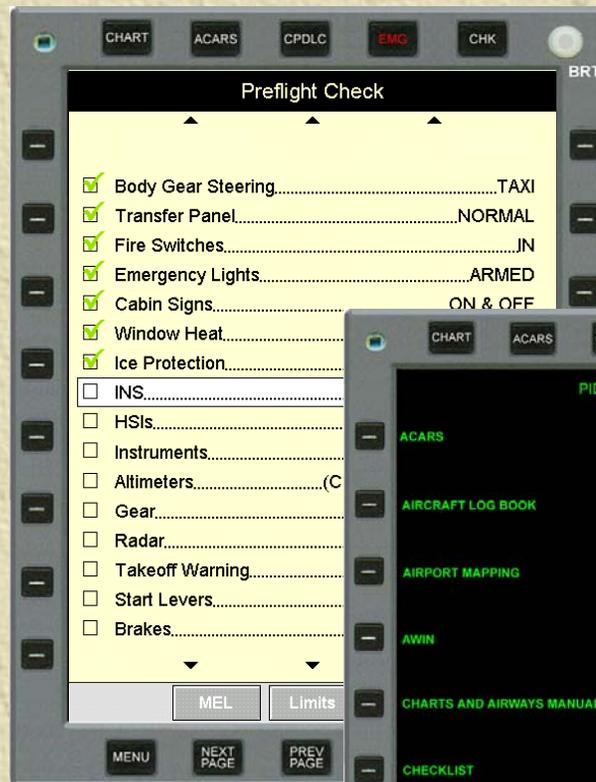
Pilot Information Display Configuration I

Basic Operation



Task Management Tool

- Checklist/procedures
 - Normal & Non-normal
 - Emergency
 - Supplemental
 - Bulletins
 - Etc.
- Manuals
 - Operations
 - Policy/Administrative
 - MEL/CDL
 - Etc.



Astronautics

Pilot Information Display Configuration II

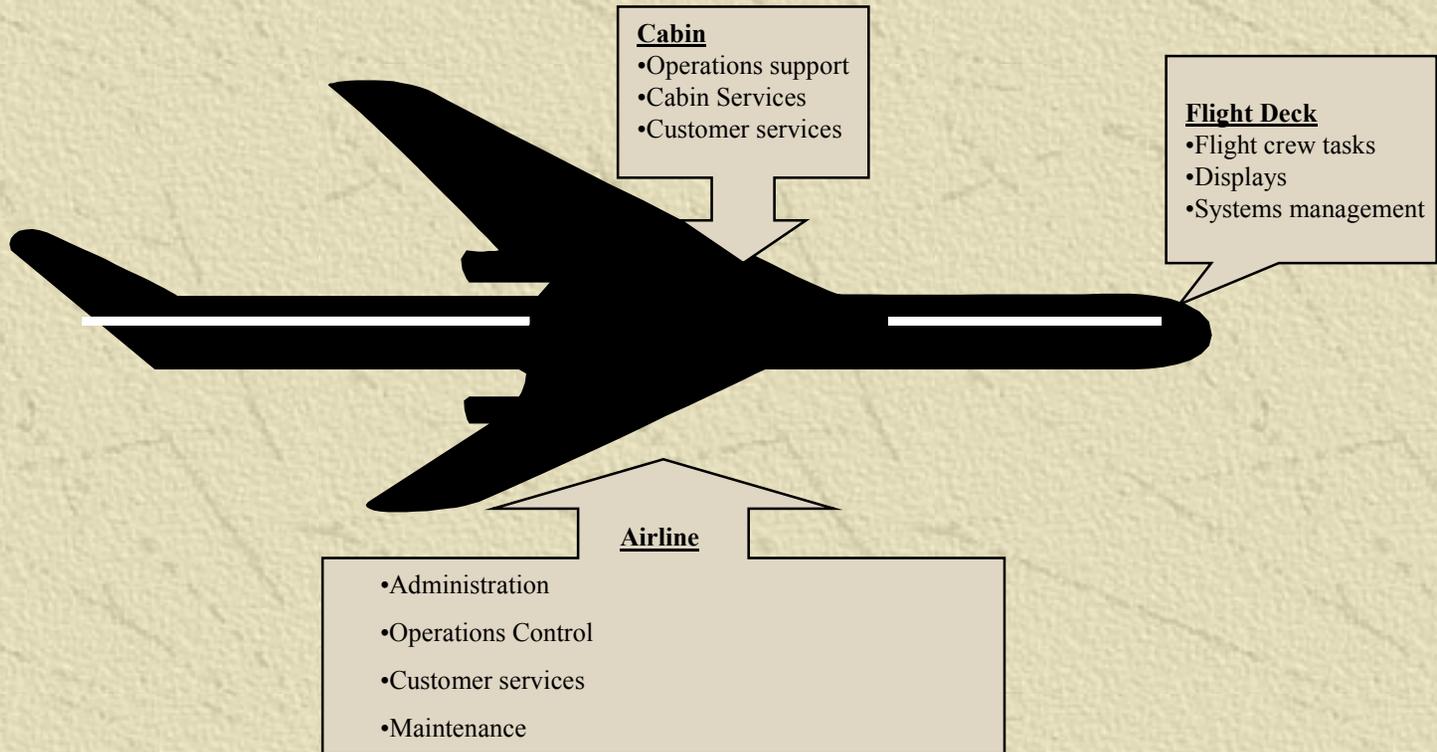
Advanced Operations

✪ Charting

- ✪ SIDS, STARS, Approach, Airport, ETC.
- ✪ ACARS/VDL interface
 - AOC
 - CPDLC
 - ADS-B
- ✪ Weather depiction
 - Weather radar
 - AWIN
- ✪ Traffic
- ✪ Terrain
- ✪ Etc.



The aircraft asset



Conclusion

To achieve a successful transition of your current system (s) into the E – Business environment:

- ✦ An airline must develop a very focused strategy for the modernization of their operations support systems (consistent with corporate goals)
- ✦ What is the business need?
 - ◆ Corporate goal
 - ◆ Need to upgrade to meet current & future demands
 - ◆ Growth strategy
 - ◆ Meeting of regulatory requirements
- ✦ Senior management level support