

Third Seminar/Workshop on the Implementation of A-CDM

25 – 27 September 2017

Jim Houghton, Head of Business Development, Americas THE ULTRA EQUATION









HEIGHTENED EFFICIENCY

Agenda



- Introduction (context) and Key Themes
- Airport Systems that enable A-CDM
- Evolution of Airport Systems Integration
- Benefits to Airports, Airlines, Passengers, Ground Handlers
- Details and Case Studies (Dublin and Lima)
- Questions

Introduction



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Enabling improvements for airports and airlines across 5 continents

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THE ULTRA EQUATION

2016 SkyTrax Airport Awards™



BEST AIRPORTS BY REGION

BEST AIRPORT: NORTHERN EUROPE

Helsinki-Vantaa

BEST AIRPORT: EASTERN EUROPE

Budapest

BEST AIRPORT: WESTERN EUROPE

London Heathrow

BEST AIRPORT: AFRICA

Cape Town

BEST AIRPORT: ASIA

Singapore Changi

BEST INTERNATIONAL AIRPORT: CHINA

Beijing Capital

BEST DOMESTIC AIRPORT: CHINA

Shanghai Hongqiao

BEST AIRPORT: RUSSIA/CIS

Moscow Domodedovo

BEST AIRPORT: NORTH AMERICA

Vancouver

BEST AIRPORT: SOUTH AMERICA

Lima - Jorge Chavez (2009-2015)

BEST AIRPORT: C AMERICA/CARIBBEAN

Panama Tocumen

BEST AIRPORT: MIDDLE EAST

Doha Hamad

BEST INT'L TRANSIT AIRPORT

Seoul Incheon

WORLD'S TOP 10 BEST AIRPORTS

#1 Singapore Changi

#2 Incheon, S Korea

#5 Hong Kong

#7 Zurich

#8 London Heathrow

#10 Doha Hamad

Industry Activities

























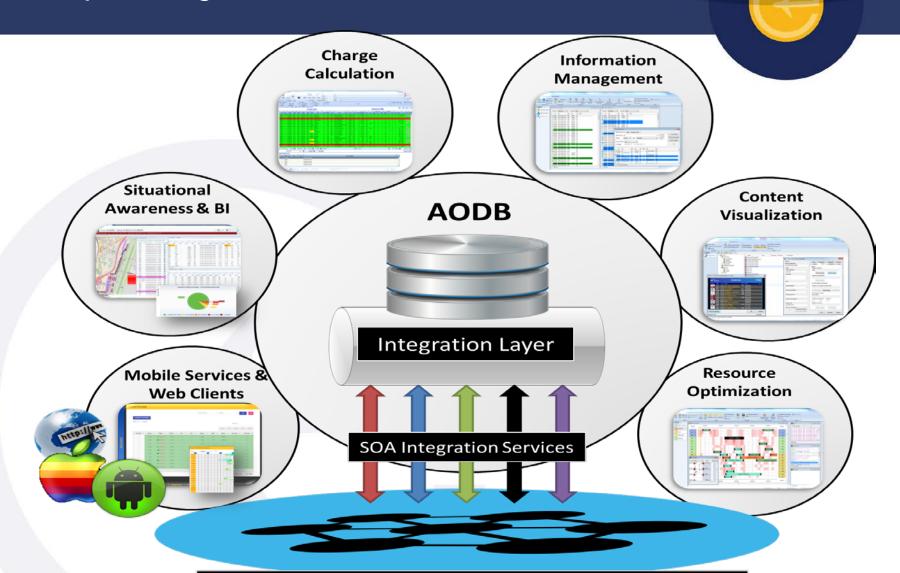


Key Themes



- This is fun!
- A-CDM starts in the parking lot
- You have to walk before you can run
- It's all about data flow and sharing information
- The 90% rule

Airport Systems and Functions

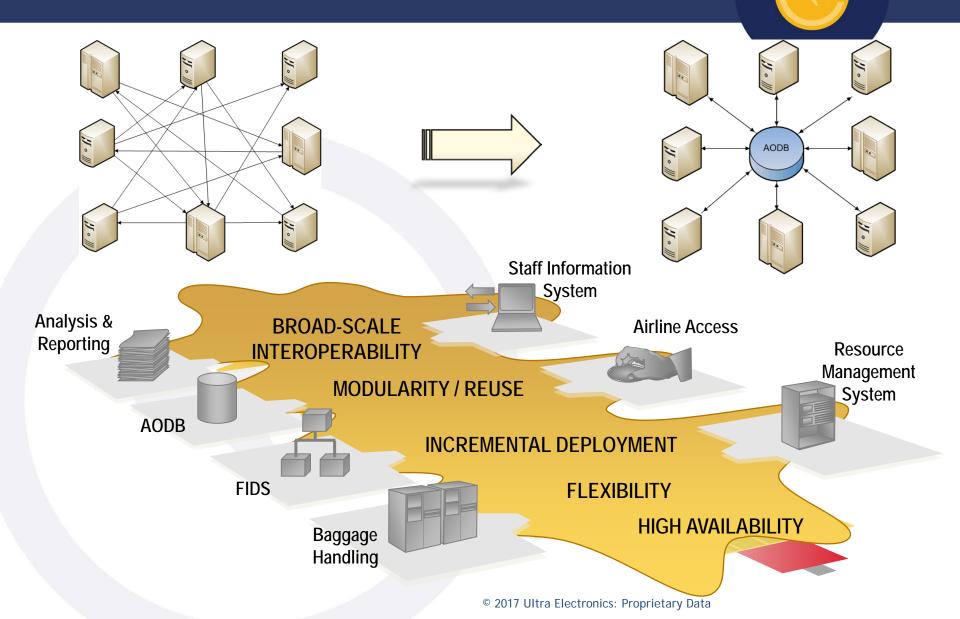


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Airport 3rd Party Systems

Evolution of Airport Systems Integration





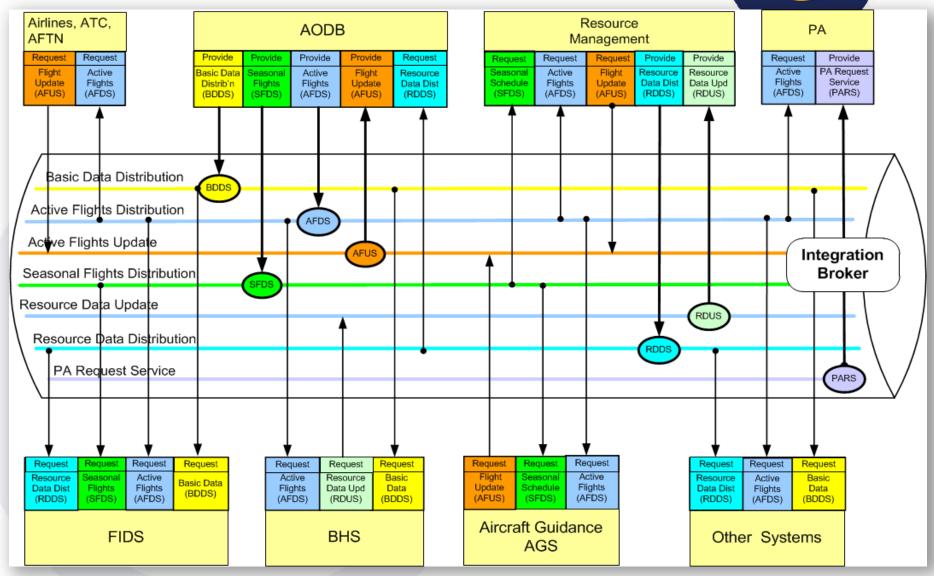
What is an Integration Platform?



- A robust, flexible, scalable and highly reliable information broker that enables systems to "talk" to each other
- Secure, actively managed platform that complies with industry best practice architectures, standards and processes
- "Loose coupling" of interfaces allowing easy replacement of systems
- Visibility and guaranteed delivery of airport operational data
- A cost effective and future proofed solution providing reliable integration with many vendors on and off airport

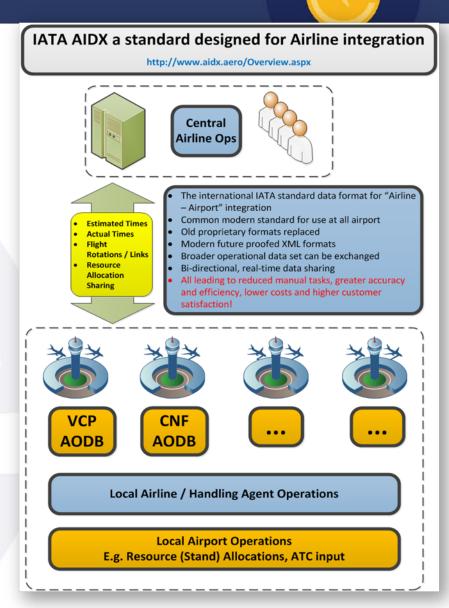
Who needs Data? Who has Data?





Benefits of Integration

- Information can be shared with agencies and authorities, between airlines and airports, ground handling companies and passengers
- More capacity fuller use of terminal and runways
- Accurate up-to-date data direct system communications mean less errors/confusion, better access to accurate data, better decisions made earlier, improved staff efficiency, more responsive actions, overall a happier customer
- Better Service and Efficiency reduces tedious tasks, reduces conflicts and stress, frees staff for more meaningful work
- **Expandability** without good system integration, the interactions and problems between the growing airport departments and companies increase exponentially
- **Re-useable** making the right decision now makes it easier and reduces costs in the future



Message Services Library

For documents and records which need review and formal approval.





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28	W)	AFQS Service Specification	120	W	SFUS Service Specification
29	w)	AFUS Service Specification	131	W	WDDS Service Specification
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31	W)	RDUS Service Specification	134	W	AAFDS Service Specification
32		SFDS Service Specification	135	W	GXI AIDX Active Flight Distribution Service (AAFDS) Detail
		·	149		UltraIB Infrastructure Architecture Upgrade
33		VPUS Service Specification	151	W	XSDS Service Specification
37		AFRS Service Specification	152	W	XSUS Service Specification
38	בישו	PARS Service Specification	163	W	Adding GXI to Existing UltraDB
40	ישו	FMRS Service Specification	167	W	ABDS Service Specification
41	W	MRDS Service Specification	168	W	FAIS Service Specification
49	W)	GXI Core AFDS Synchronous WS Handler	169	W	FARS Service Specification
50	W	GXI Core BDDS Synchronous WS Handler	170	W)	HRDS Service Specification
71	W)	VPDS Service Specification	171	W	HRUS Service Specification
99	<u></u>	GXI Core WS Handlers	172	W)	IADS Service Specification
102	<u></u>	XFDS Service Specification	173	W)	IAUS Service Specification
103	w)	XFUS Service Specification	174	W)	PFDS Service Specification
109	<u> </u>	HFQS Service Specification	232	W)	WDPS Service Specification
111	W)	BDUS Service Specification	234	(שנ	TAPS Service Specification
			236	W)	CDDS Service Specification
117	w)	HFUS Service Specification	237	W	CDM Data Services Implementation Guide

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Publish Services Software Detailed Design

SRDS Service Specification

SRPS Service Specification



Copy No.____

AIRPORT INTEGRATION SERVICES AIDX ACTIVE FLIGHTS UPDATE SERVICE (AAFUS) APPLICATION SERVICE DEFINITION

dev\Products\UltralB\Controlled\118 Issue 7.0
Date: 19/11/2013

Prepared on behalf of Ultra Electronics Airport Systems by:

Paul Crisp

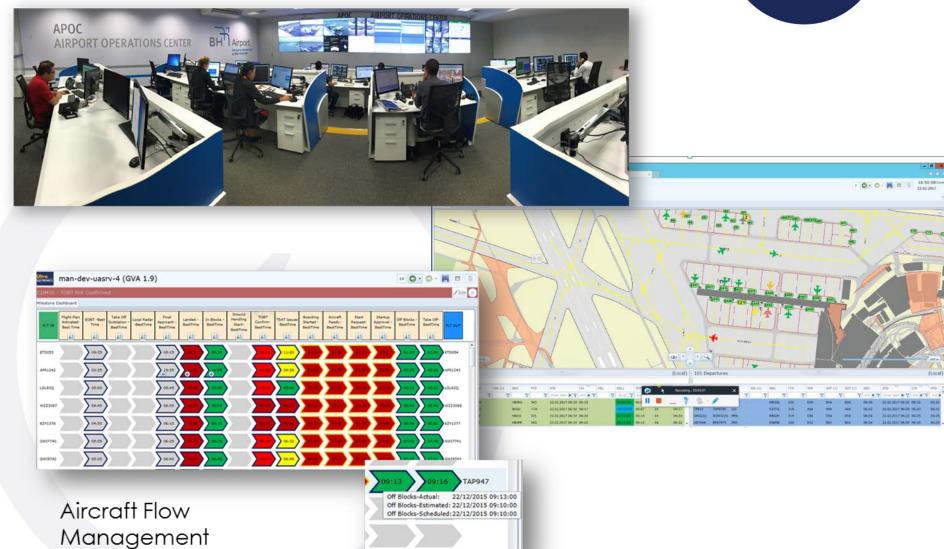
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Commercial in Confidence

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Integration Enables A-CDM

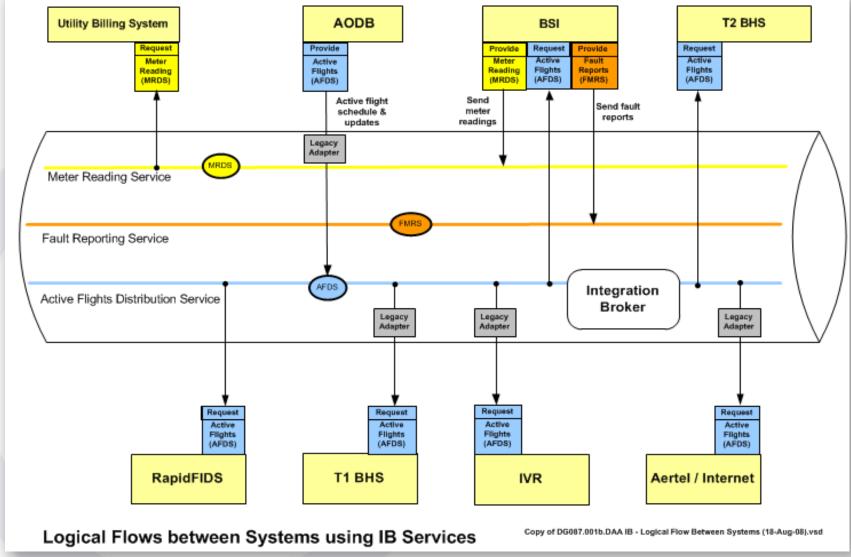




Case Study: Dublin 2008

- 3 services, 10 clients

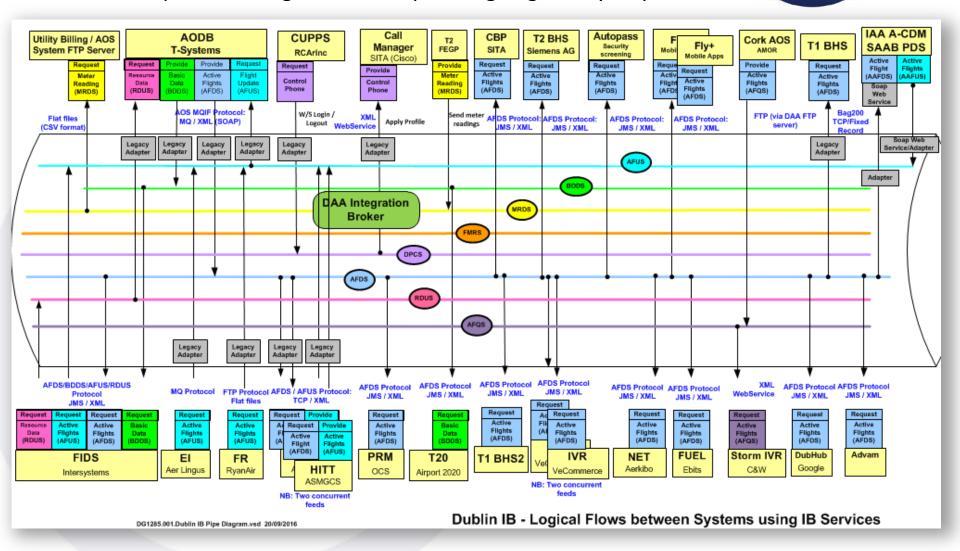




Case Study: Dublin 2016

- 8 services, 35 clients (Ready for A-CDM)

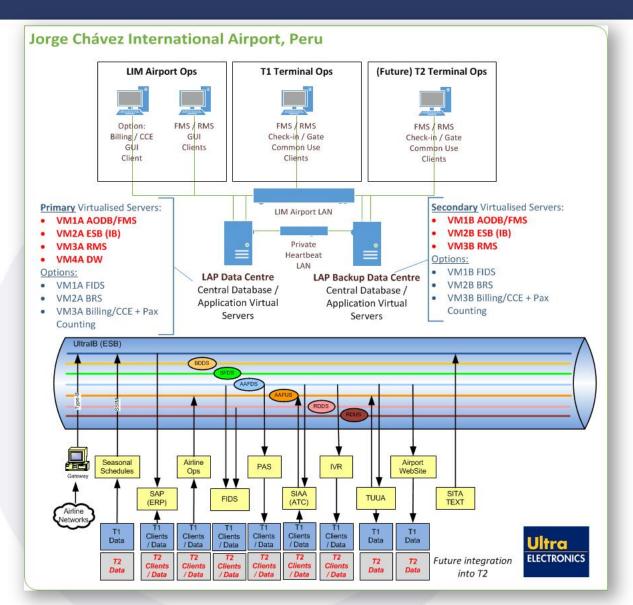
www.dublinairport.com/regulation-and-planning/regulatory/airport-cdm



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Case Study: Lima





- Common AIS platform
- Reusable Integration Services
- Airport-wide & Terminal specific configuration
- Separate Airport
 & Terminal
 Operations
 Centres
- Dual data centres

Airport Systems Integration

- Experience Required



Airport	Ann Pax	Relevant Installed Products	Country	Last Upgrade
BAH - Bahrain Airport	8	AODB, DW, MW, EVIDS, RMS	BAHRAIN	2016
JFK - JFK Airport Terminal 4	20	AODB, DW, MW, RMS, EVIDS, BILLING	USA	2016
PTY - Tocumen Panama Airport	13	AODB, DW, ESB, RMS, EVIDS, BILLING	PANAMA	2016
RDU - Raleigh-Durham Airport	10	AODB, DW, MW, EVIDS, RMS	USA	2016
SHA - Shanghai Hongqiao Airport	37	AODB, DW, ESB, RMS	CHINA	2016
LHR - Heathrow Airport	73	EVIDS, ESB	UK	2016
PVG - Shanghai Pudong	52	AODB, DW, ESB, RMS,ESB	CHINA	2016
YEG - Edmonton Airport	7	AODB, DW, MW, EVIDS, RMS	CANADA	2016
DEN - Denver Airport	53	RMS, MW	USA	2015
CNF - Belo Horizonte Confins Airport	11	AODB, DW, ESB, RMS, EVIDS	BRAZIL	2015
SNA - John Wayne Santa Ana Airport	10	AODB, DW, MW, EVIDS, RMS	USA	2015
VCP - Viracopos Airport	10	AODB, DW, MW, EVIDS, RMS	BRAZIL	2015
GVA - Geneva Airport	15	AODB, DW, MW, RMS, EVIDS	SWITZERLAND	2015
HIA - Doha Airport	29	AODB, DW, ESB, EVIDS	QATAR	2014
HGH - Hangzhou Xiaoshan Airport	22	AODB, DW, ESB, RMS	CHINA	2013
UIO - Quito Airport	6	AODB, DW, MW, EVIDS, RMS	ECUADOR	2013
SIN - Changi Airport	54	AODB, DW, ESB, EVIDS	SINGAPORE	2012
KMG - Kunming Changshui Airport	30	AODB, DW, ESB, RMS	CHINA	2012
MSP - Minneapolis Airport	34	AODB, DW, MW, EVIDS, RMS	USA	2008

Summary



- A robust, flexible, scalable and highly reliable information broker that enables systems to "talk" to each other
- Secure, actively managed platform that complies with industry best practice architectures, standards and processes
- "Loose coupling" allowing easy replacement of systems
- Visibility and guaranteed delivery of airport operational data
- Expansion through addition of services and clients over time to enable A-CDM
- A cost effective and future proofed solution providing reliable integration with many vendors on and off airport

Questions?







