



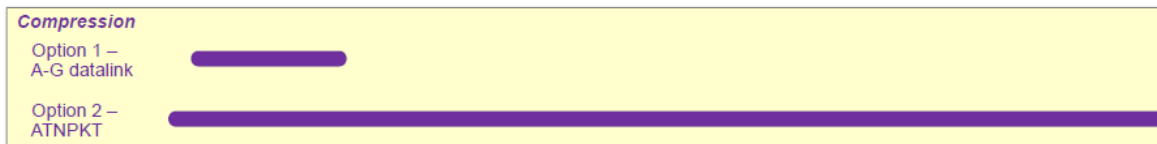
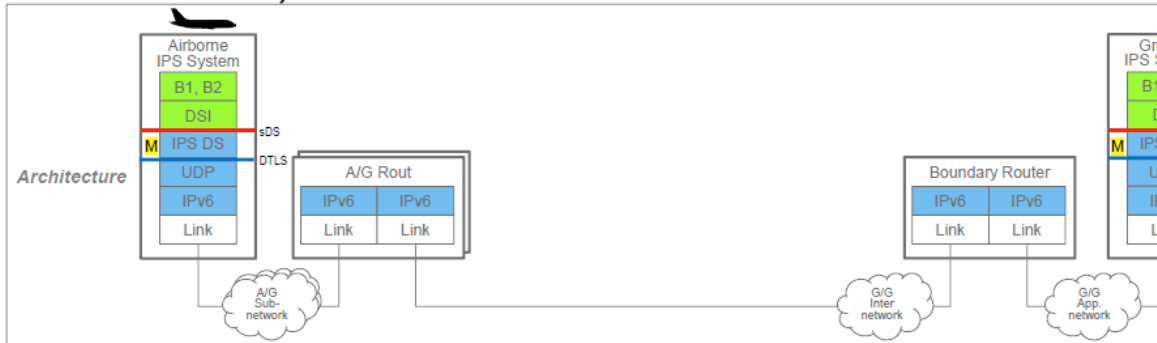
Boeing Views on IPS Deployment

AEEC IPS – Jan 2019

End-State Deployment

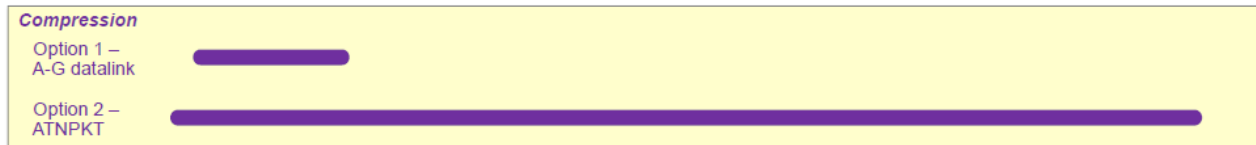
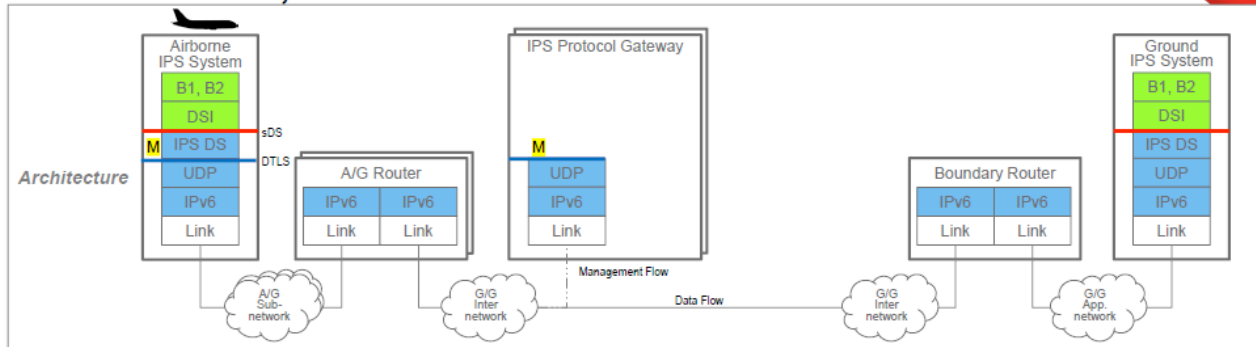
- Boeing views DS-01 options as the end state
 - On-going studies on security will dictate which DS-01; either are possible at this point

DS-01(RC1) – B1,B2: IPS to IPS



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DS-01(RC2) – B1,B2: IPS to IPS

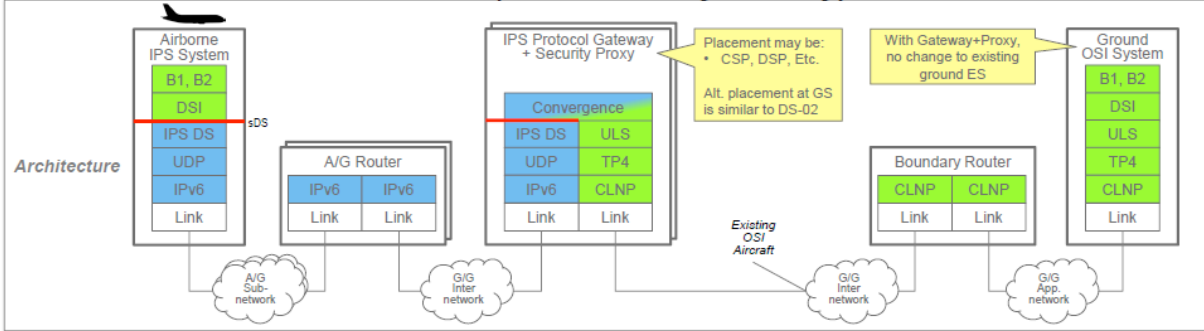


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Transition Deployments – Europe

- DS-03b/DS-04a would be the most likely transition scenario for Europe (with a possibility that some states may do DS-02)
 - Caveat that sDS (secure Dialog Service) usage is still TBD (may just be DTLS)
 - DS-03b is IPS aircraft to OSI ground; DS-04a is OSI aircraft to IPS ground stations. These may be combined, since that is the Gateway Solution for mixed IPS – OSI environment.

DS-03a – B1,B2: IPS to OSI (IPS Gateway+Proxy) Scenario likely to be demonstrated as part of SESAR PJ14.2.4 (without sDS) 6



Security

Compression

Option 1 – A-G datalink

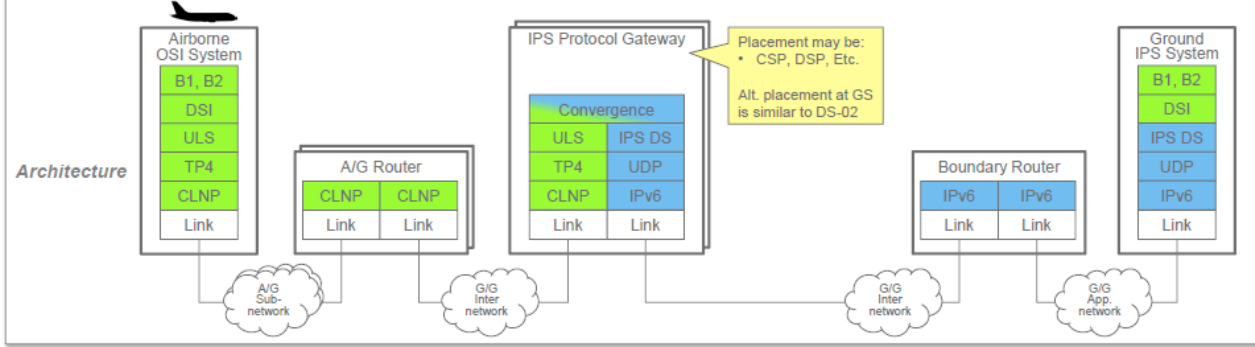
Option 2 – ATNPKT

Potential Deployment Region: US EU Other

Notional Timeframe: Earlier Mid Later Transition End State

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DS-04a – B1,B2: OSI to IPS (IPS Gateway, no sDS) Impact on IPS Gateway, but not relevant to PP853 specification of Airborne IPS system. 10



Security SATCOM & AeroMACS
(not VDLm2)

Compression

Option 1 – A-G datalink SATCOM & VDLm2

Option 2 – ATNPKT

Potential Deployment Region: US? EU? Other

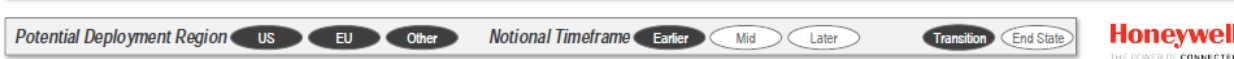
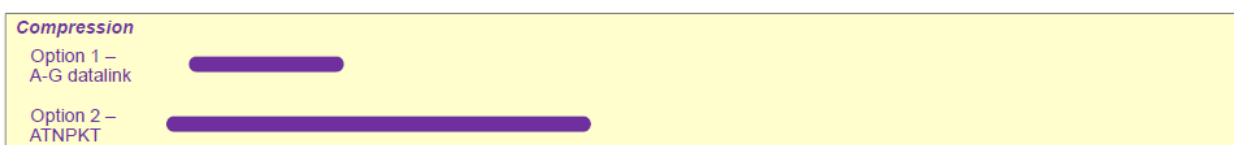
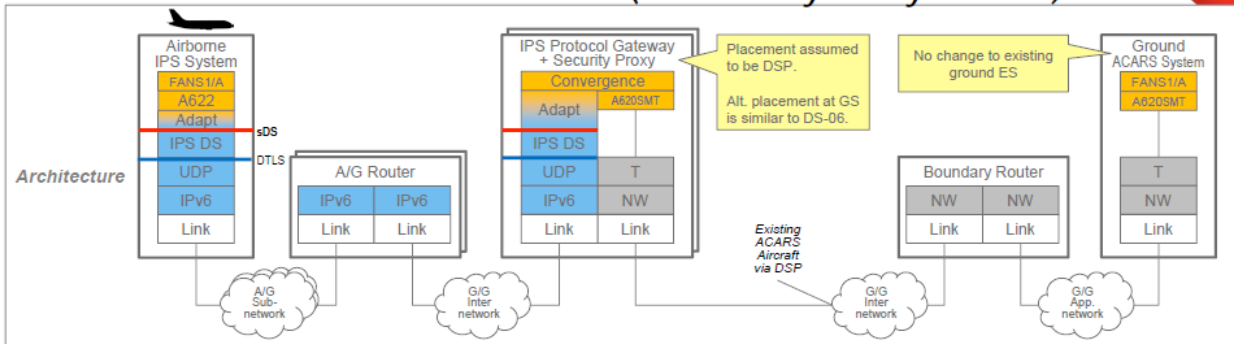
Notional Timeframe: Earlier Mid Later Transition End State

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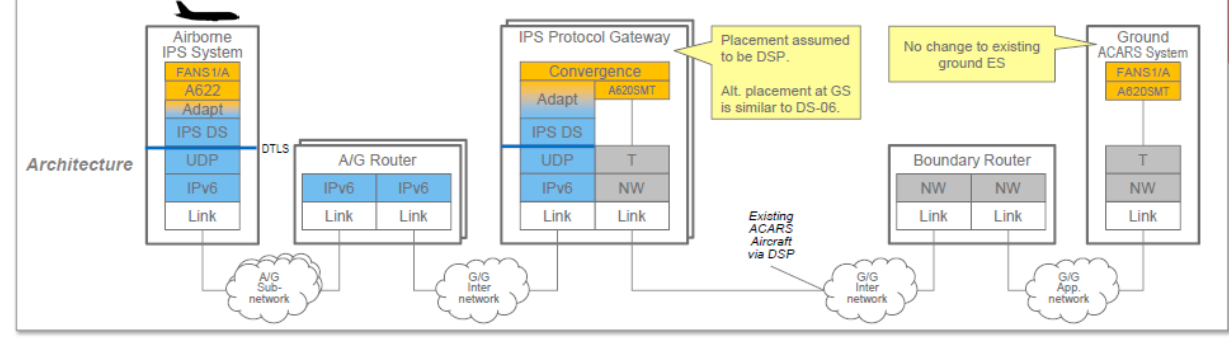
Transition Deployments – Rest of the World

- Initial DS-07b/DS-07d seems the most likely (since end systems won't be pure IPS for a while), depending on the final security selections
- Also represents potential US Gateway Initial Deployment (TBD – whether there is an operational benefit for accommodating OSI; currently there are no plans to for the US)

DS-07b – FANS1/A: IPS to ACARS (IPS Gateway+Proxy w/ DTLs) 16



DS-07d – FANS1/A: IPS to ACARS (IPS Gateway, no sDS w/ DTLs) 17



Critical Next Steps/Definitions

- Combine potential deployment options to cover envisaged airspace technology support (applications and networks)
- Accelerate ground gateway trials, definitions and topology options corresponding to potential deployment options
- Confirm security requirements, perform security validation to answer Secure Dialogue Service/DTLS/other technology usage within the deployment options
- Boeing agrees compression is best left outside the ATNPKT

