AID Messaging Service

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Rockwell Collins

Proprietary Information

Objective

- This presentation represents the RC standpoint about the A834-4 standard following other 834 partners concerns (Lufthansa , Teledyne)

- RC deems necessary to take into consideration these concerns as the objective of the A834-4 is to provide a standard interface to be used by airlines for their applications

If the A834-4 does not answer to the application needs, the standard should be updated

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ADBP solution

- RC agrees to state that ADBP solution is not the best solution to manage messaging services:
  - A message cannot be managed as a parameter.
  - Additional information (priority…) to be managed in separated parameters
  - Retrieving methods 'cyclic', 'on event' are not adapted to manage asynchronous events.
- ARINC 834-4 ACARS messaging proposal aims at using ADBP mechanisms to fill messaging function
  - This induces some complex mechanisms. For instance, no simple way to warn EFB application that a new message has been submitted.
  - RC identifies high risk linked to applications' development and deployment

RC claims that a real messaging service is requested to support EFB application needs to transmit and receive messages.

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Messaging Needs

- Airlines are strongly requesting Messaging Services for their EFB applications.
- Messaging solution needs to be defined with participation of OEM (Airbus), RC, airlines and some applications developpers.
- Messaging services needs to remain easy to use for application developpers:
  - XML solution offers simple file formatting solutions
  - Keep simple messaging services :
    - Main need : Transmit and receive messages.
    - Alternate Needs:
      - Subscription Mechanism for EFB applications
      - Offer capacity to benefit from 619 capabilities, as an option for High-skilled users
  - Avoid use of COTS and Proprietary Technologies
  - Provision growth capacity including File attachment
  - Media agnostic (ACARS vs IP)

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XML structure sample

- Lufthansa slides provided good sample demonstrating interest to use XML structure

- ID
- Origin
- Purpose
- Destination
- Media Select
- Life time
- Priority
- Payload
- Status

```xml
<?xml version="1" encoding="UTF-8" ?>
<Arinc619Message id="7">
    <Origin>Y</Origin>
    <Purpose>W</Purpose>
    <Destination>G</Destination>
    <MediaSelect>
        <Media>VHF</Media>
        <Media>SATCOM</Media>
    </MediaSelect>
    <LifeTime>16</LifeTime>
    <Priority>0</Priority>
    <Payload>RGFzIGlzdCBlaW5lIHNjaMO2bmUgT
mFjaHJpY2h0LCBrdMOzcmEgemF3aWVyYSB6bmF
raSBtacSZZHp5bmFyb2Rvd2Uu</Payload>
    <Status>Enqueued</Status>
</Arinc619Message>
```

Encapsulated data does not need to be associated to 619 as objective is to offer specific AID messaging services to EFB clients.

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Way forward

- Rockwell Collins recommends working on a technical proposal with the interested partners
  - Could it be done via a sub-group?

- Once the technical solution is defined, an APIM could be released
  - Is it a A834 supplement? As it should be different from ADBP
  - Is it a dedicated AEEC standard focused on an onboard generic messaging interface?

- Is this approach valuable?
  - Rockwell Collins is interested in having the group feedback on this way forward