

March 17, 2009

Report of the AOC **Teleconference 43** held on **10 March 2009**

In attendance were:

Dirk Zschunke, Lufthansa	David O'Kelley, Jeppesen
Frederic Durand, Airbus	Tim Spears, Ultramain
Beka Teklu, Boeing	Mike Russo, IA Staff
Robert Popov, Lufthansa Systems	Doug Mikus, Boeing
Ulf Jahr, Lufthansa Systems	Yannick Bellens, Airbus
Bruce Arnold, Data Systems & Solutions	

Introduction

Dirk moderated a 2-hour teleconference concerning the development of draft Supplement 1 to ARINC Standard 633. **This report includes comments submitted by Airbus and Boeing.**

Agenda

Item	Topic
1	Review of Strawman 23 of ARINC 633 and related Schema
2	Airbus comments to XML schema changes
3	Review of Action Items

Review of Strawman 23 of ARINC 633 and related Schema

Robert Popov presented the updated Strawman 23 focusing on the revised text description of XML schemas in chapters 4 and 5. In contrast to previous strawman versions, the XML schema definitions are shown graphically, taking advantage of the XML editor's built-in documentation function rather than simple tables.

Robert made a number of improvements to the format. For example, he clarified the status of the fields (e.g., required/optional) to avoid cases such as a Mandatory field that can be left empty. This tightens up the spec considerably. The participants in the telecon appreciated the work conducted by Robert and expressed their strong support to continue with this method of description.

Airbus comments to XML schema changes

Frederic Durand stated that Airbus is in favor of 100 percent of the functional definition improvements that are contained in Strawman 23.

Airbus indicated that they had been surprised by the extent of the modifications on the initial schemas, and the fact that backward compatibility with ARINC633 adopted was not addressed by the new supplement. Frederic and Yannick explained their concerns regarding

backward compatibility and usability of the revised XML schemas as expressed in the Airbus comment provided by email. Airbus sees major problems in supporting the revised structure with their existing eFF implementation in the near future. According to Yannick, the initially-fielded Airbus eFF solution would not be able to process data exchanged with the XML schema as contained in Strawman 23 prior to 2012. The main issues are the modification of M633 header and M633Supplementary header (**also impacting another application than eFF: WBC**) and the deletion/replacement of elements and attributes defined as mandatory in the first version of ARINC633.

Many AOC SC members were especially concerned about the very late provision of this Airbus comment since the development of the XML schema proposed for Supplement 1 is nearly completed and a path to achieve adoption at the 2009 AEEC General Session was already agreed upon. Pro and Cons for a modification to “reuse” the original definitions were exchanged. Airbus in principal agrees to the extensions contained in the proposal for Supplement 1 but prefers to not change existing element/attribute definitions.

Frederic and Yannick referred to the rules on modification of the existing XML schema which were proposed during the TWG meeting in February 2008. It was noted that a different rule on modifications was agreed to during the subsequent AOC SC meeting in March 2008 in Amsterdam. With this rule, deletion of existing elements (hence invalidating backward compatibility) is possible when the modification is beneficial and the group feels that there are enough such changes to propose a major revision.

The group extensively discussed the backward compatibility issue. Important points for consideration:

- reusing the “old” definitions would allow application providers and airlines to continue using existing implementations. Extensions contained in the proposal for supplement 1 could be added as customized elements.
- redefining the XML schemas using previous definitions was seen as very time consuming and, in certain instances, impracticable. Strong concerns were expressed that going back to the original structure would limit usability of the XML Supplement 1 schemas.
- representatives of data providers explained that applications supporting the original version only could still be supplied with the initial formats although this may result in additional cost to the airlines. However, adding the extensions proposed for supplement 1 to the original version in a customization activity will cause additional work for the suppliers leading to increased cost for the end users, too. Ulf Jahr pointed out that regardless of how we proceed there is a need to have a ground infrastructure in place that is capable of controlling which version has to be sent to which aircraft when upgrades are being installed on board.
- it was expressed that the XML schemas should be consistent in terms of naming conventions, policies applied on the structure as well as look & feel to enhance usability, avoid ambiguities, allow easy troubleshooting, and application development by providers not specialized in flight-ops applications (which is seen as means to reduce cost to the users as well).

Frederic and Yannick felt confident that the improvements contained in Strawman 23 could be achieved without losing backward compatibility. They asked for some time to develop a proposal (an alternative to Strawman 23) that would support backward compatibility by combining existing definitions with the Supplement 1 extensions. To avoid further delay Dirk expressed the need to limit the time for such analysis. A “gate” should be defined at which the group should decide whether to continue with Strawman 23 as is or adapt the changes according to the expected Airbus proposal. The group agreed that this decision point should not be later than end of April 2009. There was consensus in support of this schedule.

The following actions are to be taken:

- Airbus was asked to provide the proposal and examples as quickly as possible, but by April 10 latest. **The proposal should also include an estimate of how long it will take Airbus to prepare a complete proposal covering the areas of the Supplement 1 schema that they would like to change.** All AOC SC members were encouraged to think about criteria on which the decision to be taken by April 30 should be based on.
- Mike Russo and Dirk will prepare the AOC Subcommittee report for the AEEC General Session (March 30 – April 1) asking the Excom members for advise on how to proceed from their point of view.
- an additional AOC telecon will be held March 24 to finalize this input.
- all AOC SC members were asked to evaluate the proposal to be provided by Airbus and be prepared to express their opinions by April 21.
- the April AOC telecon will be delayed by one week (also due to Easter holidays) and held on April 21 1500 UTC. At this telecom, the proposal will be discussed.
- on April 30, a decision about which way to proceed needs to be taken.

Review of Action items

Robert Popov highlighted that the definition of the TSE.2 encoding mechanism is still missing. Tim Spears promised to fulfill his action item and will provide the respective text by the end of March 2009.

Robert Popov will confirm that the links in the Strawman can be used when the document is converted to .pdf format for publication.

Next Meeting/Telecon

The next AOC telecon (AOC Telecon 44) was scheduled to be held on 24 March 2009 at 1500UTC. The objective will be to finalize the plans for delivering the AOC SC report to AEEC. With any remaining time available, outstanding AOC Telecon 43 issues will be discussed.

For example, the ATA ELPT has asked for a joint meeting in the June time frame in Seattle, Washington. However, during the December 2008 meeting it was proposed to have the next AOC meeting in Central Europe. Due to the long discussion on the Airbus comment, no decision was taken. The issue will be discussed on or after the March 24 telecon.

AOC Telecon 45 was scheduled for 21 April 2009. The objective will be to evaluate the Airbus proposal for modifications to the schema that will increase its backward compatibility. A final recommendation is to be made by 30 April.