

IAA Study Group Status Report

Responsible Commission:

Commission 4

Study Number and Title:

4.8 Space Systems Cross-Compatibility

Short Study Description (repeat from Study Group Proposal):

With agreement from the Study Group Chair (J.Esper), the study focus is to be modified as noted. The rationale is discussed below in “Progress in past six months”. But first, the original Proposal is presented.

ORIGINAL

Common systems and standardization have been referred as “key words” in reducing space mission costs. NASA has experimented with these concepts for at least 35 years and implemented approaches for modular standard components and interfaces with varying degrees of success. Interface definitions today have evolved considerably, and present a unique opportunity to effect cost reductions, in particular through the application of “plug and play” (PnP) principles. The IAA study group will focus on “Space System Cross-Compatibility” leveraging PnP interfaces, modularity and other concepts with a goal of reducing mission costs and increase international cooperation. Among the numerous possibilities, systems that leverage these ideas promise to find application in Science, Exploration, Commerce, and other areas requiring cost reduction through fast system design, build, integration, test and flight.

MODIFIED

The essence of the study description remains the same, including the outline previously presented. Whereas the original focus was more on the hardware for cross-compatibility, the modification is to invert the outline and focus to the policy and programmatic issues. This includes a look at the international regulatory issues, with a new member to the working group from the legal profession. There is also a growing utilization of hosted payloads internationally which has emerged over the last year. All are to be incorporated into this study, with the resulting implementation issues on hardware.

Progress in past six months:

The IAA Berlin meeting in May 2009 brought to light a wider perspective to this particular Study Group. Day 2 of the conference began with a session on regulatory issues. A presentation by Prof. Dr. Lesley Smith from Bremen, Germany, discussed international regulations for space data. Parallels to our group’s systems cross-compatibility issues suggested a potential inverting of our group’s approach and study

outline - to begin with the international and legal issues, with a subsequent regard for the implementation issues of the hardware design and development. Additionally, a good number of the papers presented at IAA in Berlin were worthy of incorporation into a discussion of these implementation issues.

Since the May IAA meeting, Prof. Dr. Smith has agreed to work with our working group, to look to the international and legal issues driving how we implement the system compatibility.

The proceedings from the IAA Berlin meeting are recently available electronically for incorporation/reference for this study's report.

Website Study Information up to date? (Study Group Membership, Study Plan and Schedule):

Website needs to be updated.

Issues requiring resolution? (recommend approach):

(as noted in 2008)

Except for the Study Group Chair (J.Esper), all other Study Group officials are not IAA members. Marco D'Errico's corresponding membership is in progress. Request flexibility in official selection, as expertise may not be wholly contained within the IAA.

Because of the progress and modification resulting from the Berlin IAA in May 2009 (discussed above), an extension is requested for the final deliverable to IAA 2011 in Berlin.

Product Deliveries on Schedule? (If modified explain rationale):

Recent, positive changes to study focus modifies deliverables to:

First draft position paper in Feb 2010, Second Draft in September 2010, Final Paper May 2011 at IAA Berlin

Study Team Member Changes? (List any Study Team Members that you wish to discontinue, and provide names plus contact coordinates of any Members you wish to add on the second page of this Study Update form.) Note: Complete contact information including email, tel. and fax must be provided for all additions. Only Members with complete contact information will be listed and receive formal appointment letters from the IAA Secretariat.)

Name of person providing Study Group Status (Study Group Chair or Co-Chair):

Linda Herrell (Study Team member) delegated by Study Group Chair, Jaime Esper

Status Report Date:

September 23, 2009

Study Team Membership Changes

Effectivity Date: September 23, 2009

Discontinue: None

Add:

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