

PDR RID Report

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Originator Milo Medin

Organization

E Mail Address medin@nsipo.nasa.gov

Document

Phone No 415-604-6440

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| Review | CSMS | |
| Originator Ref | | |
| Priority | 1 | |

Section

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Figure Table

Category Name System-level

Actionee HAIS

Sub Category True Cost of Cots

Subject True cost of COTS approach may not be fully analyzed and understood

Description of Problem or Suggestion:

The ECS is being developed in a way that heavily relies on COTS products, and Hughes is acting primarily as an integrator of COTS products, developing and supporting "glue" software to fill holes between vendor products. Because of rapid turnover and upgrades in COTS products due to marketplace pressure, glue software may have to be modified, or completely rewritten often over the lifetime of the system to accommodate new COTS product interfaces, or swapout of one COTS product for another. Also, it's important to realize that COTS vendors will cease support of older versions of products in timeframes that the Government may not be used to accommodating in the normal M&O processes that are used to support large flight projects, and upgrades (and associated changes in "glue") may have to be done even when no additional product functionality is required.

Originator's Recommendation

Estimates for levels of support for "glue" software should be re-examined to ensure that adequate resource projection through the life of the system is assured. EOSDIS management must understand that unlike other major flight project data handling systems, the ECS dependence on COTS requires agility and stability in adequately supporting timely integration of new vendor software releases.

GSFC Response by:

GSFC Response Date

HAIS Response by: Forman

HAIS Schedule 2/17/95

HAIS R. E. Forman

HAIS Response Date 4/6/95

Current development estimation included COTS related efforts to include:

- 1) Development/I&T familiarization and configuration
- 2) Required data definition, scripts, "glue" code including SLOC estimates
- 3) Prototyping effort for technology/product selection
- 4) M&O sustaining engineering staff expertise for COTS products, installation efforts, and I&T of COTS upgrades.

We are currently refining the inputs to the estimation model, Software Estimation and Evaluation of Resources (SEER) for which the following metrics will be used to identify associated costs:

- "Glue" code required for each product
- COTS applicability
- COTS maturity
- Learning curve required
- Configuration effort required
- Installation and upgrade labor requirements
- Release frequency and average maintenance support

Status **Closed**

Date Closed **4/25/95**

Sponsor **Daly**

***** Attachment if any *****

Attachment # 1
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