

CCSDS MO Services, CCSDS SOIS and SAVOIR for Future Spacecraft

The CCSDS MO Services, CCSDS SOIS, and SAVOIR for Future Spacecraft (MOSS) activity analysed three key technologies:

- CCSDS Mission Operations Services (MO Services),
- CCSDS Spacecraft On-board Interface Services (SOIS) and
- the SAVOIR-FAIRE On-board Software Reference Architecture (OSRA),

with a view to consolidating them into a single harmonised architecture. As such, the following objectives were met:

- the user needs and requirements leading to the three technologies were elicited, evaluated and consolidated to produce a single, coherent list;
- based on the consolidated requirements, a single consolidated architecture was derived and analysed for its impact on the accepted operability concept for spacecraft;
- an executable prototype system was designed and implemented in order to demonstrate the key elements of the consolidated architecture and the ways in which the constituent technologies interact;
- lessons were drawn from the requirements analysis, architectural consolidation and prototyping experience which should be directed back towards the relevant standards so as to improve the applicability and consistency of the constituent technologies.

The MOSS consortium comprises Bright Ascension Ltd as project prime contractor, reporting directly to ESA. RHEA System SA and OHB System GmbH were sub-contractors reporting to Bright Ascension.