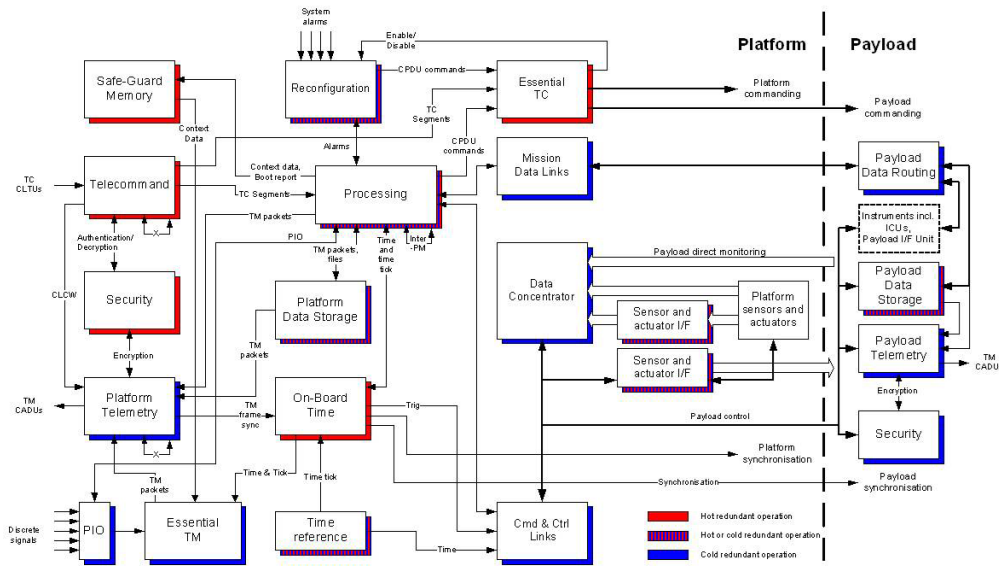


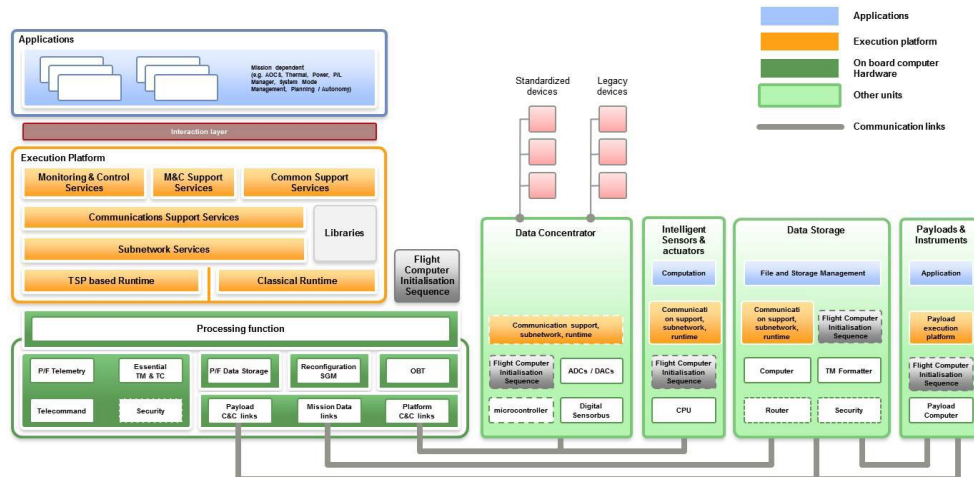
**SAVOIR from
Beyond Gravity
Perspective**

Overall architecture and high-level building blocks

beyond gravity



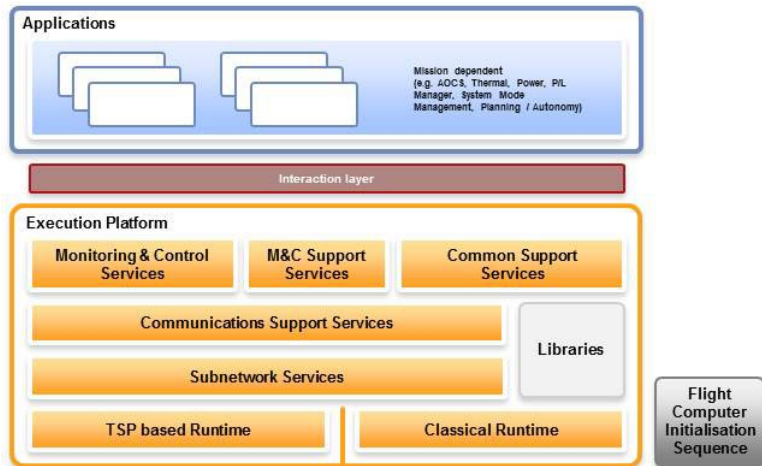
- ★ SAVOIR Functional Reference Architecture [ASRA]
- ★ SAVOIR generic OBC specification
 - SAVOIR Flight Computer Initialisation Sequence Generic Specification
- ★ SAVOIR generic RTU specification
 - Data Storage
 - File Management System
 - SAVOIR Data Handling Handbook



The overall architecture has been successfully used in several programs

Experiences have been fed back and the architecture has been revised and updated

Data storage has potential but has also a bit of “software flavor”



- SAVOIR On-board Software Reference Architecture [OSRA]
- SAVOIR Model based Avionics roadmap
- Execution Platform Functional Specification
- Software Space Component Model Specification
- Execution platform pseudo component interface specification
- Component Container Interface
- SAVOIR On Board Software Reference Architecture Training Material
- SAVOIR-FAIRE - On-board software reference architecture
- SAVOIR-IMA - Integrated Modular Avionics and Time and Space Partitioning

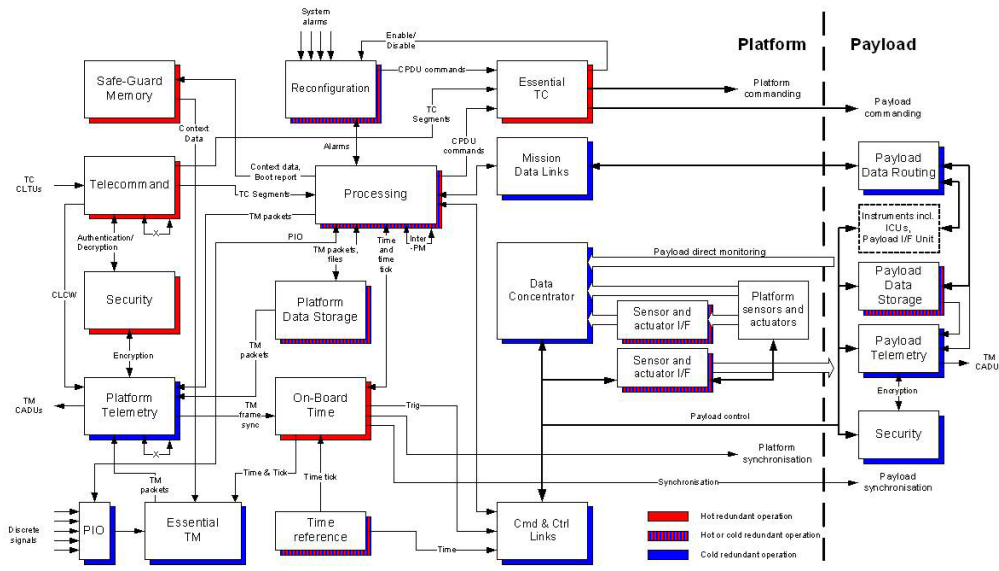
Others have succeeded both institutional and commercial solutions are available



Stuck in legacy and proprietary reference architectures

Too abstract and too complex and no one really understands it

Standardized Interfaces



- ★ SAVOIR Functional Reference Architecture [ASRA]
 - SAVOIR UART protocol and interface specification
 - SAVOIR-SAFI - Standardisation of AOCS Sensors and Actuators Functional Interface
 - SAVOIR-SAIF - AOCS Sensor and Actuator Interfaces Working Group (SAVOIR SAIF) report

Agreeing on interfaces are hard!
 Commercially it is largely used successfully

The overall architecture has been successfully used in several programs

Standardized interfaces – hardware and software – is key for future success

Use commercial standards whenever possible!

SAVOIR EDS if focused on what and not how (no tools!)

Why?

- **SAVOIR AUTOCODE Handbook**
 - This is a technology and process issue rather than an architectural interface issue



SAVOIR

space avionics open interface architecture

Future

beyond gravity

Focus on architecture and standardizing interfaces