



**Integrated Project 26950: SatSix
Deliverable 2000-3**



Satellite Payload Architecture

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Abstract:

This document identifies and analyses the requirements for next generation payload architecture.

The document analyses and characterises different system scenarios based on three different payloads:

- Hybrid transparent/regenerative payload, leading to convergent systems
- DVB-RCS/DVB-S2 payload, implementing ACM techniques
- Flexible payload

Keyword list: DVB-S2, ACM, hybrid.

Executive Summary

This document identifies and analyses the requirements for next generation payload architecture that support next generation Satellite System Scenarios, as presented in Chapter 2. The set of services offered by the future system has to support the end-user services deeply described in WP1000

This deliverable deals with three different approaches which can be complementary:

- *convergent or hybrid systems* (transparent and on-board processing)
- *ACM techniques*
- *Flexible payloads*

This three payload architectures are described in Chapter 3.

Signalling between NCC and OBP and between the NCC and the RCSTs is presented in Chapter 4, special impact takes the signalling of new broadband mesh communications with DVB-S2/ACM support based on Adaptive DVB-RCS/DVB-S2.