



**Integrated Project 26950 : SatSix**  
**Deliverable 2000-5**



*System performance evaluation (intermediate)*

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**Abstract:**

D2000-5 scope is the following: (1) the definition of the requirements for evaluating the architectures and algorithms proposed in WP2100 and WP2200, considering the scenarios defined in WP1000 and the cross-layer optimisation requirements identified in WP2400; 2) the analysis of SATSIX performance by comprehensive simulation runs; 3) the identification of requirements for both the emulation testbed (WP3100) and the real system trials (WP3200).

In this deliverable, seven main topics have been identified and simulated: fade mitigation techniques (FMT) performed at the physical layer level; radio resource management procedures; QoS procedures; transport protocols; multicast protocols; mobility protocols.

**Keyword list:**

DVB-RCS, DVB-S2, Fade Mitigation Techniques (FMT), Radio Resource Management (RRM), Connection Admission Control (CAC), Demand Assignment Multiple Access (DAMA), Quality of Service (QoS), User Datagram Protocol (UDP), Transport Control Protocol (TCP), Datagram Congestion Control Protocol (DCCP), Any Source Multicast (ASM), Source Specific Multicast (SSM), Mobile IPv6 (MIPv6), Hierarchical Mobile IPv6 (HMIPv6), Fast Handovers for Mobile IPv6 (FMIPv6).

## **Executive Summary**

D2000-5 scope is the following:

- (1) the definition of the requirements for evaluating the architectures and algorithms proposed in WP2100 and WP2200, considering the scenarios defined in WP1000 and the cross-layer optimisation requirements identified in WP2400;
- (2) the analysis of SATSIX performance by comprehensive simulation runs;
- (3) the identification of requirements for both the emulation testbed (WP3100) and the real system trials (WP3200).

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