



Integrated Project 26950 : SatSix
Deliverable 2000-1
Network Architecture



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Abstract:

This deliverable describes the SATSIX network architecture. This complies to the requirements set out in WP1400, and supports the corporate application, residential application and collective access terminal scenarios that have been defined in WP1000.

The deliverable specifies an overall network architecture with functional architectures and its application to specified scenarios. This is followed by the specification of the QoS architecture, which addresses the QoS aspects of SATSIX network architecture. This followed by a description of the multicast, security, transport and mobility architectures. The conclusions summarises the adopted network architecture to be used in the SATSIX Project and relates this to the on-going work of the Project activities.

Keyword list: Satellite, IPv6, QoS, Security, Multicast, Mobility, Transport Protocol

Executive Summary

Based on the requirements and scenarios defined in WP1000, this document focuses on the definition of the SATSIX network architecture.

The network and functional architectures, with support for IPv6 and integration of hybrid satellite and wireless local loops (WiFi and WiMAX), have been presented in Chapter 2. How to apply this network architecture to three scenarios, namely corporate application scenario, residential application scenario and collective access terminal scenario, are also described.

The following advanced networking techniques, enabled by native IPv6 support, are defined and described in details in this document:

- QoS architecture (Chapter 3)
- Multicast architecture (Chapter 4)
- Security architecture (Chapter 5)
- Transport protocols (Chapter 6)
- PEP (Chapter 7)
- Mobility architecture (Chapter 8)

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