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Abstract

Service Assurance for Space Ground Segments

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Nowadays it is common to find the acronyms PaaS (Platform as a Service), SaaS (SW as a Service), IaaS (Infrastructure as a Service) in the cloud computing sector. These concepts are more and more permeating to the architectures of Space Ground Segments, with the potential evolution of the full Ground Segment being provided as a service to many space missions.

EUMETSAT has been already developing components of a Ground Segment as the so-called Multi-Mission Elements (MMEs). These are organised as services and reused among several missions.

How to deal with these services from the product and process assurance perspective departs in great extent from the traditional standards and system engineering practices. The process and product assurance shifts from milestone/review based practices to the establishment of the built-in quality processes and the definition of Key Performance Indicators (KPI) to evaluate their performance. The definition of the KPIs and the corresponding Service Level Targets will form the Service Level Agreement, a contractually binding agreement between the service provider and the contracting party.