

IAF SPACE SYSTEMS SYMPOSIUM (D1)
Space Systems Architectures (2)

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SPACE-AS-A-SERVICE: A FRAMEWORK AND TAXONOMY OF -AS-A-SERVICE CONCEPTS FOR
SPACE**Abstract**

The servitization of space is introducing profound change, challenging established companies with new business models, and significantly lowering the entry barrier to space. New types of services such as Mission-as-a-Service, Satellite-as-a-Service, Constellation-as-a-Service etc. are introduced. However, what these notions mean is not clear and in practice, these notions are often used with contradicting meanings. This paper aims at providing an initial survey of various service concepts in the space domain and develops a conceptual framework and taxonomy for classifying these emerging services with their underlying systems, along with presenting exemplary architectures. A particular emphasis is put on distinguishing novel, “New Space” services from traditional services. We will borrow concepts from product-service systems and service engineering research in other domains to shed light on the similarities but also differences to terrestrial services. Case studies of combined space service and systems architectures are presented to illustrate the specifics of these new, emerging space service systems.