In-Orbit Servicing: building a sustainable space infrastructure

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Abstract

The space industry has put in the spotlight the rapidly increasing number of satellites in orbit, which is leading to concerns about space crowding and risks associated to debris. Moreover, the production of new satellites at current rates is impacting the environment due to the required resources. How to keep nourishing the sector growing trend while making it sustainable? D-Orbit, as leader in the space logistics and transportation sector, aims at building an infrastructure to increase the longevity and success of commercial and government space missions.

Such infrastructure relies on exploiting In-Orbit Servicing in its most general meaning by providing life extension and transportation services. Thus, leading to a reduced number of discontinued satellites, and supporting all the stakeholders in building more sustainable spacecrafts.

D-Orbit will give an overview of the solutions that exploit In-Orbit Servicing to address these problems, starting from the state of the art (e.g. ISS, Hubble Space Telescope) and discussing a roadmap for the next future.

Keywords: in-orbit servicing, life extension, transportation, sustainability, debris.