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ONLINE BOOKING SYSTEM FOR SPACE LAUNCHES: WHY DO WE NEED IT NOW

Abstract

For the past five years, space market has been developing at a tremendous speed. New satellite operators and private launch providers have joined space agencies on the way to making space commercially effective. Inability to exchange the information on the growing market using the traditional methods that had been effective 20 years ago brought up a number of problems including significant launch delays, lack of pricing transparency, rebooking options and information about rideshares availability.

Precious Payload is an initiative started in late 2016 to design, build and promote an open standard for booking orbital launches for satellites. We advocate for building a GDS-like (global distribution system) architecture for space launches, similar to what has been done for airlines, cargo shipments, and hotel bookings when those industries entered the internet age. GDS is a computerized network system that enables transactions between various market players and provides pricing, availability and reservation functionality.

We are building a product that allows launch operators manage their manifest and rideshare slots via the system in real time. Clients with satellite missions are able to browse and reserve the slots, with our algorithms helping find the suitable launch opportunities by running the analysis over a number of technical and business constraints. We are developing this matchmaking algorithm in partnership with leading US company and ex-JPL team that advise US government on the procurement of launch services.

Our business model suggests creating a portfolio of value-added products to be offered via our e-commerce platform together with launch services. The first such added value product is the procurement of insurance for smallsats. Our partnership with one of the global insurance brokers enables us to develop a first of its kind platform that allows to see real-time insurance quotes for different launch options and procure the insurance without leaving the website.

We trust in multi-industrial approach combining the experience of the experts from IT, sustainable development and aerospace engineering to develop a system that will be used on a common base by, first of all, private companies and universities as well as governmental entities and space agencies for managing the launches.

Our team participated in the IAC 2017, we presented our concept at UNOOSA High Level Forum in Dubai, UAE, published a white paper in SpaceWatchME online media, were covered in SpaceNews feature and participated as an exhibitor at SpaceCom.