

Satellite Data Integration Platform for Public Accessibility and Educational Use

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The continuous growth of the space industry and the increasing demand for satellite data across various sectors highlight the need for accessible and user-friendly data integration platforms. However, despite the availability of large volumes of open satellite data, significant barriers remain in making this data accessible to the general public, educators, and non-expert users. This research aims to define an optimal architecture for a satellite data integration platform that addresses these challenges. The platform is intended not only to improve public access to satellite mission data but also to support educational initiatives aimed at preparing future generations of space engineers and enthusiasts. The study identifies key system requirements through an analysis of current technological solutions, assessing factors such as scalability, performance, interoperability, and technical maturity. Based on this analysis, a set of appropriate technologies and frameworks is selected to form a cohesive architecture capable of delivering an intuitive and functional user experience. The research culminates in the development of a functional prototype that demonstrates the proposed solution's viability, as well as its capacity to bridge the gap between complex satellite data infrastructures and educational or public-oriented applications.

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