Applications & Use Cases:

- Earth Observation
- Telecommunications
- Microgravility Experiments
- Technology Demonstrations
- In-Orbit Manufacturing
- In-Orbit Servicing
- Lunar Exploration
- Scientific Missions

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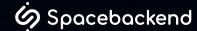Delaware, US, 19801

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Get Started on Revolutionizing Your Payload Integration

Contact Us

Spacebackend

Stop Wasting Years on Payload Integrations

End-To-End Cloud Platform for Spacecraft and Payloads

SpaceBackend offers an **End-to-End Cloud Platform** specifically for satellite and payload companies, streamlining the entire process of payload assembly, integration, automation, and remote operations across **LEO, the Moon, and beyond.** With our **Payload Operational Stack as a Service,** we provide the tools and infrastructure to rapidly deploy and manage payloads, enabling seamless, scalable, and cost-effective space missions. Experience a future where payload integration timelines are drastically reduced, and mission success is guaranteed through advanced automation and AI-driven solutions.

Addressing Your Key Challenges:

- ○ Spending Months Implementing ICD Software Interfaces?
- ○ Facing TM/TC Compatibility Issues in ground and On-board segments?
- ○ Facing Problems During Testing Integrated Payloads?
- ○ Missing continuous Payload integration?
- ○ Lacking Direct, User-Centric Access to Payloads?
- ○ Developing TM/TC Dashboards for Every Payload?

Our Solution:

AI-Driven Abstraction Framework for Modular Payload Integration

SpaceBackend's *AI-Driven Abstraction Framework* simplifies the modular integration of diverse payloads and platforms, bypassing the complexities of various standards and interfaces to enable plug-and-play operations and onboard intelligence. Our AI framework supports *ICD automation, continuous payload integration throughout the entire lifecycle*, and *automated operations* for any connected payload, ensuring seamless and efficient mission execution.

Value Proposition:

- ○ *65% Faster Payload Integration Process:* Achieve up to 65% faster integration of payloads with spacecraft platforms, reducing setup time from years to just a few months.

- ○ *75% Savings on Custom Flight Software Development:* Cut costs for custom flight software development by up to 75%, making payload integration more affordable and efficient.

- ○ *One AI Engine for Any Payload:* Leverage a single AI engine to deliver automated operations and advanced onboard intelligence for any payload, simplifying management and boosting mission success.

- ○ *Speed Up Payload Software Development:* Accelerate your development timeline by reducing months of work on C&DH software for payload controllers with our innovative generic payload driver.

How It Works:

- ① *Design & Configuration:* Drag-and-drop design and configuration of platforms and payloads to auto-generate onboard and ground segment software.

- ② *Deployment:* Deploy onboard software to enable modular payload integration, plug-and-play remote control intelligence, and onboard automation.

- ③ *Testing:* Automatically run the required tests for integrated payloads for validating the end-to-end Payload operations.

- ④ *Operations:* Manage multi-tenant operations of connected payloads, supporting continuous monitoring, maintenance, data analytics, and monetization in the cloud.