
bright ascension
PROCESS & DELIVER DATA
WITH HELIX®
Unify data flows. Scale processing. Maximise every asset.

IS YOUR SPACE DATA DELIVERING ITS FULL VALUE?

Space data providers rely on complex ecosystems to capture, process, and deliver space-based data.

But when these systems are connected through bespoke integrations and custom processing pipelines, every change in mission life introduces new levels of complexity, making data delivery harder to scale, maintain and evolve. This increasing complexity limits operational efficiency, slows the development of new data services, and leaves valuable space-based resources underutilised.

DO THESE CHALLENGES SOUND FAMILIAR?

- Fragile integrations as new systems are introduced.
- Disconnected data flows between payloads, onboard processing, and ground systems.
- High integration costs from continually building and maintaining bespoke solutions.
- Difficulty scaling operations as data volumes and demand increase.
- Slow monetisation as fragmented systems make it harder to turn raw data into new products and services.
- Inconsistent data workflows leave valuable space resources underutilised.

SEAMLESS DATA DELIVERY.

Data providers need an infrastructure foundation that makes integration simpler, processing more repeatable and scaling more predictable.

A standardised architecture replaces fragile, bespoke connections with reusable capabilities that can be deployed across missions, data sources, and processing workflows — from spacecraft payload to data & service delivery on the ground.

DISCOVER HELIX®

- Create a standardised, consistent integration layer for your upstream data handling.
- Reuse processing capabilities instead of rebuilding custom data chains for every mission.
- Scale data workflows efficiently with an architecture built for high-volume processing.
- Maintain consistency as you grow across missions, platforms and data products.

A BETTER WAY FORWARD

HELIX® forms the foundation for growing high-volume data delivery, built around a common mission architecture. It allows to connect, process, and move space data through a consistent, scalable architecture.

By replacing fragile point-to-point integrations with reusable components and standardised interfaces, **HELIX** helps data providers reduce integration effort, accelerate productisation and scale data operations with confidence.

HELIX EDGE:

Build the Flight Side Ready for Services.

HELIX Edge offers a ready-to-use payload software package that covers all the essential requirements of a typical mission.

Developing payload software from scratch can be expensive — in time, effort, resource and risk. Edge allows teams to get started with a payload computer immediately and focus on mission-specific integration, payload management and data processing — so they can move to flight readiness faster and with greater confidence.

Fully integrated into the wider HELIX architecture, Edge provides the essential software foundation required for payload operations. This allows engineering teams to focus less on building infrastructure and more on developing the mission-specific capabilities that deliver value faster and more efficiently.

WHY IT MATTERS.

IMPROVE READINESS
Bring your hardware to flight readiness quickly and efficiently.

STOP REBUILDING
Avoid rebuilding infrastructure, costly trial-and-error development and unnecessary delays.

CONNECT SYSTEMS
Create an integration layer between your payload, onboard processing, and ground systems.

FOCUS ON VALUE
Shift engineering focus from software infrastructure to mission-specific capabilities that deliver value.

REUSE TO SCALE
Reuse the same foundation across missions and scale with confidence.

STREAMLINE UPDATES
Effortless in-flight payload software updates.

HELIX INFINITY:
Bring Space Services Closer to Users.

HELIX Infinity is a configurable, white-label software platform that allows organisations to deliver intuitive web-based access to space-enabled services.

Designed to support a wide range of applications, Infinity can be tailored to meet specific customer needs, making it simple to access, task, monitor and interact with space-based capabilities through a seamless digital interface. Built into the wider HELIX architecture, Infinity connects the entire value chain from upstream data sources to downstream services through a coherent, unified infrastructure.

Using reusable, scalable, and vendor-agnostic interfaces, Infinity simplifies integration, reduces cost and complexity, and provides the flexibility to deliver new services faster as customer needs evolve.

WHY IT MATTERS.

MONETISE DATA
Turn space capabilities into customer-ready services with a flexible, customisable access platform.

PROVIDE ACCESS
Put powerful space data in your customers' hands with intuitive tools to request, track, and receive the information they need.

ADAPT TO ANY MISSION
Support a wide range of applications such as Earth observation, communication and IoT, science & tech demonstration, etc.

MINIMISE INTEGRATIONS
Reduce integration cost and risk across the entire value chain from space assets and data systems to end-user applications.

SCALE SERVICES
Scale data services efficiently with a consistent architecture designed to support high-volume workflows.

HELIX APPKIT:

Build New Capabilities Throughout the Mission Lifecycle.

Mission requirements change. HELIX Appkit offers a simple way to add new software capabilities throughout the mission lifecycle without redesigning existing systems, even after deployment in orbit and even on per acquisition basis.

New functionality add-ons can be deployed onboard spacecraft or within the ground segment, with seamless integration through the shared HELIX software foundation.

WHY IT MATTERS.

GROW CAPABILITIES
Evolve missions faster by adding new capabilities when and where they are needed.

EXTEND PROCESSING
Expand processing capabilities across spacecraft and ground systems without costly redevelopment.

SYNCHRONISE SYSTEMS
Maintain a connected mission ecosystem where changes are automatically reflected across the wider HELIX infrastructure.

ADAPT EFFORTLESSLY
Stay ready for what's next with software that adapts to changing mission and data processing requirements.

DESIGN FOR CHANGE
Build agile data-processing flows that remain flexible to change, even on an acquisition-by-acquisition basis.



WHAT IS HELIX?

HELIX is an end-to-end suite of space software products that together form a highly integrated space software platform — connecting flight software, ground systems and data delivery workflows.

HELIX unifies today's fragmented and disconnected space software landscape through a shared foundation, delivering greater efficiency and simplicity while significantly reducing costs.

ABOUT BRIGHT ASCENSION.

Bright Ascension is a Scotland-based industry-leading space software technology provider. Founded in 2011, we specialise in innovative software products and solutions for the delivery of space-based services, both on spacecraft and on the ground.

Our pioneering HELIX® suite of space software products is built on our cutting-edge, innovative technology that has been rigorously tested and proven in-flight, with over 60 software deployments in orbit.

15+ TECHNOLOGY DEMONSTRATION MISSIONS

25+ EARTH OBSERVATION MISSIONS

10+ COMMUNICATION MISSIONS

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