SSC Space

Customer Case Story:

Near real-time payload data delivery for EnduroSat with SSC Space Go

When satellite operators scale from single missions to growing fleets, the ground segment quickly becomes a strategic constraint. Coverage, throughput, integration, and data latency all become as critical as the spacecraft itself. As the first adopter of SSC Space Go, EnduroSat – a leading satellite manufacturer offering constellation-as-a-service solutions – brings deep experience in scaling from individual missions to full constellation operations.

Already operating with multiple ground station providers, EnduroSat was the first adopter of SSC Space Go – a service designed specifically for modern commercial space operators: a cloud-based, globally orchestrated and fully virtualized ground network.

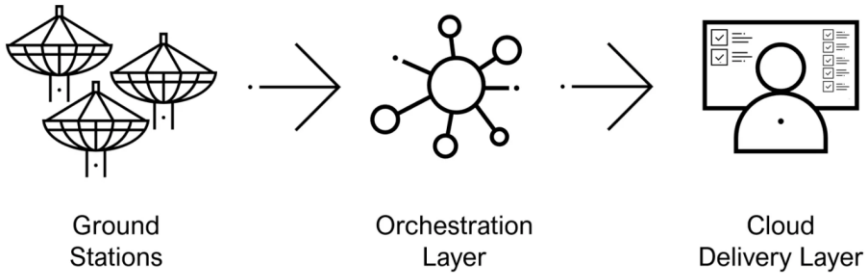
As a user, EnduroSat demonstrated independent end-to-end space services using APIs for automatic contact scheduling, and cloud native data access. In the process, they increased the diversity of their GSaaS providers and improved resilience, while preparing for increased downlink capability to meet their expanding satellite fleet.

Payload data in near real-time

Latency of payload data delivery was one of the highlights of the testing campaign. The tests were performed using the Balkan-1 satellite, launched in January 2025 and serving as EnduroSat's first Copernicus contributing mission.

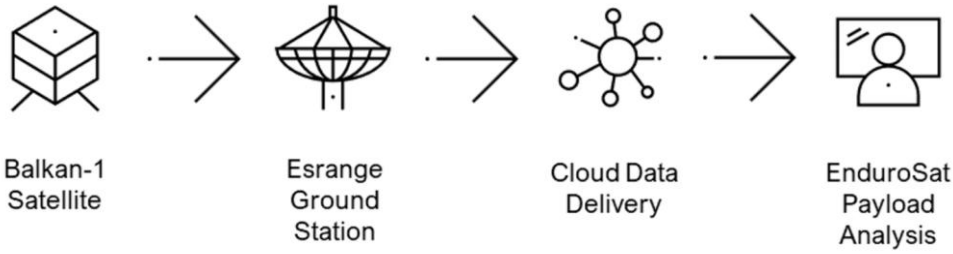
The payload signal was downlinked in X-band using the SSC Space Go ground station at Esrange Space Center in Sweden. During the satellite passage, de-modulation and decoding was done on-site while payload artifacts got delivered to EnduroSat. Over the course of each satellite contact, around 40 payload artifacts were delivered to EnduroSat's cloud object storage – the last one less than five minutes after the end of the contact.

This low latency allowed EnduroSat to get value from the payload already during the contact, instead of receiving one large bulk much later. By receiving multiple smaller payload artifacts during the course of each contact, EnduroSat's access to first data insight could be reduced by over 15 minutes compared to the base scenario.



Cloud-native from day one
EnduroSat operates its constellation cloud-natively, meaning that cloud compatibility is a key element of the service. Within the SSC Space Go system, authentication for the scheduling API and encryption of the payload artifact delivery are both handled in a secure cloud native manner.

"SSC Space Go is designed with a cloud-based delivery mechanism to fit modern cloud workflows, enabling rapid access to payload data and seamless operational integration without the friction of legacy systems. We are pleased to see that this compatibility was validated during the first period of testing," says Viktor Pankov, Product Owner SSC Space Go.



Onboarding in a matter of days
Onboarding EnduroSat's Balkan-1 spacecraft with the SSC Space Go stations was completed in only a few days – a much faster process than the months long industry standard. This enabled an accelerated integration process and a shorter waiting period between first contact and operational value.

Configuration validation was performed on the ground using satellite payload recordings from Balkan-1, downlinked via the SSC Space Go ground station at Esrange Space Center in Sweden.

"We are very satisfied with the performance of the SSC Space Go system. We are looking forward to the expansion of the network and to be a future user of coming new features," says Dimitriy Georgiev, Ground Systems Engineer at EnduroSat.

Ever-continuous evolution
Beyond technical validation, the partnership between SSC Space and EnduroSat forms a basis for the ever-continuous evolution of SSC Space Go. Coming soon, the service will be upgraded to deliver greater visibility into reception metrics, by extending its reporting capabilities and simplifying onboarding by introducing a sandbox environment for new users.

Curios? Read more about SSC Space Go on our website www.sscspace.com or reach out to get started!