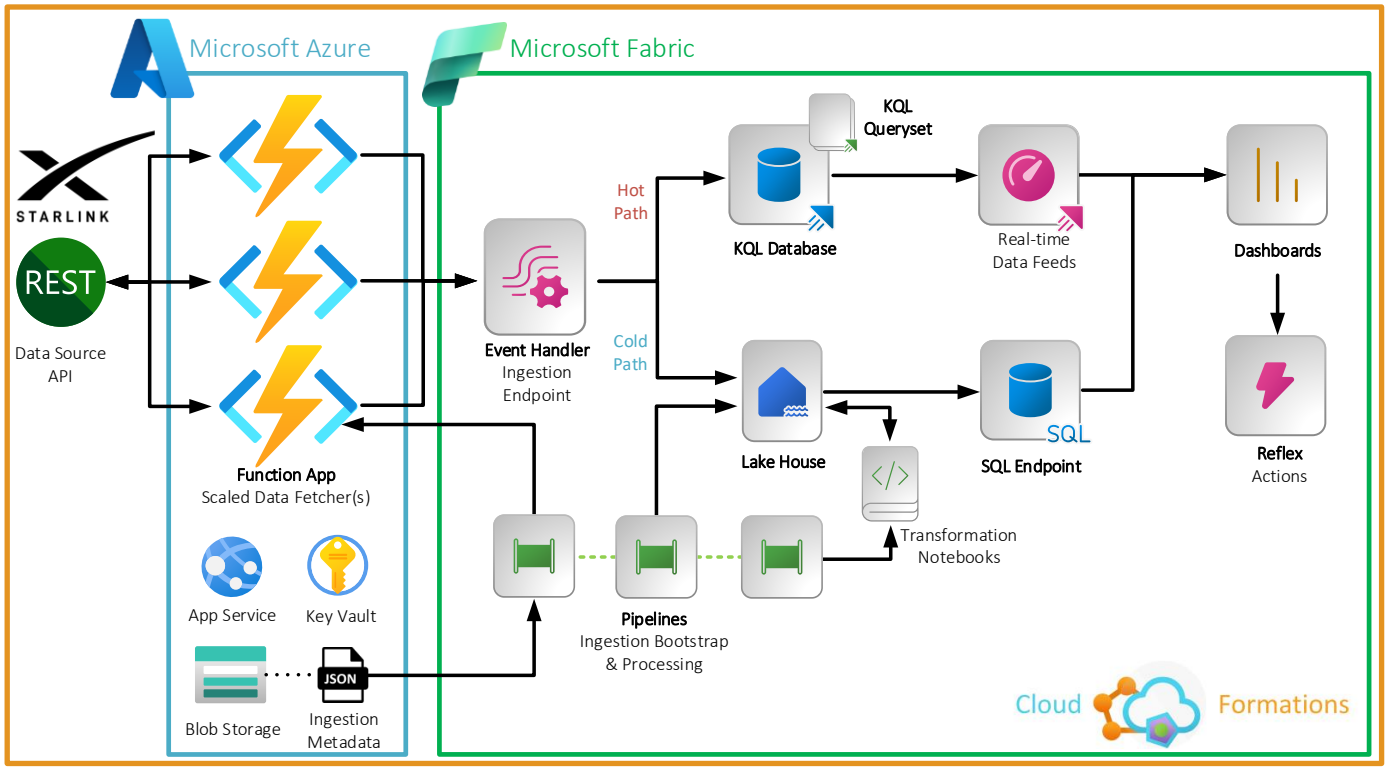
Delivering Near Real-Time Satellite Internet Analytics Using **Microsoft Fabric**

Paired With Microsoft Azure for Scaled Data Ingestion

https://cloudformations.org
contactus@cloudformations.org
In/CloudFormations
@CloudFormsLtd
CloudFormationsLtd

Cloud Formations teamed up with Onyx Data to lead the technical design and delivery of a near real-time analytics solution, providing satellite internet (Starlink) usage telemetry to a global service provider.



Solution Overview

The greenfield implementation follows a microservices approach to data handling, leveraging **Azure Functions Apps** to ingest telemetry from the Starlink API at scale and metadata driven, feeding into a **Microsoft Fabric Event Stream**. Bootstrapped by **Integration Pipelines**, data feeds into Realtime Analytics Kusto Databases and Lakehouse structures for reporting using **Power BI** Dashboards.

The platform was managed using a combination of **Azure DevOps** release pipelines, **Git** source control and **Agile** backlogs. Chained together with Microsoft Fabric artifacts deployed using **Workspace Pipelines**.

Use Cases

The solution dashboards keep internet service users informed on:

- Available bandwidth.
- Aggregated data transfers (upload/download).
- Provider usage limits.
- Connection latency and obstructions.

Time Scales

With an expert team led by Microsoft Data Platform MVPs, this solution went from design to delivery in just 2 months.

MVP Microsoft Most Valuable Professional

Discovery → Design → Build → Test → Deploy

Next Steps

Reach out to learn more about how we could implement this architecture in your organisation via our contact details (top right) or please book some time in our calendar via the following link: bit.ly/cf-chat

Our Services

- Data Platform Design/Build
- Technical Oversight
- Architecture Review
- Data & AI Strategy
- End to End Training

Cloud Formations - Case Study