

Case Study: brsk

Transforming Network Management with Cloud ACS



Introduction

Brsk, one of the fastest-growing full-fiber Internet Service Providers (ISPs) in the UK, is dedicated to providing outstanding broadband services to the people of Britain. Established in 2020, brsk has rapidly expanded from its first network build in Cottingley and has ambitious plans for further growth. To efficiently scale up, brsk has turned to AVSystem's Cloud Auto Configuration Server (ACS)

for automated device management and service provisioning. By utilizing Cloud ACS's features such as zero-touch provisioning, WiFi management, and real-time diagnostics, brsk has improved its operations significantly, leading to enhanced efficiency, network performance, and customer satisfaction.

About Brsk

Brsk is a dynamic and rapidly expanding ISP founded in 2020 by Giorgio Iovino and Ian Kock. Starting their network build in the small village of Cottingley, Bradford, brsk has set an ambitious goal

to pass 1 million homes by 2025. The company's mission is to deliver ultrafast, full-fiber broadband along with an exceptional customer experience.

Problem

Before partnering with AVSystem, brsk was embarking on a new FTTH project and needed a system to manage their network devices. Starting from scratch, they faced the challenge of selecting the right vendor and devices to support TR-069 for effective provisioning. Evaluating between two popular providers, they sought a solution that would offer comprehensive WiFi statistics and seamless device management.

Solution

AVSystem provided brsk with a Cloud ACS, a comprehensive auto-configuration server for device management using the TR-069 (CWMP) protocol. The cloud-based nature of Cloud ACS ensured a shorter onboarding process, regular updates, and extensive support. The goal was to utilise Cloud ACS's network map with a repeaters layer for enhanced visibility and control. Our system facilitated choosing the best CPEs for the FTTH project and enabled efficient management of WiFi parameters on the end-user side through TR-069.

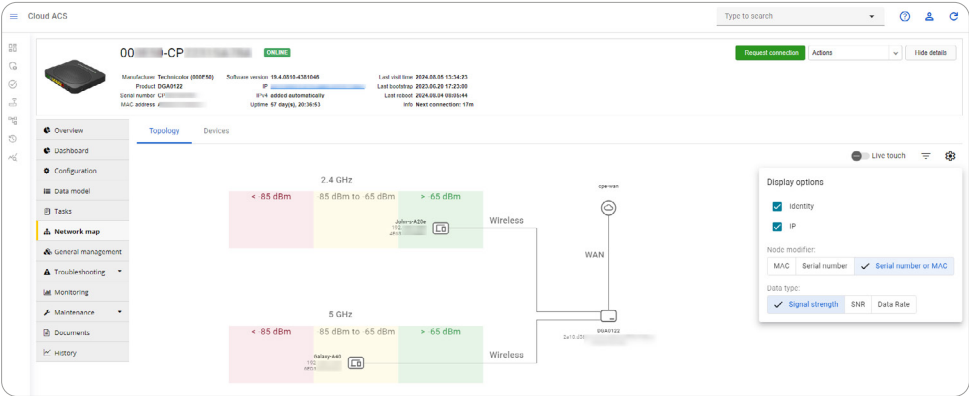
Cloud ACS offered features that were instrumental for brsk's operations. These included a robust REST API for seamless integration, comprehensive WiFi management capabilities, and a detailed

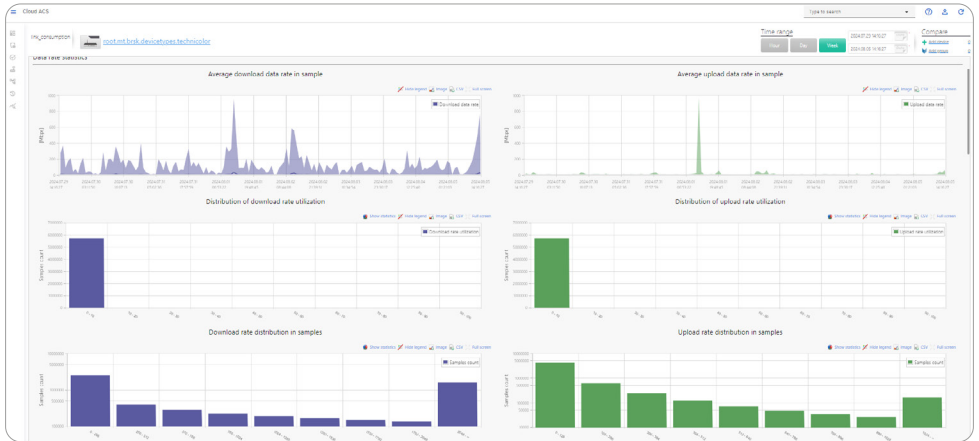
Challenges:

- ✓ Choosing best-performing devices with TR-069 capabilities
- ✓ Lack of TR-069 ACS to manage those devices and activate services
- ✓ Need for detailed information about WiFi performance
- ✓ Accurate network mapping

network map with link quality visualisation. Additionally, the flexible XML language enabled custom scripts for group provisioning processes. These features empowered brsk to efficiently manage their network, optimise WiFi performance, and ensure high-quality service delivery to their customers.

To tailor Cloud ACS specifically to brsk's needs, several customizations were implemented. This included the integration of mesh graph functionality, which provided brsk with enhanced visibility and management of their network topology. Additionally, a custom Customer Care interface was developed, along with permission groups to allow read-only access for certain users.





Key features of Cloud ACS for brsk:



REST API for
integration with other
core systems



Comprehensive
WiFi management



Network map
with link quality
visualisation



Flexible XML scripting
for group provisioning
processes

Implementation

Brsk's implementation of Cloud ACS began with testing two device models to identify the best fit based on data models and TR-069 compatibility. After selecting the devices, the onboarding process involved several stages:

1. Connecting devices for testing
2. Adjusting the platform to meet brsk's requirements
3. Transitioning to full production

The entire process, from the initial meeting to the start of the subscription, took approximately 7 months. Currently, brsk has around 40,000 devices connected to Cloud ACS, with approximately 1,000 new CPEs being added weekly.

Results

- ✔ Enhanced remote management
- ✔ Brsk can now fully manage TR-069 devices remotely, reducing the need for on-site interventions
- ✔ Zero-touch provisioning
- ✔ Streamlined device setup processes, leading to faster deployment and operational efficiency
- ✔ Advanced WiFi management
- ✔ Improved WiFi performance and customer satisfaction through detailed network mapping and statistics
- ✔ Automated service activation
- ✔ Reduced manual labour with automated service activation, configuration, and monitoring
- ✔ Comprehensive performance insights
- ✔ Gained valuable insights into CPE performance for better decision-making
- ✔ Scalability
- ✔ Successfully scaled operations to support approximately 40,000 devices, adding around 1,000 new CPEs weekly
- ✔ Cost efficiency
- ✔ Lowered operational costs through automation and remote management capabilities
- ✔ Optimised network performance
- ✔ Achieved better network reliability and efficiency, enhancing overall service quality

Conclusion

The collaboration between brsk and AVSystem has optimised brsk's network management and provided valuable insights for Cloud ACS development. As brsk expands its network,

Cloud ACS continues to be a crucial tool in maintaining high-quality service delivery and achieving their ambitious goals in the competitive broadband market.



AVSystem

Broadband services management and assurance on truly open standards.

AVSystem was founded in 2006 with a focus on providing automation solutions for connected device ecosystems. The CSP product portfolio covers end-to-end broadband services management, from service activation, through assurance, to in-home WiFi experience monitoring. With clients ranging from local internet service providers to multinational telco operators, utilizing all access technologies and multiple vendors, we know how much openness matters. Our goal is to create flexible and dynamic technology based on truly open standards: TR-069, TR-369, and LwM2M, accessible to everyone.

Contact us

avsystem.com