

PERFORMANCE & RESILIENCE

SITA bolsters its Datalink services for European ANSPs

We have supported safe and efficient ATC operations via our datalink services for more than 13 years.

In Europe, this takes the form of the ATN service, which uses SITA's VLDm2 air-ground communications network and our ground-ground routing infrastructure, referred to as the ATN Backbone.

We have regularly updated and improved the service to keep pace with the evolving datalink environment. In 2021 particularly, we worked on a program that improved the Datalink Service performance and resilience.

HIGHER PERFORMANCE

Through consultation with European ANSPs and Eurocontrol, it was established that the key performance indicators (KPIs) most relevant to the datalink community were:

- **Provider Aborts (PA) per 100 hours**
This KPI represents the average number of datalink messages that were not successfully delivered in the specified period.
- **Technical Round-Trip Delay**
This KPI aims to show how long it takes for a datalink message to transit the network, i.e., network latency.

SITA thus focused its efforts on work that would positively impact these KPIs in the short term. Substantial investments have been made to enhance many components of the Datalink Service, including:

- VHF station and network infrastructure
- ATN router software
- Improved VDL multi-frequency allocation mechanism
- New test infrastructure to reproduce and fix more issues

When comparing SITA's service performance (January 2021 vs. January 2022) using the publicly available Eurocontrol KPIs, we observed significant improvements:

- Provider Aborts (PA) per 100 hours decreased **by 69%**
- Technical Round-Trip Delay (99th percentile) fell **by 23%**

These improvements were achieved even though the traffic on the SITA European VLDm2 network increased by 67% for the same period.

We will continue to make improvements to increase our service's performance.



GREATER RESILIENCE

SITA has operated a dual-redundant site in Montreal since the ATN service's inception. Last year, we installed an additional European site in Amsterdam to increase service resilience.

Work to put this infrastructure into operation and ensure a smooth transition has progressed well over the last few months. After extensive tests in the laboratory and an operational environment outside Europe, we are now performing in-service assessments. The first of these took place in December, the second in January, and another larger-scale assessment is planned in March.

Once the new infrastructure has been commissioned, it will significantly improve service resilience. In the unlikely event of one site becoming unavailable:

- Customers who upgraded their ground-ground connectivity to the dual infrastructure would not be affected; their connectivity would be maintained through the remaining site.
- Customers connected to the SITA VDLm2 air-ground communications network would benefit from greater redundancy; around half the connected aircraft would be unaffected, and the other half would only need to reconnect via the remaining site.

SITA will keep the community informed about these and other topics. If you would like to know more about our datalink and related services, please email worldwide@sita.aero

ONCE THE NEW INFRASTRUCTURE HAS BEEN COMMISSIONED, IT WILL SIGNIFICANTLY IMPROVE SERVICE RESILIENCE.

SITA AT A GLANCE

Easy and safe travel every step of the way.

- Through information and communications technology, we help to make the end-to-end journey easier and safer for passengers – from pre-travel, check-in and baggage processing, to boarding, border control and inflight connectivity.
- We work with over 400 air transport industry members and 2,500 customers in over 200 countries and territories. Almost every airline and airport in the world does business with SITA, and nearly every passenger trip relies on SITA technology.
- Our customers include airlines, airports, ground handlers, aircraft, air navigation service providers, and governments.
- Our solutions drive operational efficiencies at more than 1,000 airports, while delivering the promise of the connected aircraft to customers of 18,000 aircraft globally.
- We help more than 70 governments to strike the balance between secure borders and seamless travel.
- Created and owned 100% by air transport, SITA is the community's dedicated partner for IT and communications, uniquely able to respond to community needs and issues.
- We innovate and develop collaboratively with our air transport customers, industry bodies and partners. Our portfolio and strategic direction are driven by the community, through the SITA Board and Council, comprising air transport industry members the world over.
- We provide services over the world's most extensive communications network. It's the vital asset that keeps the global air transport industry connected in every corner of the globe and bridging 60% of the air transport community's data exchange.
- With a customer service team of over 1,700 people around the world, we invest significantly in achieving best-in-class customer service, providing 24/7 integrated local and global support for our services.
- Our annual Air Transport and Passenger IT Insights reports for airlines, airports and passengers are industry-renowned, as is our Baggage IT Insights report.
- We are a certified CarbonNeutral® company, reducing greenhouse gas emissions for all our operations through our UN recognized Planet+ program. In 2022, we committed to setting science-based emission reduction targets aligned to the Science Based Target initiative Net-Zero Standard.
- We also develop solutions to help the aviation industry meet its carbon reduction objectives, including reduced fuel burn and greater operational efficiencies.



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