NATS

NATS moves to zero-incident culture using ServiceNow

<5

Minutes required for incident resolution

>50%

Faster engineer validation process

1

Unified service view enables better safety and faster incident resolution

Industry: Aviation
Location: Swanwick, UK
Size: 4,500 employees

Managing the most complex airspace in the world

As the UK's leading provider of air traffic control services, National Air Traffic Services (NATS) is focused on making the skies an even safer and more efficient environment for flying.

Every year, NATS manages nearly 2.5 million aircraft and 200 million passengers flying in skies above the UK—the most complex airspace globally—from its two UK-based control centres and 14 UK airports. With air travel numbers expected to rise, and skies getting busier with new and innovative aircraft, the NATS purpose of "advancing aviation, keeping the skies safe" has never been more relevant.

With safety at its core, NATS knows it is critical to keep its technology systems up and running 24/7/365. Any infrastructure or applications downtime can cause major flight delays, impacting the passenger and airline experience.

"Our strategy is focused on a journey toward a zero-incident culture in engineering, where we can optimise air traffic control to ensure safety and satisfaction for those flying," explains Jamie Mead, Service Delivery Manager at NATS. "We need to predict and prevent outages wherever we can and fix them as quickly as possible if they happen. It was clear that ServiceNow had the ideal platform for NATS to deliver its mission-critical strategy."

With ServiceNow, NATS focuses on service excellence and safety, not infrastructure

Years ago, lengthy delays at UK airports put NATS in the spotlight. A UK government public inquiry uncovered that ageing technology was the root cause of these major disruptions.

Challenge
To deliver high-performance air traffic control for passenger safety and satisfaction

Products
- The Now Platform®
- ServiceNow® IT Service Management
- ServiceNow® IT Operations Management
- ServiceNow® Performance Analytics Enterprise

Solution
ServiceNow powers service operations management to accelerate incident resolution, mitigate flight delays, and boost the customer experience

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With ServiceNow, we have a partner that can support our complete operation and manage the entirety of our safety-critical services on a single platform. That's an incredibly powerful development for such a mission-critical business.

Jamie Mead, Service Delivery Manager, National Air Traffic Services

"Like many organisations, we had a siloed approach to technology. It was difficult to accurately identify the cause of service issues, so fixing these took a long time. When planes are stuck on the ground or in holding patterns, that's just not acceptable," explains Jamie.

NATS is moving quickly to completely overhaul its infrastructure, adopting a service-oriented architecture with a new technology stack that has broken down the silos. The Now Platform forms the backbone of this new Service Operations Management (SOM) approach.

Tight integration of the Now Platform with NATS' UK Air Traffic Management platform has created a highly scalable architecture, where services rather than infrastructure are the focus.

"As a business, we are now in a position to meet the ever-growing demand from airlines for moving aircraft," says Jamie. "By managing services rather than infrastructure, we are on course to reduce our already-low engineering delay figures to zero, which is key to improving the customer experience. The Now Platform has been central to this transformation."

The ServiceNow unified service view enhances the safety and efficiency of UK air traffic

In the past, NATS' service operations used more than 170 different screens to monitor the status of all services. Staff walked from screen to screen in a large room to achieve the much-needed bigger picture view. It was not only time consuming but meant reaction times were long.

"Using ServiceNow, we have a single pane of glass view of all our services' status and that will have a tremendously positive impact on our engineers daily work. They can focus more on solving the problems at hand, rather than the systems that are reporting on them," explains Jamie.

Simultaneously, the time required for new starters to gain engineering validation to work in air traffic control has been reduced by 50%, from one year to just six months. This is a direct result of implementing the new architecture and creating the single pane of glass view, which reduces the complexity of working in frontline engineering.

NATS employees have also benefitted from upskilling and acquiring new competencies, opening up new career paths by driving efficiencies into the service management approach.

Simon Ede, Head of Service Management Command Centre at NATS, explains: "We now need fewer command line, low-level engineering skills. Our new approach to service management has freed up resources to focus on mission-critical provisioning of safety and informed decision-making."

NATS moves to incident prevention by detecting potential issues before they happen

NATS' shift towards a zero-incident culture has resulted in a greater ability to predict and prevent technical events from occurring.

The new service architecture, with ServiceNow® Operational Intelligence at the heart of the solution, enables NATS to spot anomalies and identify the root cause of engineering incidents before they become service impacting incidents. For example, incidents that affect the work of air traffic controllers and the passenger travel experience.

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By implementing the Now Platform, incident resolution time for P1 incidents—those that result in the inability to provide service to air traffic controllers—will be reduced to less than five minutes from a possible event occurring.

Jamie highlights: "We can take rectification actions before air traffic controllers even know an engineering incident is occurring. If an event happens in one of the applications, ServiceNow will be commanded to remediate and orchestrate it before it affects services. Capacity is secured and planes aren't delayed."

Additionally, using the machine learning capabilities in ServiceNow IT Operations Management and the Now Platform, NATS can identify existing anomalies before they potentially impact services. "This is incredibly powerful in our safety-critical world," adds Jamie.

Air traffic controllers will also benefit from higher availability of applications to control aircraft and faster operations management response to requests for new or improved features.

ServiceNow supports long-term, zero-incident culture at NATS

"ServiceNow has the vision and roadmap to support us on a long-term journey. The introduction of advanced operations intelligence is a key preventive ingredient to help eliminate service outages and this feature will be a key driver as we move to a zero-incident culture," says Jamie.

"With ServiceNow, we have a partner that can support our complete operation and manage the entirety of our safety-critical services on a single platform. That's an incredibly powerful development for such a mission-critical business," concludes Jamie.

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