

IndiGo achieves real-time travel data integration with Red Hat Fuse



Software and services

Red Hat® Fuse

Red Hat Consulting

IndiGo, India's largest passenger airline, depends on hundreds of applications to manage processes and functions from catering to crew scheduling. To reduce manual data re-entry across applications, the airline decided to use Red Hat Fuse to create a single interface that would provide real-time data access for all employees. With efficient, responsive integration through Fuse, IndiGo now saves ₹500 million per year in fuel costs and has improved its employee and passenger experience.



Aviation

25,000+ employees

257 aircraft

Benefits

- Streamlined data access with single, highly available interface connecting hundreds of applications
- Saved ₹500 million with more accurate fuel calculations
- Improved passenger experience with more efficient system communication and real-time data processing

"Red Hat makes our processes more efficient, so manual intervention and error are reduced, and we can make decisions based on real-time information from our systems."

SAURAV SINHA
CIO, IndiGo



facebook.com/redhatinc

@RedHat

linkedin.com/company/red-hat

redhat.com

Uniting hundreds of applications for business success and passenger safety

IndiGo is India's largest passenger airline. It relies on many commercial off-the-shelf (COTS), aviation-specific applications to support passenger ticket booking, crew scheduling, catering, load calculation, and other business functions and services. Additionally, the airline handles Aircraft Communications Addressing and Reporting System (ACARS) messages from its aircraft. These services are not only key to IndiGo's success, but many of them are also critical to ensuring passenger safety.

"Crew members would have to spend almost 30 minutes filling out various reports after completing a flight. Now, the GroupPortal application unifies data from 20 applications, letting them complete that same work within 5 minutes."

Charu Verma
Vice President, IndiGo

However, these applications required significant manual intervention to operate and maintain, leading to inefficiency and risk of human error. The airline also lacked a way to integrate its three primary application systems—scheduling, engineering, and reservations—and hundreds of smaller applications that connect to these systems. Data entered into one application would have to be manually reentered in another application.

To better connect data from more than 400 applications and make it easier to use for more than 25,000 employees, IndiGo sought to use a new integration solution to unite its application data in a single interface.

"Data was being entered for our passengers, engines, or our crews, but it was not available for other end users, like airports, to access," said Charu Verma, Vice President of IndiGo. "The challenge we faced was to offer real-time access to this data and to be able to use it to make faster, better decisions. But if we wanted to provide a single interface for accessing application data, it means that we need a way to collect and integrate all of that data."

Adopting a highly available, open source integration platform

After working with an Australian technology partner to evaluate options and pricing, IndiGo chose Red Hat Fuse as its new integration solution. The airline selected Fuse based on its agility, flexibility, and real-time data transfer capabilities.

Red Hat Fuse is a distributed integration platform that connects applications across legacy systems, application programming interfaces (APIs), and other IT environments using service-oriented architecture (SOA) and standardized packaging frameworks. Using Fuse, integration experts, application developers, and business users can independently develop connected solutions in the environment of their choosing. The unified platform lets users collaborate, business units self-serve, and organizations ensure governance.

IndiGo's teams worked with Red Hat Consulting to validate the deployment architecture and establish code quality best practices.

"After integrating our 3 primary systems, we then started connecting those with the smaller systems," said Verma. "This project was finished in just 2 years, which was a big achievement, because we had thought that would take 3 years."

Improving customer and employee experience with easier data access

Saved time and reduced errors with a single, highly available data interface

With data accessible to every IndiGo employee from a common user interface, the airline can save work time by removing the need for duplicate data entry across systems. This approach also decreases the risk of manual errors. When changes are made to a core system, Red Hat Fuse ensures all connected applications automatically begin receiving data from the new system.

“For example, crew members would have to spend almost 30 minutes filling out various reports after completing a flight. Now, the GroupPortal application unifies data from 20 applications, letting them complete that same work within 5 minutes.”

IndiGo has now used Fuse to migrate data between 250 applications with zero downtime. “We have 4 Red Hat Fuse servers, and the availability is 99.5%,” said Abhinash Srivastava, Director of Information Technology at IndiGo.

Saved ₹500 million with more accurate fuel weight calculations

Aircraft fuel needs are calculated based on cargo and passenger numbers, but these numbers can change immediately before an aircraft’s departure.

“There would always be changes in cargo weight or number of passengers, which meant the fuel amount required for the flight also needed to change,” said Verma. “Before, we couldn’t make those changes, because we could not get the data needed from various sources in the last 30 minutes before departure.”

IndiGo can now use Red Hat Fuse to see real-time load information and calculate precise fuel needs. With more accurate predictions, the airline has reduced the cost associated with carrying unneeded fuel, saving ₹500 million per year.

Improved passenger experience

With better integration of service systems through Red Hat Fuse, crews and airports can communicate faster and make more informed decisions. Faster messaging reduces the potential for flight delays or cancellations, leading to a better passenger experience. Additionally, third-party integration with banks and other organizations simplifies the ticketing process. Even catering services benefit from real-time data integration by helping ensure passengers receive the correct meal during their flight.

“Payment processing required a lot of manual effort involving spreadsheets shared between the travel agent, the bank, and us,” said Verma. “Now, within 5 minutes of a customer making a payment, agents can complete their bookings.”

Continuing the digital transformation

IndiGo has now established an agile, reliable integration platform that ensures passengers, crew, employees, and third-party partners get the information they need in real time across hundreds of applications.

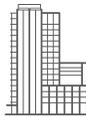
“Red Hat makes our processes more efficient, so manual intervention and error are reduced, and we can make decisions based on real-time information from our systems,” said Saurav Sinha, CIO, IndiGo.

The airline plans to continue seeking to improve its operations. “The next step in our transformation is to explore other innovations, such as microservices, API management, and container-based systems,” said Verma.

About IndiGo

IndiGo is India's largest passenger airline, with a market share of 47.2% as of September 2019. It primarily operates in India's domestic air travel market as a low-cost carrier with a focus on 3 pillars: low fares, being on time, and delivering a courteous and hassle-free experience. IndiGo has become synonymous with being on time. Since its inception in August 2006, it has grown from a carrier with one plane to a fleet of 257 aircraft.

About Red Hat



Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers integrate new and existing IT applications, develop cloud-native applications, standardize on our industry-leading operating system, and automate, secure, and manage complex environments. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500. As a strategic partner to cloud providers, system integrators, application vendors, customers, and open source communities, Red Hat can help organizations prepare for the digital future.



facebook.com/redhatinc
@RedHat
linkedin.com/company/red-hat

North America
1 888 REDHAT1
www.redhat.com

**Europe, Middle East,
and Africa**
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com