



CHALLENGE

Build a new, high-availability ITSM integration service from the ground up

SOLUTION

Develop and deploy the service in just three months using the CloudBees Platform to enable rapid Java development with CI and frequent, incremental updates with no maintenance windows

RESULTS

- >> Development time cut by 50%
- >> Updates deployed without service interruption
- >> Availability of 99.999% achieved

SERVICES

- >> DEV@cloud
- >> RUN@cloud
- >> New Relic
- >> MongoHQ
- >> Papertrail
- >> Sonar

Service-Flow Builds Ready-to-use ITSM Integration Service on the CloudBees Platform

Service-Flow provides a ready-to-use, online integration service for connecting disparate IT service management (ITSM) tools used by companies and their IT service providers, as well as subcontractors and partners. Service-Flow supports automatic ticket creation, on-line ticket information exchange and ticket routing logic among organizations, while requiring no customer investment in software, hardware or development projects. The company has ready-made adapters for many ITSM tools including ServiceNow, Efecte, Microsoft Service Manager and BMC, as well as established connections to service providers such as CGI, Fujitsu, Atos and Tieto. Service-Flow makes modern IT service supply-chain integration fast, reliable and easy to manage.

Service-Flow developed and deployed its service utilizing the CloudBees Platform as a Service (PaaS) solution to support rapid Java development with continuous integration (CI), incremental updates with no maintenance windows and 24x7x365 availability. "With CloudBees we can concentrate on development instead of managing and maintaining servers," says Kai Virkki, Chief Architect at Service-Flow. "The CloudBees platform enables us to remain agile with Jenkins CI, deploy into production even during our busiest times and maintain 99.999% availability."

Challenge: Build an Entirely New Service for Waiting Customers and Enable Updates without Downtime

To be both agile and independent, Service-Flow wanted to build its own service from the ground up without using any of the generic integration tools already available on the market. Even as development began, the company already had customers and partners waiting for the service to go live. From the start, delivering a product quickly was a priority. With little budget allocated to servers and no time to configure and maintain them, Service-Flow initially considered Infrastructure as a Service (IaaS) providers. "Though we would have had virtual machines instead of hardware, we would still have had a great deal of work to do writing automation scripts, building server clusters and so on," says Virkki.

Service-Flow preferred a PaaS solution, but had several requirements that had to be met. First, the team's focus on agility required a platform with support for rapid development and frequent, incremental updates. Second, the team wanted built-in support for Jenkins and MongoDB, their preferred database. Third, Service-Flow wanted control over where its data in the cloud would be stored, including keeping it in the European Union to meet legislative requirements. Lastly, Service-Flow needed exceptional reliability and availability. "Our partners offer 99.9% availability to their customers, and they depend on us to be better than that," says Virkki.

A Solution for Rapid Development, Simple Deployment and High Availability

Service-Flow built and deployed its ITSM integration service using the CloudBees Platform. The company evaluated several PaaS providers before selecting CloudBees. "The others we tried either were not ready for production use or relied on a hosting provider that we did not want to

“High availability and frequent upgrades are vital to our business, so we need to deliver updates without maintenance windows. This sounds simple, but it is difficult to implement, technically, if you do it yourself. For us, it is simple because CloudBees manages everything from setting up the new instance to rerouting the traffic over to it when it is ready.”

>> Kai Virkki, Service-Flow

rely on,” says Virkki. “In addition, they lacked an ecosystem for connecting to other services, so it would have been difficult to use MongoDB with their service.”

Service-Flow developers got started with DEV@cloud by establishing their version control repository with DEV@cloud, coding their first Java classes and setting up some basic Jenkins jobs, which have since been expanded to run unit tests, integration tests and other quality checks.

After further development of the Java back end and AngularJS front end, they deployed the prototype web application to RUN@cloud.

“Without any changes, we deployed our application to CloudBees, and it was up and running in the cloud,” says Virkki. “It took only a couple of minutes to get started and a couple of hours to get the deployment pipeline up and running.”

Service-Flow temporarily stores data in a MongoDB database while it is being exchanged between ITSM systems. The team created and configured their MongoDB databases using the service from MongoHQ, a CloudBees Ecosystem Partner. In production, they also rely on MongoHQ for automated back-ups and monitoring services.

Service-Flow developers use three more Ecosystem services to proactively ensure the reliability and availability of their service in production: Papertrail for log aggregation and monitoring, New Relic for application performance management and Sonar for code quality checks. “If there is a problem with our software, these CloudBees Ecosystem services help us detect it before our customers do,” Virkki notes.

The first two months of development was done entirely using the free plans for DEV@cloud and RUN@cloud multi-tenant, at no cost to Service-Flow. When the team needed to build and test integrations with partner services, they switched to a paid RUN@cloud plan on dedicated servers in the AWS EU region. “Running our service on AWS EU is important to meeting legislative requirements and our customers’ security needs,” says Virkki.

The Service-Flow service is in production in the cloud, with a rapidly growing customer base. Service-Flow developers are continuing to add new features and make improvements using the CloudBees platform.

Results

- >> **Development time reduced by 50%.** “We initially planned to have our service ready in six months. We were able to deliver a production release in three months because CloudBees enabled us to keep our focus on development, not on infrastructure maintenance,” says Virkki. “With DEV@cloud, our development and build environments are installed for us and always up-to-date. And, if we run into any problems, CloudBees engineers address them immediately.”
- >> **Updates deployed without service interruption.** “CloudBees makes it possible for us to deploy software upgrades without downtime, which is crucial for meeting our availability targets and delivering new features to customers as soon as they are ready from the development team,” explains Virkki. “We push upgrades multiple times per week, and CloudBees ensures our service remains available at all times.”
- >> **Availability of 99.999% achieved.** “In production with RUN@cloud, we’ve had world class availability—99.999%,” says Virkki. “Having a service-level agreement in place is one thing, but the actual performance in production is the real measure. During our time with CloudBees, our availability and reliability have been very good.”

Learn More About
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