

# HILTON ENHANCES DIGITAL GUEST EXPERIENCE WITH RED HAT CONTAINER AND AUTOMATION TECHNOLOGY



## SOFTWARE

Red Hat® OpenShift®  
Container Platform

Red Hat Enterprise Linux®

Red Hat Satellite

As the hospitality industry expands and evolves, leading global hospitality company Hilton is focused on continuing to enhance its innovative guest services and amenities with digital offerings. The company decided to build an agile hybrid cloud computing environment—supported by continuous integration and continuous delivery (CI/CD) and automation capabilities—to create and deploy applications faster. Built with enterprise Linux container and management technology from Red Hat and supported by an efficient DevOps approach, Hilton’s new cloud environment supports the award-winning Hilton Honors mobile application that provides guests with digital check-in and room selection—with efforts for additional digital features and expansion to new markets underway.



## HOSPITALITY INDUSTRY

**5,400+** PROPERTIES  
**106** COUNTRIES  
AND TERRITORIES

*“We see a large amount of traffic on this platform, and we’re growing with every project. Red Hat OpenShift has allowed us to successfully scale as we grow.”*

FURQAN HUDA  
SENIOR DIRECTOR, ENTERPRISE DEVOPS, HILTON

## BENEFITS

- Increased competitive advantage by offering customers more convenience, choice, and control of their stay through the Hilton Honors mobile application
- Improved time to market by speeding development time from months to days with automated, adaptable, and vendor-agnostic cloud technology
- Enhanced collaboration on new digital amenity features with agile DevOps and CI/CD approaches



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## MODERNIZING THE GUEST EXPERIENCE TO COMPETE IN HOSPITALITY

The hospitality industry is fiercely competitive, with companies and chains seeking new ways to meet customer demand. Hilton has nearly 100 years of experience creating innovative solutions in hospitality, such as the first airport hotel and the first rooms equipped with air conditioning and television. The company maintains a portfolio of brands that offer guests exceptional experiences at more than 5,400 properties worldwide. To stay competitive against new industry offerings, Hilton is focused on continuing to develop exciting new services and amenities, as well as new ways to help team members work more efficiently.

“We’re always looking to roll out new tools and technologies for our customers and make sure we’re maintaining our competitive edge,” said Furqan Huda, senior director of enterprise DevOps at Hilton. “Online travel agencies are always looking to lower prices, and more recently other platforms have entered the industry. We want to market to customers who aren’t necessarily loyal to a brand and get them to book directly with us by offering benefits not available through other booking channels.”

Hilton decided to modernize its legacy call center tools and infrastructure, beginning with an initiative to use more modular platforms, optimize its application components, prepare for future cloud expansion, and improve collaboration between business and technology teams. Hilton’s IT team started searching for flexible technology that would give them greater control and choice of vendors while still providing automation and other key capabilities.

“We wanted to automate, improve speed to market, and move away from monolithic applications that took months to build, test, and deploy,” said Huda. “New competitors continue to join the cloud provider landscape, and we want to be able to use the cloud of our choice.”

## BALANCING LEGACY WORKLOADS WITH NEW CLOUD APPLICATIONS

After researching platform options that would best meet its business needs and support a vendor-agnostic cloud approach, Hilton’s IT team presented their findings to the company’s technology executives and business partners.

“Typically, it’s the business coming to us. In this case, we had the foresight to know this change was a step we would need to take in our journey. We showed how technology organizations are evolving their innovation and speed to market,” said Huda. “We talked to executives and other stakeholders about people, processes, engagement models between business and IT, and technology capabilities.”

The project began with establishing a hybrid IT strategy focused on maintaining traditional infrastructure while adopting modern infrastructure resources. Some team members remained focused on legacy IT systems and resources. Hilton also established a cross-functional team dedicated to modernization efforts, with members from its architecture, development, infrastructure, security, and quality assurance (QA) teams.

“We made a big cultural shift away from the waterfall approach and monolithic applications we’d been developing for the last 20-30 years,” said Huda. “We knew that to really progress at the pace we wanted, we had to dedicate resources to building the new platform while continuing to run our existing application platform.”

The cross-functional team created a new hybrid cloud platform that supports simple portability of applications and microservices across its current public and private clouds—as well as any future cloud environments—using Red Hat OpenShift Container Platform. Red Hat Enterprise

Linux provides a stable operating system foundation, and Red Hat Satellite provides management software packages to deploy in the cloud. Hilton also uses the community version of Ansible to automate its OpenShift cloud deployments.

“All of our microservices and even some UI [user interface] components are containerized and deployed onto the OpenShift platform,” said Huda. “It’s really helped us automate and orchestrate our CI/CD [continuous integration and delivery] processes and applications deployment.”

After establishing this new environment, Hilton currently hosts about 50% of its compute capacity in the cloud and plans to increase that amount to 70% in the near future.

## **BUILDING HIGH-QUALITY FEATURES TO EVOLVE GUEST SERVICES**

### **ENHANCED GUEST EXPERIENCE**

Hilton now has the IT environment it needs to deliver innovative amenities using digital channels, such as its Hilton Honors mobile application. Built on Hilton’s new hybrid cloud platform, the app allows guests to select a room, check-in, and access their room key all from their smartphone, without needing to stop at the reception desk.

Using this foundation that can quickly shift between public and private cloud resources—and different cloud vendors—Hilton has also migrated its call center technology, making it easier to deploy globally and ensure reliable, helpful customer service. “Our agents can enhance the customer experience by offering options like the opportunity to upgrade to a suite. We’re able to get those benefits in front of agents and our online customers,” said Huda.

OpenShift also provides effective controls to meet Payment Card Industry Data Security Standard (PCI-DSS) compliance requirements, assuring guests that the financial information accessed by Hilton and its mobile app is protected according to industry standards.

### **EFFICIENT DEVOPS COLLABORATION**

Hilton uses OpenShift and Ansible to create modular, reusable resources and common frameworks, such as its hospitality application programming interfaces (APIs). These tools improve collaboration by creating a standard foundation for innovative work, as well as self-service capabilities for development and QA teams, leading to faster delivery for business teams.

Using microservices and container technology also helps Hilton’s DevOps teams work more efficiently by making smaller, more frequent changes. “The technology on our OpenShift platform is very reusable and can be used to address multiple efforts,” said Huda. “We’re able to use and modify what we have with these modular components, so teams can work together to make changes and deliver them quickly.”

### **AUTOMATED, SCALABLE DEVELOPMENT**

With Ansible Playbooks, Hilton can automate provisioning, scaling, and patching of its OpenShift environment for rapid on-demand improvements.

“We’re no longer constrained to traditional datacenter processes where it took weeks to order hardware and months to get it all racked, stacked, and cabled. With OpenShift and Ansible, we can have environments up and running in days,” said Huda. “When a developer commits code, we can automatically start a build, package it, create a container, and deploy it to OpenShift to run automated tests and QA. It’s very easy to use our CI/CD pipeline to move a build to the next environment or to production.”

Easier scaling means that Hilton's teams can not only build and launch new, innovative services faster, but also ensure that resources are added quickly when needed to meet demand. "We now see a large amount of traffic on this platform, and we're growing with every project," said Huda. "OpenShift has allowed us to successfully scale as we grow."

### EXPANDING DIGITAL INNOVATION TO NEW FEATURES AND MARKETS

Following the success of Digital Key and the Hilton Honors mobile app, the company has already begun work on new guest offerings. For example, Connected Room will let guests use the app to control the thermostat, lights, and entertainment options in their rooms. The company also plans to expand Digital Key, currently available at more than 3,600 locations, to more properties.

"Globally, we're working closely with different teams on new initiatives and major projects and starting the conversation about how we can move them to the cloud and deploy, run, and scale applications using our OpenShift application platform," said Huda.

### ABOUT HILTON

Hilton (NYSE: HLT) is a leading global hospitality company, with a portfolio of 14 world-class brands comprising more than 5,400 properties with nearly 880,000 rooms, in 106 countries and territories. Hilton is dedicated to fulfilling its mission to be the world's most hospitable company by delivering exceptional experiences - every hotel, every guest, every time. The company's portfolio includes Hilton Hotels & Resorts, Waldorf Astoria Hotels & Resorts, Conrad Hotels & Resorts, Canopy by Hilton, Curio Collection by Hilton, DoubleTree by Hilton, Tapestry Collection by Hilton, Embassy Suites by Hilton, Hilton Garden Inn, Hampton by Hilton, Tru by Hilton, Homewood Suites by Hilton, Home2 Suites by Hilton and Hilton Grand Vacations. The company also manages an award-winning customer loyalty program, Hilton Honors. Hilton Honors members who book directly through preferred Hilton channels have access to instant benefits, including a flexible payment slider that allows members to choose exactly how many Points to combine with money, an exclusive member discount that can't be found anywhere else, and free standard Wi-Fi. Visit [newsroom.hilton.com](http://newsroom.hilton.com) for more information, and connect with Hilton on Facebook, Twitter, LinkedIn, Instagram and YouTube.

### ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.



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