Red Hat

Denver saves $4.06 million and 81k work hours through automation

DENVER
THE MILE HIGH CITY

**Headquarters**

Denver, USA

Industry

Government

Size

15,000 employees

"With Red Hat Ansible Automation Platform, we've seen savings equivalent to $7,500 a day, while improving security and delivery of higher-quality services to residents."

Evan Pfaff
Digital Transformation Engineer
City and County of Denver

The City and County of Denver first sought a robust IT automation solution in 2021 when it turned to Red Hat to support more than 15,000 employees working from home. Then, Red Hat Ansible Automation Platform helped it to automate provisioning and scaling tasks while supporting 514% growth in Microsoft Teams use and quickly launched a virtual emergency operations center (EOC) for government leaders to respond to the pandemic. In the years since, the City sought to expand its use of Ansible Automation Platform across departments as it needed to increase efficiency to align with budgets while maintaining high-quality services for its residents. By automating 223 processes on Ansible Automation Platform, the City has saved $4.06 million over 20 months—equivalent to $7,500 every day—and refocused 80,993 work hours. It has also increased security and improved the quality and responsiveness of citizen services.
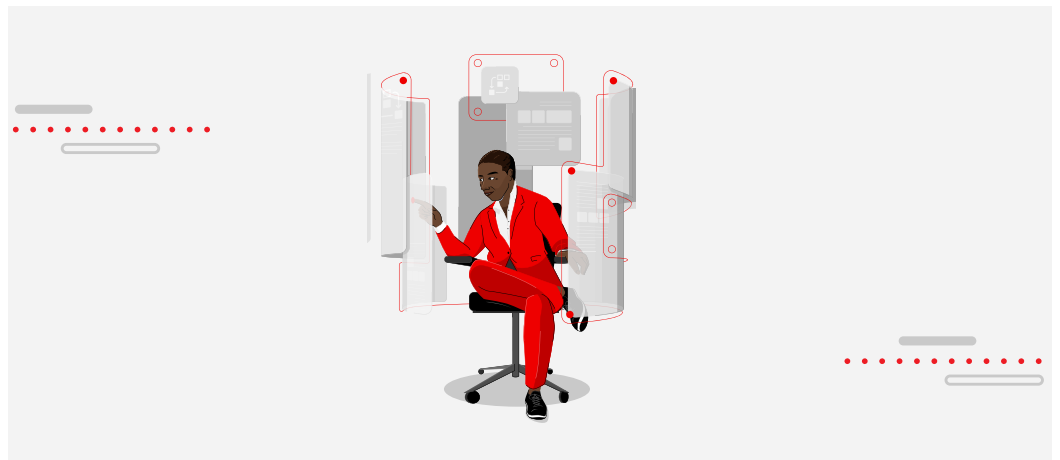
Software and services

Red Hat® Ansible® Automation Platform

Red Hat Enterprise Linux®

Red Hat Satellite

Red Hat Technical Account Manager

Benefits

▸ Achieved financial savings of $4.06 million in 20 months

▸ Refocused 80,993 work hours

▸ Improved security while reducing team workload

▸ Supported delivery of more responsive resident services

Red Hat Innovators in the Open

About Red Hat Innovators in the Open

Innovation is the core of open source. Red Hat customers use open source technologies to change not only their own organizations, but also entire industries and markets. Red Hat Innovators in the Open proudly showcases how our customers use enterprise open source solutions to solve their toughest business challenges. Want to share your story? Learn more.

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—

Evan Pfaff
Digital Transformation Engineer
City and County of Denver

Maximizing efficiency to safeguard citizen services while meeting tight budgets

The City and County of Denver aims to maintain a safe and vibrant Denver for its 700,000-plus residents. Comprising 56 government agencies, it offers services from policing and public works to animal shelters and waste disposal and recycling.

The City's IT department works with almost every one of these agencies. "Our goals are to provide resident-centric, responsive digital experiences for citizens and employees," said Nick Steensland, Service Delivery Manager, City and County of Denver. "We deliver agency-focused and adaptive technologies, reduce IT risk, and create the data dashboards that showcase the City's performance against service level agreements (SLA) to the public."

With budgets already tight and constantly reducing, the IT department was tasked with increasing efficiency and achieving savings through automation. "We wanted to help reduce the mundane, repetitive tasks for government employees to free up time and empower them to better serve our residents," said Evan Pfaff, Digital Transformation Engineer, City and County of Denver.

Expanding the role of automation across departments

Denver's IT department originally started using Ansible Automation Platform in 2019 on premise. During the COVID-19 pandemic, many organizations rapidly transitioned to remote work. This required scalable automation across multiple domains to maintain essential workflows and optimize IT operations. A unified automation platform was selected to support this shift. This platform provided features, integrations, and flexibility intended to address security needs and scaling.

Denver's IT team worked closely with Red Hat expertise throughout the deployment. "We worked with a Red Hat Technical Account Manager (TAM) for a couple of years, which has helped us establish best practices and continue to maximize our investment," said Steensland. "Red Hat is very responsive when we're trying to answer queries or find resources."

After successfully moving to home working with Ansible Automation Platform, the team looked for new ways it could increase efficiency with automation and roll out its use across government departments. This led to the formation of an Automation Center of Excellence in 2021. "The Center of Excellence is responsible for the intake process for new projects, capturing the benefits we achieve through automation, and sharing these benefits with the business," said Pfaff.

"We have developed a proprietary scoring system to prioritize automation requests, an ROI calculator, and dashboards. Every month, we have steering committee meetings and collaborate with the automation team to run through the backlog and identify where we can control replication to achieve quick wins."

In the last 5 years, the City has automated 223 processes with Ansible Automation Platform, and is constantly discovering and delivering new use cases. While running everything on Red Hat Enterprise Linux, it also relies on Red Hat Satellite for patch management.

Increasing efficiencies and freeing up time to deliver better services

Achieved financial savings of $4.06 million

In 20 months, the City and County of Denver saved $4.06 million, which is an average saving of $7,500 every day.

For example, when the City's Excise and Licensing Department refreshed its residential rental program, the automation team stepped in to simplify the process. "The refresh extended licensing to include Airbnb and Vrbo rentals, with additional inspectors hired to fulfill the work," said Justin Leopold, Automation Architect, City and County of Denver. "Using Ansible Automation Platform, we now automatically identify new rental records, check they meet the criteria, and then assign them to an inspector's work list. This is not only a huge time and financial saving for the department, but also ensures every rental property is identified and licensed."

Refocused more than 80,993 employee hours

Throughout this time, the City also saved 53,208 IT staff hours and 27,785 non-IT staff hours through automation with Ansible Automation Platform. These efficiencies have freed employees to focus on more interesting and valuable citizen-focused tasks, which in turn helps improve job satisfaction.

The automation team worked with Denver Community Media, for example, to automate the studio reservation process. If a citizen wants to record a podcast, tape a film for YouTube, or broadcast a show on Channel 8 in Denver, they can now make use of a fully equipped studio. "Scheduling studio use took up to 3 days previously, and required an employee to check availability in one app then reply manually to the applicant via another," said Holly Troy, Senior Automation Architect, City and County of Denver. "Now, it's automated with Ansible Automation Platform, with no manual intervention required, and the citizen gets an almost immediate response."

Troy's team has also freed up every Friday afternoon for the Community Planning and Building Department by automating the completion and creation of PDF documents, which previously took the entire team 4 hours each week to deliver manually.

Improved security while reducing team workload

The City's automation team works closely with IT security, having written several Ansible playbooks that automate security processes. For example, the team receives regular emails from CrowdStrike warning if a user password is on a known compromised list, which Ansible Automation Platform uses to automatically force the user to change their password.

"The password reset automation enhances security while resulting in a huge time saving for the information security team," said Troy. "We've also just had approval from the team to use Ansible Automation Platform to automatically integrate criminal justice information for the Denver Police Department. Using Ansible Automation Platform for this integration means we can avoid investing in an additional system and maintain data integrity within our ecosystem."

Supported more responsive community services

The City's automation drive is also enabling better citizen experiences and helping it to achieve its SLAs. These improvements potentially benefit hundreds of thousands of residents.

Denver Agency for Human Rights and Community Partnership, for instance, holds a Snow Angel program every year, whereby residents can request assistance with shoveling snow from their sidewalk. "Volunteers sign up to help out, but previously assignments were managed via an unwieldy spreadsheet, and often multiple people would turn up to the same location, while other requests went unheeded," said Troy. "Now, we automatically connect volunteers with requests, so everyone gets the help they need."

Allowing computers to be transactional so humans can be transformative

By automating processes across government departments, the City and Council of Denver can achieve its goals within budget. "With Ansible Automation Platform, we've seen time and financial savings equivalent to $7,500 a day, while improving security and enabling the delivery of higher-quality services to residents," said Pfaff.

The automation team is continuously applying its capabilities to new use cases. Among those next on its list is the automation of server builds, which will reduce human error and ensure greater consistency, as well as increasing IT efficiency. "Within Ansible Automation Platform it's easy to reuse code, which means we don't have to duplicate effort and can develop faster," said Troy. "Our automation mantra is to let computers be transactional so humans can be transformative."

About City and County of Denver

Denver, the capital of Colorado, is a consolidated city and county. It serves as the financial, transportation, and distribution center of the Rocky Mountain region. Denver was officially formed on November 7, 1861. A non-partisan elected mayor, auditor, clerk and recorder, and 13-member city council govern Denver.

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 develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted adviser to the Fortune 500, Red Hat provides award-winning support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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