Achieving the mission:
State and local public safety

Make better decisions and increase situational awareness with Red Hat

Public safety agency challenges

Public safety agencies face urgent challenges, including:

- **Legacy technology that does not scale.** Existing infrastructure and applications cannot accommodate the influx of data from new sources like video surveillance cameras and Internet of Things (IoT) sensors. Legacy applications tend to fail when transaction volume spikes—as it does when residents of fire- or flood-stricken areas flock to government websites looking for evacuation information.

- **Rising citizen and worker expectations.** Citizens expect interactions with the government—such as reporting a fire or paying a parking ticket—to be as simple as hailing a ride. First responders expect modern tools that help them do their jobs well and stay safe, such as real-time incident notifications and GPS.

- **Resource constraints.** While expectations are growing, budgets are not. In addition, long-time IT employees are retiring, and their potential replacements are looking for employers with modern IT tools and processes.

- **Faster project timelines.** To be responsive to new agency and citizen needs, software development timelines need to shrink from years or months to weeks or days.

IT trends in public safety

Leading public safety agencies are revamping IT infrastructure, application architecture, and processes to better protect people and property. Examples include:

- **Smart cities.** IoT data from cameras and sensors helps to increase situational awareness. Smart city initiatives require a data platform that can integrate various internal and external data sources and scale to store and analyze big data.

- **Application modernization.** Adapting old-style public safety applications for new requirements typically takes months or years. By refactoring applications to make them cloud-native, public safety agencies can add new features and integrate new data sources in days or weeks.

- **Scaling for disaster-related communications.** Extreme weather events (e.g., hurricanes, snow storms) underscore the need for reliable communications with residents. Communications infrastructure and applications need to withstand an onslaught of simultaneous hits from people seeking information.

Why Red Hat?

- **Increased security:** Our solutions meet stringent federal, state, and local security requirements.

- **Reduced costs:** Our subscriptions can cost less than proprietary software licenses and support contracts.

- **Partner ecosystem:** You can work with our extensive network.

- **Cultural transformation:** Culture is as important as technology to get the most value from open source.

Red Hat solutions for state and local government

- **Red Hat Integration:**
  Red Hat Runtimes, Red Hat 3scale API Management, Red Hat Fuse, and Red Hat AMQ

- **Enterprise automation:**
  Red Hat Ansible® Automation Platform and Red Hat Process Automation Manager

- **Cloud-native development:**
  Red Hat OpenShift, the enterprise-ready Kubernetes container platform

Red Hat solutions for state and local government

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Solutions: Red Hat Integration, Red Hat OpenShift, and Red Hat Process Automation Manager

Public safety agencies can build a hub for better, lower-cost services with Red Hat® Integration, a comprehensive set of technologies to connect law-enforcement databases, applications, and external data sources. Red Hat Integration helps agencies avoid vendor lock-in because it is built on open source software. You can deploy it on-premise or in a public cloud—on bare metal, on virtual machines, or in containers—and switch to another cloud whenever it makes sense.

Red Hat OpenShift® Container Platform helps agencies scale to accommodate more data (e.g., IoT) and more transaction volume (e.g., resident communications during disasters). Applications built on OpenShift Container Platform can be deployed on any cloud—and can be moved as needs change.

Red Hat Process Automation Manager provides the foundation for initiatives from congestion pricing to preventive maintenance, allowing agencies to develop cloud-based applications to automate business decisions and processes.

Red Hat in action: Local government Services Department

The large fire on the west coast that started a day earlier continued burning across mountains and freeways. Anxious residents bombarded the local government service department’s website, looking for information and evacuation instructions. Just months earlier, the volume likely would have taken down the website. Fortunately, the Services Department was conducting a proof of concept using Red Hat OpenShift Container Platform to host their website. Over the next couple of days, OpenShift scaled to accommodate an unprecedented deluge of website visits.

12 Hours after the fire started
Website volume spiked to 250% of normal volume as residents sought information on evacuation centers, animal shelters, and where to find displaced people. The ISD’s OpenShift team monitored CPU and memory load, confirming that the user experience remained good.

13 Hours after the fire started
During a television appearance, the local county sheriff advised residents to visit the county’s website for updates on the fire. The recommendation was amplified on Twitter. Five minutes later, website activity jumped to 450% of normal, and it continued climbing through the evening. The OpenShift team proactively increased CPU and memory resources.

14 Hours after the fire started
Most Service Department team members had left the office to take care of their families and homes. Working remotely, the OpenShift team logged in to double the CPU and memory resources allocated to the web application. Over the weekend, the team continued to remotely monitor web application performance, allocating more resources as needed.

Public safety IT: A new look

Cloud adoption: The mission is keeping people and property safe—not troubleshooting IT failures. Major public clouds now provide security and performance as good as or better than private datacenters. And moving development and application hosting to the cloud helps to accelerate innovation and control costs.

Consolidation: Public safety IT teams are taking a hard look at their application portfolios, seeking opportunities to consolidate to reduce server, application, and licensing costs.

Automation: Automating routine tasks like virtual local area network (VLAN) management and server patching helps government departments attract and retain talented staff. Automation frees staff members to focus on the activities that attracted them to public service.

Cost cutting: Cloud migration, consolidation, and automation are helping government IT teams deliver more and better services—for the same or lower costs.

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Cost cutting: Cloud migration, consolidation, and automation are helping government IT teams deliver more and better services—for the same or lower costs.
Outcome
For the duration of the fire, the local fire department was able to disseminate critical safety information to residents despite unprecedented communications volume.

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.