

# [Making Agencies Productive and Responsive with Agile Integration](#)

Partner Content

How agencies can implement and benefit from agile integration

Wed, 09/05/2018 - 11:23



Leaders of one of the world's largest transportation authorities trusted Red Hat to apply its agile integration enterprise platform approach, to make their business processes more effective and rails safer and more efficient, for their more than 15 million riders.

A complex railway is only one example of the many government challenges Red Hat makes simpler, with its secure agile integration approach. Executive leaders across federal agencies face a host of new concerns from modernizing legacy systems, to securing a quickly growing network of digital platforms. These leaders want new solutions.

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In the drive to be more cost effective and responsive, agencies of every size are moving to new platforms and software delivery models, adopting cloud based platforms and agile software delivery processes. The goal is to respond quickly to evolving business demands while embracing highly innovative emerging technology that is production proven and highly stable for mission critical applications.

But as applications are broken into smaller, discrete services, enterprise integration becomes more complicated, especially — the task of integrating disparate applications using services and a common data model across the enterprise. A better way to address these challenges is to integrate applications and systems using agile integration strategies.

In some instances, agencies attempted to modernize applications and optimize business process using antiquated technology and software development processes. The agency recognized connecting field workers using mobile applications with backend systems using legacy technology is highly inefficient, and in many cases not possible. Further, traditional software delivery processes using legacy technology prevent technology teams from efficiently adapting to ever-changing business needs or easily integrating information from disparate applications.

The transit authority embraced a new agile software delivery methodology, and is succeeding in accelerating digital transformation in the asset management program operations using modern digital platforms to securely connect backend systems and provide data as a service to mobile field workers.

## **Securing Railways**

Pen and paper no longer made sense for tracking maintenance for one of the world's most complex rail systems. The transportation authority asked Red Hat's team to replace its clipboards with mobile platforms to allow inspectors to instantly report safety issues and ensure consistent inspections. Agile integration connects these mobile platforms to provide this vital information throughout the system connecting hundreds of inspectors and managers.

Red Hat used this approach to allow the transportation authority to take a holistic approach to modernize its asset management system and allow the inspector and support staff to transition into the digital age. Not applying a holistic approach will result in a siloed approach that creates security vulnerabilities. Application programming interface management allows the transportation authority to establish security across the system.

## Implementing Agile Integration

Agile integration leverages agile methods and flexible microservice architectures so applications and data can be integrated and adapted quicker across multiple systems and services. This method supports more rapid delivery of services and mission objectives. Agile integration uses modern platforms, processes and technologies suited for fast-paced and adaptive solutions, making integration a part of the application development process.

Without the process in place, complex systems like the transport authority are at risk. Agile integration offers opportunities to federal, state and municipal organizations to speed up the delivery of services and allow communication across previously siloed platforms.

There are three keys for successfully implementing agile integration:

- **Scale with demand using containers** — Applications often must quickly scale to support millions of transactions while maintaining continuous update and development cycles. Agile integration using container technologies enables this. Containers provide the means to create lightweight yet fully tested and validated units of deployment that can scale independently on demand. Containers permit consistent version management and scalability of the building blocks of a system.

- **Connecting with and reusing APIs** — As endpoints and interfaces multiply, point-to-point integration is not sustainable. A complex rail system is a perfect example as it requires a simplified system to succeed. APIs are becoming the accepted means for connecting agency assets to maximize their value. By reducing the complexity of integration and accelerating the creation of applications, APIs can make agencies more nimble and efficient, extending services and capabilities.
- **Distributed integration** — As applications become more user centric and user interfaces become more diverse and distributed, a lightweight, flexible integration platform for rapid integration across enterprise systems and services, on-premise or in the cloud is needed. This solution allows developers to quickly create lightweight API-based integration services, deploy them where required and scale them as needed.

## Results

Distributed integration, containers and APIs help make government IT applications more agile, raising the level of abstraction at which teams can work together. Teams no longer code applications from scratch and instead assemble applications using a distributed set of integrations, placed wherever they are needed. Software development teams can rapidly respond to changing business needs. Agile integration enables agencies to reach more citizens using new digital technologies, such as mobile, without writing new integration code. Microservices are designed for reuse by web applications, mobile applications and emerging trends, such as the internet of things. These capabilities help agencies transform to a modern, agile integration service delivery model. Agile software delivery methodology coupled with enterprise digital platforms result in agencies like the transport authority providing a safer, more efficient systems to their customers — in this case, more than 15 million riders.

## About Red Hat

Red Hat is a leading provider of open source software solutions, delivering reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies, as well as award-winning support, training, and consulting services. Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare government and businesses for the future of IT.

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