



CONTEGIX[®]

The Ultimate Guide to Implementing DevOps in the Public Sector



Platinum
Solution Partner
US GOVERNMENT

contegix.com 877.289.0395 sales@contegix.com

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DevOps is rapidly expanding in the public sector as government agencies realize how agile technologies can reimagine software development speed and efficiency. But in the highly regulated public sector, where security and compliance are of the utmost importance, integrating new methodologies—and also technologies—can be challenging. This guide will explore how federal agencies can reap the benefits of DevOps using Atlassian solutions, with help from an Atlassian Government Verified Provider.

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Why DevOps?

Building fast, reliable, secure and accessible websites and online services is a top priority for the public sector. While agencies have been shifting more resident services online for years, the pandemic pushed digital experiences to the top of the project list for government agencies and their development teams.

As public sector developers are now asked to deliver more robust online services, DevOps is gaining traction in the federal market as government agencies realize how agile methodologies and technologies can bring efficiency and improve mission success. But in the highly regulated public sector, where security and compliance are of the utmost importance, integrating any new technology can be challenging. What's more, bringing together existing ITSM infrastructure with DevOps tools can be a difficult process for any organization.



However, government agencies still stand to gain new development capabilities and efficiencies from DevOps technologies—and can realize all of those benefits with the help of Atlassian's solutions. [Atlassian's suite of government products](#) provides everything the public sector needs to connect, accelerate and scale new digital products and development workflows at even the largest and most complex government agencies. In fact, from the U.S. Department of Defense to NASA, some of the most innovative and important federal agencies are already powering agile development using Atlassian solutions.

By partnering with an [Atlassian Government Verified Partner](#), federal agencies can more quickly, affordably and successfully implement these powerful tools, while also enlisting a trusted and experienced partner to ensure adherence to security and compliance regulations and seamlessly integrate with existing ITSM infrastructure.



Why DevOps for the Public Sector?

In the post-pandemic world, citizens have increasingly high expectations for fast, convenient and personalized digital services. According to digital identity provider Ekata, 92% of people today demand a fast, frictionless online experience that is also secure—and expect online services from the government to resemble what they receive from the private sector.

However, many government agencies do not have the same development resources as their counterparts in the private sector. These organizations don't have hundreds of developers who can deliver new code to production thousands of times per day. In addition, many agencies are saddled with legacy tech debt, lagging far behind when it comes to modern development techniques and tools, and stuck using outdated development practices such as waterfall releases. As a result, despite the best efforts by government agencies, satisfaction with federal services [has dipped to a five-year low](#).

With more government agencies feeling the urgent need to build new and improved processes for delivering software platforms, systems and apps—DevOps has emerged as a priority for public sector development and IT teams. The goal of DevOps is to enable development teams to work seamlessly with IT teams to deliver more frequent or continuous updates to software.

An essential ingredient in DevOps is the use of continuous integration and continuous delivery, also referred to as the CI/CD pipeline. It allows developers to focus more on the user needs of the product, instead of tedious technical details, and also makes it much easier for development teams to collaborate on a project at the same time.





Why DevOps for the Public Sector?

DevOps processes within a CI/CD Pipeline

1. **Design** – Developers gather information, perform analysis and create the scope of a new project.
2. **Build** – Software design is translated into code, and these new code changes to applications are compiled to prepare for testing.
3. **Test** – New code is tested to prevent software bugs from reaching end users (these processes can be automated).
4. **Release** – Approved code is sent to staging environments to prepare for final release.
5. **Deploy** – The code is deployed to a production environment for end-users, either manually or automatically.
6. **Validation and Compliance** – IT and operations teams ensure the release is stable, secure and meets quality assurance.
7. **Maintenance** – Address any issues that need to be fixed or enhancements that need to be made.

The ability to leverage software automation and workflow integration tools is key for the public sector to enable DevOps practices for faster, more efficient and more effective software development. However, establishing these practices comes with major roadblocks due to the specific technical resources that government agencies need to evolve their development processes from the current state to the ideal state. For these reasons, and in addition to other constraints—such as pricing expectations and budgets or long and onerous tool acquisition processes (be it for financial, security or regulatory reasons)—government agencies have been slow to adopt DevOps.

But as the need for DevOps and agile methodologies become more urgent, government developers and IT teams stand to benefit from agile-enabling technologies. From breaking down long-standing silos for collaboration to automating critical processes in the software development pipeline along the way, Atlassian solutions can help developers and IT teams adopt agile practices and create undeniable return-on-investment (ROI) for their agencies.



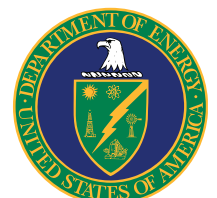
How Atlassian Solutions Can Help Overcome Hurdles to DevOps Adoption

While DevOps is poised to help the public sector overcome many of the new challenges they face (in particular, hurdles that older software development models can't, such as faster release timings)—there are several significant obstacles hindering widespread adoption.

Government environments add a layer of complexity to DevOps initiatives due to their unique security concerns and legacy data systems. From [FedRAMP](#) or other security/compliance regulations, to specific requirements around centralization and task management, the public sector has an extra step (or several extra steps) to consider when looking to adopt new digital processes or tools.



Adhering to these compliance requirements can make it difficult to add new technologies, unless they are specifically tooled to support these types of requirements at the application level. Then, governments must also contend with the tedious process of porting crucial applications from legacy data systems to the new technologies, which can be costly and time-consuming without the right expertise—especially for public sector organizations also facing staffing challenges, as internal resources are overburdened with mission-critical work.





How Atlassian Solutions Can Help Overcome Hurdles to DevOps Adoption

To overcome these unique hurdles and adopt DevOps practices, the public sector requires purpose-built tools and experienced partners who understand their exact needs.

The Atlassian ecosystem provides an open framework where teams can use the tools that are best for their specific challenges—while also maintaining a single source of truth for tracking work, collaboration between teams, and surfacing critical information for project management and process improvement. Jira and the Atlassian stack are a good choice for these projects because they provide an open DevOps toolchain, meaning that they can be customized and integrated with a wide variety of tools used by development and IT teams.

In DevOps initiatives, Jira serves as the single source of truth for all teams to view the progress of work. Integrations with Confluence and Slack provide the opportunity to share knowledge and communicate seamlessly with the Atlassian tools. These tools integrate with existing tools or can stand apart from them depending on the needs of the team. This reduces the time to re-tool, and using Jira and other Atlassian tools to maintain a source of truth is why this approach can be successful.

In addition, Atlassian tools are equipped to deliver specialized, secure and compliant environments to public sector DevOps. Federal agencies can have peace of mind with Atlassian tools, knowing their deployments and processes are compliant with government regulations and security standards, such as FedRAMP.





The Value an Atlassian Verified Government Partner Can Provide

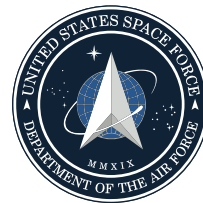
Understanding the technologies needed to adopt DevOps in the public sector is only half the battle. Government agencies must also understand how to introduce and build these tools into their workflows to reap the maximum potential DevOps can provide at their organization. In order to achieve this, these agencies should invest in an Atlassian partner with experience and expertise.



Atlassian Verified Government Partners can be invaluable to delivering successful public sector DevOps adoptions. From consultations on best practices to alleviating staffing challenges, optimizing Atlassian tools and workflows, and guaranteeing security and compliance, an Atlassian Verified Government Partner like Contegix can ensure a DevOps practice is seamlessly integrated and built to be successful for the long haul. In addition, an expert hosting provider can help government IT teams make the most of their finite budgets to establish a DevOps operation that both delivers on software releases, and keeps costs low to deliver maximum return on investment.



Schedule
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The Value an Atlassian Verified Government Partner Can Provide

Here are some ways that Contegix has become a trusted provider for delivering successful DevOps adoptions for some of the largest and most innovative government agencies:

Consultation

Contegix can help government dev and IT teams drill down the specific elements of the dev process—and consult them on the ideal recommended processes and tools needed to achieve their goals. Contegix consultants are trained in agile methods and can coach teams on implementing the DevOps best practices and tech tools they desire, breaking down departmental silos to enable iterative, agency-wide feedback and collaboration.

Reducing IT Burden

Agile software management and Atlassian tool expertise can be a challenging role to fill. Contegix alleviates these issues and brings the experience, Atlassian know-how, and bandwidth to become a trusted partner in even the most challenging of DevOps evolutions. This allows IT teams to focus on more critical and strategic work, rather than spending time maintaining workflows and making sure tools are working properly. In addition, Contegix support provides 24/7 IT support ticketing to improve response times and ensure positive outcomes.

Security, Compliance and ITSM Compatibility

ITSM technologies and methodologies can become a barrier to DevOps initiatives for a variety of reasons, including: the difficulty of migrating to new tools, existing tools being asked to perform roles beyond their original scope or legacy systems that have become obsolete yet are still in service. An Atlassian hosting partner with deep experience in ITSM can help introduce an agile framework while still maintaining ITSM best practices. Contegix can also host any tool in a FedRAMP environment.



Reaping All the Benefits of DevOps

For the public sector, DevOps has emerged as an essential practice to modernize development for faster, more efficient and more cost-effective software releases. Thus, adopting tools to enable DevOps is imperative to meeting the expectations for more reliable and secure government websites and online services.

Contegix helps public sector organizations design, implement, manage, and grow their DevOps toolsets. Along with DevOps services, Contegix can also help government agencies transform their IT operations and tools, leading to faster release cycles, higher-quality releases, cost-efficiency and other benefits associated with modern software development practices, including DevOps approaches.

[Learn more](#) about how the public sector can take advantage of an Atlassian Verified Government Partner like Contegix to successfully implement DevOps tools and practices.

Visit contegix.com

Call 877.289.0395

E-mail sales@contegix.com

