

# Unleashing Atlassian Data Center on AWS

4 Must-Read Considerations  
for Success

# Introduction



For Enterprise users, Atlassian's Data Center offering provides unparalleled performance and flexibility, coupled with high availability so large teams can be as productive and efficient as possible. Despite the desire of many companies to take advantage of the cloud, the only realistic option to leverage the full power of Data Center has been limited to a robust on-premise or hosted solution - until now.

Organizations can now deploy Atlassian Data Center on AWS, giving you the best of both worlds. You get the full functionality of Atlassian's Data Center and the power, ease, and flexibility of the AWS Cloud - benefits you won't find anywhere else.

In this eBook, we'll review the **4 major considerations for success** when hosting Atlassian Data Center on AWS and how to accelerate your adoption today. In detail, we'll address:

- \* How to enable key Data Center features on AWS
- \* Migration best practices
- \* Split hosting scenarios
- \* How to achieve security & compliance on AWS

# 1. Enabling Atlassian Data Center Features on AWS

When coupled with AWS, Atlassian Data Center packs a punch in terms of features, capabilities, and benefits. Below, we've listed the four core benefits of hosting Atlassian on AWS and how your organization can take advantage of them.

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## Instant Scalability

In Enterprise environments, scalability (the ability to scale up or down as resources and demands grow and shrink) is more important than ever. The increased number of applications used by an interconnected, modern business environment requires reactive, hands-off, real-time scaling to meet demand.

By leveraging AWS' built-in tools and metrics, Atlassian Data Center is able to horizontally scale your environment to meet an increase in demand based on a wide range of criteria. And when that high tide recedes, the same AWS tools will scale down to preserve performance while instantly reducing cost and operational overhead. Predefined limits ensure that you never use more resources than intended, and that service never drops below your expected level.

## Performance at Scale

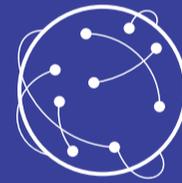
A core feature of Data Center is the ability to perform at scale. As your environment scales horizontally, Data Center clusters increase capacity for concurrent users, boost application throughput, and can even be separated by functionality.

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Do you have heavy API users? Divert their traffic to a specific node and spare your users any performance pains.

Do you want to keep business units separate? No problem! By decentralizing and replicating the data stored and sharing information continuously through back-channel communication paths, Data Center is able to maintain performance without adversely affecting existing users and tasks as more nodes are added to the environment.

## High Availability (HA)



High Availability (HA) is an important requirement for many Enterprise systems, especially in this 24/7 world. Data Center, through the same mechanism that keeps all nodes in sync, provides specific levels of availability and acceptable response times.

If a node (or nodes) suffer performance problems, Data Center and AWS tools like Active-Active clustering, distributed

load, CloudWatch, Route 53 DNS, and Auto Scaling Groups work in tandem to either divert traffic from the affected node and onto a responsive one or even spin up a new node. This is all done automatically in the background with little to no disruption of active user sessions.

In most cases, people won't even realize anything is happening.

## Disaster Recovery (DR)

A key part of any business continuity plan, Disaster Recovery (DR) defines the processes that must be followed in the event of a disaster to ensure a business can recover and keep operating. Traditional disaster recovery methods rely on “declaring a disaster” in order to use the backup infrastructure during events such as hurricanes, floods or fires.

However practically speaking, most business-affecting application availability interruptions are due to more mundane and everyday occurrences. Although organizations need to plan for the worst, they also must plan for the more likely—prolonged power interruption, fiber cuts, server or storage hardware failures as well as synthetic outages like denial of service attacks and security breaches.

Traditionally, companies with physical environments would duplicate their entire infrastructure to ensure continuity in any scenario: servers, storage, networking, and even workstations. This meant DR costs were large and ever-present with organizations

paying for infrastructure to lay dormant.

With Amazon Web Services (AWS), your company can scale up its infrastructure on an as-needed, pay-as-you-go basis. You get access to the same highly secure, reliable, and fast infrastructure that Amazon uses to run its global network of websites. AWS also gives you the flexibility to quickly change and optimize resources during a DR event, which can result in significant cost savings.

As companies move to cloud-based computing, more scenarios for dealing with service interruptions and disasters become possible compared to traditional architectures.

With Amazon Disaster Recovery a range of DR options are possible, from a simple Pilot Light to a full, multi-site environment tailored to both cost and continuity of business. Moreover, using Infrastructure as Code (IaC) / automation, you can perform DR rehearsal testing efficiently and frequently.



## 2. Migration Best Practices

**To ensure the best possible result from your migration, there are a few scenarios you should consider:**

### Atlassian Cloud

Be aware of your licensing model. Cloud licenses are separate from Data Center licenses, so you may need to generate a new license.

With the introduction of Data Center, some changes have been made to add-ons. Traditional Server or Cloud installs give you only one copy of each add-on. With Data Center, you can have several copies running across your nodes, and with that comes a need to synchronize add-on data. To this end, add-ons have to be certified as supported on Data Center. You can check your add-on compatibility on the Atlassian Marketplace for 'Data Center-compliant add-ons.'

You can reuse your license for any add-ons, but the Data Center support is important.

### On-Premise/ Hosting Provider

If possible, you should upgrade to the latest Server version offered for your Atlassian product. This will ensure a seamless transition to Data Center, as it runs the latest Server versions.

Take some time to catalog your existing Atlassian environment and its connections, including other Atlassian products, authentication providers such as Active Directory, and integration with third-party products.

Spring cleaning! Indulge in a little house cleaning exercise: sweep old or unused projects, spaces, or repositories from your environment, scrub inactive users from local and centralized sources, and wash your system of old logs and outdated attachments. This will reduce your system and data footprint and significantly ease migration. Remember, if you don't use it, don't migrate it!



## 3. Supporting Split-Hosting Scenarios

**Split-hosting is when a company hosts its IT assets and infrastructure in more than one location or with more than one service provider and it's becoming increasingly common. Some resources may need to be kept in house for regulatory, compliance, or operational reasons, while other systems benefit more from being hosted on the cloud or closer to a customer's geographical region.**

### Atlassian Cloud & AWS

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This is a routine transition model. In this scenario, one (or several) existing Atlassian Cloud environment(s) is (or are) connected to an Atlassian Data Center environment hosted on AWS. This allows continuity of existing Atlassian products by linking them to Data Center, while also keeping a path for migration and DR. Over time, projects, space, repositories, and artifacts are migrated to Data Center based on business needs and levels of readiness.

### On-Premise/Hosting Provider & AWS

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This is the most commonplace split-hosting scenario. Do you have a bunch of assets in-house and want to move some to AWS while preserving the majority of your infrastructure? With Virtual-

Private Gateways (VPG), you can give AWS access to your local network by attaching a VPG to the Virtual Private Cloud (VPC), creating a custom route table and security groups. This allows your AWS assets to act as an extension of your environment while preserving the security features of AWS.

Multiple data centers? No problem! You can also scale easily to encompass multiple in-house networks connecting to the same VPC within AWS.

Each VPG connection also supports redundancy in the form of multiple VPN tunnels. This means you will be assured of continued application and network availability.

### Atlassian Cloud/On-Premise/Hosting Provider & AWS

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Although it isn't as popular as the first two, this scenario is still prevalent. Have you already tried outsourcing some of your load to the Atlassian Cloud while preserving in-house assets, and now you want to throw AWS and Data Center into the mix? This is brave but not foolhardy, as it is very doable with the right preparation and expertise.

## 4. Leveraging Security & Compliance on AWS



AWS is obsessed with security. Its infrastructure incorporates industry-leading protection mechanisms, which have been created to safeguard privacy and secure data across AWS data centers. AWS views security as a shared responsibility between AWS and the customer. AWS is responsible for the security OF the cloud, while customers are responsible for security IN the cloud.

**When considering a migration to Atlassian Data Center on AWS, you may want to consider aligning your current environment with AWS by comparing:**

## Infrastructure Security

AWS' security features built-in firewalls called Security Groups. These provide finer-grained access to resources in an easy-to-read format and can be reused amongst assets where necessary. Traditional on-premises and physical architectures use firewalls, which can be quite large and unwieldy. Security groups can abstract this while still retaining a white list of specific, allowed connections and can reference other security groups easily.

## Data Encryption

Do you require data to be encrypted in-transit or at-rest? AWS provides both, including cryptographic, hardware-based key storage and flexible management.

## Inventory & Asset Tracking

AWS offers out-of-the-box features to tag your environment. Virtually any AWS device can be assigned custom tags to track usage, control deployments and patches, and isolate actions to specific environments, applications, or server types.

## Monitoring & Logging

AWS provides streamlined compliance reports, log aggregation, alert notifications, and short- and long-term storage. Logs can be retained for any period and automatically archived to deep storage after a specified time.

## Identity & Access Control

You can define, manage, and enforce user access policies using tools like federated single sign-on (SSO) and multi-factor authentication. Data Center on AWS will be capable of interfacing with Active Directory, LDAP, and other identity systems to enable SSO.

## Compliance & Certifications

Automatically benefit from AWS' certifications and frameworks. AWS is a PCI-DSS Level 1 Service Provider and SOC 1, 2, and 3 compliant. It also has a suite HIPAA-eligible services, facilitating rapid HIPAA compliance and visibility. Check [here](#) for the full list of compliance programs under AWS.

## Conclusion

**Deploying Atlassian Data Center on AWS provides organizations with uncompromised scalability, performance, availability, security, functionality, and more – letting you grow with the confidence that your environment will be ready to keep pace with your success.**

## About Us

iTMethods will revolutionize your Atlassian tools on the Cloud. Our Managed DevOps SaaS Platform enables global enterprises to integrate, migrate, and modernize their multi-vendor, multi-cloud DevOps environments. The result is our worldwide clients can build better software, faster and more securely, to enhance their Digital Transformation.

Our Enterprise Cloud-native Platform features a catalog of 45+ tools including Atlassian, AWS, CloudBees Jenkins, GitHub, GitLab, Microsoft, Sonatype, JFrog, SonarQube, Tasktop & many more. Our single tenant platform supports secure multi-cloud hybrid connectivity with scalable offerings, including turnkey migrations, Administration as a Service, end user support, and comprehensive security/compliance management solutions. Backed by our 7x24 support and SLAs, we power mission-critical toolchains for some of the world's top Fortune 100 companies.

Engage us to learn how our Managed DevOps SaaS Platform will accelerate your DevOps and Cloud Transformation. Or visit us at [itmethods.com](https://itmethods.com)

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