ATLASSIAN

Developing a strategy for scale

Highlights of the Atlassian Data Center webinar

Data Center is Atlassian's self-managed, multi-node, enterprise edition. It was developed for large organizations with mission-critical use cases. Data Center's architecture provides high availability and is horizontally scalable. Organizations considering Data Center are encouraged to look at key indicators like number of users, performance, downtime, and administration.

Key Takeaways

Data Center is Atlassian's self-managed enterprise edition.

The adoption of Atlassian Server products often starts within a team and spreads across the organization. Eventually, individuals and teams are charged with managing these instances. At some point, administrators are faced with challenges such as, "How do I manage growth?" or "Our tools can't be down. They are critical to our business. Where do we go from here?"

To address these challenges Atlassian built Data Center, with five products in the family:

Jira Software, Confluence, Bitbucket, Jira Service Desk, and Crowd.

> " Data Center is the enterprise edition of our product line. It is intended for companies that want to self-manage their solutions.
>
> **PATRICK RICHARDSON**
> **Group Product Manager for Data Center**

Data Center's architecture provides high availability and scalability.

The primary architectural difference between a Server and Data Center environment is the number of nodes.

	Server Products	Data Center Products
# of nodes	Single node	Multi-node
Comment	If an application node fails, an app is unavailable to end users	For mission-critical use cases. If one node fails, all requests are automatically redirected to an active node, without end users noticing.

Key Components of Data Center Architecture

- **Load balancer.** When user requests enter the Data Center environment, they go to the load balancer, which distributes them to application nodes. If a node goes down, the load balancer detects it and redirects future requests to live nodes.

- **Application nodes.** The nodes comprise of an application cluster. All nodes in a cluster must be located in the same location, must run the same version of the application, and must be configured to use the same database and file system. Failure of one node results in no loss of availability, since requests are redirected to other nodes. The number of nodes in a cluster is determined by an organization's situation and needs. Two to four nodes are sufficient for most clusters.

- **Database.** The database must be on its own node, separate from application nodes. It needs at least 100MB of memory. The same databases can usually be used with Data Center as with a Server deployment. Supported databases include PostgreSQL, MySQL, Oracle, and MS SQLServer.

- **Shared file system.** This is also set up on its own node. The shared file system stores the same information as in the Server environment.

The primary advantage of this active-active clustering configuration is high availability. Downtime for any reason – including an incident, disaster, or human error – can cause productivity and revenue losses.

> " Load balancing is the most immediate gain from running your application in Data Center architecture.
>
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> **Group Product Manager for Data Center**

The other key reason enterprises upgrade to Data Center is horizontal scalability. As organizations grow, it is easy to add nodes to keep up with increasing demand and to support more concurrent users.

Data Center provides the ability to innovate at scale, grow fast, and maintain control.

The Value of Data Center

Innovate at scale
Team of teams work faster and smarter at scale

Grow fast with confidence
Tools and guidance to stay one step ahead of growth

Get the right level of control
That additional level of control your enterprise needs

- **Innovate at scale.** Data Center helps teams work faster and be more effective as they grow. Capabilities built into Data Center help teams collaborate at scale, dramatically improve performance, and experience fewer interruptions.

- **Grow fast with confidence.** Admins need the right tools and support to ensure performance, stability, scalability, and more. Atlassian equips admins with tools and guidance to sustain growth. One tool is project archiving, which results in decluttering and improves performance. In tests within Atlassian, the company archived about 50% of its projects, resulting in 11% faster loading of Jira boards and 25% faster JQL searches.

> " Maintaining performance as you scale is one of our top priorities . . . you need tools to support not only your current scale, but your future scale. The goal is to ensure performance, stability, and scalability.
>
> **PATRICK RICHARDSON**
> **Group Product Manager for Data Center**

- **Get the right level of control.** As organizations mature, demands around security, compliance, regulation, and other requirements grow more complex. It becomes more important and more difficult to monitor everything. Admins need better visibility and greater control – and Data Center helps provide it.

Data Center is built to meet the stringent IT demands of large organizations. Key benefits:

Data Center Benefit	Description
SAML 2.0	Atlassian provides the SAML integration app with Data Center products. It allows apps to be connected to an identity provider and provides single sign-on. This simplifies the login and ensures compliance by using an organization's existing identity provider for authentication.
Infrastructure choice	Data Center users can deploy on-premise or with IaaS vendors like AWS and Azure. Currently, 62% of Atlassian's self-managed customers deploy on virtual architecture. This allows scaling deployment elastically and provides managed services out of the box. Atlassian has templates to assist with deploying on AWS and Azure.
Disaster recovery	Data Center products can be configured to implement a disaster recovery strategy. This involves creating a standby system and implementing a data replication strategy. Atlassian has documentation on setting up a disaster recovery strategy for each product.
Verified ecosystem	Atlassian has a verified ecosystem for Data Center–approved apps. This includes a new app development and testing criteria program. A goal is to increase the reliability and performance of apps. Before an app can be approved, vendors must build and test their apps to meet a rigorous Data Center standard.

Key indicators to help organizations determine if Data Center is the right solution.

Admins might wonder, "Is Data Center right for my organization? When do organizations upgrade? Are there signs or indicators to look at?" Here's a table to help you determine if Data Center is the right solution and if now is the right time to migrate:

Key Indicators	Questions to Consider
Users	**How many users are accessing your Atlassian apps each day and is the number growing?** Jira Software, Confluence, and Bitbucket customers typically consider Data Center when at 500 to 1000 users. For Jira Service Desk, about 50% of Data Center customers update when reaching about 50 agents.
Performance	**As you scale, do you get the same performance?** If performance drops at key times, it may be time to look into Data Center.
Downtime	**Is downtime in your organization unacceptable?** Any outage that affects mission-critical applications merits consideration of Data Center.
Administration	**How are you trying to streamline your administrative processes?** It can be a headache to manage different instances of Atlassian solutions and to put duct tape on federation strategies that aren't working. If team members are spending too much time on simple admin tasks, it may be time to consider Data Center.

In addition to these indicators, Atlassian has developed a
Data Center Business Value Calculator to help organizations
discover the value and ROI of Data Center.

Atlassian has extensive resources and support.

- **Documentation** around the process, a migration checklist,
  installation instructions, and other details to plan a Data
  Center migration are available on the Atlassian website.

- **Atlassian Solution Partners** offer services to enable
  enterprises to get the most out of Atlassian tools, especially
  Data Center migrations.

" For customers looking to consolidate application instances
into a single Data Center deployment, a Solution Partner can
be a valuable resource

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Group Product Manager for Data Center

- **Technical account managers (TAMs)** are Atlassian's own
  professional services. A TAM is "an expert of experts."
  TAMs provide strategic guidance for customers interested
  in moving apps to Data Center. TAMs collaborate with
  customers to develop best practices for configuring,
  deploying, and running a Data Center app in a way that
  aligns with an organization's operations and long-term
  goals. End user capabilities.

> **"** TAMs will work with you to ensure you are getting the most from your Atlassian tools. Think of TAMs as a resource if you need extra assistance as you go through the Data Center migration process.
>
> **PATRICK RICHARDSON**
> **Group Product Manager for Data Center**

- **Premier Support** is 24/7 support during Data Center migration. Premier Support includes health check analyses to validate the readiness of a customer's environment. Support continues after migration.

" To learn more about Atlassian
Data Center, contact your Atlassian
Solution Partner today.