

Atlassian Cloud Weather Report

The current climate of IaaS, PaaS, and
SaaS with Atlassian tools

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REVISED SUMMER 2020



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Nothing in technology ever stands still, but right now a sea change is happening in enterprise software that's demanded a strategy from IT leaders everywhere. The way organisations deliver technology to their users is undergoing a massive shift from in-house and on-premise to cloud and as-a-service. It's a part of the larger trend moving from capital investment to operating investment. And it comes with tremendous opportunities, and important risks, that need to be understood.

Winds are shifting and knowledge is needed to navigate

Companies that run Jira, Confluence, and other Atlassian tools have some big decisions to make. The ability to shift resources away from providing software to internal teams, and toward business goals, is the enticing promise of cloud.

Yet the Atlassian Cloud applications come with a set of advantages and challenges that must be carefully considered. And alongside Atlassian's SaaS tools, powerful options for leveraging Atlassian as part of a platform and/or infrastructure as a service bring their own set of factors to the table.



"Cloud is no longer a differentiator, but rather a strategic requirement for long-term success."

Forrester Research
Benchmark Your Enterprise Cloud Adoption

What components of the Atlassian toolset comprise the software (SaaS), platform (PaaS), and infrastructure (IaaS) as-a-service models? And what risks and advantages of each model should be weighed in this shifting environment, in order to make sound decisions for the now, the next, and the future?

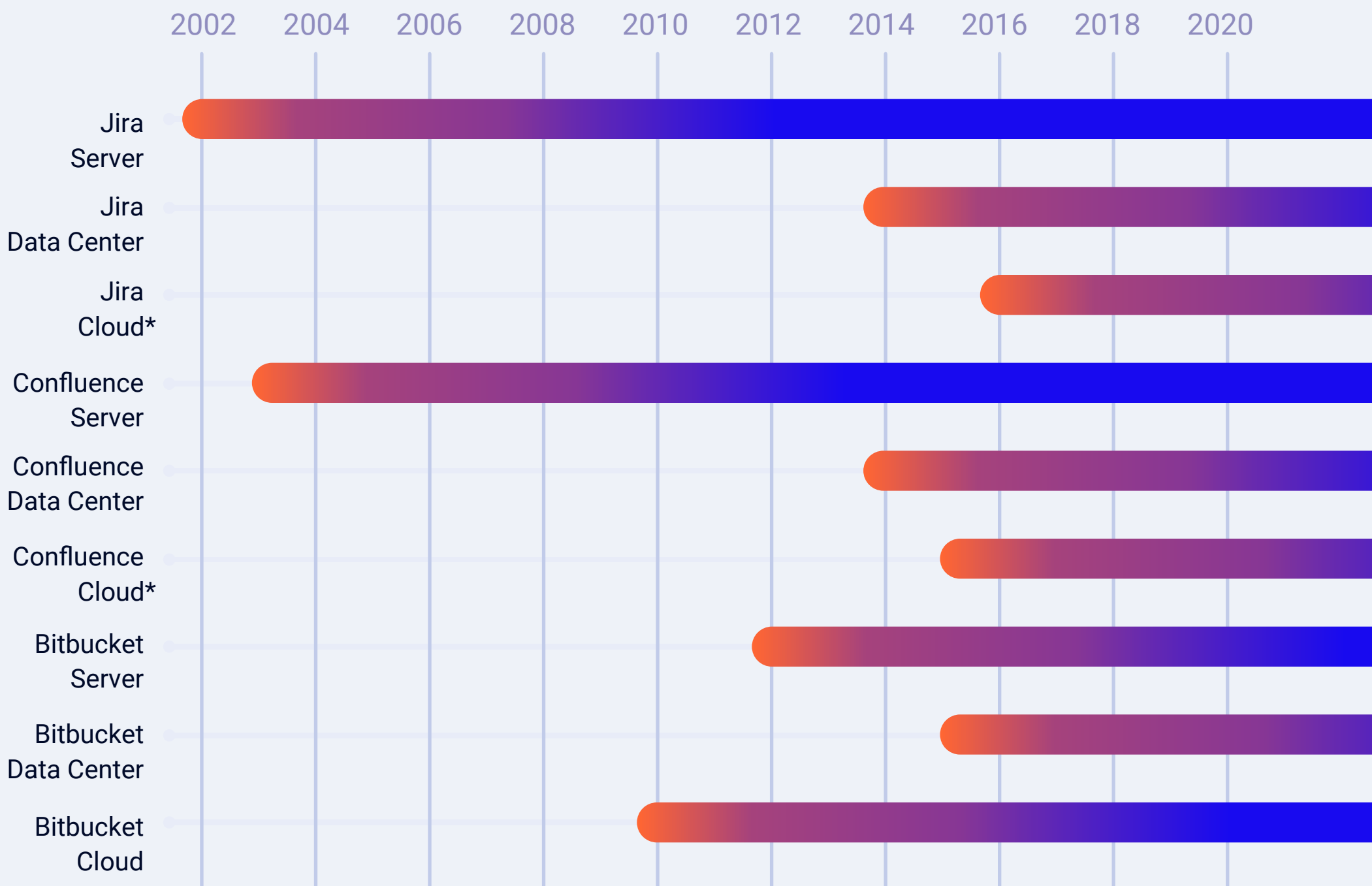
Welcome to the Atlassian Cloud Weather Report

Adaptavist is a leading global Solution Partner providing migration, management, operation, and support services for some of the world's biggest Atlassian installations. We work across every major deployment model, from highly regulated behind-the-firewall systems to globally distributed fast-changing cloud environments.

Assessing and advising on the strategic considerations of on-premise versus as-a-service models are part of what we do on a daily basis. This report is a snapshot of what we've learned through experience. Read on for a pragmatic overview of how to navigate these shifting winds, and make the most of the opportunity that a changing environment brings.

Atlassian tool timeline

To understand where we are, it's important to know where we've come from in terms of the maturity of the various Atlassian tool deployment models. Although cloud technology isn't new, the Atlassian applications built for it are still relatively young in their development lifecycles.



*'OnDemand' cloud hosting was introduced for existing Jira and Confluence applications in 2011.

Service models compared

There are three primary ways to leverage cloud technology in business software: IaaS, PaaS, and SaaS. Let's bring some clarity to how these apply to an enterprise-grade Atlassian tool environment.

Infrastructure as a Service (IaaS) limits internet based pay-as-you-go services to underlying IT infrastructure such as storage, networking, and virtualisation.

In the Atlassian context this is typically a Server or Data Center deployment on private cloud (Amazon Web Services/Microsoft Azure/Google Cloud) infrastructure. This can be set up, managed, and maintained by Solution Partners via a service like [Adaptavist Operate](#) or by in-house teams.

Platform as a Service (PaaS) comprises a platform of both hardware infrastructure and software tools made available over the internet as a service, while keeping management of applications and data in house.

An Atlassian PaaS is delivered by a Solution Partner managed service such as [Adaptavist Operate](#) and [Adaptavist Enterprise Cloud](#), typically including a packaged Server or Data Center private cloud deployment with a suite of back-end platform management services. Adaptavist also offers [Assist](#), which delivers Atlassian application administration as a service.

Software as a Service (SaaS) outsources the infrastructure and platform along with management of data and applications, which are delivered as a boxed solution over the internet.

While end-to-end Solution Partner managed services like [Adaptavist Operate](#) and [Enterprise Cloud](#) provide what in effect can be called SaaS, for the sake of clarity in this document we will limit the SaaS definition to only Atlassian-delivered tools such as [Jira Cloud](#), [Confluence Cloud](#), and [BitBucket Cloud](#). Due to the nature of how they're delivered, each of these tools has functionality that differs from their Server and Data Center brethren.

PaaS+ for enterprise

For organisations working at a scale that demands more control and flexibility than Atlassian Cloud tools offer, [Adaptavist Enterprise Cloud](#) delivers user experience, infrastructure, licensing, platform management, application admin, and support that's built for purpose. It's next-generation Atlassian tooling for teams innovating at scale.

Service models compared

	Application Configuration	Data	Application	Runtime Environment	Operating System	Compute	Storage	Networking
IaaS								
In-house managed	✓	✓	✓	✓	✓			
Vendor managed						✓	✓	✓
PaaS								
In-house managed	✓	✓	✓					
Vendor managed				✓	✓	✓	✓	✓
SaaS								
In-house managed	✓							
Vendor managed		✓	✓	✓	✓	✓	✓	✓

Service models compared *continued*

Use it for...

IaaS

- Developing proofs of concept
 - Starting up new teams and departments quickly
 - Scaling the toolset on tight timelines
 - Minimising capital investment in hardware
-

PaaS

- Delivering a highly scalable platform for fast-growing user bases
 - Maintaining powerful tool flexibility for technical teams
 - Meeting rapid growth demands on tooling with minimal capital investment
 - Managing applications and data to meet project requirements (regulations, security, etc)
-

SaaS

- Delivering instant ready-to-use software
- Providing on-demand software services for clients
- Simplifying BAU for individuals and small teams
- Serving needs of non-technical business users

Service models compared *continued*

Example scenarios

IaaS

Health care provider requiring tremendous computing power and storage capacity, and high connectivity performance: Shifting to IaaS allows the org to continue working with its current tools, delegate system operation and platform updates, and assist geographically-separated providers responding rapidly to critical situations

Real estate company experiencing dramatic growth in its digital properties: Running multiple data centres is deemed a drag on resources; outsourcing the infrastructure via IaaS reduces hosting costs while giving teams improved performance and boosting development productivity

PaaS

Trading firm whose applications store and maintain records of over a billion events daily: Maintenance, support, and updates of the systems have become an untenable strain on in-house teams; PaaS solves this while sustaining regulatory-compliant data ownership

Logistics technology business in hyper-growth: PaaS empowers their tech teams to collaborate and test prototypes quickly and cheaply. They achieve higher ROI from scaling a virtual platform rather than developing their own physical systems in-house

SaaS

Large university that has pivoted to rely on remote classes as a stop-gap: Confluence Cloud delivers a knowledge base for students and Zoom enables live one-to-many instruction sessions

Mid-size graphic design firm with distributed clients: Jira Cloud enables a project management platform to be spun up on-demand and shared over the web as client work ebbs and flows

Decision guide

When considering a move from on-premise and/or self-managed systems, the key benefits should be weighed against inherent risks. Below are some of the most important factors which we discuss with clients in helping them determine which changes are the right ones to make.

Reliability

Benefits

	IaaS	PaaS	SaaS
Resources spread across multiple servers/data centres mitigates individual hardware component or data centre failure	✓	✓	✓
Reliable service providers will have processes and expertise to protect against outages and return service quickly when problems occur	✓	✓	✓
More rigidly-standardised application functionality lessens risk of rogue customisations			✓

Risks

Service availability as a whole is impacted by outages on provider's infrastructure	✓	✓	✓
Application-specific outages lack in-house mitigation options			✓



Our advice: Carefully vet the vendor's reputation, recovery plan, uptime policies, and SLAs. Overlay these with any SLAs you have in place with your own customers wherever vendor-delivered services may impact them. Consider where your installations sit in a vendor's order of priorities should a worst case scenario occur. If choosing IaaS or PaaS, determine whether the vendor focus is Atlassian-specific or more general, and be sure it harmonises with your in-house capability.

Scalability

Benefits

Scaling operations up (or down) are simplified by having the choice to purchase more computing power or server space on demand

Add-on Marketplace apps have appropriate licence models for enterprise scale

Ability to scale user base up or down on per-seat licence model

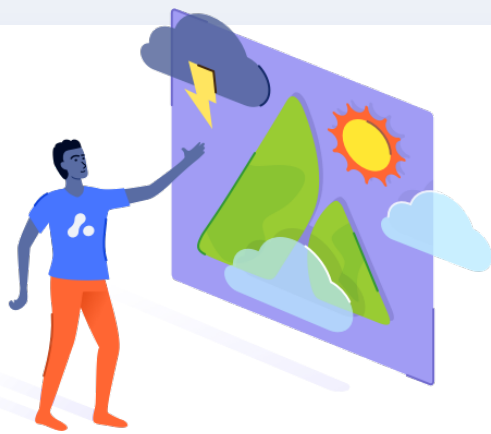
IaaS PaaS SaaS



Risks

Effect of scaling on performance of the infrastructure and platform needs to be managed by the vendor

Dependent on vendor to match underpinning infrastructure capability with actual usage demand



Our advice: It is essential to check the vendor's performance testing for scale and load on the infrastructure against current and future needs. Be sure that the licensing models also accommodate your plans and contain no surprises.

Admin control

Benefits

	IaaS	PaaS	SaaS
Infrastructure administration is outsourced to reduce resource cost and increase efficiency	✓	✓	✓
Ability to operate on-premise add-on apps and customisations in the cloud, giving access to a feature rich solution	✓	✓	
Platform administration is outsourced to reduce resource cost and increase efficiency		✓	✓
Security patches, updates, and some administration of applications are automatically delivered			✓
Customisations, scheme configuration, and day to day admin support is outsourced to reduce resource cost and increase efficiency	*	*	*

Risks

No direct control over administration of hardware infrastructure such as servers and storage	✓	✓	✓
No direct control over administration of platform components such as operating systems and middleware		✓	✓
Controls for administration of applications and data are dictated by service model constraints			✓
No control over update roll-outs that impact functionality			✓
Training and/or workarounds needed when automatic updates affect tool functionality for users			✓
On-premise add-on apps and customisations may not be possible or may have limited functionality			✓
Deployment of changes from Atlassian Cloud test to production environments not yet well supported			✓

Admin control *continued*



Our advice: Be sure that due diligence is taken to determine which level of administrative control is appropriate for the needs of the teams in your organisation, and weigh it against the demand on resources that administration requires.

***Adaptavist Assist** is a managed service that handles application administration for Atlassian Jira and Confluence, and is available across all deployment models.

Data Management

Benefits

- Infrastructure and databases are constantly backed up and maintained for high availability
- Measures are in place by vendors to ensure that the data is protected and encrypted both at rest and in transit
- Hosting based closer to your end users to improve connectivity over owned servers/data centres

IaaS PaaS SaaS

✓ ✓ ✓

✓ ✓ ✓

✓ ✓ ✓

Risks

- Dependence on vendor to guard against potential data loss
- Data storage may be located and relocated at the discretion of the service provider

✓ ✓ ✓

✓



Our advice

It is essential to ensure service providers have a reliable disaster recovery plan in place to minimise the damage in case of an incident.

Security

Benefits

Vendors typically meet stringent industry security standards such as such as BS ISO/IEC 27002 for their hardware and platform environments

Applications and data protected under the Atlassian Trust Management System (ATMS)

IaaS



PaaS



SaaS



Risks

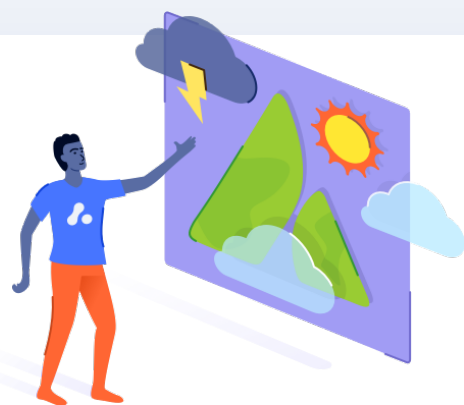
Dependence on vendor to protect multi-tenant storage assets against intrusion from other tenants (less likely when virtual machines are restricted)



Potential for data to be accidentally or deliberately leaked, causing reputational damage and/or regulatory fines



Applications and data are subject to Atlassian policies and practices



Our advice: Security risk is largely dependent on vendor practices, with an increased dependency as more services are employed. The level of investigation into reputation and practices of the provider should be commensurate with the risk involved.

Compliance

Benefits

Providers often have a team that works to cover emerging infrastructure compliance needs, such as industry-standard certifications

Application compliance addressed by the Atlassian Common Control Framework baseline

IaaS



PaaS



SaaS



Risks

Devolved accountability for security and integrity of customer data residing on a provider's cloud

Joint responsibility for maintaining compliance alongside the service provider

Atlassian practices dictate the approach to compliance requirements



Our advice: Compliance with legal requirements varies from industry to industry. You need to have confidence that the supplier will understand your requirements both now and in the future. It is essential that the level of security provided from the vendor is commensurate with the information being stored. Be sure to thoroughly investigate the reputation, standards, practices, and procedures your provider has in place to help you mitigate your risk.

Chart your course

As the options for delivering business software via both external cloud services and owned infrastructure and in-house teams continue to mature, new opportunities for organisations to leverage them will open up. New complexities and challenges to understand and overcome will be part of this picture too.

We'll issue revisions of this Cloud Weather Report document along the way. Knowledge is power as you chart your course.

Choose a destination that's fit for purpose

There is a lot of opportunity to be harnessed by making change now, to get where you want to be next, and lay the groundwork for the future. The Atlassian platform is an ideal choice in this context, with its continuously evolving toolset and industry-leading flexibility.

The question is which model is best to deliver it in light of your organisation's individual constraints and desired outcomes.

Infrastructure as a service, managed in house or via an Atlassian Solution Partner like [Adaptavist](#), takes advantage of the computing power and scaling abilities of cloud infrastructure. By keeping the management of applications, data, and the systems that run them in house, enterprises and other orgs needing maximum control and flexibility for their systems and processes are well served.

The biggest caveat with IaaS is that it presumes a commitment now and in the future to the in-house investments necessary to manage and run everything built on top of the infrastructure.

Platform as a service, managed by an Atlassian Solution Partner like [Adaptavist](#), builds on cloud infrastructure with a package of SLA-supported systems and Atlassian applications to deliver a highly-scalable tool platform to end users. The management of applications and data remains in house, resulting in a balance struck between a high degree of flexibility in how the tools are configured and used, and a minimal commitment of in-house resource to achieve an optimised system.

Options for adding application administration via [Adaptavist Assist](#), or employing a more complete service made to give a SaaS-like experience to enterprise users ([Adaptavist Enterprise Cloud](#)) are also available.

Well-rounded PaaS offerings deliver many of the benefits of SaaS, and the question often comes down to how much flexibility and control are needed versus what's available from the boxed SaaS solution.

Software as a service is delivered by Atlassian over the internet in the form of [Jira Cloud](#), [Confluence Cloud](#), [BitBucket Cloud](#), and other applications. It too is underpinned by cloud infrastructure, providing a specific set of app functionality to all users on top. Since Atlassian manages the data and the applications as well as the supporting systems and infrastructure, Atlassian SaaS requires the least amount of in-house resource to run and maintain.

Atlassian must tailor their Cloud application feature set and API access to balance the constraints of delivering to their entire user base. This necessarily limits some app functionality, administrative control, and customisation flexibility, which can be a particular challenge for larger orgs and enterprises.



Set sail with the wind at your back

The concept of outsourcing is nothing new in business, and in principle that's just what moving Atlassian software delivery to cloud service providers does. What *is* new are the options available to do it—both in the capability of the tools themselves and in the methods and mechanisms that underpin them.

A balance must be found between the outcomes desired once the destination is reached, a pragmatic view of what's available now and in the future to power the journey, and an honest assessment of the investment involved in getting there.

We hope this snapshot of the cloud climate for Atlassian tools is helpful as you navigate the waters. If you want talk about charting a course that will keep the wind at your back, [reach out to Adaptavist](#) anytime.

Learn more about cloud migration at adaptavist.com/migrations