



# The complete guide to Enterprise user management

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Everything there is to know about  
managing your Atlassian users at scale

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# Enterprise user management at a glance

Enterprise user management is the ability to manage and maintain user access to various resources implemented across the entire organization.

In today's broader IT landscape, user management solutions are well-established but varied in terms of involvement. At its most basic use, a user management solution satisfies essential security requirements of user authentication and authorization. At its most complex use, it centralizes oversight of user activity across the enterprise, covering anything from two-factor authentication to selective synchronization of directories to multi-domain single sign-on (SSO). Most companies have different needs when it comes to user management, whether it be because of size or complexity of the organization. However, it's safe to say that in the majority of scenarios, user management can be defined as a solution that enables admins to provision or remove user access based on need and role.

Organizations have more resources and applications at their disposal than ever before. With user bases that span function, region, and even domain, streamlined user management has never been more critical, especially to an enterprise organization. As we'll discuss in greater detail, there are several components that constitute an effective enterprise user management solution. For most large organizations, it's a matter of consolidating and meeting most of these needs within a central space. But how do you identify the right mix of capabilities that would make an enterprise user management solution a good fit for your organization? Well that's what we're here to help with.



# The big rocks of enterprise user management

The primary needs that every enterprise user management solution should address



## Security

The foundation of enterprise user management is built on the need for secure user identity authentication. Every organization's digital presence mandates rules and regulations to protect the private information of their people and systems, so you need a solution that not only satisfies these requirements, but goes above and beyond to ensure that information is protected.



## Availability

The more usage an application experiences, the more critical that application is for business objectives. Most enterprise user management solutions include identity authentication capabilities, and when your means of authentication is down, so is everything else.



## Visibility

With thousands of users, multiple subsidiaries, offices across the globe, or any other number of user management challenges, having centralized visibility into all of your users and their provisioned access is a necessity. Not only from a maintenance perspective, but from a cost-saving perspective too. It makes it far easier to present an accurate view of license consumption to ensure that your organization isn't overpaying for inactive users.



## Control

It's paramount that admins have both control and flexibility in their enterprise user management solution. Every organization has an intricate system of permissions that is constantly evolving, and the ability to govern varying levels of access and automate actions is table stakes when dealing with user management at scale.

# Atlassian user management



How to navigate user management options for your Atlassian products

There are several options for managing your Atlassian users, but these are mostly tailored for the needs of specific customers. For starters, there's the difference between hosting your Atlassian products on-premise vs. cloud. If you use our Server or Data Center products exclusively, user management can be handled by an admin in a variety of ways: be it through each individual Server or Data Center product, through Jira, or by using Atlassian Crowd Server or Data Center. For cloud, you can manage users product by product or centrally at the organization level across multiple sites and products. Atlassian Access is available for cloud, and provides enhanced security and administration capabilities like SAML SSO to increase convenience for all your users, automated user provisioning and de-provisioning so you can scale user management, a real-time Active Directory sync with your identity provider, and more.

## **Crowd** *Self-managed*

Crowd is Atlassian's user management solution for self-managed products. Crowd is available in both Server and Data Center deployments, with the latter providing additional enterprise-grade features to help ensure high availability, performance at scale, and centralized usage visibility across the entire organization.

## **Atlassian Access** *Cloud*

Atlassian Access provides enterprise-grade security and centralized administration across all of your Atlassian cloud products including Jira Software, Confluence, and Bitbucket. Scale administration, increase security, and gain deep insight into your cloud products with Atlassian Access.

## **Other alternatives**

As mentioned earlier, there are other alternatives for user management outside of applications like Crowd and Access. Primary among these is using embedded Crowd built into individual products (for Server and Data Center). While this option enables the use of features such as SSO, audit logs, and multiple user directories, it is generally limited in terms of capabilities.

# Atlassian user management feature comparison

	Crowd Server	Crowd Data Center	Atlassian Access	Built into Data Center products
SSO	Present	Present	Present	Present
Built-in audit log	Present	Present	Present	Present
Local groups	Present	Present	Present	Absent
Multiple user directories	Present	Present	Present	Present
Delegated group admins	Absent	Present	Absent	Absent
Centralized license visibility	Absent	Present	Absent	Absent
Multi-domain SSO	Absent	Present	Absent	Absent
Azure AD user filtering	Absent	Present	Absent	Absent
User provisioning (SCIM)	Absent	Absent	Present	Absent
Enforced 2FA	Absent	Absent	Present	Absent
API token access	Absent	Absent	Present	Absent

# Identifying user management functions at scale

We've reviewed the needs that an enterprise user management solution should satisfy, and we've looked at the several options available to you when it comes to Atlassian user management. Now let's highlight a few scenarios that view those enterprise needs through an Atlassian lens to help you better identify which of these options enables user management for your products at scale.



## We have two or more Atlassian products

How are you trying to streamline your administrative processes for individual products? Some of you may be using a federated environment or trying to meet your needs on a single server. However, your job quickly becomes more complicated when your single server is overloaded, or your federated servers aren't working together the way you'd like. Are you spending too much time managing simple tasks like password reset requests?



## We have a growing pool of users

How many users do you have accessing your Atlassian applications each day? Is this number growing? We've found that Jira Software, Confluence, and Bitbucket customers typically need more stability between 500 - 1,000 users. Your team's growth rate is also a good indication of which option you should choose.



## We cannot afford downtime

Is downtime unacceptable in your organization? Do you know what an hour of downtime costs you? A variety of things can cause server disruption or crashes, including planned maintenance, unplanned upgrades or installations, or resources such as CPU, RAM, or storage on the server being overwhelmed. Any outage results in lost productivity from your employees being unable to work. It is essential to consider how many of your employees rely on Atlassian products to get their jobs done and what that hour of downtime may cost you.



## We want to maintain performance at scale

As you scale, do you still get the same level of performance? Performance degradation usually happens under high load or peak times for larger customers. Many global companies experience this when their teams in multiple geographic locations are online at the same time. In addition to concurrent usage, other running jobs like API calls and queries can also impact performance. Therefore, it's also vital for you to evaluate your number of concurrent users and the impact that your global offices are having on overall system performance.



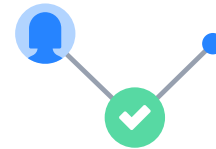
## Crowd Data Center as your enterprise user management solution

*When considering these scenarios that are representative of the typical enterprise customer, all signs point to Crowd Data Center as the ideal self-managed option for user management.*

Our Crowd Data Center offering aims to simplify your job by centralizing your user management efforts and giving you the tools you need to maintain optimal performance and manage your continued growth.







# A closer look at Crowd Data Center

## Comparing Crowd Server vs. Crowd Data Center

Let's start with the basics. Both provide you with control over your data and infrastructure - as well as secure user identity authentication - but the main distinction comes in how Crowd Data Center checks the boxes for all of the enterprise requirements previously discussed.

For one, Crowd Data Center ensures high availability, providing uninterrupted access to Crowd and the other systems connected to it. If your Atlassian products are mission critical for the teams using them, then it's imperative to have an authentication method that is always on. Data Center's active-active clustering model eliminates the single point of failure that could result in your server node going down. In addition to this, you can simply add or remove a node to reduce the impact caused by increased authentication load. Data Center also provides directory failover so you can define multiple directories and reduce the impact on your team's login experience when an external directory fails.

When it comes to visibility, it's true that both Crowd Server and Data Center give you a centralized space for your products

and instances, however the Data Center edition provides additional capabilities to monitor and manage license usage with features such as centralized license visibility and Azure Active Directory (AD) user and group filtering, which we'll discuss in more detail soon.

Last, when it comes to control, Crowd Data Center includes exclusive features that give the admin more flexibility such as the ability to delegate group-level administration to other team members, and additional controls for governing local group permissions. Some of our customers are managing 100+ directories and users with multiple accounts in different directories, so a higher level of control can help save the business a significant amount of time, money, and resources.

We built Data Center with this group of our customers in mind. Atlassian Data Center was built to serve our Server customers as they grow and mature by providing them the infrastructure and capabilities to ensure consistent performance as they scale. Atlassian Data Center also helps teams work faster and smarter as they grow and gain increased control over the application. In addition to this, Data Center is better equipped to meet the evolving security, governance, and compliance needs.

## The NOVOMATIC Group

### Learn how this global gaming technology company manages their users at scale

The NOVOMATIC Group is comprised of many subsidiaries, and each subsidiary owns multiple instances of various Atlassian products, each using a different solution to manage their users, ranging from different Active Directories, LDAP, and other alternatives. This created a lack of visibility and standardization, and they needed a way to create a Group Wide AD where they could ultimately consolidate user management. As they grew and became even more decentralized, they wanted to create a single user base for their Atlassian solutions across all of their subsidiaries, along with a single sign-on experience for every Atlassian user. They needed to ensure consistency and gain control over the operations and tools of their decentralized organization.

They ultimately determined that Crowd would be the simplest way to centralize user management for all of their subsidiaries' Atlassian products. They then worked with their Atlassian Solution Partner, Celix, on setting up one central Crowd instance along with three Crowd instances for their subsidiaries.



## NOVOMATIC

The NOVOMATIC Group is one of the largest gaming technology companies in the world, with a turnover of around EUR 2.3 billion in 2016.

Founded in 1980, the Group has locations in 45 countries, over 25,000 employees worldwide, and exports high-tech gaming equipment to more than 70 countries. NOVOMATIC is a producer of high-tech gaming equipment, operator of electronic casinos, regular casinos and sports betting outlets, and a technology and service partner in the lottery segment. The NOVOMATIC Group is a one-stop solution provider covering the entire spectrum of gaming.

These Crowd instances connected to several Jira Software, Confluence, Bitbucket, Fisheye, and Crucible instances. Across everything, they established one single user base that sync'ed with each of these four Crowd instances – giving them a single source of truth.

However, after completing the project of consolidating user management and balancing the right level of access each user should have, they began to realize how critical Crowd was to their users' day to day operations. Since all of their development is done using Atlassian, these tools are critical to their business. Downtime of a Crowd instance meant that their users could be unable to access some or all of Atlassian tools connected to that Crowd instance – which completely stops work.

With the help of their Technical Account Manager (TAM), NOVOMATIC became one of the private beta customers for Crowd Data Center in May 2017. After completing installation and finding no issues during their testing, they decided to roll the Crowd Data Center beta version into production. Since rolling out the beta version into their test environment and then into product, they have yet to experience any downtime.

With Crowd Data Center, we no longer have to worry about network outages or any impact to our development teams.

**Georg Aggermann**

IT Service and Application Manager  
The NOVOMATIC Group

In addition to centralizing user management and eliminating downtime, the NOVOMATIC Group has also been able to improve other areas around the oversight and operations of their user management for Atlassian tools. Because the NOVOMATIC Group connects several of their subsidiary Crowd instances to their central Crowd, changes to the subsidiary instances could impact every Crowd instance. Crowd's auditing capabilities have given them visibility into any changes made by Crowd administrators of their subsidiary instances. With this improved visibility, they've been able to prevent several problems that could've occurred due to configuration changes made by administrators of their subsidiary Crowd instances.

# Externalizing user management efforts from individual products

Why externalizing and centralizing user activity matters

## A single location

Perhaps one of Crowd's biggest draws is that it enables admins to oversee all user management under one roof. That means an admin can see who's logged into what instance of what application when, regardless of what subsidiary or region they're a part of. Gone are the days spent synchronizing directories or cycling through audit logs by individual products.

## Reduce replicated actions and improve product performance

For large organizations managing tens of thousands of users across multiple instances of multiple products, reducing replicated actions can go a long way. Not only does it help in giving time back to focus on other valuable activities, but more importantly it takes the weight off of individual products and improves their performance. Some organizations choose to manage users within each product they own, and this can be a sound method when dealing with a relatively small user base or only a few instances of 1 or 2 product(s). However, this job can become quite tricky and repetitive when having to track thousands of users from

various areas of the business. It also means having to configure potentially hundreds of directories on a per-product basis, and removing this strain on the individual product can result in positive gains for performance.

## Control and flexibility

One of the most popular features of Crowd Data Center is the ability to govern local group permissions. What does this mean for an enterprise? It means you can keep your users in LDAP and define their authentication permissions in Crowd, effectively making group changes within your directories. By setting up new users to be automatically added to specified groups, admins can save a significant amount of time. For example, one Engineering Team requires access to one Bitbucket instance, while another Engineering Team needs access to a separate Bitbucket instance. Still, neither team needs to access one another's Bitbucket instances. To complicate things even further, companies typically utilize multiple directories, most of which contain duplicate identities. This is why the governance of group permissions is such a valuable feature. It provides admins the control and flexibility needed to make user management a far more manageable task.

# SSO 2.0



## Single sign-on that's built for the enterprise

As an organization grows and transforms, so do its applications and user base – but it doesn't stop there. The number of instances you have to manage also grows, and some of our customers manage as many as **fifty**. Whether it's triggered by a merger, an acquisition, organizational changes, or plain old user growth, user management at scale calls for a single sign-on solution that satisfies enterprise needs.

## Multi-domain access

We see more and more customers centralize processes to gain visibility across the many layers of their businesses. Not only do they see benefits from increased IT efficiency, but they also recognize the advantages of centralizing the administrative experience to mitigate support needs. However, a challenging byproduct can be thousands of projects spanning multiple instances in separate domains. With multi-domain access, users and admins alike can use SSO across different domains, no matter where they deploy or what team they're on. This means avoiding roadblocks across function, region, or subsidiary, and getting through your work faster.

## Multi-domain access

The crux of SSO will always be a seamless user experience for both admins and end-users. SSO 2.0 for Crowd Data Center offers this and more, with improvements to configuration, support for third-party integrations, and an optimized login process.

You can now configure SSO **in just four clicks**. We've eliminated any potential interruptions caused by lengthy restarts or the need to modify any files within Atlassian products during the configuration process. Admins will now enjoy the same configuration experience for Crowd and all Atlassian Server and Data Center products.

We've also made it easier to integrate third-party or custom apps into Crowd for authentication by connecting to major identity providers that implement the SAML 2.0 specifications, including but not limited to Microsoft Azure AD, Microsoft ADFS, OneLogin, OKTA, and PingOne. This means easier access to all of your go-to apps.

Last but not least, users have one standard login page to access all applications that are connected to Crowd Data Center.

# Optimizing your Atlassian instances with license management

Identify license waste to save on costs and delegate responsibilities to get time back

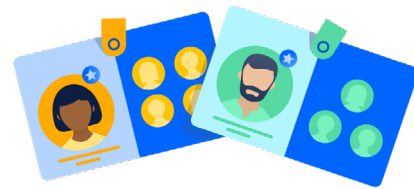
## Centralized license visibility

For many of our customers, managing users across the multiple instances they own becomes more challenging as their enterprises grow and mature. When you're dealing with a large organization – one with various teams across different functions or subsidiaries – you'll find a significant number of users who log in to Jira, Confluence, or Bitbucket once and then never again. Those users add up and can bloat your estimated license usage, resulting in inaccurate reporting or, worse, a higher cost for a user tier that's not representative of actual usage.

With centralized license visibility, admins can see which users are inactive across all of the Server and Data Center licenses they own for Jira, Confluence, and Bitbucket. Easily accessible visibility like this not only serves as a foundation for optimal license usage, but allows you to identify potential cost-saving benefits from a financial perspective.

Users are coming and going – some of them only log in once – and we don't want our licenses going to waste.

Customer quote



## Delegated group-level administration

While centralization is undoubtedly helpful to an admin, there is still an abundance of monotonous tasks that fill up an admin's calendar. With delegated group-level administration, admins can empower group owners who manage their teams and ultimately delegate tasks to them. On top of saving time, your teams will no longer have to wait for you to make group membership changes. For example, if your global administrator is located in one timezone, but your teams are located in several other timezones, they sometimes have to wait a whole day (or more) just to get a team member added or removed from a group. With Crowd Data Center, you can assign an individual or even an existing group as a group-level administrator in just a few clicks so that he or she can add or remove group members just as quickly.

## Selective synchronization for Azure AD

To help reduce the friction of synchronizing Active Directories, Crowd Data Center gives you the ability to filter users by group membership for Microsoft Azure AD. Not only does this prevent unnecessary license usage in connected Atlassian applications, but it spares you the time and effort of having to synchronize the whole AD.

Similar to centralized license visibility, Azure user filtering is an additional layer that helps you clean up and optimize your Atlassian instances, making your job a little easier in the process.



Managing enterprise-wide usage doesn't need to be a complicated experience, and if done right can improve performance, visibility, and costs.

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We know that enterprise user management will continue to evolve and we're here to support you at each step.

To start the conversation, find more information about Crowd Data Center on our website:

[atlassian.com/enterprise/data-center/crowd](https://atlassian.com/enterprise/data-center/crowd)



### Additional resources

- [Supported platforms and hardware requirements](#)
- [Atlassian Access](#)