



How Fandom secured authentication services to provide a consistent platform to tens of millions of users.

Case study

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Fandom is a global platform hosting over 350 million unique visitors each month, more than 250,000 fan-powered communities, and over 45 million pages of content that get a combined 40 billion page views each year. The platform consists of user-generated content and provides users a space to connect and experience their favorite entertainment.

The challenge

Fandom has a platform team serving millions of active users per second. It needed to transition to a new authentication solution without downtime and with minimal impact on users.

The authentication system needs to handle dramatic traffic increases when movies, series, or other popular fandoms start trending - up to a 10,000% spike increase in traffic. Authentication is always a critical path for every request the user is making to Fandom's platform. Avoiding large-scale outages or security leaks was of utmost importance. Fandom wanted to migrate off their previous solution with zero friction and no user password resets. They needed a trusted vendor that would not only deliver a secure solution but one that could scale to many millions of users without effort and handle huge spikes in traffic.

“ We have to deal with sudden increases in traffic and our system needs to handle that, especially when we are talking about authentication which is always in a critical path for every request a user is making to our platform.



Lukasz Harasimowicz
Fandom Platform Team

The solution

Fandom's high traffic requirements, the need to **migrate a large existing user base with minimal interruption**, and custom legacy requirements made Ory the ideal choice.

While making the transition to the new authentication system powered by Ory, every operation on the old system had to be replicated on the Ory system. Many services that interacted with identities needed to alter data in both systems, change user identities, delete users, or change credentials. Those changes need to be reflected in both systems.

Fandom used webhooks that Ory provides to plug into authentication flows and made necessary changes to the old system. They tracked every change in the legacy system and propagated them to Ory using the API. Fandom worked closely with Ory to quickly achieve their custom solution. This way Fandom could pinpoint any holes in the identity synchronization process and patch them before their launch.



The results

Fandom chose Ory because Ory has a record of creating and maintaining robust authentication services.

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Fandom engineers continue to engage with the Ory development team and CTO to get answers directly or in the active community Slack. With their help, Fandom was able to design, integrate, and deliver a performant solution without downtime.

By selecting Ory over other proprietary login systems, Fandom saved a lot of development time. The frontend customization options that Ory provides gave Fandom total control over the user interfaces.

Ory provides a scalable and flexible solution, allowing Fandom to serve its millions of users with consistency.

About Ory

Ory is scalable and performant, it installs on every software stack, and delivers a variety of industry and best-practice standards such as OAuth 2.0 / OAuth 2.1, OpenID Connect, Zero Trust Networking, Google Zanzibar Policy Framework, FIDO2 U2F, WebAuthn, TOTP, and more. Ory is in use in high-security industries in large-scale use cases from eCommerce to finance and powers billions of requests monthly.