E-book

Auth0 + AWS: Building secure, scalable GenAI and SaaS apps

Introduction

You've a successful consumer-facing app. It's growing fast. You want to take it to the next level and bring it to enterprise customers—but you know scaling up for a business audience will open up a world of complexity. How do you connect potentially millions of new customers in a secure and trusted way?

As cloud drives growth in B2B SaaS applications, customers have an ever-growing array of vendors to choose from. Confidence is a critical factor in their decision-making: 72% of businesses say trust in a seller is of the utmost importance, trumping price and ease of use. Business buyers must believe in your ability to provide them with a solution that's secure, reliable and easy to use.

To build trust with clients, many SaaS businesses are turning to Customer Identity. This report looks at how together, Auth0 and AWS help you build enterprise-ready apps that secure access at scale, meet compliance requirements and deliver frictionless user experiences.

B2B2X unlocks new possibilities

SaaS is everywhere. On average, businesses deploy nearly 100 apps per company, according to Okta's Businesses at Work 2024 report—a growth of 4% year on year. The proliferation of SaaS apps is creating a lucrative opportunity for app makers keen to expand upmarket. B2B SaaS products are highly scalable, allowing you to serve multiple business customers at minimal incremental cost. And once connected, you gain a large and high-value customer base with the potential to last into the long term.

Stepping up to the B2B space could also unlock other profitable business models. You could partner with other businesses to amplify your app's impact and extend its reach, or develop solutions that your business clients can integrate into their own services to better serve their own customers or partners. Being part of a B2B2X ecosystem is a powerful way to enhance your value proposition and create new revenue streams.

$1,080

average annual contract value for B2B SaaS companies

$100

average annual contract value for B2C SaaS companies

GenAI fuels innovation – and also risk

Businesses everywhere are racing to integrate generative AI into their applications, attracted by its transformative benefits for innovation, productivity, and efficiency. With the AI market set to soar by 349% by 2030, organizations that harness its potential now will gain a significant competitive edge.

At the same time, connecting and securing your AI tools demands a new approach. Think of all the sensitive data your GenAI tools will be accessing, processing and generating. It could be confidential customer or financial information. Protecting this data requires robust Identity security controls, ensuring that only authorized users can access it.

When scaling up, security becomes table stakes

Scaling up your app to enterprise level is both exciting and daunting. B2B clients operate in a world where security posture and reputation are critical. They expect vendors to meet tough requirements on resilience, compliance, privacy and uptime, with clear evidence of the controls you have in place to ensure this. And they want the latest security features to protect user accounts, like enterprise Single Sign-On (SSO), multi-factor authentication (MFA), account management, observability, and security APIs.

Whether you're expanding your B2C user base or reaching new audiences in B2B, scaling up will inevitably increase your exposure to security threats. The more user accounts you have, the higher the incentive for bad actors to attack your business, by taking over accounts and stealing valuable data. Growth-building activities like free trials may also lead to abuse: one study of a B2B app offering free trial sign-ups found that nearly half were from fake or duplicate accounts. Proving you can safeguard applications from hackers and bots is a non-negotiable in securing your clients' trust.

14%

of registration attempts in January–June 2023 were assessed to be fraudulent [1]

As data privacy and security requirements become stricter around the world, compliance is also top of mind for business customers. Keeping up with constantly changing regulations is no mean feat: as of 2024, 71% of countries now have data protection legislation in place.

As with all challenges, this is your opportunity to gain a competitive edge. Demonstrating expertise in regulatory compliance will position you as a thought leader to your customers, who will look to you to educate them on privacy regulations and set them up for success.

[1] **Source: State of Secure Identity, Okta**

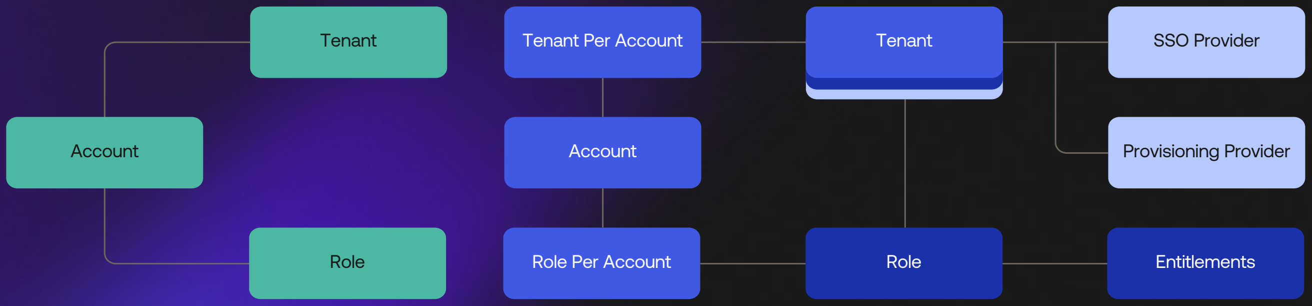
B2B requires enterprise-grade Identity

Identity is a prime example in which B2B requirements typically grow linearly in quantity, but exponentially in complexity.

Identity requirements for a B2C app are usually limited to a basic login box with sign-up, social authentication and account recovery controls. But this isn't enough to succeed in a B2B customer environment. Enterprises have complex Identity needs — such as enterprise SSO, granular authorization, and provisioning integrations — that include functionality around user provisioning, administration and security at scale. They require robust mechanisms to handle different roles, permissions and data segregation for each tenant to ensure security and compliance.

Common requirements include SSO, MFA and role-based access control. You may have to incorporate helpdesk services, password reset flows and ID proofing. Instead of admin screens, you need to provide customers with native integrations to their Identity stacks—such as Okta, Microsoft Entra, Oracle, Ping, and SailPoint—with extensive documentation so they can effectively manage their accounts. You also need to provide tenant isolation, so each customer tenant's data and security posture is set to their needs. Managing these requirements can add significant overhead, distracting your development teams from focusing on core features.

B2B Identity requirements grow exponentially in complexity



B2C

No SSO or SCIM

A user can log only to a single tenant

A user has only one single role

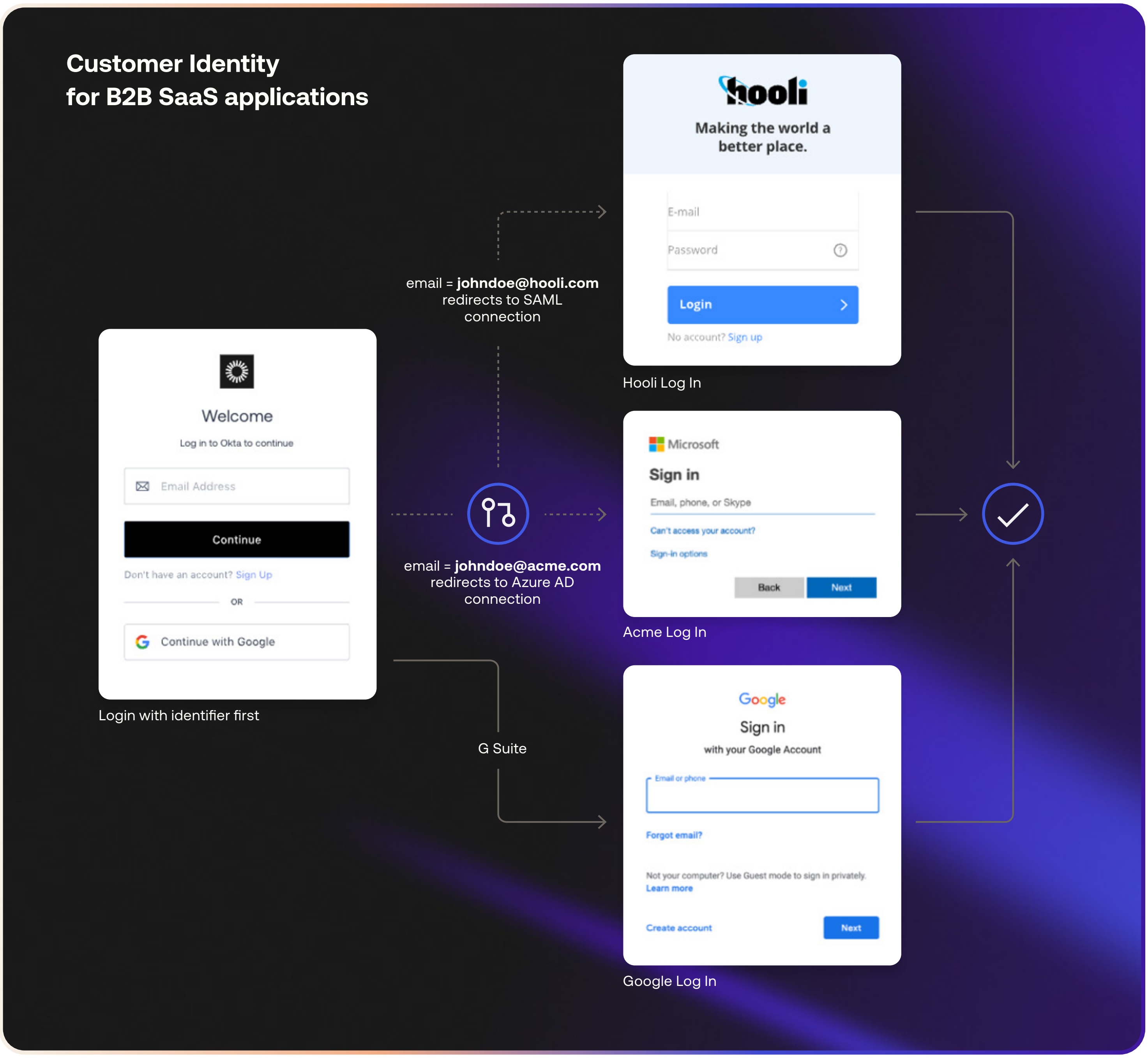
Roles are not customized

B2B

- Each tenant brings their own identity provider or use your system for identity (SSO)
- A user can log into multiple tenants
- A user has one of multiple roles
- Roles are customized at the tenant level

Customer Identity is key to SaaS success

While a seamless customer experience is considered critical for a successful B2C app, it often gets overlooked in B2B SaaS. Yet making your service effortless to use can be a key competitive differentiator. This starts with a frictionless onboarding process that ensures customers can quickly start realizing the benefits of your app. At the heart of this is a Customer Identity solution.



Customer Identity for B2B SaaS applications

email = **johndoe@hooli.com** redirects to SAML connection

email = **johndoe@acme.com** redirects to Azure AD connection

G Suite

Login with identifier first

Hooli Log In

Acme Log In

Google Log In

Some SaaS companies have built and maintained Identity flows themselves, but as we've seen, integrating with B2B infrastructure can be complex—and it's hardly what you hired your developers to do. An out-of-the-box Customer Identity solution does the heavy lifting of authentication, helping you to simplify customer onboarding, automate manual tasks, and shift developers' focus to innovation.

Let's look at a few key ways it drives your app's growth and success.

Simplify access

A Customer Identity solution allows you to quickly and easily implement Enterprise Federation and provide the convenience of Single Sign-On. Users can register and log in seamlessly using existing work credentials, improving their overall experience and making them more likely to use your app.

Strengthen security

By integrating Customer Identity into your app, your business customers can leverage advanced authentication features from their existing employee Identity provider, like MFA, which stops attackers from breaching accounts even if they're using compromised credentials. Role-based access control with fine-grained authorisation simplifies and fine-tunes the management of user permissions, granting access only to the exact information, and resources users need for their role.

Stay compliant

A modern Customer Identity solution ensures users' data is managed, stored and protected in a way that supports compliance with data protection regulations like GDPR, CCPA and HIPAA. Be a thought leader to your customers, educate them on privacy regulations in the rest of the world and set them up for success.

Scale with ease

With automated provisioning, frictionless authentication, and robust access control, Customer Identity allows you to handle large numbers of tenants and user identities without compromising performance or security.

Gain customer insights

Customer Identity solutions centralize and store user data collected from across various touchpoints. This gives you a 360-degree picture of customers' behavior and preferences, which you can use to personalize their experience and increase engagement.

Customize to your client's needs

Extensibility capabilities enable integration with various other business tools and platforms that your clients use, allowing you to solve complex Identity needs—for instance, for customers with more stringent data security requirements.

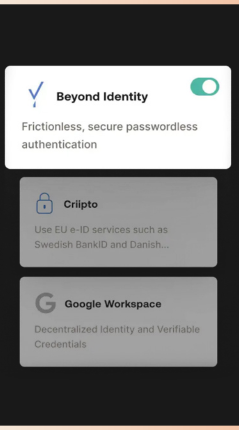
Secure access to GenAI

Customer Identity from Auth0 works with Amazon Bedrock to make it easier for developers to build and deploy generative AI apps. Instead of worrying about the nitty-gritty of creating secure login flows, API token management, or enforcing access rules, all the Identity security elements are taken care of – leaving your teams free to focus on building and scaling innovative products.

In fact, Auth0 itself is built on Amazon Bedrock – showing just how much we trust it for secure GenAI solutions.

Build enterprise-ready apps with Auth0

Auth0 is an out-of-the-box Customer Identity solution designed for building enterprise-ready apps. Development teams can quickly implement features like enterprise federation, attack protection, and access control, and customize apps with a range of extensibility features.



Beyond Identity

Frictionless, secure passwordless authentication

Criipto

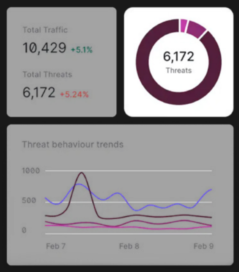
Use EU e-ID services such as Swedish BankID and Danish...

Google Workspace

Decentralized Identity and Verifiable Credentials

Facilitate enterprise connections

Enable Enterprise Federation using pre-built integrations with commonly used enterprise Identity systems.



Total Traffic

10,429 +5.1%

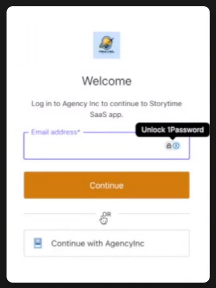
Total Threats

6,172 +5.24%

6,172 Threats

Safeguard your data

Protect against Identity-related attacks with features like bot detection, breached password detection and suspicious IP throttling.



Welcome

Log in to Agency Inc to continue to Storytime SaaS app.

Email address*

Customize your login experience

Use Identifier-first SSO to give your customer's login page a distinct look and feel that matches their brand.

Auth0 and AWS: delivering secure, scalable customer experiences

As an AWS Advanced Technology Partner, Auth0 is a trusted Identity services provider, offering over 25 integrations across different AWS services. By centralizing and automating access control and administration over AWS resources, Auth0 and AWS empower you to build seamless, scalable and secure customer experiences.

Other benefits of the AWS and Auth0 collaboration include:

- **Higher availability**: Auth0 runs in the always-on AWS Cloud.
- **Lower costs**: Auth0 orders contribute to the AWS Enterprise Discount Program (EDP).
- **Faster procurement**: Customers can buy Auth0 directly through the AWS Marketplace.
- **Simpler contract management**: Auth0 invoicing can be managed the same way as AWS invoicing.

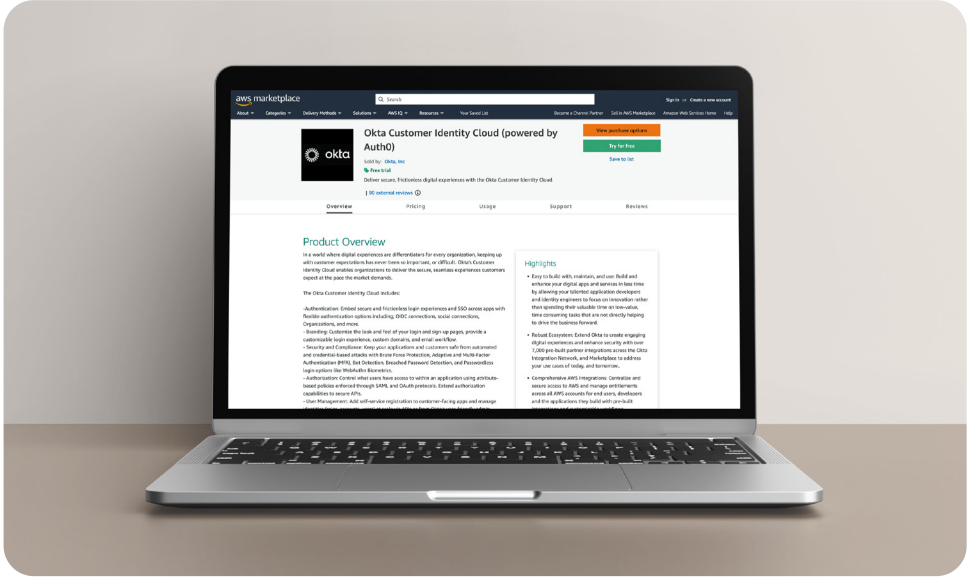
Headspace delivers security and mindfulness at scale

When mindfulness app Headspace experienced a boom in popularity, the company sought an Identity solution that would enable it to grow and support its millions of monthly active users. This solution needed to meet the needs of over 70 million members in 190 countries, secure diverse environments (iOS, Android, Web, Alexa, Apple Watch, Google Voice, Amazon, and Spotify), and mitigate threats such as credential stuffing and account scraping. Auth0 offered universal authentication and authorization for web, mobile, internet of things, and legacy applications that seamlessly integrated with Headspace's design. Pre-built enterprise connections allowed for integration to any standards-based Identity provider utilizing Identity industry security standards and streamlined the ingestion of personally identifiable information. Read the full story here.

headspace®

Summing up

Aiming your app at enterprises is a profitable opportunity as long as you can solve complex security and scalability challenges. The Auth0 and AWS integration allows you to swiftly meet these requirements by centralizing access control and safeguarding customers with enterprise-grade security. Quickly implement features such as Enterprise Federation, Access Control, Custom Branding, and Multi-Factor Authentication, accelerate time to market, and deliver frictionless user experiences that give your business the edge.



Okta Customer Identity Cloud (powered by Auth0)

Sold by: Okta, Inc

Free trial

Deliver secure, frictionless digital experiences with the Okta Customer Identity Cloud.

| 90 external reviews

Product Overview

In a world where digital experiences are differentiators for every organization, keeping up with customer expectations has never been so important, or difficult. Okta's Customer Identity Cloud enables organizations to deliver the secure, seamless experiences customers expect at the pace the market demands.

The Okta Customer Identity Cloud includes:

-Authentication: Embed secure and frictionless login experiences and SSO across apps with flexible authentication options including; OIDC connections, social connections, Organizations, and more.
- Branding: Customize the look and feel of your login and sign-up pages, provide a customizable login experience, custom domains, and email workflow.
- Security and Compliance: Keep your applications and customers safe from automated and credential-based attacks with Brute Force Protection, Adaptive and Multi-Factor Authentication (MFA), Bot Detection, Breached Password Detection, and Passwordless login options like WebAuthn Biometrics.
- Authorization: Control what users have access to within an application using attribute-based policies enforced through SAML and OAuth protocols. Extend authorization capabilities to secure APIs.
- User Management: Add self-service registration to customer-facing apps and manage

Highlights

- Easy to build with, maintain, and use: Build and enhance your digital apps and services in less time by allowing your talented application developers and identity engineers to focus on innovation rather than spending their valuable time on low-value, time consuming tasks that are not directly helping to drive the business forward.
- Robust Ecosystem: Extend Okta to create engaging digital experiences and enhance security with over 7,000 pre-built partner integrations across the Okta Integration Network, and Marketplace to address your use cases of today, and tomorrow..
- Comprehensive AWS Integrations: Centralize and secure access to AWS and manage entitlements across all AWS accounts for end users, developers and the applications they build with pre-built

About Amazon Web Services (AWS)

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 175 fully featured services globally. Millions of customers — including the fastest-growing startups, largest enterprises, and leading government agencies — trust AWS to power their infrastructure, become more agile, and lower costs. To learn more, visit aws.amazon.com

About Auth0

Auth0 takes a modern approach to Identity, enabling organizations to provide secure access to any application, for any user. Highly customizable, the Auth0 platform is as simple as development teams want and as flexible as they need. Safeguarding billions of login transactions each month, Auth0 delivers convenience, privacy, and security, so customers can focus on innovation. For more information, visit auth0.com