

AWS re:Inforce

JUNE 13 - 14, 2023 | ANAHEIM, CA

I A M 3 5 5

Using passwordless authentication with Amazon Cognito and WebAuthn

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Agenda

Overview (10 minutes)

Building passwordless authentication with
Amazon Cognito (50 minutes)

Current state of authentication

Current state of authentication

Rating: **Poor**

Current state of authentication

Rating: **Poor**

>80%

Data breaches
that involved
stolen or weak
password¹

Current state of authentication

Rating: **Poor**

>80%

Data breaches
that involved
stolen or weak
password¹

100

Average number
of online accounts
for a user²

Current state of authentication

Rating: **Poor**

>80%

Data breaches that involved stolen or weak password¹

100

Average number of online accounts for a user²

>51%

Passwords reused across websites³

What is passwordless?



What is passwordless?

Fast **ID**entity **O**ne (FIDO) – FIDO Authentication is the answer to the password problem



What is passwordless?

Fast **ID**entity **O**ne (FIDO) – FIDO Authentication is the answer to the password problem



Security



Convenience



Privacy



Scalability

What is passwordless?

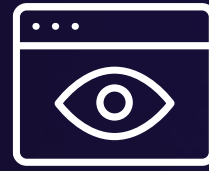
Fast **ID**entity **O**nline (**FIDO**) – FIDO Authentication is the answer to the password problem



Security



Convenience



Privacy



Scalability

FIDO2 – Latest specification from the FIDO Alliance

Based on 2 RFC specifications

- WebAuthn – W3C standard for web browser-based authentication
- CTAP – FIDO Alliance Specification for OS communication with compliant local authenticators

Amazon Cognito: Flexible, fully managed application identity

Flexible, scalable API and SDK support



Java
JavaScript
.NET
C++
PHP

iOS
Android
Ruby
Python
Golang

Agile development and integrated customer analytics



Amazon
Pinpoint



AWS Amplify
Studio



AWS
Amplify

Extensible AuthN and AuthZ



AWS
Lambda



AWS
AppSync



ELB



Amazon
API
Gateway



AWS
WAF



Amazon
Verified
Permissions

Out-of-the-box support for open standards



SAML



OAuth 2.0



OIDC

Built-in UI for applications

iOS
Android
Web
SPA



Secure and available



Adaptive
AuthN



Compromised
password
database



MFA



99.9%
SLA

Out-of-the-box support for social federation

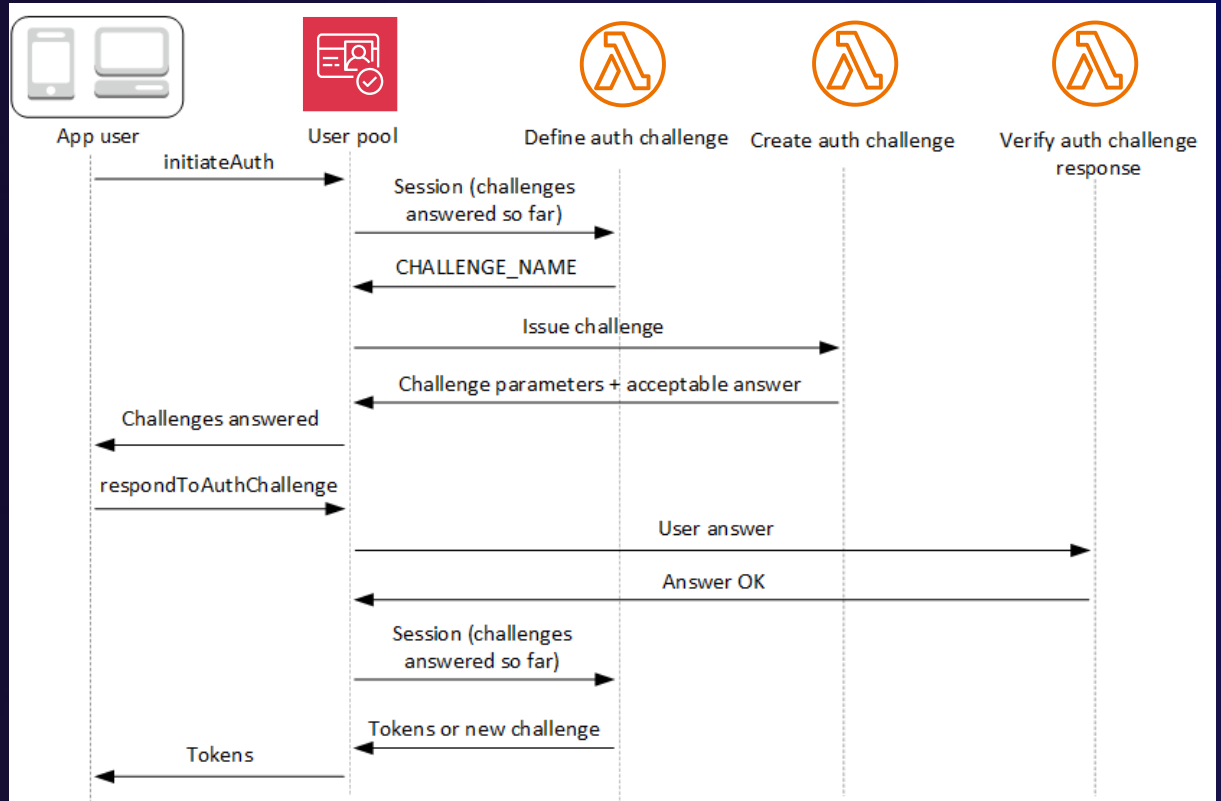


Google
Facebook
Amazon
Apple



Passwordless authentication with Amazon Cognito

- Amazon Cognito user pools allow you to build a **custom authentication flow** (<https://docs.aws.amazon.com/cognito/latest/developerguide/>)
- **AWS Lambda** functions are used to authenticate users based on one or more challenge/response cycles (<https://aws.amazon.com/lambda>)
- Passwordless authentication is implemented based on custom challenges



Let's build

Primary objective

Add **WebAuthn** to your Amazon Cognito user pool and sign in



Workshop details

Use the following link
to access the lab guide
and your AWS account

Bitly Link...



Workshop details

Use the following link
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Bitly Link...

Sign in

Use any one method to authenticate

Choose a preferred sign-in method

Email one-time password (OTP)

Enter your personal or corporate email to receive a one-time password

Login with Amazon

Login with your Amazon.com retail account

Amazon employee

Login with your Amazon Corporate account. Only for Amazon Employees.

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One-time email passcode

Send a passcode to the email below.

Email

amazon@amazon.com

Back

Send passcode

[Get help signing in](#)

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Back

Send passcode

Get help signing in

Review and join

Event details

Name

Implement password-less authentication with Amazon Cognito and WebAuthn event

Start time

Duration

Level

300

Description

Test event for content Implement password-less authentication with Amazon Cognito and WebAuthn

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Implement password-less authentication with Amazon Cognito and WebAuthn event

Implement Passwordless authentication with Amazon Cognito and WebAuthn

Introduction

» Prerequisites

» Deploy the back end

» Create front end

» Authenticate with WebAuthn

Summary

» (Optional) WebAuthn advanced features

Amazon Cognito Documentation

▼ AWS account access

Open AWS console (us-east-1)

Get AWS CLI credentials

Exit event

Event dashboard > Implement Passwordless authentication with Amazon Cognito and WebAuthn

Implement password-less authentication with Amazon Cognito and WebAuthn event

Event information

Start time

Duration

Accessible regions
us-east-1

Description
Test event for content Implement password-less authentication with Amazon Cognito and WebAuthn

Workshop

Title
Implement password-less authentication with Amazon Cognito and WebAuthn

Complexity level
300

AWS services
Amazon Cognito, AWS Lambda, AWS Identity & Access Management (IAM)

Topics
Security, Identity, and Compliance, Business Applications

Description
In recent years, Password-less authentication has been on rise. The FIDO ("Fast Identity Online") Alliance is an open industry association whose stated mission is to develop and promote authentication standards that "help reduce the world's over-reliance on passwords". This workshop will walk through the steps of implementing password-less authentication experience on web or mobile application via Amazon Cognito.

Get started >

aws

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IAM304 | **Breakout session** | Migrating to Amazon Cognito, featuring approaches from Fandango

IAM352 | **Builders' session** | Cedar policy language in action

IAM353 | **Builders' session** | Amazon Verified Permissions in action

IAM357 | **Builders' session** | Multi-tenant SaaS identity with Amazon Cognito user pools

IAM371 | **Workshop** | Building a customer identity and access management solution

IAM441 | **Code talk** | Enable new Amazon Cognito use cases with custom logic

Thank you!

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