AWS
re:Inforce

JUNE 13 - 14, 2023 | ANAHEIM, CA

IAM355

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

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Rating: **Poor**

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>80%

Data breaches that involved stolen or weak password[1]

Current state of authentication

Rating: **Poor**

>80%

Data breaches that involved stolen or weak password[1]

100

Average number of online accounts for a user[2]

Current state of authentication

Rating: Poor

>80%

Data breaches that involved stolen or weak password[1]

100

Average number of online accounts for a user[2]

>51%

Passwords reused across websites[3]

Source: https://fidoalliance.org/what-is-fido/

What is passwordless?

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

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fido™ ALLIANCE | simpler stronger authentication

Security

Convenience

Privacy

Scalability

What is passwordless?

Fast IDentity **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

Built-in UI for applications

iOS
Android
Web
SPA

Amazon Cognito

Secure and available

Adaptive AuthN

Compromised password database

MFA

99.9% SLA

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

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
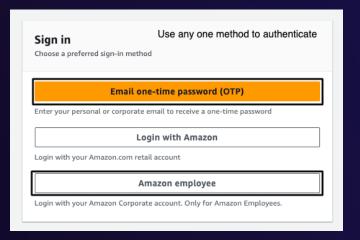
Let's build

Primary objective

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

Ensure prerequisites	→	Deploy backend	→	Create frontend	→	Sign in with WebAuthn	→	Explore core features

Workshop details

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

Bitly Link…

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Continue the momentum

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

IAM352 | Builders' session | Cedar policy language in action

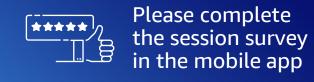IAM353 | Builders' session | Amazon Verified Permissions in action

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!

Please complete the session survey in the mobile app

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