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DEVOPS: APIS & MICROSERVICES

Mobile Payment Security With CA Rapid App Security

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DO1T37T

# For Informational Purposes Only

Terms of this Presentation

The Challenges to Software Development in the Application Economy

How do I create:

- A native security experience that is convenient, frictionless, and makes it fast to add to new security modalities to apps

- Secure enough to meet audits & compliance requirements

- Provides "developer velocity": maximum value without high costs to develop, operate, or support?
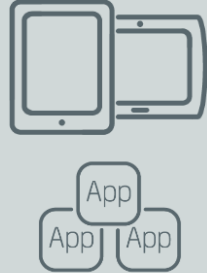
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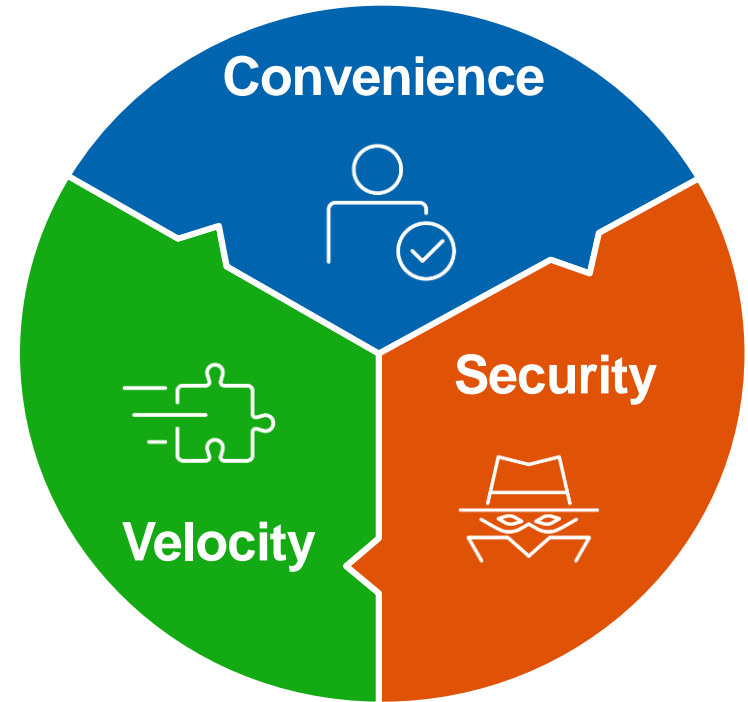
What if You Could…
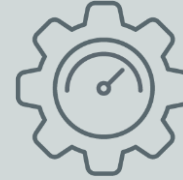
Authenticate Users via Wide Array of Credentials	Connecting from Mobile Devices & Mobile Apps	Securing the Device to Server Communications	Transparently Analyze Risk based on Contextual Data	Initiate Step-up Authentication when Risk is High

From a Single Solution?

Introducing CA Rapid App Security

A comprehensive authentication platform for the application economy - mobile, web, IoT
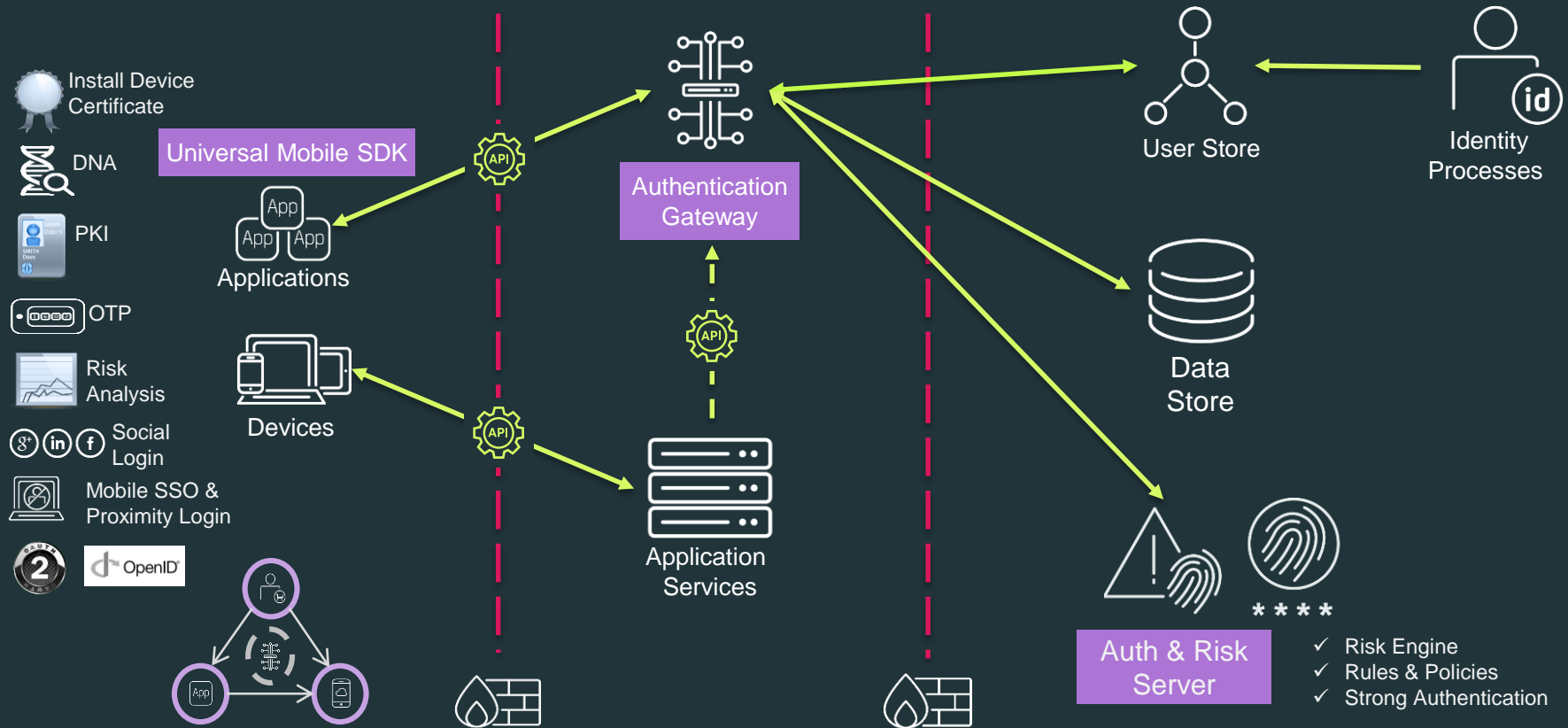
- Fraud prevention in real-time
- Robust authentication methods inclusive of contextual authentication
- Faster & convenient means to secure Apps
- Strengthen consumer confidence and enhance brand value by creating a simplified native security experience

Built on CA Mobile API Gateway and CA Advanced Authentication

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CA Rapid App Security Component Capabilities

- **CA Mobile API Gateway**
  - Provides support for OAuth, OpenID Connect, Mutual SSL, Touch ID, Cross-device sign-on

- **Strong Auth & Risk Auth Server (CA Advanced Authentication)**
  - Provides management and validation of CA AuthID credential, and conducts risk analysis with step-up authentication initiation when needed

- **Universal SDK**
  - Provides streamlined developer experience across MAG and Advance Authentication solution; single, unified SDK to simplify app security for the developer

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CA Rapid App Security Solution

Install Device Certificate

DNA

PKI

OTP

Risk Analysis

Social Login

Mobile SSO & Proximity Login

OpenID

Universal Mobile SDK

App
App App

Applications

Devices

Authentication Gateway

Application Services

User Store

Data Store

Identity Processes

Auth & Risk Server

✓ Risk Engine
✓ Rules & Policies
✓ Strong Authentication

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Additionally… Authentication and API Security

User Store

Identity Processes

Applications

App
App App

Devices

API

API

Authentication & API Gateway

API

Data Store

Auth & Risk Server

****

Application Services

Universal Mobile SDK

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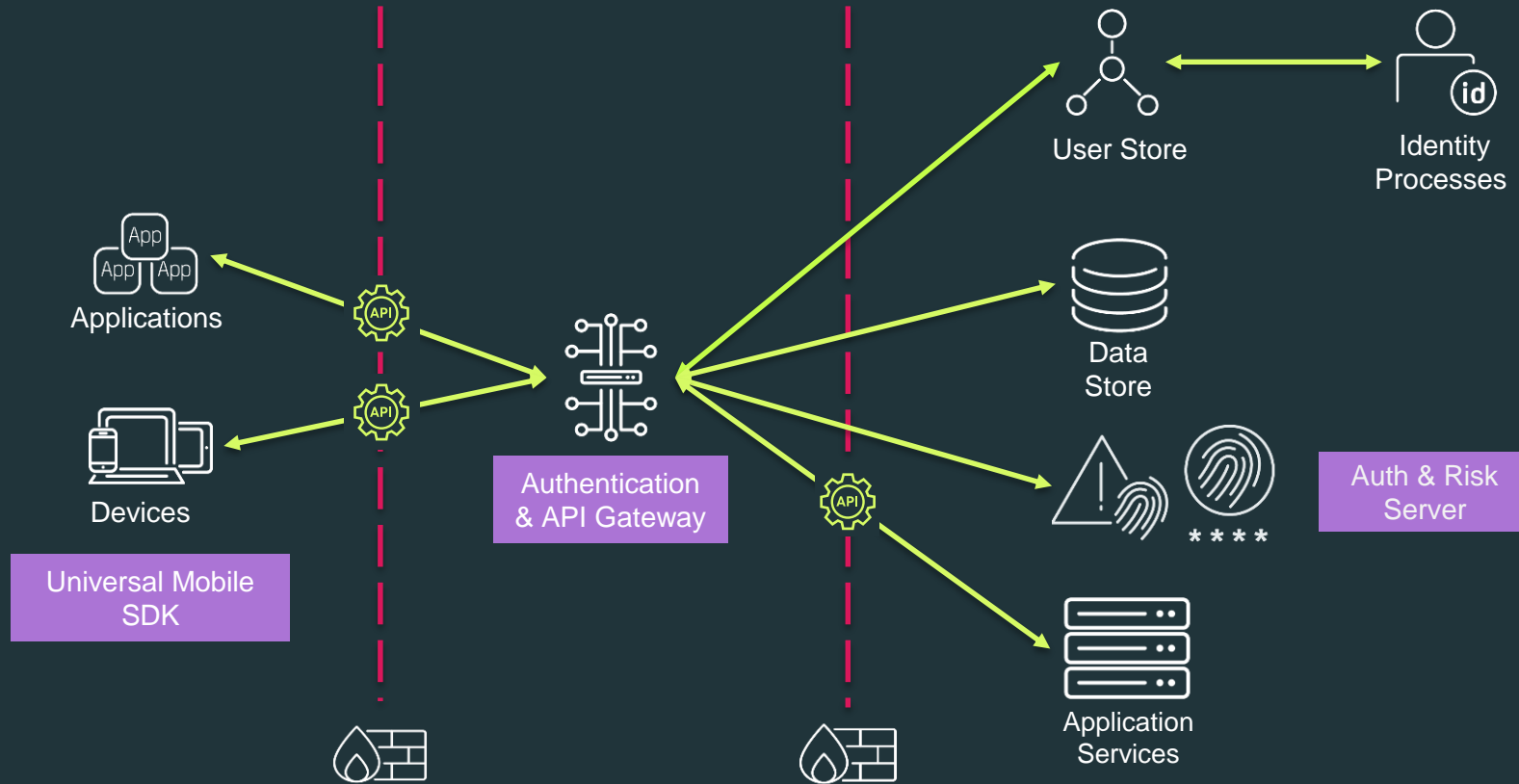
Rapid App Security With CA Security Solutions

Universal Mobile SDK

App
App App

Applications

Devices

API

API

API

Authentication Gateway

Application Services

Access Gateway Secure Proxy

Policy Server

User Store
CA Directory

CA Identity Manager

CA Single Sign-On

Data Store

Auth & Risk Server

✓ Risk Engine
✓ Rules & Policies
✓ Strong Authentication

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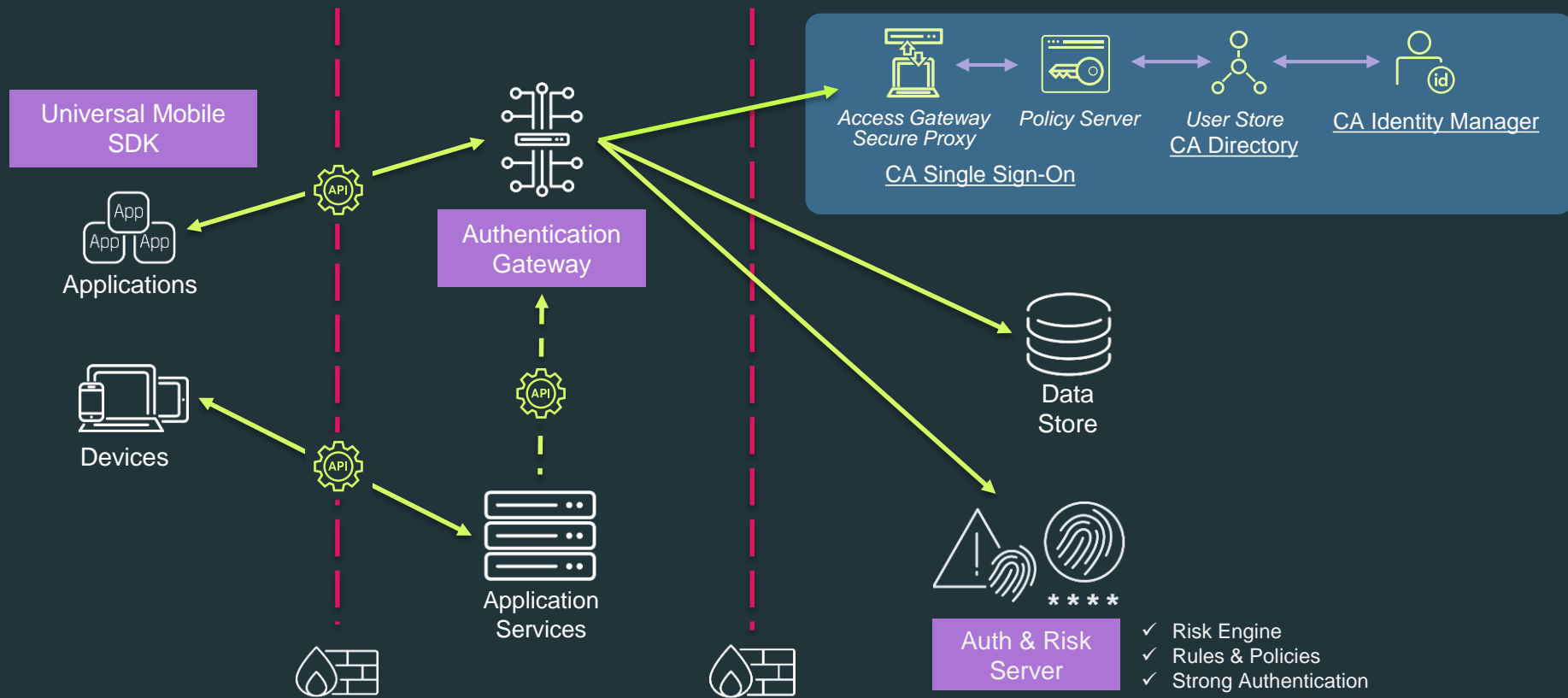
"Three-way Trust" Enables Greater Security

USER

Uses App

Uses device, has session

App
APP

Runs on

DEVICE

OAUTH 2
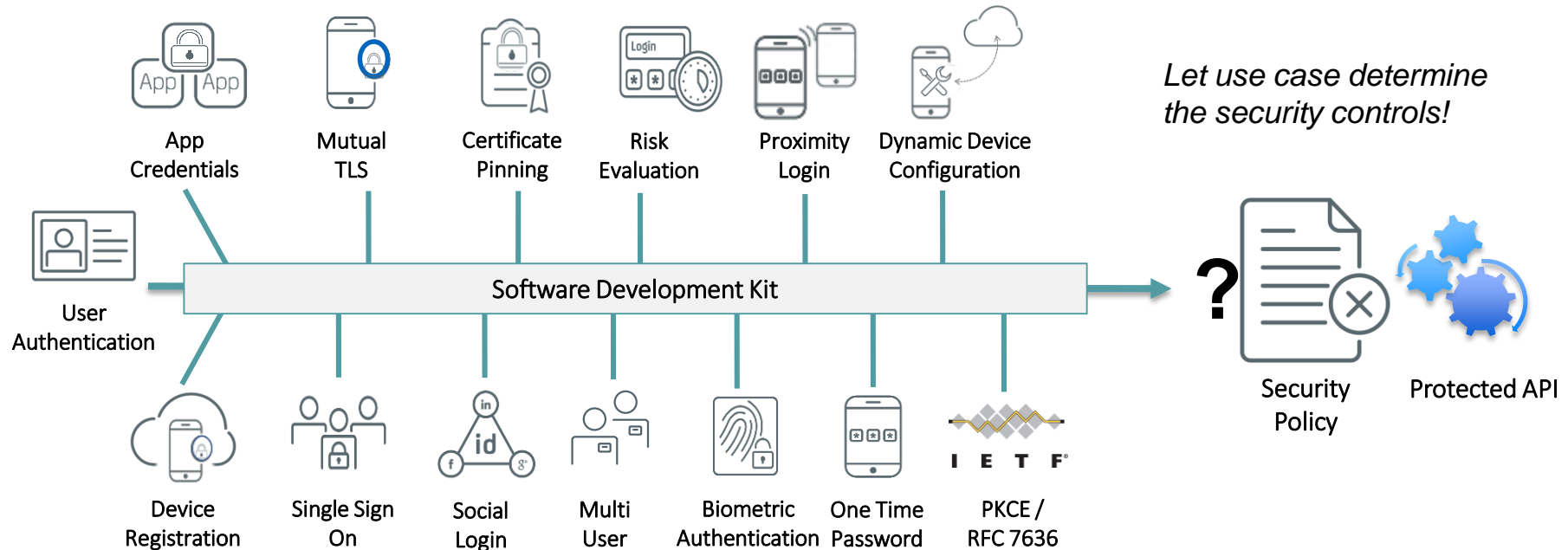
OpenID®

PKI
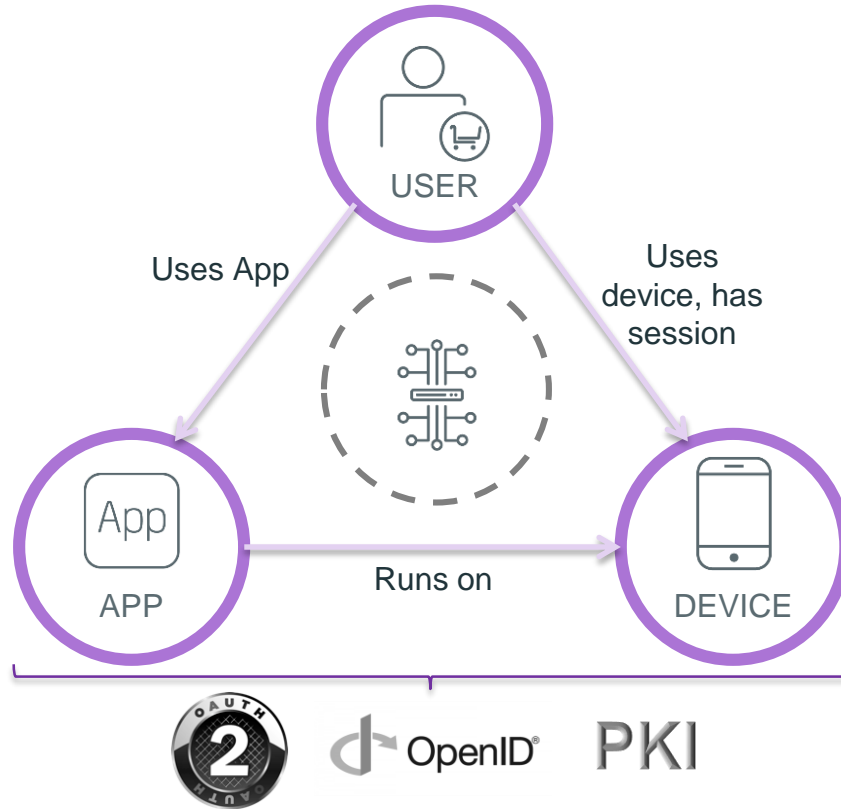
CA Rapid App Security:

- Identifies user, app, and device
- Learns and tracks relationship between the three entities
- Three-way trust relationship is registered & authenticated to enterprise gateway
- Elevates authentication or prevents access when pattern deviates from norm

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Universal SDK Simplifies the Developer Interaction

CA MAG AA - Multi Step Authentication :: Credential type AuthID
SDK Method loginAuthID()
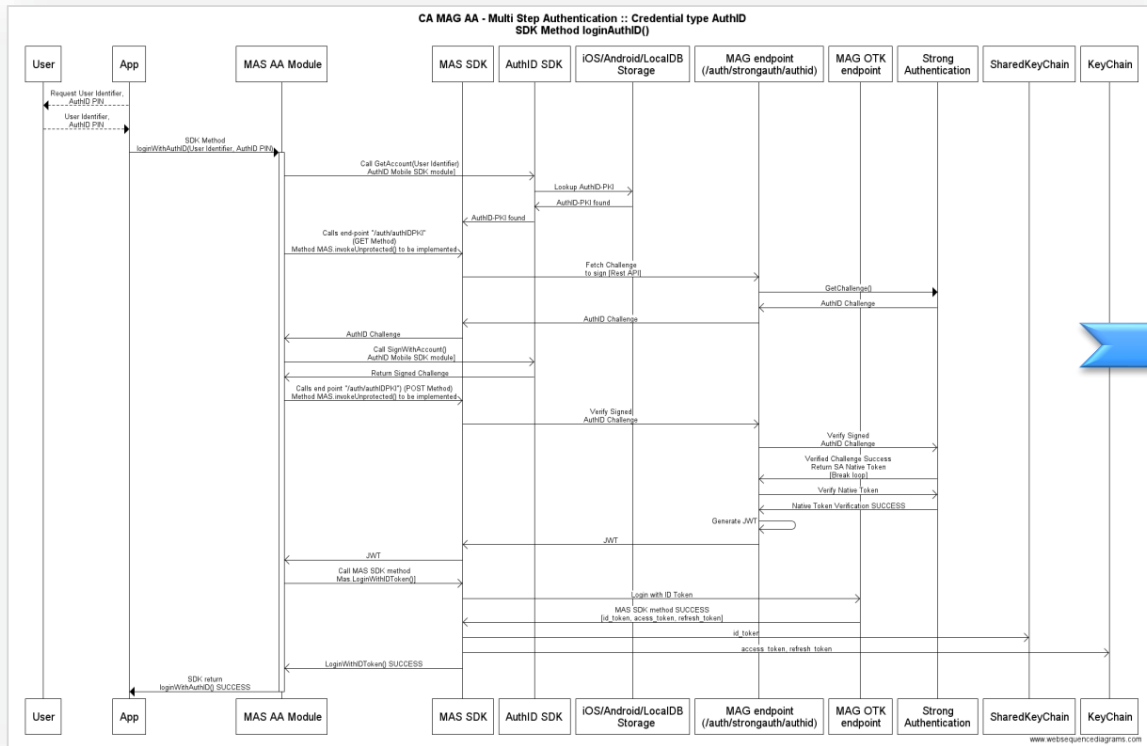
loginWithAuthID()
(User Id, AuthID Pin)

Universal SDK Provides Flexibility!

Let use case determine the security controls!

App Credentials

Mutual TLS

Certificate Pinning

Risk Evaluation

Proximity Login

Dynamic Device Configuration

User Authentication

Software Development Kit

Device Registration

Single Sign On

Social Login

Multi User

Biometric Authentication

One Time Password

PKCE / RFC 7636

?

Security Policy

Protected API

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Universal SDK Features

- Dynamic application client credentials

- Mutual SSL with unique device certificates – PKI x509

- Certificate pinning – PKV

- Cryptographic camouflage – AuthID

- Tokenized credentials and access tokens – OAuth 2.0 and OpenID Connect (certified)

- Delegated authentication – Social Media, OAuth/OIDC OP, SAML, etc.

- Multi-factor Step-up Authentication – Q&A, OTP/HOTP, OATH

- Identity Brokering – Bearer/JWT -> SMSession/Kerberos, SMSession/Kerberos -> Bearer/JWT, etc.

- Biometric Authentication – TouchID/Fingerprint and FIDO

- Proximity Authentication – BLE NFC QRC

- Risk based analysis and profiles

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Universal SDK Features – Continued

- Mobile SSO – Native App to App, App to browser, hybrid

- Geolocation and Carrier

- Push Notifications – APN, GCM

- User and Group Management (SCIM 2.0)

- Pub Sub messaging (MQTT 3.1)
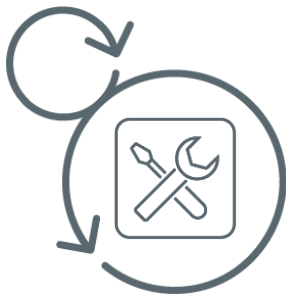
- Secure Storage – local and private cloud

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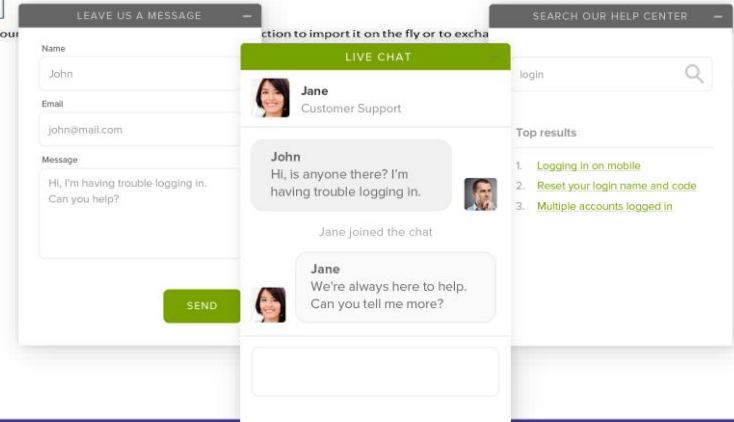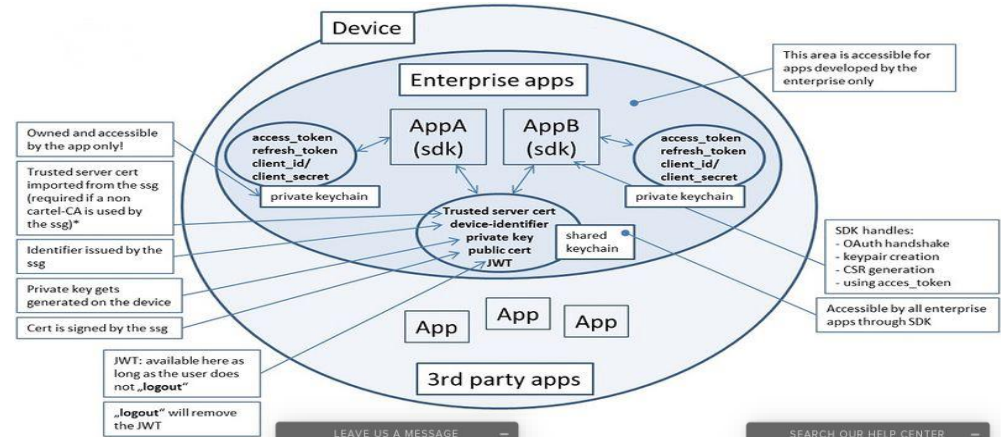
Security That Elevates the Experience

Customer/Employee

Better experience

Security based on the level activity being performed

Improved trust without impact to user experience

Developer

Security that is faster to implement

Security that is cheaper to implement

Security that is easier to implement (especially for non-security experts)

Organization

Reduced risk, with stronger security and superior authentication options

Improved and less costly security enables higher value services via mobile

Manage security with security experts, rather than in each app

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Rapid App Security Use Case

Healthcare

Customer experience

Security & Privacy
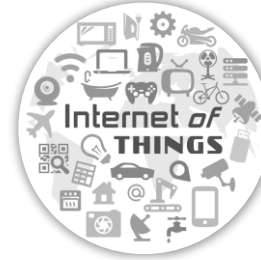
Integration

Finance/ Insurance

Contextual Authentication

Risk Mitigation

Open Banking

Retail

Customer experience

Risk Mitigation

Payment security

Manufacturing

Internet of Things(IoT)

Geo Fencing

Customer experience

Automotive

Customer experience

Internet of Things(IoT)

Payment Security

Better End User Experience With Higher Security

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Questions?

Recommended Sessions

SESSION #	TITLE	DATE/TIME
DO1T17S	M&T Bank: Solving Real-World Banking Challenges with CA API Management	11/16/2017 at 1:45 pm
DO1T27S	Panel: Multi-faceted Security Options for a Mobile World	11/16/2017 at 2:30 pm
DO1T56T	API Academy: Microservices - How to Safely Speed Up Your Digital Innovation	11/16/2017 at 3:30 pm

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Must See Demos

Aggregate, Secure & Manage Microservices

101

Create an End-to-End Modern App Architecture

109

Eurosport: A Showcase for IoT & App Experiences

101

Modernize Architectures With Low-code Microservices

106

Protect Apps & APIs with Omnichannel Security

104

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APIs and Microservices

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http://cainc.to/CAW17-APIM

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