



MojeID Klíč

Aplikace služby mojeID





Autentizace

#SCA #Crypto #Token



Mobilní bezpečnost

#RASP #AppShielding



Digitální identita

#OpenBanking #KYC #AML

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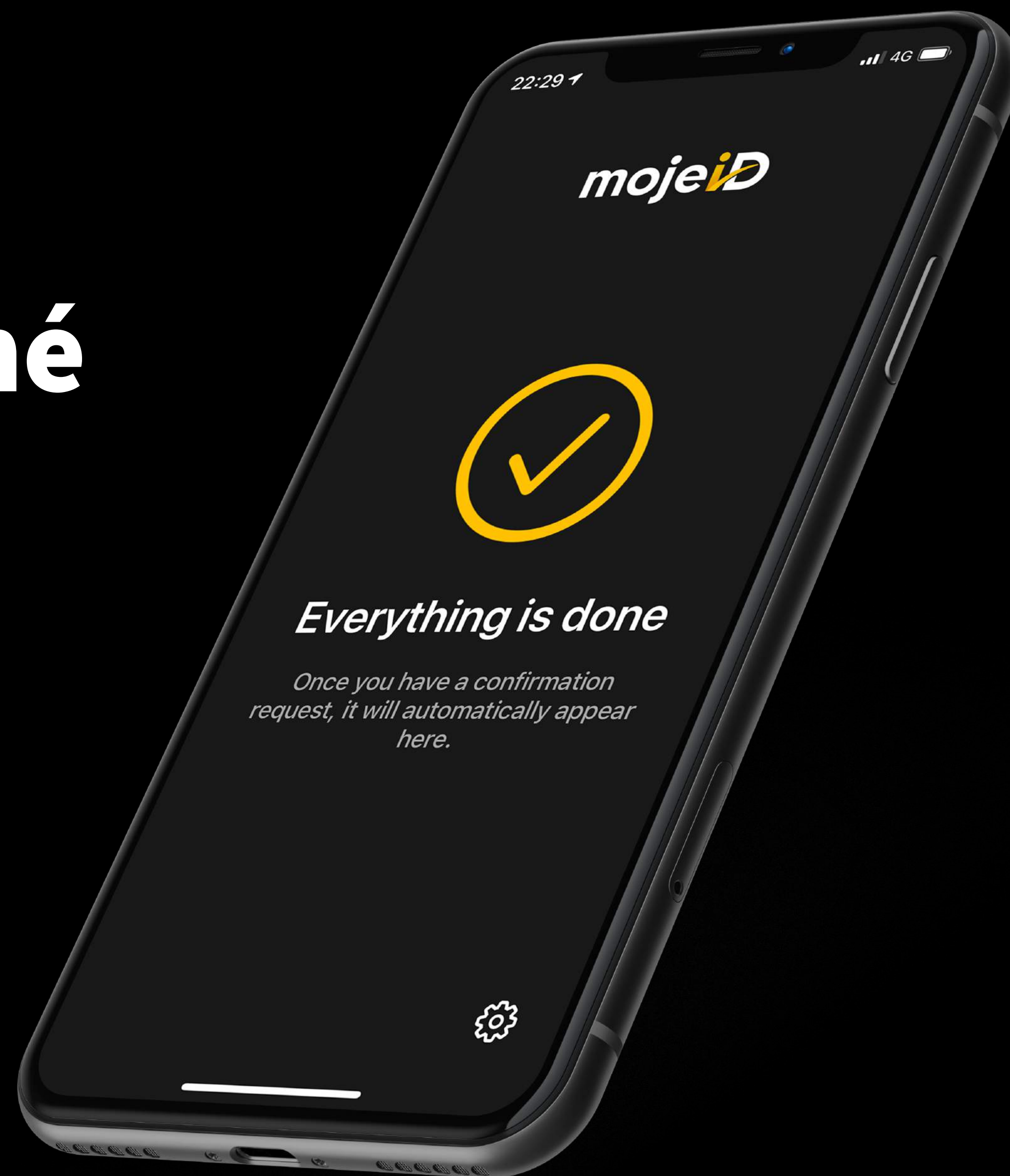


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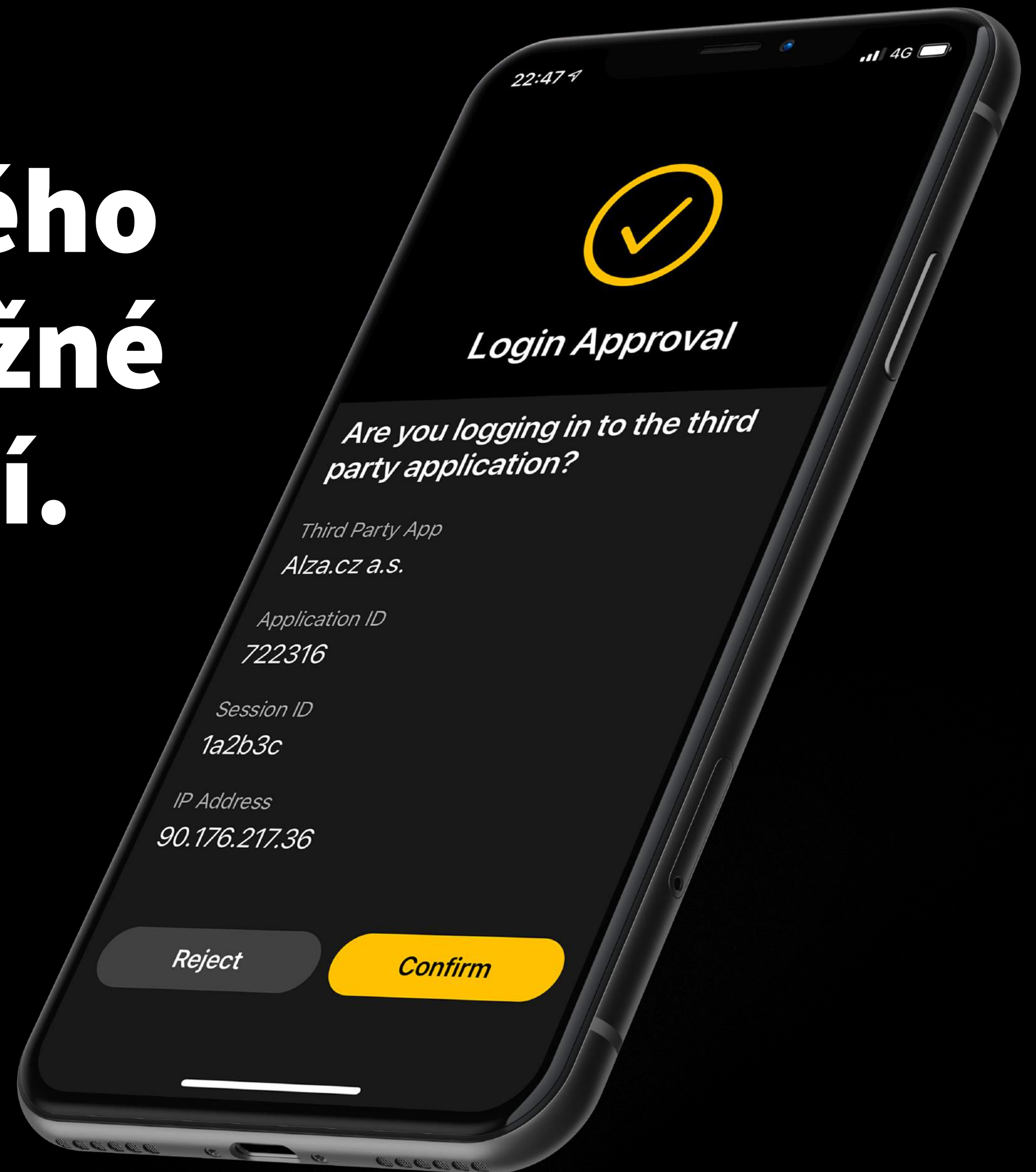


zonky.cz

MojeID Klíč je appka pro rychlé a pohodlné přihlašování.



**Zobrazení přehledného
detailu operace, možné
schválení i zamítnutí.**



Jednoduché potvrzení přes PIN kód či biometrii.

- 1 **Silná kryptografie (EC)**
- 2 **Bezpečnost zařízení**
- 3 **WYSIWYS* princip**



* What You See Is What You Sign

Soulad s regulacemi a dobře známými standardy



Přehled technologie



Open-Source

<https://github.com/wultra>

Wultra

github.com/wultra/

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Solutions for Secure Digital Finance

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powerauth-mobile-sdk

Mobile SDK for PowerAuth Protocol (core, ios, watchos, android)

Objective-C 21 14

powerauth-push-server

PowerAuth Push Server repository

Java 13 9

powerauth-restful-integration

Integration libraries used when building PowerAuth protected RESTful

Java 3 4

powerauth-server

PowerAuth Server Component

Java 10 6

powerauth-webflow

PowerAuth Web Authentication - Federated Authentication and Authorization Server for Web

Java 5 7

sike-java

SIKE for Java is a software library that implements experimental supersingular isogeny cryptographic schemes that aim to provide protection against attackers running a large-scale quantum computer.

Java 17 3

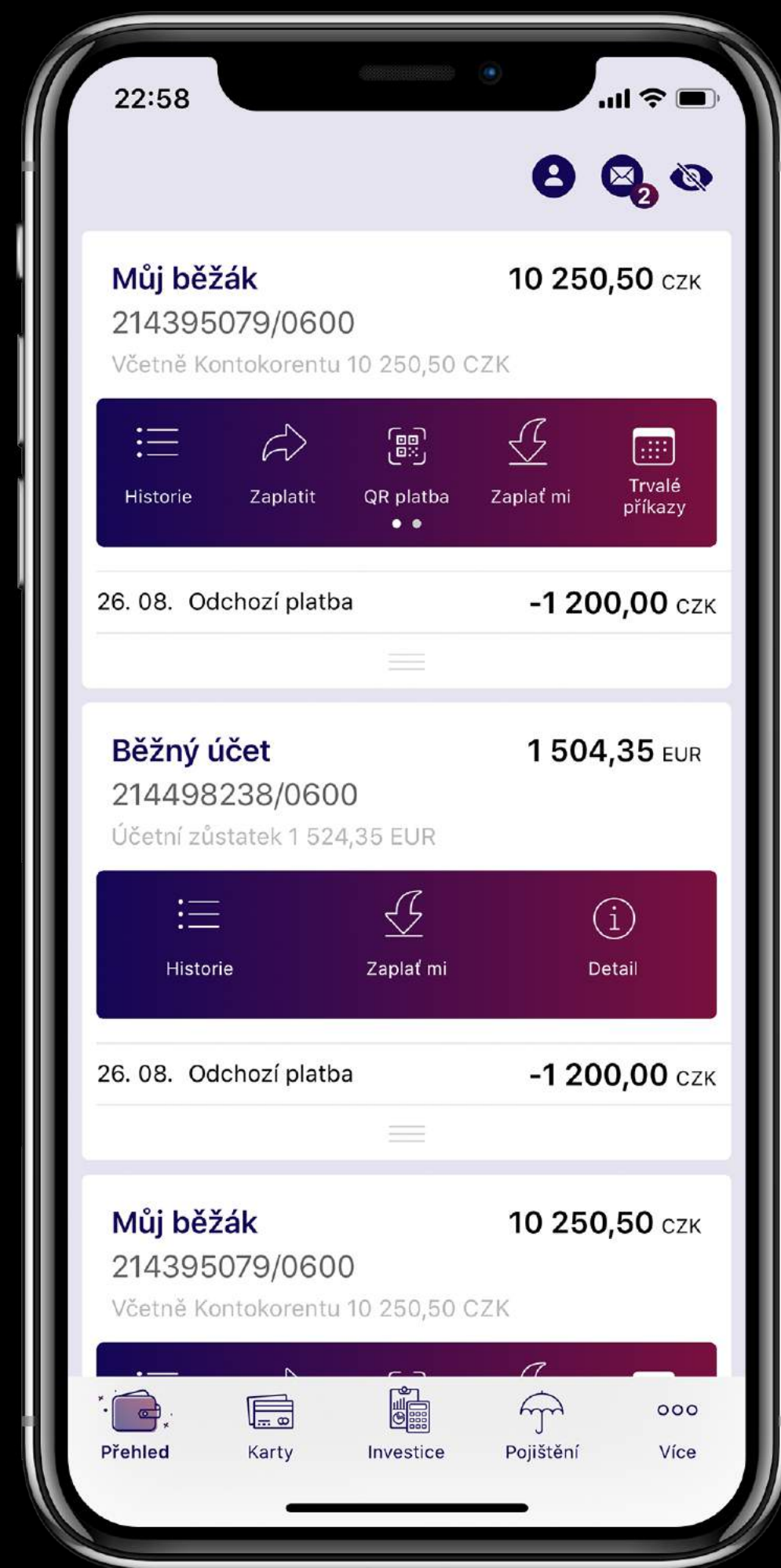
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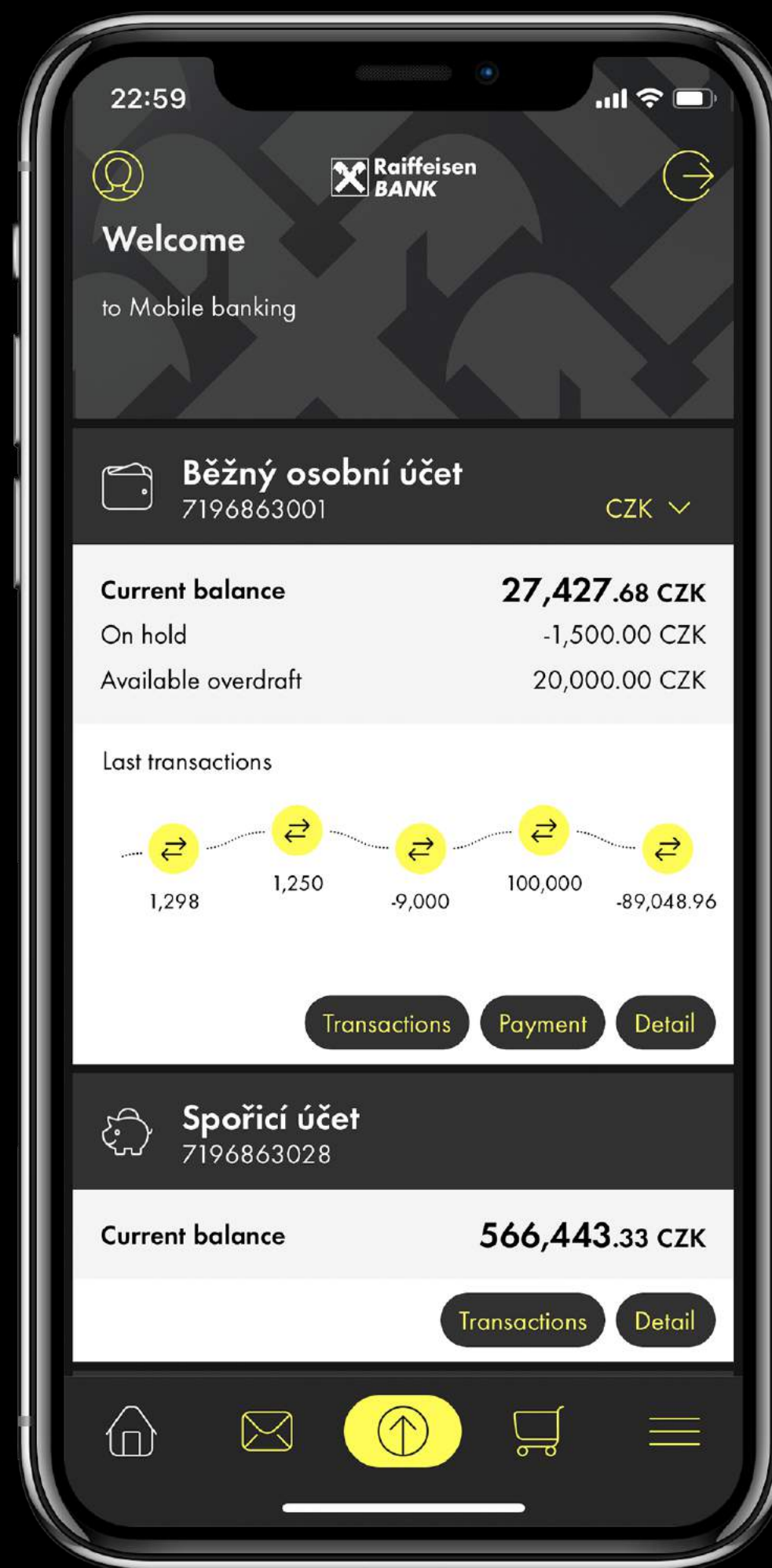
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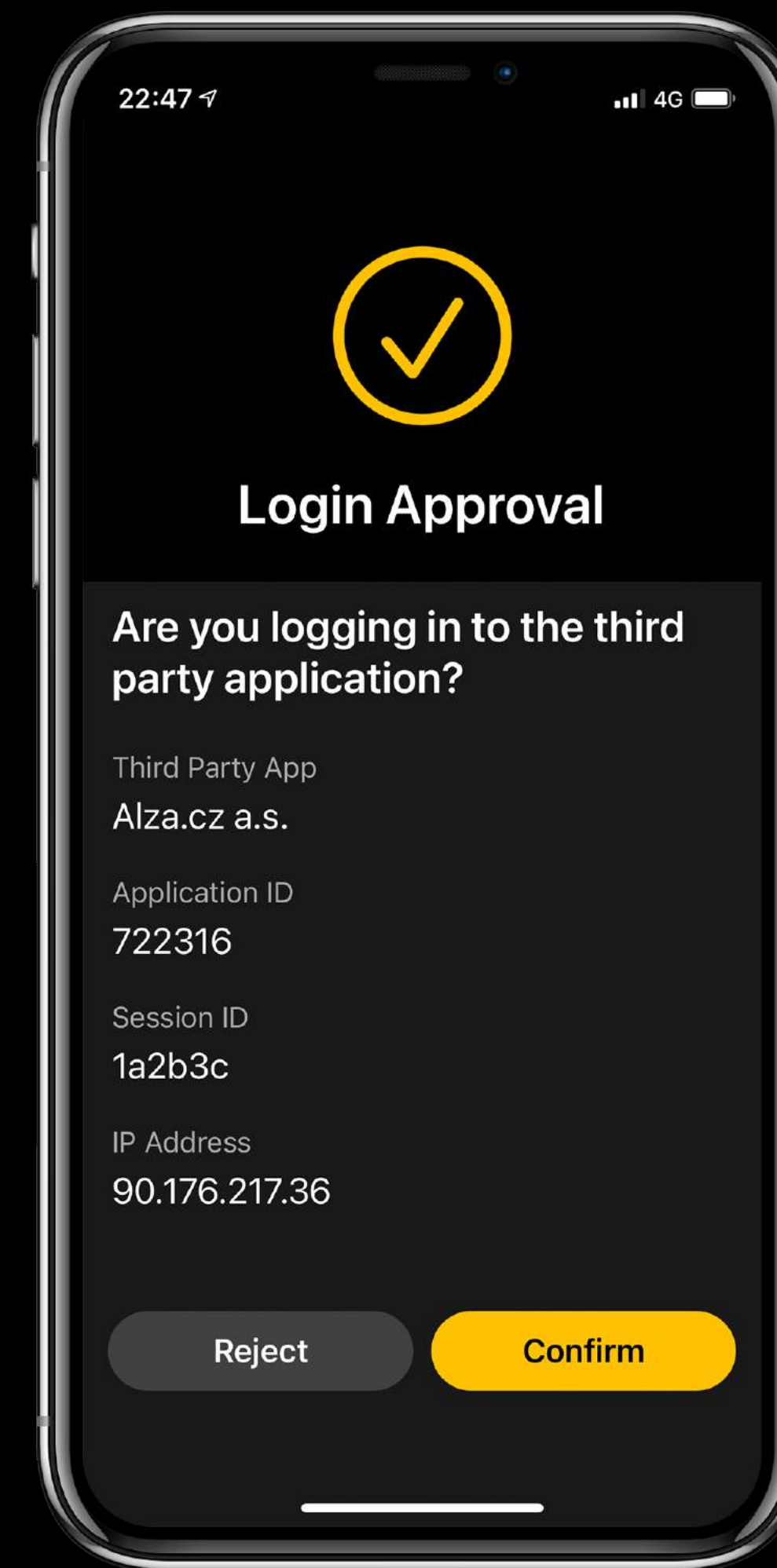
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Cryptographic SDK



Mobile Token SDK



Mobile Token App



Mobile Token App

Mobile Token SDK

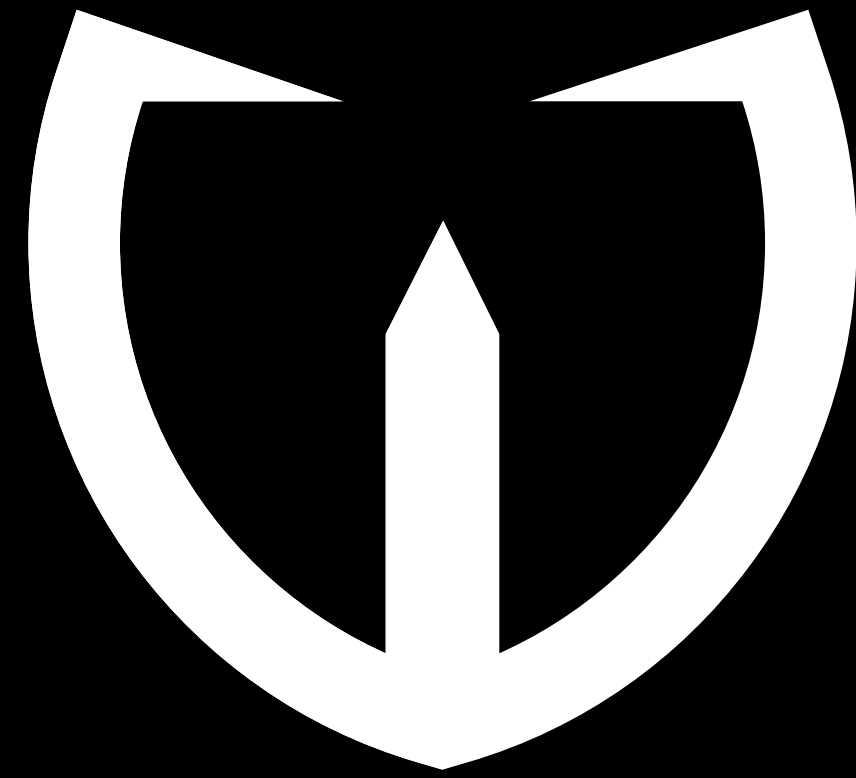
Cryptographic
SDK

**Čistá
architektura.
Více-vrstevný
návrh.**

Systemová integrace

Bleskové nasazení. Jednoduchá API volání.





Developer Portal

<https://developers.wultra.com/>

Wultra Developer Portal

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An illustration depicting digital banking security. It features a smartphone with a lock icon and three dollar signs (\$\$\$) on its screen. To the left of the phone is a fingerprint scanner icon. Above the phone is a pie chart with a single slice highlighted. To the right of the phone is a circular icon with a dollar sign (\$) and a dashed line. The entire illustration is rendered in a light blue and white color scheme with a hand-drawn, sketchy style.

Mobile Token | Wultra Develop

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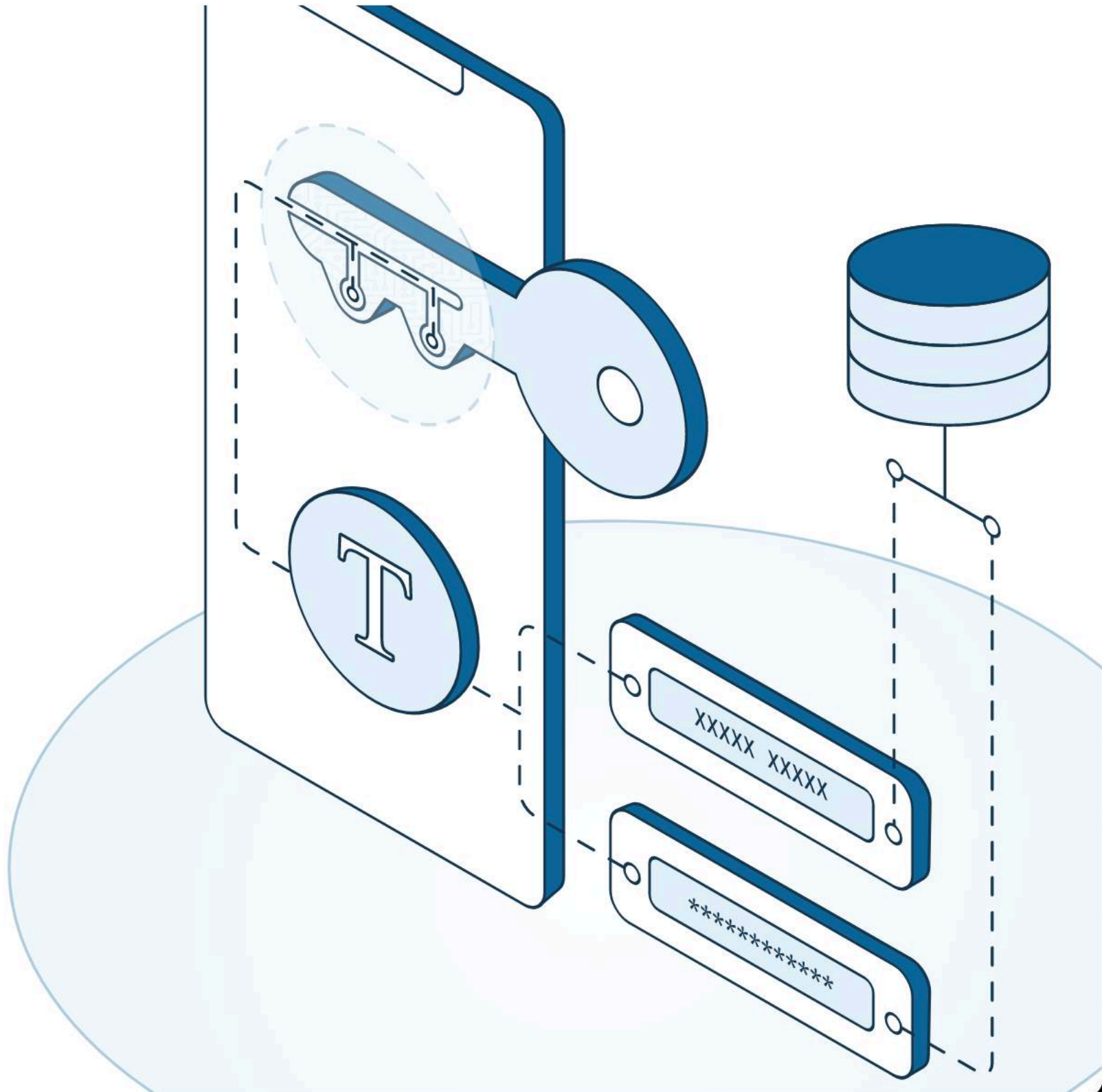
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Mobile Token

Provide fast and convenient authentication to your web users through a mobile app and increase your compliance with PSD2/SCA requirements.

Time to implement

 1-3 months



Authentication in Mobile Bankir x +

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🏠 / Mobile Security Suite 2020-11 / Tutorial: Authentication in Mobile Banking Apps (SCA)

Authentication in Mobile Banking Apps (SCA)

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May 04, 2020

In this tutorial, we will show you how to implement authentication into your mobile banking or fintech apps.

This tutorial has four parts:

- Mobile Authentication Overview
- Tutorial for Server Side Developers
- Tutorial for iOS Developers
- Tutorial for Android Developers



Petr Dvořák
CEO at Wultra

PowerAuth Cloud: PowerAuth

developers.wultra.com/components/powerauth-cloud/1.0.x/documentation/API-Reference-Single-Device#post-operations

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Remove Registration

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Create New Operation

GET

Get Operation Status

DELETE

Cancel Operation

GET

Get Operation QR Code

POST

Verify Operation OTP

Auditing Services

POST

/operations

Create New Operation

Create a new operation to be approved.

Request

```
{  "userId": "$USER_ID",  "template": "$TEMPLATE",  "language": "en",  "externalId": "op_123",  "parameters": {    "param1": "$PARAM1",    "param2": "$PARAM2",    "param3": "$PARAM3"  }}
```

Attribute	Type	Description
userId *	String	ID of a user for whom to create a new operation.

PowerAuth Cloud: Database St x

+

← → ↺

developers.wultra.com/components/powerauth-cloud/1.0.x/documentation/Database-Structure#table-pa_cloud_user

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Introduction

Open-Source Component Tables

Tables

es_operation_template

pa_cloud_user

pa_cloud_user_authority

pa_cloud_user_application

pa_cloud_callback

pa_cloud_localization

Sequences

pa_cloud_user_app_seq

pa_cloud_user_app_seq

pa_cloud_user_app_seq

pa_cloud_user

API User Credentials

Stores credentials for the integration API users (systems calling the services to initiate a mobile token application).

Schema

Columns

Keys

Indexes

```
create table pa_cloud_user (  
  id bigint not null constraint pa_cloud_user_pkey primary key,  
  username varchar(255) not null,  
  password varchar(255) not null,  
  enabled boolean not null  
);  
  
create unique index pa_cloud_user_username_idx on pa_cloud_user (username);
```

pa_cloud_user_authority

API User Authority

Stores the authority (role) of the integration API users. Note: Currently, roles are not interpreted by

PowerAuth Java Crypto: Basic

developers.wultra.com/components/powerauth-crypto/1.0.x/documentation/Basic-definitions

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PowerAuth Java Crypto

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Basic Definitions

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POWERAUTH SPECIFICATION

Overview

Basic Definitions

Activation

Key Derivation

Checking Status

Signatures

MAC Token Based Authentication

End-To-End Encryption

Activation Recovery

Additional Activation OTP

Standard REST API

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v1.0.0

Basic Definitions

The goal of this chapter is to define used functions related to cryptography and data manipulation. The definitions crafted in this chapter are then used in pseudo-codes in documentation. You can learn more about actual implementation of following functions in the “Implementation Notes” section.

Cryptographic Functions

ON THIS PAGE:

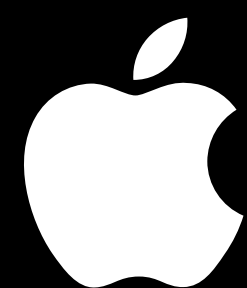
Introduction

Cryptographic Functions

Helper Functions

MojelD Klíč

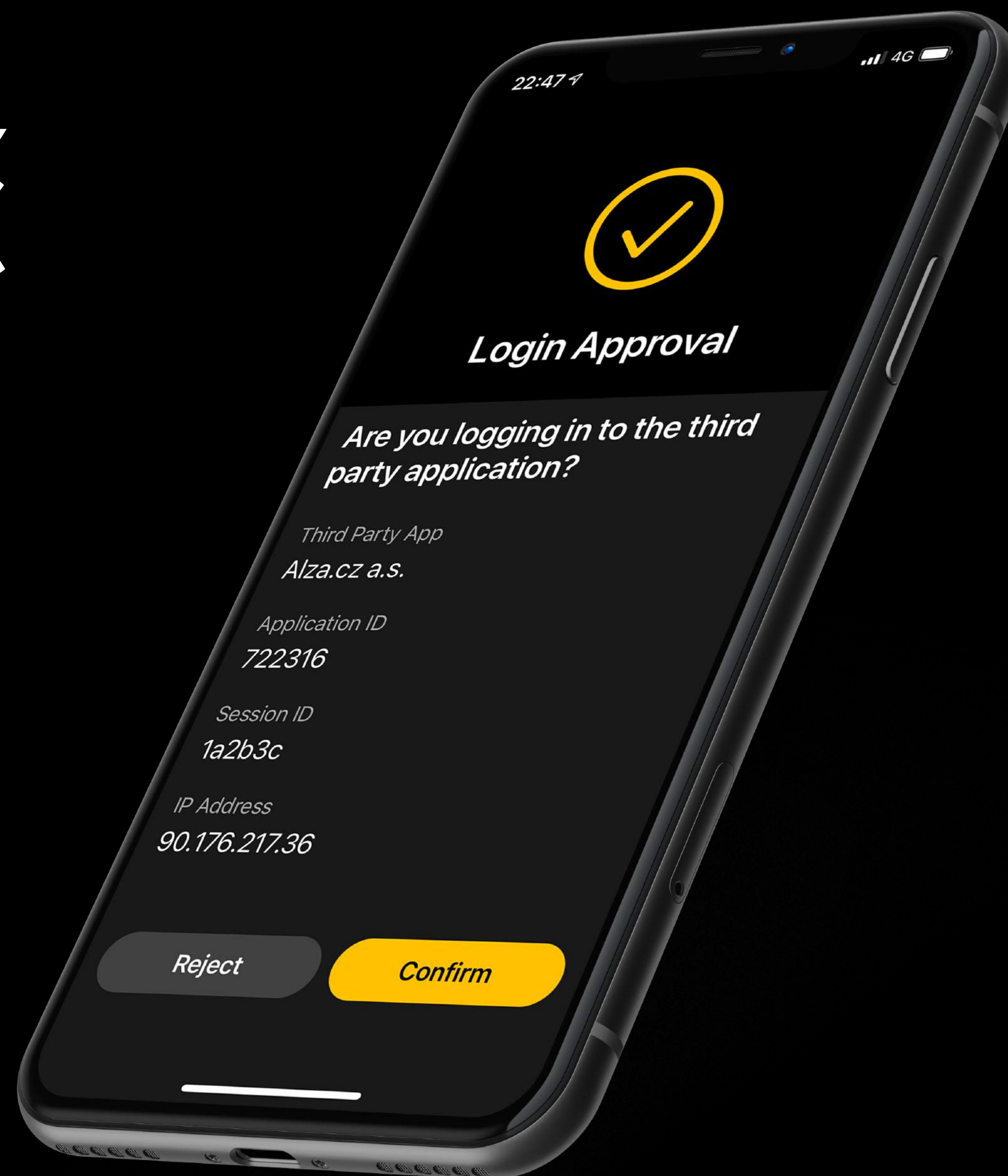
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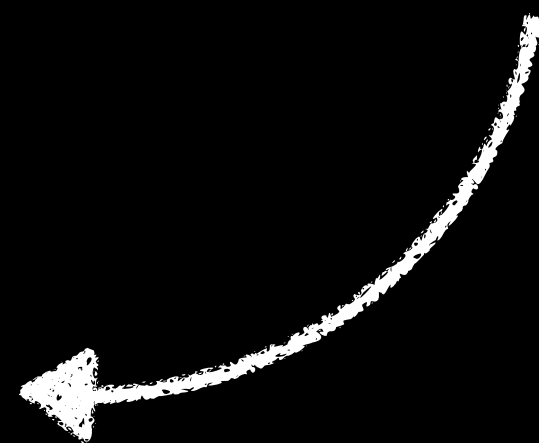


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společnosti důvěřují
autentizačním
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