March 2025

Manilla, Philippines

MOSIP

Knowledge Sharing Session

Integrating Signet

Objective

This session will help you understand how to seamlessly integrate eSignet into your existing identity systems for secure authentication, thereby enabling service delivery.

eSignet

Agenda

- Functional Overview of eSignet
- Tech Stack Overview
- eSignet Components
- Authenticator Plugin Overview
- Use Case Overview
- Live Coding: Developing the Authenticator Plugin
- End-to-End Authentication Flow
- Q&A

eSignet - Overview

A simple yet powerful mechanism for end users to identify themselves, avail online services, and share profile information.

- Login with trusted ID
- Support for multiple authentication factors
- Frictionless inclusion of new authentication factors
- Easy integration with relying parties
- Collection of user consent
- Avoid unwanted profiling
- Provide multiple assurance levels
- Integration with Digital Wallets

Standards
Ensuring Security & Privacy

- Oauth 2.0
- OIDC
- IEEE SA P3167 SBI

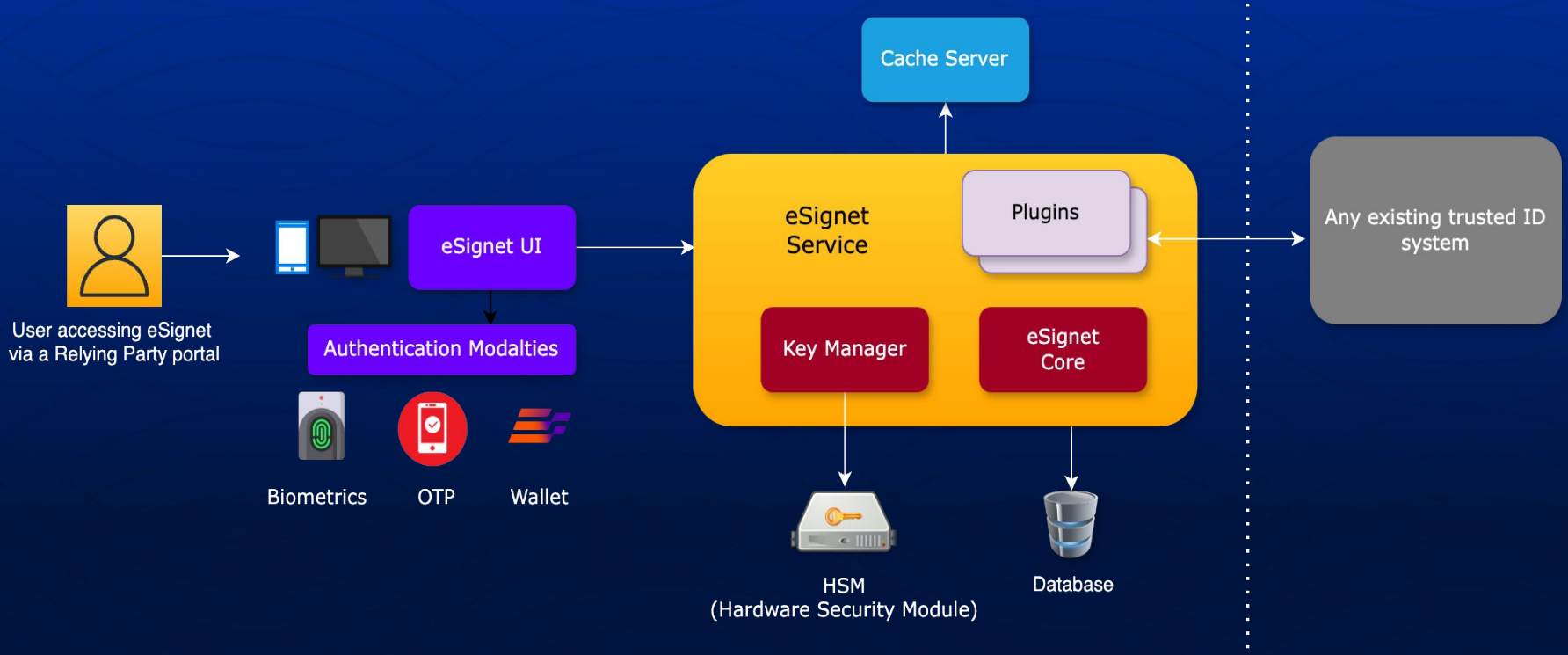
eSignet

Tech Stack

- Java 11
- Spring Framework
- React Js
- Redis
- Postgres
- Kafka

Signet

eSignet Components



Authenticator Plugin - Overview

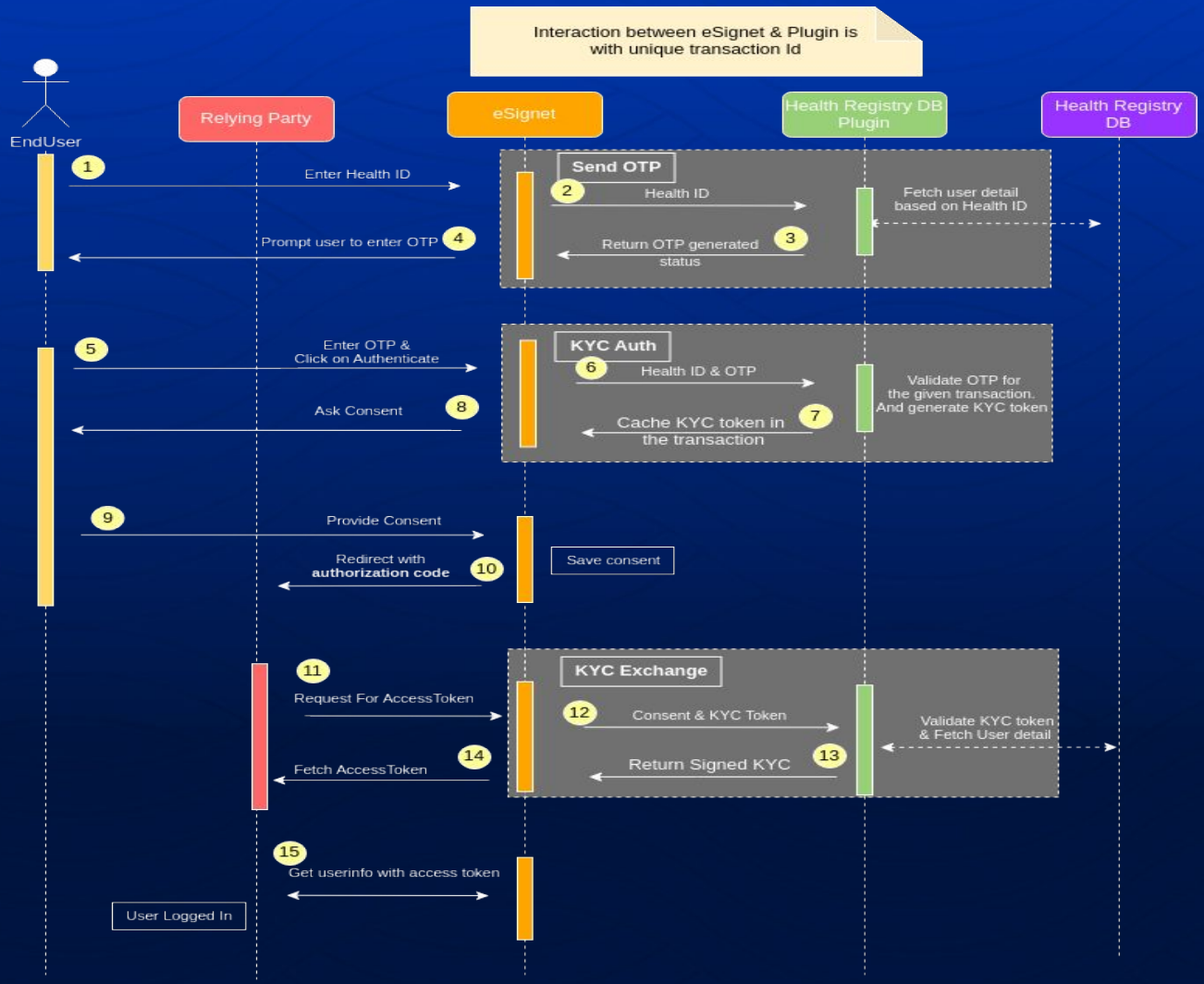
- **Main Interface for Authentication**
  - Core interface for eSignet, enabling user authentication through various supported authentication factors
- **Integration with Identity Systems**
  - It can be implemented by identity systems to enable secure authentication and leverage the digital usage of identities in eSignet
- **Varied Identity System Complexity**
  - Identity Systems can range from simple solutions like a database table or an excel file to complex, enterprise-level systems

Use Case

Health Registry DB as ID System

Use Case: Authentication with Health ID system

- **Scenario:** Veridonia country has health registry with unique health ID for every resident. Hospitals or Insurance companies offering online health services will use eSignet to identity resident to provide service. Health ID registry is a simple MySQL database with only READ access.
- **Approach:** eSignet is integrated as the authentication module to ensure secure access to residents in the national health registry.
- **Benefits:**
  - Unified authentication for residents across all hospitals connected to the health registry.
  - Quick, secure, and customized authentication for hospitals / insurance companies accessing the health registry.
- **Result:** Secure, protected, and efficient patient access to vital health services


Interaction between eSignet & Plugin is with unique transaction Id
EndUser
Relying Party
eSignet
Health Registry DB Plugin
Health Registry DB
Send OTP
1
Enter Health ID
2
Health ID
Fetch user detail based on Health ID
3
Return OTP generated status
4
Prompt user to enter OTP
KYC Auth
5
Enter OTP & Click on Authenticate
6
Health ID & OTP
Validate OTP for the given transaction. And generate KYC token
7
Cache KYC token in the transaction
8
Ask Consent
9
Provide Consent
Save consent
10
Redirect with authorization code
KYC Exchange
11
Request For AccessToken
12
Consent & KYC Token
Validate KYC token & Fetch User detail
13
Return Signed KYC
14
Fetch AccessToken
15
Get userinfo with access token
User Logged In

Getting Started with Integration

Live Coding

- Develop Health registry DB based Authenticator plugin
- Integrate the authenticator plugin with eSigent
  - Local docker compose setup

Steps: End-to-End Authentication Flow

- Create Health Registry – Register the patient in the database
- Access Health Services Portal – Navigate to the designated portal
- Initiate Sign-In – Click on "Sign in with eSignet"
- Select Authentication Method – Choose "Login with OTP" as the authentication factor
- Enter Health ID Credentials – Input the Health ID
- Verify OTP – Enter the OTP received and click "Verify"
- Access Health Records – Upon successful authentication, the user is redirected to the health portal landing page to view their records

Resources

- Source code
- eSignet docs
- Docker compose

eSignet

Any Questions?

Signet

MOSIP

MOSIP Homepage: www.mosip.io

MOSIP Source Code: github.com/mosip

MOSIP Documentation: docs.mosip.io

MOSIP Community: community.mosip.io

eSignet Source Code: github.com/mosip/esignet

eSignet Documentation: docs.esignet.io

eSignet Community: community.mosip.io/c/e-signet/15