

HaRBInger 2025

Innovation for Transformation

TrustKYC Vault

Tokenised, Consent-Driven Digital KYC for Secure Financial Ecosystem



Presented By:

- Reema Srivastava — Project Leader - 9120758672
- Shubham Kumar Vishnoi — Team Member - 9058612403



Technology Focus: .NET Development



TrustKYC Vault

|

| Tokenised,
Consent-Driven
Digital KYC |

| for Secure
Financial Ecosystem

TrustKYC: Tokenised, Consent-Driven Digital KYC for India



- ✓ Project Name: **TrustKYC**
- ✓ Team Name: AI Innovation Team
 - ✓ Team Members: 2 Member
- ✓ Submission Category: **Theme 1 – Tokenised KYC**

Slide 2 — Problem Background & Why It Matters

Today in India, every bank, wallet, insurance provider, and financial application requires a separate KYC process.

This results in:

User onboarding friction

Repeated verification cost

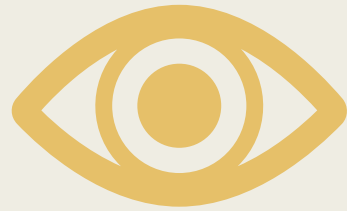
Higher risk of identity exposure & data leaks

Slow digital financial inclusion

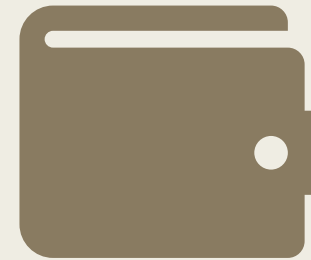
Repeated KYC effort = Over ₹100 crore annual cost to the financial ecosystem (estimated)

SLIDE 3 — GAP ANALYSIS:
WHAT'S MISSING TODAY?

Current System	Issue
Separate KYC for each institution	Redundant and costly
Aadhaar + OTP Model	No selective disclosure
Identity stored across multiple systems	Higher breach risk
No unified consent mechanism	Lack of transparency & user control



Slide 4 — Vision Statement



“To create a reusable digital KYC identity token controlled by the user and accepted across all financial institutions in India.”

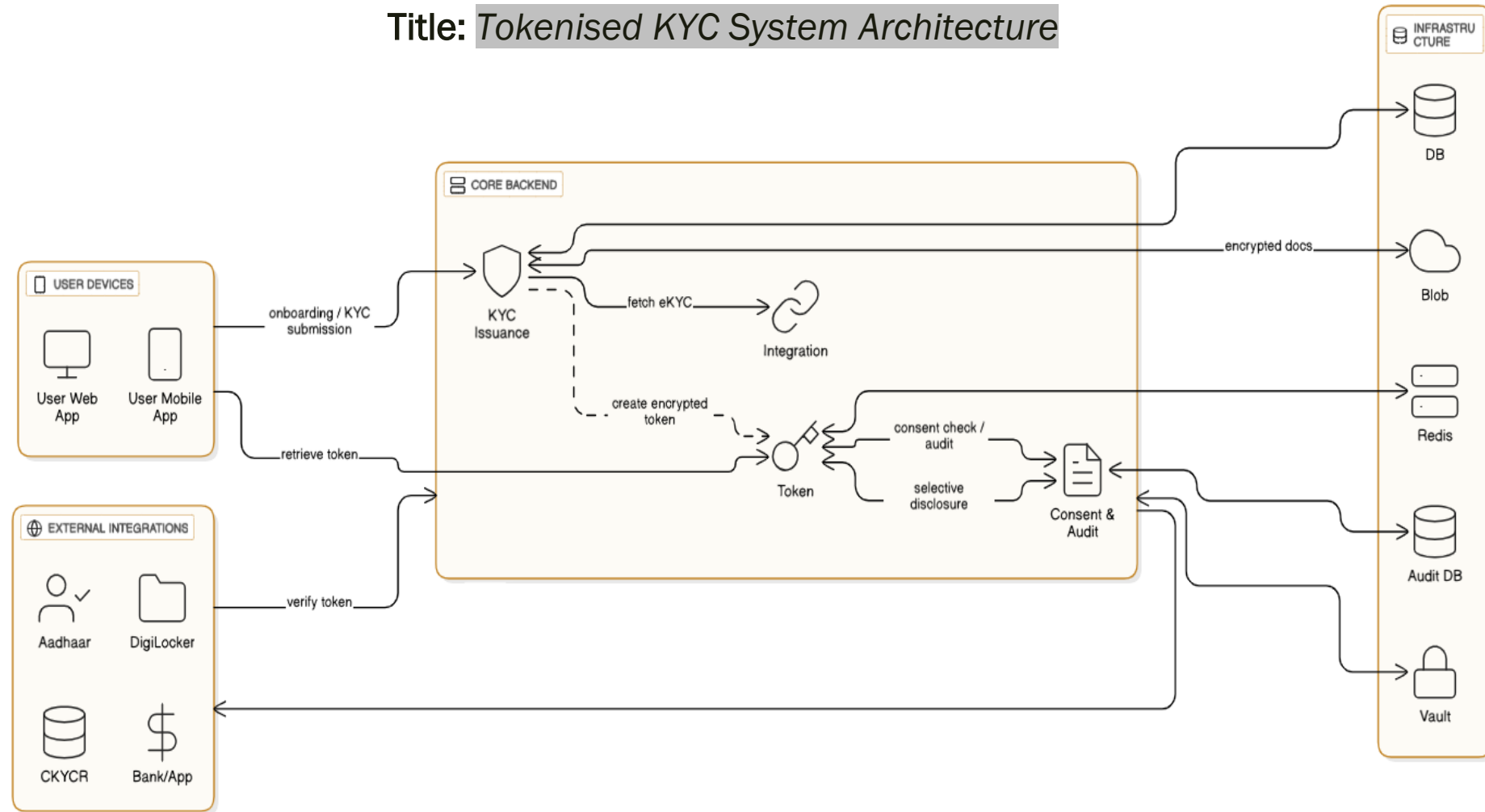
Slide 5 – Solution Concept: TrustKYC

Our solution introduces a secure and reusable KYC token model that supports:

- ✓ One-time KYC verification
 - ✓ Secure encrypted identity tokens
 - ✓ Consent-driven data sharing
 - ✓ Tamper-proof verification with audit logs
 - ✓ Interoperability with Aadhaar, DigiLocker, and CKYCR
-

Slide 6 — System Architecture

Title: *Tokenised KYC System Architecture*



Slide 7 —
Workflow
Summary

User Onboarding

Aadhaar /
DigiLocker-based
identity
authentication

KYC verification
completed

Encrypted
TrustKYC token
generated

Sharing with a
New Financial
Institution

User shares
token

Institution
verifies via
TrustKYC API

Only required
data is shared
(**selective
disclosure**)

Update &
Revocation


Change in
identity → Token
updated

Updated record
is reflected
across
institutions



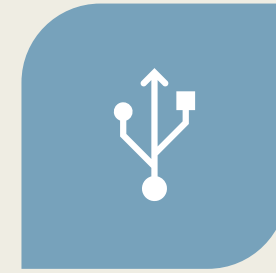
SLIDE 8 — KEY FEATURES




 ZERO-TRUST
SECURITY MODEL




 SELECTIVE
DISCLOSURE WITH
CONSENT CONTROL




 PLUG-AND-PLAY API
ECOSYSTEM



 REUSABLE IDENTITY
ACROSS INSTITUTIONS



 FULL COMPLIANCE
WITH CKYCR AND RBI
GUIDELINES

SLIDE 9 — TECHNOLOGY STACK (.NET FOCUSED)

Layer	Technology
Backend Framework	ASP.NET Core 8 Web API
Authentication	OAuth2 + OpenID Connect + JWT
Database	PostgreSQL / SQL Server
Caching	Redis
Security	RSA/ECDSA + AES-256 Encryption
Token Format	JSON-LD + W3C Verifiable Credentials
Client App (Optional)	.NET MAUI
Cloud	Azure / AWS
Logging	Serilog + Seq

Slide 10 — Security Model

- Public-private key cryptography
- Secure key vault for signing and storage
- Token tamper detection and verification
- Support for **Zero-Knowledge Proofs (ZKP)** for privacy-preserving validation



**Slide 11 —
Compliance &
Integration**

The system aligns
with existing and
upcoming Indian
digital identity
standards:

Aadhaar Offline
Verification

DigiLocker API
integration

CKYCR dataset
compliance

India Data Protection
Act & RBI Digital
Identity Framework

Slide 12 — Business Impact & Scalability



```
graph TD; A[Slide 12 — Business Impact & Scalability] --> B[✓ Reduction in repeated KYC processing cost]; B --> C[✓ Faster onboarding (seconds instead of days)]; C --> D[✓ Increased trust and fraud reduction]; D --> E[✓ National identity interoperability at scale];
```

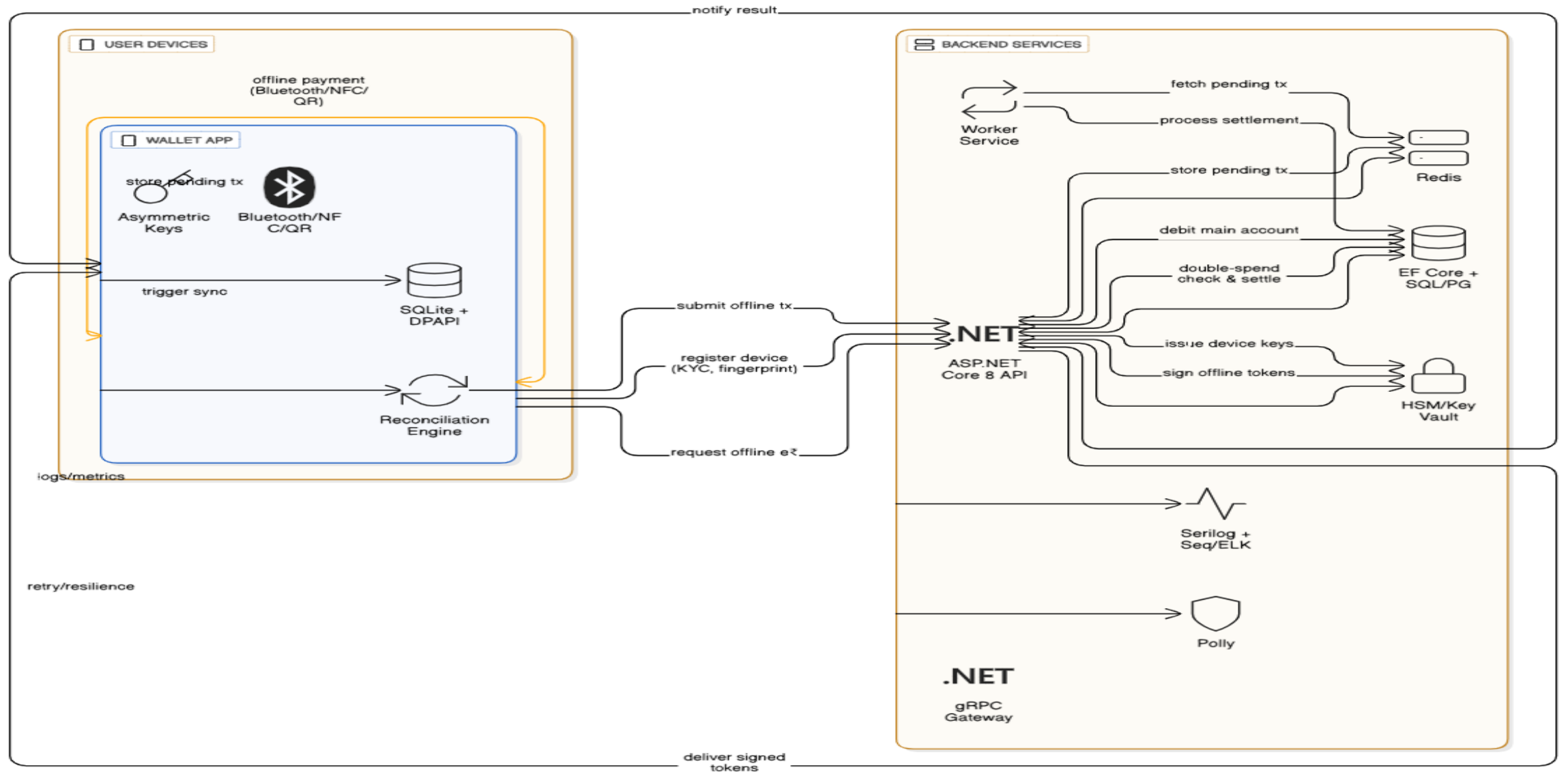
✓ Reduction in repeated KYC processing cost

✓ Faster onboarding (seconds instead of days)

✓ Increased trust and fraud reduction

✓ National identity interoperability at scale

Slide 13 – Flow Chart Working Scenerios (Demo)



SLIDE 14 — ROADMAP

We are a dedicated and solution-driven team, and we are confident that we can complete this project even before the proposed timeline. We have already developed and launched multiple applications in the market, including wallet-based systems that support payments without the need for internet connectivity.

Given our experience and proven capability, if we are provided the opportunity, we will deliver this solution efficiently and in a significantly shorter time frame

Phase	Duration	Output
Prototype	30 Days	Working demo + Token API
Pilot	3–6 Months	Deployment with two FI partners + CKYCR integration
Scaling	1–2 Years	National adoption and ecosystem standardization

Slide 15 – What Can Our Team Deliver

Strong expertise in **.NET architecture and secure backend development**

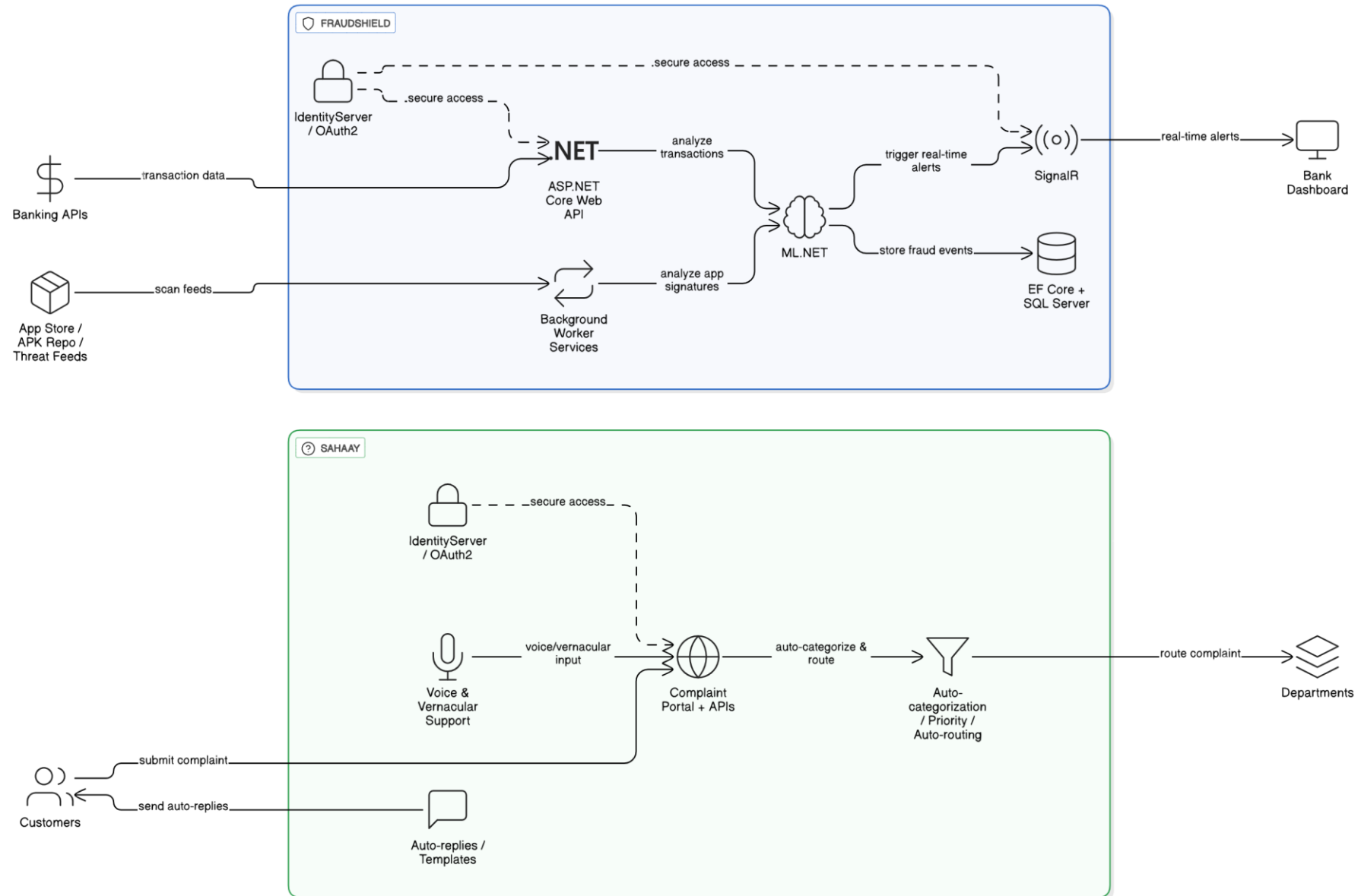
Hands-on experience in identity systems, APIs, and cryptography

Understanding of Aadhaar, DigiLocker, and digital public infrastructure

Experience building scalable enterprise-grade software

SLIDE 16 — FINAL MESSAGE

TRUSTKYC
ENABLES
SECURE,
REUSABLE, AND
CONSENT-
DRIVEN
IDENTITY
VERIFICATION —
BUILDING A
MORE TRUSTED
AND
FRICTIONLESS
DIGITAL
FINANCIAL
SYSTEM FOR
INDIA.



thanks!

