Digital Evolution: Issuance
Transitioning From Paper to Digital Credentials

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Digital Technology...

is Transforming Our Lives

3 pillars
of digital economy
for inclusive development

DIGITAL IDENTITIES
Who I Am
Foundational & Functional IDs

DIGITAL ASSETS
What I Have
Digital Verifiable Credentials, Data, and more

DIGITAL TRANSACTIONS
What I Do
Schemes, Payments, Applications

Information must be shared
to access benefits and services

Employment Records

Identity Check

Bank Balance

Background Check

Insurance Check

Health Check

Education and Skills Check

...and more

Trusted Providers

Challenges
with previous approaches

01 (Only) Paper based, difficult to verify and risk of losing
Traditional paper (only) certificates are difficult to verify and users need to go back to source for issuing duplicates. Slow, expensive, unreliable.

02 Online verification in not scalable & inclusive
Not all users have the ability to authenticate themselves online, not all relying parties have systems for online verification, and these online verification systems cannot scale.

03 QR code (custom) and verification portal are not interoperable
Certificates with QR code can be verified only on the issuer's portal. QR code could only be authenticated in custom app and depend on availability of verification system.

Empower the user by issuing verifiable credentials

Government Departments & Private Institutions can issue digital verifiable credentials

Why Digital Credential?
A credential enables the user at the centre of service delivery

01 Government is the largest credential issuers
From Birth Certificate to Death Certificate government is the biggest issuer and consumer of credentials.

02 Current form of credentialing is broken
The current form of credentials is not verifiable (most of them) and machine readable. Running business as usual gets complicated as there is no standard form of verification. This in turn breaks down the trust chain during service delivery.

03 Right credentialing could increase compliance & reduce fraud
Keeping user at the center of a credential design enables the friction free service delivery. This allows for decentralised deliveries with more trust and compliance.

Issuer
Credentialing Infrastructure

Mature on credentialing, evolving on trust and interoperability

Data Collection

Data Generation

Processing

Proofing

Registries

Credential Creation & Revocation

Trusted Issuance

Business Application

An issuer most often deals with multiple business problems and is regulated

e-Signet

- Implements OpenID for VC Issuance (**OID4VCI**) specification for **trusted** credential issuance
- Doubles as both
  - **OIDC** provider for user identification
  - **OAuth** protected API for credential issuance
- Supports **Cryptographic Holder Binding**
- Agnostic to Credential formats
- Supports DID specifications for **web** and **jwk** methods
- Supports multiple authentication factors
- Frictionless **inclusion** of new authentication factors
- Follows a **runtime-plugin** based integration design
- Out of the box integrations for **MOSIP ID** platform and **Sunbird RC**

Sunbird RC

- Creation of verifiable credentials as per **W3C VC**
- Flexible **schema & template** configuration
- Supports **DID specifications**

- Enables data registries with **claim & attestation** workflows
- Federated & **interoperable** registries
- Flexible **schema for entities** in the registry
- **Easy and rapid deployment** of registries in diverse context

- Peripheral **services & utilities** for implementing solutions
- **Reference tools** to help try out key use-cases
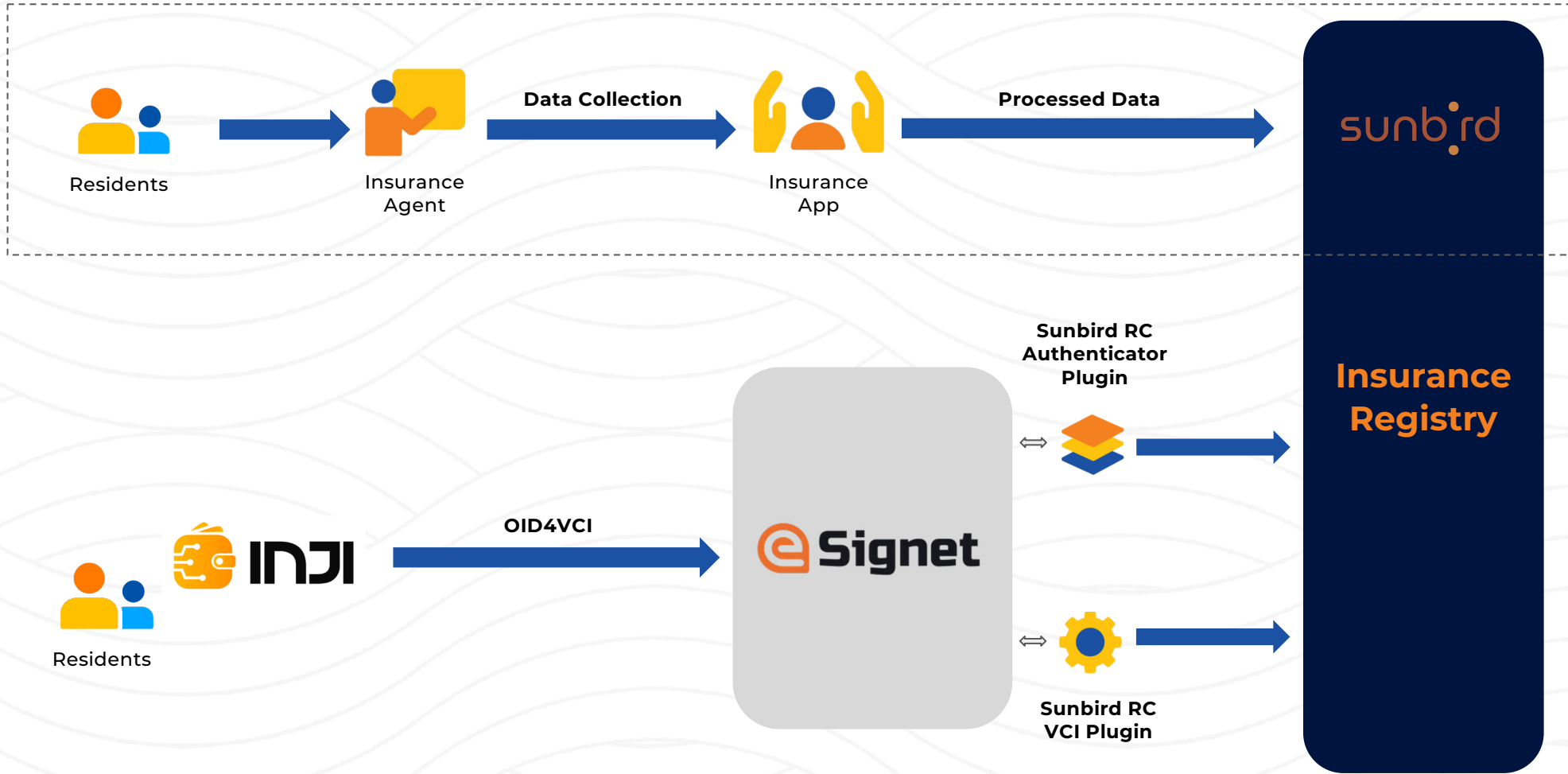
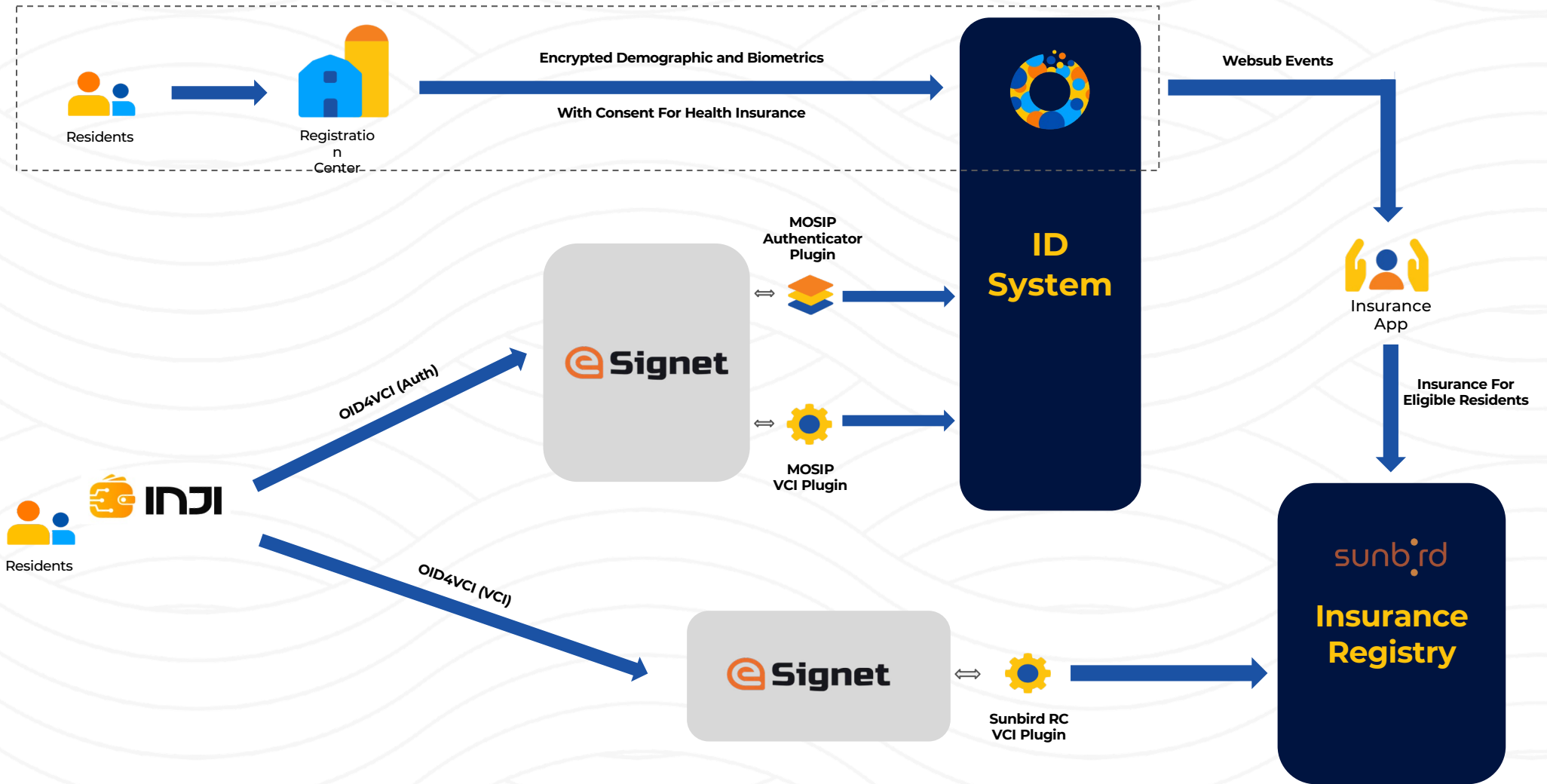# Identity VC
Issuance in MOSIP Platform
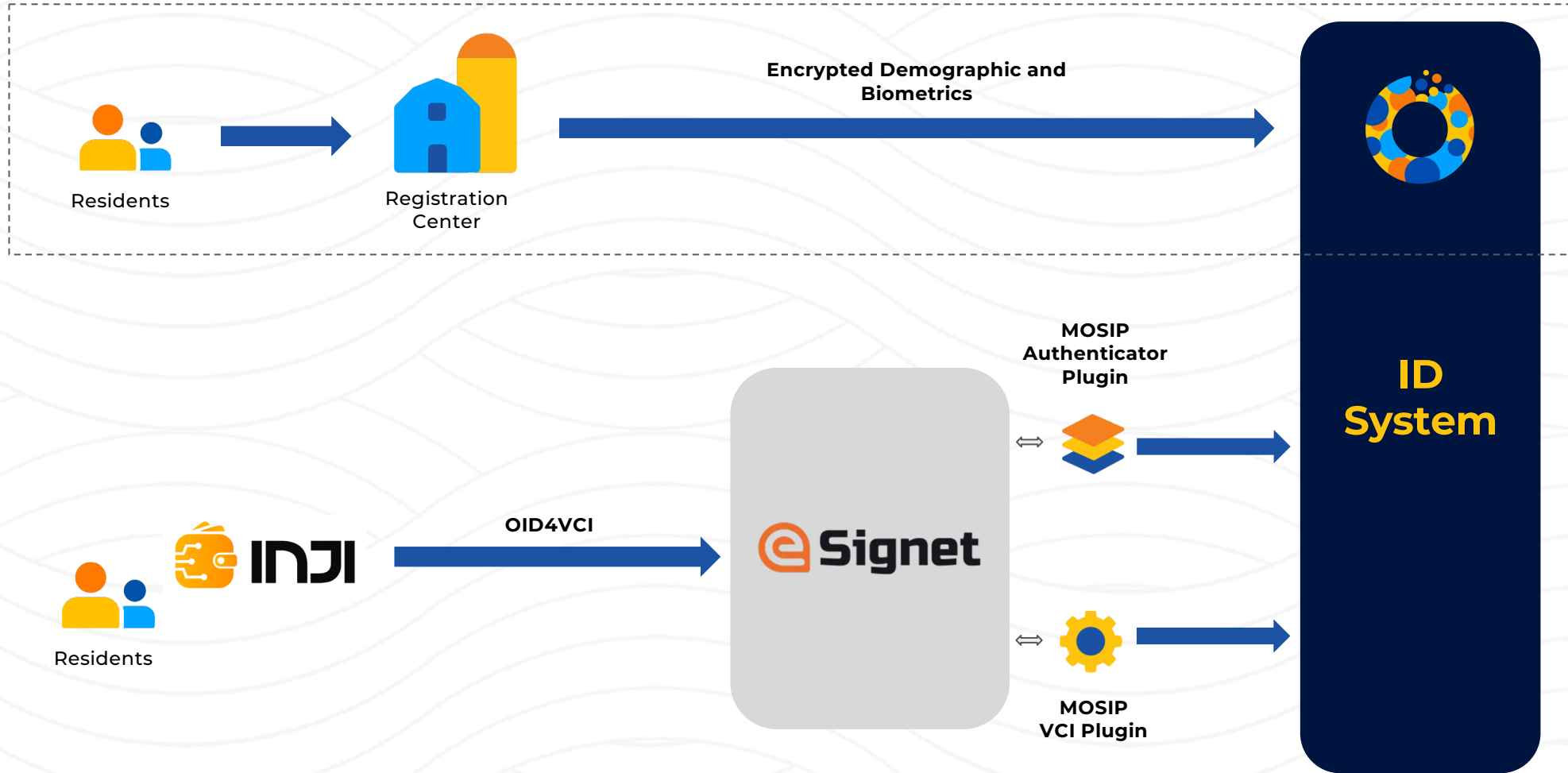
Health Insurance use case demo

Issuer

Roadmap

- Data and certificates as credentials
- Standardised schemas
- Automation through bulk issuance
- Choice of credential types
- Shared hosted issuance service
- Digitally signed credentials for trust
- Associate credentials to a legal subject (person / entity) on demand
- Support for assertion criteria
- Print as QR code and Open Badges
- Support for Revocation

Let's imagine
Use-cases

Agriculture
- Farmer ID, Land record certificates, and Crop registry
- Insurance, Market guarantee, Loan & credit, etc
- Open markets with high-trust

Health
- Doctors & medical practitioner licenses, Health facility registrations, and patient medical records
- Seamless services, Faster diagnosis, Trusted service providers
- Health network with ease of access & choice

Education
- Student ID, Teacher certification, Exam certificates...
- Access to scholarships, Career path for teachers...
- Better learning outcome for students through education ecosystem

MOSIP Homepage: www.mosip.io

MOSIP Source Code: github.com/mosip

MOSIP Documentation: docs.mosip.io

MOSIP Community: community.mosip.io

MOSIP