

Interoperability in Action: Workshop #1

Social Protection Information System Interacting with CRVS



Rodrigo Assumpção

Social Protection Management Information Systems Specialist,
International Labour Organization



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Diversity of Social Protection Programs (SPPs)



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Digital Social Protection

Information systems are indispensable for delivery of Social Protection

Social protection delivery systems are complex with multiple interconnected components

Integrated and interoperable social protection systems enable efficient, responsive service delivery

USP 2030 Vision : A world where anyone who needs social protection can

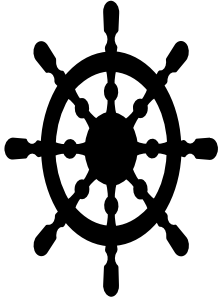
Social Registry, ID system, G2P system, integrated beneficiary registry, CRVS, Tax, Pension, program specific information system

Helps in eligibility and duplication check, targeting, administration, enhance user experience, adaptive social protection

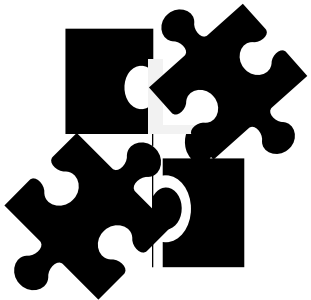


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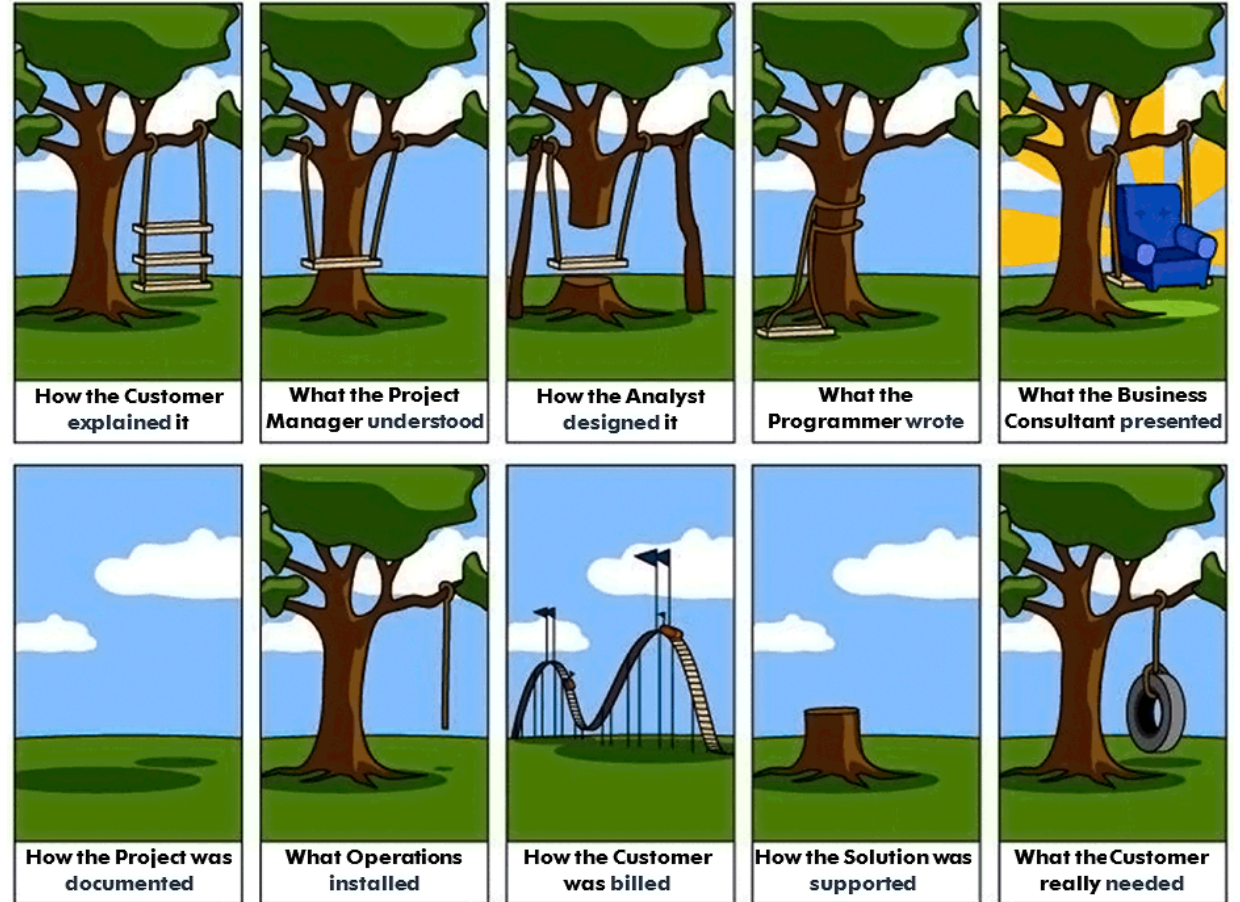
Yet the potential of information systems remains unrealized



**REINVENTING THE
WHEEL**



**LACK OF
INTEROPERABILITY**

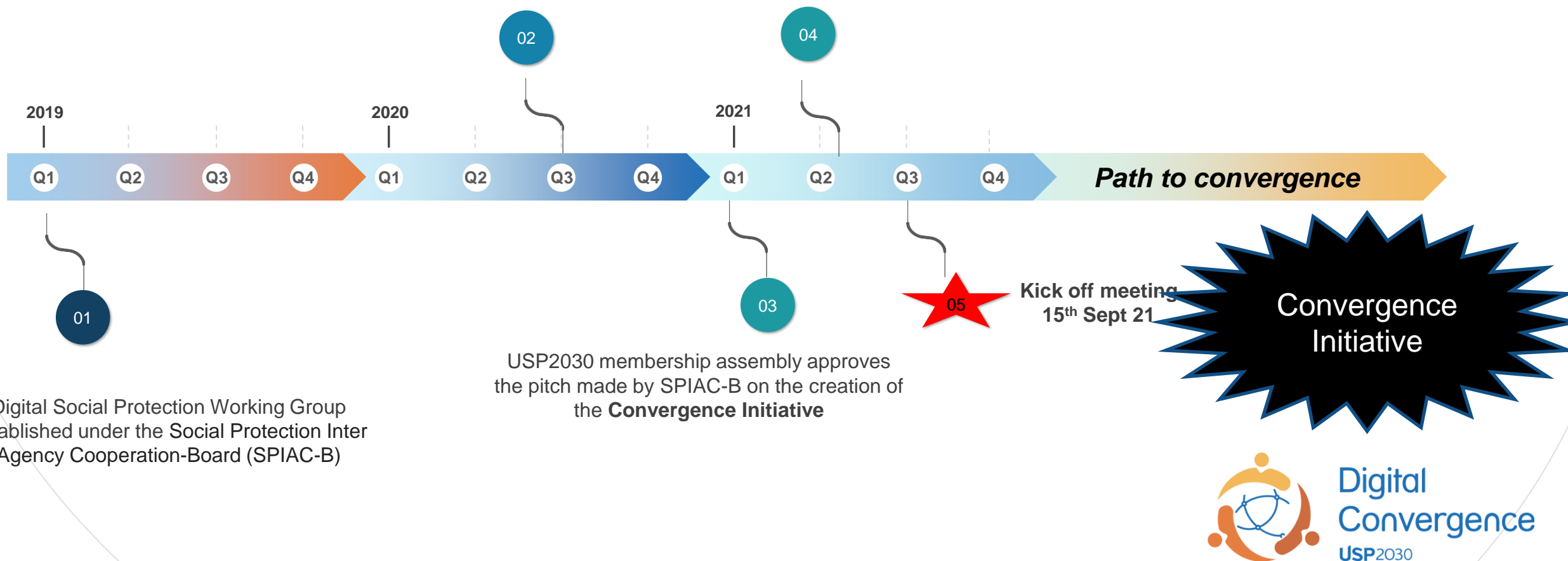


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Convergence of stakeholders to address the felt needs

Study commissioned to understand how the social protection sector can achieve convergence of digital systems

Prepare for the launch of the initiative

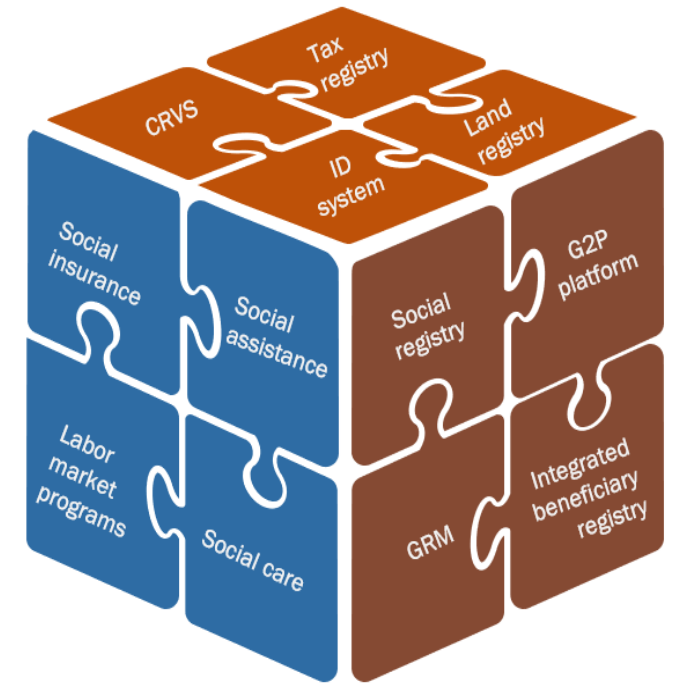


The Digital Convergence Initiative (DCI)

A joint effort by USP2030 members and non-members, governments, development partners and private sector towards creating a harmonized and interoperable digital ecosystem for social protection

Building consensus-based standards for interoperability to

- **foster an ecosystem for innovation** by ICT solution providers to build products that are interoperable, easy to use, integrate, maintain and scale
- **reduce time and costs** of developing solutions at the country/program level
- enable programs and countries to **mix and match different components** from different suppliers
- **ensure that systems are future-proof by design**, regardless of current levels of policy and information systems maturity



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Steering Committee - Digital Convergence Initiative



**International
Labour
Organization**



Veronika Wodsak

ILO, Social Protection Policy Specialist



THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



Melis U. Guven

Worldbank, Global Lead for Social Protection Delivery Systems (Lead Economist)



Anita Mittal

GIZ, Senior Advisor, Sector Initiative Social Protection



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Updates since kick off of initiative Sept 15, 2021

Three streams of work for inclusive social protection programs delivery

Talking Interoperability : Dialogue series

- Showcasing one country every month, to share approach and technical details of their interoperable and integrated SP system.
- Discussants have a dialogue with country experts on interoperability aspects and brainstorm on challenges and lessons learnt.



Collaboration with open source software providers

- To achieve objectives of DCI via existing digital public goods, the DCI will facilitate integration between OSS providers towards building an OSS stack for SP
- A workshop was conducted on 24th March 2022 to identify priority integration use cases and form working groups.
- 7 OSS leading OSS providers contributing to SP functionality participated and many other experts.

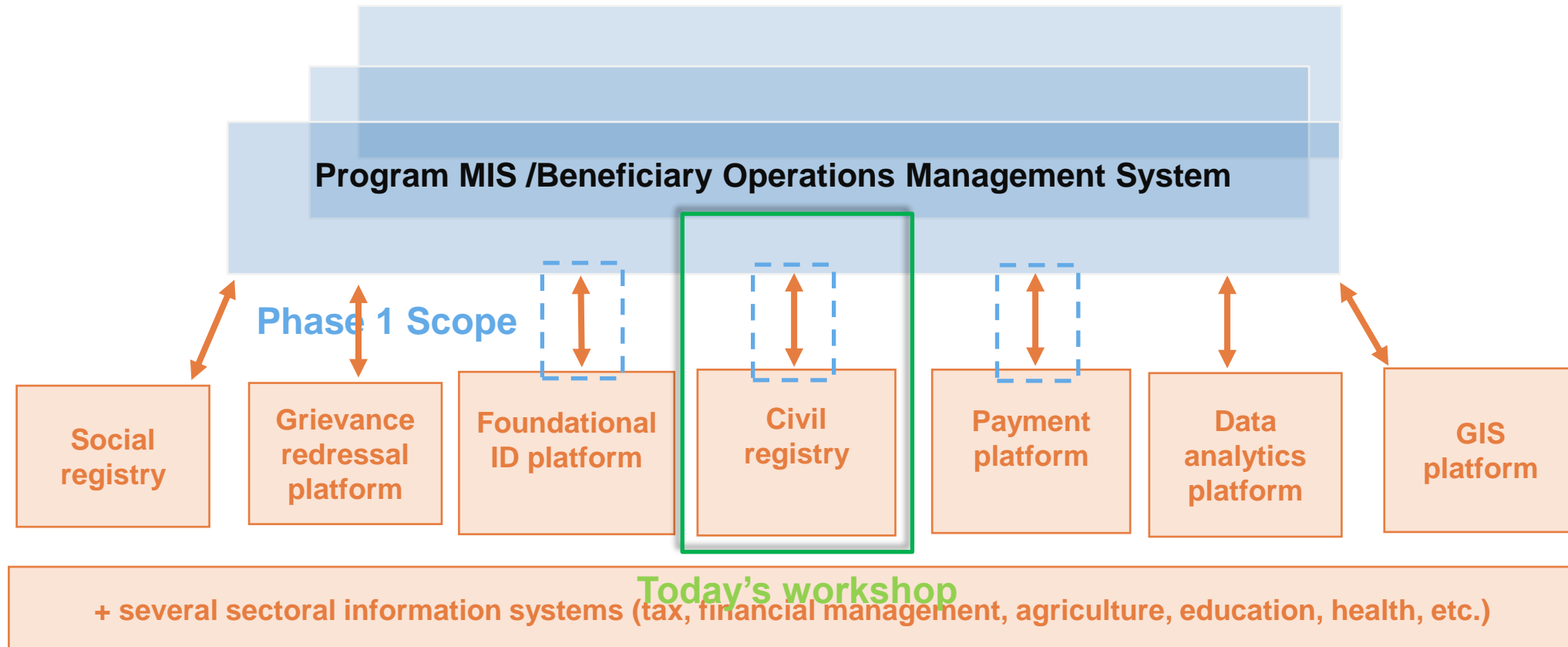
Standards setting

- Three streams of work to formulate interoperability standards between beneficiary MIS and
 - civil registration system (leveraging OpenCRVS),
 - foundational ID (leveraging MOSIP),
 - payment platforms (leveraging Mojalooop)
- Implementing the interface in sandbox as proof of concept and validation



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Systems at Play for SP Program Delivery

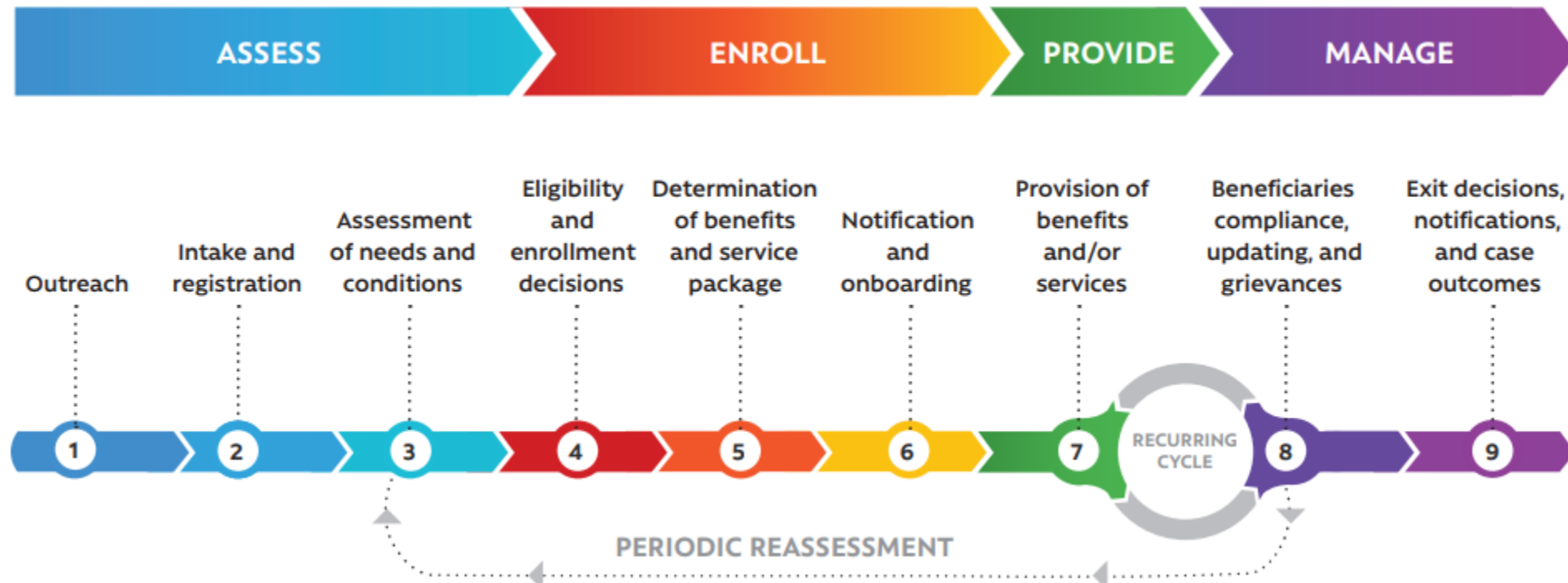




Anita Mittal

Senior Advisor, Digital Convergence Initiative, GIZ

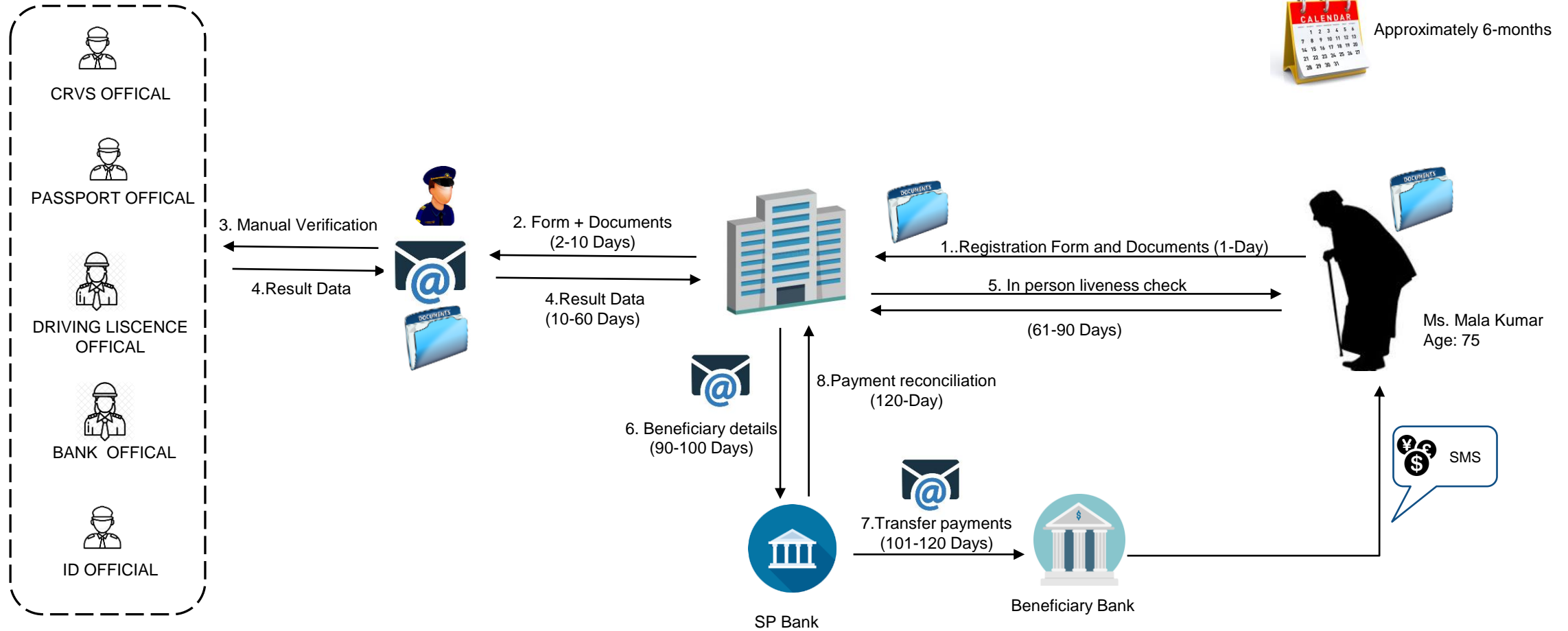
Delivery Chain for SP programs



Source :World Bank source book

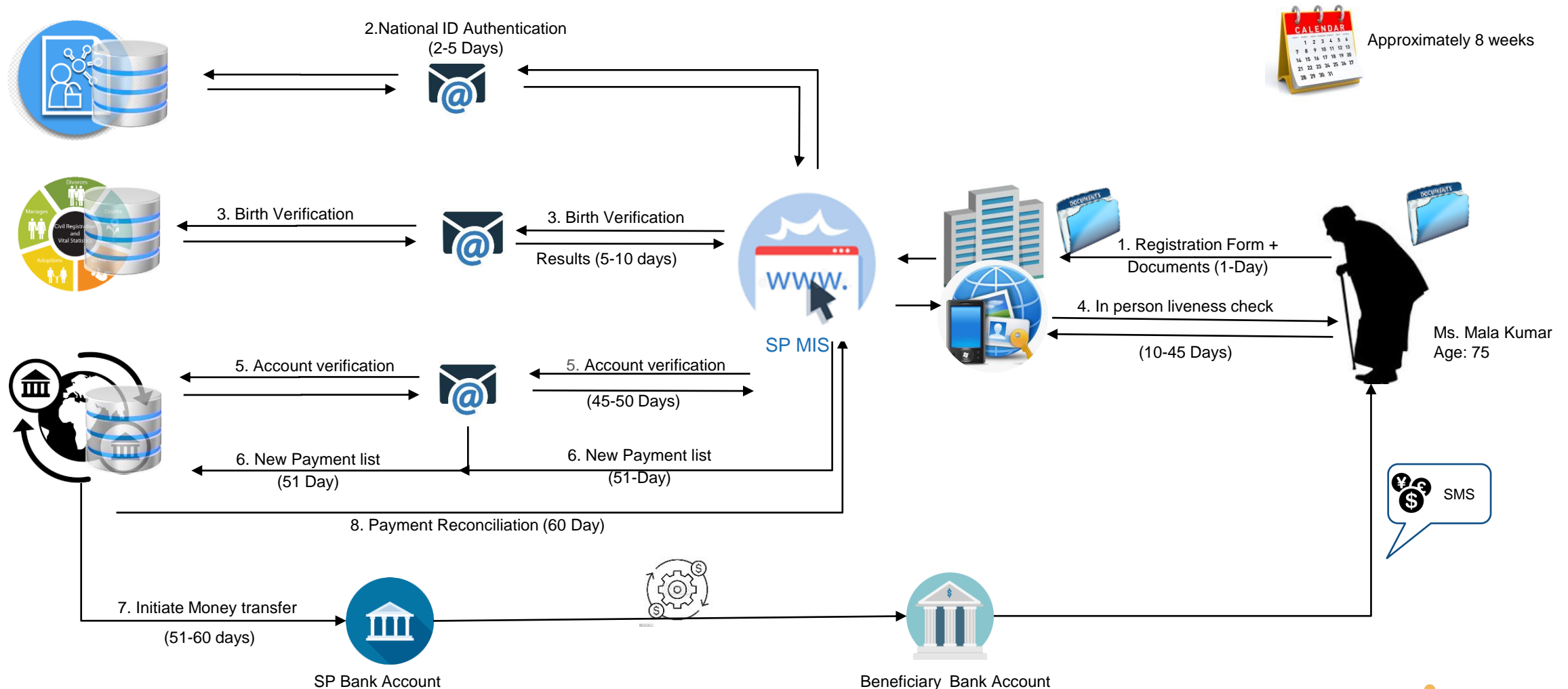
Scenario – 1 : No Digital Systems

Old Age Allowance Scheme

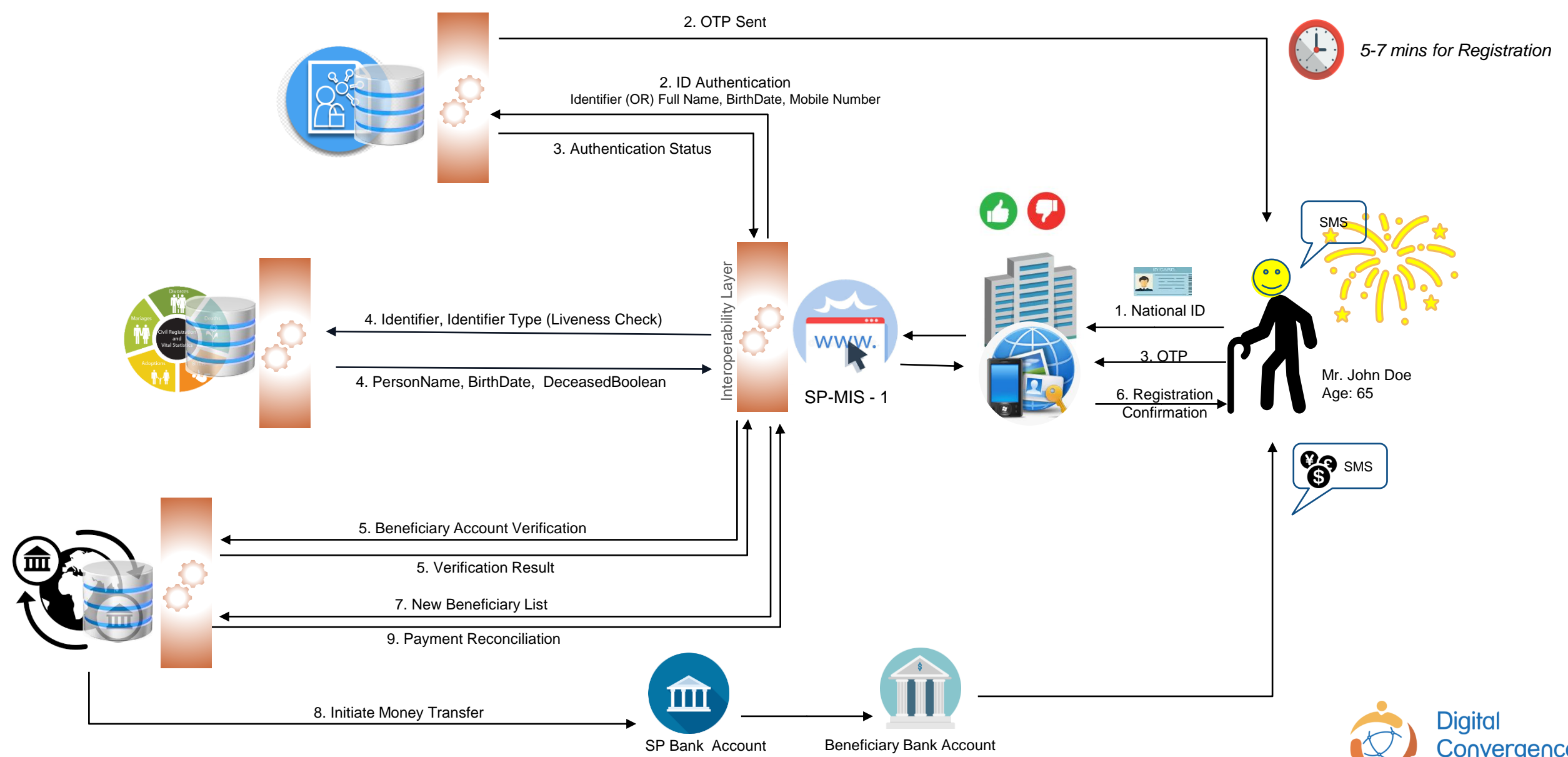


Scenario – 2 : Without Interoperability but with Digital Systems

Old Age Allowance Scheme

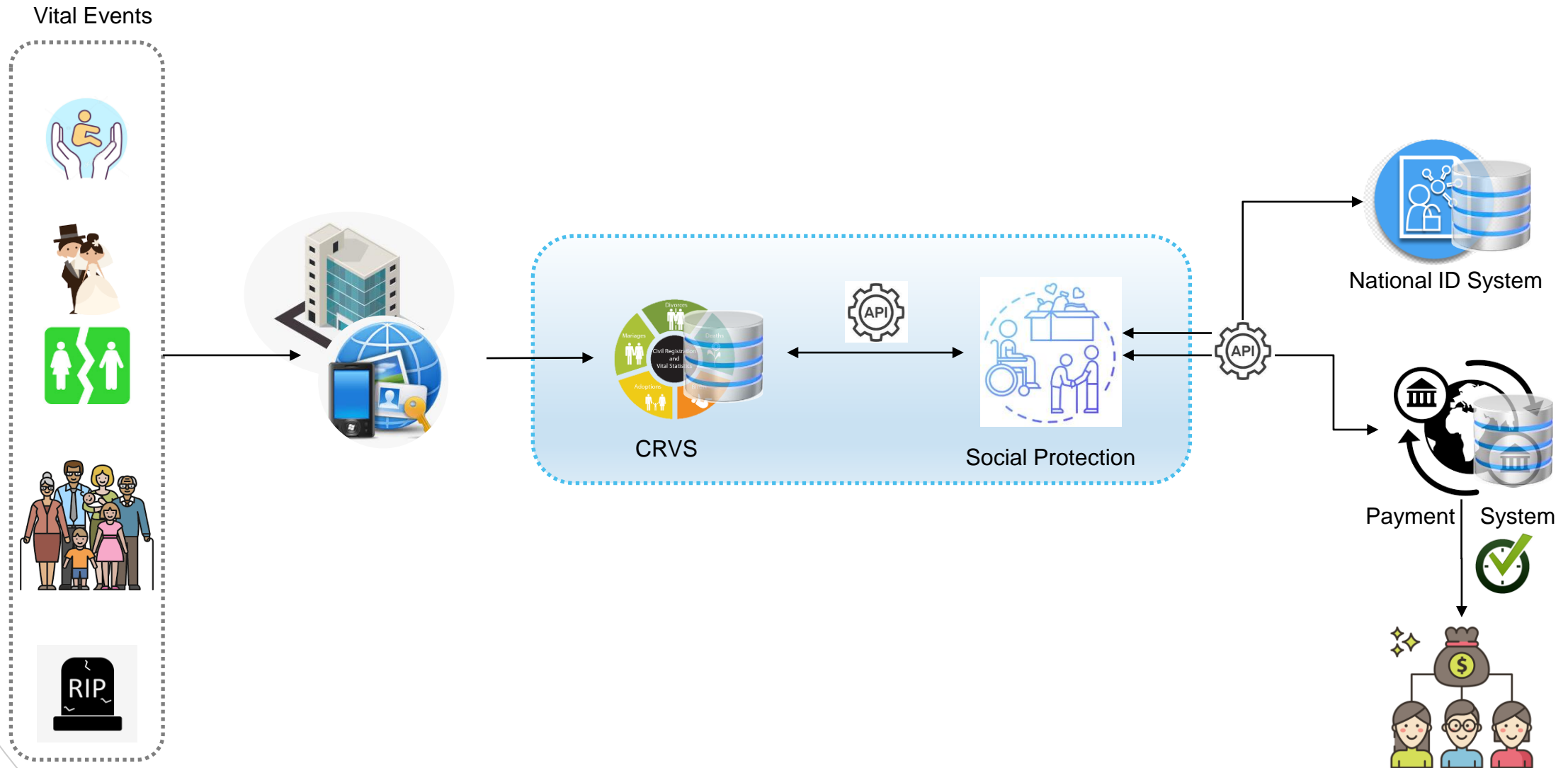


Scenario – 3 : Interoperability with Digital Systems - Old Age Allowance Scheme



Why Interoperability with CRVS?

CRVS role in SP program delivery



Presenters



Komal Malhotra
Project Head



Parth Dandavate
Lead Business Analyst



Dhaval Shukla
Solution Architect

Other Members



Krishan Bhardwaj
Technical Head



Rajdeep
Technical Member



Pranav Vichare
Technical Member



Apoorva Sharma
Technical Business
Analyst

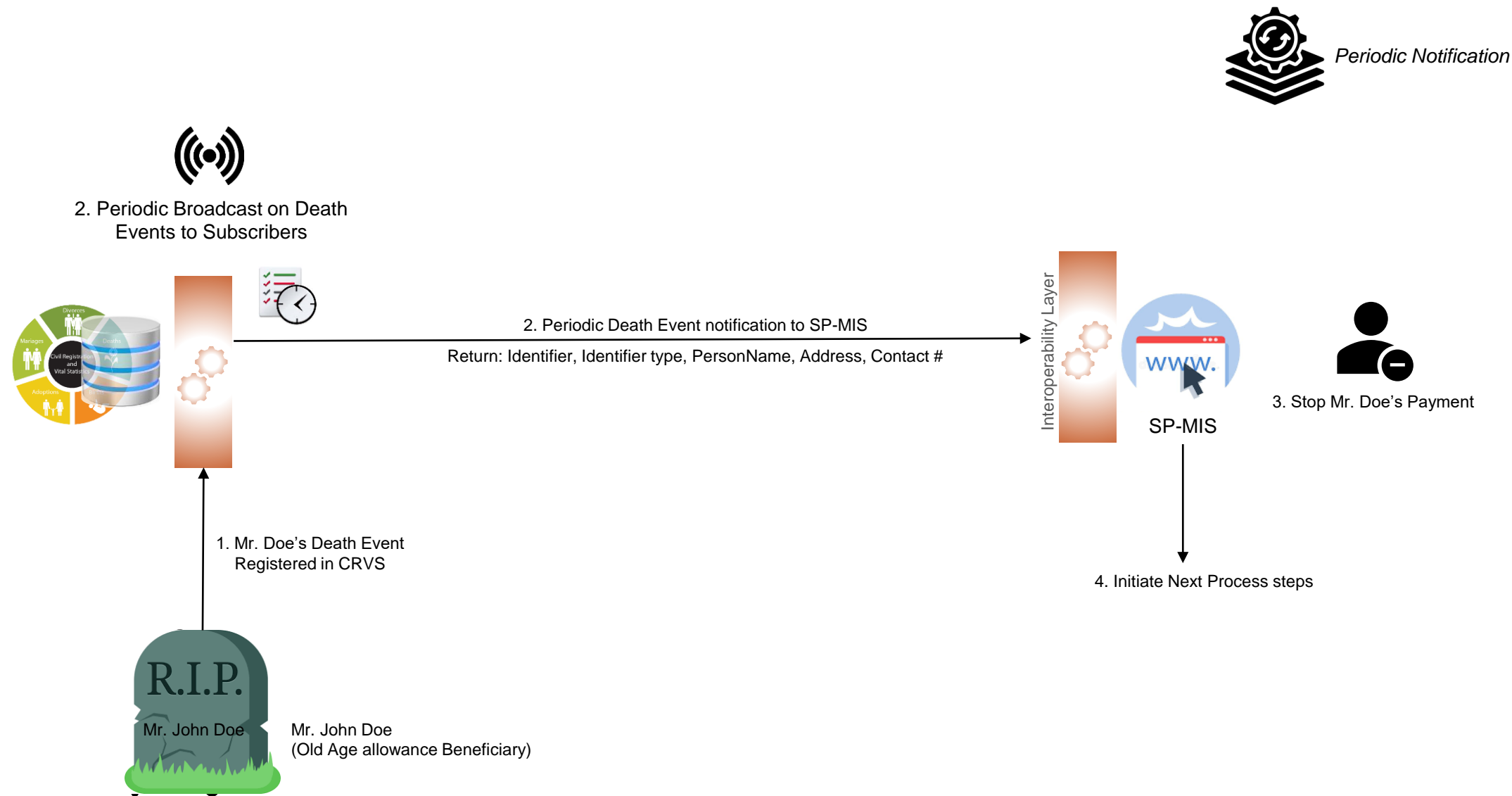


Shiffali Singla
Jr. Business Analyst


Use Cases

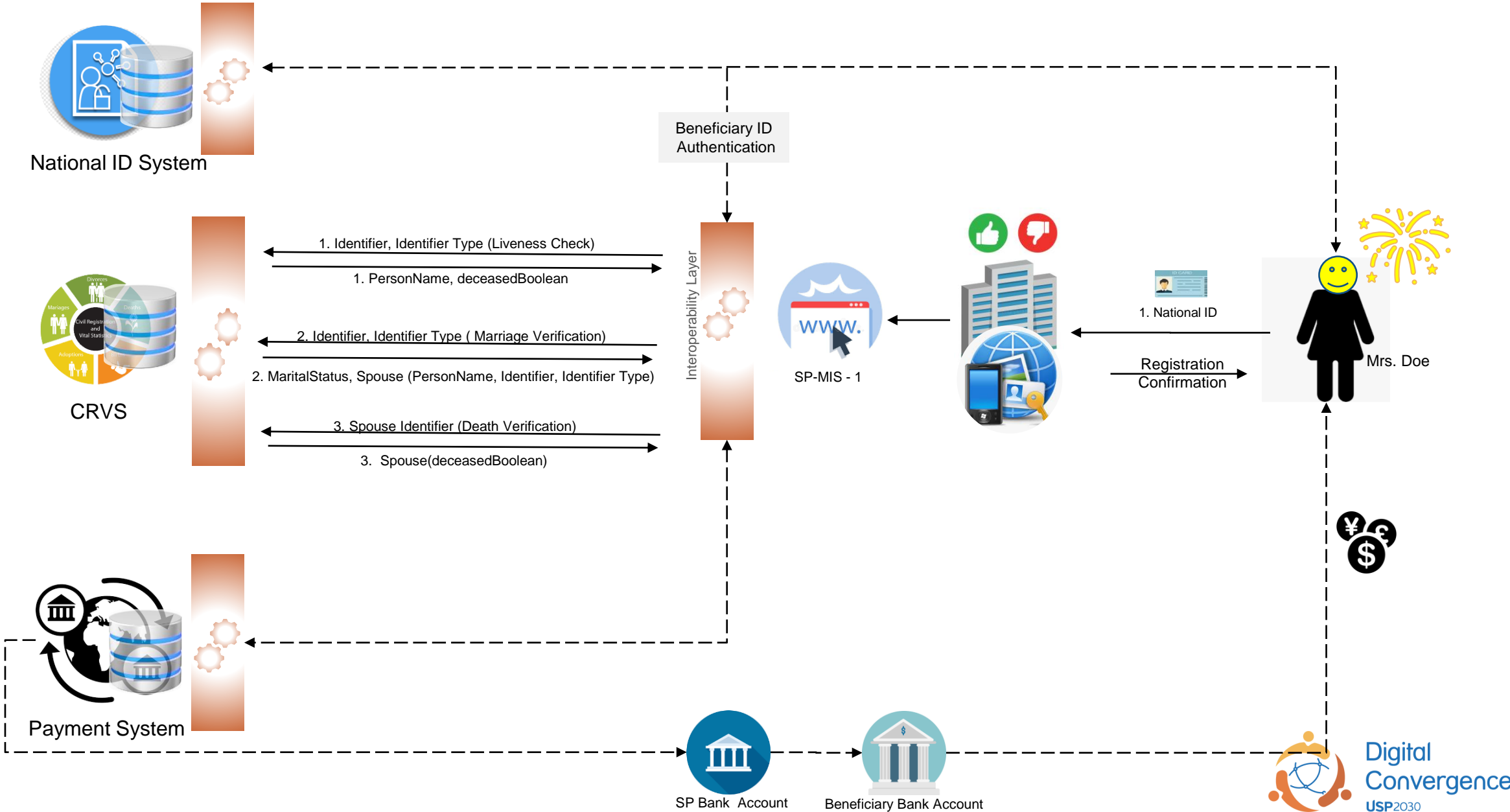
- Stop Old Age Allowance Payment on Death Notification
- Registration for Widow Allowance Scheme
- Registration for Child Benefit Scheme
- Proactive delivery of benefits for child benefit scheme

Scenario – 4 : Stop Old Age Allowance Payment on Death Notification



Scenario – 5 : Registration for Widow Allowance Scheme

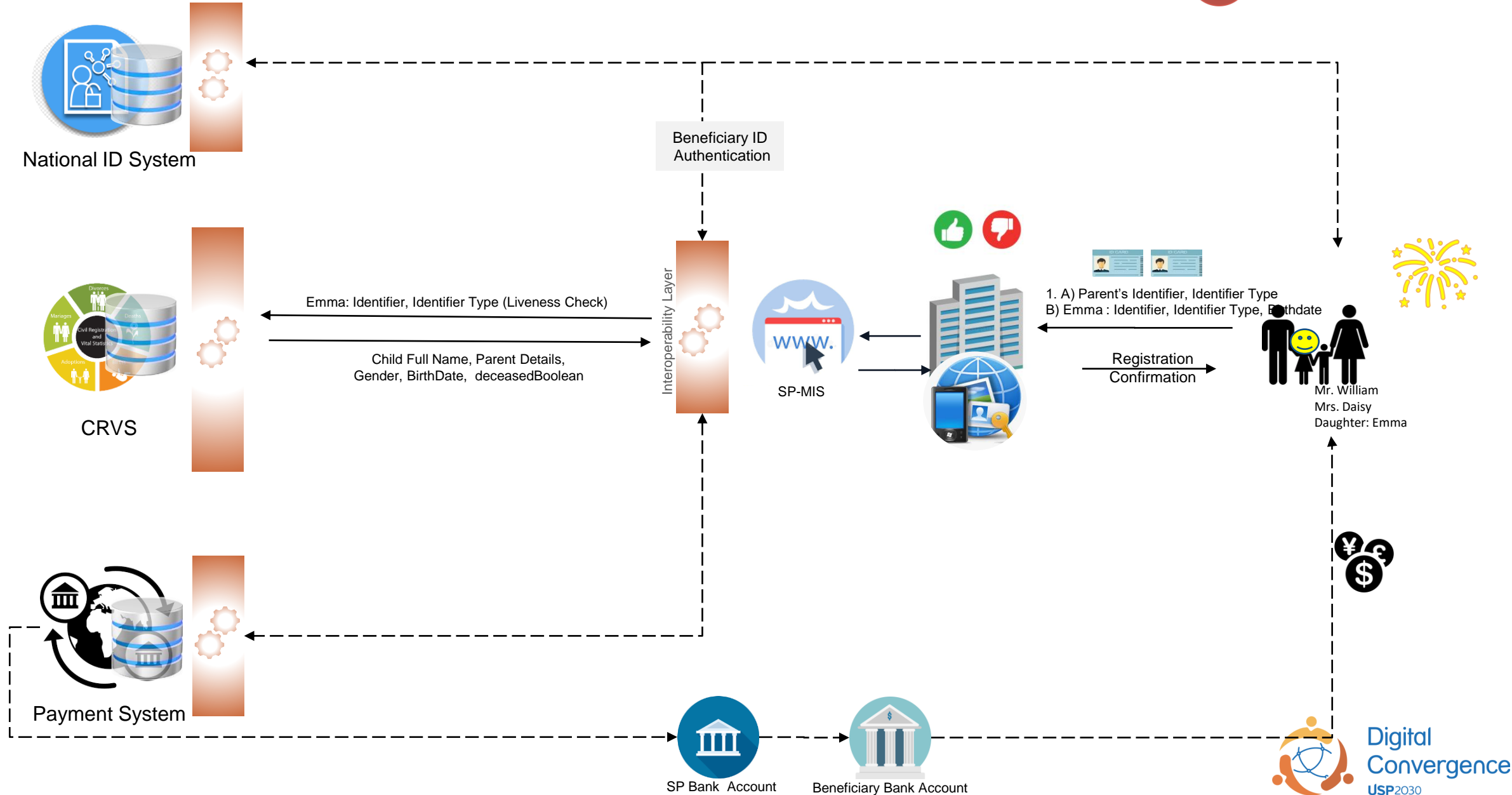
 5-7 mins for Registration



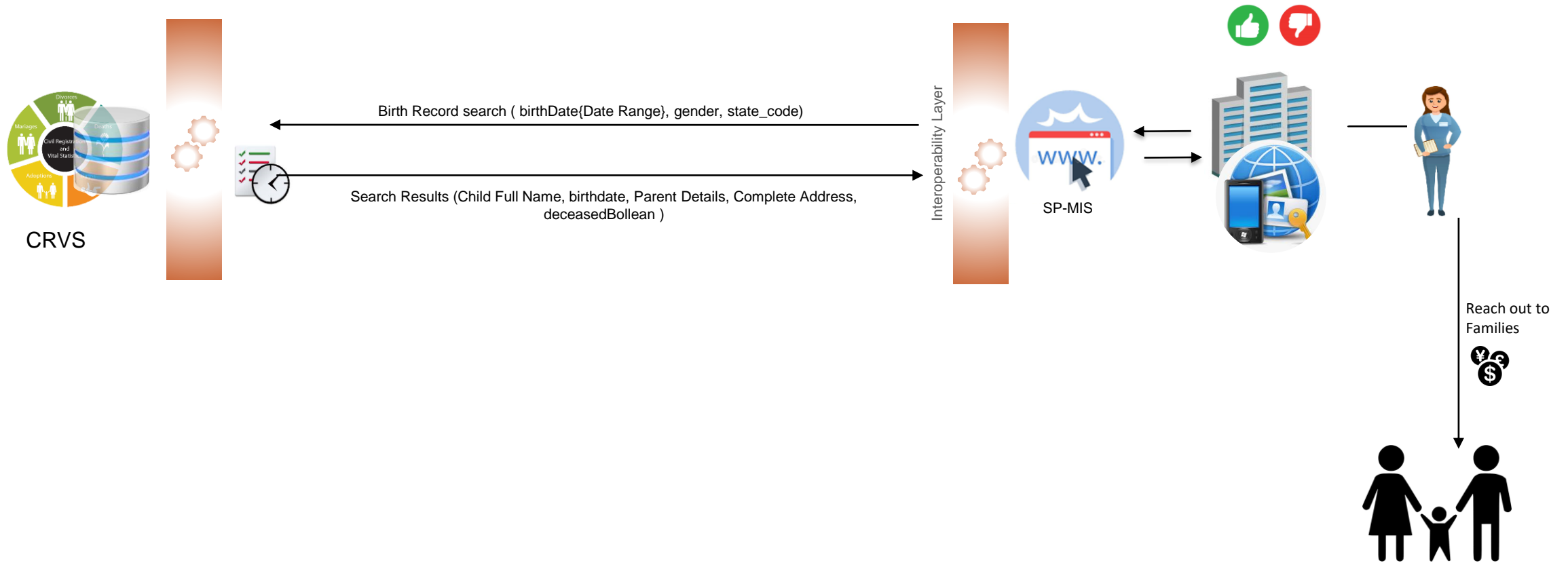
Scenario – 6 : Registration for Child Benefit Scheme



5-7 mins for Registration

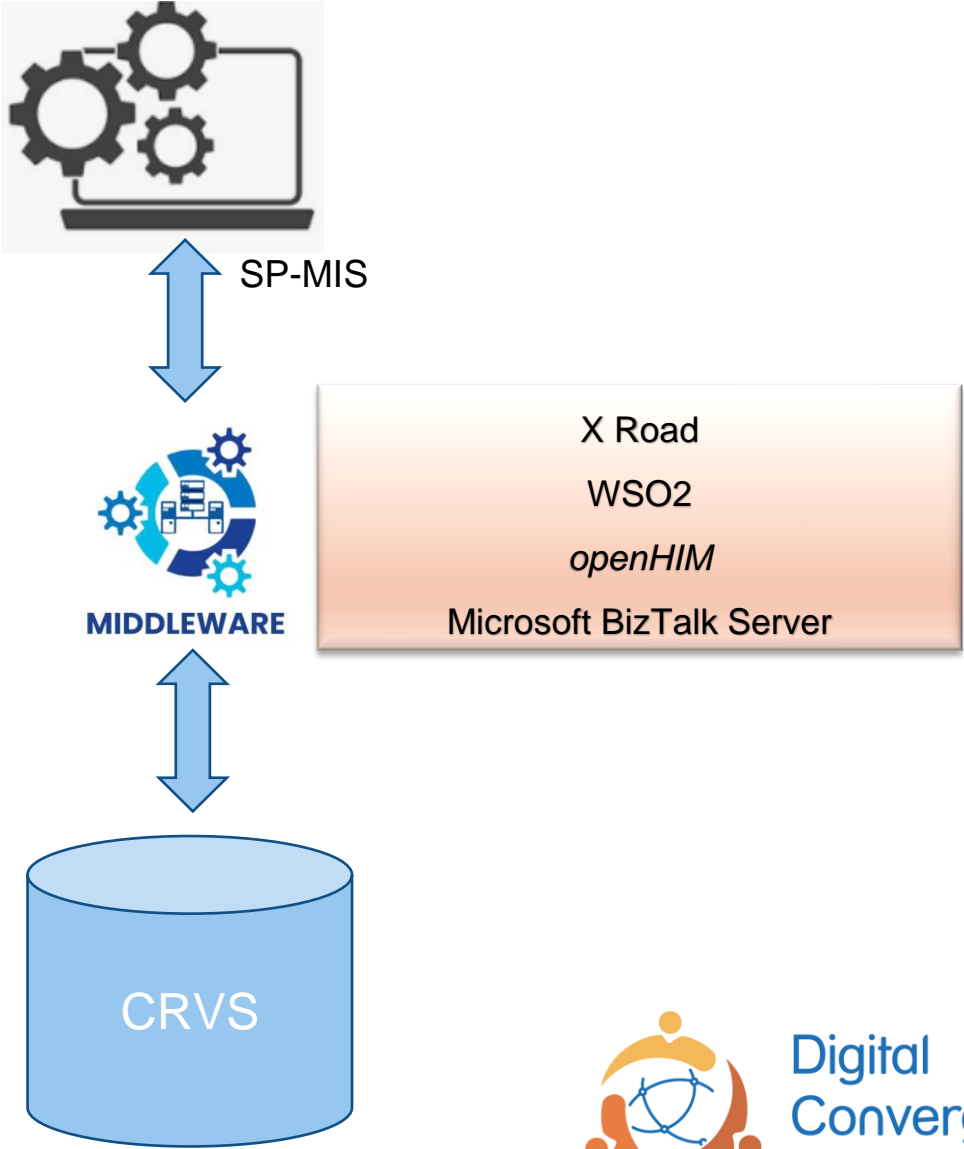
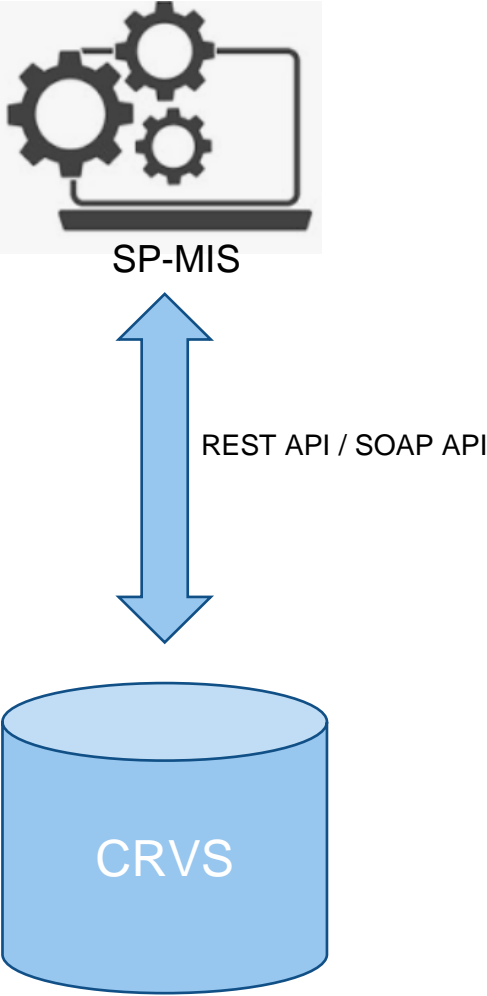


Scenario – 7 : Proactive delivery of benefits for child benefit scheme

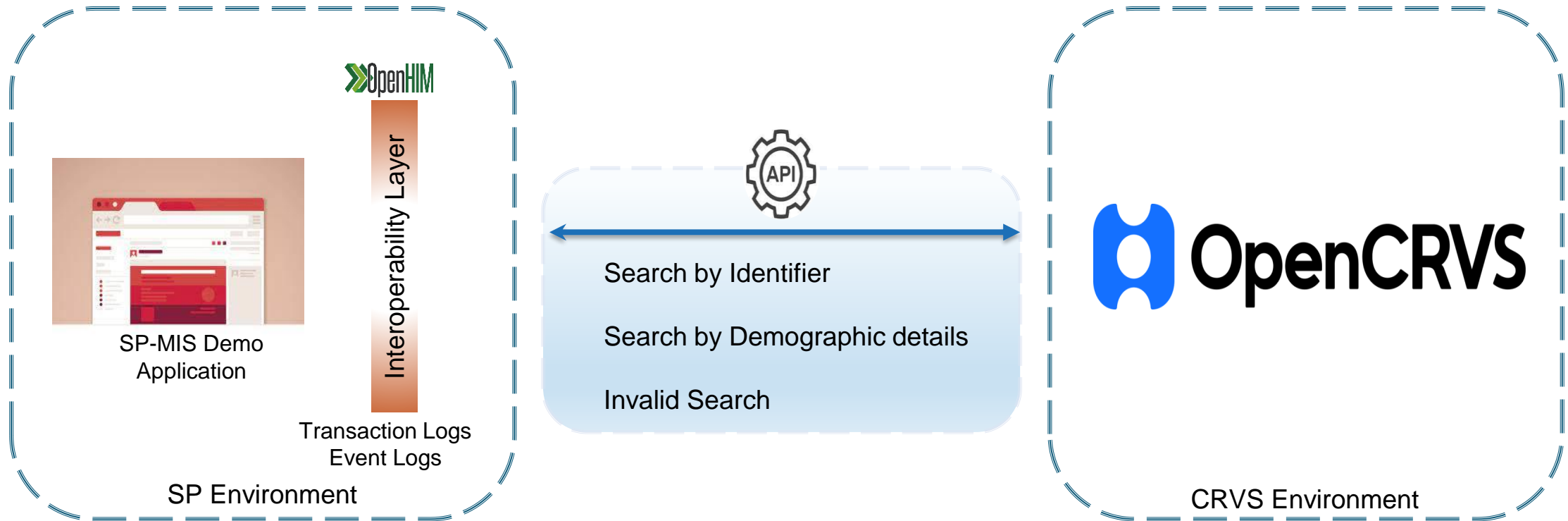


Demonstration

Integration Patterns



Sandbox Environment



Live Demonstration



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Standards

Data Standards, Code Directories and APIs

Sample Data Standards and Code Directories - OpenCRVS



Name	Cardinality	Type	Code Directory
Person Identifier	0..*	Identifier	
Identifier Type	0..1	Code	

Person Name (Data Object)

Contact Number	0..*	ContactPoint	
Gender	0..1	Code	CD04
Birthdate	0..*	DateTime	
Address	0..*	Address	

Marital Status (Code Directory)

Deceased datetime	0..*	DateTime	
..... More to the list			

Person Name (Data Object)

Name	Description	Cardinality	Type	Value
NameUse	Purpose of the name	0..1	code	CD09
FamilyName	Family name (often called 'Surname')	0..*	String	
GivenName	Given First Name	0..*	String	
MiddleName	Middle Name	0..*	String	
Prefix	Parts that come before the name	0..*	Code	CD14
Suffix	Parts that come after the name	0..*	String	
Period	Time period when name was/is in use	0..1	Period	

Marital Status (Code Directory)

Code Directory	Name	Values
CD08	Marital status	Annulled Divorced Married Legally Separated Domestic partner Unmarried Never Married Widowed Unknown

Sample API - searchCRVSDData

Search Request
based on Identifier

```
{
  "repository_type": ["Birth","Death","Marriage"],
  "identification_type": "NATIONAL_ID",
  "identification_value": "123456789",
  "state_code": "IN-GJ"
}
```

Error Response

```
{
  "success": "false",
  "error_code": <Error Code>
  "return_message": <Error Message>
}
```

Invalid input parameters

```
{
  "success": "false",
  "error_code": 567
  "return_message": "Invalid Input Parameters"
}
```

Response for Search on Identifier

```
{
  "success": "true",
  "return_message": "Search Completed",
  "data": [ {
    "identification_type": "NATIONAL_ID",
    "identification_value": "123456789",
    "repository_type": "birth",
    "brn": "B90MAY123",
    "name": {
      "suffix": "PhD",
      "prefix": "Mr.",
      "first_name": "Mala",
      "last_name": "Kumar",
      "middle_name": "S"
    },
    "father_name": "Mohan",
    "mother_name": "Bala",
    "contact_number": "+919714838469",
    "dob": "1990-05-12",
    "gender": "F",
    "weight_at_birth": "",
    "type_of_birth": "Single"
  } ]
}
```

Country Inputs: Turkey



CRVS INTEROPERABILITY in TURKISH SOCIAL ASSISTANCE SYSTEM (ISAIS)

Türkiye – Ministry of Family and Social Services



Ali DEMIROZ
Head of Social Assistance
Applications



Ercan DANSUK
Senior Social Protection
Specialist



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Social Registry of Households and the Civil Registry

Civil Registry ;

Address Based Population Registration System ABPRS,
established in 2007 covering all demographic records
(Population Census before)

Health Registry; (e-health)

e-health database (birth-death and health records)

Social Insurance Registry ;

Social insurance and employment records

Education Registry ;

Educational records of all students

Assets Registry ;

Records on assets of household from 25
Governmental institutions

Outreach, intake, registration, and determination of potential eligibility for one or more social programs by using interoperable processes.

The registry is created by the use of existing administrative data on the information provided by the citizens and household visits at local level and the institutions at central level.

Data gathered covers about household demography and socio-economic snapshot.

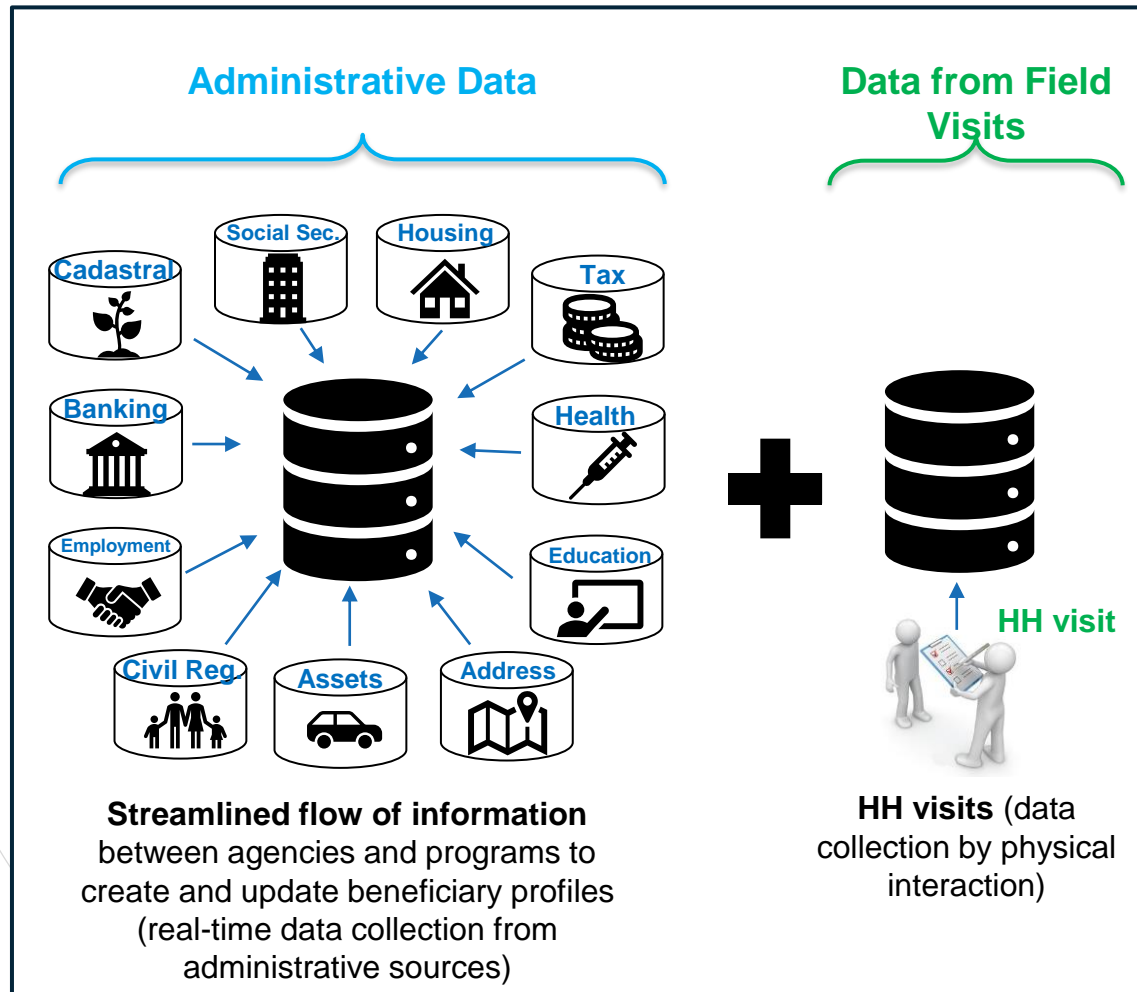
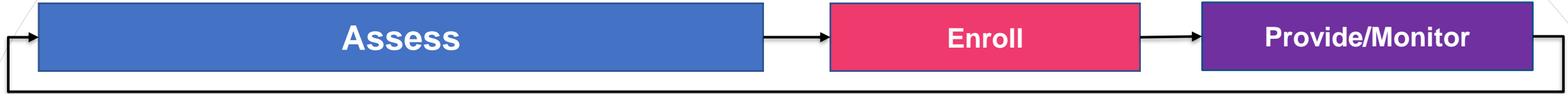
67 % of population covered as social registry

The information of the health , educational (e-school) and assests records of the households - which are the richest source of socio-economic information - are updated with the administrative records received from other entities montly basis. (if needed instant query is also supported)

Data is also updated with household visits made by social workers periodically and self-reported information that people submit to the registry(Application through E-Government Gateway)

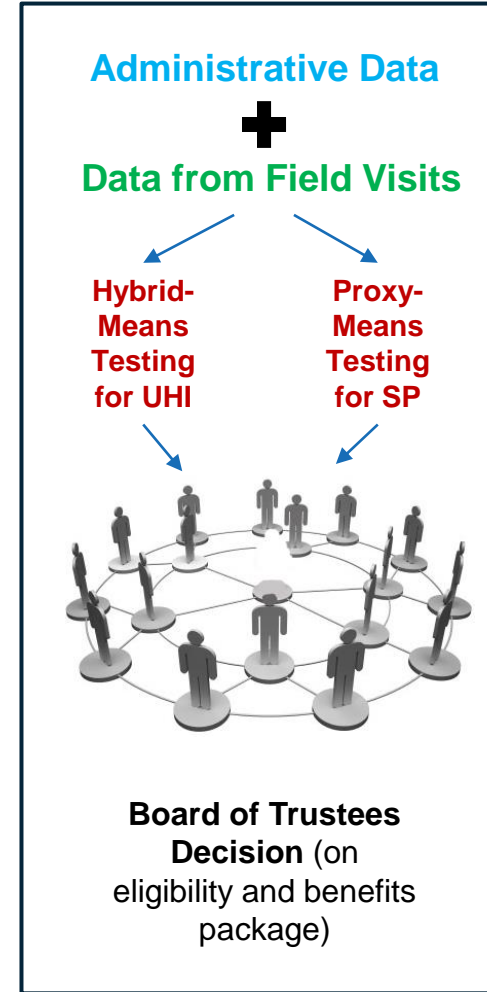
Main interoperability consists of data to verify the identity of people (e.g., data from the Civil Registry and other public institutions' registries).

INTEROPERABILITY in ISAIS

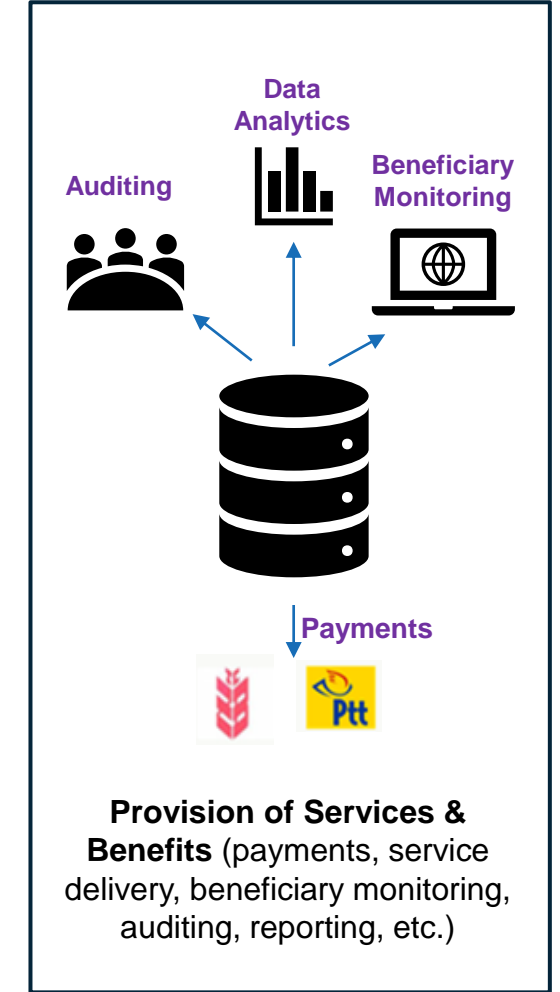


Linked with 28 Public Entities
with over 120+ webservices

HH visits by ~5,000 social
asst. workers in 1,003 SASFs



“Dynamic & Integrated” gateway
for multiple (50+) SP programs



Country Inputs: Chile





Verónica Achá

Department lead of Social Information Analysis
Ministry of Social Development and Family - Chile
Computer engineer
Master in public policy and management



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Ministry of Social Development and Family

Functions and responsibilities:

- contribute to the **design and application of policies, plans and programs in the area of social development**, especially those aimed at eradicating poverty and providing social protection to vulnerable individuals or groups, promoting mobility and social integration;
- ensure the **coordination, consistency, and coherence of policies, plans, and programs in the area of social development**, at the national and regional levels, and
- **evaluate the pre-investment studies of the investment projects** that request public financing to determine their social profitability, in such a way that they respond to the strategies and policies of growth and economic and social development that are determined for the country.

Social Registry of Households and the Civil Registry

The registry relies extensively on the use of existing administrative data and on the information provided by the citizens at local level.

Its main by-products are:

- household composition,
- socio-economic qualification of the SRH
- home address

**REGISTRO
SOCIAL DE
HOGARES**

**86,5% of
national
population**

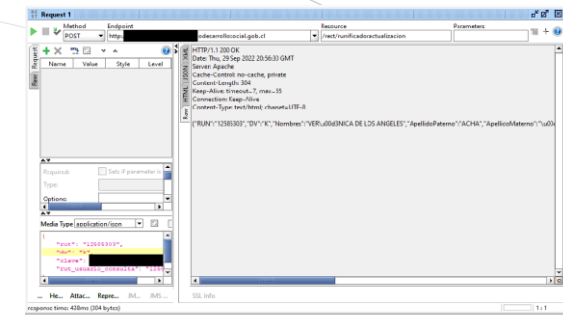
**Civil
Registry**

**98,2% of
national
population**

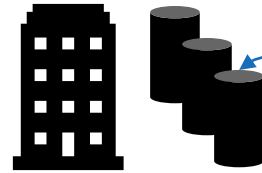
The information of the SRH -which is the richest source of socio-economic information - is updated with the administrative records received from other entities but it is also updated with self-reported information that people submit to the registry, through requests to update, rectify or supplement data, according to established protocols, which are analyzed on monthly basis.

Main interoperability consists of data to verify the identity of people (e.g., data from the Civil Registry).

Newborn ID number
Name
Last name
Date of birth
Place of birth
Sex
Nationality
Father's name
Father's NDI
Mother's name
Motheris NDI



MSDF



Is her data available?

Yes

Newborn ID number
Name
Last name
Date of birth
Sex

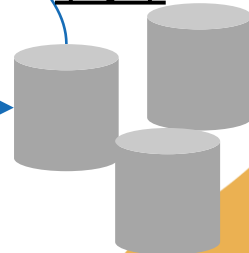


Newborn
ID number



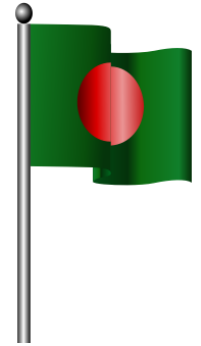
No

CRVS



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Country Inputs: Bangladesh





Anir Chowdhury

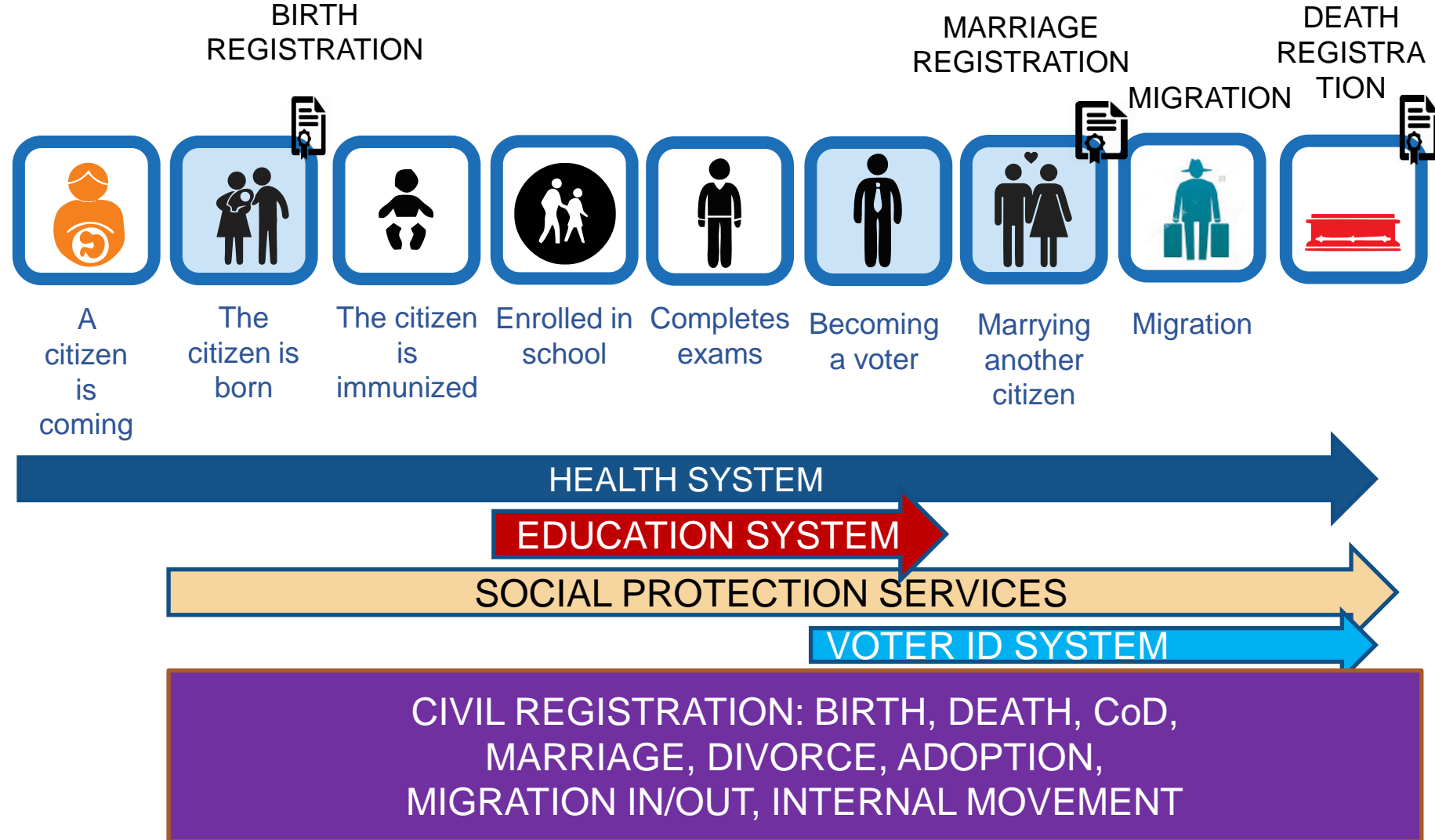
Policy Advisor, Aspire to Innovate (a2i) Programme

ICT Division/Cabinet Division/UNDP Bangladesh

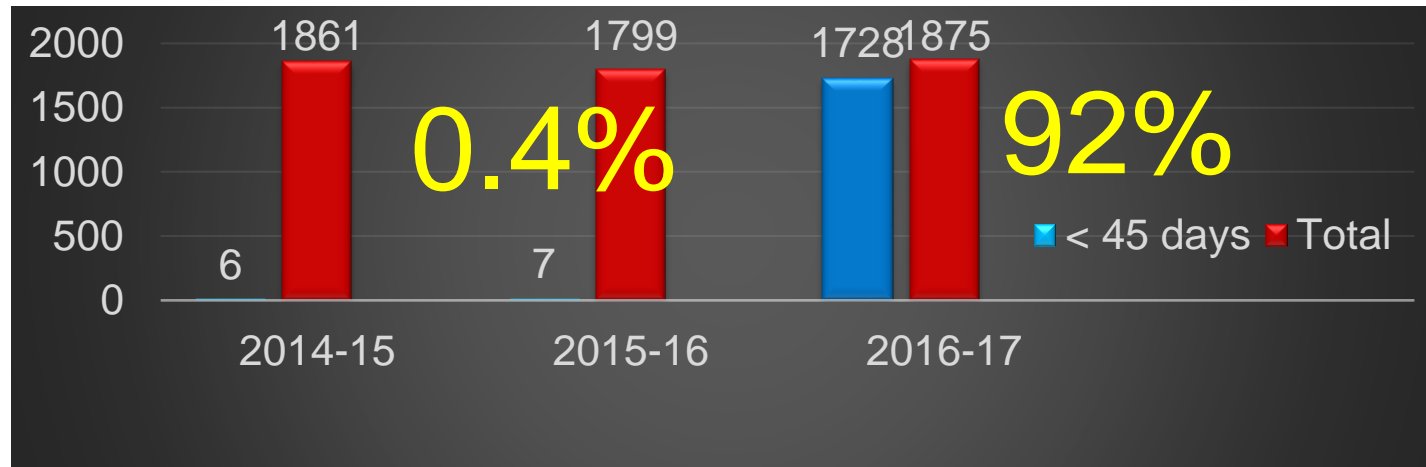
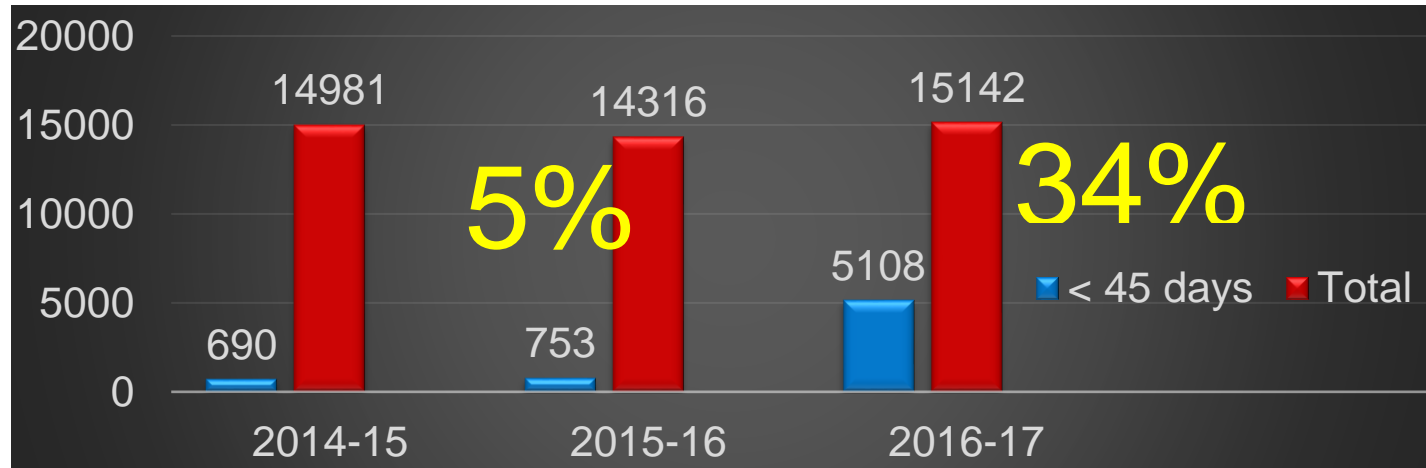


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Citizen's Lifecycle with Government



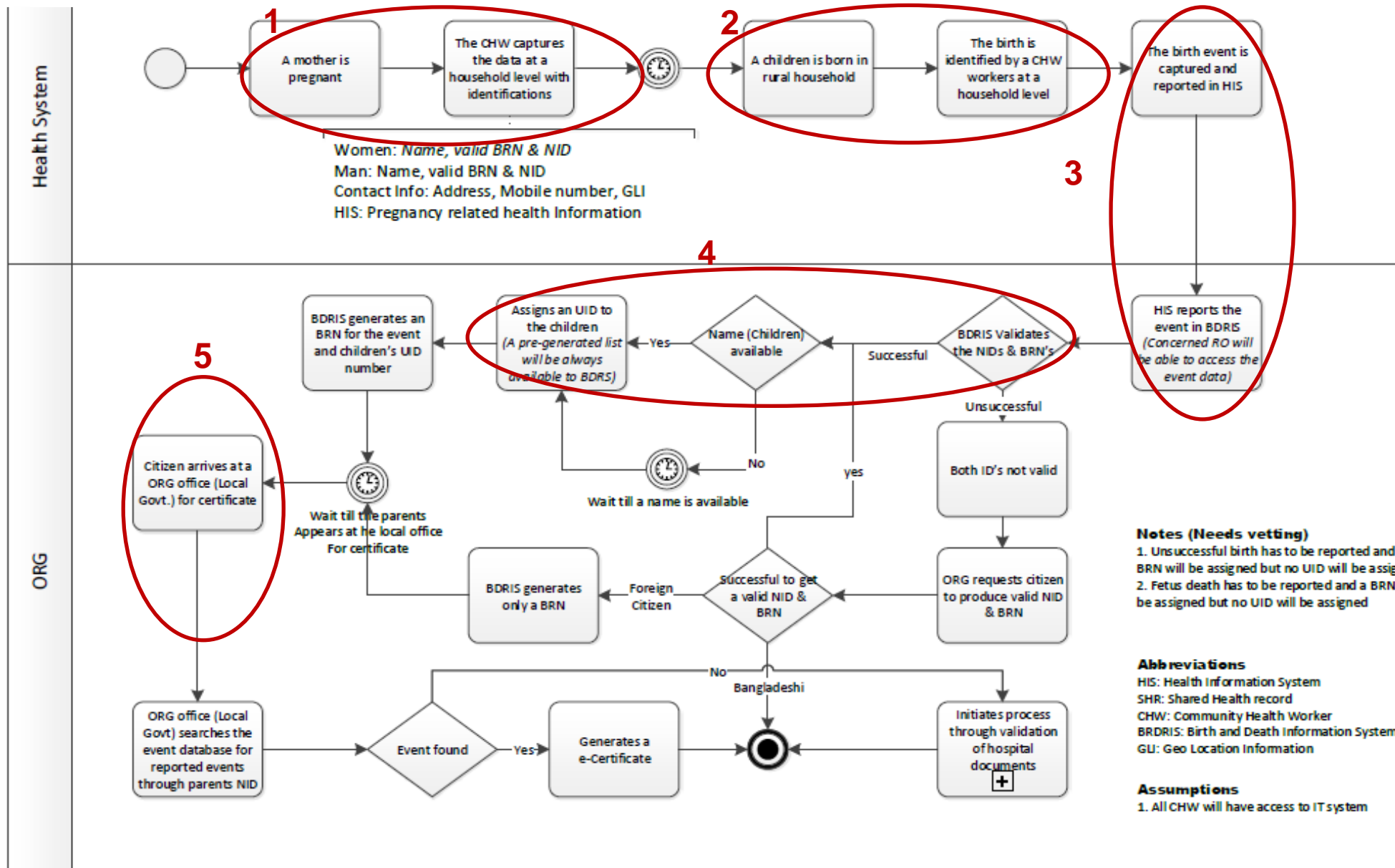
Whole-of-Government Innovation between Health Workers and Civil Registrars: Resulting in Huge Jump in Birth Registration in 2 Years



How?

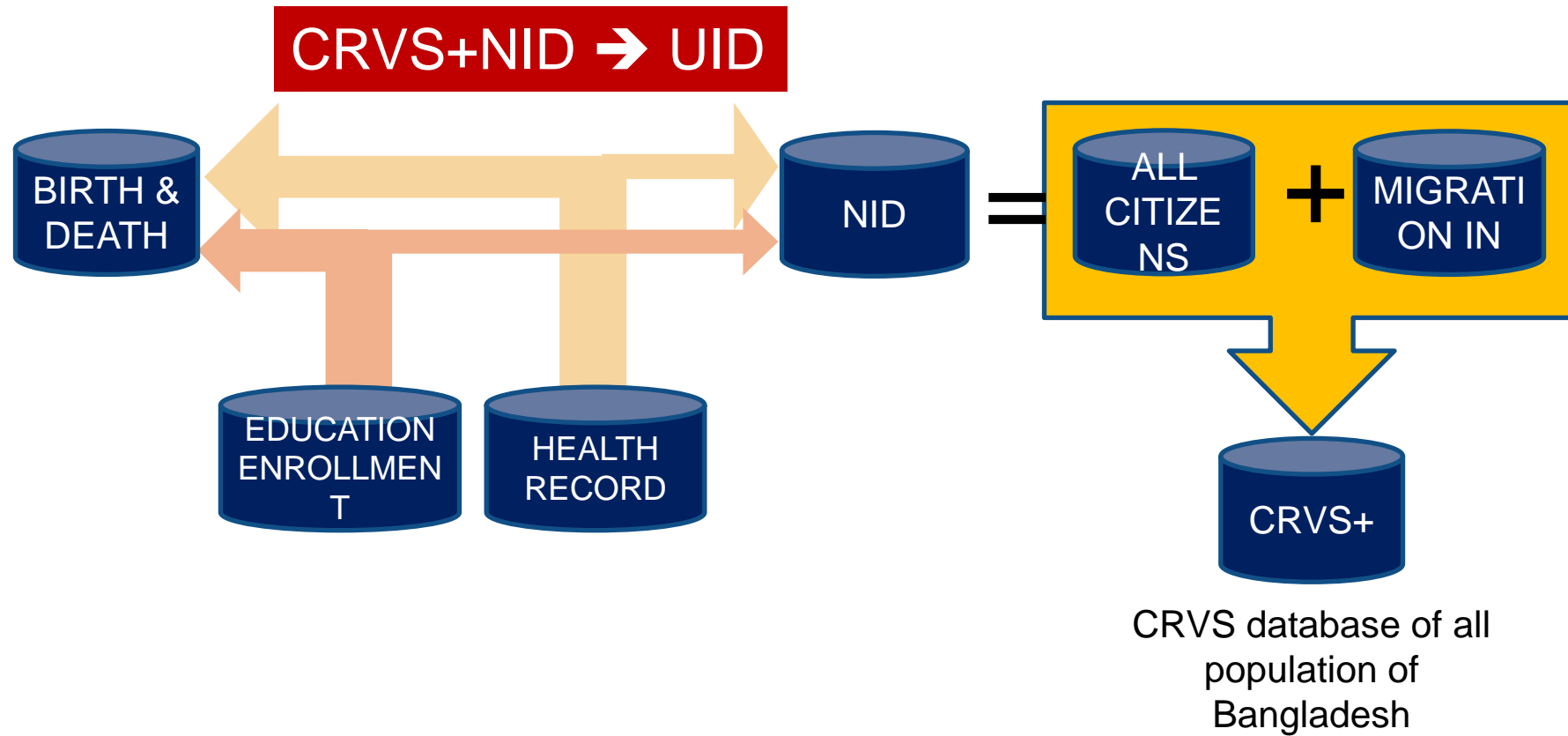
1. **Central coordination** (creation of CRVS Secretariat at Cabinet Office)
2. **Local coordination** (monitoring by local administrators)
3. **Data integration across multiple agencies** (health worker collecting data and then sending to Civil Registrar)

Data Integration Achieved through Extensive Enterprise Architecture through Whole-of-Government Consultation

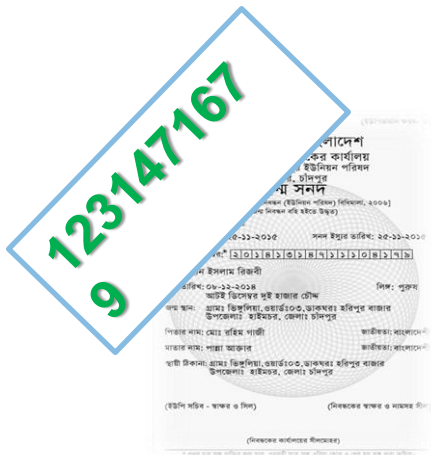


Birth
Registration
Integration

Technical Architecture of CRVS+NID in Bangladesh



Integrating Multiple Agencies with UID



**UID
(Election,
Porichoy-
ICT,
BRN-
ORG)**



**Student
profile
(Primary,
Secondary)**



**DHIS2
(Health)**

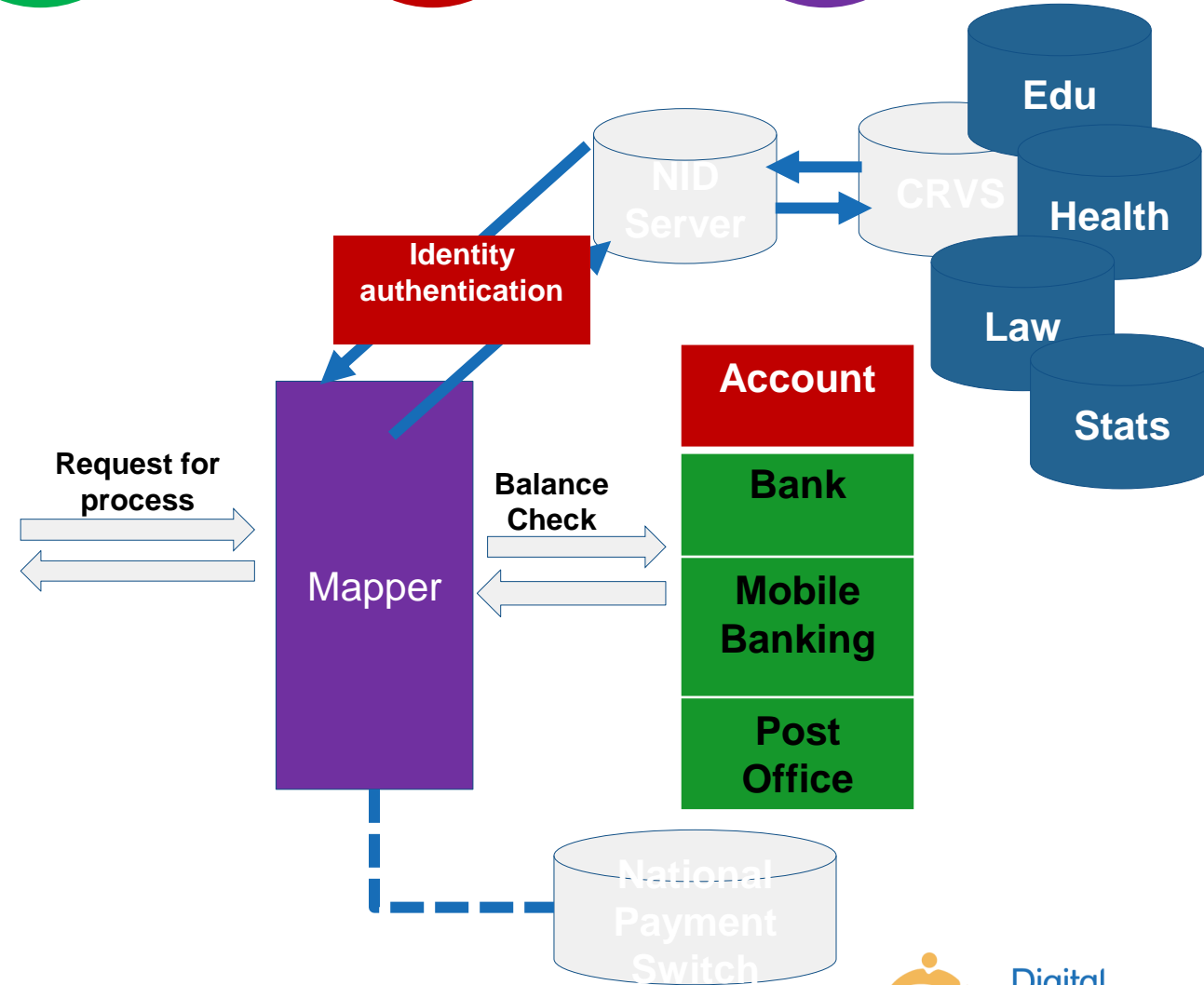
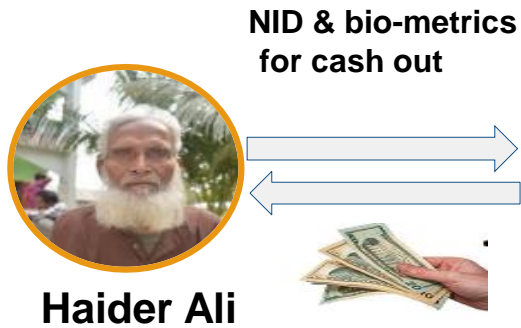


**Marriage,
divorce (MoLaw)**

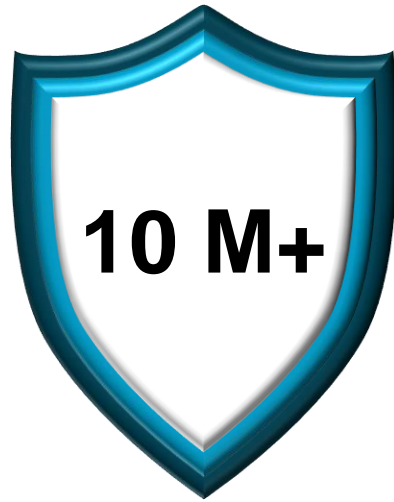
Focusing on **ID Interoperability** Creates Opportunities for Digital SP



Citizen's Choice of Access
Fast and Secure
Open Interoperable Architecture



Social Protection Programme (G2P)-Reaching the unreached – NID and e-KYC



**Previous beneficiary
enrollment**

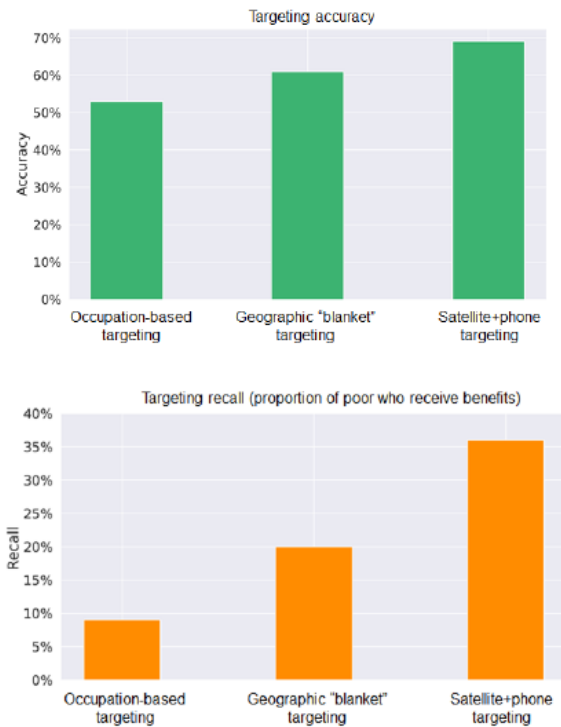


**Assisted listing of
New Poor during COVID**

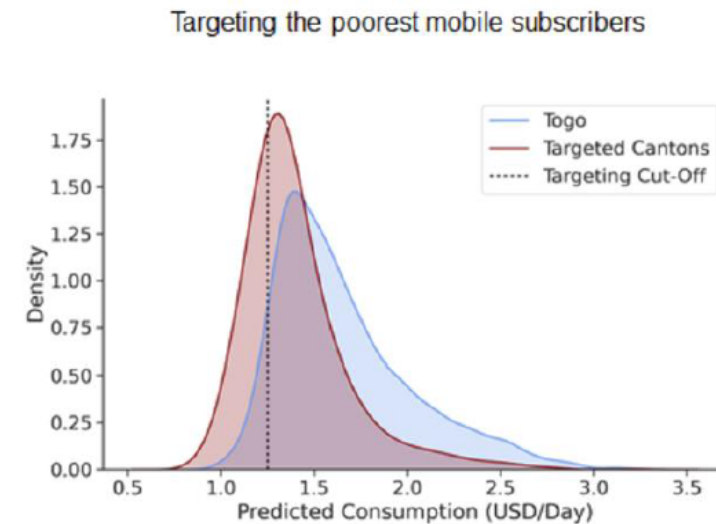


AI-driven “Realtime” Poverty Ranking Using Telco Data for Responsive Social Safety Nets

The A.i. driven approach was **compared to available alternatives** such as occupational or geographical based targeting



Eligible beneficiaries **were significantly poorer** than the median individual in the country



GiveDirectly @ Togo

International Organizations: UNICEF





Tomoo Okubo

Policy Specialist (Social Protection)
Social Policy and Social Protection Programme Group
UNICEF New York HQ



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Birth registration and Social Protection

01. Why birth registration

- 'Passport to Protection' for lifetime
- Child and Human Rights
- Policy Planning
- Wide gaps/inequities: 3 in 4 infants with no birth certificates in sub-Saharan Africa

03. Country examples

- Ex) Lesotho: CGP increase in BR by 37%
- Ex) Nepal: CG increase in BR by 32%

02. Linkages

- Child grant/maternity grants
- Systems building
- Data/statistics improvement
- Finding those excluded

04. Approaches

- Standards, identifiers
- Not as conditions
- Systems linkages (SP, Health, Education)
- Starting with what there is
- Policies
- Technology
- Awareness



International Organizations: ADB



Arin Dutta

Senior Health Specialist

Asian Development Bank



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Private Sector: PWC





Chaithanya Chava

Partner, PwC India



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Solution Providers: OpenCRVS





Edward Duffus

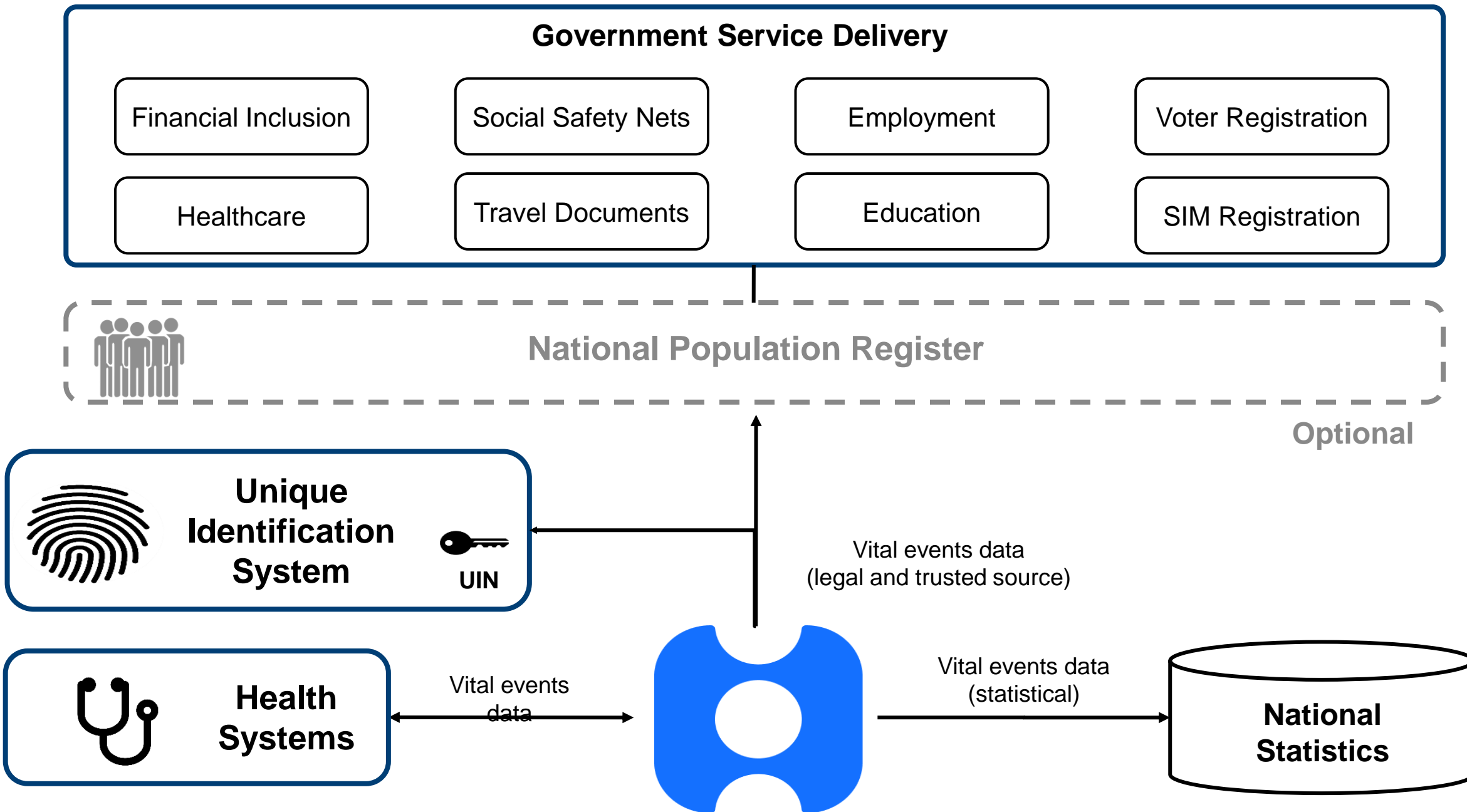
Product Strategy and Sustainability



“Interoperability is critical in order to realise the full benefits of OpenCRVS within the eGov ecosystem”



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Interoperability Use Case Opportunities



- 1. Notification of an eligible participant** for enrolment i.e. newborn grant, child allowance, single parent allowance, pension, widow grant, single parent
- 2. Notification of event to discontinue services** i.e. to stopping a pension payment when an individual dies or a single parent allowance when an individual marries.
- 3. Share performance management data** to monitor and track coverage of a social security / protection schemes
- 4. Share CR data** to inform the calculation of social security entitlements available to an individual or household

Interoperability Use Case Opportunities

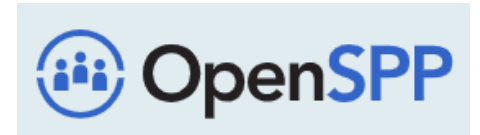
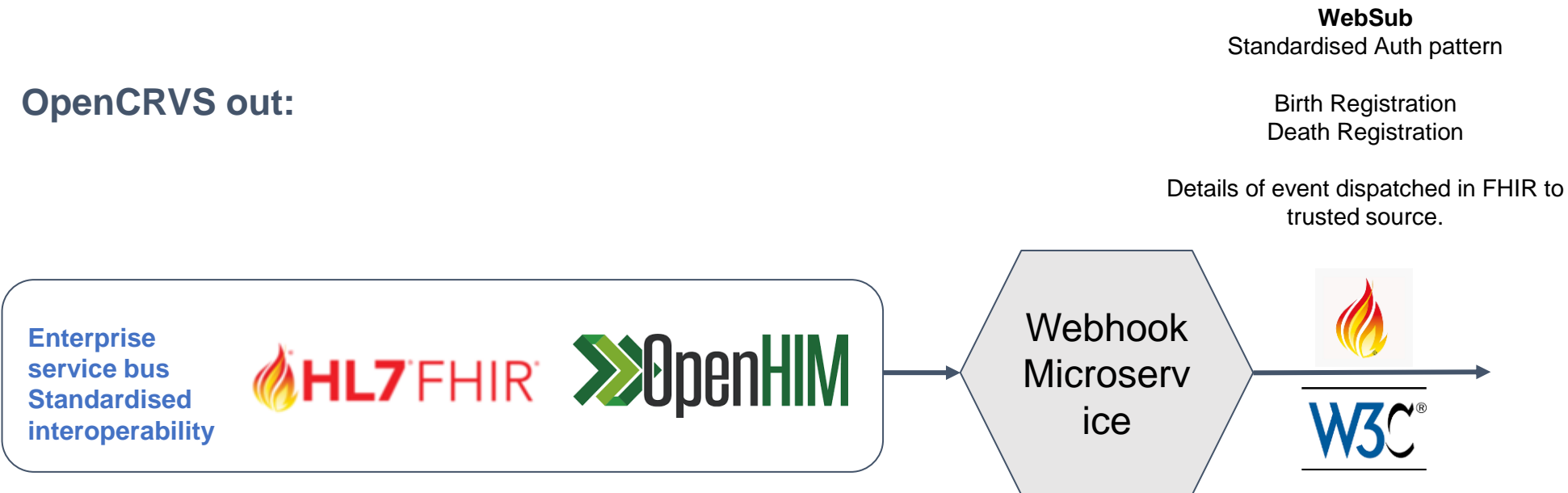
5. Notification of birth from SPS: a mother enrolls in the social protection system to receive a grant for a newborn child

→ SPS verifies the age of the child within OpenCRVS and if unregistered triggers the birth registration process.



OpenCRVS interoperability approach (as per G2P-Connect)

OpenCRVS out:



Useful links

Website: www.opencrvs.org

Code repository: github.com/opencrvs

Documentation: documentation.opencrvs.org

Community Forum: <https://community.opencrvs.org>

Solution Providers: WCC HERA





Dovile Makutenaite

Solution Architect

WCC

dmakutenaite@wcc-group.com



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WCC Group has 25 years of providing solutions based on its unique Search and Match platform.

It is a leading provider of advanced solutions for:

- Public & Private Employment Services
- ID/Security government agencies


WCC software sees **1/2 BILLION identities** every day

Registered **1+ BILLION** since 2010



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 WCC HERA is ready to use, configured on international best practices & country-specific requirements

 WCC HERA is easy to use anywhere on a range of devices

- Phone | tablet | laptop | desktop
- No internet connection? No problem!
- Interactive notifications
- Efficient and flexible live birth registration
- Issuance of UIN and copy of birth certificate
- Vital statistics reporting (anonymized)
- Dashboards and interactive maps
- Complies with UN guidelines
- Supports open APIs for Civil Identity System



HERA REFERENCE E-CRVS IN THE GAMBIA

- Establishment of an electronic Civil Registration and Vital Statistics (eCRVS) system in the country
- Installed/configured in 2 months upon contract closing
- Go Live in August 2022
- HERA to generate /provide:
 - National Identification Number (NIN)
 - National Health Insurance Cards
 - Birth Certificates
 - Encrypted QR codes ensuring cards & certificates validity
 - Next phase in 2022 to include Death registration



Open Discussion

Way Forward



Ubah Thomas U

Social Protection Specialist

World Bank Social Protection and Jobs practice, Nigeria



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Way Forward

Interoperability in Action : Workshops

- *Payment and SP MIS Interoperability workshop : October 19th*
- National ID and SP MIS Interoperability Workshop: *November 2nd - To be confirmed*
- Architecture and Data Standards Workshop : *November 9th - To be confirmed*

Standard Settings : Formation of Working Groups

Process, data and API standards for:

- SP MIS and CRVS interoperability
- SP MIS and Payment interoperability
- SP MIS and National ID interoperability

More Interoperability interfaces

- Social Registry with SP-MIS
- Social Registry with Farmer registry
- Social Registry with Disability registry

Support the Initiative

- **Support** the process of **consensus building and harmonization of standards**.
- **Spread awareness** about the initiative
- **Promote** adoption of **standards and other outputs**
- **Adopt the standards and other outputs** in your SP projects and share **feedback**

Participate in working groups

Group 1 : Payment layer interoperability

Group 2 : CRVS layer interoperability

Group 3 : identification layer interoperability

Levels of participation

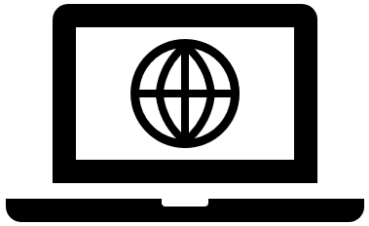
Level 1: Share existing materials

Level 2: Review outputs

Level 3: Join group discussions and validation workshops

Level 4: Drafting standards and guidelines alongside facilitators

Connect with Convergence Initiative



www.sp-convergence.org



socialprotection-convergence.discourse.group



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Thank You
