

Talking Interoperability

In Focus | Ghana



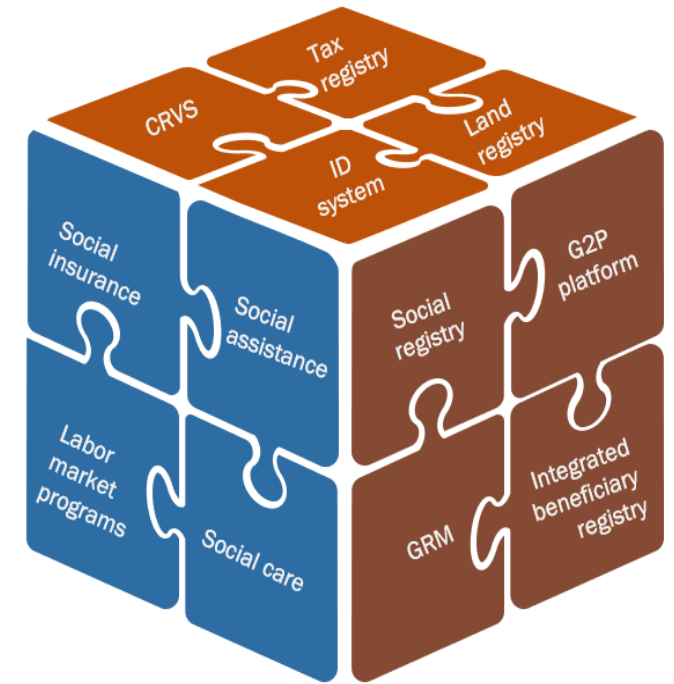
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The Digital Convergence Initiative (DCI)

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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Talking interoperability

A monthly dialogue series by the DCI to facilitate in-depth technical conversations around integrated and interoperable SP information systems across countries

Deep dive into one country-level system per session to...

- share the technical nuts and bolts of how agencies have designed their social protection information systems for interoperability
- understand how agencies have tackled the major challenges to interoperability.
- brainstorm potential solutions to remaining bottlenecks



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Recordings of past sessions available

The image displays two overlapping browser windows. The left window shows the 'Digital Convergence USP2030' website with a 'Past events' section listing several sessions, including 'Dialogue series: Session 3 - Turkey' and 'Applying the Principles for Digital Development in social protection'. The right window shows a 'webinar-series' page for 'Talking interoperability - Dialogue Series', detailing the series' purpose and listing three specific webinars: 'Kutumba, India (Karnataka state): Breaking data silos for inclusive social protection', 'Cross Road Bank for Social Security, Belgium: The Belgian experience achieving social sector interoperability', and 'Integrated Social Assistance Information System (ISAS), Turkey: Creating the Digital Social Assistance System'. Both windows show a Windows taskbar at the bottom with various application icons and system information like temperature and time.

Past events

- [Dialogue series: Session 3 - Turkey](#)
- [Dialogue series: Session 2 - Belgium](#)
- [Dialogue series: Session 1 - Karnataka State, India - Kutumba](#)
- [Applying the Principles for Digital Development in social protection](#)
- [Open source solution workshop](#)

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webinar-series

Talking interoperability - Dialogue Series

The "Talking interoperability" dialogue series is organised by the Digital Convergence Initiative (DCI). These meetings aim to facilitate in-depth technical conversations around designing for interoperability in the social protection sector. By bringing together digital social protection and technology experts from government agencies, software vendors, system integrators and international organisations, they aim to promote peer-based learning and problem solving.

Webinars

1. [Kutumba, India \(Karnataka state\): Breaking data silos for inclusive social protection](#)
2. [Cross Road Bank for Social Security, Belgium: The Belgian experience achieving social sector interoperability](#)
3. [Integrated Social Assistance Information System \(ISAS\), Turkey: Creating the Digital Social Assistance System](#)

Organisers

Digital Convergence USP2030

[Past Events – digital convergence initiative \(sp-convergence.org\)](https://sp-convergence.org/archive-past-events/)

<https://socialprotection.org/webinar-series#talking-interoperability>

Presenter



Discussants



Moderator



**Asante Bonti
Kakra Amoako**

MIS Specialist
and Consultant,
Ghana
Productive
Safety Net
Project

Kingsley Owusu

Head of IT,
Ministry of
Gender, Children
and Social
Protection

**Samuel Boakye-
Marfo**

Principal Social
Development
Officer, Ministry
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Children and
Social Protection

Arin Dutta

Senior Health
Specialist, ADB

Lubasi Musambo

MIS Technical
Advisor, Ministry
of Community
Development and
Social Services,
Zambia

**Luis Iñaki Alberro
Encinas**

Senior Social
Protection
Specialist, World
Bank



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GHANA SOCIAL PROTECTION SYSTEMS

Presenters

Amoako Bonti Kakra Asante, MIS Specialist & Consultant
Kingsley Owusu, Head of IT Unit (*Research, Statistics & Info. Mgt*)
Samuel Boakye-Marfo, Principal Social Development Officer



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Context setting

Ministry of Gender, Children and Social Protection



MANDATE

The Ministry is mandated to coordinate and ensure gender equality and equity, promote the survival, social protection and development of children, vulnerable and excluded and persons with disability and integrate fulfillment of their rights, empowerment and full participation into National development.

In ensuring that the Ministry has adequate resource to perform its mandate, there is the need for the availability and use of timely data to inform evidence base policy decision making.



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Composition of the Ministry

HEADQUARTERS,

DEPARTMENT OF GENDER,

DEPARTMENT OF CHILDREN

DEPARTMENT OF SOCIAL
WELFARE,

LEAP SECRETARIAT,

NATIONAL SCHOOL
FEEDING PROGRAMME,

NATIONAL ADOPTION
AUTHORITY,

GHANA NATIONAL
HOUSEHOLD REGISTRY,

NATIONAL COUNCIL OF
PERSONS WITH DISABILITY,

NON PROFIT
ORGANISATION,

AND FIVE LINED
DIRECTORATES INCLUDING
THE RESEARCH, STATISTICS
AND INFORMATION
MANAGEMENT.

**ALL DEPARTMENTS AND AGENCIES
ARE DATA PRODUCING AND RELIES
ON DATA FOR DECISION MAKING**

MOGCSP IS HIGHLY DATA DRIVEN MINISTRY



Poverty and social protection context in Ghana

- **Population: 30,832,019** individuals/30,079,802 households
- **Poverty level: 23.4%** lives below the international poverty line
- **Social protection system: 6** programs across 3 ministries



Highest coverage/key SP programmes

SP program	Target group/function	Lead agency	Coverage (HHs/individuals)
Livelihood Empowerment Against Poverty	Poor and vulnerable	Ministry of Gender Children and Social Protection	345,021 / 1.5m
Labour Intensive Public Works	Poor and the vulnerable	Ministry of local Gov, decentralisation and rural development (MLGDRD)	34,579 individuals
National Health Insurance Scheme	Universal	Ministry of Health/NHIA	15,518,797 individuals
Productive Inclusion	Poor and vulnerable	MLGDRD	21,104 individuals

SP program	Target group/function	Lead agency	Coverage (HHs/individuals)
Ghana School Feeding Project	Public school children nationwide <i>(in deprived communities)</i>	Ministry of Gender, Children and Social Protection	10,000 schools/3, 620,000 pupils (<i>at 1st term 2022</i>)
Basic Education Capitation Grant	Public schools	Ministry of Education	43,328 schools/5,926,256 pupils

Information systems landscape in Ghana

Common digital infrastructure

Information system	Status (see legend below)	Responsible institution	Percentage of population covered (if available)
Common identification system	Live	National identification Authority	52%
Social registry	Live	Ghana National Household Registry	
Common payments platform	Live	Ghana inter payments and settlements system	
Grievance redressal platform	Live	Single window citizens engagement service	
Integrated beneficiary registry	Not available	N/A	
Civil registration system	Under development	Office of the Vice President	
	Live	Under development	Not available

INTRODUCING THE GHANA SOCIAL PROTECTION SYSTEM

EXISTING MIS PLATFORMS



GNHR Registry platform
for sharing targeting data

LEAP Management
information systems for
beneficiary management
and payroll

LIPW Management
information system for
project management and
payroll

GSS data

SP MEMIS Dashboard to
monitor key performance
indicators across sectors
implementing SP progs.

SWCES case management
platform for managing
case across SP Programs
and beyond(SWIMMS
Orange support)

National Identification
Authority

National Health Insurance
Authority



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SCREENSHOT OF EXISTING MIS PLATFORMS

Ministry of Gender, Children and Social Protection
Republic of Ghana

ABOUT THE MINISTRY
The primary objective for its establishment was to have a Ministry responsible for policy formulation, coordination and monitoring and evaluation of Gender, Children and Social Protection issues within the context of the national development agenda.

CORE PROGRAMMES

- Ghana National Household Registry (GNHR)**
The GNHR serves as a primary mechanism for targeting for all social protection interventions in Ghana.
- Livelihood Empowerment Against Poverty (LEAP)**
The LEAP is a cash transfer programme targeted at reducing extreme poverty by increasing consumption and promoting human capital development and access to other social services among the extremely poor and vulnerable households.
- National Health Insurance Exemptions (NHIE)**
The NHIE is a social protection programme and component of the National Health Insurance Scheme (NHIS) which exempt some categories of persons from paying contributions, and enables them to access free, quality and essential healthcare.
- Single Window Citizen Engagement Service (SWCES)**
The SWCES has been designed to strengthen and support mechanisms among the five flagship Social Protection Programmes and to improve transparency, accountability and effectiveness in grievance redress across these programmes.
- Education Capitation Grant (ECG)**
The ECG seeks to lessen the burden of paying school fees and all forms of levies in order to realize the long-term goal of universal access to quality basic education.

CONTACT INFORMATION
P.O. BOX MBO 186, Ministries, Accra
Tel: (+233) 0302 688181 / 7 / 4
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Email: info@mogcsp.gov.gh
Website: https://www.mogcsp.gov.gh/



Social Protection Single Window Citizens Service

Welcome to the Helpline of Hope, Easily File a case online or Track a Case in any of the Categories below

SOCIAL PROTECTION IN GHANA: ENHANCING SOCIAL SERVICES & LIVELIHOODS

File a Case **Track a Case** **Frequently Asked Questions**

SOCIAL PROTECTION PROGRAMS

- ✓ Ghana National Household Registry (GNHR)
- ✓ Livelihood Empowerment Against Poverty (LEAP)
- ✓ Labour-Intensive Public Works (LIPW)
- ✓ Ghana School Feeding Programme
- ✓ Capitation Grant

Social Welfare Service Directory

Search for Agencies | All Categories | Region | District | Search

Popular categories:
Education (5492), Medical And Healthcare (2172), Legal And Justice Support (808), Counseling And Psychological (879), Social Protection (500), Child And Family Support (468)

GNHR - PORTAL

Dashboard | Households | Household Members | Household Registration | Data Partner Admin | Data Update | Feedback Management | Case Management | Admin | ETL

View Members : da31d8da-e6bb-417e-a4d1-cd498846ac95

Name	Role	Phone Number	Gender
JOHN DOE	BOSS	0552329631	FEMALE

Showing 1 to 1 of 1 entries

GNHR ANDROID APP FOR DATA COLLECTION/UPDATE

DOWNLOAD DATA OFFLINE TO AID DATA COLLECTION

ADMINISTER PMT QUESTIONNAIRE

UPDATING HOUSEHOLDS + SPOT CHECKING

Enumerators login and automatically download all locations, structure listings and required households.

Update existing households

Register new households with the remotely configured PMT questionnaire - inbuilt validation business rules. App compares new data with structure listings data and flags mismatched households

GHANA NATIONAL HOUSING REGISTRY (GNHR)

Overview [GNHR]

- Launch year: **2015**
- Number of households covered: **809,368**
- Database size: **Biodata images 500GB Main 3.5 terabyte**

SP business processes supported

Initial registration

Eligibility check

Enrolment

Grievance
redressal

Monitoring and
evaluation

Data management
(updates)

Case management

MANDATE GNHR



Establish a Single National Household Registry

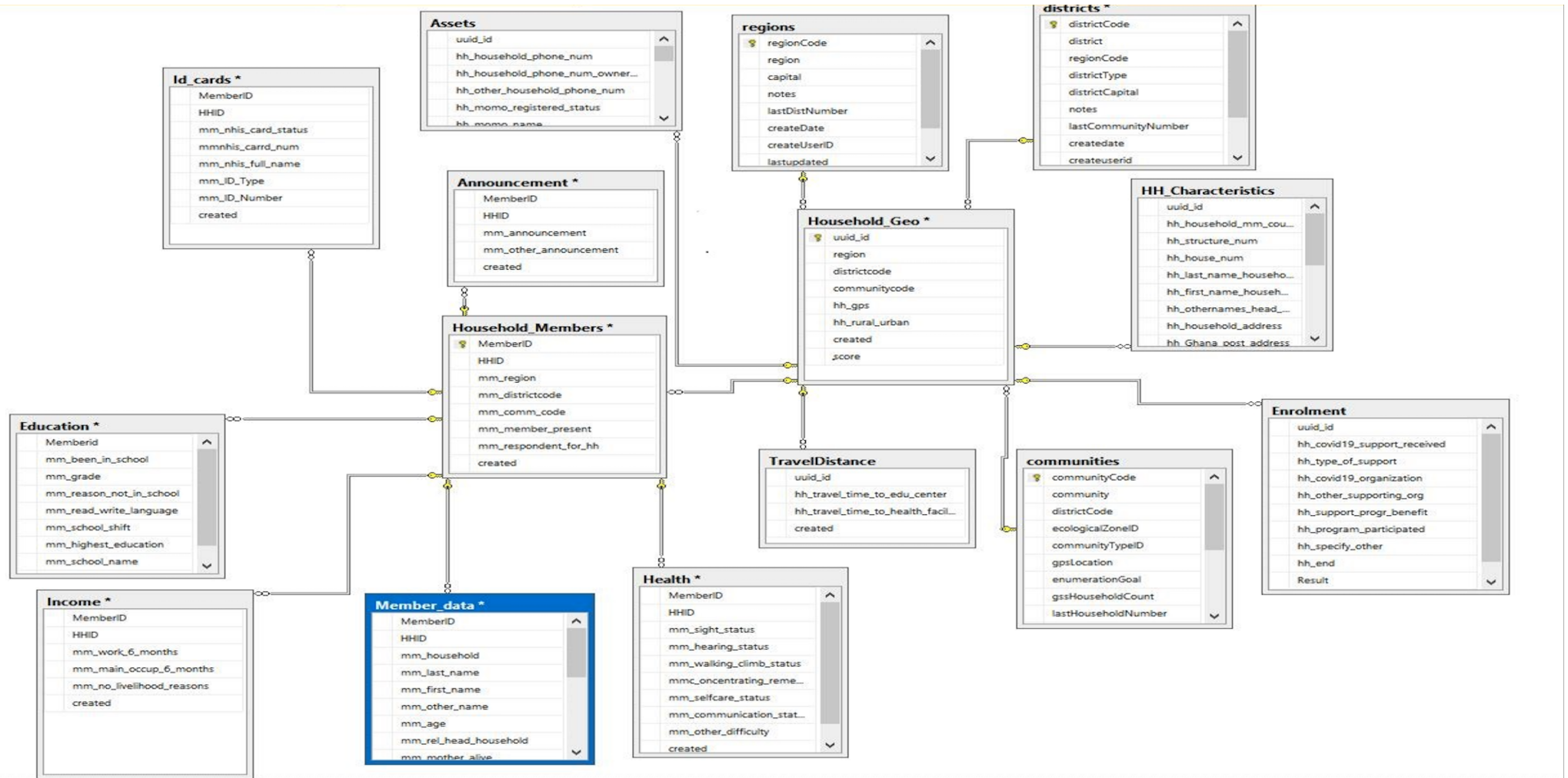


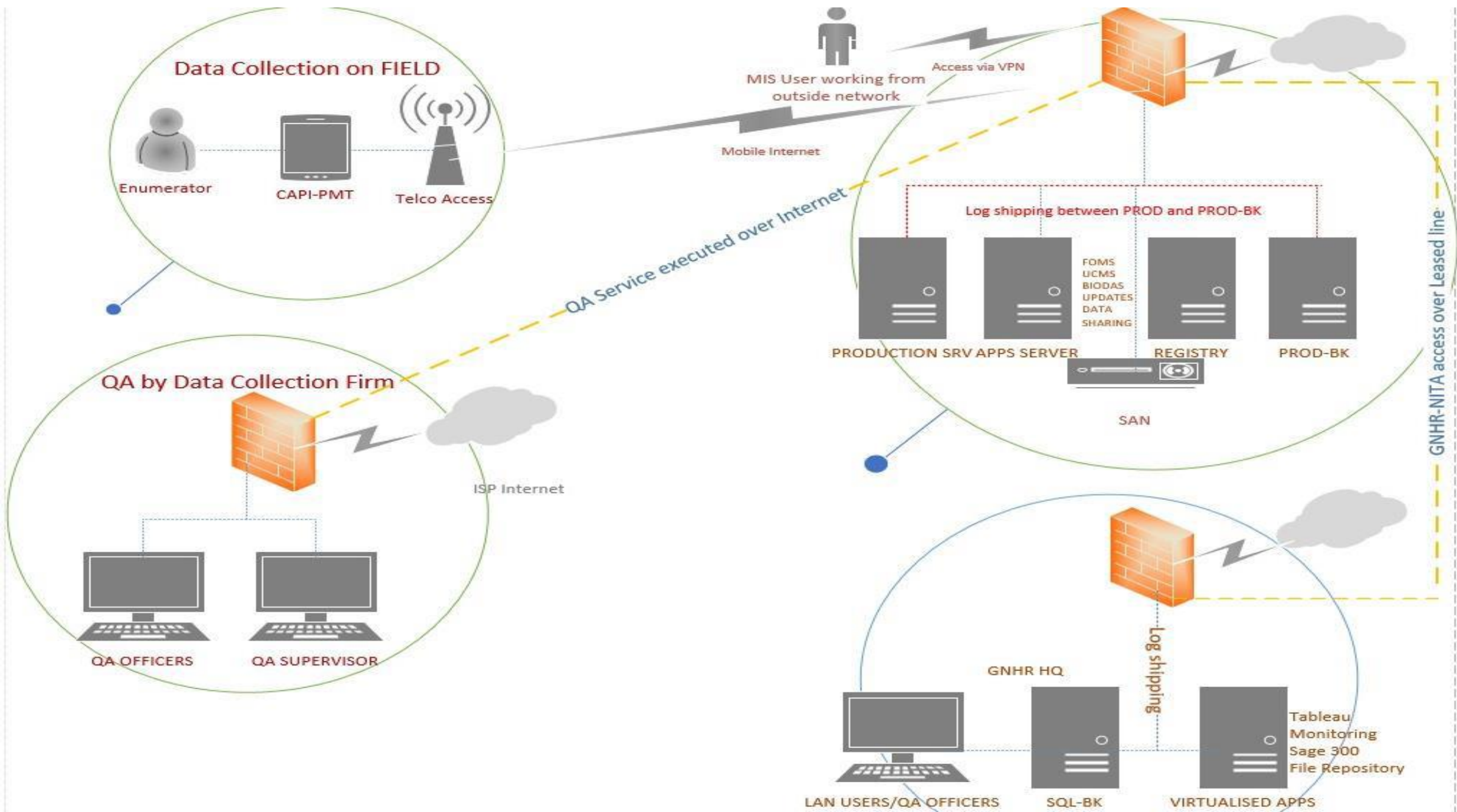
Facilitate the linkage of the Registry to SP programmes



Promote widely usage of data for research, policy and planning

GNHR System architecture (DATA)





SINGLE WINDOW CITIZEN ENGAGEMENT SERVICE (SWCES)

Overview [SWCES]

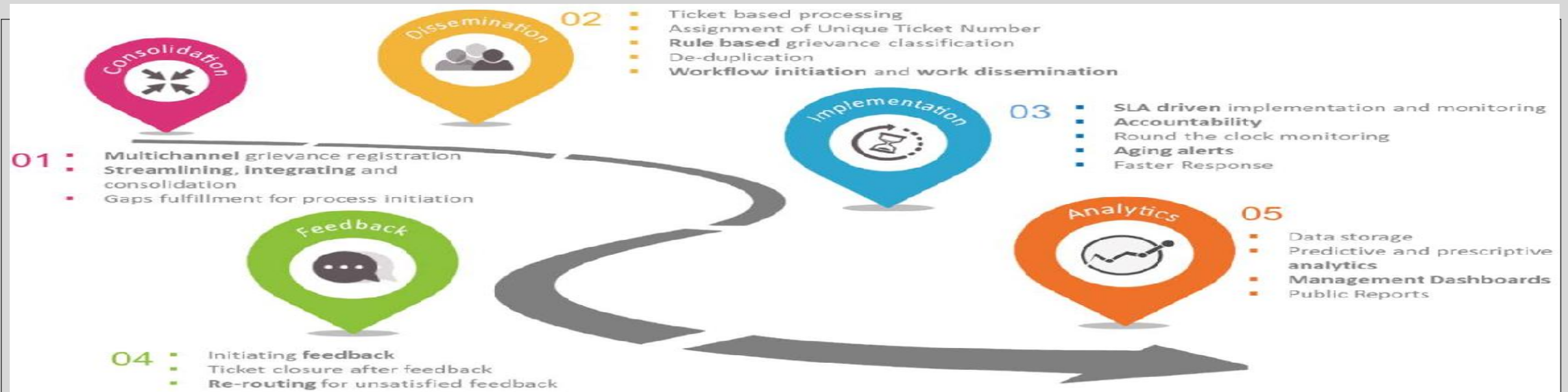
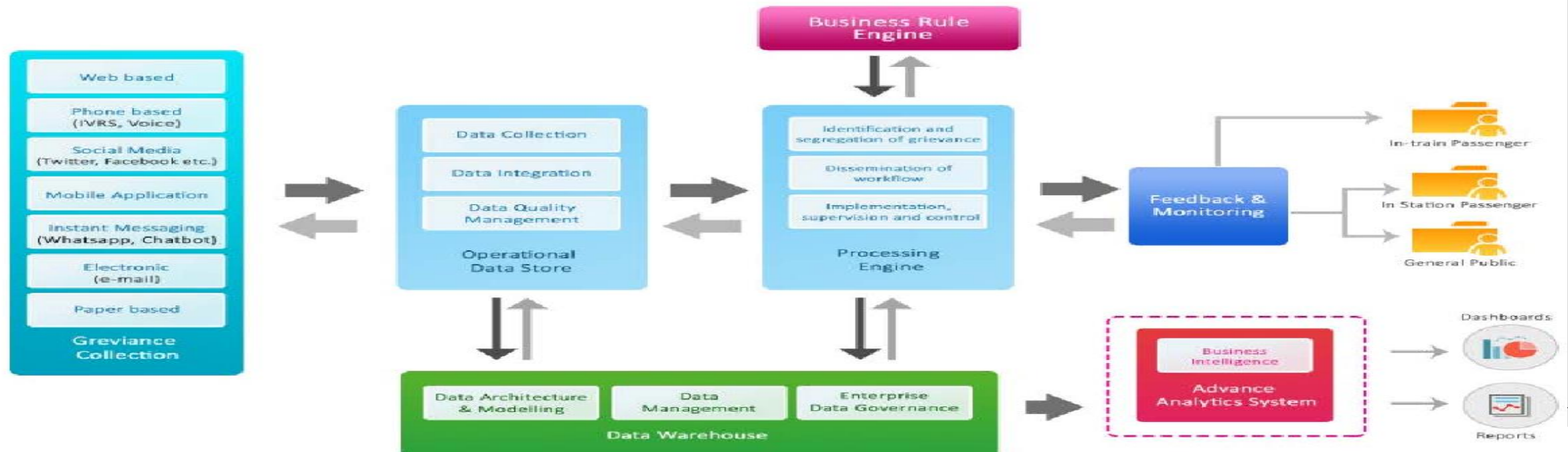


Figure 3. Components of iPGRS



Case Mgt. Officer(Process)



CASE MGT. OFFICER



WEB PORTAL



SYSTEM

COMMON ACTIONS



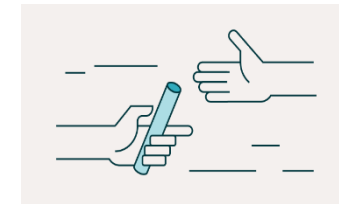
MANAGE TEAMS



MANAGE TASKS



RESOLVE CASES



ESCALATE CASES



FEEDBACK

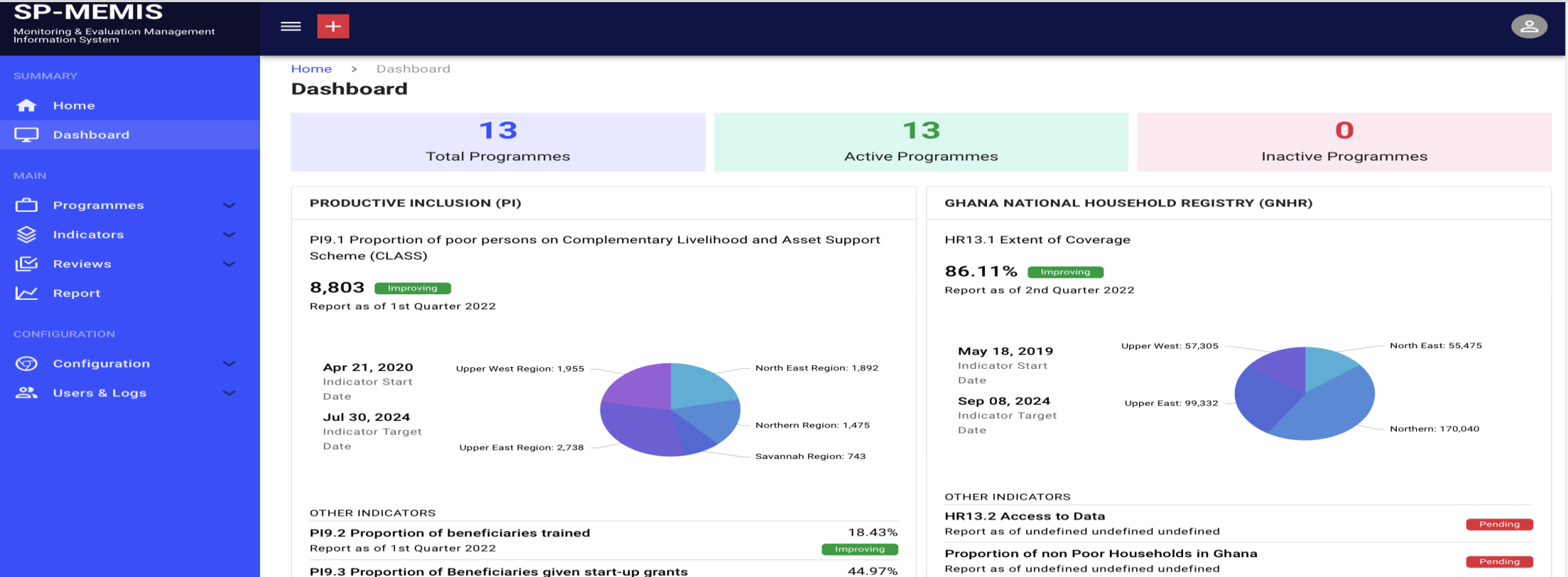


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SOCIAL PROTECTION MONITORING DASHBOARD (SP – MEMIS)

Overview [SP - MEMIS]

SOCIAL PROTECTION MONITORING DASHBOARD




SUMMARY

 Home Dashboard

MAIN

 Programmes  Indicators  Reviews  Report

CONFIGURATION

 Configuration  Users & Logs **Ministry of Gender, Children
and Social Protection**

Republic of Ghana

CONTACT INFORMATION

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and evaluation of Gender, Children and Social Protection issues within the context of the national development agenda.

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**Education Capitation Grant (ECG)**

The ECG seeks to lessen the burden of paying school fees and all forms of levies in order to realize the long-term policy objective of 'increasing equitable access to and participation in education at all levels under the National Development Policy Framework

**Labour-Intensive Public Works (LIPW)**

The LIPW project seeks to provide short term employment to the poor to enable them to meet their household expenditure, particularly during the agricultural off-season.

**Ghana School Feeding Programme (GSFP)**

INTEGRATED GHANA SP - SYSTEM

Ghana have not yet integrated the existing systems, however, we are currently building and strengthening the existing system. After which the existing systems would be integrated under one platform as INTEGRATED GHANA SP - SYSTEM.

What were the needs interoperability was designed to meet?

- Reduce administrative cost
- Resolve beneficiary concerns on time
- Reduce burden of beneficiaries
- Generate evidence base information for decision making
- Improve on efficient targeting
- Share and update resource consumed

What are the benefits envisaged due to interoperability

- Efficient resources shared across social protection interventions
- savings in expenditure,
- beneficiaries saved from having to travel to centres
- Right targeting of beneficiaries
- Efficient case management
- Decision making on data effective
- Key performance indicators monitored

Interoperability capabilities

Mapping data exchange across key systems – (any existing visual) or table

Common information system	Program 1	Program 2	Program 3	Program 4	Program 5
Common identification system					
Social registry					
Common payments platform					
Grievance redressal platform					
Integrated beneficiary registry					
Civil registration system					

**Program draws on data from
common information system**

**Program is not connected to the
common information system**

Data standards

- **Data dictionary** - We are currently finalizing our data dictionary to conform to our updated data architecture. There is already a documented business process with its process flow and use cases.
- **Technical Teams and Stakeholders** - Engagement with various technical teams and stakeholders are also ensured.
- **Access of Standards** - The standards are shared through a cloud access
- **Compliance with Standards** - Compliance with standards are ensure by the MIS technical team meeting biweekly to review compliance according the data protection act following the 8 principles of data security and privacy
- **Update of Data Standards**
Data standards are updated through report and gap analysis conducted

Eight Data Protection Principles by Regulators

This slide is 100% editable. Adapt it to your needs and capture your audience's attention.





Defining and managing interoperability interfaces

How are the interfaces between systems defined?
Rest interface API

How are the interfaces published and accessed?
HTTPS Request, token

How are updates to interfaces managed and communicated to the stakeholders? Update through API document and published on cloud services

Data exchange protocols

- **Data Management Manual** - We do have data sharing protocol and data management manual for establishing data processing and data service protocols in order to ensure data integrity and confidentiality.
- **Data Integration Approaches** - (e.g. Web services/APIs, point to point integration, Enterprise Service Bus, Data warehouse with ETL, etc.)
- **Access Control Protocol** - Our access control protocol for data exchange include API gateway, decentralized at each agency level, etc.)
- **Consent Management** - We use Right of a data subject DPC ACT 2012 as the protocols for consent management
- **Protocols for Identification and Authentication** - The protocols followed for identification and authentication of individuals by entities seeking data access are done through a biometric and a national ID. Entities seeking data is done through the registry portal through an official request

Privacy and Security Data Protection



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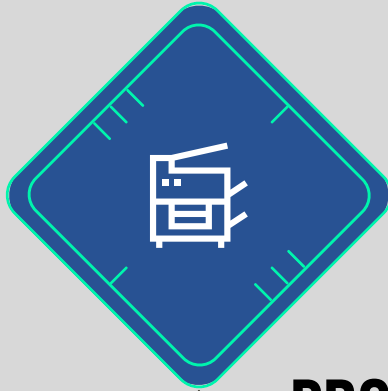
Data Security and Privacy

The following are the features that ensure data security and privacy exist:

- Backups , use of strong password , installation of anti-virus and malware, firewalls and encryption.
- Principle of DPC Act 2012

Challenges and way forward

INTEROPERABILITY PLAN



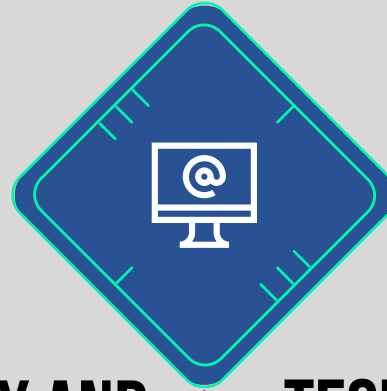
PROGRAM DESIGN

Program
management to
coordinate cross
functional team and
decision making



STRATEGY AND GOVERNANCE

Roles with defined
responsibility and
accountability to
achieving goals



TECHNOLOGY AND DATA

Data integrations
and infrastructure,
upgrade and
resource sharing



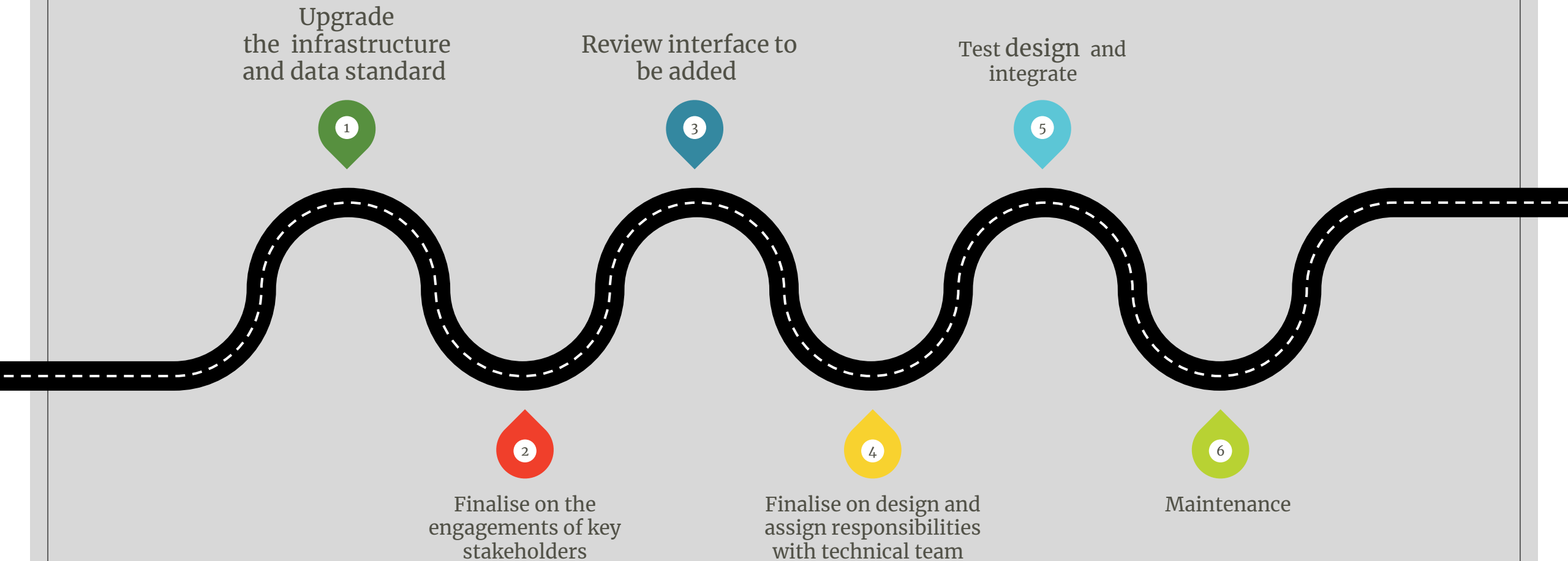
PRIVACY AND SECURITY

Securing the data
sharing, privacy
rule and compliance

Key challenges to interoperability and how they were overcome

Challenge	Solution
Commitment of key stakeholders	Team building skills, motivations and continuous engagement
System reliability and resource	Identify the right technical members to manage systems and improves on infrastructure
MOU delays	Hold more technical engagements and lobby

Roadmap to Interoperability

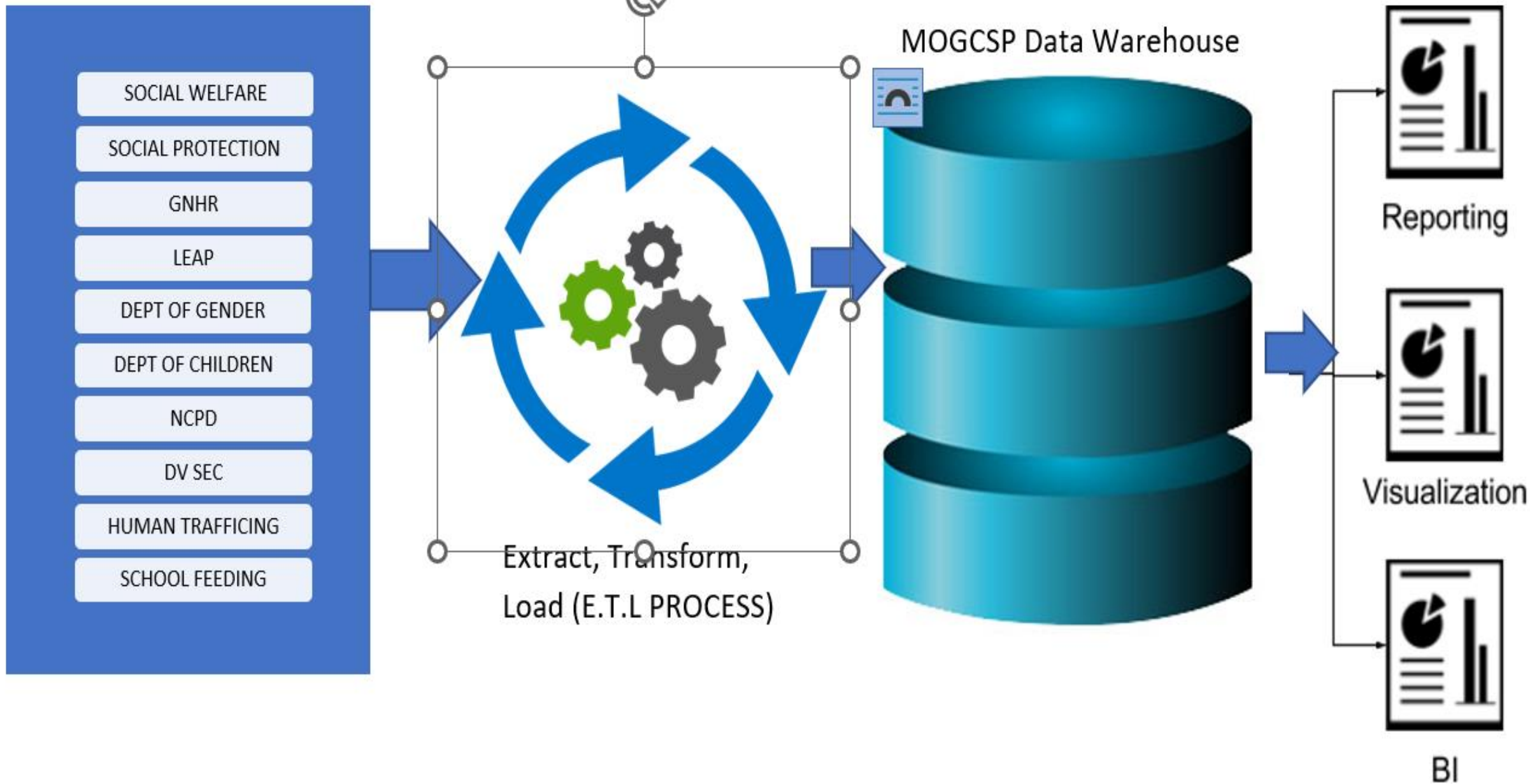


MIS Integration of the entire Ministry

MOGCSP INTEGRATED MIS FACILITY

Data Warehouse:

- Standard Template for Departments/Agencies to Capture raw data and reporting on processed data.
- Integrate all Management Information Systems by extracting data into a Centralized-Computer Based System. (Data Warehouse)
- Automate extraction of data from database systems into data warehouse
- Provide Management Information System at the Operational level for Departments/ Agencies without such system to feed the Datawarehouse.
- Implement Data Mining Technologies / Business Intelligence for Analytics: studying trends, patterns, exceptions etc.



What is the Challenge Now?

- Currently, almost all Departments, Agencies and Secretariats under the MoGCSPs have their individual data collection, collation and retrieval systems.
- Some of the individual information systems are not standardized and others are standardized and digitalised.
- information systems (both digitalized and manual) at the Ministry run and silos and have difficulty being synced with each other.
- Departments and Agencies that run manual system (paper-based) require a lot of effort and coordination.

To address the above challenges, the Ministry is developing a Data Warehouse to integrate the various Management Information Systems of all Departments, Agencies and Secretariats.

Way Forward:

- Finalize KPIs
- Data Warehouse Requirement Gathering
- Develop Database Schema for the Data Warehousing
- Procure Infrastructure for the Data Warehouse
- Procure the services of a consultant for the production of the Data warehouse

Dialogue series: Talking Interoperability

Next sessions

23 February 2022, 12:00–14:00 GMT

23 March 2023, 12:00 – 14:00 GMT

27 April 2023, 12:00 – 14:00 GMT

Register: <https://www.socialprotection.org>

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Thank you

Make sure to answer our survey which will appear on your browser, and join us for the next sessions!

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become a member of



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