

REPUBLIC OF KENYA



**SINGLE REGISTRY SECURITY
GUIDELINES AND PROTOCOLS FOR
INTEGRATION WITH PROGRAM
MANAGEMENT INFORMATION
SYSTEMS**



Document Acceptance and Release Notice

This is version 1.0 of the Security guidelines and protocol for systems that link to Single registry documentation. This is a managed document. For identification and amendments each page contains a version number and page number. Changes will only be issued as a complete replacement document. Recipients should remove superseded versions from circulation. This document is authorised for release once all signatures have been obtained.

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(for release)

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Table of Contents

Document Acceptance and Release Notice	2
1.0 INTRODUCTION	5
1.1 The Single Registry	5
1.2 The Programme Management Information Systems	6
1.3 Integrated Social Assistance Management Information System	6
2.0 PURPOSES AND OBJECTIVES	7
2.1 Purpose	7
2.2 Objectives	7
3.0 SECURITY PROTOCOLS AND GUIDELINES	8
3.1 Inception Stage	8
3.1.1 Initial Meetings	9
3.1.2 Memorandum of Understanding	9
3.1.3 Technical meeting on requirements for integration	10
3.2 Implementation Stage	11
3.2.1 Assessment of the Program and Network Security Architecture	11
3.2.2 Data Conversion to census 2009 Standard	12
3.2.3 Configuration of Data Replication	13
3.2.4 Design and implementation of integration services	14
3.3. Monitoring and Review	17
3.3.1 Monitoring of Data Replication Service	17
3.3.2 Monitoring of Integration Service	17
ANNEX 1: DATA EXCHANGE MEMORANDUM OF UNDERSTANDING	18
1. Purpose of this Data Exchange Agreement	19
2. Extent and type of information to be shared	20
3. Security and Data Management	20
4. Complaints and Breaches of Confidentiality	21
5. General Operational Guidance	21
ANNEX 2: SINGE REGISTRY DATA DICTIONARY	22
ANNEX 3: CENSUS 2009 GEOGRAPHICAL LOCATION MASTER LIST	33
ANNEX 4: JOINT IMPLEMENTATION PLAN	39

Acronyms

Abbreviation	Description
CT-OVC	Cash Transfer for Orphans and Vulnerable Children
DSD	Department of Social Development
HSNP	Hunger Safety Net Program
IPRS	Integrated Population Registration Service
MIS	Management Information System
MOU	Memorandum of Understanding
SR	Single Registry
OPCT	Older Persons Cash Transfer
PWSD-CT	Persons with Severe Disabilities Cash Transfer
SP	Social Protection
WFP	World Food Program
PS	Permanent secretary
CS	Cabinet Secretary
SAR	System Access Request
NDA	Non-Disclosure Agreement
SPS	Social Protection Secretariat
ESC	economic, social, and cultural rights
SQL	Structured Query Language
MLEAA	Ministry of Labour and East African Affairs
NCPWD	National Council for People with Disabilities
SAU	Social Assistance Unit
VPN	Virtual Private Networks
MOU	Memorandum of Understanding
ISAMIS	Integrated Social Assistance Management Information System
GIS	Geographic information system

1.0 INTRODUCTION

Kenya's Social Protection Policy that was gazetted in 2012 addresses policy coordination, including the institutional framework and management information systems needed to make it happen. The policy also envisions the Single Registry as playing a central role in establishing a coherent and scalable approach to social protection, "The Government recognizes the need to establish a management information system (MIS) for social protection in Kenya".

As part of the implementation of Kenya's Social Protection Policy, the Ministry of Labour and East African Affairs (MLEAA) implements three cash transfer schemes: (i) cash transfer for Orphans and Vulnerable Children (CT-OVC) (ii) Older Persons Cash Transfer (OPCT) and (iii) Cash Transfer for People with Severe Disabilities (CT-PWSD). The CT-PWSD is implemented in collaboration with the National Council for People with Disabilities (NCPWD). The fourth key cash transfer scheme, the Hunger Safety Net Programme, is implemented by the National Drought Management Authority within the Ministry of Devolution and Planning.

1.1 The Single Registry

The Single Registry has evolved as part of the broader social protection policy framework, which aims to establish an information system to help manage four social assistance programmes¹ in Kenya. Its objectives are twofold: (i) provide increased harmonisation and consolidation of fragmented schemes; and (ii) enhance the responsiveness of social protection initiatives to increase its capacity to quickly scale-up in response to rapid-onset crises.

Kenya's Single Registry is designed to address the following stakeholder issues:

- **Prevention Error/Fraud.** Information in the Registry is run against data on 30 million IPRS' National Population Register, enabling programme managers to be sure that beneficiaries' details are accurate/verified.
- **Programme Efficiency and Effectiveness.** Cross-check is made whether beneficiaries enrolled in a programme are on the payroll, and whether the number of beneficiaries scheduled to be paid equals those paid.
- **Monitoring Programme Implementation.** Single Registry supports programme monitoring, and has a specific report that allows monitoring of the selected indicators across programmes.
- **Planning Expansion of Social Protection Programmes.** The expansion plan of the National Safety Net Program has been integrated with the Single Registry so that users can cross-reference attainment against objective for any programme.

¹ (i) HSNP – Hunger Safety Net Programme (ii) OPCT – Older Persons Cash Transfer Programme (iii) CT-OVC – Cash Transfer for Orphans and Vulnerable Children (iv) PWSD-CT – Persons with Severe Disabilities Cash Transfer Programme.

- **Foundation for Establishment of Common Delivery Systems.** With a consolidated payroll of beneficiaries from existing cash transfer schemes, the Single Registry is a key resource for creating other common delivery systems, including payment systems, which will reduce the costs associated with delivering benefits.
- **Basis for Emergency Response.** HSNP sub-registry contains bank account details for households in four poorest counties (Turkana, Wajir, Mandera and Marsabit) enabling emergency response in case of drought.

1.2 The Programme Management Information Systems

Besides the Single Registry, there are four bespoke programme MISs and their associated databases that have been designed, developed and implemented, all of which link to the Single Registry as well as respond to the individual functional needs and requirements of each programme. These programme MISs include:

- **Department of Social Development (DSD) MIS.** This consolidates data is used to run operations of OPCT and PwSD-CT programmes;
- **CT-OVC MIS.** Keeps data and computerises operations of the CT-OVC programme;
- **HSNP MIS.** A sub-registry containing data collected by HSNP programme through mass registration from four northern counties of Wajir, Mandera, Marsabit and Turkana; and
- **WFP's Jenga Jamii MIS.** Stores data and automates operations for all of WFP's cash transfer programmes.

1.3 Integrated Social Assistance Management Information System

With the establishment of SAU as part of the implementation of the NSNP consolidation strategy, the vision is to establish one integrated MIS for three social assistance programmes: (i) CT-OVC (ii) OPCT and (iii) PwSD-CT. The ISAMIS strategy for the design of the ISAMIS that shall be developed within 2016-2017 financial year will be underpinned by review and consolidation of the key processes that were previously implemented by two Departments (DSD and DCS). These processes include harmonised registration and targeting, payments, updates to beneficiary details and complaints and grievances management. Besides addressing the functional requirements, the strategy will also outline key technical requirements such as data security, data exchange, sizing and performance, technology platform, development framework, data backup and recovery. One key technological requirement to be addressed by the ISAMIS strategy is whether to build ISAMIS based on existing software platforms (DSD web MIS or CT-OVC web MIS) or create a new software platform. The ISAMIS strategy, once developed and signed off, will form basis for the development of the ISAMIS software platform that will link to the Single Registry.

2.0 PURPOSES AND OBJECTIVES

In the recent past, the uses of Single Registry have greatly expanded. Indeed, government and non-governmental agencies are increasingly showing interest in linking to and accessing single registry data. The requests are varied and usually involve: (i) accessing current data available on the single registry website like graphs or reports, (ii) Generation of ad hoc reports based on given parameters and (iii) Linkage to Single registry to crosscheck beneficiaries already receiving benefits from existing programmes. Therefore, the need to establish guidelines on how the social protection management information systems in Kenya cannot be gainsaid.

2.1 Purpose

The purpose of the Security guidelines and protocol is to provide both government and non-governmental organizations, guidance on how to link and access data on the Single Registry. These guidelines provide information on how to securely link to and access data on the single registry without compromising security and integrity of the System.

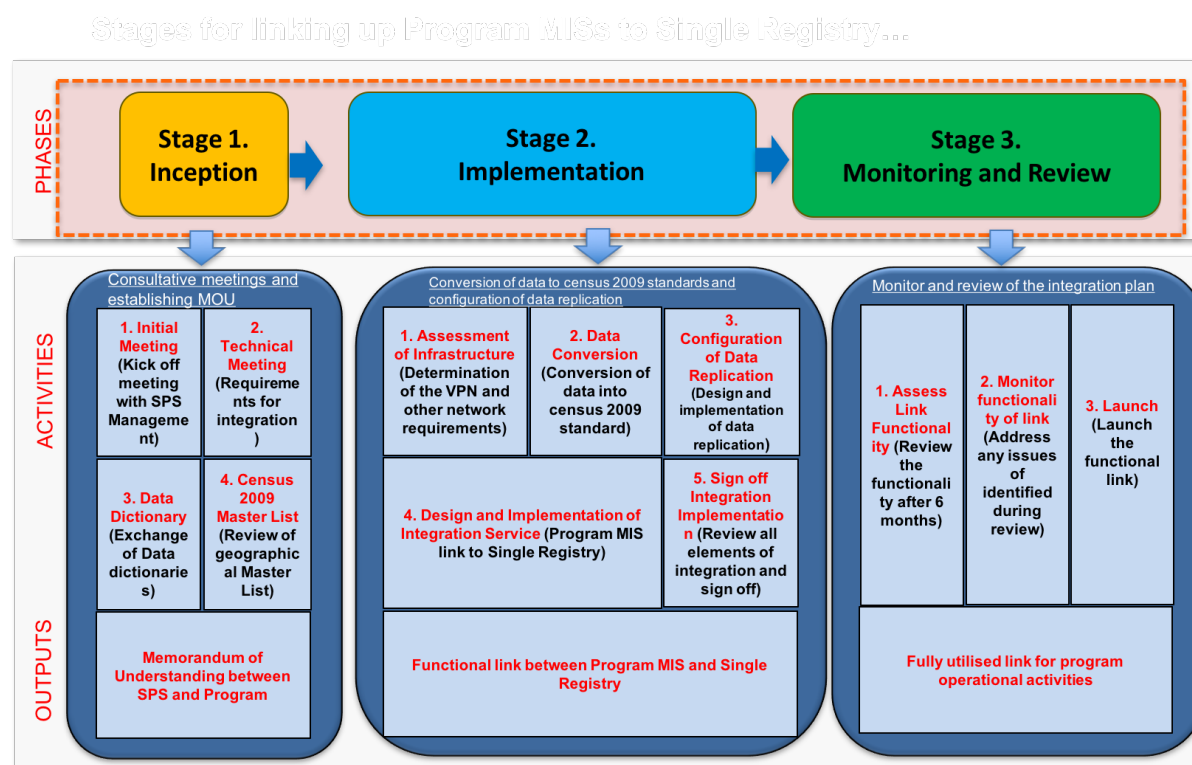
2.2 Objectives

The main aim of the security guidelines and protocols are to provide technical, policy support and procedure of linking onto the single registry. The specific objectives of document include:

- Define clearly key requirements necessary to ensure effective integration of program MIS and Single Registry;
- Systematically describe the technical steps and stages for implementing the integration between program MIS and Single Registry; and
- Provide a mechanism to monitor and upgrade the linkage between program MIS and Single Registry.

3.0 SECURITY PROTOCOLS AND GUIDELINES

Figure 1: Stages to follow when establishing linkages to Single Registry



As illustrated in figure 1, there are principally three key steps that should be followed before any organisation can establish a link with the Single Registry:

- Inception activities (involving consultative meetings and establishing MOUs);
- Implementation activities (conversion of data to census 2009 and configuration of data replication); and
- Monitoring and review (monitoring and reviewing the integration plan).

The following section of the report describes the stages in detail.

3.1 Inception Stage

The key objectives of the inception phase include:

- Establishing rules of engagement through initial meetings;
- Presentation of the objects of the memorandum of understanding;
- Presentation and review of the key requirements for integration especially census 2009 geographical area master list and Single Registry data dictionary;

The following section describes the inception steps and stages in detail:

3.1.1 Initial Meetings

The purpose of the inception meeting is to clarify integration requirements and ensure that both parties understand each other's roles and responsibilities. Upon request for linkage to the Single Registry, the Head of SPS shall set up a meeting with party requesting for integration.

General meeting remarks

- Create a friendly and relaxed atmosphere where participants feel relaxed and at ease; and
- Engage participants in a dialogue in order that they can voice their opinions and questions and to check what they have understood – avoid monologues.

Meeting Agenda

- Set out the rationale and agenda for the meeting;
- Explain the functions and objectives of the Single Registry;
- Summarize the objects of the memorandum of understanding and
- Describe the requirements for integration.

3.1.2 Memorandum of Understanding

A memorandum of understanding (MoU) describes a bilateral or multilateral agreement between two or more parties. It expresses a convergence of will between the parties, indicating an intended common line of action. It is often used in cases where parties either do not imply a legal commitment or in situations where the parties cannot create a legally enforceable agreement. It is a more formal alternative to a gentlemen's agreement.

Any party that is interested in linking to Single Registry and sharing data with the government should sign up an MOU as sign of commitment to the terms of the engagement and integration plan. The key steps to be followed include:

- Download the memorandum of understanding form from the social protection secretariat website (www.socialprotection.or.ke/). The format of the memorandum of Understanding Form is set out in annex 1;
- Read and understand the clauses in the memorandum of understanding; and
- Sign appropriate section of the MOU form.

Once the form has been filled and submitted to the SPS, an assessment shall be undertaken by Head of SPS and feedback provided to the applicant.

3.1.3 Technical meeting on requirements for integration

Once the Single Registry MOU has been signed, SPS technical team shall set up a technical meeting with the integration applicant to present and discuss technical integration requirements. The key integration items for discussion during the meeting include:

- 1) **Single Registry Data Dictionary.** A data dictionary is as a set of information describing the contents, format, and structure of a database and the relationship between its elements, used to control access to and manipulation of the database. SPS shall develop a data dictionary for the single registry set out in annex 2. During the technical meeting, SPS technical team shall present for discussion the Single Registry Data Dictionary. The data dictionary describes the Single Registry technically in terms of object name, field name and expected length of the input value.
- 2) **Census 2009 Geographic Master List.** As standard operating procedure, the beneficiary household information on Single Registry and program MISs that link to it, should be based on census 2009 geographical master information. To ensure consistency and standardisation of data uploaded on the Single Registry, the information from any program that is linked to the Single Registry should be converted to census 2009 location standard. Therefore, during the technical meeting SPS shall present the geographical master list and describe the data sources i.e. Kenyan National Bureau of Statistics Census 2009 and Independent Electoral and Boundaries Commission. The census 2009 master list is set out in Annex 3.
- 3) **Technical documentation of the Program MIS.** Besides the Single Registry documentation, the technical meeting team should discuss the technical specifications of the systems that will be linked to the Single Registry. The technical specifications should include:
 - a) Operating system of the server;
 - b) Server hardware specifications in terms of memory, disc space and processing speed;
 - c) Relational database system that hosts the application system;
 - d) Data dictionary;
 - e) Technologies used to develop the applications interactive front end; and
 - f) Security mechanism in place and any other information that may be critical and useful.
- 4) **Developing a joint implementation plan.** The key outcome of the technical meeting is the development of a joint implementation. The plan shall set out all the key implementation activities, due dates for the activities and names of individuals responsible for implementation of the activities. The sample of the joint implementation plan is set out in Annex 4.

3.2 Implementation Stage

The key objectives of the implementation phase include:

- Assessment of the security architecture and infrastructure set up of the program that plans to link with the Single Registry;
- Configuration of data replication; and
- Design and implementation of integration service between program MIS and Single Registry.

The following section describes the implementation steps and stages in detail:

3.2.1 Assessment of the Program and Network Security Architecture

VPNs should be set up between SPS Servers and Program Server. Technically speaking, it is possible to establish link - using web services over the Internet - between program MIS and Single Registry Server. However, it is highly recommended that SPS and Program invest in a secure VPN channel between because of the advantages set out in box 1.

Box 1: Advantages of a Virtual Private Network

- **Enhanced Security.** Data is kept secure and encrypted thus keeping away potential hackers;
- **Online anonymity.** Through a VPN a user can access web applications and web sites in complete anonymity.
- **Go through blocked websites & bypass filters.** VPNs address blocked websites and bypass Internet filters.

To configure the VPNs, SPS shall work with the program to obtain the configuration information set out in table 1.

Table 1: VPN Configuration Information

VPN Information	SPS	Program
Supplier:	Cisco	
Type:	ASA	
Model:	5510	
OS:	8.2(2)	
GCCN Peer IP address:	10.114.99.3	
Internet Peer IP Addresses:	217.199.144.145 41.76.169.156 217.199.153.29	
DR Site Peer IP:	41.76.171.107	
Proposal Name:	IKE-3DES-SHA	IKE-3DES-SHA
Authentication Mode:	Pre-shared key	Pre-shared key
Pre-shared Key:	To be shared during Implementation	To be shared during Implementation

Authentication Algorithm:	SHA	SHA
Encryption Algorithm:	3DES	3DES
Diffie-Hellman Group:	Group 2 (1024 bits)	Group 2 (1024 bits)
Lifetime Measurement:	Time	Time
Lifetime:	86400	86400

Authentication Algorithm:	ESP/SHA	ESP/SHA
Encryption Algorithm:	3DES	3DES
Encapsulation Mode:	ESP tunnel	ESP tunnel
Perfect Forward Secrecy:	Enabled	Enabled
DH Group	Group 2	Group 2
Lifetime Measurement:	Time	Time
Lifetime:	28800	28800

Network (Primary Site):	10.1.1.5 (http, icmp,9003,9004,5353)	
Network (DR Site):	10.7.1.12 (http, icmp,9003,9004,5353)	

Company:	SPS	
Name:	Eva Gathecha	
E-mail Address:		
Instant Messaging:		
Phone number:		
Fax:		

Comments

- The program has the choice of either/both two methods of connectivity (GCCN link and/or Internet).
- For Internet link, the Public Peer IPs should be applied in the order above, to the same VPN tunnel. The IPs are in automatic failover mode.

3.2.2 Data Conversion to census 2009 Standard

If the data of the program was not based on census 2009 standard, the most important activity to undertake is to convert the data to census 2009 format. Depending on the format of the data and availability of resource persons (such as GIS specialists), this activity could take between one week to several months.

The data should be converted to census 2009 because of the following reasons:

- The National Safety Net Program scale up plan is based on census 2009;
- The entire Single Registry reporting and monitoring framework is based on census 2009;

Once the program has concluded converting data to census 2009 standard, the next activity – data replication – can be undertaken.

3.2.3 Configuration of Data Replication

Replication is the automatic export of data from the one database to another, typically source database to a destination database. *One-way* replication happens when data flows one way from source to destination or vice versa. On the other hand, *two-way replication* happens when data movement to and from source and destination is configured to operate concurrently. For replication to work effectively, there must be: (i) timely supply of information and indicators required (ii) technical configuration of transfer of information from source to destination.

Single Registry has been designed to support data replication from two databases:

- **Homogenous Databases.** The database of the program MIS is similar in structure and format to the Single Registry i.e. Microsoft SQL Server relational database management system
- **heterogeneous databases.** The database of the program is dissimilar to the structure and format of the Single Registry. For instance, Oracle, Access, Excel, PostgreSQL and MYSQL:

Depending in on the type of the database – (whether homogenous or heterogeneous), SPS and programme shall then proceed to implement the appropriate replication mechanism.

- **Implementation for homogenous databases.** For homogenous databases, SPS/Program shall configure and implement a snap shot data replication. There are basically three types of replication services: (i) Snapshot replication (ii) Transactional replication and (iii) Merge replication. Based on literature review and precedent of the implementation of replication with existing program MISs (OPCT, PwSDCT, CT-OVC and HSNP), *transaction replication* shall be implemented as mechanism for linking any homogenous program database and with Single Registry because:
 - **Incremental** changes would need to be propagated from source database to Single Registry instantaneously as they occur;
 - Single Registry would require access to specific changes and not simply the net data change; and
 - Program MISs typically have high volume of insert, update, and delete activity;

Several tests complete with test cases shall be undertaken to ensure the data replication is successful. Any technical glitches shall be documented and addressed.

- **Implementation for heterogeneous databases.** For heterogeneous database, SPS and program shall undertake the following activities:
 - SPS shall design an heterogeneous database data import template. The programs maintaining heterogeneous database shall format the data into the format for upload into the Single Registry.

- Several tests complete with test cases shall be undertaken to ensure the upload of data is successful. Any technical glitches shall be documented and addressed.

After successful test, complete with a comprehensive user acceptance test, SPS and Program shall commission the data replication.

3.2.4 Design and implementation of integration services

The Single Registry is developed with a web service – SingleRegistryIPRSVerification - that can provide a dual role of checks against double dipping and IPRS verification. The purpose of the bio-verification web service includes:

- It helps in elimination of fraud and double dipping by ensuring that beneficiary details are verified electronically against the IPRS's 30 million National Population Registry database. This ensures that the programmes pay only genuine beneficiaries;
- To implement the policy on double dipping. Effectively, the web service allows programs produces reports of applicant's who are benefiting from National Safety Net Programme. These reports are used as basis to reject these potential beneficiaries to create room for other poor and vulnerable Kenyans to be enrolled in these programmes; and
- Strengthen Monitoring &Evaluation of National Safety Net Programme by providing reports against set indicators on established monitoring and evaluation framework.

The program MIS should therefore establish a link to the Single Registry based on the following steps:

1. The program MISs shall be designed to consume the local IPRS web service in the Single Registry by passing national ID as a parameter;
2. The Single Registry web service shall check if the national ID exists in the local copy of the IPRS table;
3. If the national ID exists, a dataset is sent back to the relevant program MIS;
4. If national id does not exist in the local copy of the IPRS then a call is made to the IPRS remote web service;
5. If the national ID record exists in the IPRS remote database, it is added to the local IPRS table copy and a dataset sent to the relevant program MIS from the local IPRS table; and
6. If record does not exist in the IPRS remote database, then an empty dataset is sent to the respective MIS.

Figure 1: Sample XML format sent by individual program MIS to Single Registry IPRS web service SingleRegistryIPRSVerification method

<VerificationData>

<MemberData>

<SourceVerificationId>1</SourceVerificationId>

```
<MemberId>14728</MemberId>
<FirstName>PETER</FirstName>
<MiddleName>KIIRU</MiddleName>
<Surname>THITIRI</Surname>
<Sex>M</Sex>
<DateOfBirth>1961-12-31T00:00:00+03:00</DateOfBirth>
<IdNumber>2888092</IdNumber>
</MemberData>
</VerificationData>
```

Figure 2: Sample XML format sent by IPRS web service SingleRegistryIPRSVerification method as output to program MIS to Single Registry

```
<VerifiedData>
<MemberData>
<SourceVerificationId>1</SourceVerificationId>
<MemberId>14728</MemberId>
<FirstName>PETER</FirstName>
<MiddleName>KIIRU</MiddleName>
<Surname>THITIRI</Surname>
<Sex>M</Sex>
<DateOfBirth>30 Dec 1961</DateOfBirth>
<IdNumber>2888092</IdNumber>
<IPRSMatch>true</IPRSMatch>
<PotentialDuplicate>false</PotentialDuplicate>
<OccurrenceInCurrentProgramme>0</OccurrenceInCurrentProgramme>
<OccurrenceInOtherProgrammes>0</OccurrenceInOtherProgrammes>
</MemberData>
```

<IPRSDetail>

<SourceVerificationId>1</SourceVerificationId>

<IdNumber>2888092</IdNumber>

<FirstName>PETER</FirstName>

<MiddleName>KIIRU</MiddleName>

<Surname>THIIRIRI</Surname>

<DateOfBirth>30 Dec 1961</DateOfBirth>

<Gender>M</Gender>

</IPRSDetail>

</VerifiedData>

Once the integration service has been established, several tests should be undertaken to ensure full functionality of the service. This should culminate in the user acceptance undertaken by SPS and Program confirming the successful implementation of the integration service between program MIS on one hand and Single Registry on the other.

3.3. Monitoring and Review

The key objectives of the monitoring and review phase include:

- Determination of the functionality of the integration and data replication services;
- Resolution of any system glitches; and
- Ensuring that Single Registry services serve the purposes of supporting program.

The following section describes the implementation steps and stages in detail:

3.3.1 Monitoring of Data Replication Service

One key service that should be monitored on a regular basis is the data replication. This is especially true for heterogeneous database that are configured automatically. Monitoring of the data upload is equally relevant for heterogeneous data sources.

Single Registry has been designed with a data replication audit report that includes the following indicators:

- Transaction date;
- Program management information system;
- Number of data replicated; and
- Comments.

If there is no data input for a month, then SPS – based on system generated email notification - shall check with the program whether there is a problem with the data replication or if there is genuinely no program data to be uploaded into the Single Registry. If there is a data replication issue, then SPS system administrator shall fix the glitch based on the recommendations defined on the administrator's manual.

3.3.2 Monitoring of Integration Service

There are two levels to determine the functionality of the monitoring service:

- **Program MIS level.** The program MISs should be designed with the audit trail and error log function that provides feedback in the form of email notification when the Single Registry service cannot be established.
- **Single Registry Level.** The Single Registry is designed with audit log for the linkage to IPRS. In case of the disconnection of the link because of either exceeding daily tokens or other network issues. The SPS System Administrators should review the audit trail and fix any connection issues.

ANNEX 1: DATA EXCHANGE MEMORANDUM OF UNDERSTANDING

REPUBLIC OF KENYA



DATA EXCHANGE MEMORANDUM OF UNDERSTANDING (MOU)



Organisations involved:

1. External party: _____
2. Social Protection Secretariat (SPS)

Date implemented: _____

Signatories: This agreement is signed on behalf of the partner organisations as follows:

External Party: _____

Name of signatory: _____

Title: _____

Signature: _____

Date: _____

Name of organisation: **Social Protection Secretariat(SPS)**

Name of officer: _____

Title: _____

Signature: _____

Date: _____

1. Purpose of this Data Exchange Agreement

- a) The purpose of this Data Exchange Agreement is to enhance the ability of the third party and the Social Protection Secretariat to support the storage, analysis and reporting of the social assistance data through the exchange and use of information not otherwise readily available to the partner stakeholders.
- b) This data sharing is conducted under a legal framework contained.

2. Extent and type of information to be shared

- a) A copy of the Third Party's Privacy Notice must be exchanged with the Social Protection Secretariat along with the signed data sharing agreements.
- b) The information exchanged routinely between The Third Party and Social Protection Secretariat will be at minimum, the data on Beneficiaries including registration date, Households and its characteristics characteristics, Payment bands/cycle, actual payment details and Summary statistical information for the dashboards.
- c) A signed Data sharing agreements will be required to be issued with a username and password to access the functionalities and reports available on the single registry website.
- d) Data will also be exchanged between Social Protection Secretariat and The Third Party according to the automated Microsoft SQL Server Transaction Replication methodology for systems that use SQL server as the Database engine or via Excel file import for systems that do use SQL server.
- e) Other data not explicitly stated in this section may be shared between The Third party and Social Protection Secretariat for the purposes outlined in section 1a.

h) Data supplied by the Third party to Social Protection Secretariat

- Beneficiary and caregiver personal details and the relationship between them including the date the beneficiaries were registered and enrolled in the programme.
- Household information including the geographical location as per the census 2009 and other characteristics of the household.
- Payment details both present and past including the payment bands/cycle and amounts paid
- Summary statistical information that will be displayed the Single registry dashboards

i) Data and services supplied by Social Protection Secretariat to the Third party

- Assistance with data queries relating to Beneficiary and caregivers, Household information and Payment information.
- Assistance with setting up of the transactional replication
- A template to upload data on the single registry for Third party organizations without SQL server databases.

3. Security and Data Management

- a) At the social protection Secretariat, data is stored in secure databases within the SPS's managed server framework. User access is managed by named user identification authorised by the relevant manager or nominated officer and on receipt of an emailed security and data protection agreement. It is backed up on a daily basis and the system is fully recoverable.
- b) Data will be transferred as a secure, encrypted file via Microsoft replication protocol. There will be no paper or email transfer of data.
- c) Data at individual level will be deleted or deactivated according to SPS and The Third party's respective record management protocols. Aggregated data will be held as long as they are of use to the respective parties.

4. Complaints and Breaches of Confidentiality

- a) This agreement is subject to the formal Complaints Procedures of the parties to the agreement.
- b) Breaches of data protection legislation will be dealt with by the formal disciplinary procedures of the parties to the agreement.
- c) Monitoring of security will be undertaken in light of each organisation's established procedures.
- d) Discrepancies in data will be resolved by the relevant data providers at SPS or The Third party.

5. General Operational Guidance

- a) This agreement and its operations are subject to the usual auditing processes of each organisation.
- b) The terms of this agreement will be reviewed annually, or when changes are necessary and will not be specifically time limited or require annual renewal or signature.
- c) This Agreement may be terminated by any of the partner organisations giving at least 30 days notice in writing to the other partner organisations.

ANNEX 2: SINGE REGISTRY DATA DICTIONARY

Table Name	Field Name	Field Description	Data Type
Register	RegisterID	Auto Generated Serial number	Integer
	RegisterNumber	Programme specific household Number	String (50 characters)
	Programmeld	Programme specific Serial number	Integer
	SubLocationId	Auto generated Sub Location ID	Integer
	ReasonForNoMeal	Reasons why households missed meals	String (100 characters)
	NoMealPerMonth	Number of meals consumed by households per month	Integer
	Wall	Major construction material of the wall	Integer
	Floor	Major construction material of the floor	Integer
	Roof	Major construction material of the roof	Integer
	Toilet	Type of toilet owned by household	Integer
	ConstituencyId	Foreign key from constituency table	Integer
	DonorID	Foreign key from Donors table	Integer
	DateRegistered	Date household was registered on programme	Date
	Village	Village of the household	String (100 characters)

	WaterSource	Main source of drinking water	Integer
	Lighting	Main source of lighting	Integer
	FuelSource	Main source of cooking fuel	Integer
	LandSize	Farming hectares of land owned by the household	decimal
	OtherProgrammeld	Foreign key to the other programmes the household is benefitting from	Integer
	BenefitType	Type of benefit (whether cash or in kind) household receives from other programmes	Integer
	BenefitAmount	The value of benefit in Kenya shillings that the household receives from other programmes	Integer
	OtherBenefits	Any additional benefits that the household receives	String (200 characters)
	RealEstate	Flag indicating whether the household owns real estate	Boolean
	HouseOwnership	Flag indicating whether the household owns the house they are living in	Boolean
	RentAmount	Rent the household pays per month in Kenya Shillings	decimal
	ZebuCattle	Flag indicating whether the household owns Zebu Cattle	Integer
	Sheep	Flag indicating whether the household owns sheep	Integer
	Goats	Flag indicating whether the household owns goats	Integer

	Pigs	Flag indicating whether the household owns pigs	Integer
	HybridCattle	Flag indicating whether the household owns hybrid cattle	Integer
	Camels	Flag indicating whether the household owns camels	Integer
	Poultry	Flag indicating whether the household owns poultry	Integer
	NoMealPerWeek	Number of household meals per week	Integer
	MealsPerDay	Number of household meals per day	Integer
	Frequency	The number of times household goes without meals in a week	Integer
	Enrolled	Flag indicating the enrollment status of a household	Integer
	EnrollmentDate	Date in which the household was enrolled in the programme	Date
	CreatedBy	The foreign key of the code of the data entry clerk that keyed in the record at the programme MIS level	String (100 characters)
	EnrolledBy	Foreign key linking to the employee who enrolled the household into the programme	String (100 characters)
	EnrollmentType	Flag indicating the type of enrollment i.e. scale or replacement	Integer
	EnrollmentReason	Reason for enrollment	String (100 characters)

	ApprovedBy	Foreign key linking to the employee who approved the household entry for enrolment	String (100 characters)
	ApprovalDate	Date when the household record was approved by the programme	Date
	AgencyBranchId	Foreign key linking to the payment service provider's branch	Integer
	InActive	Flag indicating whether household is active or not	Boolean
	Export_Code	Internal replication status code	String (50 characters)
	Export_Status	Internal flag for monitoring replication status	String (3 characters)
Members	MemberId	Serial number assigned to each household member on Single Registry	String (100 characters)
	RegisterId	Foreign key linking members table to register table	String (100 characters)
	IdNumber	National ID number of household member	String (100 characters)
	FirstName	First name of the household member	String (50 characters)
	MiddleName	Middle name of the household member	String (50 characters)
	Surname	Family name of the household member	String (50 characters)
	Sex	Sex of the household member	String (1 characters)
	DateOfBirth	Date of birth of the household member	Date

	BirthCertificateNumber	Birth certificate number of the household member	String (50 characters)
	MaritalStatus	Marital status of the household member	String (1 characters)
	Disability	Flag indicating whether a household is disabled or not	Boolean
	DisabilityId	Foreign key linking to the table on type of disability affecting a household member	Integer
	DisabilityNumber	The disability number issued by National Council of Persons with Disability	String (50 characters)
	OVC	Flag indicating whether a household member is an orphan or vulnerable child	Boolean
	Photo	Digital photograph of the household member	String (520 characters)
	Illness	Flag indicating if a household member is suffering from chronic illness	Boolean
	IllnessId	Foreign key linking to the table on chronic illnesses affecting household member	Integer
	EducationId	Foreign key linking to the table on educational attainment of household member	Integer
	Programmeld	Foreign key linking to the programme which the household was enrolled in	Integer

	RelationshipId	Foreign key linking to the table on relationship of the household member to the head of the household	Integer
	CreatedOn	Date when the household member record was created	Date
	Export_Status	Internal replication status code	String (3characters)
	Export_Code	Internal flag for monitoring replication status	String (50 characters)
Payments	PaymentId	Serial number of payment transaction	Integer
	PaymentCode	Code of the payment transaction	String (100 characters)
	PaymentDate	Date of payment within a specific payment period	Date
	CycleId	Foreign key linking to the payment cycles table which are programme specific	String (48 characters)
	RegisterId	Foreign key linking payments table to the register table	String (100 characters)
	RegisterNumber	Household register number	String (100 characters)
	AgencyBranchId	Foreign key to the payment service providers branch	Integer
	Approved	Flag indicating whether the payment transaction has been approved or not	Boolean
	EntitlementAmount	Amount of payments that a household is scheduled to be paid in a period	Decimal

	AmountPaid	Amount of payments the household collected during the payment period	Decimal
	DatePaid	Date in which the household collected the payment	Date
	HeadOfHouseholdId	National ID number of the primary recipient	String (50 characters)
	HeadOfHouseholdName	Name of the primary recipient	String (200 characters)
	PrimaryCaregiverId	National ID number of the secondary recipient	String (50 characters)
	PrimaryCaregiverName	Name of the secondary recipient	String (200 characters)
	ProgrammeId	Foreign key to the programme tables of the beneficiary household	integer
	Notes	Any payment notes e.g. back payments	String (200 characters)
	CreatedBy	Date in which the payment entry was created	String (100 characters)
	TransactionNumber	Transaction reference number from the payment service provider MIS	String (50 characters)
	ApprovedBy	Foreign key linking to the employee who approved payments	String (200 characters)
	ApprovalDate	Date in which the payment was approved	Date
	ReconciledBy	Foreign key linking to the employee who reconciled the payments	String (200 characters)
	DateReconciled	Date in which the payment was reconciled	Date

	Export_Code	Internal replication status code	String (50 characters)
	Export_Status	Internal flag for monitoring replication status	String (3 characters)
Case Management	CasId	Serial number of the case	
	CasId	Serial number of the case	Integer
	ProgrammId	Foreign key to the programme table of the household member	Integer
	CaseTypeName	Type of change e.g. correction of beneficiary details	String (100 characters)
	ApprovedBy	Foreign key linking to the employee table who made approval of the case	String (200 characters)
	CaregiverIdNumber	National ID number of the caregiver in case of change of caregiver	String (50 characters)
	CaseName	Description of the type of change	String (400 characters)
	CaseDate	Date in which the change is made	Date
	RegisterId	Foreign key linking cases to the register table	String (100 characters)
	CaregiverSex	Sex of the caregiver	String (1 characters)
	CaregiverDateOfBirth	Date of birth of the caregiver	Date
	RegisterNumber	Household number of the household who has requested changes	String (100 characters)

	CaregiverFirstName	First name of the caregiver in case of change of caregiver	String (200 characters)
	CaregiverMiddleName	Middle name of the caregiver in case of the change of caregiver	String (200 characters)
	CaregiverSurname	Family name of the caregiver in case of the change of caregiver	String (200 characters)
	Exit	Flag whether the household is being exited from the programme	Boolean
	ApprovalDate	Date in which the change request is approved	Date
	CaregiverBirthCertificateNumber	Birth certificate number of the caregiver in case of change of caregiver	String (200 characters)
	CaregiverMaritalStatus	Marital status of caregiver in case of change of caregiver	String (1 characters)
	DeathDate	Date in which the older person died	Date
	CreatedBy	Date in which the case was created	String (200 characters)
	Export_Status	Internal replication status code	String (3characters)
	Export_Code	Internal flag for monitoring replication status	String (50 characters)
	CaseTypeId	Foreign key lining to the table on type of changes	Integer
Grievance	Programmeld	Foreign key linking to the programme where the complaint was raised	Integer

	GrievanceTypeId	Foreign key linking to table on type of complaint	Integer
	GrievanceTypeName	Description of grievance type	String (100 characters)
	GrievanceDate	Grievance Date	Date
	GrievanceDescription	Detailed description of the grievance	String (8000 characters)
	SubLocationId	Foreign key linking to the sub location where the complainant is coming from.	Integer
	Beneficiary	A flag indicating whether a complainant is a beneficiary or not	Boolean
	RegisterId	A foreign linking to the beneficiary household in case the complaint is a beneficiary	String (100 characters)
	ComplainantName	Name of complaint (optional)	String (200 characters)
	CommunityName	Name of community if the complaint is raised by community	String (100 characters)
	Village	Village where complaint is coming from	String (100 characters)
	SerialNumber	Serial number of the complaint as registered on programme MIS	String (50 characters)
	ConstituencyId	Foreign key of the constituency of the complainant	Integer
	RegisterNumber	Household number if complaint is raised by beneficiary household	String (50 characters)

	ReceiptDate	Date when the complaint was received by programme	Date
	ResolutionStatus	Status of resolution of the complaint	Integer
	GrievanceId	Serial number of the complaint as logged on the Single Registry	String (48 characters)
	EnteredBy	Foreign key to the employee table referencing the person who logged the complaint	String (100 characters)
	VerifiedBy	Foreign key to the employee table referencing the person who verified the complaint	String (100 characters)
	ResolvedBy	Foreign key to the employee table referencing the person who resolved the complaint	String (100 characters)
	DateResolved	Date when complaint was resolved	Date
	DateClosed	Date when the complaint was closed	Date
	ClosedBy	Foreign key to the employee table referencing the person who closed the complaint	String (100 characters)
	DateVerified	Date when the complaint was verified	Date
	Export_Status	Internal replication status code	String (3 characters)
	Export_Code	Internal flag for monitoring replication status	String (50 characters)

ANNEX 3: CENSUS 2009 GEOGRAPHICAL LOCATION MASTER LIST

SUBLID	SUBLOCATION	LOCATION	DIVISION	DISTRICT	COUNTY (KNBS)	CONSTID	CONSTNAME	COUNTY	PROVID	PROVINCE	STATUSID	STATUS	TOWN
103030102	UHURU	BAHATI	PUMWANI	NAIROBI NORTH	NAIROBI	286	EMBAKASI WEST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030101	KIMATHI	BAHATI	PUMWANI	NAIROBI NORTH	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010101	DANDORA 'A'	DANDORA	EMBAKASI	NAIROBI EAST	NAIROBI	283	EMBAKASI NORTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010102	DANDORA 'B'	DANDORA	EMBAKASI	NAIROBI EAST	NAIROBI	283	EMBAKASI NORTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030201	AIR BASE	EASTLEIGH NORTH	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030202	EASTLEIGH NORTH	EASTLEIGH NORTH	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030301	CALIFORNIA	EASTLEIGH SOUTH	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030302	EASTLEIGH SOUTH	EASTLEIGH SOUTH	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010201	EMBAKASI	EMBAKASI	EMBAKASI	NAIROBI EAST	NAIROBI	285	EMBAKASI EAST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010202	MIHANG'O	EMBAKASI	EMBAKASI	NAIROBI EAST	NAIROBI	285	EMBAKASI EAST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020101	GITHURAI	GITHURAI	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020102	KAMUTHI	GITHURAI	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020103	ZIMMERMAN	GITHURAI	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010201	GICHAGI	KANGEMI	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010101	HIGHRIDGE	HIGHRIDGE	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010202	KANGEMI	KANGEMI	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010101	HURUMA	HURUMA	CENTRAL	NAIROBI NORTH	NAIROBI	290	MATHARE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010102	KIAMAICO	HURUMA	CENTRAL	NAIROBI NORTH	NAIROBI	290	MATHARE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020201	KAHAWA WEST	KAHAWA	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI

Single Registry Security Guidelines and Protocols

103020202	KIWANJA	KAHAWA	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020203	KONGO SOWETO	KAHAWA	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030401	KAMUKUNJI	KAMUKUNJI	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030403	SHAURI MOYO	KAMUKUNJI	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030402	MUTHURWA	KAMUKUNJI	PUMWANI	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010102	KARURA	HIGHRIDGE	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010501	KITISURU	KITISURU	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010502	KYUNA	KITISURU	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020101	KAREN	KAREN	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020102	LENANA	KAREN	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020301	KARIOBANGI NORTH	KARIOBANGI	KASARANI	NAIROBI NORTH	NAIROBI	283	EMBAKASI NORTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010301	KARIOBANGI SOUTH	KARIOBANGI SOUTH	EMBAKASI	NAIROBI EAST	NAIROBI	286	EMBAKASI WEST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010302	MOWLEM	KARIOBANGI SOUTH	EMBAKASI	NAIROBI EAST	NAIROBI	286	EMBAKASI WEST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010301	PANGANI	KARIOKOR	CENTRAL	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010302	ZIWANI/KARIOKOR	KARIOKOR	CENTRAL	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020401	MWIKI	KASARANI	KASARANI	NAIROBI NORTH	NAIROBI	280	KASARANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020402	KASARANI	KASARANI	KASARANI	NAIROBI NORTH	NAIROBI	280	KASARANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010101	GATINA	KAWANGWARE	DAGORETTI	NAIROBI WEST	NAIROBI	275	DAGORETI NORTH/KILIMANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010102	KAWANGWARE	KAWANGWARE	DAGORETTI	NAIROBI WEST	NAIROBI	275	DAGORETI NORTH/KILIMANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010401	KAYOLE	KAYOLE	EMBAKASI	NAIROBI EAST	NAIROBI	284	EMBAKASI CENTRAL	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010402	KOMAROCK	KAYOLE	EMBAKASI	NAIROBI EAST	NAIROBI	284	EMBAKASI CENTRAL	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010201	KENYATTA GOLF COURSE	KENYATTA (GOLF COURSE)	DAGORETTI	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010202	WOODLEY	KENYATTA (GOLF COURSE)	DAGORETTI	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI

Single Registry Security Guidelines and Protocols

101020201	KIBERA	KIBERA	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020202	LINDI	KIBERA	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020203	MAKINA	KIBERA	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020204	SILANGA	KIBERA	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010301	KILELESHWA	KILELESHWA	WESTLANDS	WESTLANDS	NAIROBI	275	DAGORETI NORTH/KILIMANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010302	MUTHANGARI	KILELESHWA	WESTLANDS	WESTLANDS	NAIROBI	275	DAGORETI NORTH/KILIMANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010401	KILIMANI	KILIMANI	WESTLANDS	WESTLANDS	NAIROBI	275	DAGORETI NORTH/KILIMANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010402	MAZIWA	KILIMANI	WESTLANDS	WESTLANDS	NAIROBI	275	DAGORETI NORTH/KILIMANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010503	LORESHO	KITISURU	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010203	MOUNTAIN VIEW	KANGEMI	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010103	MUTHAIGA	HIGHRIDGE	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020503	NYAYO	KOROGOCHO	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020501	GITATHURU	KOROGOCHO	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020502	KOROGOCHO	KOROGOCHO	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020301	LAINI SABA	LAINI SABA	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020302	SOWETO/HIGHRISE	LAINI SABA	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020401	HARDY	LANGA'TA	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020402	LANGA'TA	LANGA'TA	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020101	HAMZA	MAKADARA	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020102	HARAMBEE	MAKADARA	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020103	LUMUMBA	MAKADARA	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020201	KALOLENI	MAKONGENI	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020202	MAKONGENI	MAKONGENI	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI

Single Registry Security Guidelines and Protocols

102020301	MBOTELA	MARINGO	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020302	OFAFA MARINGO	MARINGO	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010401	MABATINI	MATHARE	CENTRAL	NAIROBI NORTH	NAIROBI	290	MATHARE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010402	MATHARE	MATHARE	CENTRAL	NAIROBI NORTH	NAIROBI	290	MATHARE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010403	MLANGO KUBWA	MATHARE	CENTRAL	NAIROBI NORTH	NAIROBI	290	MATHARE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020501	BOMAS	MUGUMOINI	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020502	MUGUMOINI	MUGUMOINI	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010502	MUKURU KWA NJENGA	MUKURU KWA NJENGA	EMBAKASI	NAIROBI EAST	NAIROBI	285	EMBAKASI EAST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010501	IMARA DAIMA	MUKURU KWA NJENGA	EMBAKASI	NAIROBI EAST	NAIROBI	282	EMBAKASI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020401	HAZINA	MUKURU NYAYO	MAKADARA	NAIROBI EAST	NAIROBI	282	EMBAKASI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020402	NAIROBI SOUTH	MUKURU NYAYO	MAKADARA	NAIROBI EAST	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010301	KIRIGU	MUTUINI	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010302	MUTUINI	MUTUINI	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020602	SOUTH 'C'	NAIROBI WEST	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020601	NAIROBI WEST	NAIROBI WEST	KIBERA	NAIROBI WEST	NAIROBI	277	LANGATA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010201	NGARA EAST	NGARA	CENTRAL	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010202	NGARA WEST	NGARA	CENTRAL	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010601	NJIRU	NJIRU	EMBAKASI	NAIROBI EAST	NAIROBI	280	KASARANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010602	SAIKA	NJIRU	EMBAKASI	NAIROBI EAST	NAIROBI	280	KASARANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010602	SPRING VALLEY	PARKLANDS	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
104010601	UPPER PARKLANDS	PARKLANDS	WESTLANDS	WESTLANDS	NAIROBI	274	WESTLANDS	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030502	BONDENI/GOROFANI	PUMWANI	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI

Single Registry Security Guidelines and Protocols

103030503	MAJENGO	PUMWANI	PUMWANI	NAIROBI NORTH	NAIROBI	288	KAMUKUNJI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103030501	GIKOMBA	PUMWANI	PUMWANI	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010401	NGANDO	RIRUTA	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010402	RIRUTA SATELLITE	RIRUTA	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020601	GARDEN	ROYSAMBU	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020602	NJATHAINI	ROYSAMBU	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020603	ROYSAMBU	ROYSAMBU	KASARANI	NAIROBI NORTH	NAIROBI	279	ROYSAMBU	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010701	NGUNDU	RUAI	EMBAKASI	NAIROBI EAST	NAIROBI	280	KASARANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010702	RUAI	RUAI	EMBAKASI	NAIROBI EAST	NAIROBI	280	KASARANI	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020701	RUARAKA	RUARAKA	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020702	MATHARE 4A	RUARAKA	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020703	MATHARE NORTH	RUARAKA	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103020704	UTALII	RUARAKA	KASARANI	NAIROBI NORTH	NAIROBI	281	RUARAKA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020701	GATWIKIRA	SERANGOMBE	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101020702	OLYMPIC	SERANGOMBE	KIBERA	NAIROBI WEST	NAIROBI	278	KIBRA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010501	CITY CENTRE	STAREHE	CENTRAL	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
103010502	CITY SQUARE	STAREHE	CENTRAL	NAIROBI NORTH	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010802	SAVANNA	UMOJA	EMBAKASI	NAIROBI EAST	NAIROBI	285	EMBAKASI EAST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102010801	UMOJA	UMOJA	EMBAKASI	NAIROBI EAST	NAIROBI	286	EMBAKASI WEST	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010501	RUTHIMITU	UTHIRU-RUTHIMITU	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010502	UTHIRU	UTHIRU-RUTHIMITU	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
102020502	VIWANDANI	VIWANDANI	MAKADARA	NAIROBI EAST	NAIROBI	287	MAKADARA	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI

Single Registry Security Guidelines and Protocols

102020501	LAND MAWE	VIWANDANI	MAKADARA	NAIROBI EAST	NAIROBI	289	STAREHE	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010601	KABIRIA	WAITHAKA	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI
101010602	WAITHAKA	WAITHAKA	DAGORETTI	NAIROBI WEST	NAIROBI	276	DAGORETTI SOUTH	NAIROBI	1	NAIROBI	2	URBAN	NAIROBI

ANNEX 4: JOINT IMPLEMENTATION PLAN

No.	Task/Activity	Action By	Due Date	Details/Comments
1	Initial Meeting and Discussions	SPS/Program		
2	Sharing of MOU	SPS		
3	Review of the MOU	Program		
4	Signing of the MOU	SPS/Program		
5	Technical Meeting	SPS/Program		
6	Review Single Registry Technical Requirements	Program		
7	Single Registry Portal Access Requirements	SPS		
8	Configuration of VPN and Testing	SPS/Program		
9	Configuration of Replication	SPS/Program		
10	Testing of Replication	SPS/program		
11	Share and review Single Registry web service documentation	SPS		
12	Develop a client to consume the web service/connectivity	Program		
13	Integrate Client with Single Registry	Program		
14	Develop Test Cases	Program		
15	User Acceptance Testing	Program		
16	UAT Sign Off	Program		
17	User Training	Program		