Service Directory
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Summary Background

A Services Directory is required to provide a repository for Standard Codes and Identifiers to enable integration of HSE systems using standardised codes and data sets

The lack of standard HSE codes and identifiers to the identification of services providers and service provider sites impacts on the ability to integrate the systems supporting these services. The Service Directory is designed to address this gap.

Challenge:

Within the HSE numerous service provider databases exist but they generally operate independently, contain differing data, fulfil a narrow function, and are held locally on an Excel or equivalent system. Given the constant "churn" of addresses and personal information and the absence of effective mechanisms of refreshing the data throughout the datasets, the information is quickly outdated.

A GP for example, may work in a number of locations and have a separate correspondence address. He/she may work with different colleagues in each location, become a GMS GP and then move with some of the colleagues to a new address in a Primary Care Centre etc. Keeping track of such many-to-one and one-to-many relationships is challenging. The quality of patient care, however, relies upon having the correct contact information so that clinical and administrative data reach the correct destination.

Solution:

Development has commenced on providing a multipurpose, composite, web enabled and role-based access Service Directory for deployment throughout the HSE and associated agencies.

The Directory will be a national database of key contact/communication information for all health and associated service providers. An efficient, controlled and sustainable update process will be intrinsic to the design. A basic tenet of the suggested design is that staff closer to the provision of service are generally in the best position to provide the "best" information.

It is envisaged that the Directory will be of sufficient quality to support front line clinical care such as:
- Accurate identification of the appropriate service provider
- Valid lists of GPs for use in hospital PAS systems and other clinic systems
- User friendly methods of finding the nearest service,
- Generation of lists of local GPs in an area affected by a critical incident
- Referral of patients to the appropriate service based on defined geographical catchment areas etc.

The timeliness and accuracy of the Directory will ensure that it becomes the single source of trustworthy information to support business processes of the HSE and associate agencies.

The majority of ICT systems now being deployed within the HSE are national systems. These systems require common data codes for data items such as GP identifiers. The requirement therefore exists for a standardisation of codes to use across ICT systems. The establishment of national code tables that can be reused across many projects is required. A service directory will directly address this need.

Service Directory

The HSE already has a service directory framework in place that could be deployed for this purpose. The framework sits under the Health Atlas Ireland project which holds information about GPs in the HSE regions. Health Atlas's existing web-enabled, security and access control functionality could be exploited to provide the following functions:

1. Support key businesses communication processes within the HSE and collaborating agencies such as correctly and uniquely identifying the practice or correspondence address of GPs within hospital PAS, and clinical systems such as NIMIS, iCM (iSoft Order Communications), Maternal and Neonatal Clinical Management System, National Obstetric and Neonatal system (MN-CMS), National Endoscopy System, National Renal System and so on.
2. Provide local users, such as hospital admission or LHO offices access to relevant "lists" of GPs.
3. Support the geographical analysis and display of service provision within Health Atlas Ireland.
4. Provide a real time up to date repository of unique enterprise identifier codes for both health professionals and place of their service delivery (this would be for GP's initially but will be expandable to other service providers).

The Service Directory will include GPs, health centres, hospitals, dentists, nursing homes, emergency and other services as appropriate. Attaining and maintaining the GP dataset will be the most challenging.

It is envisaged that the Service Directory will be "front loaded" by integrating and de-duplicating existing datasets from a variety of sources. These include the PCRS, LHOs, National Immunisation Office, the Medical Council and Healthlink. Health Atlas Ireland currently hosts a range of geo-referenced service provider datasets, and may be the optimal starting point for the Directory.

A range of address types, identifiers and variables are included in the datasets mentioned above, so a once off initiative to collate and check the quality of the composite data is required. Subsequently, the Directory will be maintained through a user controlled update process that can be close to real time. An ongoing matching/de-duplication/updating process is outlined. Taking GP's as an example when considering coding needs for ICT systems two key identifiers are required to uniquely identify a particular GP within a particular practice. These are the GP (Medical Council Number) and a practice code.

It is envisaged that the following data items will be included:
1. Provider first name.
2. Provider surname.
3. Provider title.
4. Provider unique enterprise identifier (Medical Council number for GPs, GMS number etc.). More than one identifier may be required.
5. Registration status (active/inactive)
6. Provider address/es (in full) – surgery/ies, clinic/s, correspondence addresses.
7. Provider addresses ID or Practice Code (e.g. HealthLink practice code for GP's, HIPE code for Hospitals etc). One or more identifier may be required.
8. Provider address XY location (derived through Health Atlas Ireland).
9. Provider phone number/s.
10. Primary Care Team identifier (if relevant).
11. Provider DOB (role based access).
12. Provider gender
13. Service type (such as Primary Care Centre etc)
14. Service "catchment area" (such as PCT etc based on the Atlas geo-location data).
15. Registration data (role based access).
16. Special flags – retirement date, registration information etc.
17. Other locally relevant data such as contract details etc.

Functional requirements
1. Access to the service directory for staff will be through the HSE intranet.
2. The use of role based access will allow for the needs of various stakeholder groups and data visibility can be configured accordingly.
3. Enablement of a directory updating process in as close to real time as possible.

Specification
1. Develop a multiple source Service Directory matching module within the Atlas infrastructure that accepts updates from the PRCS, Medical Council, LHOs etc. through a matching process that generates updates in the Directory master list. The process will allow for exact matching, near matching and no matching in line with predefined criteria.
2. Allow role based access (view/update) by designated front line staff to elements of the Directory in line with the information governance framework. It is envisaged that designated staff at a central/regional and local levels would "moderate" the incoming data flows.
3. Allow for service provider "streams" within the Directory – such as the GP database, Primary Care Teams, Health Centres which can be controlled, updated and monitored independently as required.

4. Create a Service Directory user interface – such as a "light touch" Atlas type format that allows role based access to the master or local lists as appropriate.
5. Allow local users to query/view/filter/print out/export appropriate details of service providers in suitable formats e.g. excel/PDF/Word/ODT/CSV for internal business reasons and in compliance with information governance requirements.
6. Enable designated Officers to train, support and monitor the use of the Directory in line with an information governance framework as agreed between Health Atlas Ireland and the service providers.
7. Enable an online "suggest update" functionality to stream (for example) GP updates to designated staff responsible for this data subset.
8. Provide an on-line Directory manual and information governance agreements.
9. Allow designated users to geocode new or changed addresses to XYusing existing Atlas functionality.
10. Provide audit mechanisms to track updates/additions/"deletion" histories etc. using existing Atlas functionality.

Security
A security infrastructure needs to be deployed which will allow limited access to information for the public and greater but authenticated access to for users and/or systems internal to the HSE. All access to or updates of information needs to be auditable.

Future proof
Provision can be made for the inclusion of additional data elements at local level that enhance service communication processes in light of evolving HSE information requirements and in light of good information governance requirements.

Project Background

The Services Directory is required to support Standard Codes and Identifiers in the context of the HSE's Integrated Services Framework (EHscR) project.

Linkages would primarily be with:

Work-stream 7 (Data & Information Repositories);
Work-stream 9 (Identity, Access & Consent Management); and
Work-stream 10 (the EHscR Portal/ Presentation Layer).

Those responsible for the success of the service include those managing data quality in the proposed source systems. They will be responsible for ensuring that all data is accurate, as up-to-date as possible, and secure.

Protocols and interfaces for the sharing of data from these sources needs to be established.

The SD Project will establish the SD technical service for the NIMIS programme, but in a manner to ensure this service could equally be leveraged by subsequent applications that may require a national integration codes.

- Phase 1: The SD Project aims in Phase 1 to configure / append the existing Health Atlas suite to establish the central SD service, and to provide the SD service to the NIMIS Project.
- Phase 2: Roll out of the Service Directory to additional projects within the HSE.
- Phase 3: Roll out of the Service Directory to the wider health service.

Data Information Flow:

Services Directory: Input Output Flow

Suggested
Updates

Outputs

Inputs

Organisation

Service Directory
ID (Org)

HSE
Business
Owner

Service

Medical
Council
No.

Medical
Council

GMS
No.

PCRS

Practitioner

Verified
Details

Service Directory
ID (Service)

Suggested
Updates
Process

Service Directory
Contact
Details

Contact
Details

Healthlink ID
(GP)

PCRS
Contact
Details

GS1
Org
ID

Service Directory
ID (Per

GS1
HCP
ID

Service Directory
ID (Person)

Contact
Details:

Healthlink
Contact
Details

Healthlink

Service Directory
Contact
Details

Healthlink ID
(Practice)

Consumer Application:
E.G. Map Centre

Service Directory
ID (Site)

Contact
Details

Immunisation
Contact
Details

Immunisations

GS1
Service
ID

Service Directory
Contact
Details

Site

Consumer Application:
E.G. NIMIS

Service Directory
ID (Site)

GS1
Site
ID

UnitedDrug-ID

GS1

Services Directory