Service Definition

Reference Data Management Platform (Registry)

Digital Marketplace: GCloud13
Version: 1.0 Epimorphics Ltd
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Reference Data Management Platform - Service Overview

Summary

Our Reference data management platform service enables organisations to manage a version-controlled hierarchy of reference terms, delegating authority to different groups in an open way that helps you build trust. Used for publishing registers of connective reference data with persistent URIs that supports key data infrastructure, internal and external services, data integration and standards activities.

\<Sharp, intelligent, adaptable, customer-focused people/\>

CIO, at a UK Client

Features

- manage reference data with registers and registries
- supports delegating authority to different groups to maintain the data
- fully standards-compliant linked data-based URI (identifiers) core
- reference data publication and management platform
- manage hierarchy of reference terms, code lists and vocabularies
- registry component includes UKGovLD Registry-core open source
- supports version control of individual terms and full registers
- templated standard User Interface, expandable for more advanced UI development
- hosted and managed Data Platform Service
- data manager access controls including via OAuth2

Benefits

- service for publication of sustainable, trusted and usable reference data
- publish connective reference data and support key data infrastructure
- publish persistent URIs meeting open standards and best practice
- embed and enforce data standards within your internal data/ICT governance
- enables programmatic and systematic validation of codes against managed lists
- supporting data governance and standards as 5-star data
- internal and external data sharing
- internal and external standards sharing
- real-time APIs removing the costs of expensive database change requests
- custodians control version and change process

\<I wish more of our suppliers were like you guys/\>

Digital Lead, at a public sector client

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Introduction to Epimorphics

Epimorphics Ltd is a 100% employee owned company that was formed in 2009 near Bristol in south west England. We are at the forefront of developing standards, tools and applications, helping organisations connect and make more effective use of their data assets through open, standards-based linked data tools and techniques. To find out more about us, our work and our approach see: www.epimorphics.com/introduction-to-epimorphics.

Service Description

A key to good data governance is the ability to develop, manage and use shared, system-independent, reference data that enables data to be reused and integrated across applications and between organisations.

The Epimorphics Reference Data Management Platform provides a complete solution to this challenge. It provides:

- A platform to manage controlled sets of reference data. Each item of reference data is given a persistent, resolvable identifier that meets the UK Government mandated standard for such identifiers (HTTP URIs)
- Provides an open data model which supports anything from flat collections of simple reference terms, to taxonomies and thesauri, including the ability to publish cross-links between terms in different collections. The data model is based on W3C Semantic Web standards but the platform provides for both update and access through simple CSV or JSON(LD) formats - enabling both publishing and use of the reference data from systems with no support for Semantic Web standards
- Provides customizable lifecycle management of the reference data including version management and history
- Role-based management of the reference data including ability to delegate management hierarchically and even delegate sections of the reference data namespace to other systems
- Integrated search and browsing tools to make it easy to locate sets of terms, or individual terms, for reuse.
- Full API to enable automated access to, and update of, the reference data from (suitably authorised) external systems

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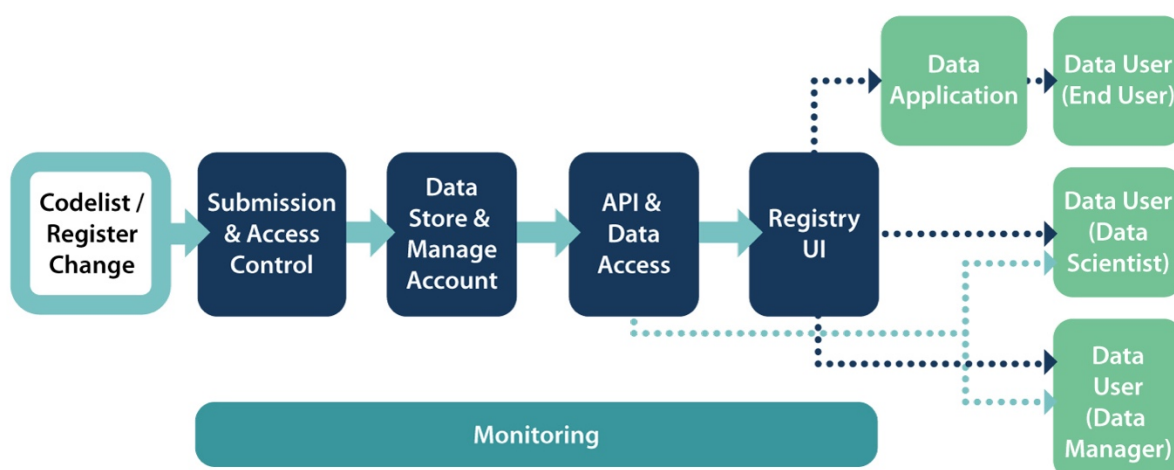
Platform details

The **Epimorphics Reference Data Management Platform (Registry)** has, at its heart, an open source implementation of the **Linked Data Registry specification** (developed under the auspices of UK Government Linked Data Working Group). This provides for the creation and management of reference data through a well-defined API.

We wrap this core component with a customisable user interface that can be easily adapted to an alternative look and feel or modified to present simplified interfaces for particular applications. Organisations use the Reference Data Management Platform to improve their enterprise data management, providing an open, robust, web accessible reference data. This has commonly formed part of improving information architecture and data governance by providing interoperable data for code lists, vocabularies and other data standards through persistent web accessible URIs. Often this includes the need for version control and access by other systems using RESTful APIs for integration.
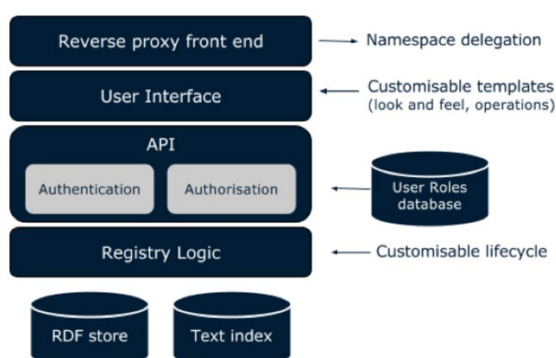
For the backend storage of the reference data we use the open source Apache Jena TDB triple store and Apache Lucene text index.

In many deployments the platform includes a reverse proxy front end that allows parts of the reference data namespace to delegate to other systems. This front end is driven by the registry logic itself so that delegating part of the namespace is as easy as creating a registration record specifying the target of the delegation.

This software platform powers the UK Environment and Location registries, the Food Standards Agency Codelist repository and has been used internationally for controlled management of vocabularies and reference data. External users include MetOffice, World Meteorological Organisation, BRGM (the French Geological Survey), US National Weather Service and CSIRO (Australia's national science agency).

Service details

We offer the platform as a fully managed cloud-hosted service with a separate instance created for each customer.

Customisation of the platform, including the initial configuration and any customisation of the look and feel or user interface can be carried out using our **G-Cloud support offerings**.

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Support

Our hosting support for the full system includes all regular maintenance, monitoring and backups. We also provide an incident reporting service.

This service is available during normal business hours (09.00 – 17.30 Mondays – Fridays, excluding public holidays). We provide an email address for incident reporting and will respond to any notification within 4 hours. If an incident results in loss of service we will restore the service within 1 business day; in all other cases we will use reasonable efforts to resolve the incident as quickly as possible.

Use of Open Source software

Our platform is based on open source software, notably:
- UKGovLD Registry Core
- Apache Jena, including ARQ, TDB
- Apache Tomcat
- Apache Lucene
- Nginx web server

Compliance with Open Standards

As a linked-data company we have a passion for open standards. We've been key in designing and developing many of the web standards and vocabularies around linked data. For more information on our open standards work see our website at: www.epimorphics.com
Specifically, the platform enables organisations to meet the UK Open Standards Board adopted standard for persistent resolvable identifiers (http 1.1 URIs), and supports wider adoption of best practice in the publication of reference data through URIs.
In addition, it uses the following open standards for data access and upload:
- RDF syntaxes: Turtle, RDF/XML
- JSON-LD
- SPARQL 1.1 Query

Onboarding and Offboarding

We offer support in getting started with our dedicated support services. We provide documentation and guides to some of our tools through our website (www.epimorphics.com) and our code documentation on Github (github.com/epimorphics). In building skills, awareness and supporting the design of data we offer a number of training options, including specific training on introducing the Reference Data Management Platform, and using the Reference Data Management platform.

On termination of the contract all client data will be securely deleted. During the life of the contract clients can request access to a copy of all the data stored on the system. We have also supported public sector clients in transitioning the technology to their own infrastructure.

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Sustainability

- We regularly assess our full carbon footprint, to quantify, as far as possible, the greenhouse gas emissions associated with the operations of Epimorphics, the services that we run for others and the services that we use.
- We have assessed and been audited for our Scope 1, 2 and 3 emissions, reducing where possible and offsetting where not.
- Our company values promote support for the environment in all aspects of our work. We evaluate contracts we accept to see if a successful outcome to the contract will have a beneficial effect on our environment.

We operate as a Carbon Neutral plus organisation, and publish our footprint details as part of our sustainability statement here: www.epimorphics.com/sustainability-summary-statement

Our other Services

Cloud Software

We have complementary **GCloud Software service offerings:**
digitalmarketplace.service.gov.uk/g-cloud/search?q=epimorphics&lot=cloud-software

- **Epimorphics Data Integration & Publishing Platform**
- **Epimorphics Linked Data Publishing Platform**
- **Epimorphics Reference Data Management Platform (Registry)**

Linked Data Publishing

We have complementary **GCloud Support service offerings:**
digitalmarketplace.service.gov.uk/g-cloud/search?q=epimorphics&lot=cloud-support

- **Linked Data Training**
- **Epimorphics Data Architecture & Strategy**
- **Epimorphics Reference Data (Register) Publishing**
- **Epimorphics Linked Data Publishing**
- **Epimorphics Data Integration & Publishing**

Locations and Contacts

Epimorphics Ltd is headquartered in Portishead, near Bristol in south west England.

Epimorphics Contacts

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or talk to any of the team: https://www.epimorphics.com/about/ on 01275 399069
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