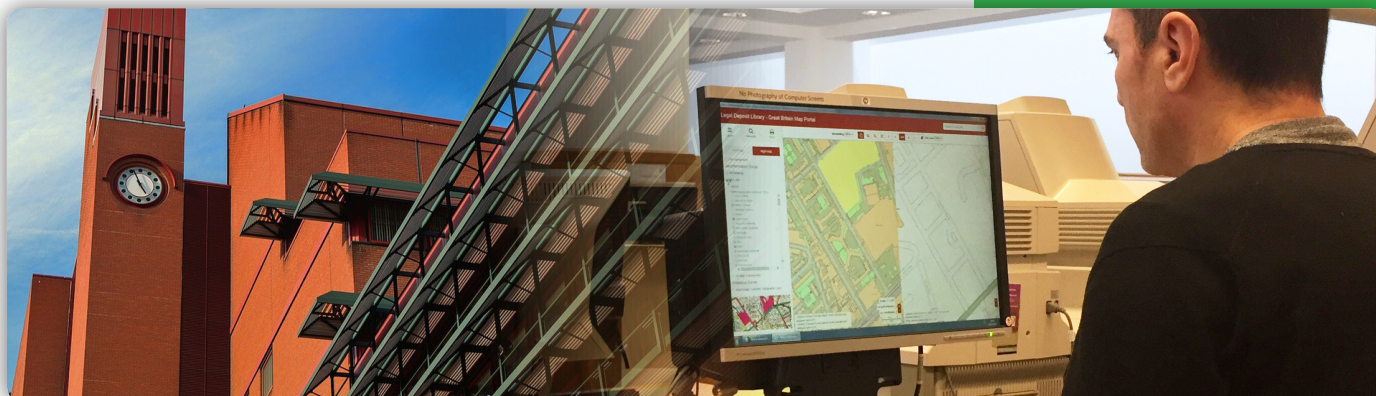


Preserving a Nation's Digital Map Heritage



Customer

The British Library is the national library of the United Kingdom. It is the largest library (by number of items catalogued) in the world holding over 150 million items (such as manuscripts, newspapers and patents), and in most known languages.

In its capacity as one of the six UK Legal Deposit Libraries (LDLs), the British Library works alongside the National Library of Scotland, the National Library of Wales, the Bodleian Libraries (Oxford), the University Library (Cambridge), and the Library of Trinity College (Dublin).

Legal Deposit has been part of English Law since 1662, and aims to ensure the preservation of the nation's published output for use by future generations. Under this legislation, a copy of every UK print publication must be given to the British Library by the publisher, and to the other five Legal Deposit Libraries that request it. This published content is then made available to anyone who requests it via the Libraries' Reading Rooms

Problem

In 2013, the LDLs had an initial requirement to find a solution for securely storing and providing access to annual snapshots of digital map data from the Ordnance Survey GB (OS) and Ordnance Survey Northern Ireland (OSNI). Around 4Tb of data in total at the time, this included large scale map data from 1998 onwards. At this point thinkWhere developed a solution for the LDLs building on their existing platform "Location Centre". This online system was designed to securely store an "access copy" of the OS and OSNI annual snapshot data and provided an online, intuitive full-screen Digital Map Viewer, available in all six LDL Reading Rooms.

However, fundamental changes to legal deposit legislation in 2016 saw the remit of legal deposit expand to cover material published digital and online, including websites, eBooks, eJournals, and CD-ROMs. This "non-print" legal deposit also relates to UK publishers of digital mapping, and so recognising the expanding volumes of data required to be stored in the future, the LDLs required a solution that was secure and capable of supporting the deposit of data from the full range of UK data publishers with fully global coverage.

A map viewer was also required to allow visitors to the Reading Rooms to explore available maps and metadata. Viewing and copyright restrictions for printed output also had to be adhered to.

"In choosing to work with thinkWhere we are taking advantage of the flexibility and scalability of Open GIS and cloud computing. theMapCloud is able to deliver safekeeping benefits, reduced costs and improved stability ensuring the long term security and preservation of digital map datasets."

Linda Arnold-Stratford
Liaison Manager
British Library

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Solution

In 2016, thinkWhere was commissioned by the LDLs to redevelop the existing Map Viewer solution using its newly launched innovative platform theMapCloud to provide a Geospatial Data Application and Services solution capable of supporting the libraries' roadmap for the deposit of non-print map data. Built from leading Open Source and Cloud technologies, theMapCloud is a fully-managed platform and spatial data infrastructure. Offering Platform-as-a-Service, Data-as-a-Service and Software-as-a-Service capabilities, the scalability inherent in theMapCloud facilitates the future storage and data access requirements of the LDLs as more and more data publishers deposit their data for preservation. The latest publishers to do this are the GeoInformation Group and XYZ maps, with other publishers expected to follow.

Available in the reading rooms at each of the six LDLs only, the GDAS system is used daily by staff and visitors. Content can be searched via a zoomable map, gazetteer of place names or grid reference. Maps can be navigated with zoom and pan tools, distances can be measured and contour and grid lines turned on and off. Split-screen viewing also allows comparison of different epochs of map data to identify changes to the built and natural environment. Owing to varying copyright and licensing arrangements, printing is available for some, but not all, resources and is limited to use for research for a non-commercial purpose or private study.

In addition, thinkWhere also developed a bespoke metadata management module. This allows for the input, edit and export of metadata; data which is vital to understanding the source, currency, scale, and therefore appropriateness of the original map information.

The solution developed by thinkWhere is supported through ongoing management of the GDAS system. Data from new publishers is on-boarded as part of a rolling programme and additional data snapshots continue to be made available on an annual basis. Servicedesk Support is also provided by thinkWhere to staff at each of the six LDL sites as required.

Benefits

- Flexible, stable, secure and highly scalable storage solution provides capacity for future expansion of data archives
- Reduced operational costs
- Hosted database provides long-term security and preservation of digital map assets
- Innovative web solution developed using industry leading Open Source and Cloud GIS technologies
- Ability to store, consume and display datasets from across the globe

Summary

Using theMapCloud for hosting, sharing and publishing the extensive catalogue of UK digital map datasets, the British Library and UK Legal Deposit Libraries now have peace of mind on the preservation of digital map assets and an intuitive web viewer that together will scale with the rapidly expanding catalogue of datasets across the globe.

“Whatever data we receive theMapCloud will be able to read and process it as well as having the capacity to support other map publishers as they come onboard.”

Lead Curator Digital Mapping
British Library

thinkWhere use leading edge cloud, Open Source and GIS technologies, to develop innovative software and solutions, backed by a wide range of GIS implementation, consultancy, support and training services.

They provide an online platform for storing, sharing and using maps and geographic data, and help solve real-world problems using open data and open technology.