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D5.2 Europeana Cloud User Guide

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D5.2 Europeana Cloud User Guide

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Introduction

The purpose of the Aggregator Handbook is to guide the users in how to participate in Europeana Cloud Services.

***Please Note *** The current version of the Aggregator Handbook describes the aspects of the services that are known at the time of writing. In plenty of sections the process or infrastructure is not yet sufficiently worked out to describe it in detail in this handbook - where this occurs we have indicated how the information will be provided and give an approximate timescale for that.

Further work also needs to be done to connect this handbook to the Developer Tutorial on Europeana Cloud, currently available on GitHub at https://docs.google.com/document/d/1_pTZ6c-ujnMNHRIxMVJHJy1gAMcrQkxFLpb4r5oUqQg/e dit#

Who this is for

This handbook is for aggregators who will be, in the first instance, the primary customers of the service.

Guiding principles

“Europeana Cloud serves Europe’s cultural heritage institutions by delivering a more efficient solution to the current methods of storing, sharing and providing access to cultural heritage objects”

It does so by providing an open source system that stores and enables services for accessing structured metadata and content. The intention is to re-use and share this material with users and participants. Europeana Cloud will be available under a sustainable business model and be governed by its users.' This mission statement breaks down into the following eight guiding principles:

Europeana Cloud primarily serves Europe’s Cultural Heritage Institutions, enabling them to provide access to their digital objects to their audience. Driven by the needs of the cultural heritage industry, Europeana Cloud provides the services to enable the sharing of metadata and content for the purposes of providing access to digital objects. This delivers improved services to providers with low barriers to entry and exit.

Europeana Cloud promotes openness. Openness supports reuse and sharing of cultural

heritage objects as well as providing an infrastructure with low barriers for expansion and further development. Europeana Cloud produces open source software, has a preference for open standards, open file formats and promotes open content. Closed standards and closed formats can only be viewed as long as there is software available that can read proprietary file formats proof difficult to access on future operating systems/devices.

Europeana Cloud delivers a more efficient solution to the current methods of storing, sharing and providing access to digital cultural heritage objects. Europeana Cloud delivers efficiencies to cultural heritage providers along the lines of: a reduction of IT costs as compared to classic hosting technologies, avoiding IT infrastructure costs, enabling more time to focus on strategy and innovation, and the pooling of resources. Efficiencies are also expected in terms of saving time, speed of delivery, better integration across the network to offer services with high availability, reliability, and security and better interoperability, easier management, and greater automation.

Europeana Cloud operates under a sustainable business model. To ensure the long term sustainability of the services provided by Europeana Cloud, Europeana Cloud will operate under a sustainable business model. A variety of options will be discussed in light of EU funding availability and the need to become self sustaining. This may allow for a reduction on the reliance of competitive funding rounds, and will encourage long term investment.

Europeana Cloud provides the infrastructure to access to metadata and content. Europeana Cloud delivers storage and services to provide secure, robust, technology neutral and sustainable access to metadata and content. These services include but are not limited to programmatic read/write access to Europeana Cloud, controlling the access to Europeana Cloud, connecting to other data services and systems and version control of data in Europeana Cloud.

Europeana Cloud is accessible through standardized Data Models. Europeana Cloud believes interoperability is crucial for cooperation and for the use of materials in its service. Europeana Cloud makes all metadata accessible using internationally recognised standard data models. Although standards are important for reuse and interoperability Europeana Cloud understands that source formatting is important. Europeana Cloud does not remove contributed source documents in favor of standardized models.

Europeana Cloud supports a legal framework to govern access and reuse. Europeana Cloud is linked to the Europeana Licensing Framework that enables the access to - and reuse of - metadata and content according to differing provider and user profiles. Each user and providers provides, makes available and reuses metadata and content in different ways with, and for, different purposes. The legal framework ensures that these requirements are met.

Europeana Cloud is a governed and led by the community. Europeana Cloud serves the needs of its community: the providers, members and users of the services provided, making use

of and building on the Cultural Commons principals. The community is self-regulating and has responsibility for establishing the boundaries of the community as well as the services provided. These services includes raising awareness, offering and enabling access to resources and tools as well as ensuring Europeana Cloud is a trusted and secure resource and service for the community.

The goals of Europeana Cloud Services

- + [relationship to Europeana Foundation]
- + short, medium long term goals of the services - strategic but also in terms of product delivery (alternatively add a product roadmap section if feasible at a later date)
- + Add short use cases - link to longer detailed user case in the Annex
- + <reference sustainability goals>

IN SHORT, THIS SERVICE WILL:

1 Make it easier to manage your data storage and hosting requirements

2 Provide you with access to tools and services that you can use to enrich your data

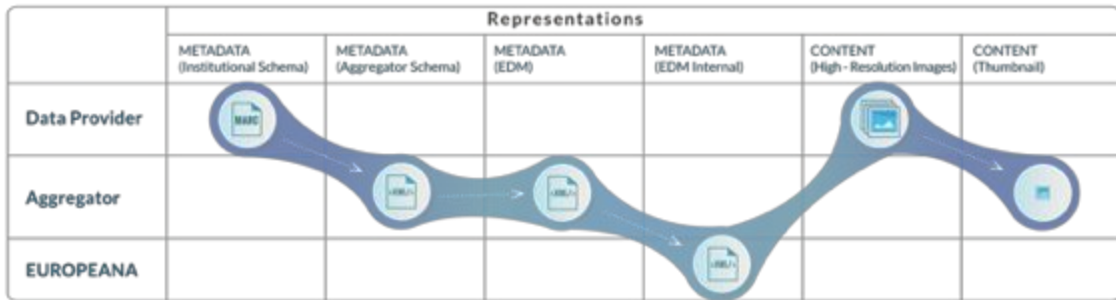
3 lets you share your data with anyone you want, following the C.O.P.E. principle (create once, publish everywhere)

Europeana Cloud: Data storage & services

In this section we describe the data and storage services planned for delivery in 2016. Every partner in the cloud services will have access to these services, and they will be developed and expanded upon in the coming years.

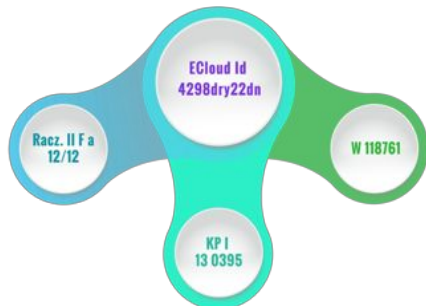
Data storage Service: Record & data sets

- Scalable object storage cluster with support for basic technical metadata
- Storing content of all types - as parts of data records
- Allows to organize data records in datasets
- Generic data model to support metadata and content aggregation workflows
- Ready in January 2016



Europeana Cloud delivers Persistent Identifiers

The cloud services will allocate a unique and persistent identifier to records



- Maintains a built-in mapping between these identifiers and local identifiers used by providers (several local identifiers can be mapped to one global)
- Compliant with standards like URN and PURL in the future,
- As an additional service for the cultural sector, can be backed by a connection to an available identifier system (e.g. DOI)
- Ready in January 2016

Annotation Service

Separation between core data (digital objects+metadata) and complementary data layers required for research, provenance or other application-specific needs.

Complementary data can be structured in many ways and it is usually stored separately from the core one.

Launch date still to be confirmed



Long term archival storage service

Several public data archiving services exist in Europe on national and pan-European levels:



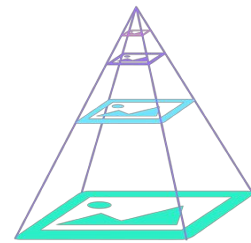
- DANS (the Netherlands)
- PLATON Archiving Service (Poland)

Europeana DSI will explore partnership with such trusted bodies to provide digital preservation services. This is a long-term aim to be put in place once other services for Europeana Cloud are established.

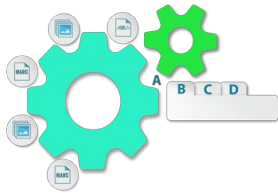
Content specific access service

Streaming functionality for specific popular content formats for images (the most popular content type);

- provide a streaming service compatible with the IIIF protocol, increasingly adopted by the cultural heritage sector - ready in January 2016
- HTTP-based streaming of audio and video content will be considered in 2016



Metadata and content indexing service

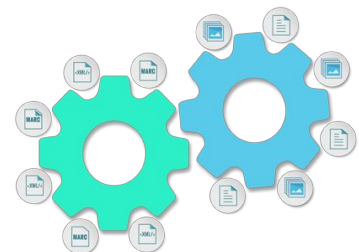


Out-of-the-box search service for a controlled set of formats which are well known. In the first place (January 2016) this will be for EDM (Europeana Data Model). It will allow for full text search (where full text is provided).

Enabling processing of metadata and content

A scalable distributed computing system for massive resource-intensive computations, such as;

- Metadata transformations according to predefined mappings
- Metadata enrichment
- Content analysis
- Content conversions between formats
- Thumbnail generation



- These tools will be developed in 2016.

Application hosting



Cloud-based application hosting services

PaaS as a service offered by the DSI to projects and developers

Enrichment service

- + <add description>

Validation Service

- + <add description>

Normalisation and Cleaning Service

- + <add description>

Joining Europeana Cloud

This section describes the partnership requirements for joining the Cloud services in 2016. It describes how a partner joins, how the process is managed, what the expectations and the commitments are from both service provider and partner.

Benefits of partnership

- + <benefits of partnership>

Joining Cloud services as a partner

- + <how do I join? who do I get in touch with ? what do I have to sign ?>

Costs of becoming a partner

- + <outline costs+ scenarios>

Governance Structure

- + <the governance structure, current partners, distribution of responsibility>

Maintaining sustainable service

- + <reference sustainability plan>

Technical and Operational Requirements

- + *<workflow and operational guidance to be added ie explanation of API, links to API documentation and resources, sample workflows, non technical description of how a partner would build or connect their system in order to transfer, access, manage data >*

Administration Tools

- + <description of admin tools available to support non-technical interaction with the storage services if available>

Terms for storing and sharing data

This section describes the principal terms each partner must agree to in order to use the storage and services offered as a partner.

Conditions for storing data

- + <there will be certain terms>

Conditions for sharing data

Structural access and reuse rules are necessary to engage with the data stored using the cloud services. To structurally enable this access, balancing the providing partner wishes with technical capabilities needs a framework that governs the way files are exchanged. The Cloud Access and Reuse Framework defines the standards and best practices for sharing files stored in Europeana Cloud.

Access permissions within Europeana Cloud control who has read permissions, write permissions and delete permissions within Europeana Cloud. However, being able to see a file is often not enough for the general public. They want to be able to reuse culture. Europeana Cloud advocates this sharing and makes it easier. The access and reuse framework follows this ambition.

Principles for providing access to files;

1. Data partners have full access control over the files they upload.
2. Data partners shall be able to grant other data partners and the general public read permissions to files.
3. Data partners shall be able to grant other data partners write permissions to files.
4. Data partners shall be able to grant other data partners delete permissions to files.
5. Data partner can request data to be persistent;
 - a. Data partner that have write permission of files can make files persistent.
 - b. The general public will be informed of the deletion upon requesting the files and contact information shall be provided by the Data Provider.

Principles for use of Rights Statements;

1. Rights statements are mandatory for all files when read permissions are granted to users other than the creator.
2. There is no default rights statement.
3. Different versions of the same file can have different rights statements.
4. Rights statements cannot be retracted;
 - a. unless for more permissive rights statement.
 - b. unless in accordance with the take-down policy.
5. We encourage Public Domain works to be labeled as such.

Principles for access and reuse of metadata;

1. Data partners and the general public have read permission to technical metadata, once read permission to a file has been given to users other than the creator.
2. Available technical metadata will be released under a CC0 Public Domain Dedication waiver.

Further Information

Here you will find the documents which support the development of the User Guide at the time of writing. These documents will be continued to be updated during the following six months, and a further update to complete the User Guide will be issued.

Minimum Requirements for Europeana Cloud

Europeana Cloud is developing a cloud-based infrastructure capable of storing, sharing and providing access to the metadata of Europe's cultural heritage institutions. Underpinning the development of this infrastructure are a number of key legal, strategic and economic requirements that shape its technical design and implementation.

These initial minimum requirements are the result of a consultation with data providers, infrastructure providers and end users. The consultation was undertaken through a series of workshops that had the aim of developing an initial understanding of what the minimum requirements should be for Europeana Cloud.

http://pro.europeana.eu/files/Europeana_Professional/Projects/Project_list/Europeana_Cloud/Deliverables/D5.1%20Minimum%20requirements%20for%20the%20cloud.pdf

Business Model

This business model describes the services that the three partners Europeana Foundation, The European Library and the Poznan Supercomputing and Networking Center are developing to host, share and enrich their data using cloud technology. It is

meant to (1) guide the actions of the 3 'launching partners' during the next phase of development and (2) to inform potential new partners who want to join the service.

The plan focuses on the key aspects of the service to be developed during 2015 and projects to the period thereafter when the Europeana Cloud project ends.

http://pro.europeana.eu/files/Europeana_Professional/Projects/Project_list/Europeana_Cloud/Deliverables/D5.6%20Europeana%20Cloud%20Business%20Model.pdf

Product Requirements

This document formulates the requirements for the products and services of Europeana Cloud Services described in the Europeana Cloud Business Model for 2015 v0.1₁. The Europeana Cloud Services are a stand alone storage and data processing service which will be run by Europeana Foundation as part of its remit as a Digital Service Infrastructure₂ from 2016. The basis of the Europeana Cloud Services is provided by the technical and legal infrastructure developed within the Europeana Cloud *project*, funded by the EU from 2013 to January 2016.

http://pro.europeana.eu/files/Europeana_Professional/Projects/Project_list/Europeana_Cloud/Deliverables/D5.7%20Product%20and%20Service%20Requirements.pdf

Access Framework

- + <connect to Deliveable 5.3>
- +

