



Technical aspects of interlinking software forges

Webinar – 2012.05.22

The ISA programme





objectives

Outline the vision for better interlinking on-line software repositories

Discuss the technical aspects of implementing the ADMS.F/OSS metadata vocabulary and protocols for the exchange of software description metadata



Vision for an enhanced federation of software forges

How to join the federation step-by-step

Introduction to mapping to ADMS.F/OSS v0.3

Implementing ADMS.F/OSS

Proposed solutions for exchanging software description metadata

Next steps

1 Vision for an enhanced federation of software forges

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interoperability

better administrative coordination

reuse

*“Need for a better **administrative coordination** between public administrations and applications that are interoperable and **based on open standards and open platforms**”*

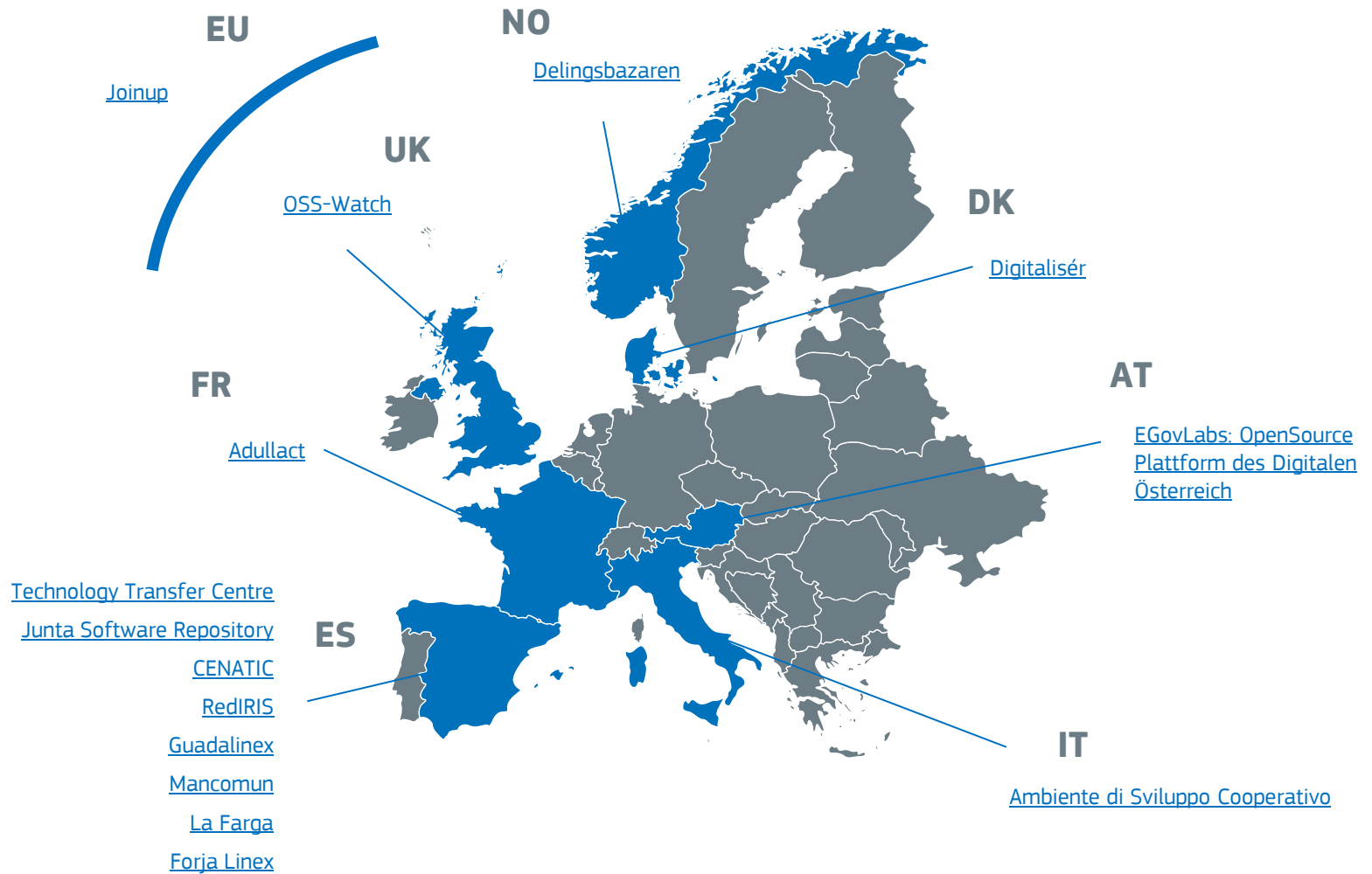
share

Open platforms

open standards

➤ *The European Interoperability Framework (EIF) recommends public administrations to “reuse and share solutions and to cooperate on the development of joint solutions when implementing European public services. In this context, the EIF encourages applying the principle of openness when jointly developing custom-made software systems.*

Software catalogues in the EU public sector





General-purpose software catalogues

A world map is centered on the slide, overlaid on a faint, light-blue wireframe globe. Four dark blue rectangular boxes with white text are placed over different regions of the map to indicate the locations of major software catalogues: Google Code (North America), Apache (Europe), SourceForge (South America), and GitHub (East Asia).

Google Code

Apache

GitHub

SourceForge

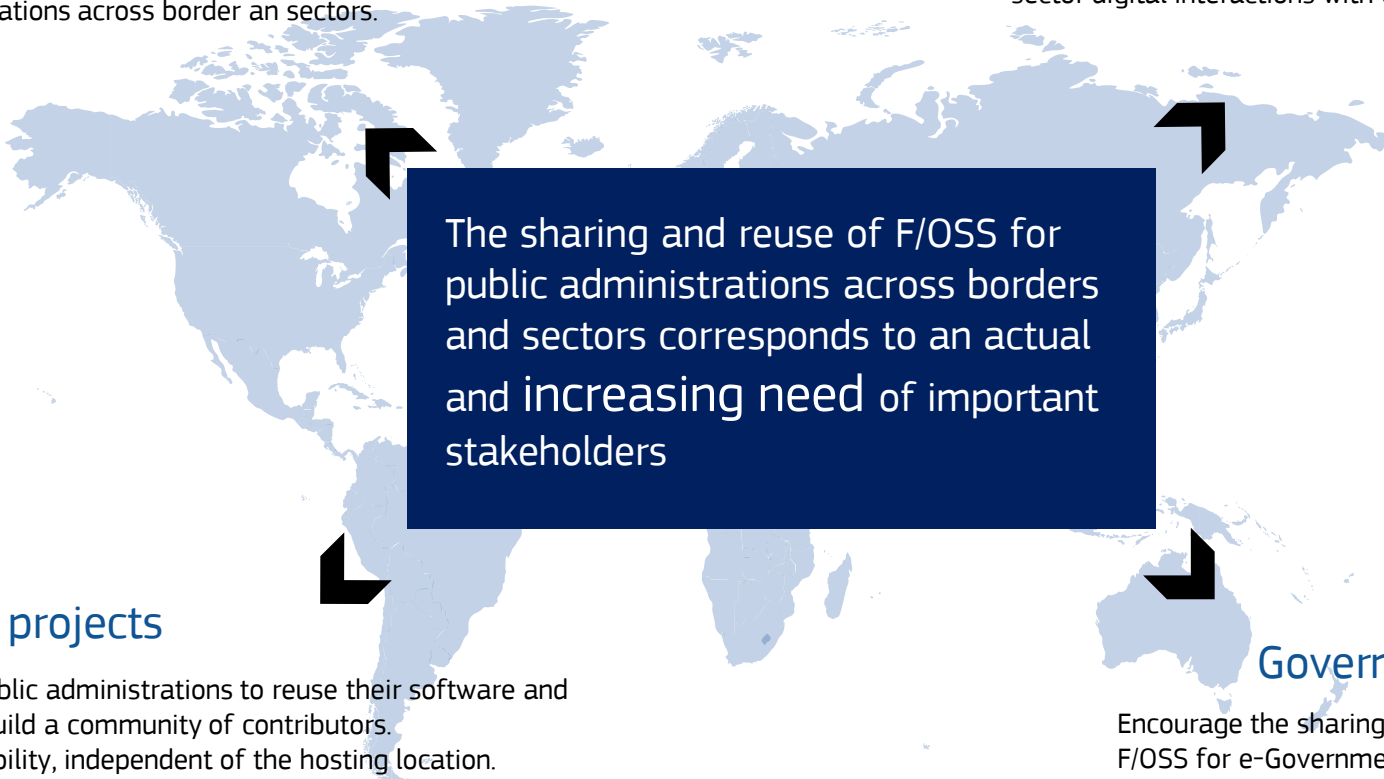


ISA Programme

Encourage the sharing and reuse of interoperability solutions for public administrations across border an sectors.

Public administrations

Increasing need for cross-border and cross-sector digital interactions with external parties

A light blue world map is centered in the background. Four black arrows point from the corners of the map towards a central dark blue rectangular text box. The text box contains the following text:

The sharing and reuse of F/OSS for public administrations across borders and sectors corresponds to an actual and increasing need of important stakeholders

F/OSS projects

Attract public administrations to reuse their software and want to build a community of contributors.
Equal visibility, independent of the hosting location.

Governments

Encourage the sharing and reuse of F/OSS for e-Government.

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Language barrier

Lack of quality assurance

Lack of information on standards and specifications implemented by an F/OSS

Lack of visibility

Lack of confidence in F/OSS solutions

Features are not well documented

Limited view of public administrations usage of existing F/OSS solutions

Problems with the federated forges



joinup

Open-Source Software
Find, reuse and develop Open-Source Software

- Software
- OSS on JoinUp
- Find Software
- My OSS Projects
- Software I use
- Recommended
- Editor's choice
- Legal Corner
- License Wizard
- EUPL

05 December 2011
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Created by [Joinup ADMINISTRATOR](#)
Domains: Communications, Information
The ISA Programme of the European Commission...
and communication tools for the communities, software...

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NEWS EVENTS E-LIBRARY PEOPLE

The current "federation" of software project descriptions on Joinup does not overcome all information barriers to the sharing and reuse of F/OSS.

It only federates 3 elements: **name, description and URL**

>> **Dependent** on a technology that is specific to GForge 4 and FusionForge. Software description metadata from other infrastructures cannot be automatically retrieved

Share this on...

Federated Forges

[view all](#)

[CENATIC](#) 2 project(s)

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An XML and RDF vocabulary to describe software assets



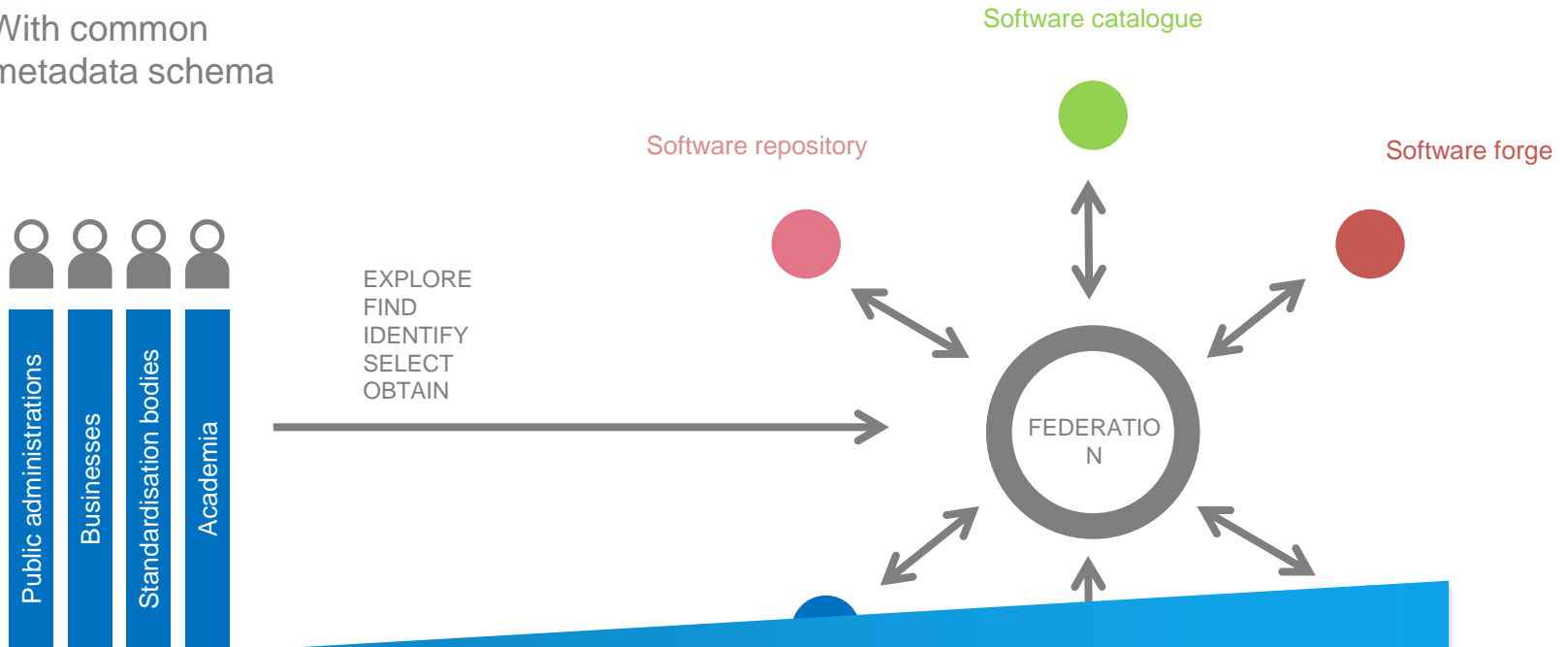
Metadata category	Metadata property or relationship	Available in DOAP	Description	Explore	Find	Identify	Select	Obtain
descriptive metadata	title	name	the title of the software in multiple languages		■	■		■
	description	description, shortdesc	descriptive text in multiple languages		■	■		
	identifier		identifier for the software		■	■		■
	URI	location	uniform resource identifier		■	■		■
	version	version	version of the software release		■	■		■
	related software		related software		□			
	is replaced by		a newer version of the software		□	□		□
	release	file-release	a release of the software					□
applicability	domain		the domain of the software (e.g. using EuroVoc descriptors)	■	□		□	
	spatial coverage		geographic region in which the software can be used	■	□		□	
	multilingual		whether or not the software can be configured to have a multilingual user interface	□			□	
	language	language	natural language in which the software is written				□	

The solution is twofold. On the hand, there is the enhanced software description metadata schema (ADMS.F/OSS)

Enhanced, federated catalogue of F/OSS for e-Government



With common metadata schema



On the other hand, there is the ADMS.F/OSS-enabled federation of the different national software catalogues, repositories, and forges which enhances the sharing and reuse of F/OSS solutions.




Overcome information barriers

Help overcome the information barriers related to the sharing and reuse of interoperability solutions among public administrations

Better search

Allows searching for software from a single point of access

A light blue world map is centered in the background of the slide. A dark blue rectangular box is overlaid on the map, containing white text. Four black arrows point from the corners of this box towards the four main advantage sections: top-left to 'Overcome information barriers', top-right to 'Better search', bottom-left to 'Better visibility', and bottom-right to 'Better linking'.

A common specification to describe software assets on the Web will give better visibility, better search, help overcome information barriers and provide a better linking

Better visibility

Increased and equal visibility, independent of the hosting location.

Better linking

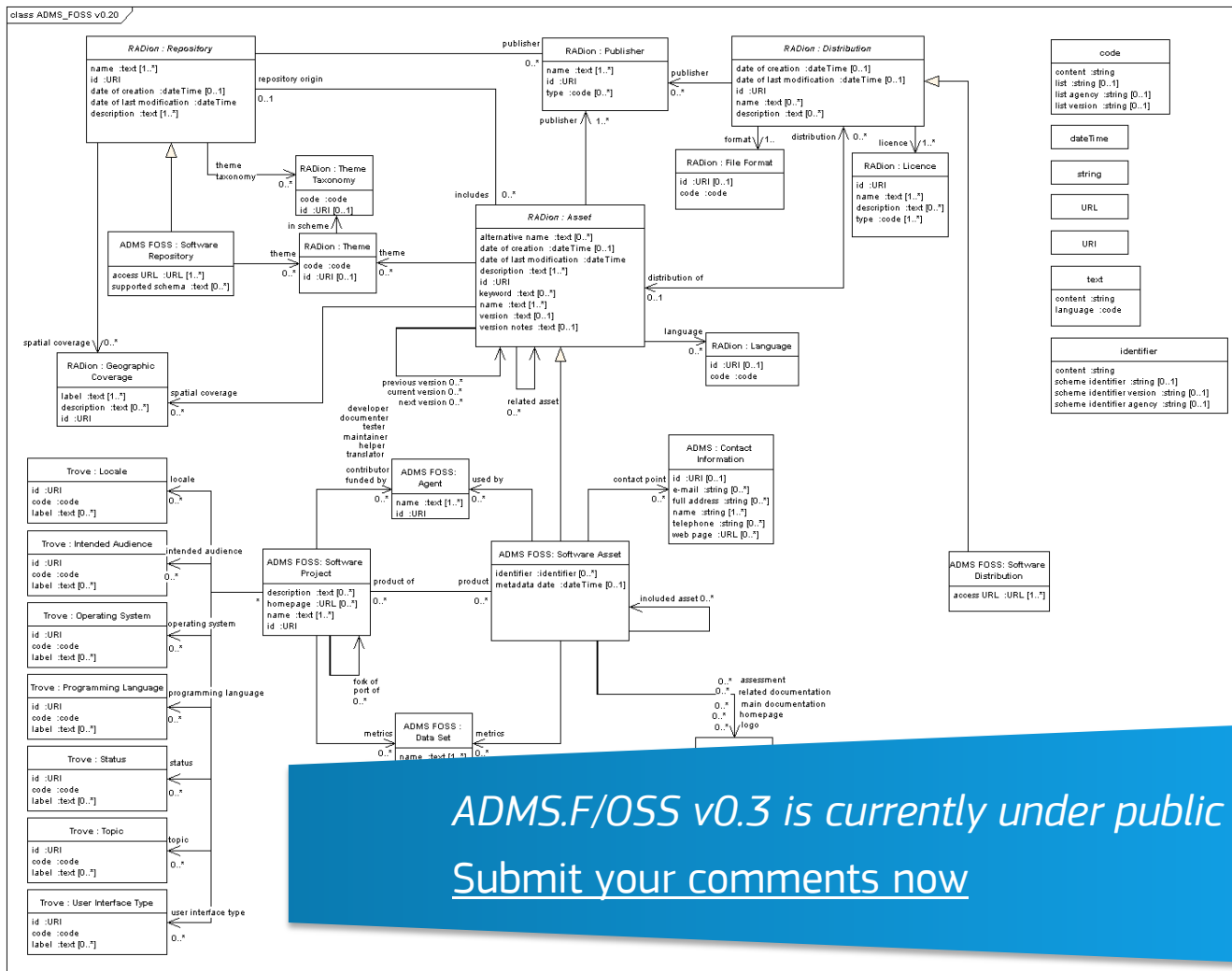


Making it possible to more easily explore, find, and link software assets on the Web

Aims at maximally reusing existing specifications, such as DOAP, ADMS, and the Trove software map (Trove © SourceForge 2012 CC by)



Metadata vocabulary to describe free and open-source software assets



ADMS.F/OSS v0.3 is currently under public review:
[Submit your comments now](#)

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How to join the federation step-by-step

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How to join the federation step-by-step

Introduction to mapping to ADMS.F/OSS v0.3






Implementing ADMS.F/OSS

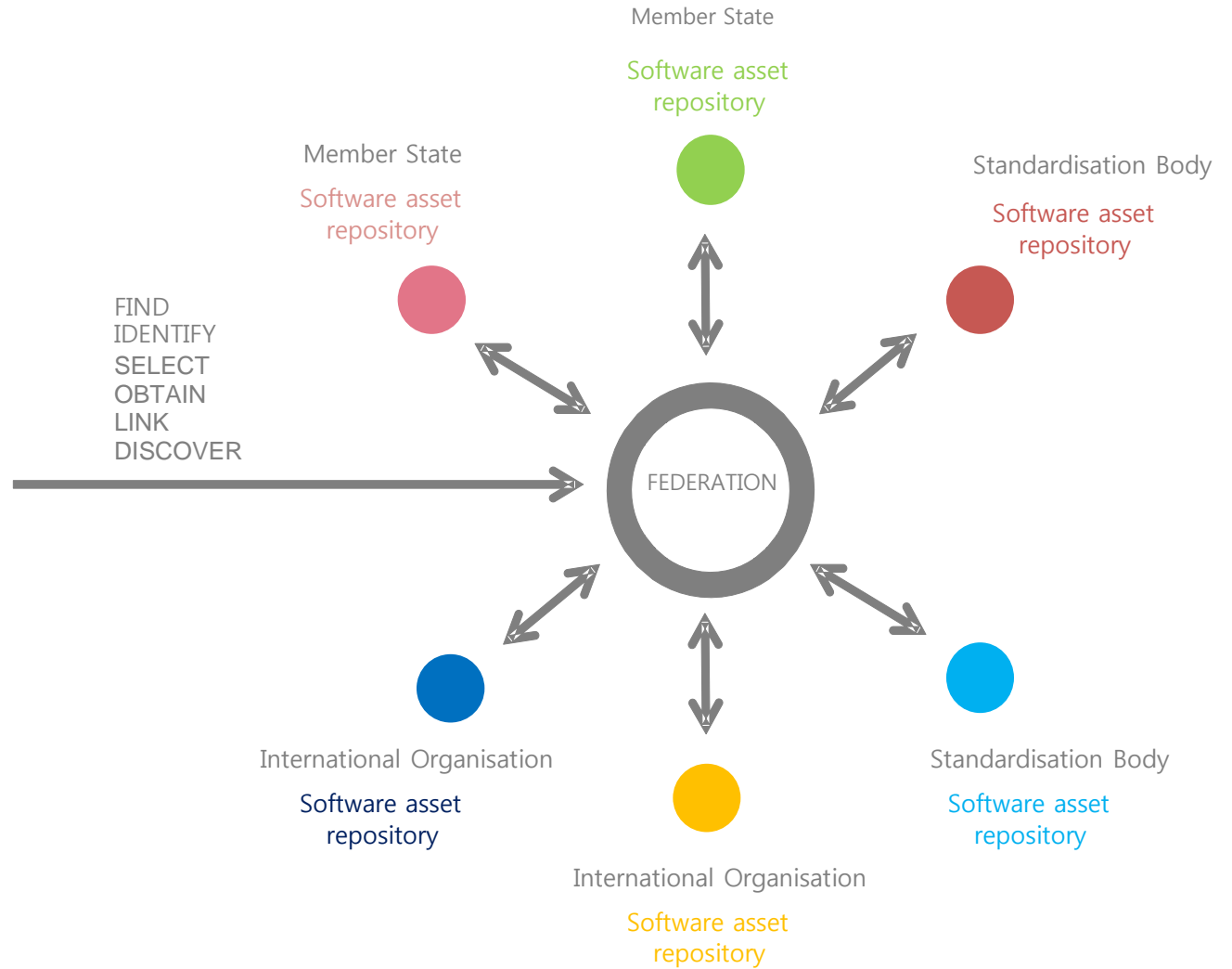
Proposed solutions for exchanging software description metadata

Next steps

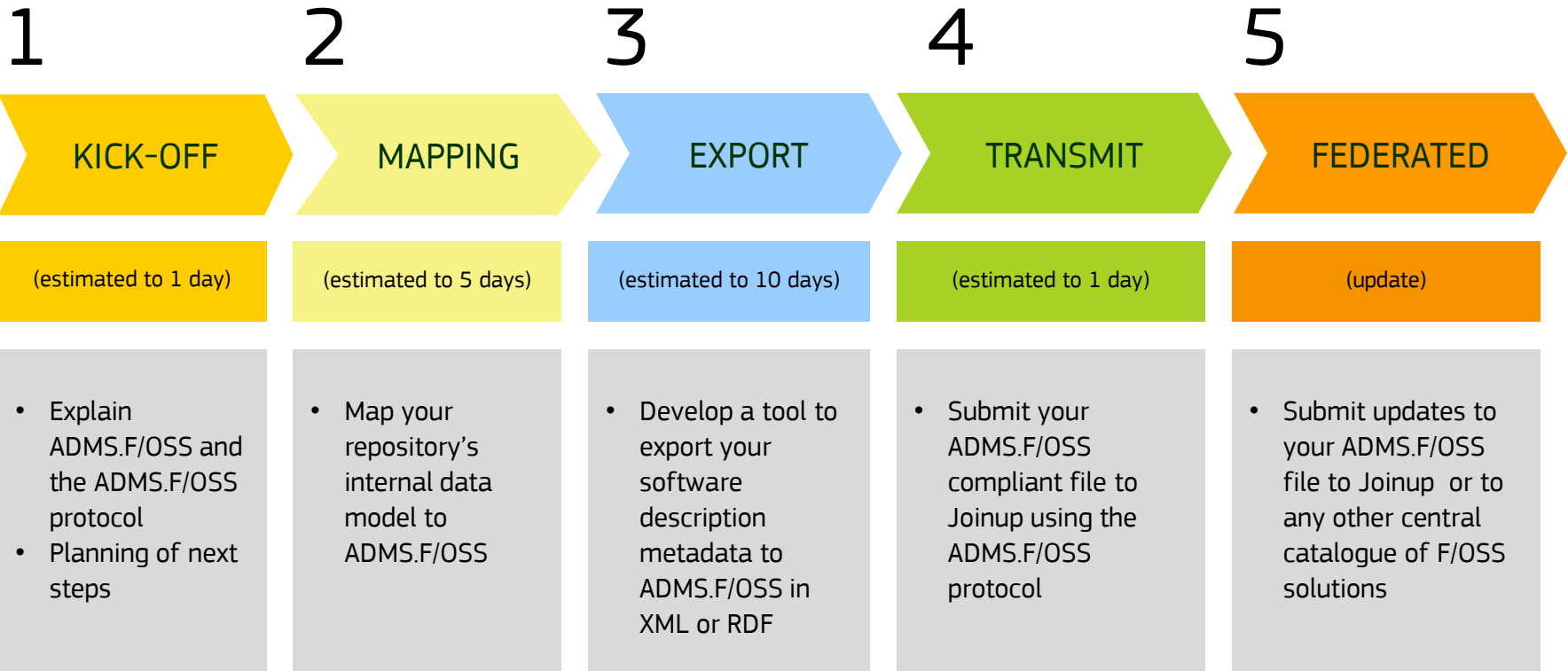
The federation



-  Public administrations
-  Businesses
-  Standardisation bodies
-  IT Industry
-  Academia



5 steps to join the federation



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Use the spreadsheet template to map your own metadata



ADMS_FOSS_v0.3_Spreadsheet_Template_v0.06.xls [Compatibility Mode] - Microsoft Excel

	A	B	F	G	H	I
	assetURI	identifier	name	alternative name	date of creation	date of last modification
1	http://httpd.apache.org/download.cgi#apache24	apache24	Apache HTTP Server 2.4.2 (httpd)	httpd	2012-04-17	2012-04-17
2						
3	http://httpd.apache.org/download.cgi#apache24 http://httpd.apache.org/download.cgi#apache22	apache22	Apache HTTP Server 2.2.22 (httpd)	httpd	2012-01-31	2012-01-31

Mapping by example:

[ADMS FOSS v0.3 Spreadsheet Template v0.06.xls](#)

https://joinup.ec.europa.eu/svn/adms_foss/grefine_rdf

Use the spreadsheet template to align taxonomies



Every forge uses its own taxonomies... mappings are needed

ConceptURI	skos:notation	skos:exactMatch
http://sourceforge.net/api/trove/index/rdf#162	assembly	http://dbpedia.org/page/Assembly_language
http://sourceforge.net/api/trove/index/rdf#163	ada	http://dbpedia.org/page/Ada_%28programming_language%29
http://sourceforge.net/api/trove/index/rdf#164	c	http://dbpedia.org/page/C_%28programming_language%29
http://sourceforge.net/api/trove/index/rdf#165	C++	http://dbpedia.org/page/C%2B%2B
http://sourceforge.net/api/trove/index/rdf#172	ml	http://dbpedia.org/page/Standard_ML
http://sourceforge.net/api/trove/index/rdf#173	modula	http://dbpedia.org/page/Modula

The spreadsheet helps you define matching concepts for your own terms... and export them in SKOS RDF format.

4 Implementing ADMS.F/OSS

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FusionForge Search the entire project Zoeken Uitgebreid zoeken

Startpagina Mijn pagina Projecten

Samenvatting Activity Forums Tracker Lijsten Taken Documentatie Nieuws SCM Bestanden

Set \$wgLogo to the URL path to your own logo image.

navigation

- Main page
- Community portal
- Current events
- Recent changes
- Random page
- Help

search

toolbox

- What links here
- Related changes
- Special pages
- Printable version

page discussion view source history

DOAP RDF plugin

The DOAP RDF plugin allows to serve a [DOAP](#) RDF+XML document on /projects/ URLs when using content-negotiation, requires application/rdf+xml

For instance, <http://myforge/projects/coin> would give (`curl -H "Accept: application/rdf+xml" http://myforge/projects/coin`)

```
<?xml version="1.0"?>
<rdf:RDF
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  xmlns:doap="http://usefulinc.com/ns/doap#">
  <doap:Project rdf:about="">
    <doap:name>coin</doap:name>
    ...
  </doap:Project>
</rdf:RDF>
```

Cf. https://fusionforge.org/tracker/index.php?func=detail&aid=235&group_id=6&atid=114

Cf. <https://fusionforge.org/scm/viewvc.php/trunk/src/plugins/doaprdf/?root=fusionforge>

https://fusionforge.org/plugins/mediawiki/wiki/fusionforge/index.php/Main_Page



Simal Project and Community Registry Framework

- Simal
- Person Browser
- Category Browser
- Project Browser
- DOAP Form
- Reports
- Tools
- Add Project

Project List

Name:

Filter

Showing 1 to 7 of 1915 << < 1 2 3 4 5 6 7 8 9 10 > >>

Name	Description
14-19 prospectus pilot in the East Midlands	The project will aggregate 14-19 Area Prospectus course advertising information from at least four different areas into Aim Higher East Midlands' Progression Pathways database, as part of a wider pro
157 Group	An examination of cloud computing opportunities through action research in 157 Group colleges.
18th Century parliamentary papers	The 18th century printed British parliamentary papers proposal originated from the community consultation carried out in early 2003. The aim of the project is to digi

People List

Name:

Filter

Showing 1 to 7 of 1399 << < 1 2 3 4 5 6 7 8 9 10 > >>

Name	Email	Project
Aaron Burrell	Aaron.burrell [at] create...suffolk...ac...uk	The East of England's Educational Resource Network
Adam Mannis	a.mannis [at] liverpool...ac...uk	Supporting Personalised and Collaborative E-learning in Foundation Degrees
Adam Rusbridge	A.Rusbridge [at] hatii...arts...gla...ac...uk	UK LOCKSS Pilot Programme
Adele	adele.edgar [at]	Supporting Ongoing Learning in Vocational Settings
		ASPIS Architecture

<http://code.google.com/p/simal/>



European Commission **joinup** Federated Software (Artificial project)

Share and reuse interoperability Solution for public administrations [Learn more](#)

European Commission > ISA > Joinup > Software > Software Asset Project > Release > Asset Release Name

Home COMMUNITIES SEMANTICASSETS SOFTWARE NEWS EVENTS E-LIBRARY PEOPLE

Software Asset Project

Project Description

Member list

Asset Releases

Metrics

Repository of origin

This federated software is available on :

{Repository Name}

Version

0.1 0.2 0.3 0.4

0.5 0.6 **0.7** 0.8 >>

Asset Release Name – Version (the latest release is displayed by default)

Rating #Downloads **323** #Users **56** Activity

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release.

DOWNLOAD

Status: Status Current version: version 0.7

Repository of origin: Repository Name Geographic coverage: Geographic coverage

User Interface type: User Interface type Publisher: Publisher name

Licence type Public domain Language: Language

Theme: Theme 1 – Theme 2 – Theme 3 Licence: Licence name

Programming language: Programming language Operating system: Operating system

Propose an Asset Release

[Translate details](#)

Powered by MT@EC

Some values have been automatically translated and might not be entirely correct or as intended by the owner

Similar content

Other implementations



Digitalisér.dk Forsiden Kataloger Grupper Netværk Udvidet søgning

Du er her: Digitalisér.dk

Digitaliseringsstrategien

repositorio de software

Junta de Andalucía Home

Main List Ring of Forges News Enterprises

Bienvenido al Repositorio de Software de la Junta de Andalucía

Esta web contribuye al cumplimiento del artículo 10. Censo de Recursos Información de la Consejería de Hacienda y Administración Pública y de la Consejería de Economía, Innovación y Ciencia, en el marco de la elaboración y desarrollo de determinados aspectos de la política informática de la Junta de Andalucía.

Puede ver la Orden del 21 de Febrero del 2005 sobre la Disponibilidad Pública de la Información.

Most requested projects

- 1 Portafirma electrónico
- 2 SIG Corporativo
- 3 Naos
- 4 Enebro Herramienta de captura de información
- 5 eCO - Comunicaciones interiores y Oficinas

Registered users

Visualize by

- ¿Quiénes Pueden Aprovechar El Sistema?
- Base De Datos
- Organismo Impulsor
- Organismo Que Lo Utilizan
- Colaboradoras En Desarrollo

- Gestión de Hospitales y gestión de temas de SALUD
- Gestión de Instalaciones y Servicios Generales de Edificios
- Gestión de patrimonio y geoinformación
- Gestión de Seguridad, encriptación, identificación, autenticación y PKI
- Gestión pública de compras
- Gestión y comunicación de documentos electrónicos

FORGE ADULLACT

Home My Page Projects Code Snippets Project Open

Bienvenue sur Adullact.Net

La plate-forme FusionForge ADULLACT offre le meilleur du développement coopératif via son interface web ergonomique. Pour pouvoir utiliser au mieux la forge ADULLACT, vous devez vous inscrire. Une fois identifié, il vous sera possible d'exploiter toutes les fonctionnalités de la forge pour tester ou participer aux nombreux projets déjà enregistrés, voire enregistrer votre propre projet.

Merci de votre visite et de votre contribution à notre idéal de mutualisation.

Sélectionnez votre métier

- Collectivités
- Santé
- Administration
- Education
- Associations
- Informatique

Dernières annonces

Sortie de JDONREF v2.4.0

Julien Moquet - 2012-05-10 09:52 - JDONREF V2

Sortie de JDONREF 2.4.0 !

EGov Labs

Software/Groep Zoeken

Startpagina Mijn pagina

Willkommen auf der OpenSource Plattform des Digitalen Österreich!

OpenSource hat schon seit jeher einen hohen Stellenwert in Österreichs E-Government Bewegung. Eine Reihe von Basismodulen wie beispielsweise die Module für Online Applikationen - kurz MOA - sind daher schon von Anbeginn als OpenSource Entwicklung gestartet worden.

Diese Plattform soll dem OpenSource-Gedanken und den bisherigen - aber vor allem auch neuen OpenSource-Entwicklungen - einen fruchtbaren Boden bieten und eine adäquate Rahmenstruktur zur Weiterentwicklung, Kommunikation und Distribution darstellen.

Auf diesen Seiten finden Sie ab sofort:

- Releases, Distributionen und Informationen von und zu OpenSource-Projekten, wie bspw.
 - MOA-SP/SS
 - MOA-ID (mit WAI-konformem Template RKU Auswahl)
 - MOA-ZS
- alle Entwicklungsdaten und -prozesse (Quellcode, Informationen, etc.) zu den E-Government OpenSource-Projekten

Falls Sie Firmen suchen, die Dienstleistungen, Experten und Know-How zu den MOA-Basismodulen anbieten, führt der Fachverband UBIT der WKO über die E-Government Expert Group auf <http://www.experts.or.at/> eine Liste.

Videoanleitungen zur Installation von MOA-ID und MOCCA-Online finden Sie bei [exthex](#).

EGov Labs Statistiek

Gehoste projecten: Geregistreerde gebruikers

Hoogst scorende projecten

- MOCCA (10,353)
- MOA-ID/SP/SS (9,586)
- PDF-AS-GUI (6,535)
- PDF-AS (3,508)
- MOA-ZS (1,384)
- MOA-VV (94)
- MASS (62)
- openZUSE (39)

Gebruikers met de meeste downloads

- Local (1 - (2.0969))

Tag Cloud

accessibilité bureautique demat ecologie education election geoinformation gestion hi mysal openelec OPENI parashaur électronique par php portail internet po socratie sig social webs

FusionForge Statistics

Hosted Projects: 532

Registered Users: 6,972

Top Project Downloads

- 134,308 vitefait
- 80,855 Garennes
- 70,827 GRR - Gestion Réservation de Ressources
- 39,581 XEMELIOS

5

Proposed solutions for exchanging software description metadata

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What do we want to achieve?

- A single entry point for all the software description metadata of the federation
- Minimal implementation burden for local repositories
- You will keep control over your software description metadata

What do we propose?

- 4 solutions for different technical maturity levels
- Open for a *Multi-channel* approach
- Possibility to adapt to the needs of local repositories

What do we expect from you?

- Input on your requirements/constraints
- Comments and feedback on our solutions
- Suggestions for other possible solutions



Snapshot approach: A file with software description metadata is not very large (+/- 1-10 Mb). So each time an entire snapshot can be sent.

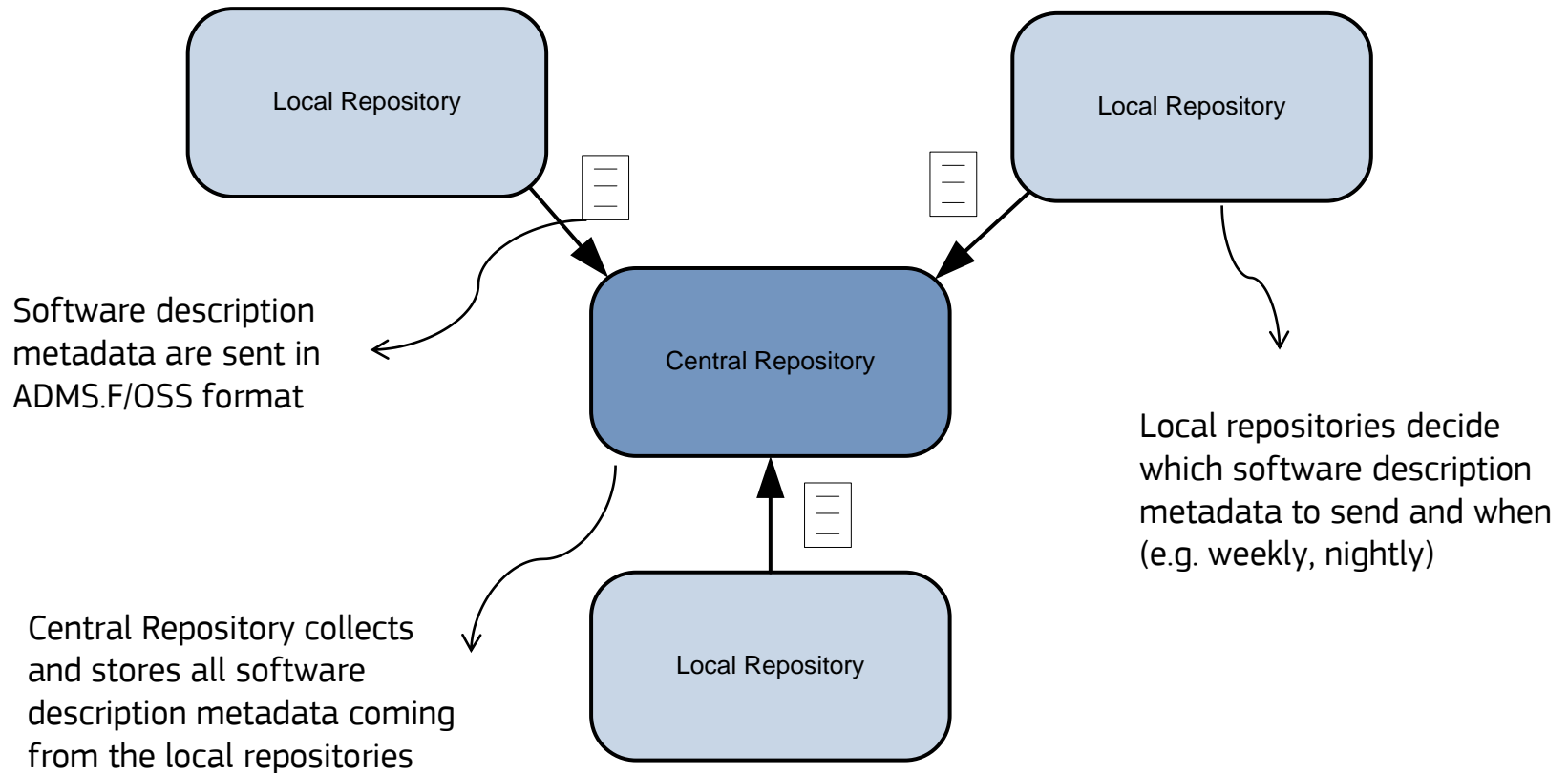
Confidentiality: As the software description metadata is already available on the Web, confidentiality is not a requirement.

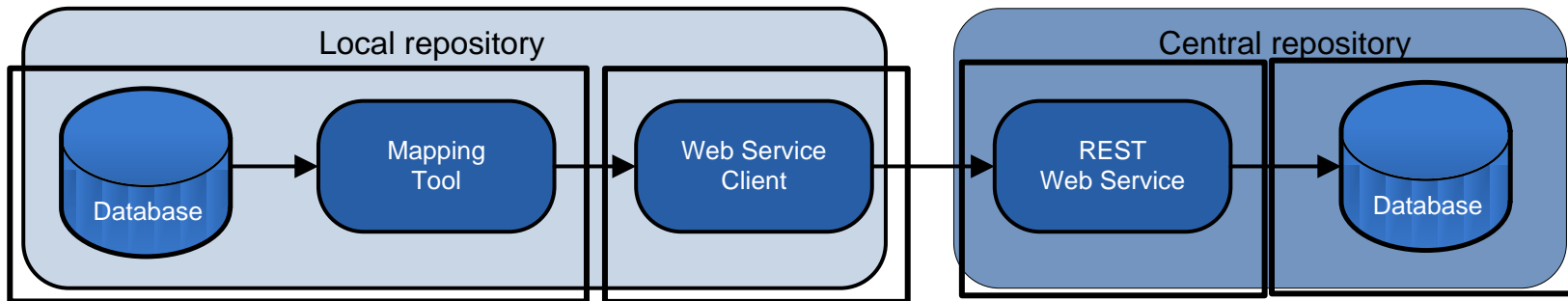
Availability: It is not required to have description metadata updated in real-time. The update frequency can be daily, weekly, monthly,...

Integrity: data integrity must not be comprised.

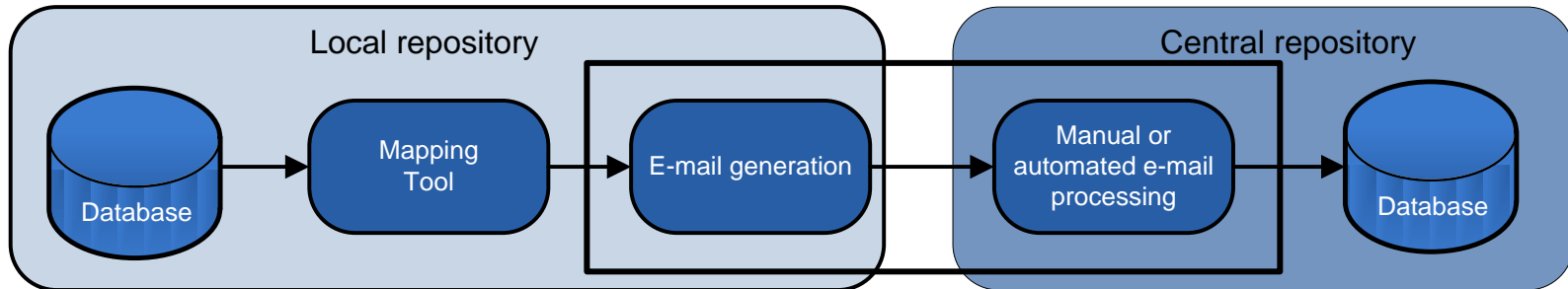


Centralized Architecture Pattern – Push Strategy





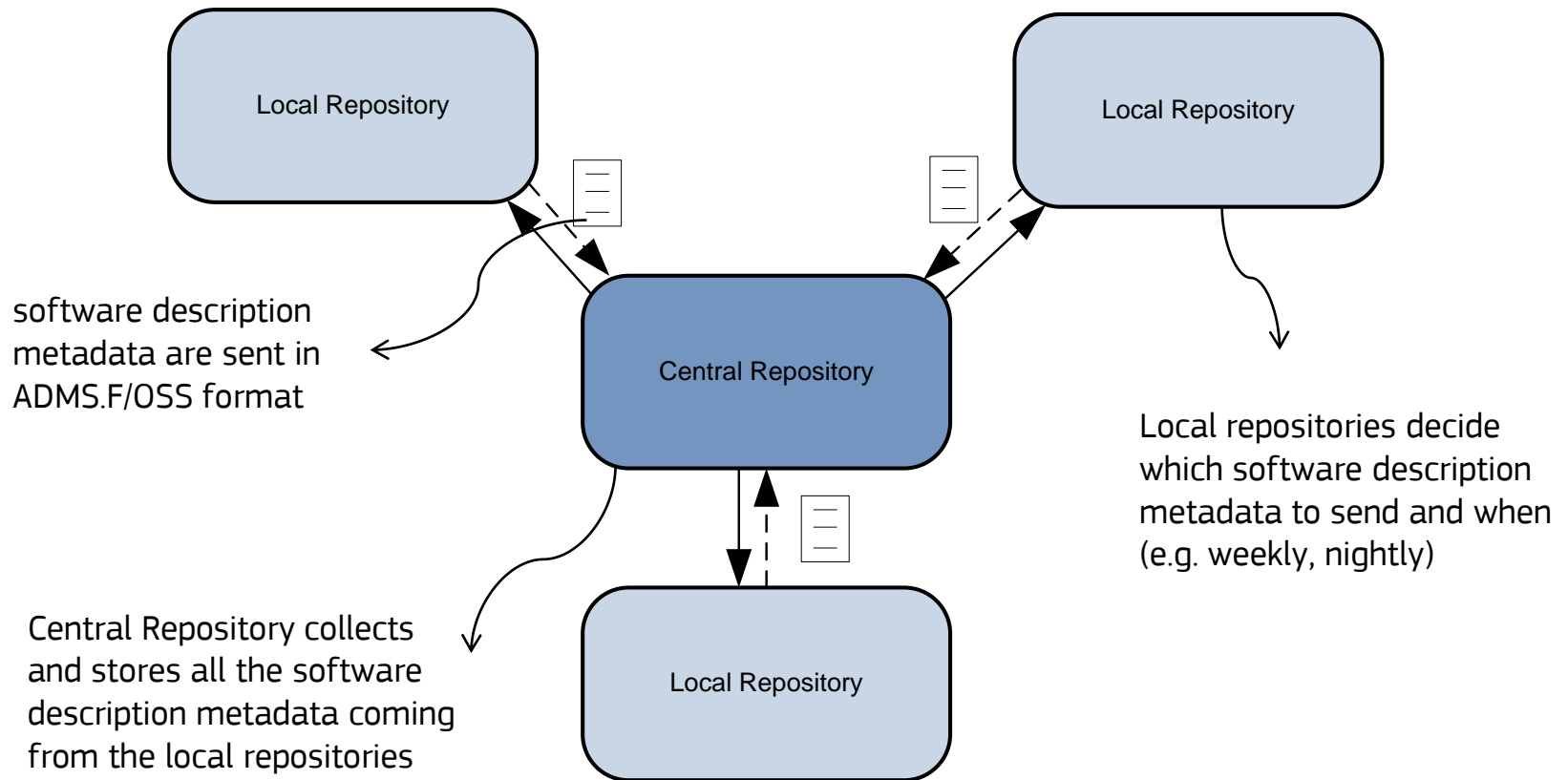
1. Software description metadata are exported from the database to the ADMS.F/OSS format
2. The web service client sends the ADMS.F/OSS data to the Central Repository calling the REST Web service via an HTTP call. A Java client will be given to you. .Net client is also an option.
3. The central repository's Web Service are checked by the REST Web Service
4. Software description metadata are stored in the local repository's database



- After the export to the ADMS.F/OSS format, the ADMS.F/OSS file is sent via e-mail to the central repository
- The e-mail with the attached ADMS.F/OSS file can be sent manually by the local repository administrator to a known mail box
- It can be automatically generated and send at fixed time (e.g. every night or every week)



Publish/Subscribe Strategy





- Software description metadata files are uploaded on the central repository using Joinup web user interface:
 - ADMS.F/OSS format will be accepted. In this case, you will have to convert your software description metadata into the ADMS.F/OSS format before uploading.
 - Possibility to upload spreadsheets (e.g. ODS) containing software description metadata. The spreadsheet template will be given to you. The mapping to ADMS.F/OSS will be done by Joinup.



Solution	Pros	Cons	Notes
Solution 1 - REST Web Services	<ul style="list-style-type: none"> • Fully automated • Client provided by DIGIT 	<ul style="list-style-type: none"> • Higher implementation effort 	Recommended in the mid/long-term
Solution 2 - E-Mail	<ul style="list-style-type: none"> • Minimum implementation effort 	<ul style="list-style-type: none"> • Manual procedures are required • Lower integration 	Recommended for the first wave
Solution 3 - Harvesting	<ul style="list-style-type: none"> • No communication protocol needs to be implemented on local repository side 	<ul style="list-style-type: none"> • Requires higher availability of local repository systems 	Recommended for non-centralized architectures
Solution 4 - Upload on Joinup	<ul style="list-style-type: none"> • No communication protocol needs to be implemented • Mapping to ADMS.F/OSS is not needed for spreadsheets 	<ul style="list-style-type: none"> • Manual procedures are required • Lower integration 	Recommended for the first wave

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next steps

Map your metadata to ADMS.F/OSS

Collect from you your business / technical constraints

Your input on ADMS.F/OSS v.0.3

Converge to an agreed technical architecture in order to start the implementation

“Coming together is a beginning,
staying together is progress, and
working together is success.”

Henry Ford



Szabolcs Szekacs

DG DIGIT, ISA Unit

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Thank you!