



Cyril L'Orphelin - CCIN2P3/CNRS
Workshop Opérations France Grilles

 eosc-hub.eu

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Présentation générale du projet EOSC-Hub

Contexte, structuration, priorités

Project Coordinator : Tiziana Ferrari

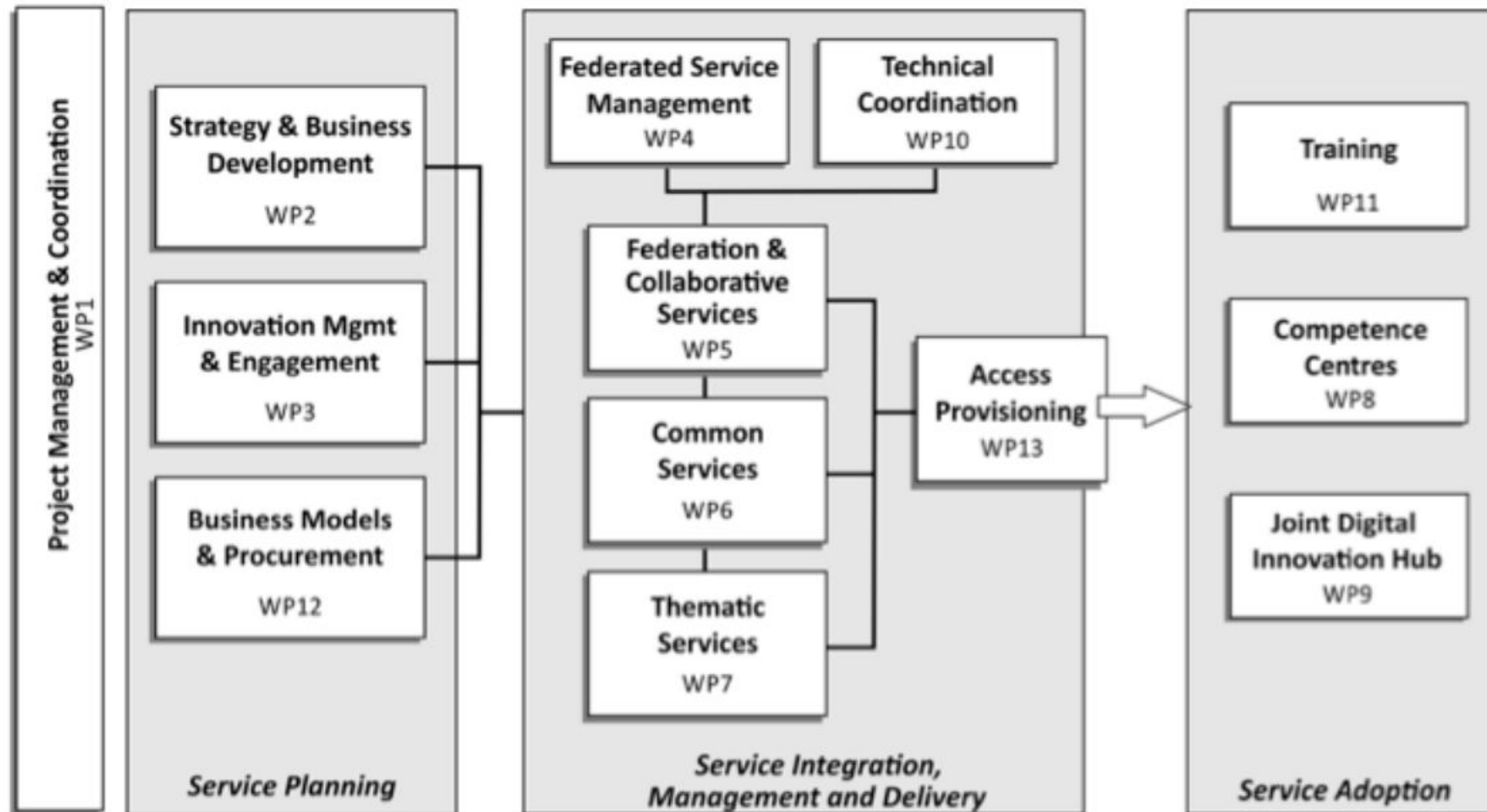
Project Director : Per Öster

Technology Committee Leader : Giacinto Donvito





- Durée: Janvier 2018 / Décembre 2020
- 100 partenaires dans 53 pays
- 13 work packages
- 49 services
- 3874 PMs, 108 FTEs
- €33M



Créer un hub d'accès aux services et e-infrastructures pour les chercheurs

- Une authentification commune(AAI)
- Un catalogue de services
- Un market place
- Un “service management system”
- FAIR Data
- Etablir des procédures et opérations communes



Primary Identities

- Author IdP** (dashed circles): ORCID, ResearchID, Scopus
- Social IdP** (green circle): Google, Facebook, LinkedIn
- eduGAIN** (orange circle)
- X.509 IdP** (grey circle): PRACE, EGI, WLCG

OpenID IdPs from RIs

- B2ACCESS IdP** (light blue circle): User Profile
- OpenID** (blue rounded rectangle): Multi-Protocol Identity Management, LoA support, powered by Unity IDM, EUDAT federation database

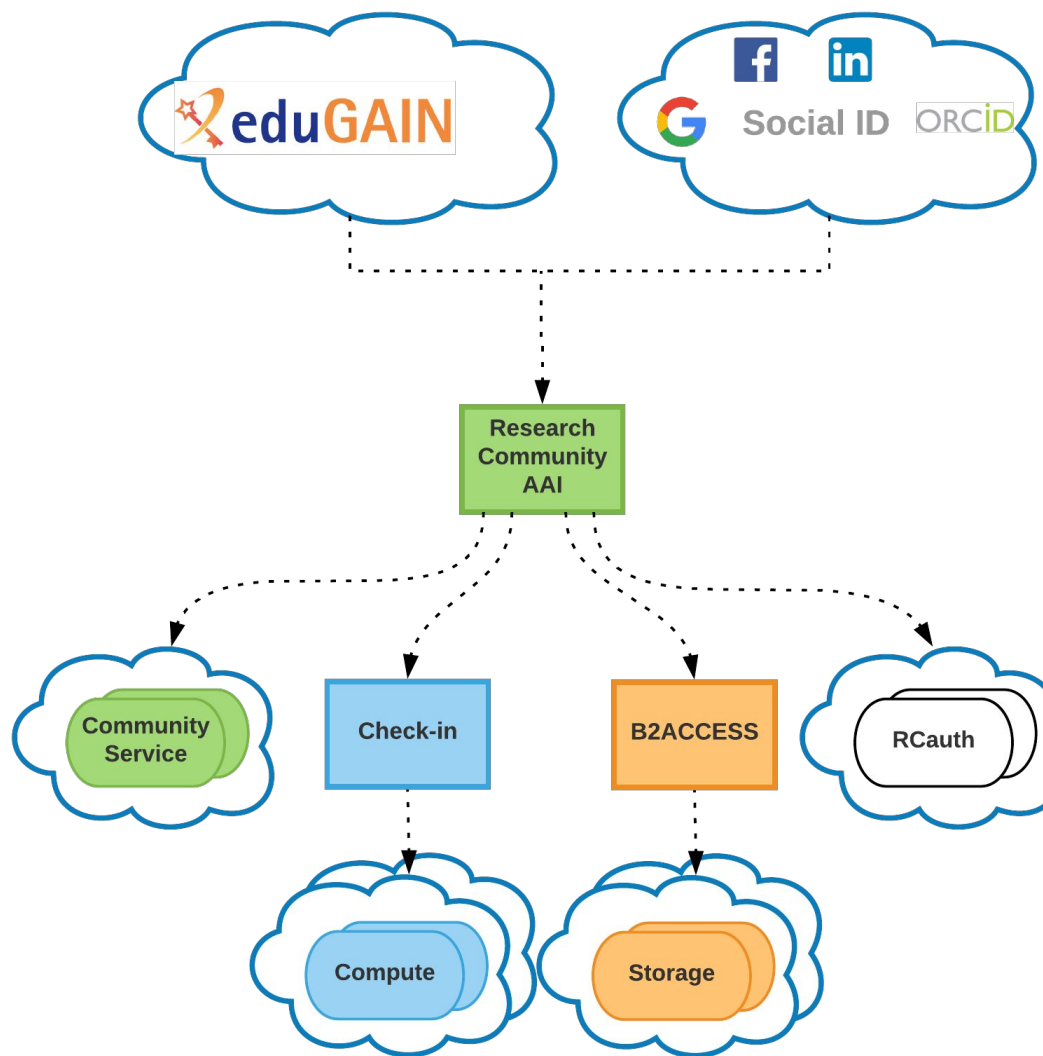
EUDAT Service Endpoints

- OAuth 2 authorization server** (green rounded rectangle): Access Token
- EUDAT CA** (light blue rounded rectangle): X.509
- SAML** (yellow circle): B2SHARE (OAuth 2), B2SAFE (X.509), B2STAGE (X.509), B2DROP (SAML), B2HANDLE (SAML), Data Project Coordination Portal, Helpdesk TTS, Site & Service Registry

The diagram illustrates the architecture of the Check-in IdP/SP Proxy system. A user (represented by a blue person icon) interacts with a Service (represented by a stack of white boxes) and a VO Portal (represented by a stack of white boxes). The Service and VO Portal connect to the IdP (represented by a white circle) via SAML and OpenID Connect. The IdP connects to the SP (represented by a white circle) via SAML. The SP connects to the VO Portal via OpenID Connect. The IdP also connects to the RCaution CA (represented by a yellow box) via SAML. The IdP connects to the Attribute Authority (represented by a green cylinder) via SAML. The IdP connects to the Social ID cloud (represented by a blue cloud) via OpenID, OAuth2, and OpenID. The IdP connects to the eduGAIN and IGTF clouds (represented by blue clouds) via SAML. The IdP connects to the Attribute Authority via SAML.

1

AAI : un exemple d'implémentation



Storage & Data



B2HANDLE

Register your research data

EGI DataHub

Access selected public datasets and efficiently consume them from EGI compute services

B2STAGE

Transfer of data between data resources and external computational facilities

B2SAFE

Distribute and store large volumes of data based on data policies

B2NOTE

Data annotation service to create annotations on research data

B2DROP

Secure and trusted data exchange service for researchers

EGI Online Storage

Store, share and access your files and their metadata on a global scale

B2SHARE

Store and publish research data

Services for sensitive data

Collect, store and analyse sensitive research data in a secure environment

Compute



EGI Cloud Compute

Run virtual machines on-demand with complete control over computing resources

EGI High-Throughput Compute

Execute thousands of computational tasks to analyse large datasets.

EGI Cloud Container

Run Docker containers in a lightweight virtualised environment

Identity & Security



B2ACCESS

AAI platform for federated authentication to EUDAT services

EGI Check-In

Secure and user-friendly federated authentication and authorisation

Thematic Services



ENES Climate Analytics Service

Analyze and process data from multiple communities with the Ophidia Big Data Analytics framework.

Dynamic On Demand Analysis Service

Simplify the access and management of computing resources

WeNMR suite for Structural Biology

A suite of computational tools for structural biology

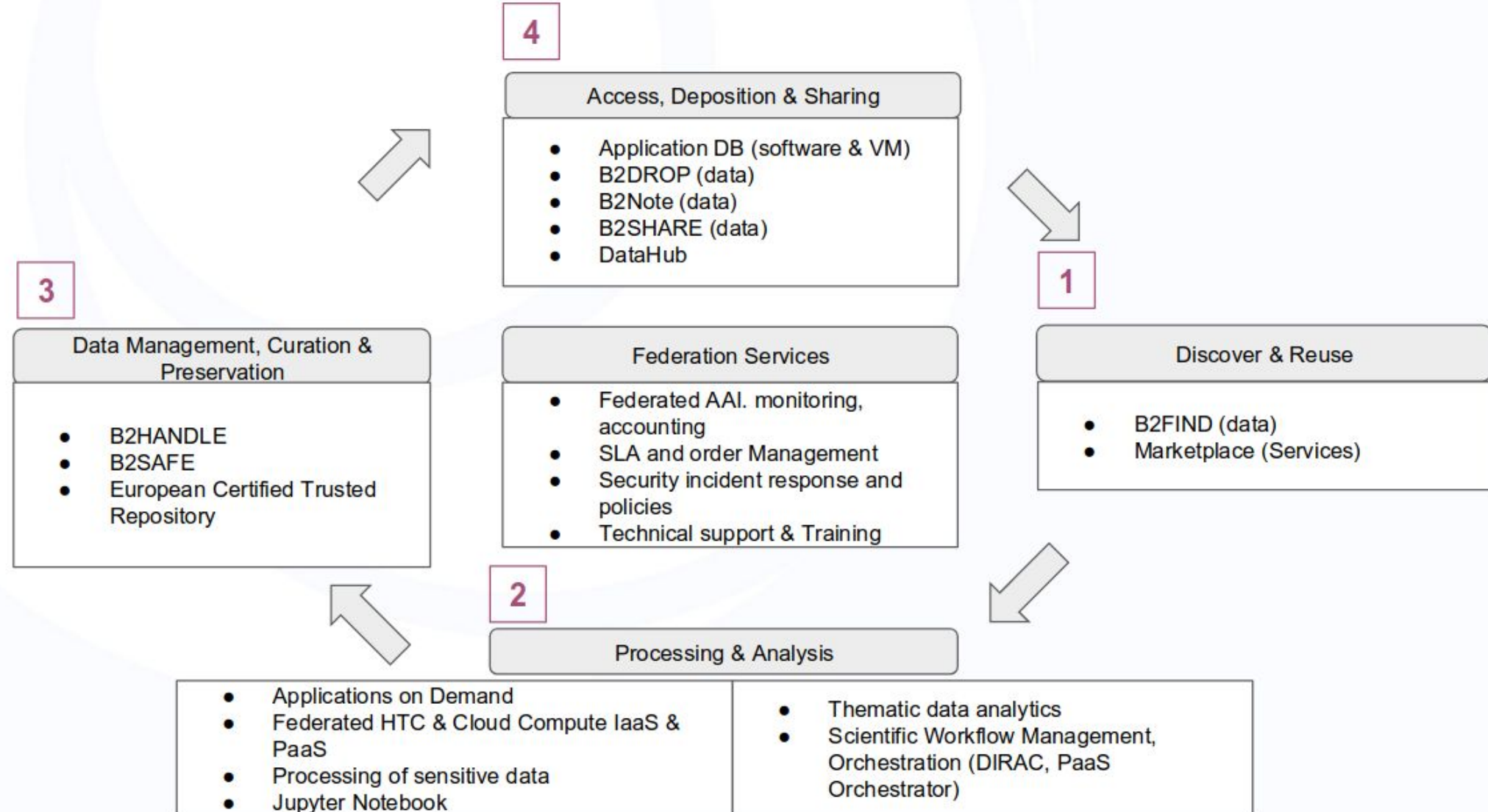
OPENCoastS

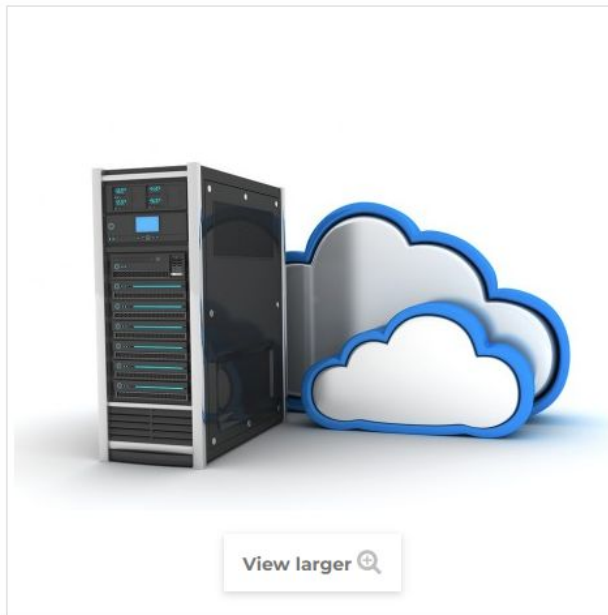
On-demand operational coastal circulation forecast service

Component MetaData Infrastructure

Services for Social Sciences and Humanities provided via the national CLARIN centres.

Couverture du cycle de vie des données





Object storage

Object storage manages data as objects. Each object includes the data itself, a variable amount of metadata, and a globally unique identifier.

Cloud object storage allows relatively inexpensive, scalable and self-healing retention of massive amounts of unstructured data.

SERVICE PROVIDERS

STORAGE CAPACITY (GB)

100 

INTERFACES

CDMI 

SPECIAL REQUIREMENTS

ACCESS TYPE

Opportunistic 

START OF SERVICE

21/06/2018

DAYS

1 

 ADD TO CART

Service portfolio management

- Manage the service portfolio; alignment of new or changed services with organisation strategy

Service level management

- Maintain a service catalogue; define, agree and monitor relevant agreements (SLA, OLA, UA)

Service reporting management

- Specify all service reports and ensure its production according to specifications in a timely manner to support decision-making

Customer relationship management

- Identify, record and analyse customer opportunities; manage service orders and maintain a good relationship with customers

Supplier & federated members relationship management

- Establish and maintain a healthy relations with suppliers supporting the services; ensure the required capacity and monitor performance

Budgeting & accounting management

- Ensure effective management of budgeting, accounting for services

- **F**indable

Discovering scientific products, services and resources

- **A**ccessible

Enabling access to scientific resources and services

- **I**nteroperable

Integrating and maintaining relevant services according to a defined standards roadmap

- **R**eusable

Managing and preserving data

FAIR DATA

Service	F	A	I	R
B2Handle	X	X		X
B2Find	X		X	X
Marketplace	X	X		X
Application Database				X
B2SHARE	X	X	X	X
B2DROP		X		
DataHub	X	X	X	X
European Trusted Digital Repositories	X	X	X	X
Federated AAI		X		
B2SAFE		X		
B2NOTE			X	X

Principaux objectifs

- Coordination des activités opérationnels
- Fédération des opérations
- Mise en place de procédures communes (ITSM)
- Harmonization / Intégration des politiques

Thématiques

- Gouvernance (Rôles et responsabilités)
- Suspensions des sites (AR)
- Monitoring
- Enregistrement et certification des RC
- Supervisions des opérations de l'infrastructure
- Regroupements logiques des RCs (e.g. ROCs, NGIs) / Intégration de ces groupes
- Support des nouvelles VO et des nouveaux services par les RC
- Revue des informations publiées

Implication du CC

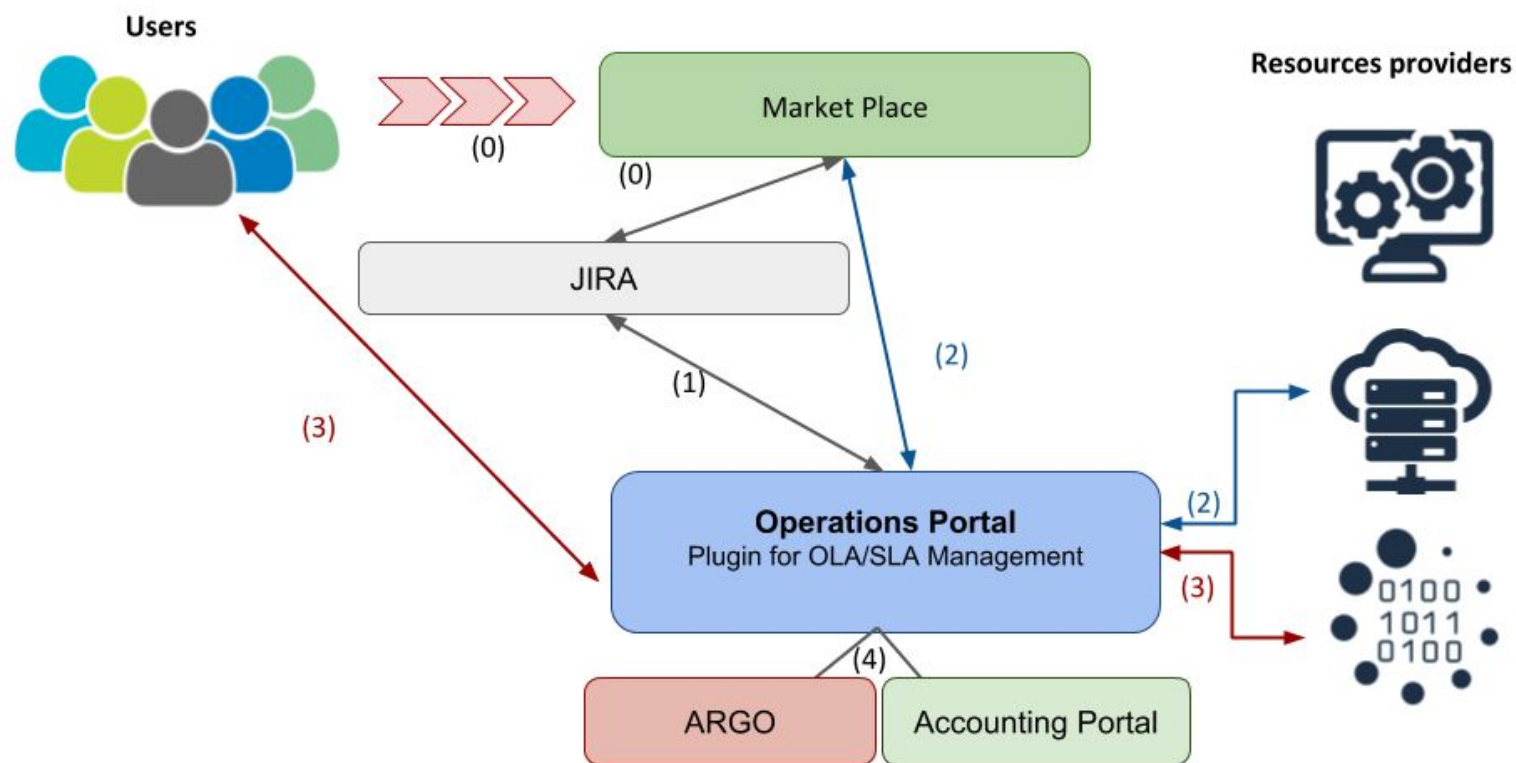
WP5 et WP13

WP5 Leader : Pavel Weber (KIT-EUDAT)

- T5.1 Identification, Authentication, Authorisation and Attribute Management
- **T5.2 Marketplace and Order Management Tools (9PM)**
- **T5.3 Integrated Business and Operations Support Systems (10 PM)**
- **T5.4 Monitoring, Accounting, Messaging, Security Tools (10 PM)**
- T5.5 Helpdesk Services and Tools
- T5.6 Application store, Software Repositories and other Collaboration Tools

SLA/OLA management tools

- **Automate requests from Marketplace**
 - SLA / OLA reports (negociation)
 - service activations
 - automate orders
 - usage reports
- **Operator Dashboard (restricted access)**
 - records SLA and allocated resources
 - notify customers
 - manage SLA/OLA documents
- **Service provider dashboard**
 - See all my OLAs
 - See open resource requests
 - Approve OLA
 - Download OLA and service report



Principales évolutions à venir de ARGO :

- ARGO Notification Service - déjà en place
- customisation des seuils (en fonction des SLA par ex)
- mise en place automatique d'un nouveau tenant de monitoring
choix des services à monitorer + choix des sondes = génération automatique de rapports
- **Harmonization des interfaces**



ABOUT ARGO



Select

EGI - Critical



EGI

Advanced Computing for
Research

NGIS

38

Sites

282

Services

1438

Availability
88.92Reliability
89.89

Availability/Reliability - Last 10 days



Last statuses



- Ok : 28
- Warning : 17
- Unknown : 25
- Critical : 29
- Missing : 1

Last Status Changes

Show 10 entries

Search:

Site	Status	Timestamp
BY-NCPHEP	OK	2018-06-21T10:12:27Z
BY-NCPHEP	WARNING	2018-06-21T10:12:03Z
BY-NCPHEP	CRITICAL	2018-06-21T01:23:38Z
CA-SFU-T2	OK	2018-06-21T11:18:45Z
CA-SFU-T2	UNKNOWN	2018-06-21T10:36:09Z
CA-SFU-T2	OK	2018-06-21T09:57:00Z
CA-SFU-T2	UNKNOWN	2018-06-21T09:21:08Z

OnGoing Downtimes

Show 10 entries

Search:

Site	Status	Start (UTC)	End (UTC)	
CA-SCINET-T2	OUTAGE	2018-04-30 20:00	2018-12-31 23:59	Q
CLOUDIFIN	OUTAGE	2018-06-15 07:15	2018-07-31 00:00	Q
FZK-LCG2	OUTAGE	2018-06-20 11:00	2018-06-26 12:00	Q
GRIF	OUTAGE	2018-06-12 10:00	2018-06-25 15:00	Q
INFN-BARI	OUTAGE	2018-06-11 07:00	2018-07-31 07:00	Q
INFN-BOLOGNA-T3	OUTAGE	2018-05-28 09:00	2019-01-31 23:00	Q
UKI-SOUTHGRID-RALPP	OUTAGE	2018-06-18 09:00	2018-07-01 11:00	Q

WP13 Leader : Malgorzara Krakowian (EGI)

- Nouveau modèle de convention de subvention de la communauté européenne dont le but est de rembourser la fourniture de service (opération / maintenance) .
- Le portail des Opérations fait partie des 36 VA
- Ces financements vont être réévalués durant le projet à travers des indicateurs et métriques et 3 rapports .
- Le gros problème c'est que l'évaluation va se faire à travers l'effort mis en place pour améliorer les métriques existantes (nb d'utilisateurs par ex) et pas pour l'effort actuel pour maintenir l'outil opérationnel .

AAI-Integration

- Plus d'authentification x509
- Authentification centrale à partir de Checkin
- Récupération des attributs de Checkin : GOC DB roles, EUDAT , VO Membership
- Si possible remplacer les roles de VO Manager par les roles VOMS

DASHBOARD

- Refonte des dashboards (ROD, COD , CSI) en un seul dashboard
 - Mise à jour de symfony / Facilitation de la maintenance
 - Supprimer les spécificités et les workflow historiques
 - Proposer une customisation complète par les utilisateurs



Constat commun des fournisseurs de ressources (Espagne , Portugal , Croatie)

- Entre 90 et 95 % des ressources dédiées à WCLG
- Moins de sites , moins de ressources, moins de VO
- Grosse demande d'accès à du HPC et du GPU sans réel use case
- L'argent des projets européens sert à renouveler / dynamiser les infrastructures existantes mais la plupart des utilisateurs ne savent pas vraiment comment utiliser les ressources à part les communautés HEP (manque de structuration).

- Outils communs / Procédures communes : convergence de façade
 - la convergence des outils affichée au départ n'est pas de mise partout (GOC DB / DPMT, EGI Checkin/B2ACCESS) impliquant des efforts d'intégrations supplémentaires.
 - Maturité des projets complètement différentes (structuration , nb utilisateurs)
 - Lutte pour la gouvernance
- Service Catalog / Market place
 - Effort alloué énorme pour mettre en place le market place alors que on ne sait pas facturer l'usage
- AAI : Volonté d'avoir tous les outils interconnectés avec AAI.
 - Gestion des authentifications mais pas des autorisations . Quel LoA ?
- Multiplicité des offres, des technologies : grid => cloud => GPU... ? Structuration des services vs structuration des utilisateurs (formation, intégration d'applications)
- Très faible participation française (seul représentant IN2P3/CNRS à la 1ère partie)

**Thank you for your
attention!**

Questions?



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