Joint Service Catalogue for Research

Sergio Andreozzi

Strategy and Policy Manager, EGI Foundation



sergio.andreozzi@egi.eu

digitalities

e-IRG Workshop 15-16 November 2016 Bratislava, Slovakia





Outline

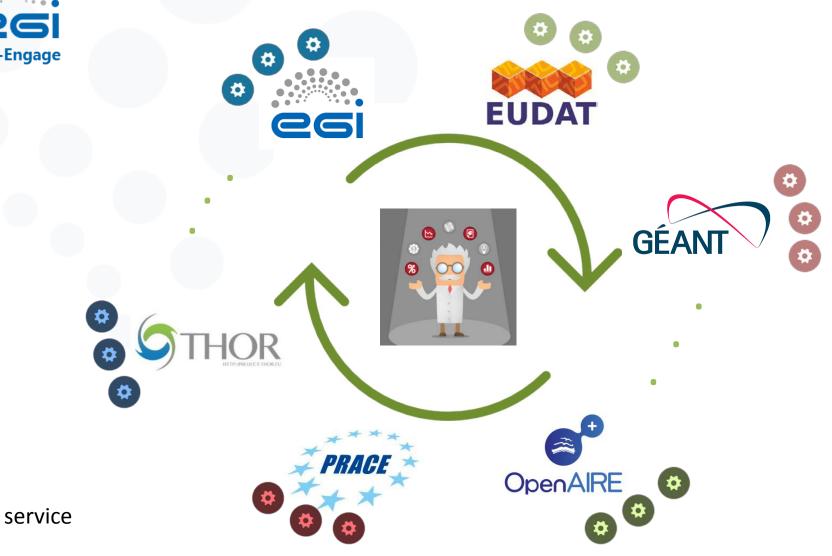
- Why "a Joint Service Catalogue for Research"
- Work done so far
 - e-Infrastructure Catalogue of Services (CoS)
- Next steps
 - e-InfraCentral project
- Future perspectives
 - e-Infrastructure Commons
 - European Open Science Cloud



What do we mean by "Joint Service Catalogue for Research"?

- Structured information about all services
 - including those available for deployment
- From independent service providers
 - Focus on e-Infrastructures
- Captured from the customer/user viewpoint
 - To help them understanding functionalities, value, payment models, contact points, ordering and request processes, etc
- That support the production or dissemination of research outputs







Benefits

- For customers & users
 - Simplify discoverability of services
 - Better understand their relevance
 - Identify similar offerings or gaps
- For service providers
 - Provide shared language for service descriptions
 - Increase visibility of service offerings
- For funding agencies
 - Improve communication of what they support
 - Supports evaluation of policy impact



Challenge

- Various service offerings from different (federated) e-infrastructure providers
- Different ways to define/describe a service
- Different vocabulary about service management
- Different processes to manage service portfolios
- Different standards/frameworks available
 - ISO20K, ITIL, FitSM, ...



Report on work to create a framework to describe a catalogue of services for e-Infrastructure (bottom-up and best effort initiative)

















Main phases

- Dec 2015 Mar 2016
 - Working group created, several calls organised
- April 2016
 - Workshop at EGI Conference
 - https://indico.egi.eu/indico/event/2875/session/15/?slotId=0#20160406
 - Presenting service offerings
 - Sharing best practices on service portfolio management
 - Discussing a common model
- October 2016
 - Session at DI4R Conference
 - https://www.digitalinfrastructures.eu/content/joint-service-catalogue-research
 - Disseminating the work done
 - Discussing the way forward with related initiatives (e.g. MERIL) and other stakeholders



Approach

- Understand the baseline
 - Current practices and processes in place to manage service offerings
- Reusing existing conceptualisations
 - FitSM: standard for lightweight ITSM
 - ISO 20000: Service management system requirements
 - UK Government Service Design Manual
- Validate with examples
 - From the following initiatives:
 - THOR, EGI, EUDAT, GEANT, OpenAIRE, BlueBRIDGE



Current Results

Conceptual model

e-Infrastructure Catalogue of Services

Document Information

Date: 04/04/2016

Authors: Sergio Andreozzi, Donatella Castelli, Angela Dappert, Tiziana Ferrari, Małgorzata

Krakowian, Johannes Reetz, Andres Steijaert

Abstract: This document outlines a framework for creating a Catalogue of Services (CoS),

primarily intended for e-Infrastructure services. It describes services at a high level and makes them discoverable. It can also be used to identify overlapping

efforts or gaps in the catalogued service landscape.

The goal of this document is to define a framework that can be used to specify and implement a concrete catalogue. It is not a catalogue itself and does not

list or describe services.

DOI 10.5281/zenodo.165467

https://doi.org/10.5281/zenodo.165467

Examples to test the model

ate: 1/04/16			
, - ,			
uthors:			
	a Dappert, Johannes Reetz, Andres Steijae	ert 	
OI: 0.5281/zenodo.16546			
0.5281/zenodo.16546			
Service name	Cloud compute	Assign Persistent Identifier	B2SAFE
Service ID			
Service webpage	https://www.egi.eu/services/cloud-	https://www.datacite.org/	https://eudat.eu/services/b2safe
	compute/		
0	501	D-4-0%-	FURAT
Service provider	EGI	DataCite	EUDAT
Service contact	support@egi.eu	https://www.datacite.org/contact	https://eudat.eu/support- request?service=B2SAFE
			request/service=b25AFE
	Cloud Compute gives you the ability to	A service to assign persistent identifiers	Highly available multi-purpose service
	deploy and scale virtual machines on-	to data sets backed-up by a governance	that allows community and department
	demand. It offers guaranteed	structure	repositories to implement data
	computational resources in a secure		management policies on their research
	and isolated environment with standard		data across multiple administrative
	API access, without the overhead of		domains.
	managing physical servers.		The service provide an abstraction layer
			which virtualizes large-scale data
	Cloud Compute offers the possibility to		resources e.g. to
	select pre-configured virtual appliances		guard against data loss in long-term
	(e.g. CPU, memory, disk, operating		archiving and preservation
	system or software) from a catalogue		Optimize access for users from
	replicated across all EGI cloud		different regions • Bring data closer to powerful
	providers.		computers for compute-intensive
			analysis
			One usage example is the safe
			replication.

https://doi.org/10.5281/zenodo.165466



Service Model

Target groups

Customer group

User group

Identif. & contact

Service Name

Service ID

Service Contact

Service Webpage

Provider

Service Provider

Agreement

Terms of Use

SLA

Service Condition

Payment Model

Classification

Service Area

Service Function

Service Type

Description & Value

Service Description

Service Value

Service Phase



Classification

Type of Service Area resource Computing Storage Data **Networking** Persistent identifier

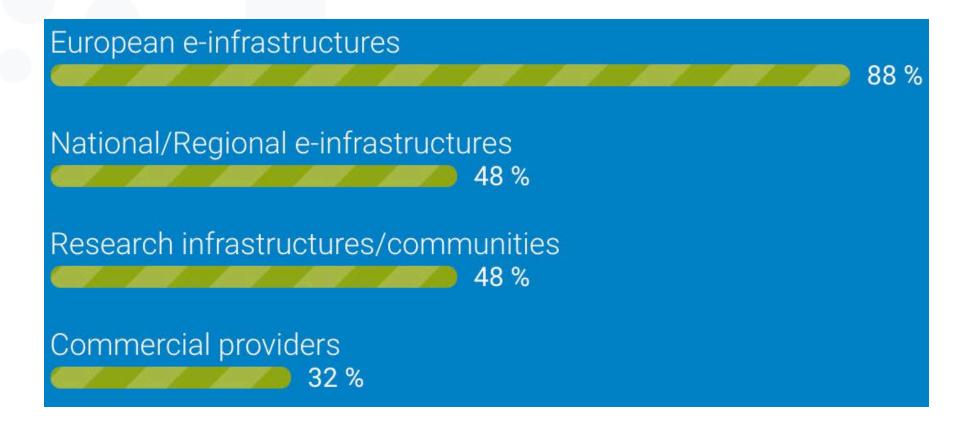
Named set of capabilities

Service Type Object storage VM management IP connectivity Identity management Attribute management

Individual Service **Function** ability e.g. federated authentication e.g. start VM e.g. attach block storage e.g. create PID e.g. data replication



Question at DI4R: What should be the scope of the Joint Service Catalogue for Research? Services from ...

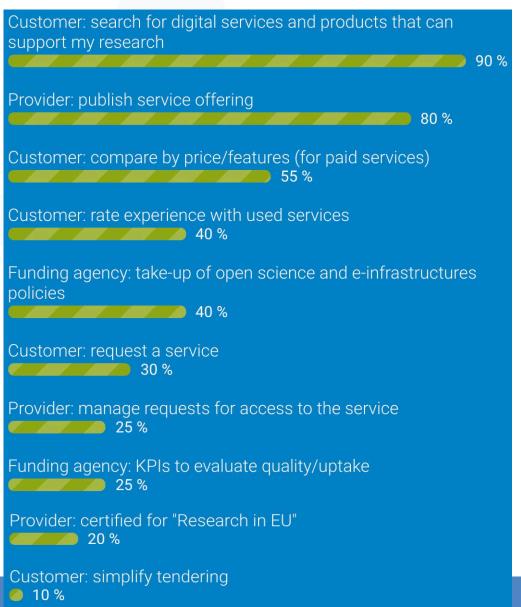


Answers from the audience: 25 replies



Question at DI4R: Which functions should be supported by the Joint Service Catalogue?

Answers from the audience: 20 replies





Open questions

Scope

- Choice between integrated view of a service from a federation vs.
 concrete instances from individual provider
- Types of providers eligible to appear
- Functionalities to be supported (e.g., search, request, ...)

Governance

- How to decide who is eligible to be listed
- How to resolve conflicts

Management

- Who is responsible to ensure quality and freshness of information
- How to integrate service catalog management processes



Next Steps: e-InfraCentral Project



eInfraCentral: the project

- H2020 CSA action under the INFRASUPP-03-2016 call
- Duration: 30 month Start date: Jan 2017
- Consortium: 9 partners
 - including 5 major e-infrastructures
 - a representative from e-IRG





















HELLENIC REPUBLIC
National and Kapodistrian
University of Athens







eInfraCentral: the Mission

- To ensure that, by 2020 a broader and more varied set of users (including industry) discovers and accesses the existing and developing einfrastructure capacity
- A common approach to defining and monitoring e-infrastructures services to increase the uptake of and enhance understanding of where improvements can be made in delivering einfrastructure services



eInfraCentral: 3 core objectives

- 1. Structure an open and guided discussion between e-infrastructures to consensually define a common catalogue for their services
- 2. Develop a **single entry point (one-stop shop) for end users** to **browse the service catalogue**, and enhance the monitoring of key performance indicators that focus on availability and quality of services and user satisfaction
- 1. Draw policy and sustainability lessons for the future development of a European e-infrastructure 'market place' as an extension of the common service catalogue and portal so that it includes a much broader range of e-infrastructures and services



eInfraCentral: first steps

- End 2016
 - Project advisory board set-up and liaison with e-IRG work planned
- Jan 2017
 - Working groups and consultation with users including launch of survey on requirements
- Spring 2017
 - Assessment user group established
- Summer 2017
 - Service catalogue portal prototype release



Another piece of related work: **EGI-Engage study on Procurement**

- The EGI-Engage project is conducting a study on cross-border procurement of e-Infrastructures services
 - Leader: CERN
 - 4 RIs involved: DARIAH, EPOS, BBMRI and LifeWatch
 - Focusing on opportunities, barriers, use cases and best practices
 - Essential building block to design business models for the EOSC
 - The report will be ready at the end of February 2017
- Proposal:
 - March 2017: e-IRG to disseminate the report to and solicit feedback:
 - e-IRG delegates: to understand MS funding strategies to support e-Needs
 - ESFRI projects: to understand e-Needs in relationship to business models
 - Jun 2017: session at e-IRG workshop in Malta to discuss results



Future Perspectives



Joint Service Catalogue and the e-Infrastructure Commons

From the e-IRG roadmap 2016 (draft v4)

- The use of a marketplace as a single point of access to all e-Infrastructure services and tools
- The marketplace can make use of several technologies and services, ..., a searchable service catalogue and ...

The work on the Joint Service Catalogue can be an essential building block of the searchable catalogue for the e-Infrastructure Commons



Joint Service Catalogue and the European Open Science Cloud

- EOSC: federated, globally accessible environment where researchers, innovators, companies and citizens can publish, find and re-use each other's data and tools for research, innovation and educational purposes
 - P4: Frame the EOSC as the EU contribution to an Internet of FAIR
 Data and Services underpinned with open protocols
 - G4: Federate the gems

The work on the Joint Service Catalogue can be expanded to include the services of the EOSC that comply with the Rules of Engagement



Summary

- Joint service catalogue for research
 - Integrated customer view of service offerings from multiple e-infrastructures providers
 - Simplify finding services
- "e-Infrastructure Catalogue of Services"
 - Common conceptual service model
 - Alignment of language & thinking about services
- eInfraCentral project
 - From concept to implementation
- Medium/Long term goal
 - e-Infrastructure Commons
 - European Open Science Cloud

Many thanks to all who have contributed this work, in particular:

- EGI: Sergio Andreozzi, Tiziana Ferrari, Sy Holsinger, Małgorzata Krakowian
- EUDAT: Rob Baxter, Alexis Jean-Laurent, Johannes Reetz
- GEANT: Annabel Grant, Matthew Scott, Andres Steijaert
- OpenAIRE/BlueBRIDGE: Donatella Castelli, Pasquale Pagano
- PRACE: Giovanni Erbacci
- THOR project: Angela Dappert
- EFIS: Alasdair Reid
- MERIL: Julija Baginskaite, Ana Helman
- FitSM: Owen Appleton

Thank you for your attention





