

ENVRI-FAIR

Short description	The ENVRI-FAIR IT development WP (WP7) is responsible for co-designing, developing, testing, and validating the common services developed in the ENVRI-FAIR RIs, together with WP8-11 for 4 specific environmental sub-domains. The proposed project aims to use EOSC services (Cloud, DevOps, Jupyter, and Storage) to enhance the development of ENVRI common operations and their future deployment in the EOSC environment.
Type of community	Others (EaP)
Community contact	Zhiming Zhao
Interviewer	Andrea Manzi
Date of interview	2020. 3. 4
Meetings	
Supporters	

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User stories

Instruction

Requirements are based on a user story, which is an informal, natural language description of one or more features of a software system. User stories are often written from the perspective of an end user or user of a system. Depending on the community, user stories may be written by various stakeholders including clients, users, managers or development team members. They facilitate sensemaking and communication, that is, they help software teams organize their understanding of the system and its context. Please do not confuse user story with system requirements. A user story is an informal description of a feature; a requirement is a formal description of need (See section later).

User stories may follow one of several formats or templates. The most common would be:

"As a <role>, I want <capability> so that <receive benefit>"

"In order to <receive benefit> as a <role>, I want <goal/desire>"

"As <persona>, I want <what?> so that <why?>" where a persona is a fictional stakeholder (e. g. user). A persona may include a name, picture; characteristics, behaviours, attitudes, and a goal which the product should help them achieve.

Example:

"As provider of the Climate gateway I want to empower researchers from academia to interact with datasets stored in the Climate Catalogue, and bring their own applications to analyse this data on remote cloud servers offered via EGI."

No.	User stories
US1	The project goal is to deploy a DevOps environment, with necessary capacity of Cloud Infrastructures and services for testing ENVRI-FAIR development. The project aims to automate the testing/integration of the FAIR data services developed by the teams in ENVRI-FAIR.

Use cases



Instruction

A use case is a list of actions or event steps typically defining the interactions between a role (known in the Unified Modeling Language as an actor) and a system to achieve a goal.

Include in this section any diagrams that could facilitate the understanding of the use cases and their relationships.

Step	Description of action	Dependency on 3rd party services (EOSC-hub or other)
UC1	Automated Cloud execution for data workflow : In VREs, scientific workflow (including workflow logic, services, and data objects) need to be executed in Cloud environment dynamically at runtime. The VRE needs to automate those steps: virtual infrastructure (networked VM) provisioning, software deployment (Docker or RESTful services), workflow execution, runtime monitoring, and provenance.	EGI Cloud Compute
UC2	Continuously testing and integration for ENVRI services : ENVRI Knowledge Base ontology/demonstrator are described as RDF files in the git repositories, each update will trigger an automated testing/integration activities via the DevOps pipeline	Jelastic PaaS EGI Dynamic DNS
UC3	Notebook based environment for FAIR data access and processing : ENVRI users (users of RIs/VRE) will perform their scientific research using data, software service and models. They often perform such kinds of activities using Jupyter notebook.	EGI Notebooks (Community instance) EGI DataHub

Requirements


Technical Requirements



Instruction

- Requirement number: Use numbers RQ1, RQ2, RQ3, ...
- Requirement title: Use a short but descriptive title. Use the same title in the Jira ticket 'Summary' field
- Link to requirement JIRA ticket: Open a ticket in <this JIRA queue <https://jira.eosc-hub.eu/projects/EOSCWP10/issues/EOSCWP10-4?filter=allopenissues>> (click on 'CREATE' button in the middle-top of JIRA)
- Source use case: Refer back to the use cases above (UC1, 2, ...)

Requirement number	Requirement title	Link to Requirement JIRA ticket	Source Use Case
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Example	EOSC-hub to provide an FTS data transfer service	 EO SC WP 10- 21 - Jira 	UC1
RQ1	Create the VO vo.envri-fair.eu to grant users access to resources		UC1, UC2, UC3
RQ2	Provide 4VMs with 4 cores, 8G memory and 100GB storage		UC1
RQ3	Provide 1 VM with 12 cores,16GB RAM and 1.5 TB storage.		UC1
RQ4	Provide 2 VMs for Jelastc Installation (1 for infrastructure services, 1 for user services), 1 VM 8 vCPU cores, 24 GB RAM, 1TB storage, 1 VM 12 vCPU cores, 24GB RAM, 1.5 TB storage Multiple Public IPs associated to the VMs , create dedicated domain with delegation (j.fedcloud.eu)		UC2
RQ5	Jelastc installation performed by Jelastc engineers		UC2
RQ6	Provide 4 VMs for the Kubernetes cluster hosting the EGI Notebook instance, with 8 vCPUs, 16 GB RAM and 120GB storage each		UC3
RQ7	Deploy an instance of the EGI Notebooks for the community		UC3
RQ8	Provide storage on a EGI DataHub OneProvider available from the EGI Notebooks. 1 VM, 8vCPU, 32GB RAM and 50 GB storage , 10 TB via NFS		UC3

Capacity Requirements

EOSC-hub services	Amount of requested resources	Time period
EGI Cloud Compute	<ul style="list-style-type: none"> Number of virtual CPU cores: 78 Memory per core (GB): 3.5 Local disk per VM (GB): 50 Online Storage: 15TB 	2020. 4. 1 2020. 12. 31
EGI DataHub	Oneprovider installed on EGI Cloud compute resources	2020. 4. 1 2020. 12. 31
Jelastc PaaS	Jelastc PaaS installed on EGI Cloud compute resources	2020. 4. 1 2020. 12. 31
EGI Notebooks	EGI Notebooks installed onn EGI Cloud Compute resources	2020. 4. 1 2020. 12. 31