

# eInfraCentral Portal

eInfraCentral APIs for the Service Provider

























## What is elnfraCentral?





Coordination and Support Action (CSA) in Horizon 2020 Programmme



9 organisations, including 5 major e-infrastructures (EGI, EUDAT, PRACE, GEANT, OPENAIRE)



Operations from January 2017 to June 2019



# **Core objectives & Outputs**





A Common Service Model for service management and exchange



**eInfraCentral portal**: a gateway for end-users to a **harmonized Catalogue of services** 



**Tools & Recommendations** for Service providers for the development of the EOSC **marketplace**.

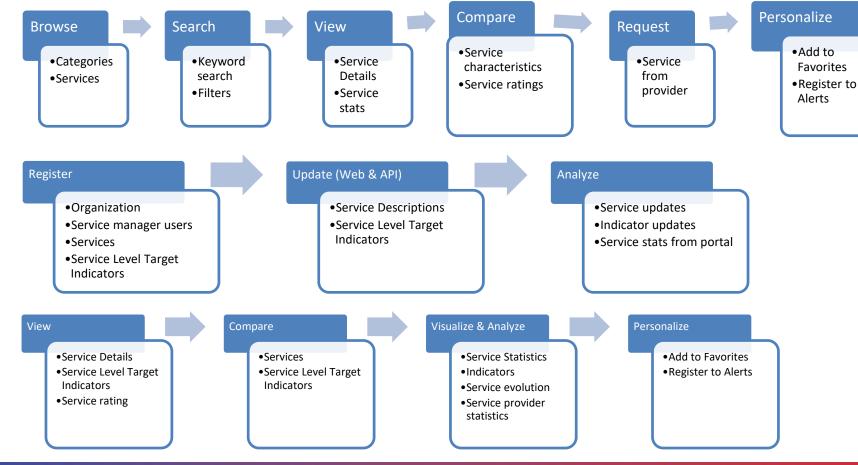






Highlighted Services

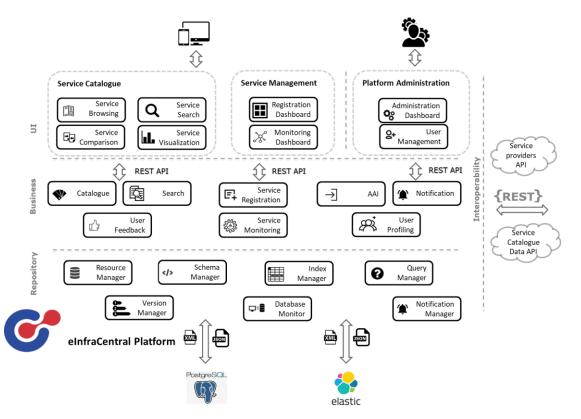






### eInfraCentral Architecture









## eInfraCentral API Methods for Service providers

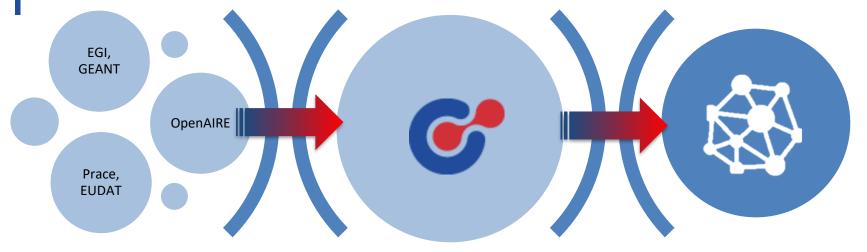
**Exchanging data – timeliness and transparency** 





# eInfraCentral Open API





Service providers

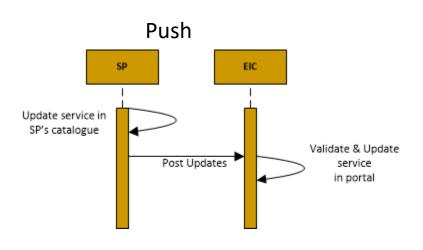
Service Level Target Indicators Service Description Details eInfraCentral

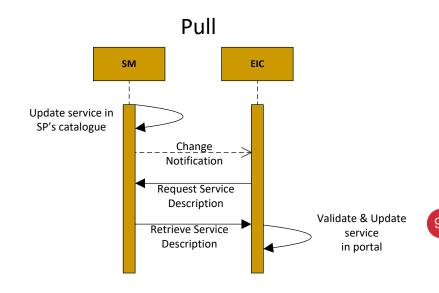
Service catalogue consumer

Service classification and vocabularies Service Analytics collected within eInfraCentral (List of) Service Descriptions



## **APIs - Definitions for an all inclusive approach**







## **Common Service Model**

### Service Description Template v1.12

- Based on priori modelling efforts (FitSM, FedSM,e-IRG KPIs, TMForum)
- EInfraCentral proposition for
  - Service Management
  - Service Exchange between different service catalogues







#### Introductory note on Service Description Template v1.12

einfracentral is aiming to create a harmonised service catalogue view across a number of European einfrastructures. Each of those einfrastructures has their own service catalogue, perhaps with customer views and internal views, and, potentially, service portfolios. einfracentral intends to harmonise the parts of the service description aiming to create a homogenised customer view of the individual service catalogues; so, information which might be considered internal view to a service catalogue or portfolio is not of interest to einfracentral.

Nonetheless, eInfracentral provides this complete Service Description Template for an entry in a Service Portfolio or Catalogue in case an eInfrastructure would like to use this template for all their Service Management Processes. Even though it is not the intention of einfracentral to homogenise other Service Management Processes, it would be very effective if eInfrastructures adopt a common Service Description Template, a common vocabulary and a single service management standard.

The Service Description Information is organised in various blocks of information: Basic Service Information, Service Classification Information, Service Support Information, Service Contractual Information, Service Performance Information, Service Operations Information, Advanced Service Information, Service Business Case Information, Advanced Service Information, Service Performation, Servic

The Service Description Template provides a definition, potential values and their format (if any) as well as information related to whether the information is related only to the catalogue or to the overall portfolio (Use column) as well as whether the attribute is mandatory or optional for the information of a number of features in the einfracentral platform/common catalogue.

- As it regards the "Visibility" column of the Service Description Template:
- 1) Visible to Customers (Catalogue/Portfolio) refers to the service information that may be presented to a potential customer/user in a "live" manner at the einfracentral platform/common catalogue;
- Internal to Service Provider (Portfolio) refers to additional service information which is only available to designated staff of the service provider required for the service management;
- 3) Other refers to all other service information required by other service stakeholders.

Furthermore, this file provides a Service Presentation Template. This is a mock-up of how the service information could be presented in a service portal/ listing/marketplace to a customer/user. This allows for visualising the interrelations and complementarity of the service information.

Finally, the actual form for the service description required by eInfraCentral platform/common catalogue is provided in the Service DescriptionforCatalogue worksheet.

https://github.com/eInfraCentral/docs/blob/master/eInfraCentral-JNP-ServiceDescriptionTemplate.xlsx



# Service Description Template Enables Service Representation & Classification



## Building blocks

- Basic Service Information (service id, name, provider, description, url, etc)
- Service Classification Information (category \ subcategory, TRL, lifecycle status, etc.)
- Service Support Information (Order url, training material, helpdesk, etc)
- Service Contractual Information (Price, SLA, TermsOfUse, etc)
- Service Performance Information (Availability, Usage, etc.)





### http://beta.einfracentral.eu/openapi

#### elnfraCentral

External APIs for the eInfraCentral registry

provider-controller : Provider Controller	Show/Hide   List Operations   Expand Operations
service-controller : Service Controller	Show/Hide   List Operations   Expand Operations
statistics-controller : Statistics Controller	Show/Hide   List Operations   Expand Operations
vocabulary-controller : Vocabulary Controller	Show/Hide   List Operations   Expand Operations

[ BASE URL: / , API VERSION: 0.0.1-SNAPSHOT ]

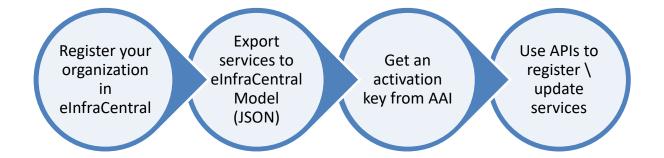


## **Service Controller**

service-controller : Service Controller	Show/Hide List Operations Expand Operations	
POST /service	Adds the given infraService.	
PUT /service	Updates the infraService assigned the given id with the given infraService, keeping a history of revisions.	
GET /service/all	Filter a list of services based on a set of filters or get a list of all services in the eInfraCentral Catalogue	
GET /service/by/{field}	Get all services in the catalogue organized by an attribute, e.g. get infraService organized in categories	
GET /service/byID/{ids}	Get a list of services based on a set of IDs	
GET /service/history/{id}	Get all modifications of a specific infraService providing the infraService ID and a version identifier	
/service/publish/{id}/{version}	Set a service active or inactive	
POST /service/validate	/service/validate Validates the service without actually changing the respository	
GET /service/{id}	Get the most current version of a specific infraService providing the infraService ID	
GET /service/{id}/{version}	Get the specified version of an infraService providing the infraService ID	



# Are you a service provider? Steps to Register new services through API





#### 15

## Using the API to REGISTER a new service



http://beta.einfracentral.eu/developers

- Step 1. Start from the documentation
  - http://beta.einfracentral.eu/openapi
  - https://github.com/eInfraCentral/docs/blob/master/eInfraCentral-JNP-ServiceDescriptionTemplate.xlsx
- Step 2. Register your organization in eInfraCentral
  - Signup as a new User AAI
  - Create you new Service provider, follow the EIC registration procedure
- Step 3. Export services to JSON according to Service Description Template
  - See example here. <a href="http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/addUsingPOST">http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/addUsingPOST</a>



#### 16

## Using the API to REGISTER a new service



## http://beta.einfracentral.eu/developers

- Step 4. Get an activation key for using the API methods and authorize it in the API page
  - https://aai.eosc-portal.eu/eic-api/token.php
- Step 5. Validate the service call
  - Validate the service is well formed . <a href="http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/validateUsingPOST">http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/validateUsingPOST</a>
- Step 6. Make a POST \ Service call
  - upon success you get a new service ID . <a href="http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/addUsingPOST">http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/addUsingPOST</a>
- Step 7. Check that the new service is registered
  - eInfraCentral portal
  - Get service by ID. <a href="http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/getSomeUsingGET">http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/getSomeUsingGET</a>



## Using the API to UPDATE a new service



http://beta.einfracentral.eu/developers

- Step 8. Make a Put \ Service call
  - upon success you get the service ID . <a href="http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/updateUsingPUT">http://beta.einfracentral.eu:8080/eic-registry/swagger-ui.html#!/service45controller/updateUsingPUT</a>
- Step 9. Check that the service is updated
  - eInfraCentral portal
  - Get service by ID





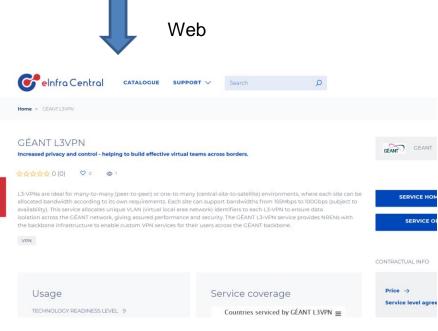
# Using the API to Get Service Information http://beta.einfracentral.eu/developers



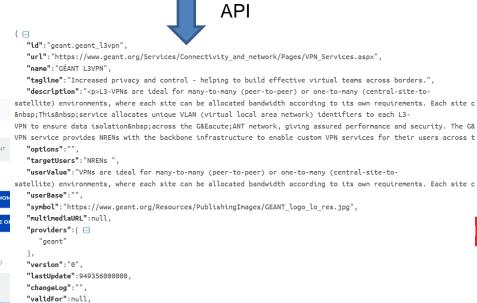
- No authentication is required
- http://beta.einfracentral.eu:8080/eic-registry/service/{serviceID}/ gets the service with id=Service ID, e.g.,
- Service ID ={ProviderId.serviceTitle}, e.g.,
  - http://beta.einfracentral.eu/api/service/geant.geant | 13vpn retrieves the Service titled "GÉANT L3VPN" by GÉANT Provider.



#### http://beta.einfracentral.eu/service/geant\_geant\_l3vpn



#### http://beta.einfracentral.eu/api/service/geant.geant\_l3vpn



"lifeCvcleStatus": "LifeCvcleStatus-Production".

"trl": "TRL-9".



## ... beta.eInfraCentral.eu

For Developers & API <a href="https://beta.elnfraCentral.eu/developers">beta.elnfraCentral.eu/developers</a>







# Thank you!















