

# Using the Chipster server hosted by the EGI Applications on Demand service

EGI has created the *Applications on Demand (AoD)* service in order to help the large number of researchers who don't have dedicated access to computational resources. You can request access to AoD via the EGI Marketplace (<https://marketplace.egi.eu>).

## Part I: Ordering EGI access to Chipster

This section describes how you can access the EGI Marketplace, log in, navigate the EGI Applications on Demand service, and submit an order to access Chipster.

1. Go to the EGI Marketplace home page <https://marketplace.egi.eu>, see Fig. 1

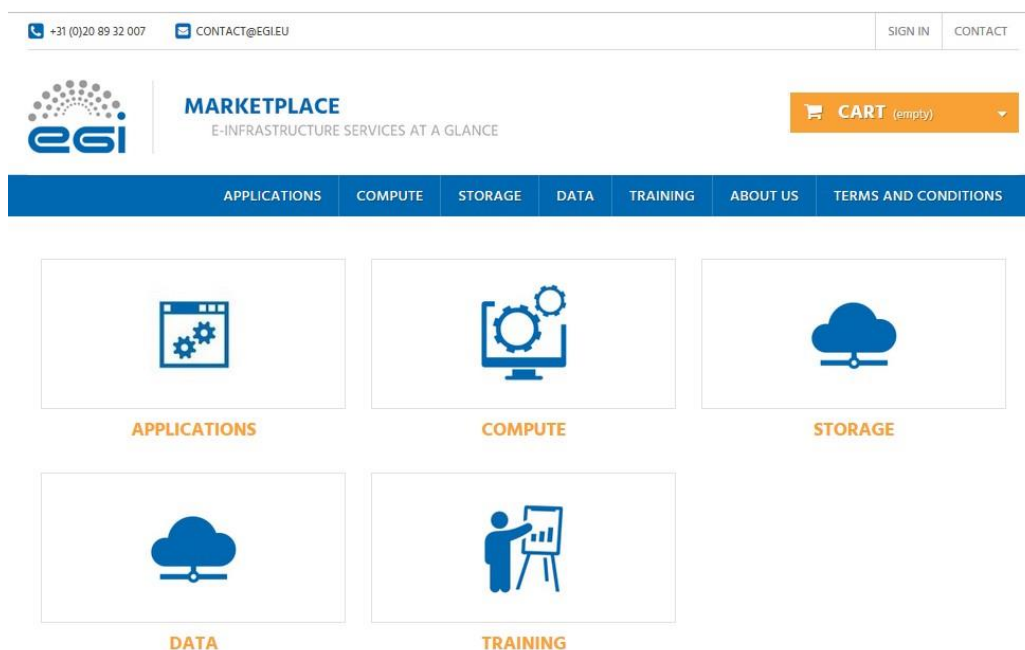


Figure 1. Home page of the EGI Marketplace


2. You can discover services navigating on the service tree from the homepage.
3. Start registration by clicking the “Sign in” button at the top. During the first login, you are requested to register. Registration uses the EGI AAI Check-In authentication process, which allows to use many different authentication methods, including:
  - home organization account through EduGain
  - ELIXIR identity
  - X509 certificates
  - EGI SSO
  - Social credentials (e.g. Facebook, LinkedIn and Google)
4. Part of your information is collected by the EGI AAI Check-In service, you can provide the rest of the information manually through the following form.
5. After registration select the service category “Applications” and click on the “Applications on Demand”. You will be redirected to the service page (figure 2) that provides:
  - A short description of the service
  - Links to the terms of use, the default SLA, and more additional information
  - All the available service options

Applications > Applications on Demand BETA

## APPLICATIONS ON DEMAND BETA

Applications on Demand BETA

### VIEWED PRODUCTS



**Galaxy**  
Galaxy is an open, web-based platform...

## Applications on Demand BETA

Applications on Demand gives you access to online applications and application-development and hosting frameworks to support compute-intensive data analysis.

**Features:**

- User-friendly access to online applications that can be executed on parallel architectures (EGI Cloud and High-Throughput Compute)
- Application development and hosting frameworks where custom applications can be executed on EGI Cloud Compute and High-Throughput Compute services
- User support is available by an international network of consultants.

**Development frameworks:**

- The **WS-PGRADE Portal** (Web Services Parallel Grid Runtime and Developer Environment Portal) is a Liferay-based web portal. WS-PGRADE provides a 'job wizard' interface for the user. Through this wizard the user can define, with a few clicks, a computational job that WS-PGRADE will execute on cloud resources of the EGI Applications On Demand infrastructure. The job can be easily scaled up into a parameter study, executing the same simulation on many different input sets. WS-PGRADE takes care of instantiation of a Virtual Machine image for jobs, sending user input for the jobs, and retrieving the results of computations.
- The **Elastic Cloud Computing Cluster (EC3)** is a platform that allows creating elastic virtual clusters on top of Infrastructure as a Service (IaaS) providers. Through a 'job wizard' interface, the user can configure the cluster with a pre-defined set of applications that will be deployed in the clouds underpinning the EGI Applications On Demand infrastructure. The installation and the configuration of the cluster are performed by means of the execution of Ansible receipts. The cluster configured by EC3 is private: as soon as it is configured you will have root access to the environment, and can setup and configure the cluster installing additional libraries and software to their needs.
- The **EGI VMops dashboard**, a framework allows users to perform Virtual Machine (VM) management operations on the EGI Federated Cloud. The graphical interfaces of the dashboard allows the user to choose VMs from the AppDB Catalogue, to define an execution topology for them, and then to instantiate them on infrastructure as a service clouds.


**Featured use cases:**

- **New viruses implicated in fatal snake disease** how the Chipster platform helped virologists to make sense of millions of virus genomes

[Terms of use](#) / [SLA](#) / [Access policy](#)

Figure 2. The Applications on Demand service page in the EGI Marketplace.

6. Click on “Add to Cart” button as shown in Figure 3.



**Chipster**  
Open source platform for data analysis

**Chipster**

Chipster is a user-friendly analysis software for high-throughput data. It contains over 300 analysis tools for next generation sequencing (NGS), microarray, proteomics and sequence data. Users can save and share automatic analysis workflows, and visualize data interactively using a built-in genome browser and many other visualizations.

**To access the application:**

1. Add the application to the cart.
2. Go to the cart and submit your order.
3. You will receive an email summarising your order.
4. You need to wait until your request is approved.
5. When you receive email confirmation of approval: go to the [CSGF portal](#).
6. Select the applications you want to run from the "Applications" menu.

NUMBER OF CPU HOURS  
1000

AMOUNT OF RAM PER CPU CORE  
4 GB

STORAGE CAPACITY  
100 GB

ACCESS TYPE  
Opportunistic

START OF SERVICE  
12/12/2017

NUMBER OF DAYS  
365

**ADD TO CART**

Figure 3. Add the service to the cart.

7. After the service has been added to the cart, the check-out process can start. **Each authenticated and authorized customer is offered a grant, providing a pre-defined quota of resources, which can be used to run application(s) of choice. The grant to run applications can be renewed upon request.** The shopping cart lists all the service(s) and related options selected, see Figure 4.

**Shopping-cart summary** Your shopping cart contains: 1 product



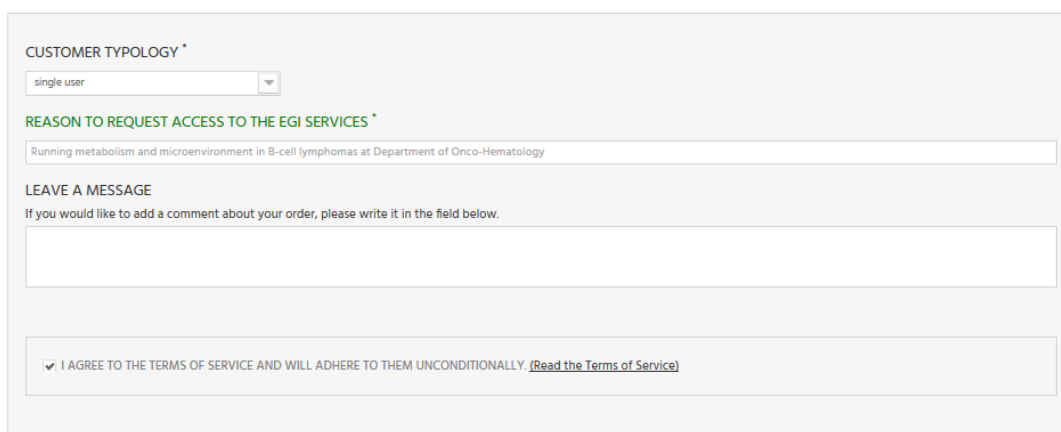
| Product   | Description  | Unit price |   | Total |
|---|--|------------|---|-------|
|  | <b>Chipster</b><br>Customization :<br><b>Number of CPU hours:</b> 1000<br><b>Amount of RAM per CPU core:</b> 4 GB<br><b>Storage capacity:</b> 100 GB<br><b>Access type:</b> Opportunistic<br><b>Start of service:</b> 12/12/2017<br><b>Number of days:</b> 365<br><b>Price:</b><br><a href="#">Load this customization</a> |            |  |       |
| <b>Total products</b>   |  |            |   |       |
| <b>TOTAL</b>  |  |            |   |       |

Figure 4. List of selected service(s) in the cart.

8. To proceed with the service order, you need to provide additional information for profiling the order (e.g. the motivation for requesting the Service, etc.). In order to do the profiling, need to be logged in the Marketplace, see Figure 5.

## 2 Additional service options



CUSTOMER TYPOLOGY \*

single user

REASON TO REQUEST ACCESS TO THE EGI SERVICES \*

Running metabolism and microenvironment in B-cell lymphomas at Department of Onco-Hematology

LEAVE A MESSAGE

If you would like to add a comment about your order, please write it in the field below.

I AGREE TO THE TERMS OF SERVICE AND WILL ADHERE TO THEM UNCONDITIONALLY [\(Read the Terms of Service\)](#)

## 3 Checkout

I confirm my order.

Figure 5. Service order profiling in the cart.

9. Click on the “Checkout” button to submit the service order.
10. **The EGI User Support operators process the orders in three working days, and you will be informed via e-mail about the outcome of this evaluation.** You can check the status of your order through the user dashboard. The dashboard shows the history of your service order(s) since your account was created.

## Part II: Creating Chipster account

When the service order has been accepted by the EGI Operators, you can access the Catania Science Gateway (<https://csgf.egi.eu/>) using the same method you used when you logged in to EGI Marketplace.

From the top menu, open the Applications menu and select *Life Sciences* → *Chipster*

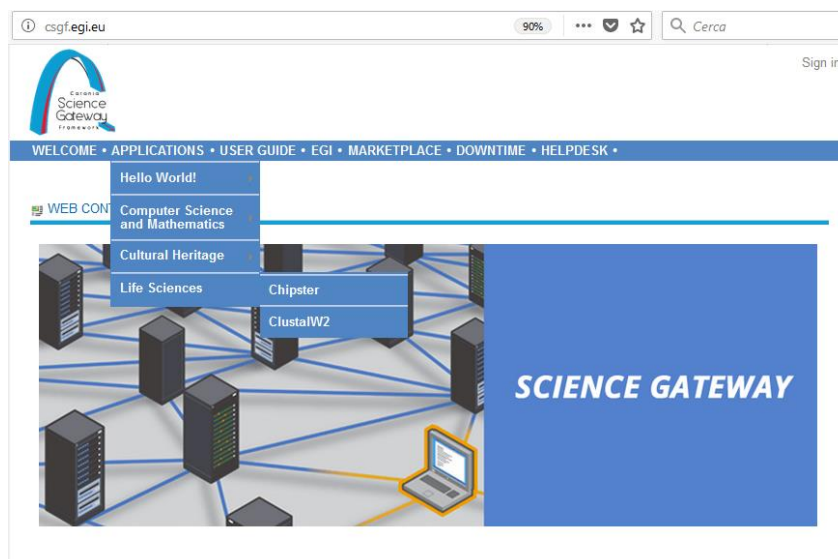


Figure 6. Chipster link in Catania Science gateway

This leads you to the Chipster page of *EGI Applications on Demand*. You need to click the **Create Chipster Account** link (not Launch Chipster). Then open the **Settings** page.

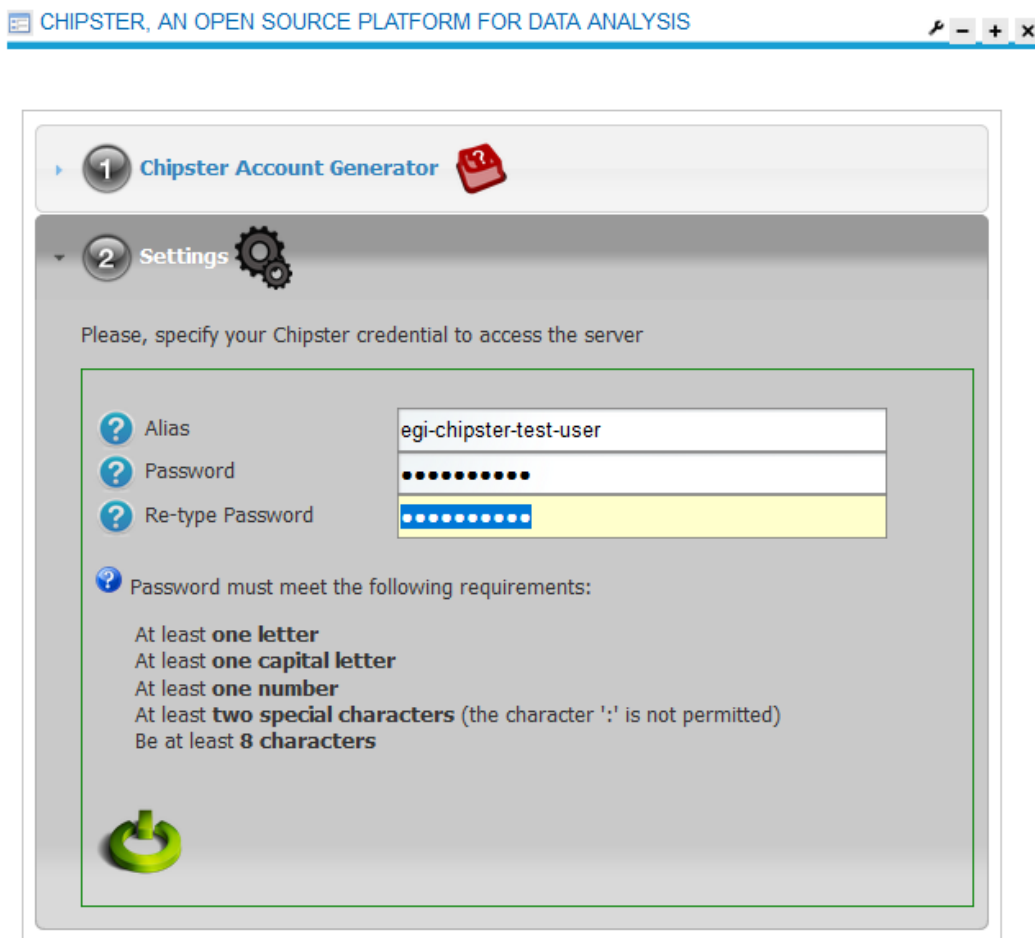
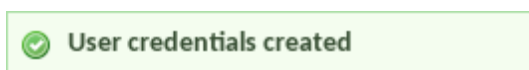


Figure 7. Settings tab of the Chipster page of Catania Science Gateway.

Define yourself an **Alias**, this is your user name in the Chipster server, and a **password**. Remember to obey the password requirements. As the password process used in this Chipster server is not fully encrypted, **YOU SHOULD NOT USE YOUR CHIPSTER PASSWORD FOR ANY OTHER SERVICE!**

After defining the password, press the green symbol in the lower left corner to submit the information. If the process was successful, you will get the following notification:



Your Chipster account will be valid for one month. During that period you don't need to login to the *EGI Applications on Demand* or *Catania Science Gateway*. Instead you just go to the Chipster launch page at

**<https://csgf.egi.eu/chipster>**

and start Chipster using the **Launch Chipster** link.

