Deployments HowTo: VM and Elasticsearch&Kibana

hands-on

Alessandro Costantini

alessandro.costantini@cnaf.infn.it

VM@INFN-Cloud

- **VM**

  The solution described in this guide consists on instantiation of a Virtual Machine instantiated on INFN-CLOUD infrastructure.

  The instantiation of a VM comes with the responsibility of **maintaining it and all the services it hosts**.

  Please read the INFN Cloud AUP in order to understand the responsabilities you have in managing this service.

- **Prerequisites**

  The user has to be registered in the INDIGO-IAM system for INFN-Cloud

  Sys-Admin nomination required

VM: How to deploy

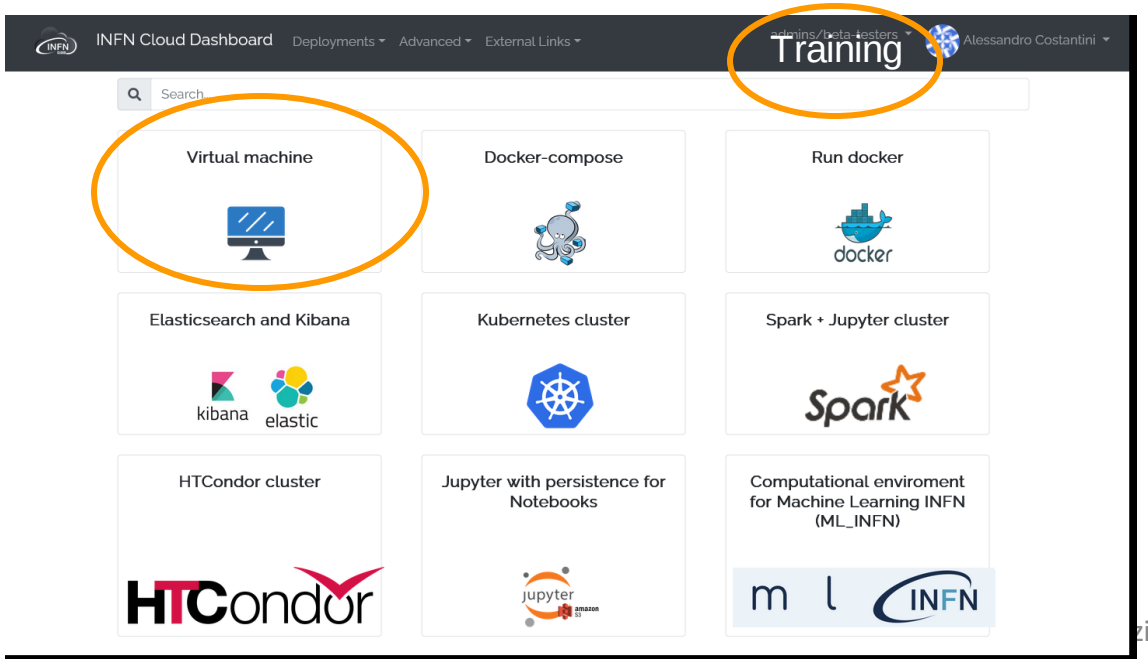
Use Chrome

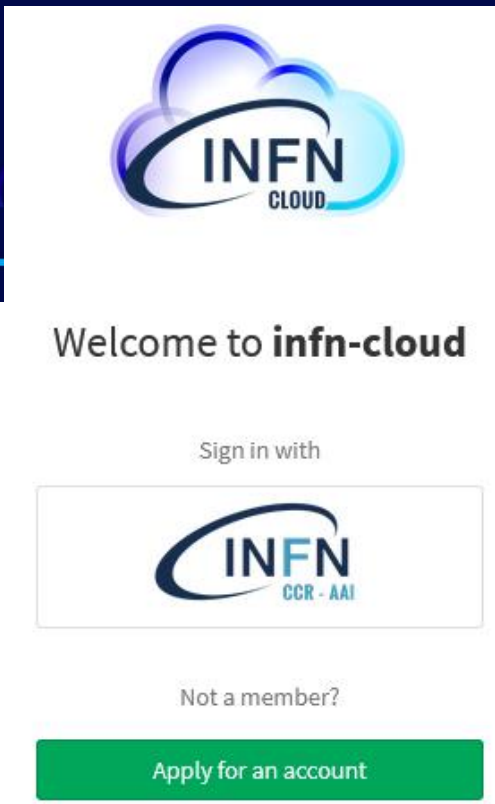
- **Step 1**

  Authenticating to the INFN-Cloud dashboard https://my.cloud.infn.it/

- **Step 2**

  Select the **VM deployment** and the right **group**

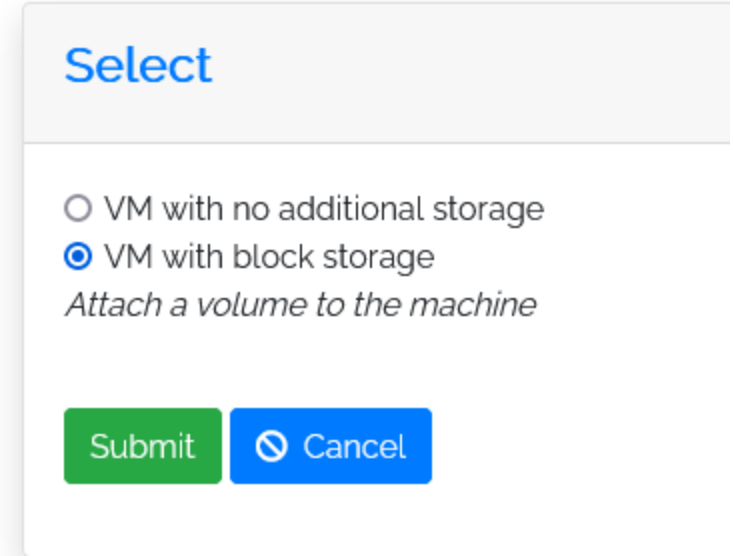




VM: basic configuration

Step 3

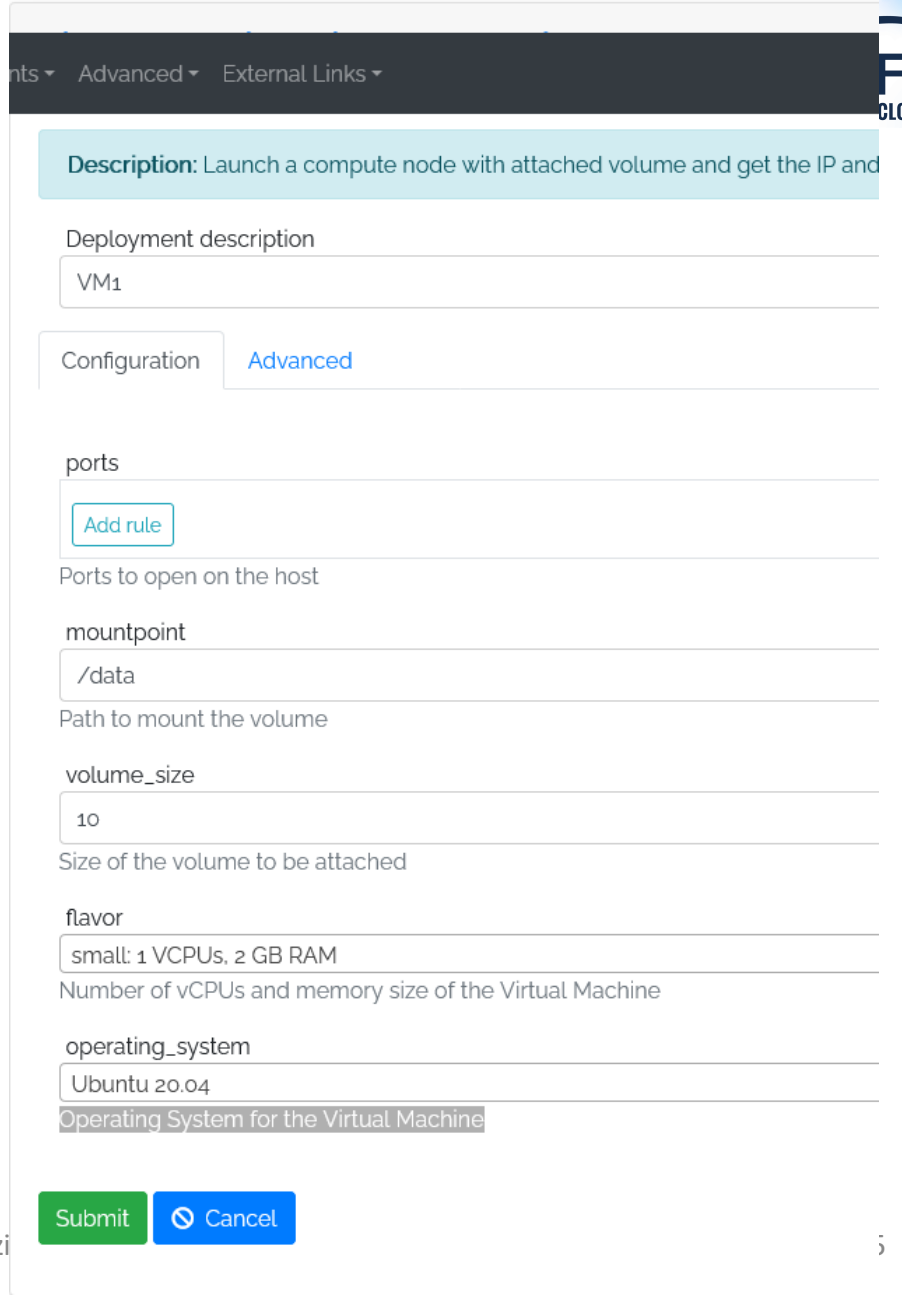
- **Select storage**
  - VM with no additional storage
  - VM with block storage



VM: basic configuration

Step 4

- **Deployment description**
  - A brief description of the deployment
- **Configuration TAB**
  - Ports
    - Service ports to be open on the new VM.
      Only the ssh port (22) is opened by default
  - volume_size
    - Size of the volume to be used to store the data (defalut 10GB)
  - mountpoint
    - Path to mount the data volume (default /data)
  - volume_size
    - Size of the volume to be used to store the data (defalut 10GB)
  - flavor
    - Number of vCPUs and memory size of the Virtual Machine
  - operating_system
    - Operating System for the Virtual Machine



VM: Advanced configuration

Step 5

Advanced TAB

Scheduling

Automatic (Default)

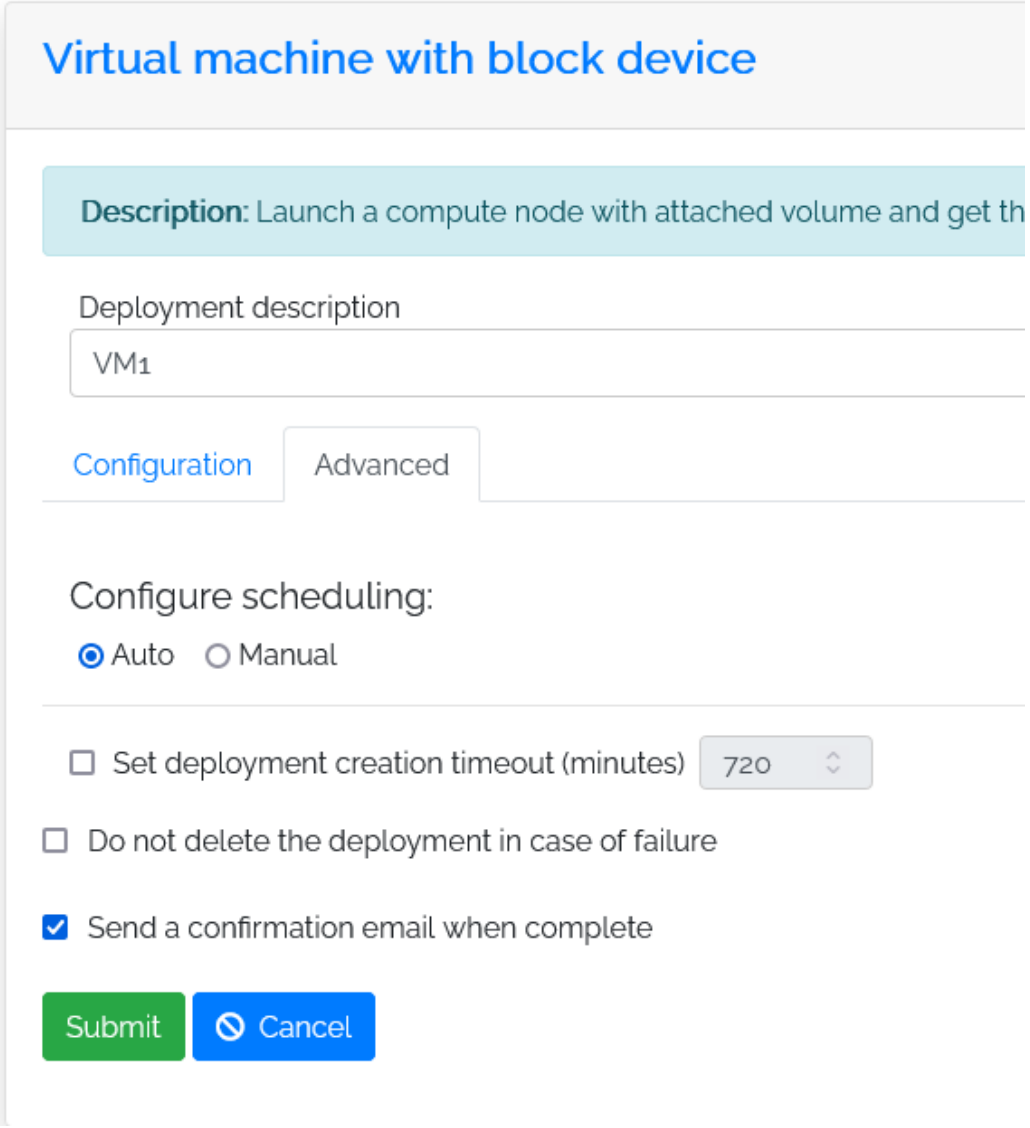
Manual

The following extra-settings can be set

Deployment creation timeout (minutes)

Do not delete the deployment in case of failure

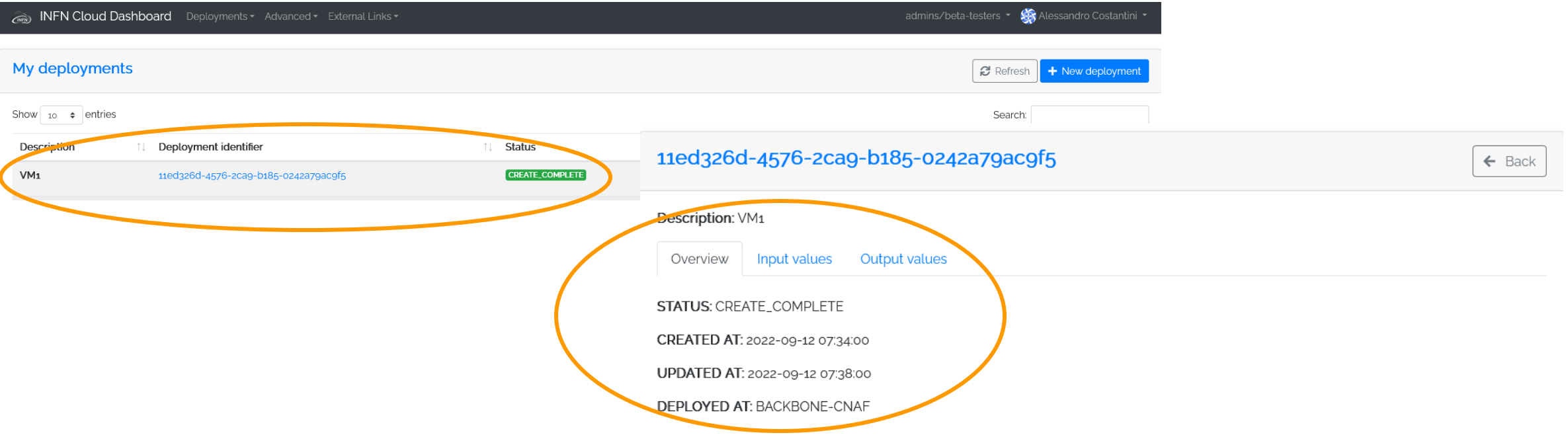
Send a confirmation email when complete



VM: Operate with the VM deployment

- **Step 6**

Once successful deployment completion, the user can reach the deployed VM configuration and endpoint



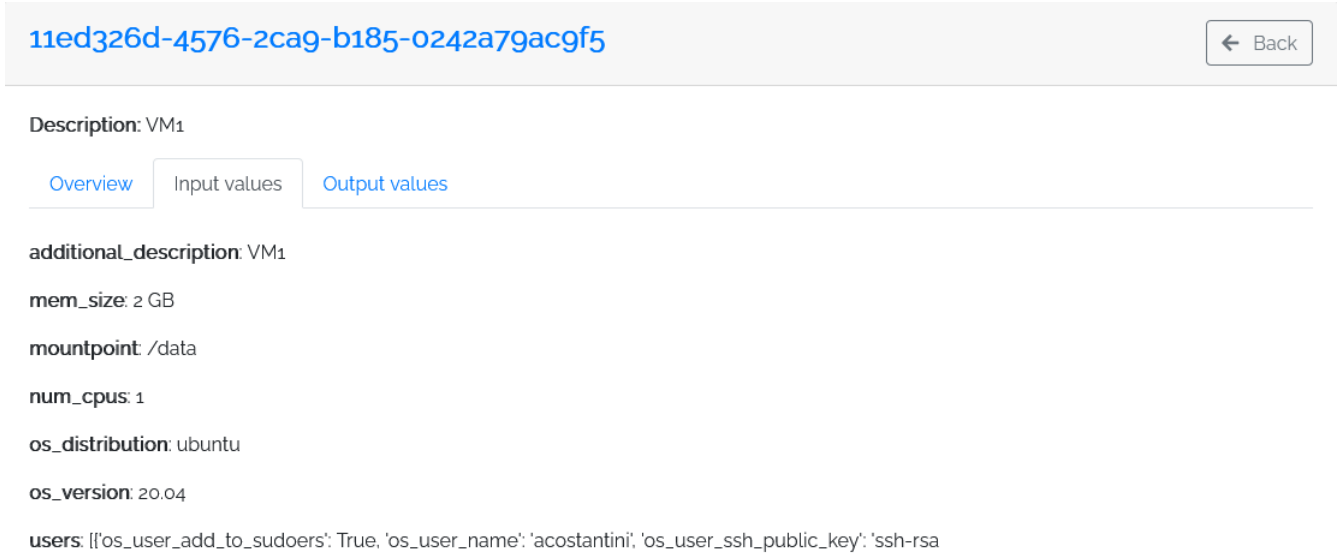
VM: Operate with the VM deployment

- **Step 7**

VM can be accessed by using the information available in the “Input values” and “Output values” fileds of the deployment

The VM is now available

Full guide available at
- [VM_deployment@INFN-Cloud]



Elasticsearch and Kibana @INFN-Cloud

- **Elasticsearch and Kibana**

Elasticsearch and **Kibana** are open source software

Elasticsearch is a search and analytics engine

Kibana lets users visualize data with charts and graphs in Elasticsearch

Missing

Logstash is a server-side data processing pipeline that ingests data from multiple sources simultaneously, transforms it, and then sends it to a "stash" like Elasticsearch

Elasticsearch and Kibana @INFN-Cloud

- **Enabled by INFN-Cloud**

  Deploy a **virtual machine** pre-configured with the **Elasticsearch** search and analytics engine and with **Kibana** for simple visualization of data with charts and graphs in Elasticsearch

  The instantiation of a VM comes with the responsibility of **maintaining it and all the services it hosts**.

  Please read the INFN Cloud AUP in order to understand the responsabilities you have in managing this service.

- **Prerequisites**

  The user has to be registered in the IAM system for INFN-Cloud

  Sys-Admin nomination required

E&K: How to deploy

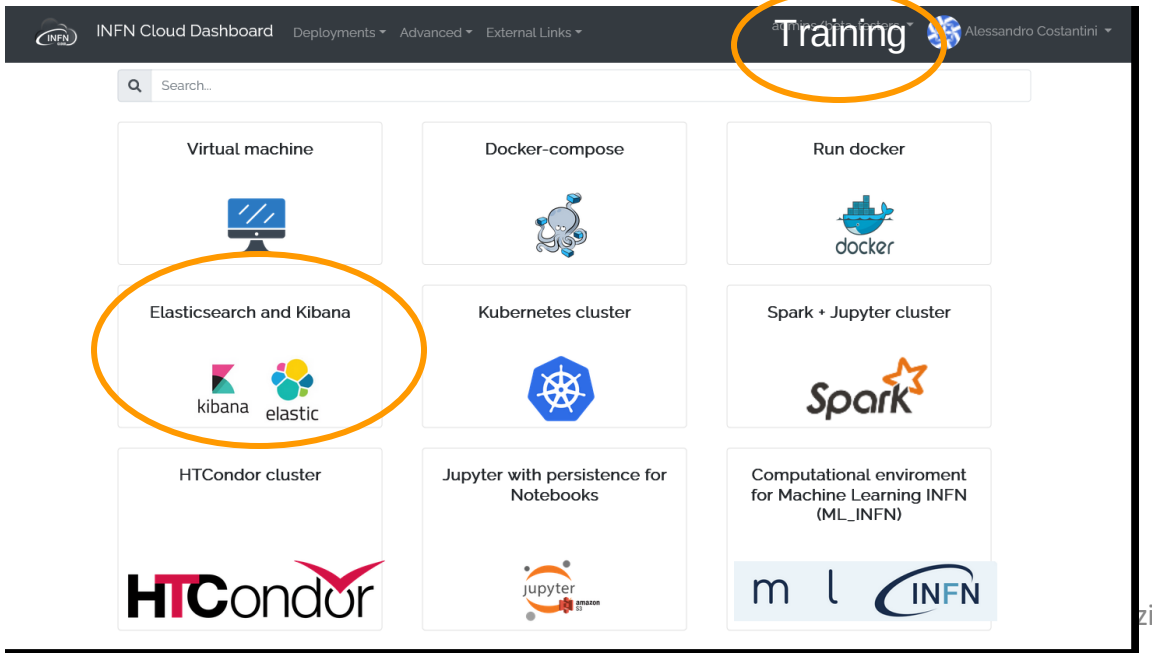
Use Chrome

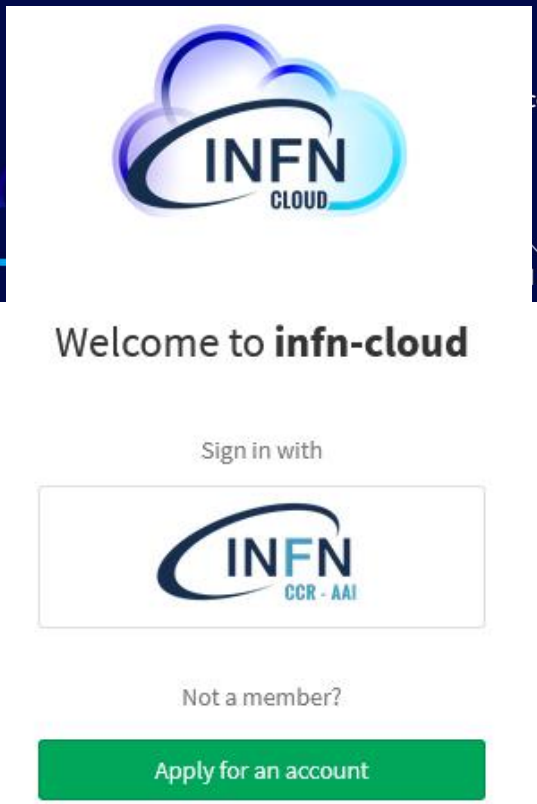
- **Step 1**

  Authenticating to the INFN-Cloud dashboard https://my.cloud.infn.it/

- **Step 2**

  Select the **EK deployment** and the right **group**

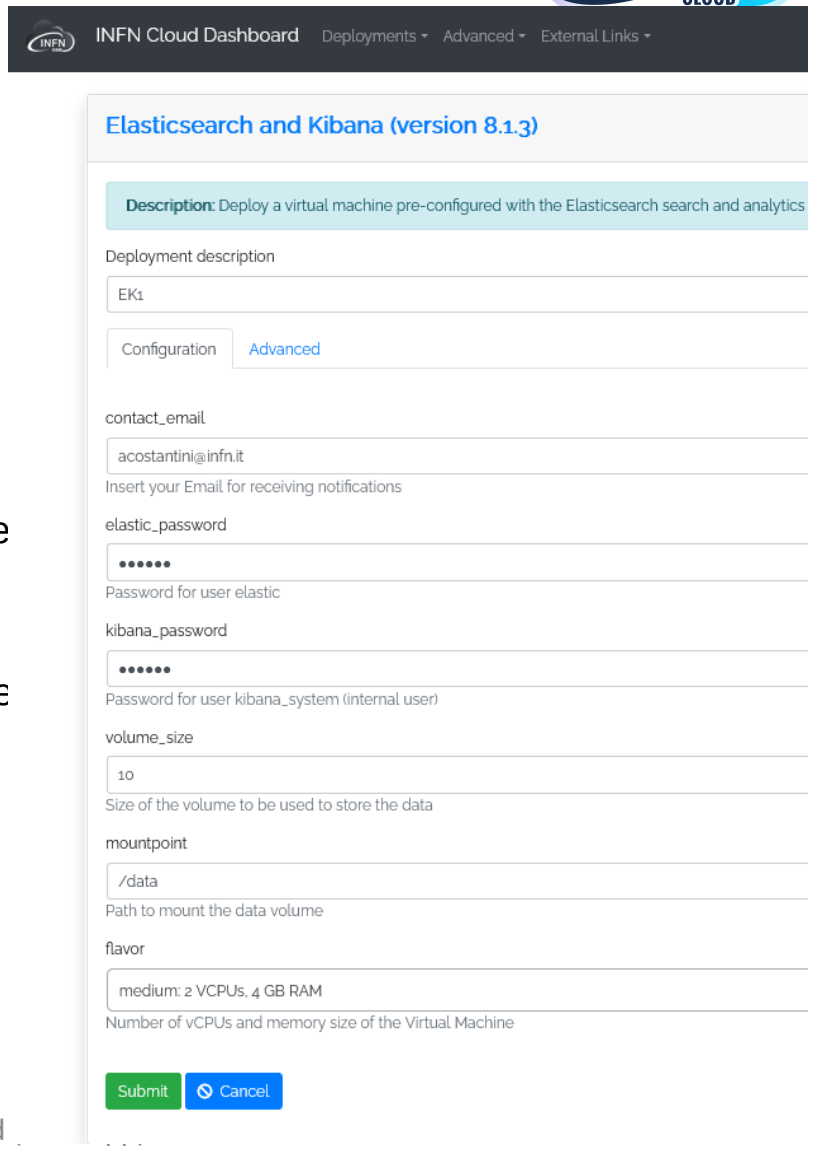




E&K: basic configuration

Step 3

- **Deployment description**
  - A brief description of the deployment
- **Configuration TAB**
  - contact email
  - elastic_password
    - This password is created for the username elastic that allows you to log in to the dashboard.
  - kibana_password
    - This is a specific password for the internal user kibana_system. Kibana uses the connect and communicate with Elasticsearch
  - volume_size
    - Size of the volume to be used to store the data (defalut 10GB)
  - mountpoint
    - Path to mount the data volume (default /data)
  - flavor
    - Number of vCPUs and memory size of the Virtual Machine



E&K: Advanced configuration

Step 4

Advanced TAB

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Manual

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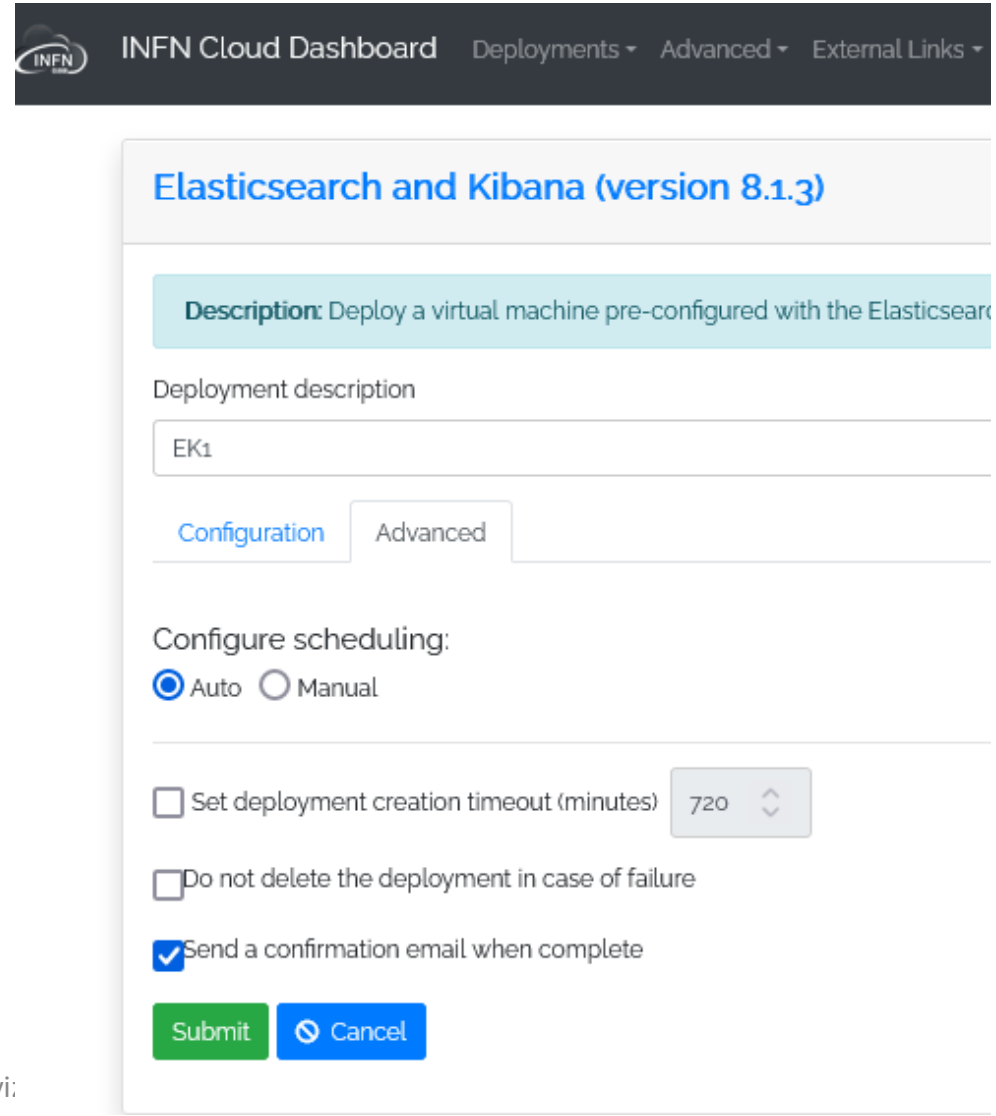
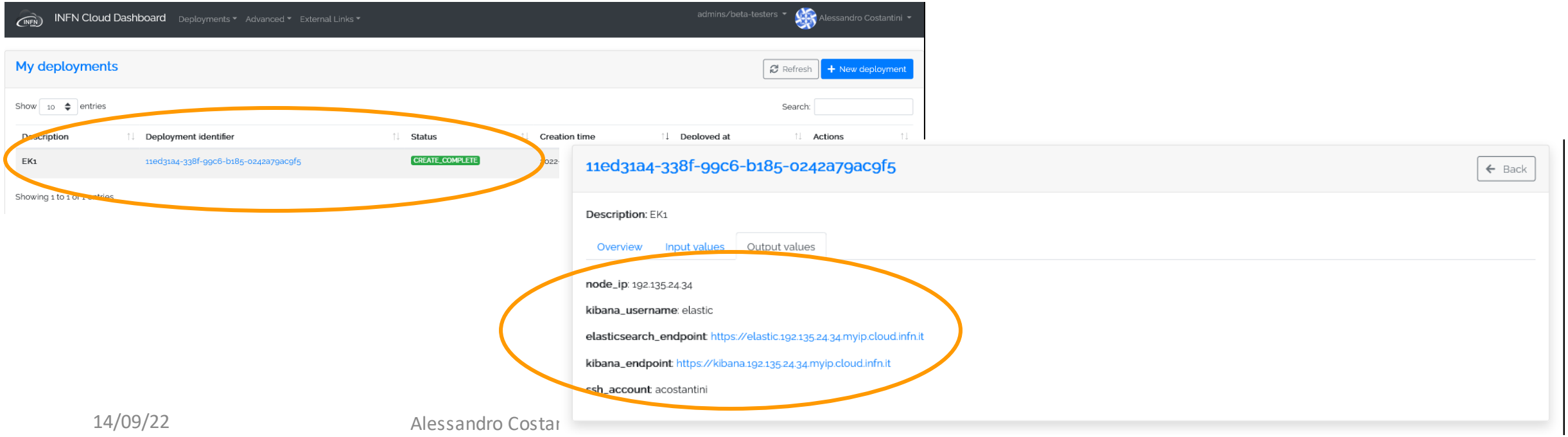


E&K: Operate with E&K deployment

- **Step 5**

Once successful deployment completion, the user can reach the deployed E&K configuration and endpoints

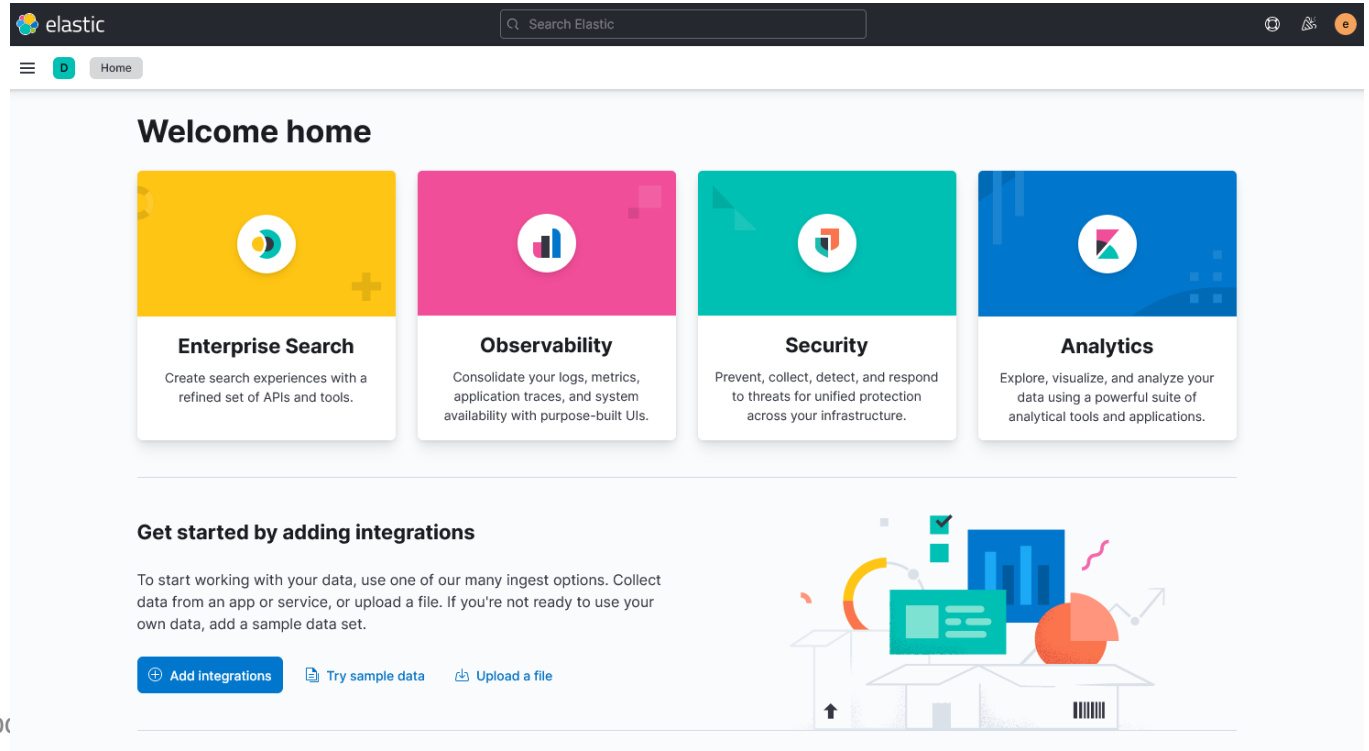


E&K: Operate with E&K deployment

- **Step 6**

Elasticsearch and Kibana dashboard that can be accessed by using the credential defined during the deployment configuration (**step 3**)

The operative E&K platform is now available



Full guide available at
- [Elasticsearch&Kibana]