

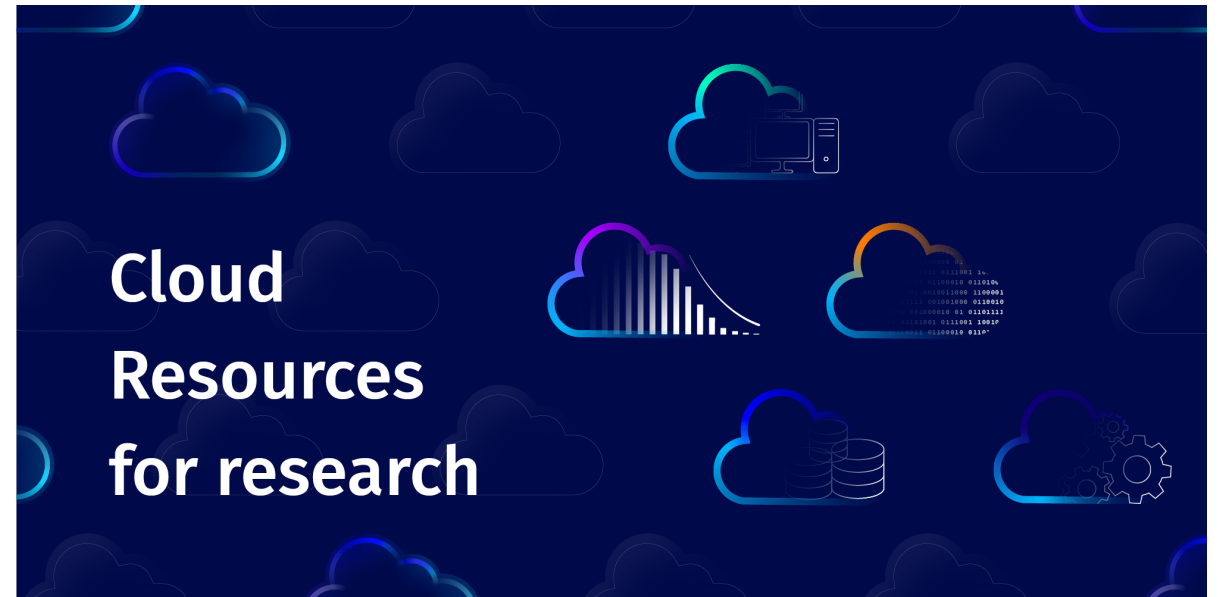


# Research Cloud Infrastructure Status & Support

Stefano Stalio ([stalio@infn.it](mailto:stalio@infn.it)) & Doina Cristina Duma ([aiftim@infn.it](mailto:aiftim@infn.it))  
for the **INFN Cloud Team** ([cloud@lists.infn.it](mailto:cloud@lists.infn.it))

# Highlights

- Infrastructure
  - Backbone
  - Federation
  - Evolution
- Access & Support
  - Documentation & Training
  - Support System



# INFN Cloud - background

Starting from INFN experiences in international projects and from those developed internally (e.g. in CCR), with INFN Cloud we have built and defined:

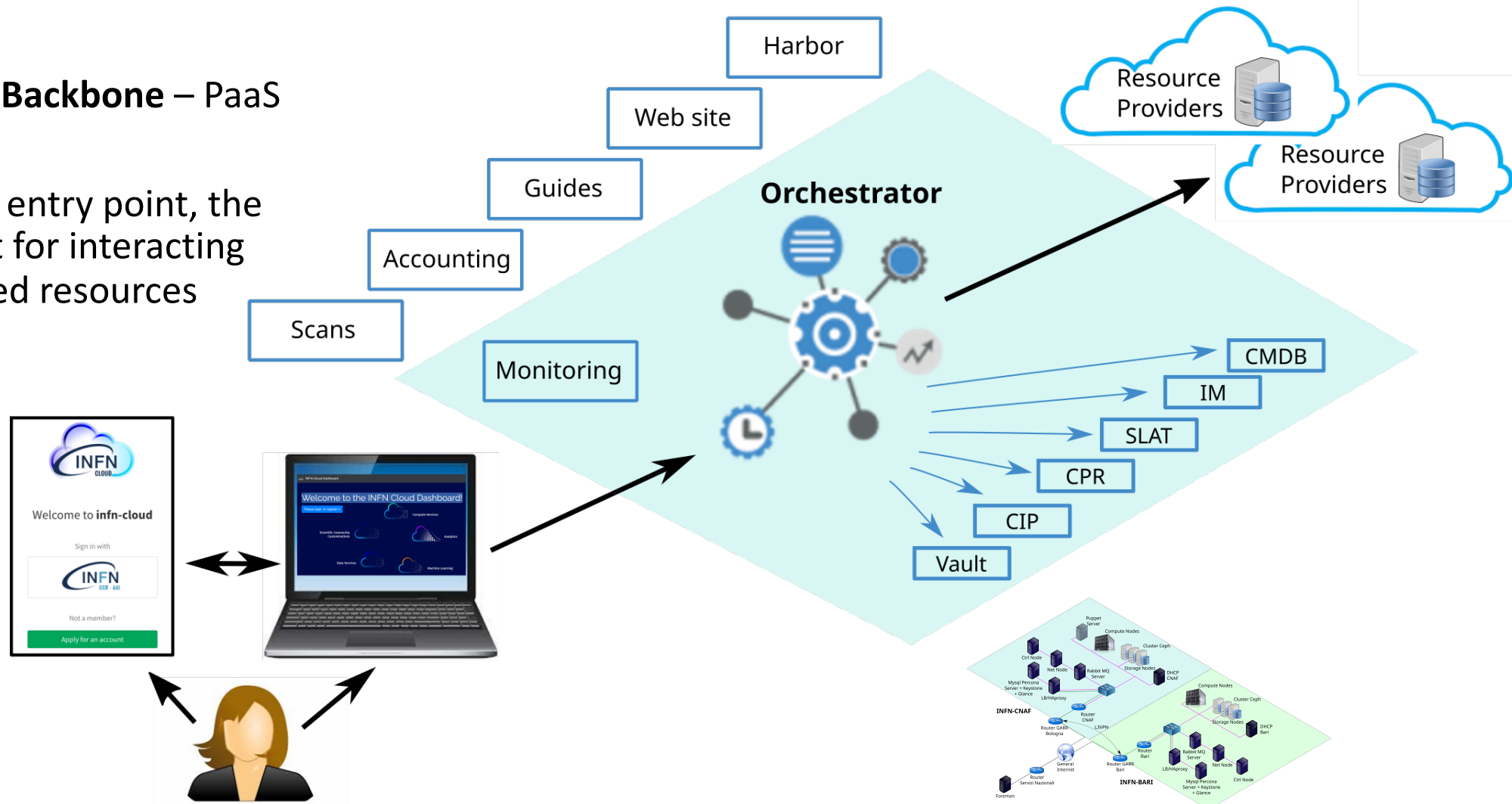
- A **multi-site federated** Cloud infrastructure.
- A **set of services** available through a portal, from a terminal or with a set of APIs.
- A "high-level" **mechanism** for the **adaptation** and **evolution** of the service portfolio according to the **needs and requests of users**.
- A **fully distributed** intra-INFN **organization** for the support and management of infrastructure and services.
- A series of **rules for access** and **management policies** of INFN Cloud resources that incorporate INFN regulations and the more general national ones.



# Backbone: IaaS & PaaS layers

## The INFN Cloud Backbone – PaaS layer

- the common entry point, the glue element for interacting with federated resources

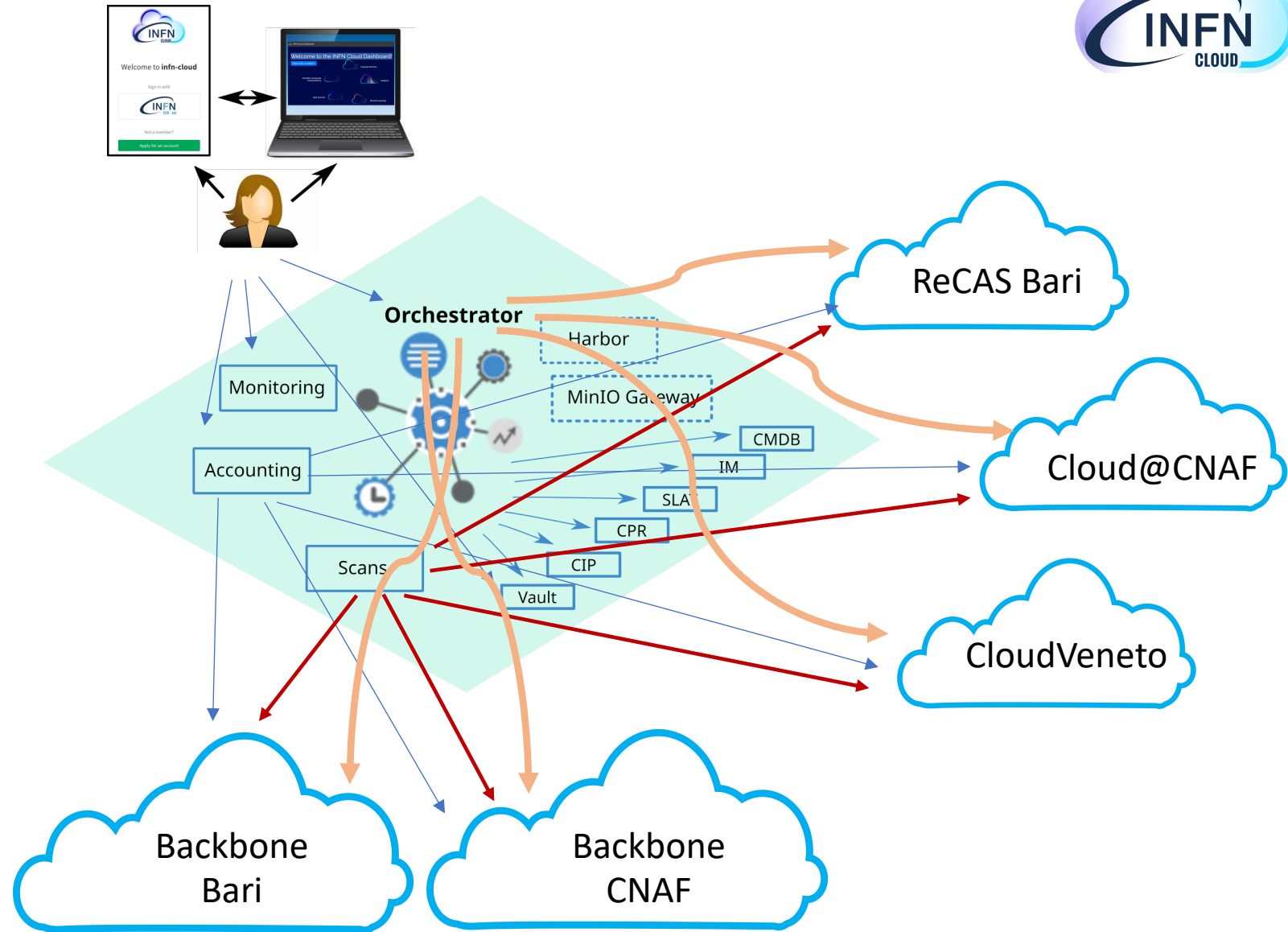


# Federation

Federation of heterogeneous resources is a key point in the INFN Cloud architecture.

- **INFN Cloud** can take advantage of resources offered by federated infrastructures
- **Users** can transparently access federated resources
- **Federated infrastructures** can take advantage of high-level services offered by the INFN Cloud PaaS

Federation happens thanks to the common authentication/authorization layer provided by IAM and to the PaaS services. End users transparently access resources exposed by different cloud providers.



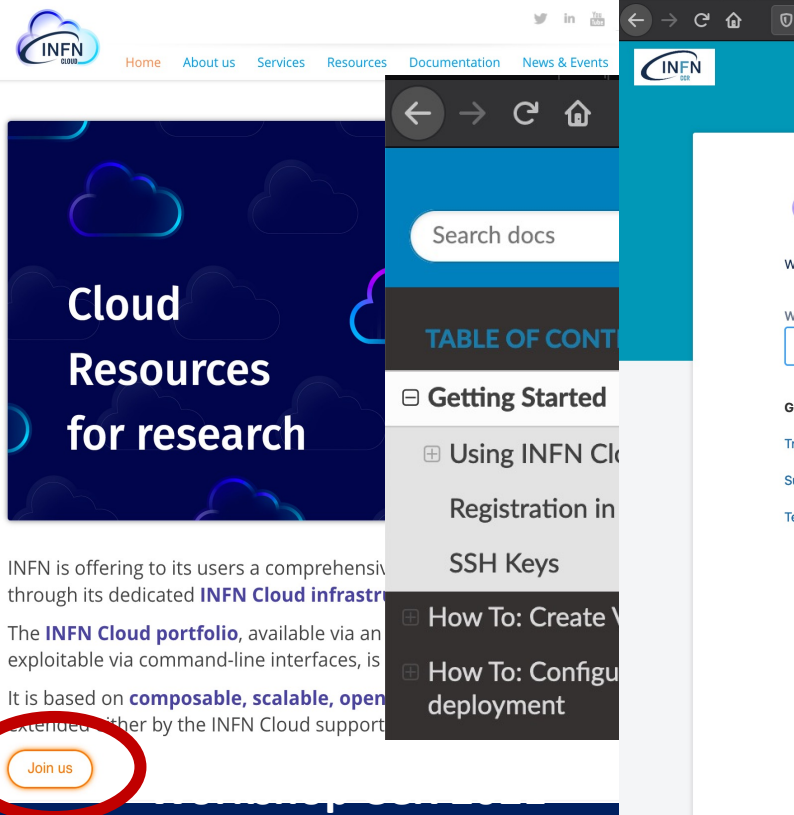
# Evolution

- Consolidation of existing services
  - New hardware
  - New software versions
- New services
  - “release” MinIO Gateway & Harbor
  - DNSaaS
- New federated cloud infrastructures

# Access to INFN Cloud services

- **Several ways to access services:**

- INFN Cloud web site => [www.cloud.infn.it](http://www.cloud.infn.it)
  - **Users Guides:** <https://guides.cloud.infn.it/docs/users-guides/en/latest/>
- Helpdesk => <https://servicedesk.cloud.infn.it>
- Services Catalogue => <https://www.cloud.infn.it/service-catalogue/>
- Dashboard => <https://my.cloud.infn.it>



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## Cloud Resources for research

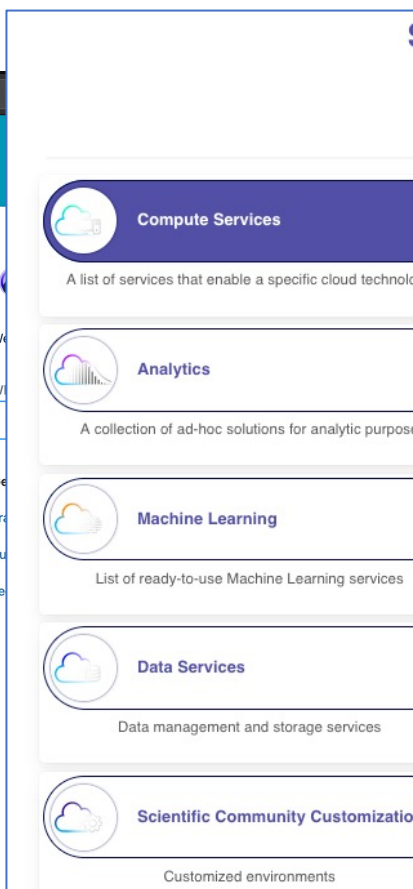
INFN is offering to its users a comprehensive... through its dedicated **INFN Cloud infrastructure**. The **INFN Cloud portfolio**, available via an exploitable via command-line interfaces, is based on **composable, scalable, open** extended further by the INFN Cloud support

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- Getting Started
- Using INFN Cloud
- Registration in
- SSH Keys
- How To: Create V
- How To: Configu deployment



## INFN Cloud Dashboard

Compute Services

A list of services that enable a specific cloud technology

Analytics

A collection of ad-hoc solutions for analytic purposes

Machine Learning

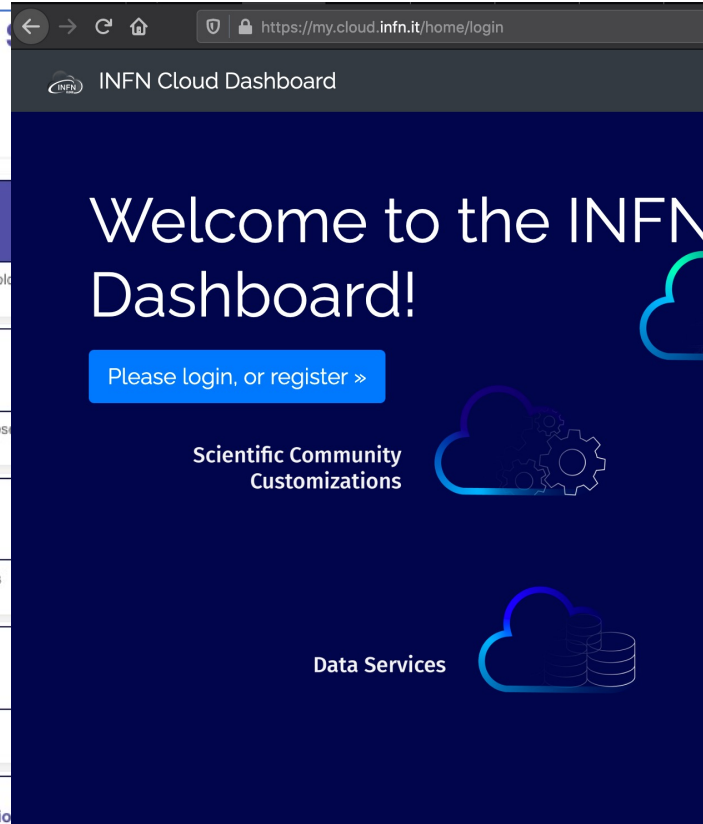
List of ready-to-use Machine Learning services

Data Services

Data management and storage services

Scientific Community Customizations

Customized environments

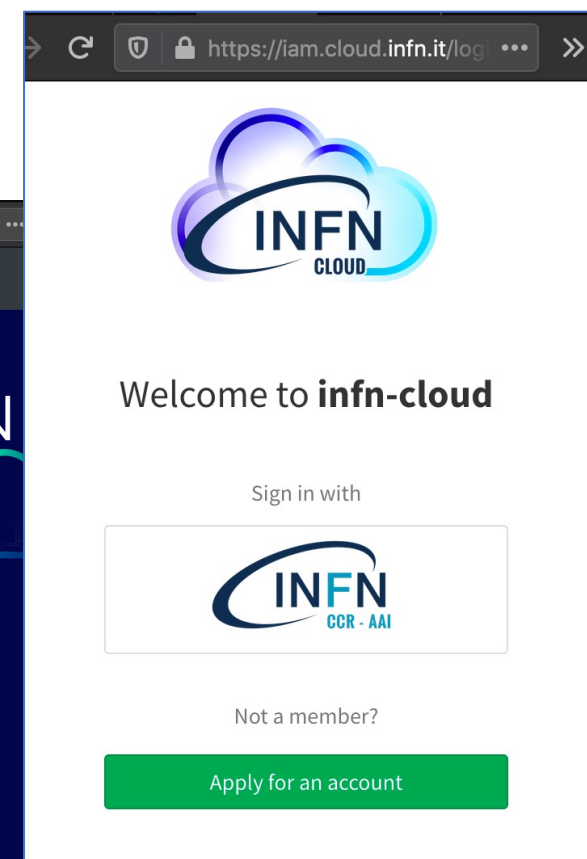


## Welcome to the INFN Dashboard!

Please login, or register >>


Scientific Community Customizations

Data Services



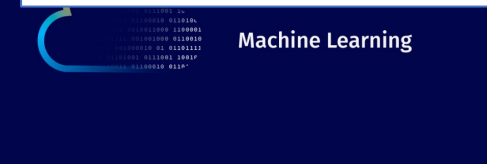
## Welcome to infn-cloud

Sign in with



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## Machine Learning



# Training



- [Documentation](#)

- [Courses](#)

- <https://www.cloud.infn.it/training/>
- "INFN Cloud Users and application" => <https://l.infn.it/survey2021>

- [Webinar/mini-tutorials](#)

- [YouTube Channel](#)

Docs » Welcome to the INFN



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## Welcome to the Documentation

You'll find here useful information about the INFN Cloud infrastructure.

## Table of Contents

- [Getting Started](#)
- [How To: Create VM with storage](#)
- [How To: Configure the background services](#)
- [How To: Deploy Sync&Share](#)
- [How To: Deploy a Kubernetes cluster](#)
- [How To: Deploy an Apache Spark cluster](#)
- [How To: Deploy a Spark cluster](#)
- [How To: Deploy Elasticsearch](#)
- [How To: Deploy RStudio Server](#)
- [How To: Instantiate docker containers](#)
- [How To: Access cloud storage](#)

### Upcoming training events

We are currently building the calendar for this year. You will find here information about the creation of a custom training environment on INFN Cloud infrastructure.

### Past events

#### Tutorial Days di CCR: INFN Cloud

12 November 2020

Questo corso online (interattivo e in video) è rivolto a ricercatori e tecnologi/tecnici che vogliono creare un ambiente di calcolo sfruttando le risorse messe a disposizione da INFN Cloud.

Read more

#### Tutorial Days di CCR: INFN Cloud

28-29 October 2020 – online

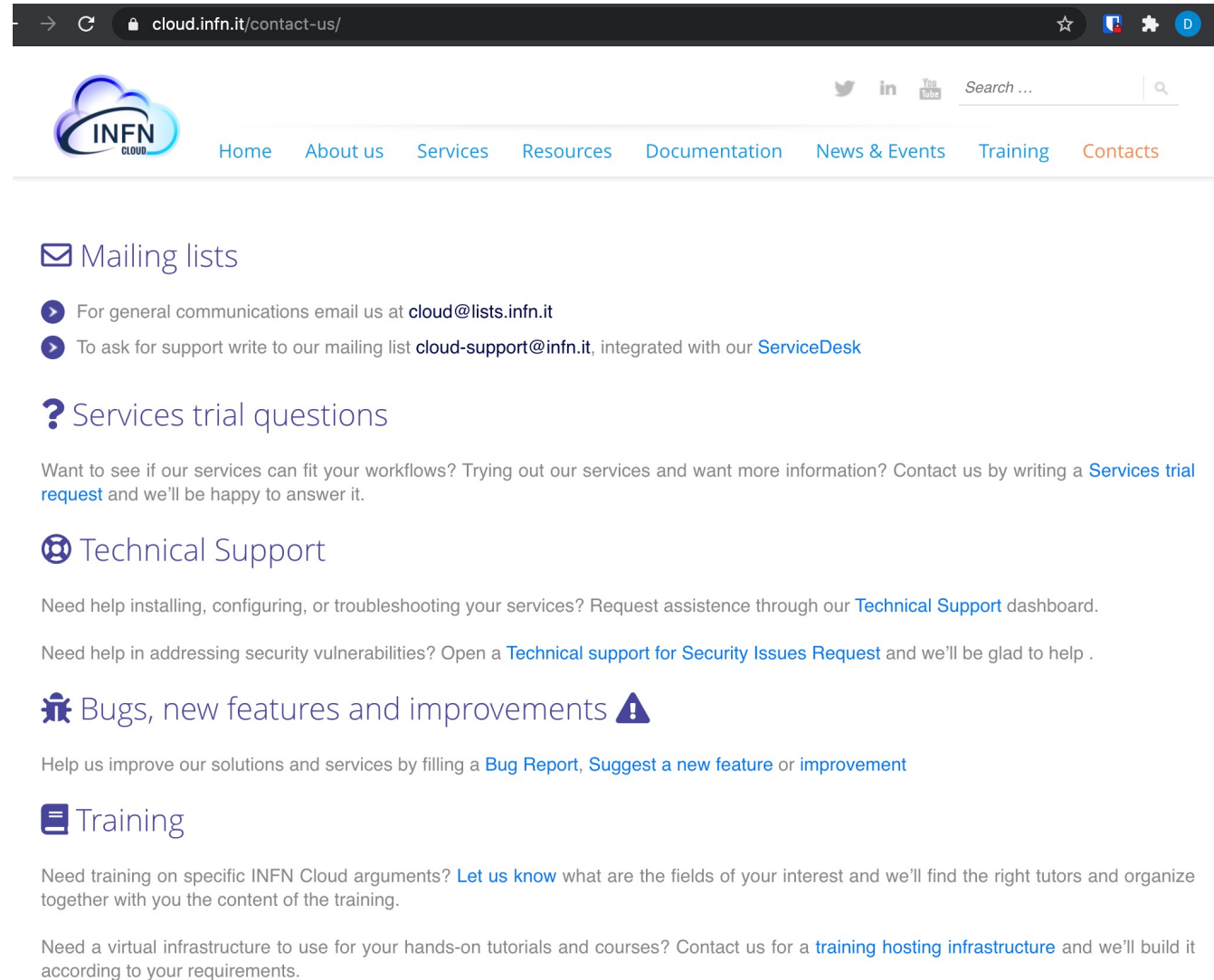
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Read more

# Support System



- Contact for support requests:
  - <https://servicedesk.cloud.infn.it/>
  - [cloud-support@infn.it](mailto:cloud-support@infn.it)
- Activities are grouped in first and second level of support
  - Weekly shifts
  - Shifters dedicated channel & documentation

A screenshot of a web browser showing the contact page for INFN Cloud. The browser address bar shows 'cloud.infn.it/contact-us/'. The page features the INFN Cloud logo, a navigation menu with links for Home, About us, Services, Resources, Documentation, News & Events, Training, and Contacts. Below the navigation, there are several sections: 'Mailing lists' with links for general communications and support; 'Services trial questions' with a link to write a request; 'Technical Support' with links for assistance and security issues; 'Bugs, new features and improvements' with a link to report bugs; and 'Training' with a link to find tutors and organize training.

# Some numbers & details

- **Registered** users are "enrolled" in a **catch-all** group with access to a **limited quota** of resources to try the solutions available in the [Service Catalogue](#) => 2 VMs (max. 4 vCPUs / 8GB RAM)
  - Resources available for ~ 100 users
- **Resources** available:
  - 2000 vCPUs, more than 1.2 PB on Backbone
    - Plus several thousand cores, some GPUs and O(PB) disk in the federated clouds
- **Users:**
  - Registered 76
  - Pending 74

# ...and More Details

## • 26/05

- [INFN Cloud: monitoring and accounting services](#)
- [INFN Cloud: servizi utenti](#)
- [CloudVeneto joins the INFN-Cloud federation](#)
- [What's new in the INDIGO PaaS](#)
- [La European Open Science Cloud: come interconnettere risorse e servizi](#)

## • 27/05

- [Il progetto ML INFN](#)
- [CYGNO @ INFN – Cloud](#)

## • 28/05

- [From AMS to HERD: status and exploration of CLOUD solutions for cosmic ray data analysis](#)
- ... and more

# Last BUT not least - People

- Bari
  - Marica Antonacci
  - Giacinto Donvito
  - Nadina Foggetti
  - Alessandro Italiano
  - Vincenzo Spinoso
  - Roberto Valentini
- CNAF
  - Alessandro Costantini
  - Andrea Ceccanti
  - Vincenzo Ciaschini
  - Doina Cristina Duma
  - Barbara Martelli
  - Diego Michelotto
  - Davide Salomoni
  - Francesco Sinisi
  - Riccardo Veraldi
  - Stefano Zani
- Padova
  - Federica Fanzago
  - Sergio Traldi
  - Massimo Sgaravatto
  - Marco Verlato
- Perugia
  - Diego Ciangottini
  - Mirco Tracoli
  - Daniele Spiga
- Bologna
  - Gianluca Peco
  - Paolo Veronesi
- LNGS
  - Stefano Stalio
- LNS
  - Emidio Giorgio
- Torino
  - Luciano Gaido
- Trieste
  - Lucio Strizzolo

A big **thank you** also to the INFN Cloud users, scientific collaborations, to the INFN management and to all those who provided very useful feedbacks. Keep them coming!