



INFN Cloud Users and Projects Support, Training and Communication

F. Sinisi¹ – A. Alkansa¹ – A. Costantini¹ | 1 INFN CNAF
 C. Duma¹ – F. Fanzago³ – E. Giorgio⁴ | 2 INFN Laboratori Nazionali Gran Sasso
 D. Lattanzio¹ – A. Pascolini¹ – S. Stalio² | 3 INFN Padova
 C. Pellegrino¹ – D. Salomoni¹ | 4 INFN Laboratori Nazionali del Sud

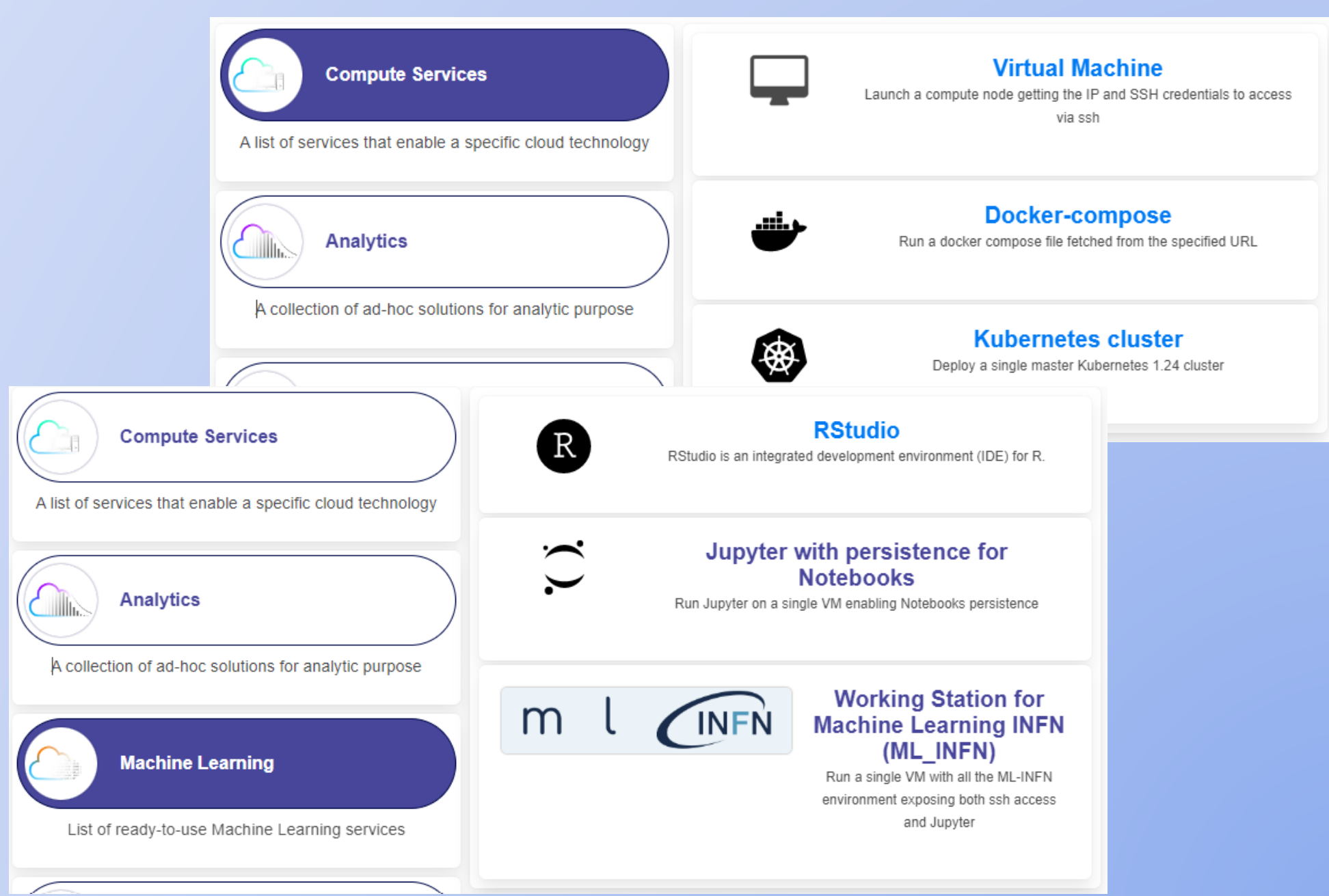


1) What is INFN Cloud?

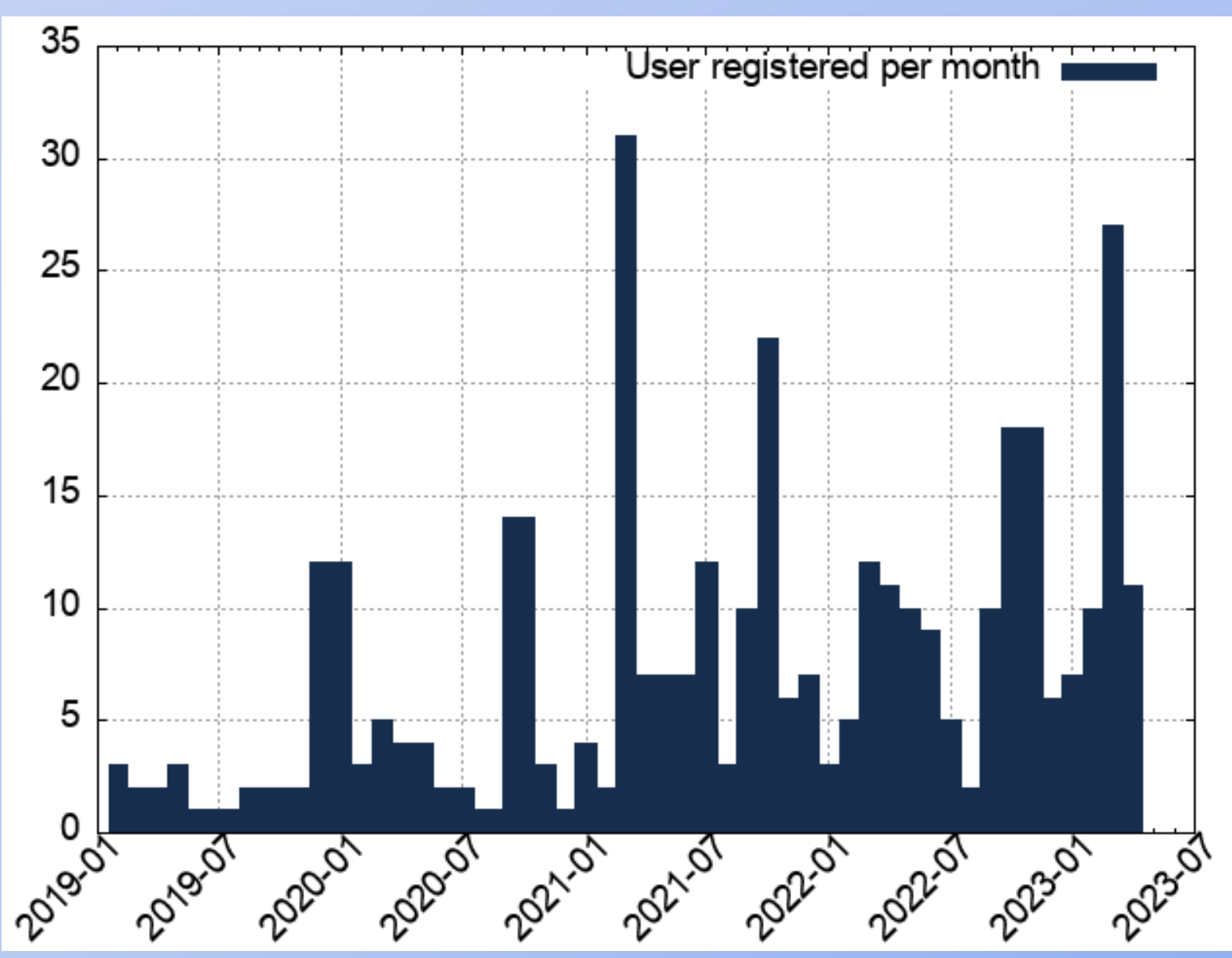
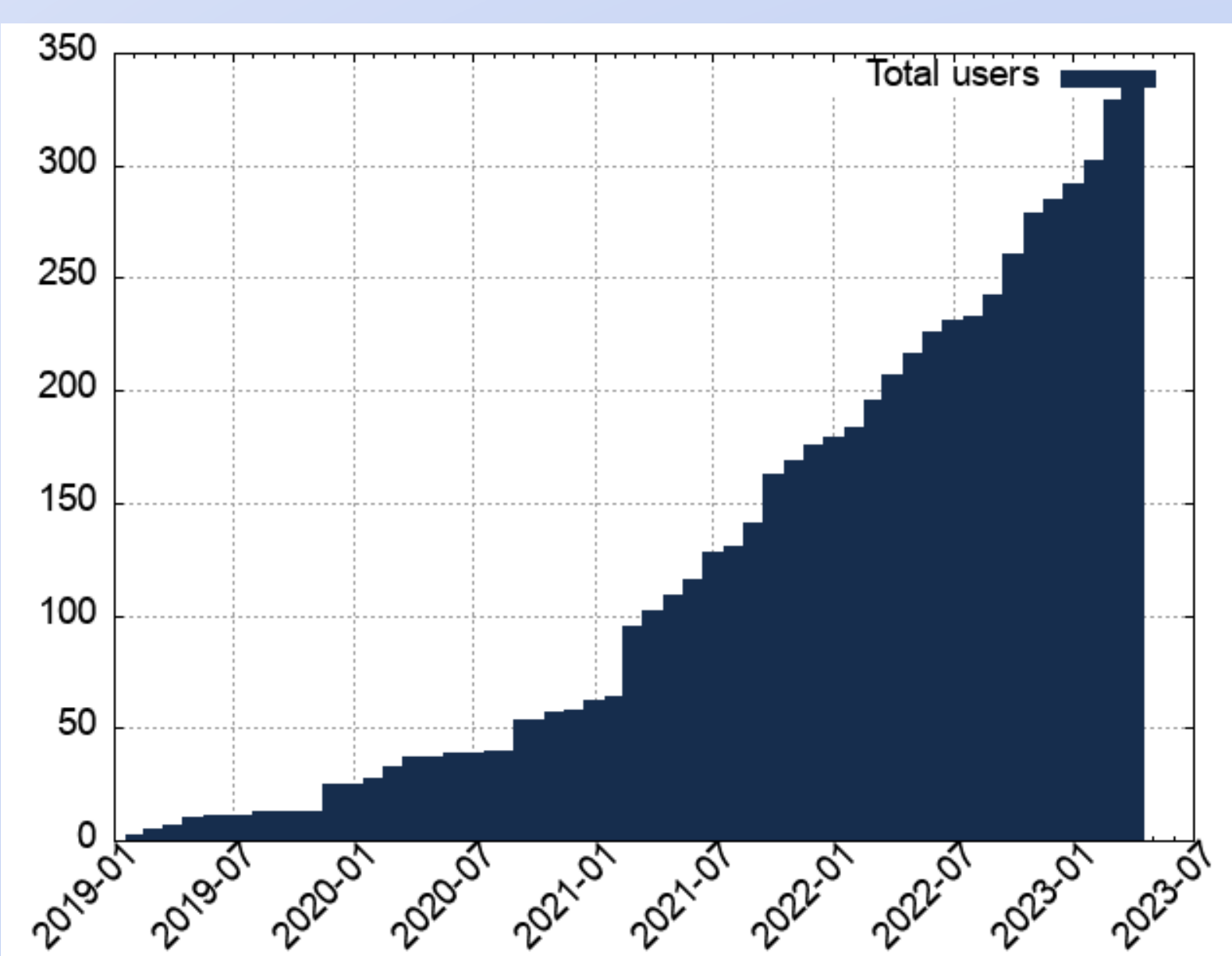
Having a long tradition in state-of-the-art distributed IT technologies, from the first small clusters to Grid and Cloud-based computing, in the last couple of years INFN made available to its users INFN Cloud: an easy to use, distributed, user-centric cloud infrastructure and services portfolio targeted to scientific communities.

2) Portfolio

INFN now offers to its users a comprehensive and integrated set of Cloud services through its dedicated INFN Cloud infrastructure. The INFN Cloud portfolio [1], available via an easy-to-use web interface, is defined upon clear users' requirements. It is based on composable, open-source solutions and can be easily extended either by the INFN Cloud support team or directly by end users.



6) Registered users trend



Reference

- [1] - <https://www.cloud.infn.it/service-catalogue>
- [2] - <https://servicedesk.infn.it/servicedesk/customer/portal/50>
- [3] - <https://www.cloud.infn.it/training>
- [4] - <https://guides.cloud.infn.it/docs/users-guides/en/latest>
- [5] - <https://www.youtube.com/@infncloud2949>

3) Organization

INFN Cloud is internally organized into 7 Work Packages (WP), run by people belonging to several INFN sites in a fully distributed way:

- WP1: Operations
- WP2: Documentation, User Support, Communication and Training
- WP3: Resources, Data Lake and Sustainability
- WP4: Security and Policies
- WP5: Middleware and New Services
- WP6: Research and Development, Testbeds, Use Cases
- WP7: Integrated Systems Management and Legal Compliance

The INFN Cloud Management Board is composed by the INFN Cloud Coordinator (Davide Salomoni) and by the WP Leaders. The reporting line is directly to the INFN Computing Coordination Committees and to the INFN President.

4) Architecture

The INFN Cloud infrastructure is based on a core backbone connecting the large data centers of CNAF and Bari, and on several federated sites connecting to the backbone. Services on the INFN Cloud backbone are typically reserved for special purpose tasks (such as multi-site automated data replication), while the other INFN sites part of the INFN Cloud infrastructure can transparently run one or more of its services, thanks to flexible Cloud orchestration policies.

Joining a site to the INFN Cloud infrastructure is regulated by its Rules of Participation and must be approved by the INFN Cloud project management board. In case of special arrangements, the INFN Cloud infrastructure can be transparently extended to other public or private Cloud providers to augment its capacity or solutions.

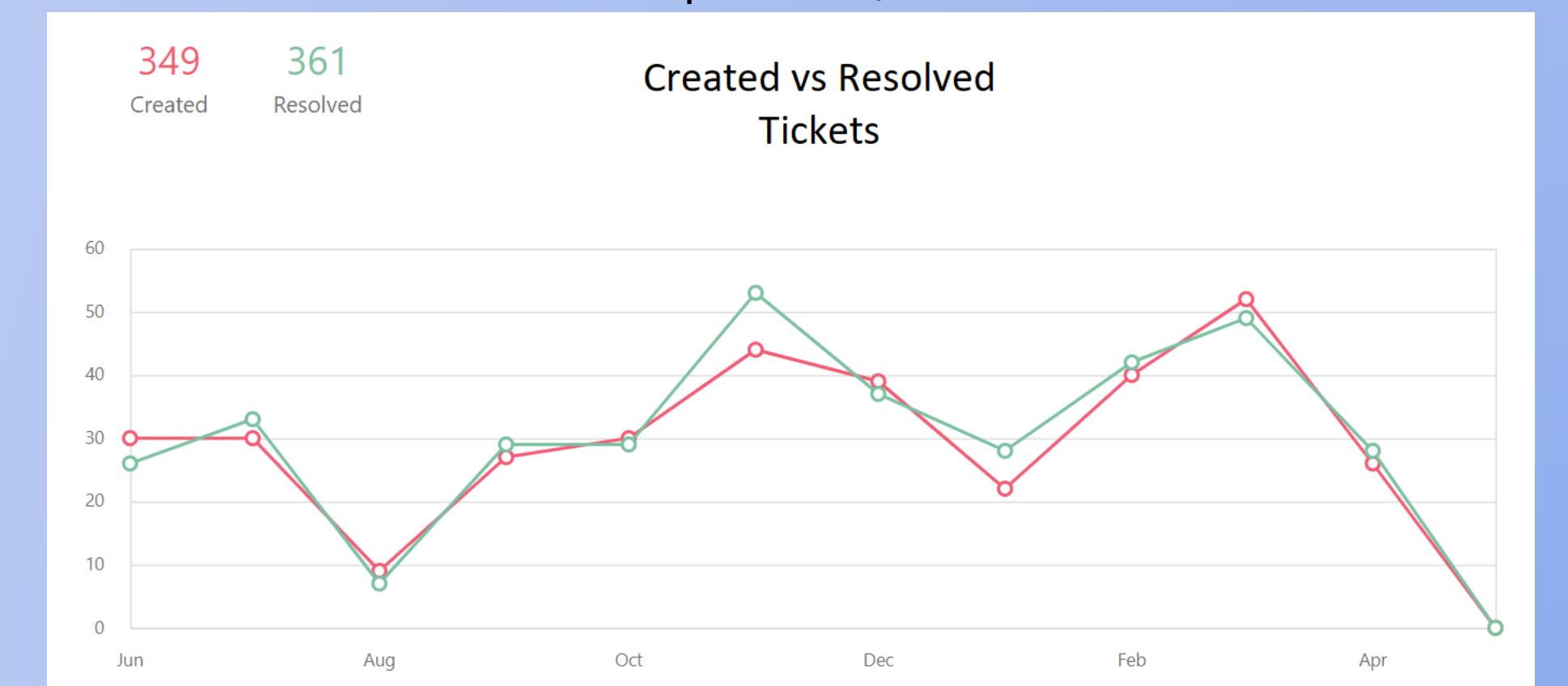
Access to the INFN Cloud services is currently reserved to INFN personnel or personnel with whom INFN has established formal collaborations, such as research associates. Authentication and authorization for accessing all INFN Cloud services is enforced through the INDIGO-IAM federated solution, fully compliant with European Open Science Cloud (EOSC) and industry standards.



5) Support & Training

Given the distributed nature of the infrastructure, the big and diverse number of the services and technical solutions present in its service catalogue, it is important to have a reliable system, based on staff and services, that allows the satisfaction and tracking of interactions between users and INFN Cloud administrators [2]. In this regard, INFN Cloud adopts a multi-level structure, with first level (L1) responsible for managing users registration requests, new use-cases enrollment, guiding the use of the services available in INFN Cloud portfolio; the second level (L2) provides solutions for problems that require higher privileges than that granted to L1, involving experienced and competent technicians. The image here shows the number of tickets opened and resolved over the last year (those resolved may also refer to more remote periods).

Proper training activities have been defined and provided to different types of users [3], trying to solve complex scientific and technological challenges, but also to cloud sites administrators interested in federating their resources with INFN Cloud. The training courses are complemented with a rich set of user guides and technical documentation [4], to ease the use and the adoption of the services made available through the INFN Cloud PaaS.



7) Guides & Service Desk

