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Italiadomani
PIANO NAZIONALE DI RIPRESA E RESILIENZA

ICSC
Centro Nazionale di Ricerca in HPC, Big Data and Quantum Computing

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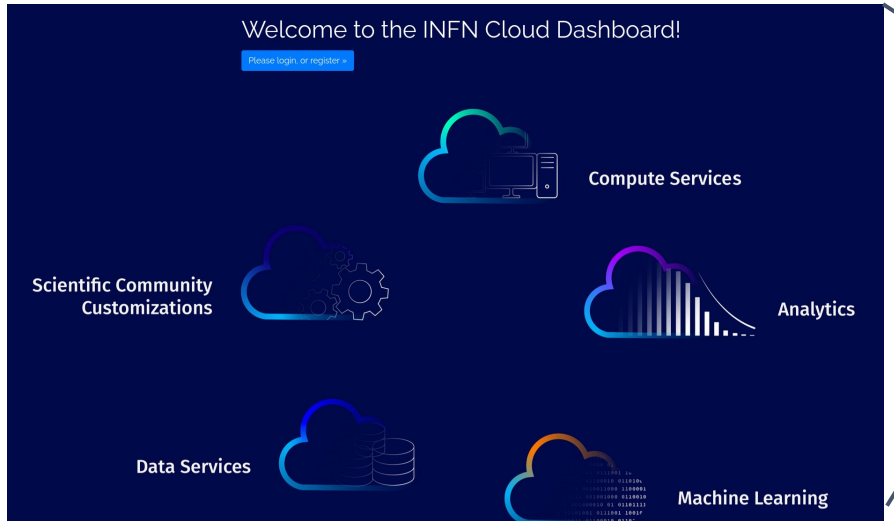
Rilevamento di anomalie nell'infrastruttura e nei servizi offerti da INFN-Cloud

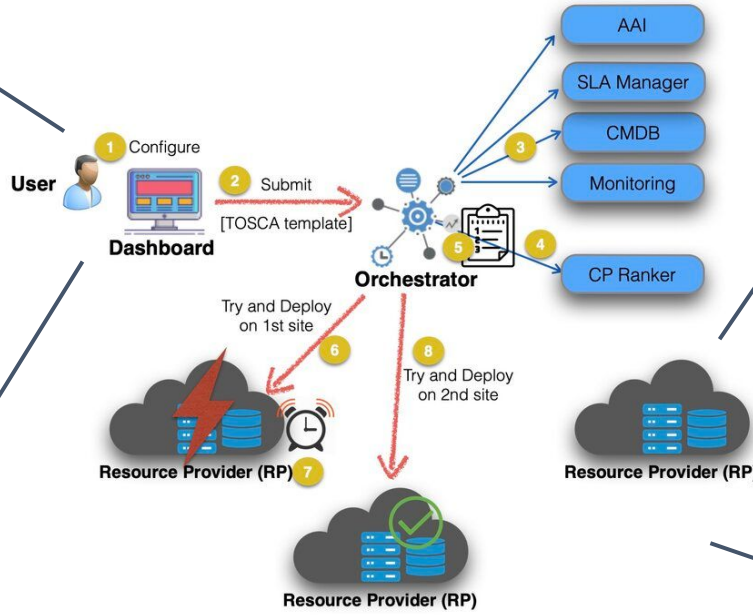
Gioacchino Vino
M. Antonacci
S. Monforte
D. Michelotto
C. Pellegrino
M. Sgaravatto
S. Stalio
L. Strizzolo

Workshop sul calcolo nell'INFN / Palau / 20-24Mag2024

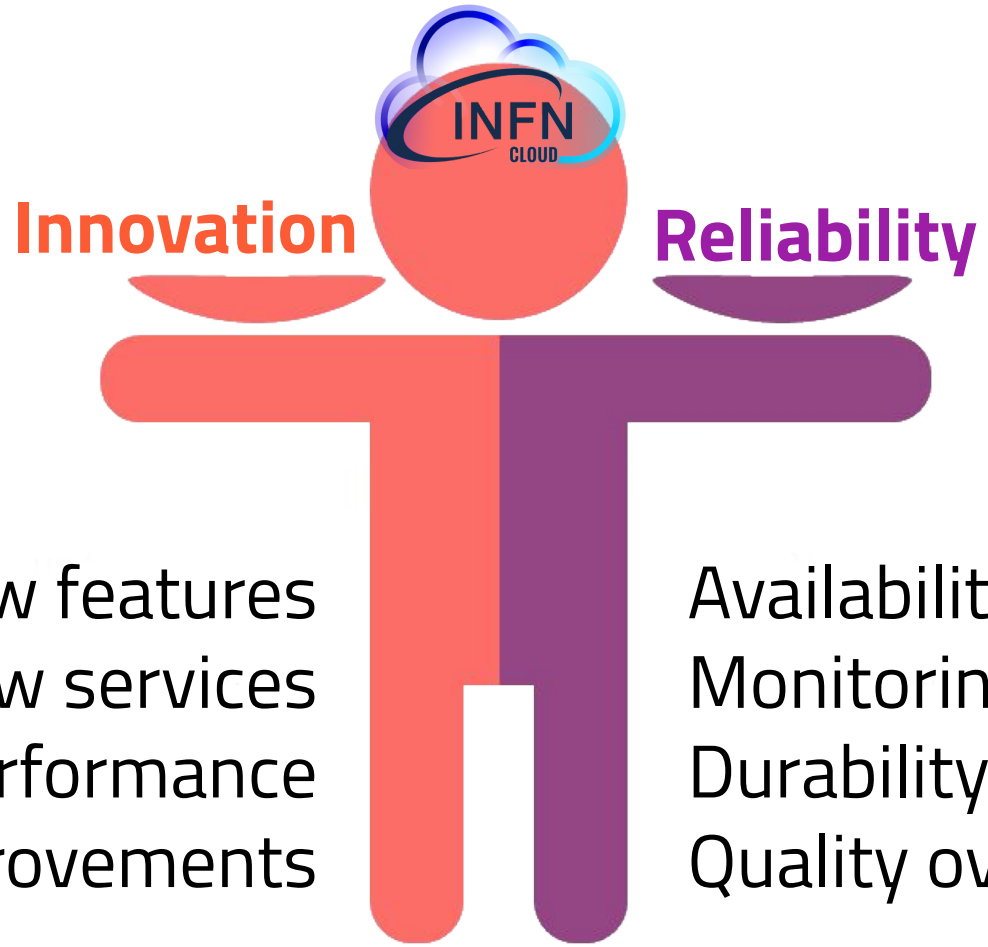
Where?

INDIGO-PaaS Orchestrator System





Why?

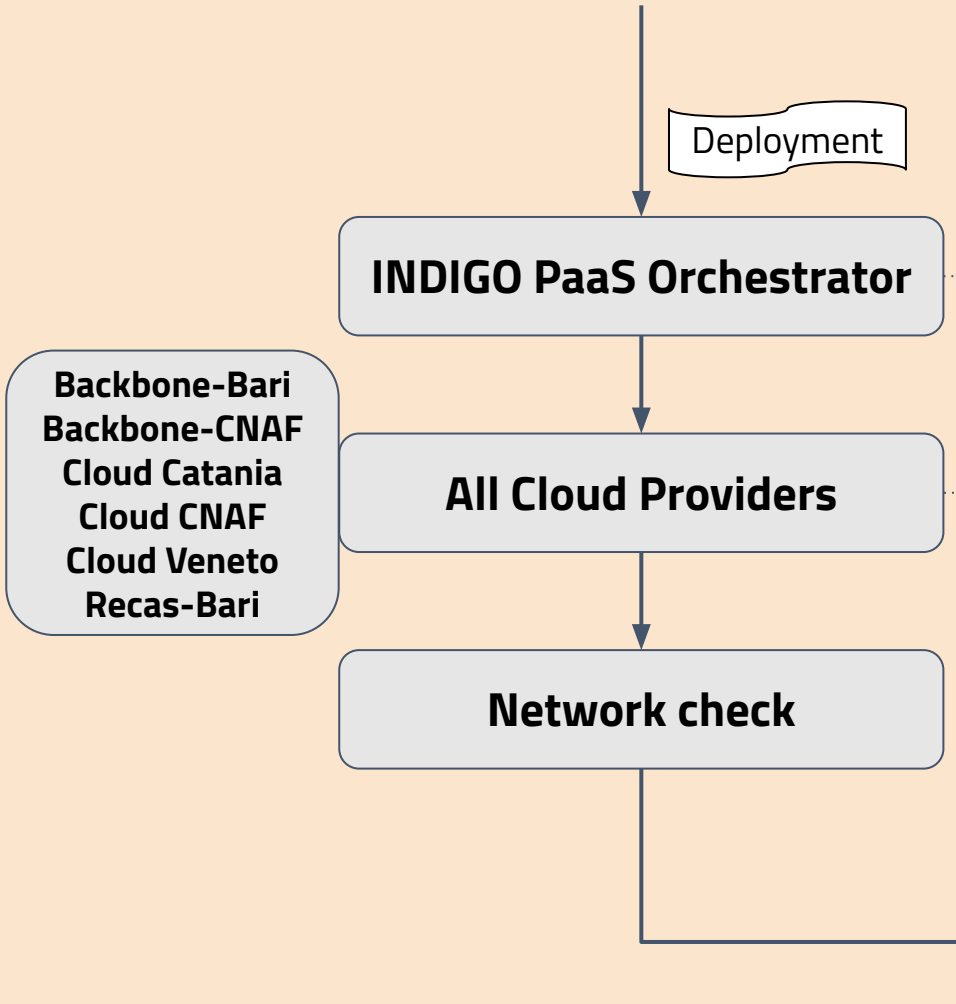


New features
New services
Better performance
General improvements

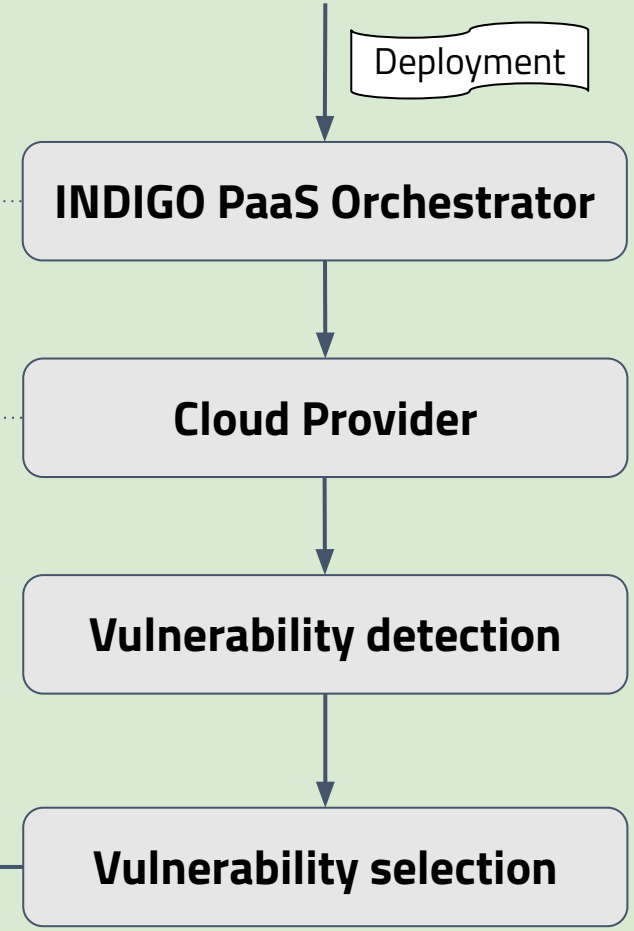
Availability
Monitoring
Durability
Quality over time

What?

VM network reachability

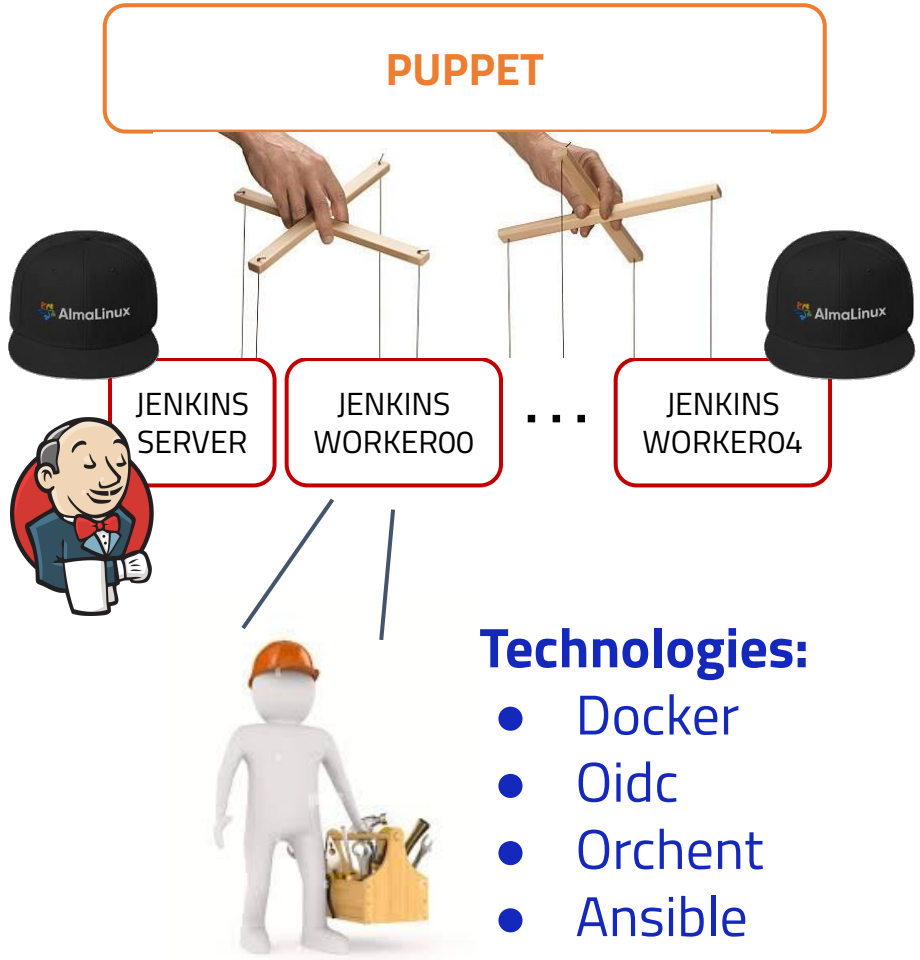


Vulnerability detection of services under development



How?

Jenkins: self-contained, open source automation server used for building, testing, delivering and deploying software



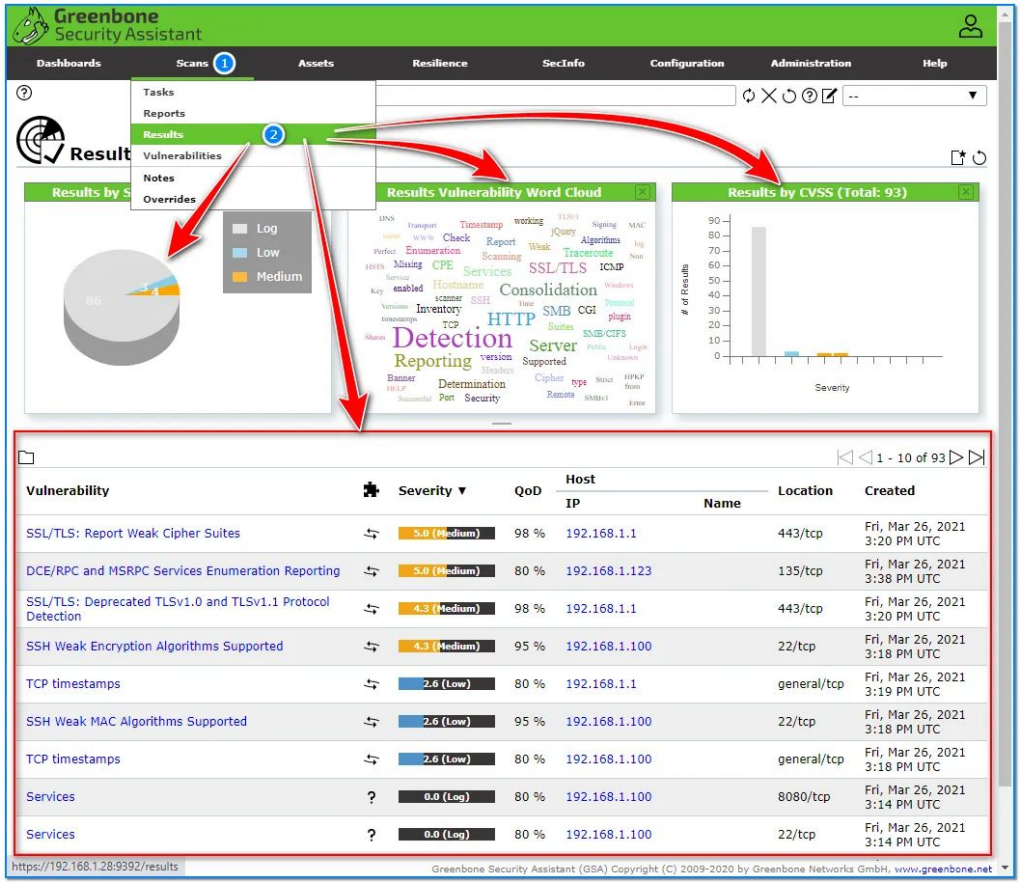
Technologies:

- Docker
- Oidc
- Orchent
- Ansible

	Declarative: Checkout SCM	Test environment	Create test deployment	Scan endpoints	Declarative: Post Actions
Average stage times: (Average full run time: ~46min 50s)	5s	9s	25min 1s	5min 21s	10s
#609 May 16 16:16 No Changes	5s	11s failed	3s failed	2s failed	9s
#608 May 15 16:16 No Changes	6s	8s	35min 31s	7min 55s	12s

S	W	Name ↓	Last Success	Last Failure
✓	☀	test-elasticsearch-service	10 hr #164	N/A
✗	☁	test-jupyter-cygno-service	23 days #135	14 hr #161
✓	☀	test-jupyter-matlab-service	21 hr #160	N/A
✗	⛅	test-jupyter-ml-infn-service	1 day 17 hr #166	17 hr #167
✓	☀	test-jupyter-vm-service	3 hr 13 min #810	N/A

Greenbone: trusted provider of open source vulnerability management by developing algorithms and programs that detect vulnerabilities



Conclusions:

- **Reliability** matters
- Procedures have been implemented to evaluate and report **failures** and **vulnerabilities** in INDIGO-PaaS Orchestrator System, Cloud providers, and deployments.
- **Jenkins** is a valid tool to accomplish these kind of tasks.
- Jenkins will support other management tasks in the futures (periodical docker image building, code testing, etc.).
- **Greenbone** is used for vulnerability detection in deployment.

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Supercomputing
shaping the future
Thanks for your
attention
gioacchino.vino@infn.it