

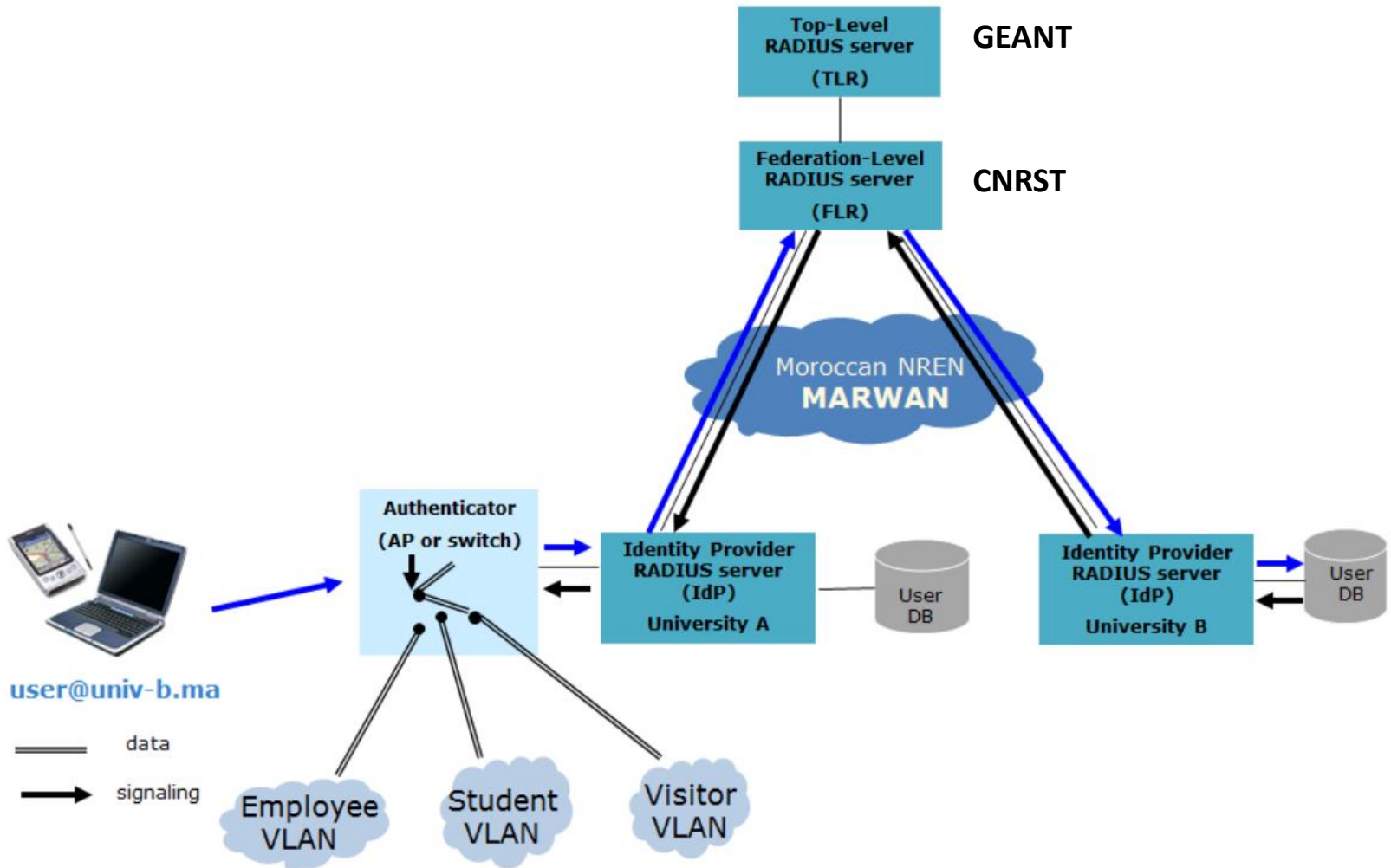


Centre National pour la Recherche
Scientifique et Technique

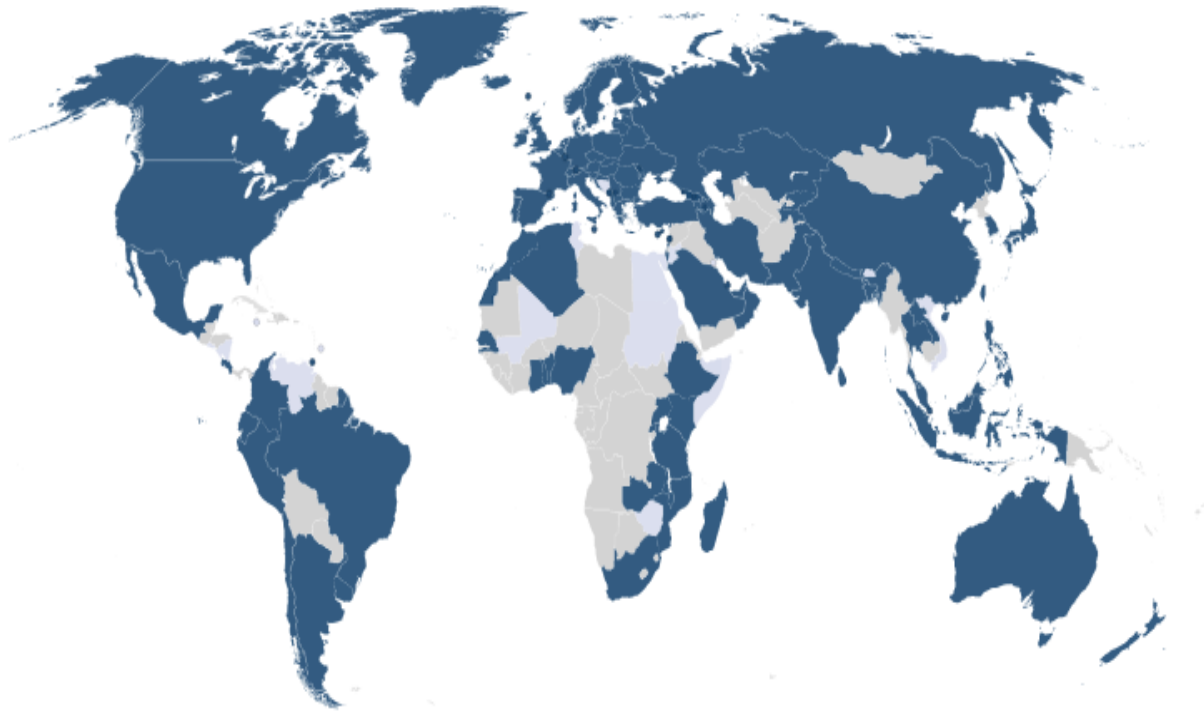
MARWAN: infrastructure and e-services

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EduRoam



EduRoam



user@univ.ma



**Internet
access**

106 Country

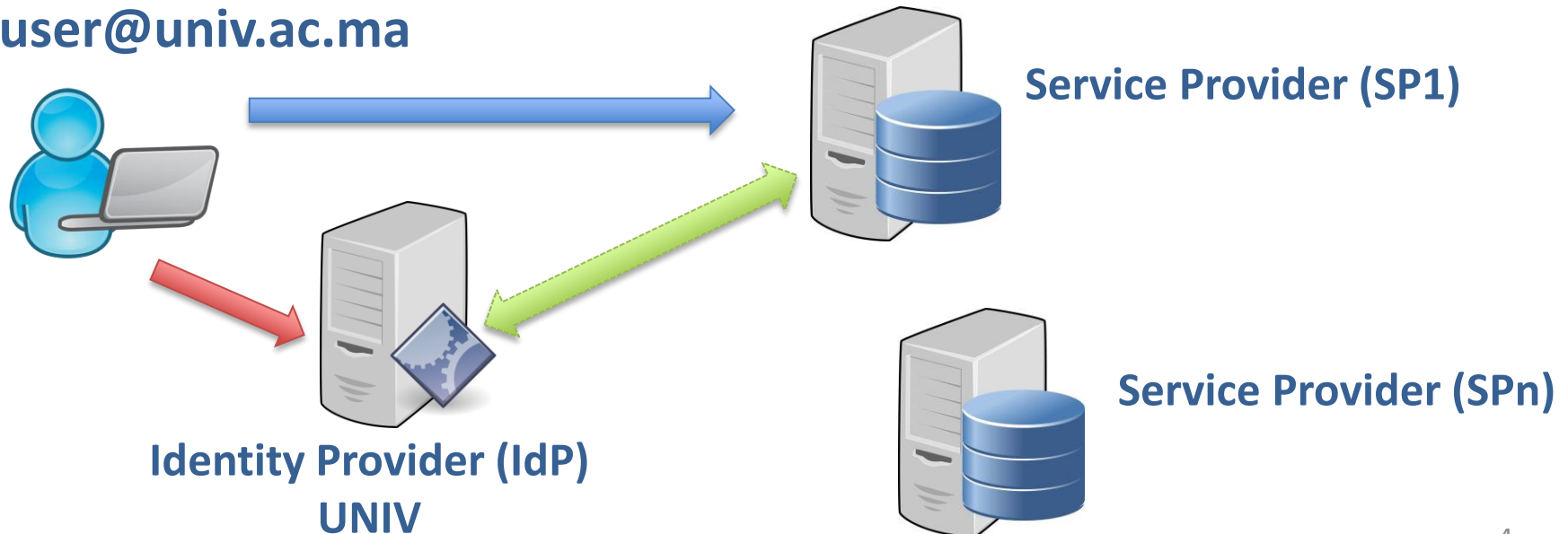
<https://eduroam.ma>

e-Services : Identity Federation



- An organizational and trusted framework for sharing resources between universities. It connects service providers (applications, portal, documents ...) with identity providers
- Use a single identity to benefit from all federation services
- Operator of eduIDM (Resource Registry tool, hosting signed metadata, training and supporting universities, etc.)

user@univ.ac.ma



ResourceRegistry3

Jagger : Free federation management tool

← → ↻ <https://rr.eduidm.ma/rr3/> 133 % ☆

Débuter avec Firefox

JAGGER Federations Identity Providers Service Providers Register Administration EN

Quick access

- ☰ Identity Providers
- ☰ Service Providers
- ☰ Federations
- ☰ Queue

Date	Requester	Request type
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Identity Federation eduIDM

Member of EduGain

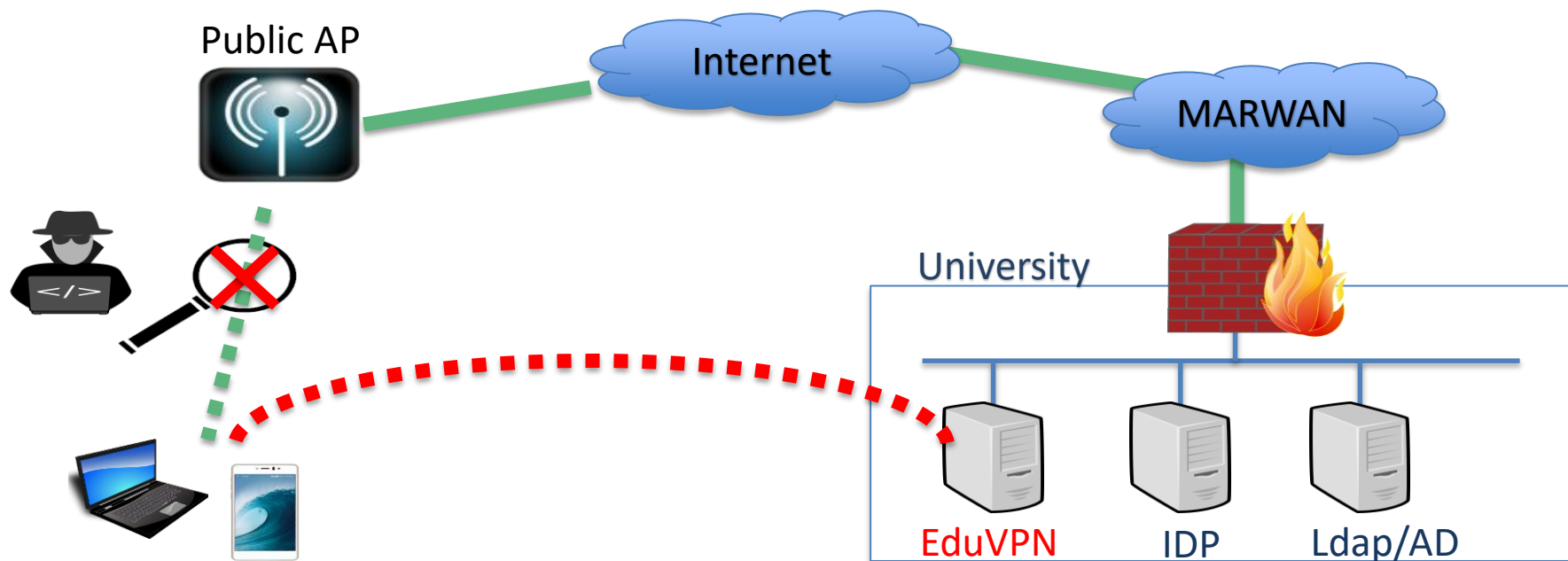


Participants: 80
Candidate: 5

<https://eduidm.ma>

e-Services : EduVPN

- Currently there are 19 Countries and over 100 Institutional eduVPN participants
- Offers secure access when using the public Internet, by obtaining a VPN connection to known end-points





eduVPN service

- Part of the GÉANT project
- Windows, Linux, macOS, Android, iOS
- We use it for HPC-MARWAN

<https://eduvpn.marwan.ma>

16:34 [notification icons] [signal strength] 7%



eduVPN



Select your Country

Select your institution's country here. Afterwards you can use other countries.



Australia



Denmark



Finland



France



Germany



Morocco



Norway

SURF NET

TCS service

- **SSL Certificates:** Server certificates;
- **Client Certificates:** Personal certificates for authentication and email signature;
- **Code-Signing Certificates:** To verify the source and integrity of applications;
- **Device Certificates:** To sign documents on behalf of the institution.

SSL Certificates

+ 10 Since Last Month

131 Total

111 Active | 20 Revoked

Client Certificates

+ 0 Since Last Month

4 Total

1 Active | 3 Revoked

Code Signing Certificates

+ 1 Since Last Month

1 Total

1 Active | 0 Revoked

Device Certificates

+ 0 Since Last Month

0 Total

0 Active | 0 Revoked

Expiring Certificates

Within 180 days

Type	Count
Sectigo Limited	6
Self-Signed	5
Trusted	16

Expiring Domain Validation

Within 180 days

Days	Count
0-30	12
30-60	0
60-90	2
90-120	0
120-150	0
150-180	8

Certificates Requested vs Issued

Orders placed over date range

Certificate Requests

Orders placed over date range

SSL Certificates Types (Managed)

Certificate issued through Certificate Manager

Type	Percentage
Single Domain	51.85%
Multi Domain	15.82%
Wildcard	32.33%

SSL Certificates by Validation level

Certificate issued through Certificate Manager

Level	Percentage
OV	88.29%
DV	11.71%
EV	0.00%
Other	0.00%

Certificates by Template

Certificate issued through Certificate Manager

Certificates by CA

Include Scanning Agents results

Certificates by Duration

Include Scanning Agents results

Mirroring service

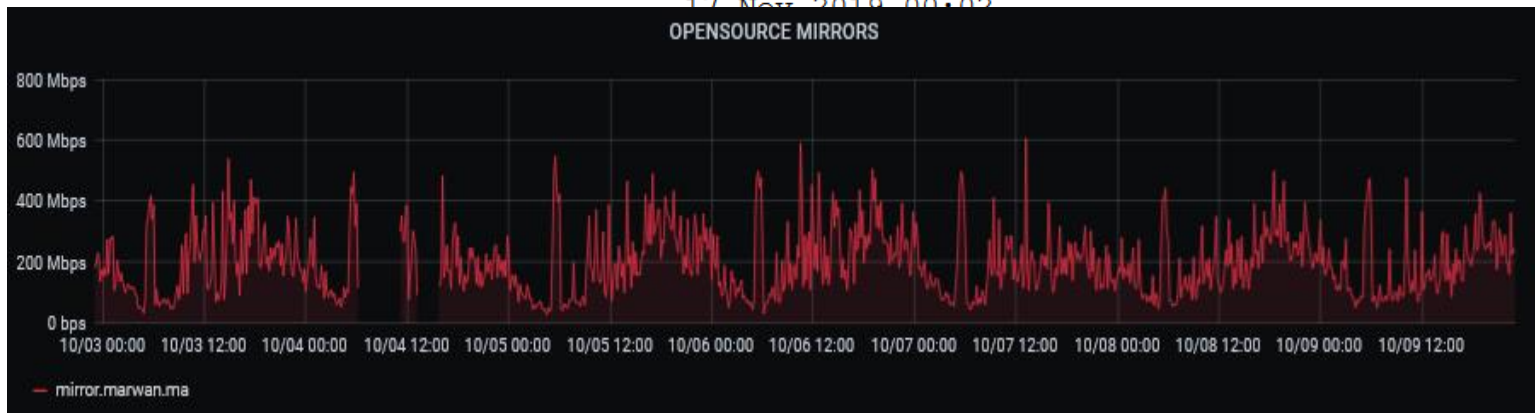
(mirror.marwan.ma)



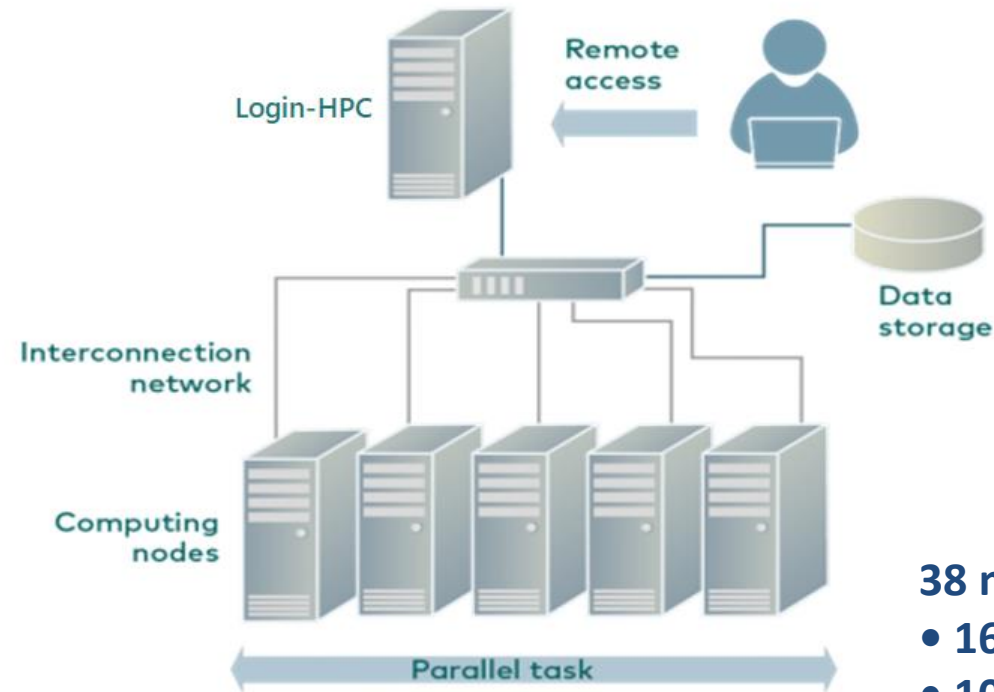
https://mirror.marwan.ma

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../			
centos/	24-Sep-2019	06:12	-
cpan/	15-Apr-2011	17:51	-
cran/	17-Nov-2019	02:13	-
ctan/	17-Nov-2019	00:02	-
fedora/			
gcc/			
gimp/			
gnu/			
gnualpha/			
ipfire/			
mariadb/			
opnsense/			
putty/			
remi/			
sage/			
savannah/			
squid/	06-Oct-2019	13:13	-
tails/	31-Jul-2016	19:43	-
tor/	15-Nov-2019	20:25	-
ubuntu/	17-Nov-2019	11:36	-
ubuntu-releases/	17-Nov-2019	05:21	-
videolan/	11-Dec-2018	14:17	-
wireshark/	15-Nov-2019	17:19	-



HPC-MARWAN : ARCHITECTURE



38 nodes:

- 1672 Cores (165 TFlops).
- 10.4 TB of memory.
- 396 TB of Storage.
- 4 GPU cards.
- Ultra-low latency (OPA) network at 100 Gbps.

HPC-MARWAN: Monitoring



HPC-MARWAN : DEPLOYED APPLICATIONS

Environmental science



Life science



Prokka



Mathematics



Material science/Chemistry



GROMACS FAST. FLEXIBLE. FREE.

Physics



D'autres applications ...

Statistics/Data processing



Tools & Libraries

- Intel Parallel Studio
- GNU Compilers
- MKL, BLACS and ScaLAPACK
- FFTW
- NetCDF, HDF
- Open MPI , Intel MPI ,MPICH
- CUDA (GPU)
- Anaconda (Python)

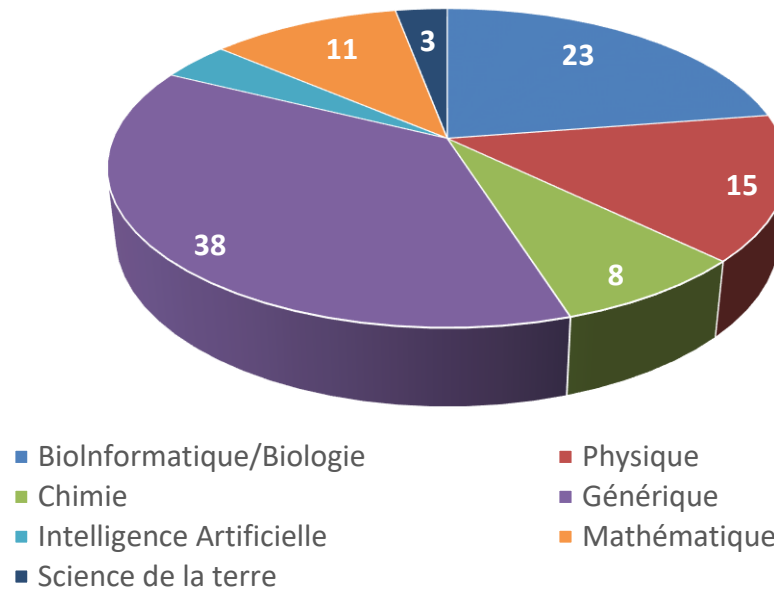


<https://hpc.marwan.ma/index.php/applications-installees/liste-des-applications>

HPC-MARWAN : DEPLOYED APPLICATIONS

- 102 Installed Applications and Libraries

Number of applications by scientific field.



- Most Requested Apps:

Quantum ESPRESSO , GEANT4/root , GROMACS, R , CUDA Toolkit(GPU)

- ❑ Applications and libraries are accessible through a module environment: **LMOD**

- ❑ https://lmod.readthedocs.io/en/latest/010_user.html

- ❑ Cluster management and job scheduling system : **SLURM**

- ❑ <https://slurm.schedmd.com/documentation.html>



Site web	https://hpc.marwan.ma/
Github	https://github.com/HPC-MARWAN-Team/hpc_samples
Documentation	https://hpc-wiki.readthedocs.io/fr/latest/
Email	hpc@marwan.ma



Thank you for your attention