

UDI-GIGAMED

Computational Biosciences Days
ULiège IT resources

UDI-GIGAMED

- UDI = **U**nité **D**élocalisée d'**I**nformatique = Local IT Service
 - Manages local computer park and network needs
 - 1st level helpdesk
 - Deploys Institution softwares
 - Administrative software development
- **UDI-GIGAMED**
 - 4 agents + manager
 - ~ 1000 people (FACMED) + 600 (GIGA) + 200 (CHU Liège)
 - ~ 3000 devices
- **Single Point of Contact** : if necessary, we relay !

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- **1st level helpdesk** ⇒ **UDI-GIGAMED**
 - ANY question about computers and computing
 - Help with hardware (choosing, buying, delivery, repairs...) and O.S. : Windows, macOS, Linux
 - Help with ULiège softwares (installation and basic use) : Dox, Gitlab, Office365, SAP, SAS, AV, Mathematica, Matlab...
 - Computers in meeting rooms, classrooms, lecture halls...
 - Computer lifecycle (from buying to disposal) and insurance (theft and damage)
- **Scientific level helpdesk** ⇒ **IT GIGA**
 - Bioinformatics group
 - Mass-storage usage
 - Grid Computing Gurus
 - GIGA Specific softwares : Krino, Xenia
- **Institution level helpdesk** ⇒ **SEGI**

ULiège IT : SEGI

- **S**ervice **G**énéral d'**I**nformatique
 - Certifications : ISO 9001, ISO27001, PRINCE2
 - micro-computing, grid-computing, multimedia, telephony, institution servers, virtual servers platform, Internet and Intranet services, institution administrative applications, videoconferencing, posters and mass printing...
 - Institution softwares : Dox, Horizon, Unicast, Unicast Live, CELCAT, JCMS, Gitlab, Office365, SAP, SAS, JMP, Gaussian, Siemens, Mathematica, Matlab...
 - Computer networks : Wi-Fi (+1500 AP) and wired (10Gb, 1Gb, 100Mb)
 - The network is managed by SEGI only : other networks are forbidden (local switches or routers, Time Capsule, ...)
 - **Do not connect to other networks ! Wi-Fi : use « ULiège » or « Eduroam »**
 - VPN « F5 Big IP » : be anywhere at work ! ⇒ <https://vpn.uliege.be>
 - Enlarges ULiège network to include your computer, wherever it is.
 - **Do not use « free » unsafe Wi-Fi or wired networks for critical apps or data, without using the ULiège VPN !**

ULiège IT : Microsoft Office 365 Edu

- Office Pro Plus
- Teams
- OneDrive
- SharePoint online
- e-Mail, calendar, contacts, tasks
 - Use online : <https://outlook.office.com/> or with any desktop app : Outlook, Thunderbird, Evolution...
 - **Do not use « free » mailboxes (hotmail, gmail...) for critical communications or data !**

More info : https://my.segi.uliege.be/cms/c_13550133/fr/mysegi-office-365

Start here : <https://www.office.com>

ULiège IT : Dox / OneDrive

- Dox : cloud storage based on ownCloud (staff only)
 - Drop-in replacement for iCloud, Dropbox, ~~OneDrive~~, Google Drive...
 - 100GB
 - Security and confidentiality : managed by SEGI in Liège
 - Sharing and collaboration (online office)
 - Use thru web browser, computer O.S. integration or smartphone/tablet
- OneDrive (comes with Office 365)
 - 1TB for everybody ! Youhou ! (really ?)
- Using DOX in place of OneDrive is still preferred for scientific data
- **Do not use « free » cloud storage for critical data !**

ULiège IT : Gitlab

- 2 development forges with backup, synchronisation, CI/CD
 - `gitlab.uliege.be` : available inside and outside ULiège for collaborations with external developers
 - `gitlab-priv.uliege.be` : local to ULiège only, but with increased security for critical developments
- Do not use « free » forges for critical developments !

Global WarNing !!

DO NOT USE « FREE » ANYTHING !!

- 1) if it's free, that's because YOU are the product !
- 2) if you deal with critical data about people ⇒ GDPR

ULiège IT : Grid-Computing

- NIC5 (\geq Jan/2021)
 - 70 nodes with two 32-cores AMD EPYC 7542 at 2.9 GHz and 256 GB of RAM, 3 nodes with 1 TB of RAM, 50 TB /home NFS, 520 TB of fast BeeGFS /scratch and a 100 Gbps Infiniband interconnect, for a total of 4672 cores
 - CentOS8, Slurm, EasyBuild
- NIC4 (deprecated, no new accounts)
 - 128 compute nodes, two 8-cores Intel E5-2650 processors at 2.0 GHz, 64 GB of RAM, 144 TB parallel filesystem, 70 TB NFS server, 20GB per user
 - Linux, Slurm, OpenMP, MPI, BLAS, LAPACK, R, Octave, Python, etc.
- NIC5 is one of CÉCI (Consortium des Équipements de Calcul Intensif) 5 clusters
- Linux clusters for Matlab, Octave, Dislin, Maxima, GNUPlot, R-Project...
- cluster.calc.priv : cluster for GIGA (24/30) and CHU (6/30)
 - 816 cores, 5.77 TB RAM

ULiège IT : MassStorage

- Once a GIGA initiative, now a ULiège device
 - 3PB on disk, 11PB on tape (Backup and Archive)
 - Archive
 - Access to mass data producers thru 10Gb network
 - 100GB home directory (GIGA staff only)
 - Access via NFS, CIFS or SFTP
 - Versionning : 25 versions. Inactives : max 4 weeks

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Remember :

ULiège IT :

<https://my.segi.uliege.be>

Faculty of Medecine and GIGA IT :

<https://udimed.uliege.be>

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Questions ?