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Chair of Materials Science and Nanotechnology, TU Dresden

PMN IT Information Event

Dresden, 24.10.2024, Biannual Chair Information Event

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General information – IT administration

- **ZIH** is IT administration unit of TU Dresden
- Therefore, you can write to ZIH if you have any problems with IT services

<https://faq.tickets.tu-dresden.de/otrs/public.pl>
servicedesk@tu-dresden.de

- We are only contact persons for
 - Your office PC/laptop
 - Software like Microsoft Office, Origin etc.
 - Network printer
 - Presentation support → Laptop, Microphones, Webcams, Presenter etc.

General information - Website of our Chair

- **Public website**
 - <https://nano.tu-dresden.de/> or <https://nano-tud.de/>
- **Internal area on website**
 - <https://nano.tu-dresden.de/shared/> or <https://nano-tud.de/shared/>
 - **User:** nano
Password: nano
 - Here we share helpful documents
- **Please check if your profile information is up to date**
 - <https://nano.tu-dresden.de/team/>

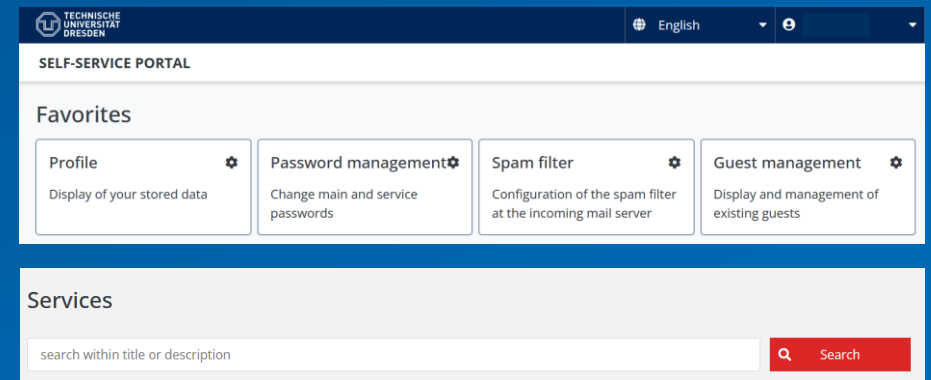
What does the IT infrastructure look like?

1. Basics
 - *What do I definitely need for my digital workplace?*
2. Communication & Collaboration
 - *How can we work efficient in a team?*
3. Data storage
 - *Where can I save my data?*
 - *How can I share my data?*
4. Software
 - *How can I get helpful licensed software for my work?*
5. Workstations and Server
 - *Where can I run hardware resource-hungry software?*
6. Security and Network
 - *What do I need to do to protect my data and the data of my colleagues?*

- What do I need to have access to all of that?

→ **Your ZIH login** ←

- To manage your *passwords* and *personal information* go to
<https://selfservice.tu-dresden.de/>
- See all services at glance in Self-Service Portal



1. Basics - Your digital ID at TU Dresden (user certificate)

- **Signing documents digitally (next slide), encrypt and decrypt**
- Type “certificate” into the search field of the self-service portal

SELF-SERVICE PORTAL

My tasks | Data protection declarations

Certificate management (Apply for user certificates and server certificates)

Service description | **Manage user certificates** | Server certificates via Sectigo | Revoke certificates of DFN-PKI | Search for certificates of DFN-PKI

On this page you can view your existing user certificates, revoke them or apply for new ones.

Request certificate

Search

E-mail	Valid until	Serial number	Status	Actions
steffen.kampmann@tu-dresden.de			valid	

Lines per page: 10 | 1-1 from 1 |  1 

Services

certificate

IT security, authentication and authorisation

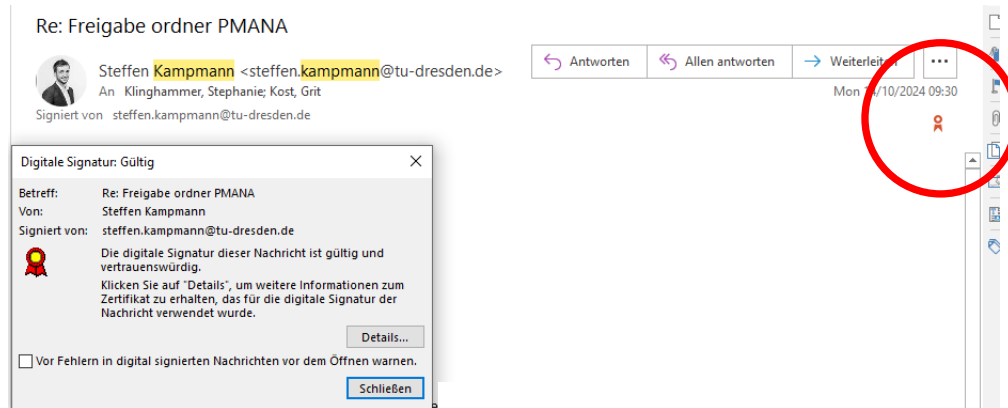
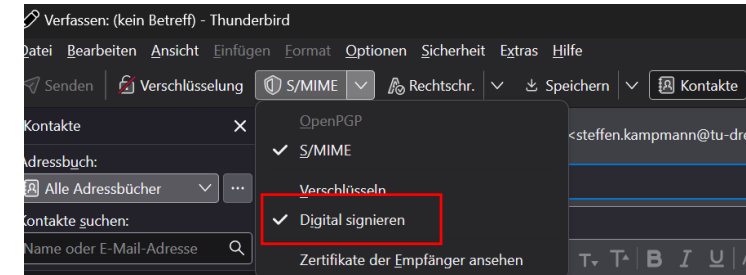
Certificate management

Apply for user certificates and server certificates

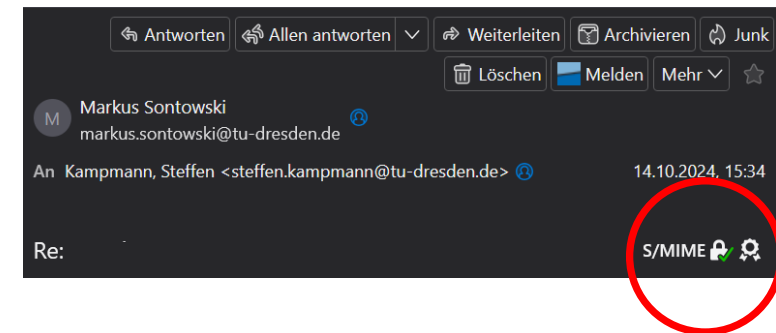
- **Request certificate**
- Service-Desk visitor address:
 - Andreas-Pfitzmann-Bau, Room E036 Nöthnitzer Straße 46, 01187 Dresden
 - <https://navigator.tu-dresden.de/etplan/apb/00/raum/542100.2480?language=en>
 - Opening hours: Monday – Friday → 08:00 – 19:00
- Full documentation: <https://tud.link/wtvvx5>

1. Basics - Use your user certificate for your emails

- After you have installed the certificate, you can select the certificate in your mail program
- Importing the user certificate into:
 - Outlook: <https://tud.link/m7xx9k>
 - Thunderbird: <https://tud.link/eb25ta>
- Sets the e-mails to be signed automatically
- The digital signature is displayed for the recipient



Outlook



Thunderbird

Everybody should use the digital signature!

1. Basics – Email

- **Email**

- In Browser: <https://msx.tu-dresden.de>
- Setup instructions for email clients:
 - Outlook: <https://tud.link/k43h> for **Windows** and <https://tud.link/8gfu> for **MacOS**
 - Thunderbird: <https://tud.link/8wpk> for **Windows, MacOS, Linux**
 - Apple Mail: <https://tud.link/7jpf> for **MacOS** and <https://tud.link/nhcq> for **iOS/iPadOS**
 - Gmail: <https://tud.link/15t4> for **Android**
- Please setup your signature according to your affiliation
 - Template example:

Your_title Your_name
TUD Dresden University of Technology
Faculty of Mechanical Science and Engineering
Institute of Materials Science
Chair of Materials Science and Nanotechnology
Phone: +49 (0) 351 463-XYZ
www.nano.tu-dresden.de



[1]

[1] DALL-E: <https://chat.openai.com>

2. Communication and collaboration – Video Calls and Chats

- **Zoom**

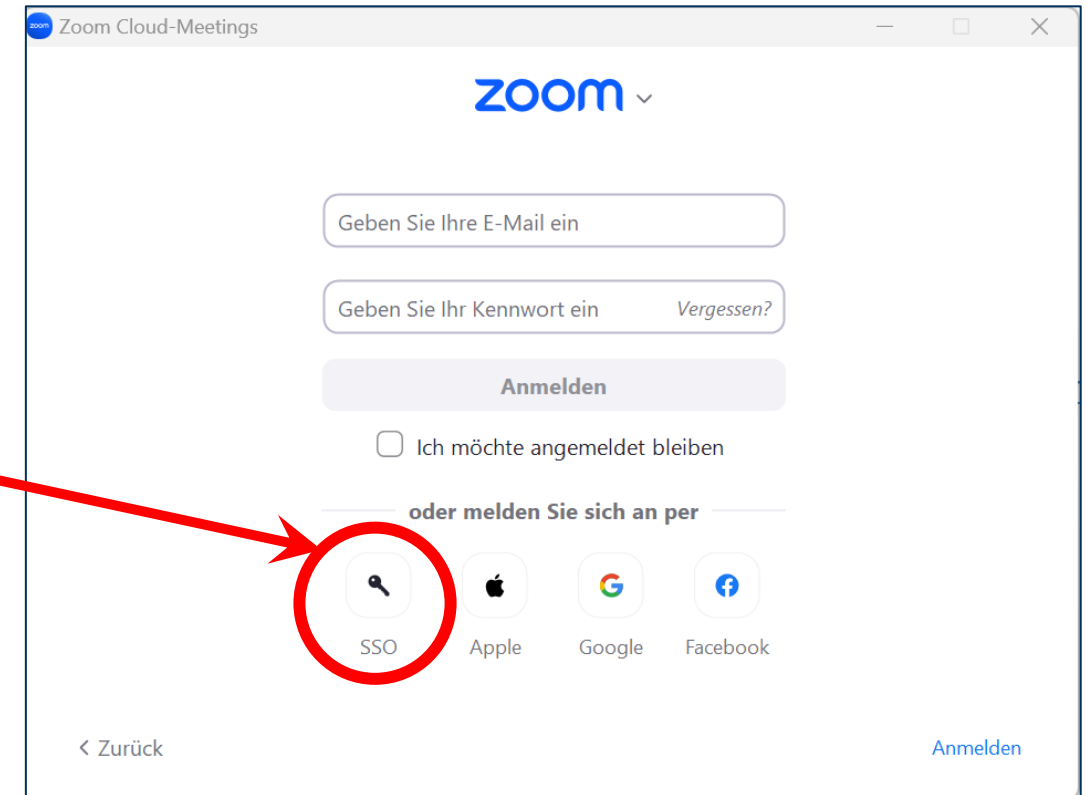
- Click „Sign in“ at <https://tu-dresden.zoom.us/>
- Create your personal link for your own Zoom room
https://tu-dresden.zoom-x.de/my/Your_Name
(Left menu on „Meetings“ → „Private room“)
- You can sign in with your ZIH-Login if you click on SSO and type *tu-dresden* in the appeared text field

- **BigBlueButton**

- <https://bbb.tu-dresden.de/>

- **Matrix-Chat**

- Chat for internal communication with students or colleagues
- Chat rooms, personal chats etc.
- <https://matrix.tu-dresden.de>



2. Communication and collaboration – Writing article

Sharepoint (Word, Powerpoint etc.):

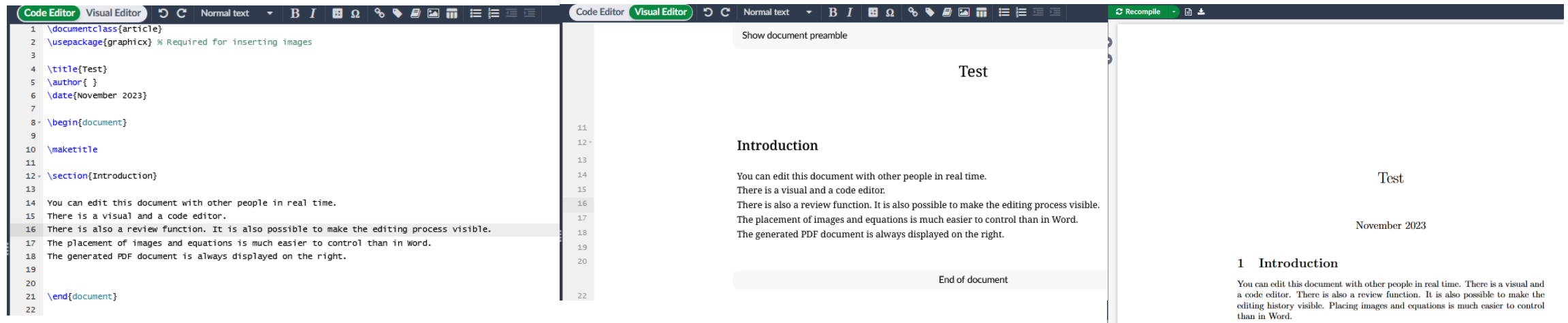
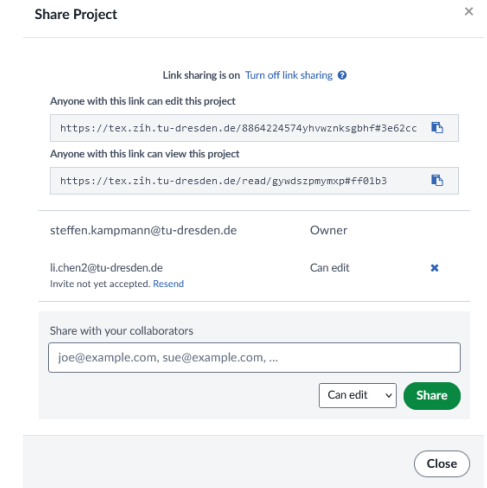


[1]

- <https://selfservice.tu-dresden.de/services/258944/>

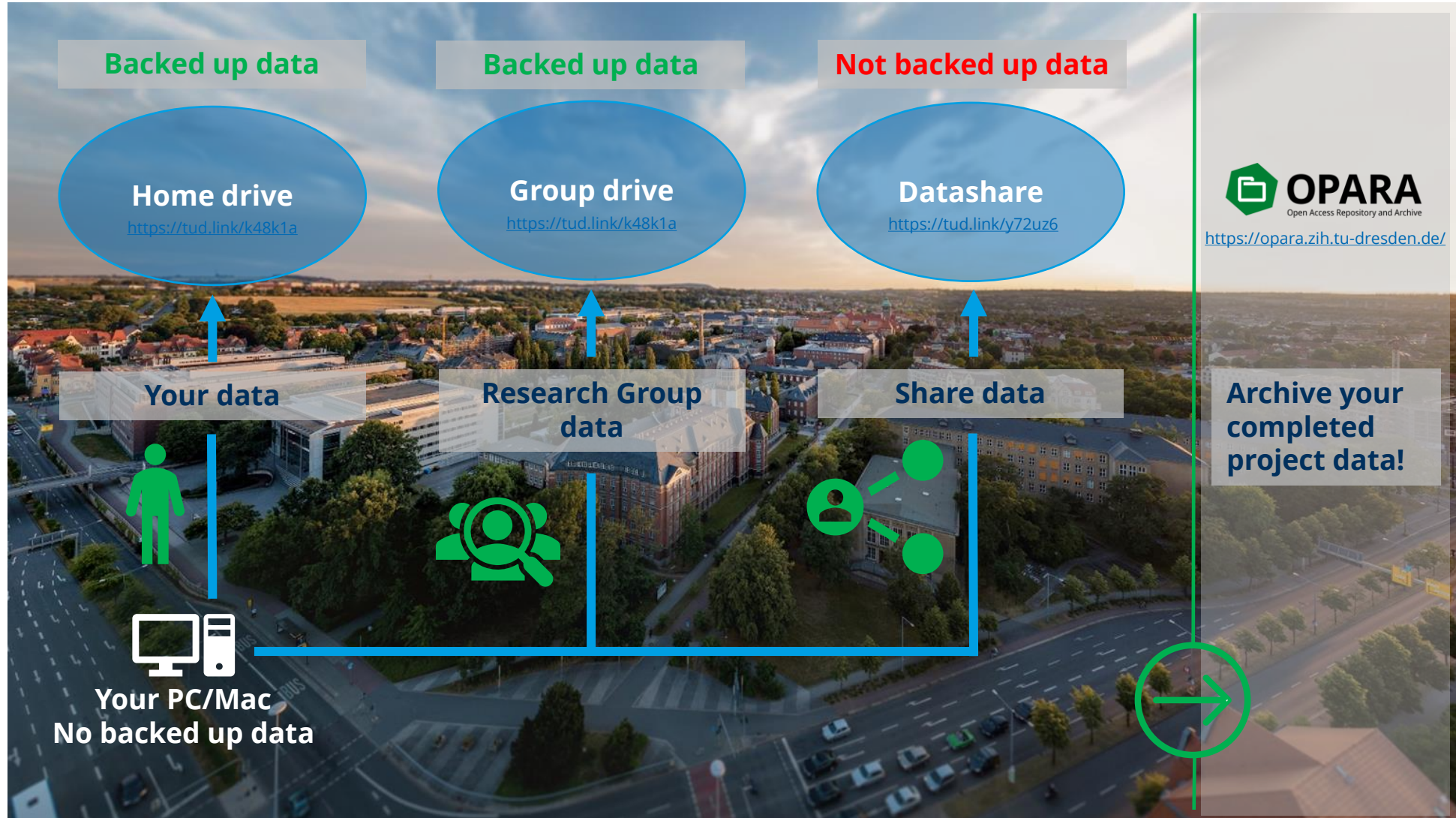
ShareLatex:

- equivalent to Overleaf, but can be used without restrictions
- <https://tex.zih.tu-dresden.de/>



[1] <https://de.wikipedia.org/>

3. Data storage – Overview



3. Data storage – Which group drives are available at the chair?

pmana (10 TB)

- Contains any chair related data
→ Win: <\\vs-grp02.zih.tu-dresden.de\pmana> Mac: <smb://vs-grp02.zih.tu-dresden.de/pmana>

pmnnano (5 TB)

- Contains project and administrative related data of Theory group
→ Win: <\\vs-grp08.zih.tu-dresden.de\pmnnano> Mac: <smb://vs-grp08.zih.tu-dresden.de/pmnnano>

pmnent (5 TB)

- Contains project and administrative related data of Environmental nanotechnology group
→ Win: <\\vs-sec-smb3.zih.tu-dresden.de\pmnent> Mac: <smb://vs-sec-smb3.zih.tu-dresden.de/pmnent>

pmnnst (5 TB)

- Contains project and administrative related data of Nanoelectronics for sensor technologies group
→ <\\vs-grp08.zih.tu-dresden.de\pmnnst> Mac: <smb://vs-grp08.zih.tu-dresden.de/pmnnst>

pmnraw (50 TB) (only Snapshots, no backup, no mirror)

- Contains raw research data of every group
→ <\\vs-grp07.zih.tu-dresden.de\pmnraw> Mac: <smb://vs-grp07.zih.tu-dresden.de/pmnraw>

3. Data storages – Share your data easily

- **Datashare** based on Nextcloud environment
 - <https://datashare.tu-dresden.de/>
 - You can upload, download and share Data with internal and **external people**
 - **App** for Windows, Mac, iOS and Android
 - <https://nextcloud.com/de/install/#install-clients>
 - Installation and setup manual: <https://tud.link/fsvs>
- **Gigamove 2.0**
 - Share of large data until 100 GB (*Hint: Zip data to one file and then share it*)
 - <https://selfservice.tu-dresden.de/services/2250335/>



[1]



[3]

The screenshot shows the GigaMove 2.0 web interface. At the top, there's a header with the RWTH Aachen University logo and the text "GigaMove 2.0" and "Steffen Kampmann". Below the header, there's a sidebar with navigation links: "Provide file", "Request file", "Manage files", "Provided", and "Requested". The main content area is titled "Welcome to GigaMove 2.0" and has two columns. The left column is titled "Provide file" and contains text about providing a file up to 100 GB, which can be shared via E-Mail and downloaded with a link by anyone. It also mentions that the file will be scanned for viruses. At the bottom of this column is a blue button labeled "PROVIDE". The right column is titled "Request file" and contains text about requesting a file from an authenticated or anonymous person via E-Mail. It also mentions that after the upload, the file will be scanned for viruses. At the bottom of this column is a blue button labeled "REQUEST".

[2]

- [1] <https://de.wikipedia.org/>
- [2] <https://gigamove.rwth-aachen.de/en>
- [3] DALL-E: <https://chat.openai.com>

4. Software – Useful Tools

- **Microsoft Office**
 - Microsoft Office 365 is also available for **private** PC/Laptop
→ For employees: <https://tud.link/9nl1> → For students: <https://campussachsen.tu-dresden.de/>
- **Origin**
 - License of chair available (*Version 2024, **also usable in VPN of TU Dresden***)
→ please contact stephanie.klinghammer@tu-dresden.de or steffen.kampmann@tu-dresden.de
 - For students **private** PC/Laptop: <https://tud.link/h928>
- **Matlab**
 - For students and employees **office/private** PC/laptop
 - <https://de.mathworks.com/academia/tah-portal/tu-dresden-40758619.html>
- **Solidworks**
 - License of chair available → please contact steffen.kampmann@tu-dresden.de
- **Sophos**
 - Anti Virus for **private** Laptop → <https://home.sophos.com/en-us/employee>
- **Alternatives for Adobe Products:** <https://tud.link/pmx21m> (Affinity Designer), <https://tud.link/7u6kbt> (PDF Studio Pro), <https://tud.link/jrqhwv> CorelDRAW Technical Suite



Full software list: <https://tud.link/xn1o>

4. Software – Be Careful

Please do not use

- **External cloud services** like:
Dropbox, iCloud, Google Drive, OneDrive etc.
→ **Do not** save your research data here
- Software with illegal license
- Software from Kaspersky Lab

Please use following services of TU Dresden

- **Home and Group drives**

→ **Save your research data here**
- Software list of TU Dresden or ask colleagues for alternatives
- Sophos (already installed)

Please only install software from trustworthy sources
E. g. for open source software: <https://www.heise.de/download/>

5. Workstations and Server – Powerful Hardware

- Run your calculations on specialized Hardware that is available 24/7
- Remote workstations for computing
 - <https://selfservice.tu-dresden.de/services/research-cloud/>
 - Preinstalled (Ubuntu, Windows ...)
 - Easy installation of software
 - No waiting times
- High Performance Computing (HPC)
 - <https://doc.zih.tu-dresden.de/>
 - To get access please contact **Dr. Rafael Gutierrez**
(rafael.gutierrez@tu-dresden.de)



[1]



[2]

[1] DALL-E: <https://chat.openai.com>

[2] <https://tu-dresden.de/>

5. Workstations and Server – First Steps

- **Remote PC (Windows) hosted by TU Dresden**

- <https://rds.zih.tu-dresden.de/>
- As student **choose** “Office Collection”
- Many preinstalled software like Origin, COMSOL Multiphysics, Microsoft Office, Python, SPSS, Maple etc.
- Your home drive is already mounted
- You have access to your data on your local PC too

- **Control your office or lab PC remotely**

- You can control your **office or lab PC** from everywhere
- <https://rsupport.zih.tu-dresden.de/users/main/downloads.html>
- You can find a simple manual in following document
<https://nano.tu-dresden.de/shared/16>



[1] <https://lb.islonline.com/>

6. Security and Network – Scam Emails

Available?

 Gianaurelio Cuniberti <profmail88@mail.ru>
An Kampmann, Steffen

Let me know if you are free right now.

BR
Gianaurelio Cuniberti

Have you got some free time?

 Gianaurelio (Giovanni) Cuniberti <maaike.bader@mail.ru>
An Kampmann, Steffen

Email me back as soon as you get this. Thank you.

Do you have some minutes?

 Prof. Dr. Gianaurelio Cuniberti <deanprof2@mail.com>
An

Hello.
I need a quick response from you, Kindly email me back as soon as possible.

Regards,
Prof. Dr. Gianaurelio Cuniberti
Head of Department

Prof. Dr. Gianaurelio Cuniberti <deanprof3@r...>
Sa 29.07.2023 18:32

An:

 | Aktionselemente

I really appreciate your response, I urgently need your help to purchase some Apple iTunes Gift cards from any store around you. There are some prospects I need to send Gift items but I can't do that right now because I'm currently attending to a friend at hospital who is critically sick. Please let me know if it's possible to get them right now, so I can tell you what amount I'll need, I will surely reimburse you.

Regards

You will NEVER be asked for your password or for money and vouchers

Report Scam email to TU Dresden (ZIH)

- <https://tud.link/35d7>

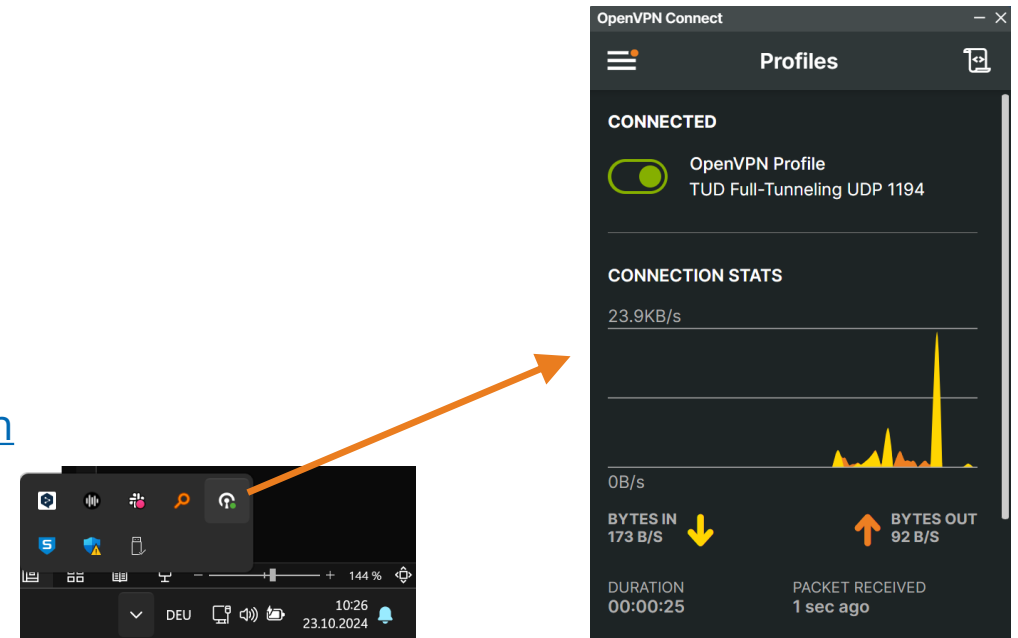
6. Security and Network – Stay connected with TU Dresden

- To have full access to all **services** stay in the TU network with VPN
 - Secured connection in public Wi-Fi networks e. g. on conferences
 - Required for accessing the home and group drives



VPN

- **Install OpenVPN software**
 - <https://openvpn.net/vpn-client/>
- **Download** your TU Dresden profile file
 - <https://selfservice.tu-dresden.de/services/vpn/openvpn>
 - Execute this file
 - **Done!**
- Detailed documentation: <https://tud.link/d4s7>



You can install on your private and office laptop/PC

Thank you for your attention!