

Updates on realtime collaboration tools in Norway and Skandinavia

5th TF-EDU virtual meeting

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Content

- UNINETT
- eduMEET
- Update on Zoom (stats, GDPR, progress)
- Integrations LMS, recording and streaming
- Teams



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- Norwegian NREN
- Provide realtime services
 - On prem Zoom Cloud from NORDUnet
 - On prem Skype for Business Cloud
 - PSTN
 - Community
 - Adobe Connect
 - Video-bridge:
Acano/Cisco Meeting Server phased out under Corona lock down



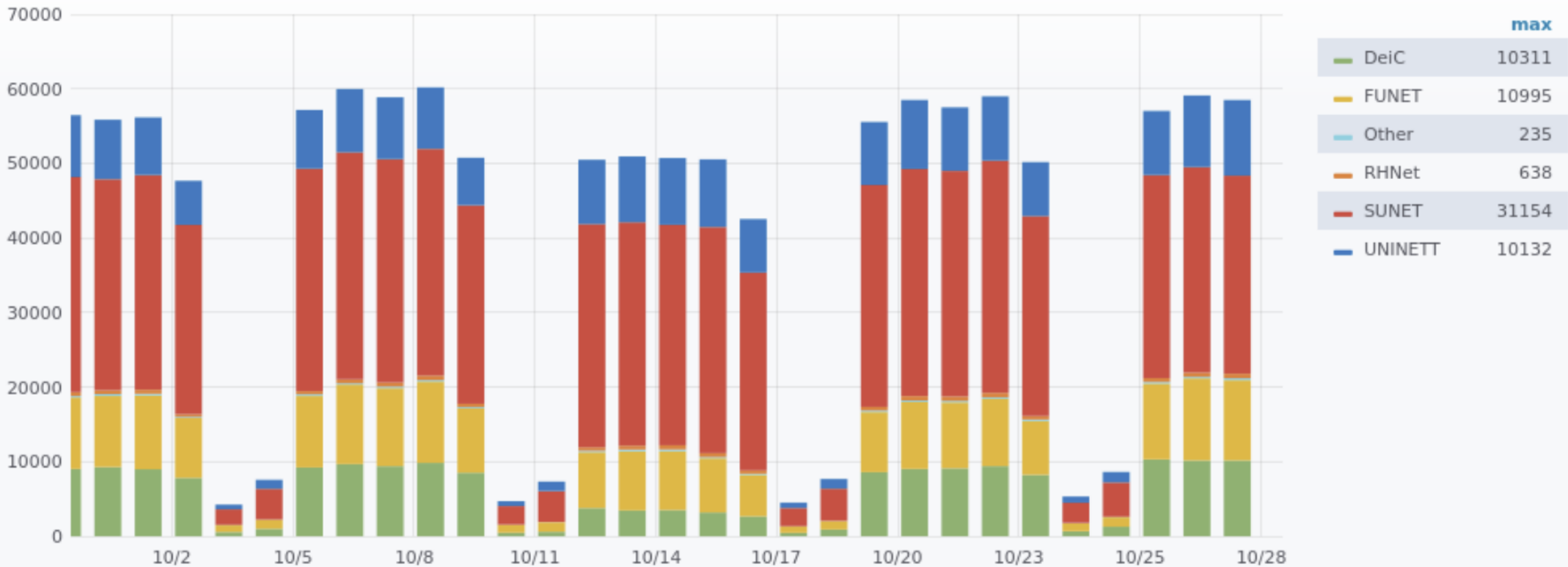
eduMEET

- New release in the next days
- Since May we did a lot of improvements
 - Scalability
 - Customizable audio for musical interaction
 - Moderation roles
 - Moodle integration
 - SAML and local auth
 - User Interface
- Try it on <https://letsmeet.no>



Zoom meeting minutes NORDUnet on prem Cloud

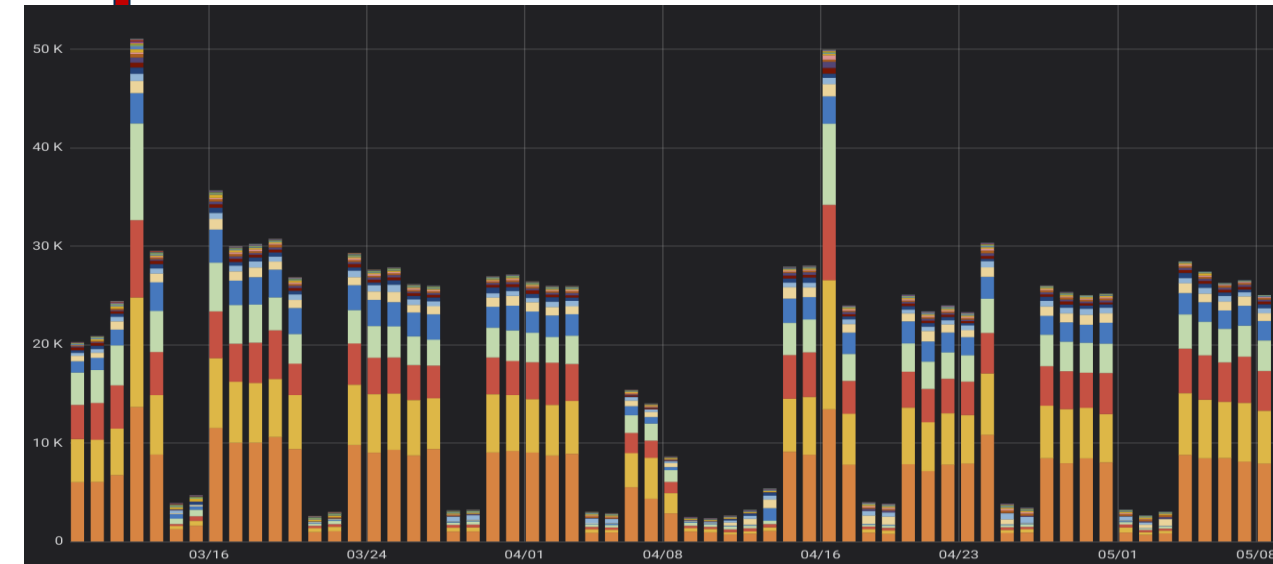
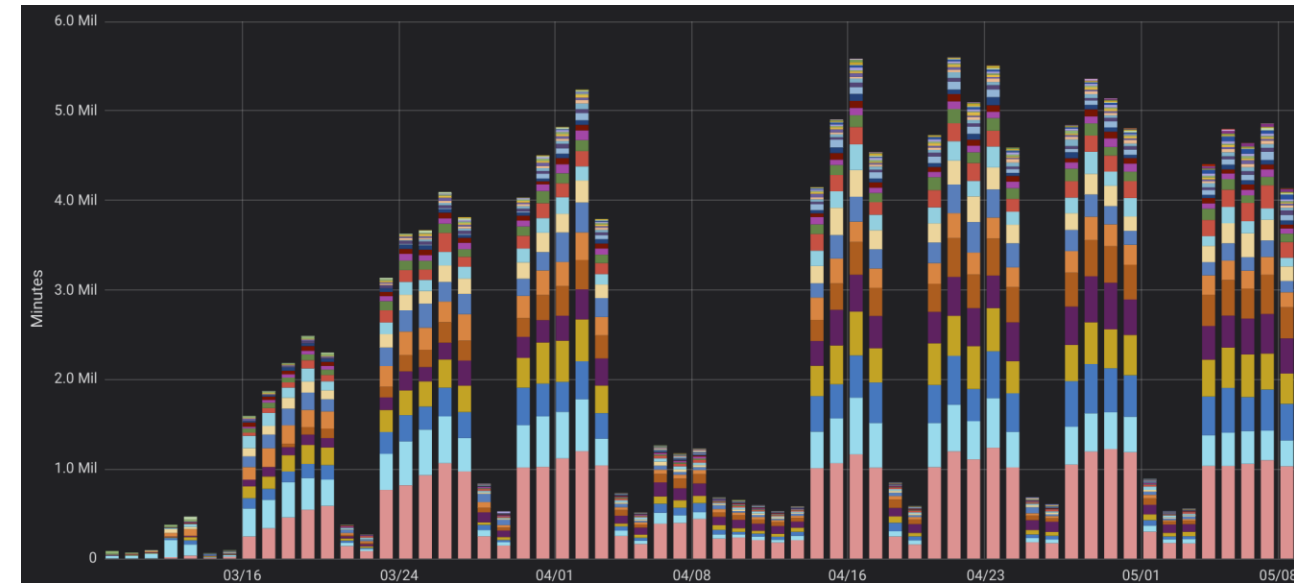
Number of meetings pr 24 hours



Corona-Effect

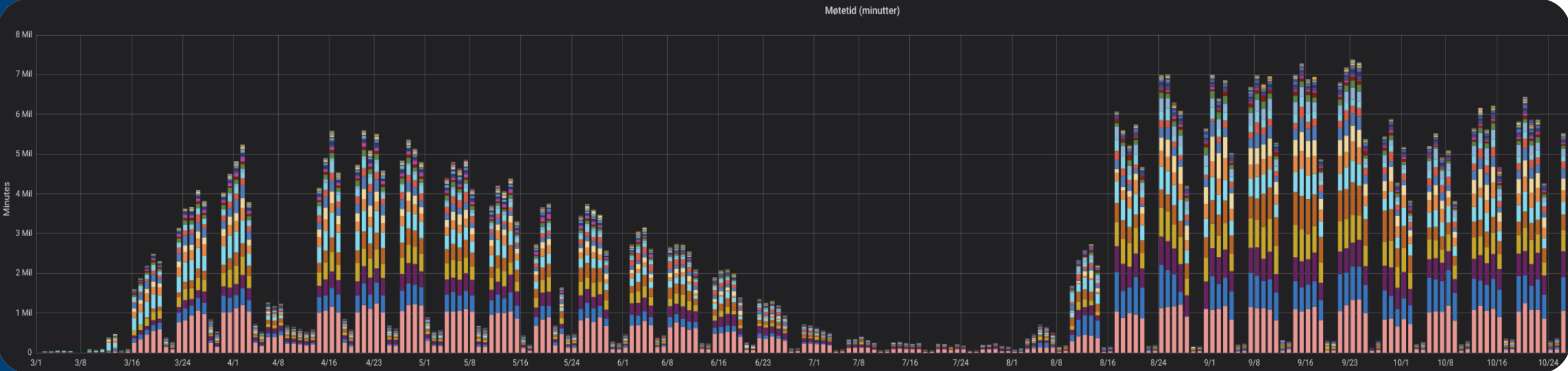
- Whole higher education sector in Norway now onboarded and uses Zoom
- Over 10.000 meetings / day
- Around 5.000.000 meeting minutes / day
- Growth factor of 100 in 3 weeks
- Scaled up on prem + dedicated installation of zoom service in AWS/Stockholm which can be scaled up/down on demand

Zoom meeting minutes

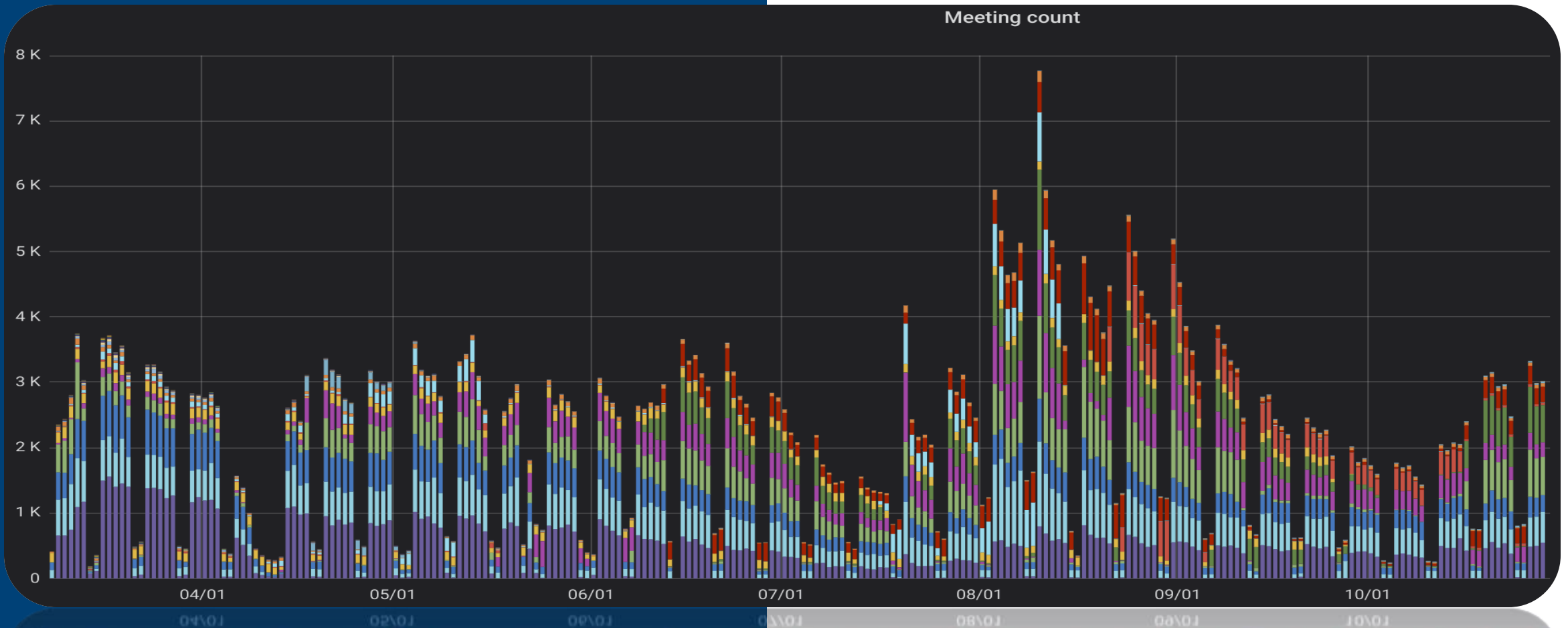


Skype for Business

Zoom meeting minutes NORDUnet on prem Cloud For Norway



Skype for Business On prem Cloud Uninett / Norway



Challenges with Zoom

- Special solution on Stockholm AWS worked but was expensive
- Some incidents where the service was not available
- NORDUnet is building distributed onprem Zoom platform now



Important changes in Zoom

- ▶ Security / Privacy
 - Central Security Button
 - AES 256-bit GCM encryption
 - Connected data centers in admin interface
 - Visible in meeting
 - Passcodes / Waiting room is mandatory
 - E2EE available in technical preview
 - Disables join before host, cloud recording, streaming, live transcription, Breakout Rooms, polling, and meeting reactions
- ▶ Self-select Breakout Rooms
- ▶ Improved Browser Client
 - Breakout rooms
- ▶ A lot of usability improved and small features added



Use cases in higher education and research

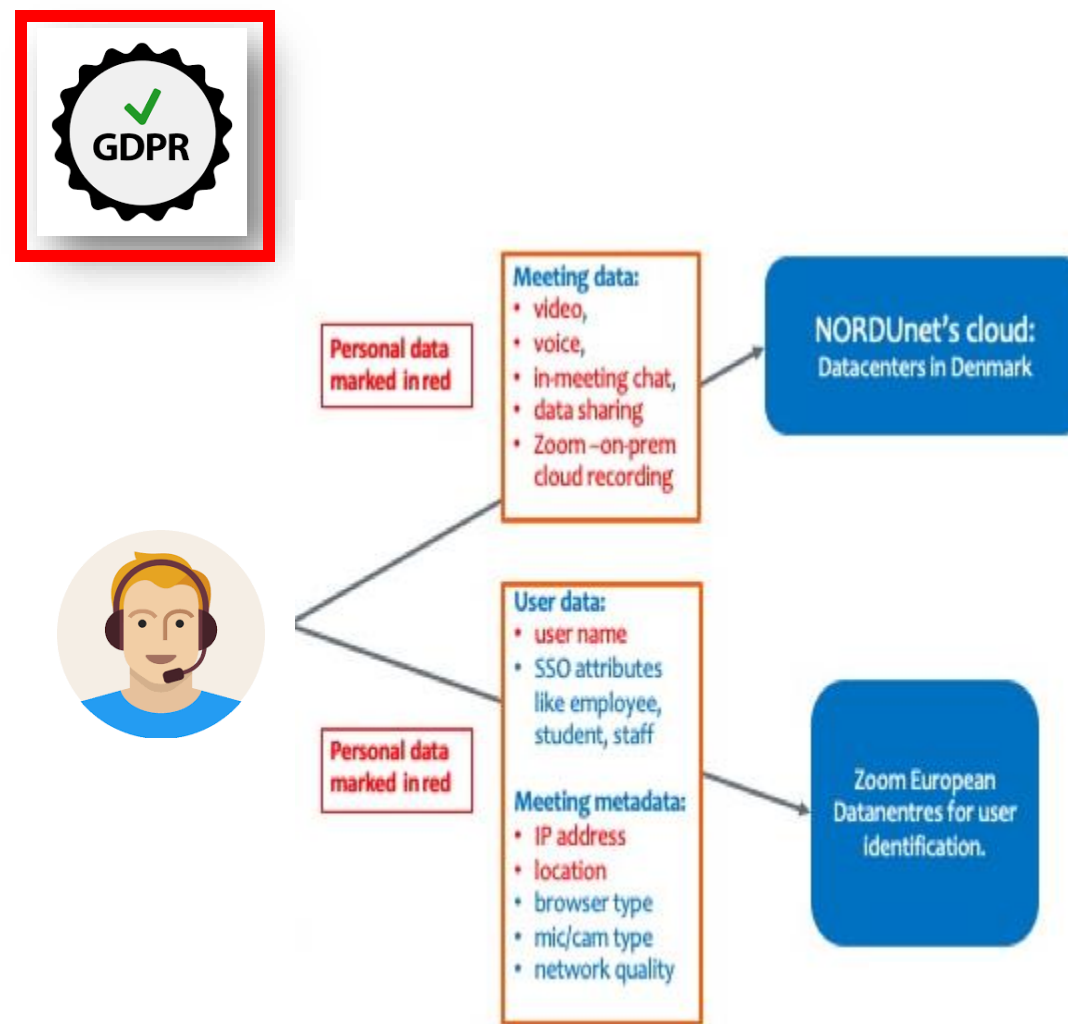
- Virtual class-room
- Hybrid class room
- LMS integrations (Canvas, Blackboard, It's learning)
- Disputation (with external guests and public access)
- Oral examen
- Public lectures
- Virtual Library
- Open Desk
- Virtual conferences



Structure of the Service

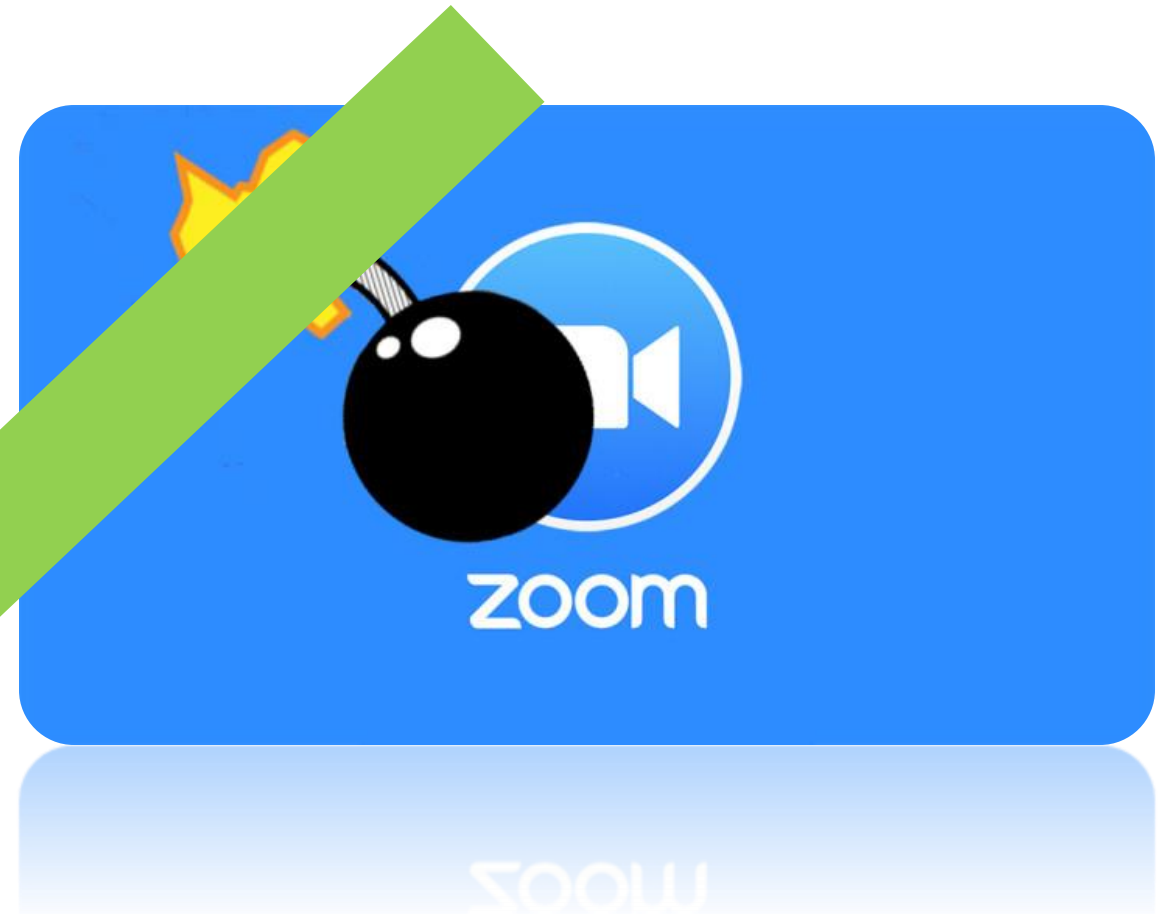
- Delivered via NORDUnet
- «On-premise» installation at Nordunet datacenter in Copenhagen
- Zoom Cloud in Stockholm
- Feide-integration
- GDPR compliant

- Zoom PR / website
 - News / Status
 - Security / Privacy informations
 - Best practices
- Aktiv community in Norway
 - Daily sector-admin status meetings
 - Weekly meetings with dedicated topic
 - Additional meetings with dedicated topics
 - Key user training
- Facebook-group



Zoom-bombing, Security and Privacy

- Extensive Support resources
- Extensive Public Relation resources
- Biggest issues:
 - Meeting links on social networks
 - No password
 - Default settings in Zoom
 - End2end encryption
 - Client vulnerabilities (MacOS)
 - UNC-links leaking Windows Credentials
 - User interface
- Zoom addressed all this professionally and quickly!



Conclusion and Plans

- Special solution comes with extra costs
- Most of our customers plan to continue with Zoom after Corona
- We need GDPR compliant and frictionfree recording and streaming
- Licence costs (Webinar / Hybrid class room)
- MS teams





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