



# eduMEET

Video-conferencing system for research, education and art communities

**GÉANT-EUNIS - Cloud Management Workshop**

29 November 2021

**Bartłomiej Idzikowski, PSNC**

Task leader *GN4-3 WP4 T2*

[www.geant.org](http://www.geant.org)



**eduMEET** easy and affordable VC for NRENs

WebRTC based web-conferencing tool delivered as a software package for on-prem installations

The platform is part of the GÉANT online services portfolio

NRENs can run it as Software as a Service for their institutions



# eduMEET

easy and affordable VC for NRENs



## Overview of the Offering



Open source web-conferencing system

Interactive, web-based videoconferencing platform

supporting distant learning processes (LTI, official Moodle plugin)

Created by the GÉANT community for R & E community

Trustworthy, private, self-hosted and secure

We do understand needs of our community!



# Story behind eduMEET – design assumptions



---

Introduce a **complete, alternate VC system** to commercial solutions

---

Develop technical **infrastructure** and **components** for open WebRTC services

---

Provide common, open-source **system** for research, educational and art communities

---

Simplify real-time communication and introduce **web browsers based tools**

## Benefits and Value for Users



Our own, open source software

Secure communication

Trust on level of similar organisations

Trustworthy keeping the AV traffic inside the GÉANT & NRENs network

Low cost compared with commercial solutions

WebRTC standards and easy to use

No need for installation of custom applications or plug-ins

# Key Components



WebRTC audio/video communication 

Screen sharing, file sharing and chat feature

Federated login, including  eduGAIN

Speaker detection (microphone analyzer with visual indicator)

Audio and video streams management

Full-screen mode, raise hand option, connection testing

Customisable view layout (democratic and filmstrip)

High resolution support – tested up to 

# eduMEET comparison with commercial solutions

## Advantages:

- For R&E community
- Trust & security
- Traffic remains in GÉANT
- Open standards
- Open source
- Software download free of charge

## Key features:

- Hybrid version
- Integration into LMS
- Forward-looking features (AR, VR, face recognition, etc.)

eduMEET	LifeSize	Zoom	Jitsi
Open standard (WebRTC)	Yes	No	Yes
Data in research network	No	Partially possible	Possible
eduGAIN login	No	Yes	Yes
Web based app	Yes	No	Yes
40 participants	50	1000	50
LMS integration possible	No	Yes	Possible
Free for users	19 USD	15 USD	Free
Video and content resolution 4K	4K	HD	HD
Claim room	No	Yes	No
Raise hand	No	Yes	Yes



## Uptake summary



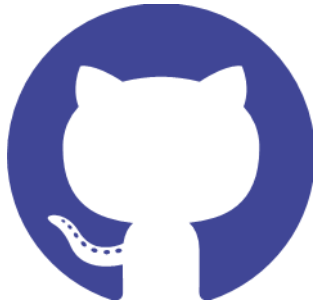
Software has been deployed by

- 14 NRENs
- more than 10 institutions

and in more than 80 nodes known

COVID-19 and lockdown have been the reasons for much bigger interest and uptake than it was foreseen for the *beta phase*.

## eduMEET nodes and users



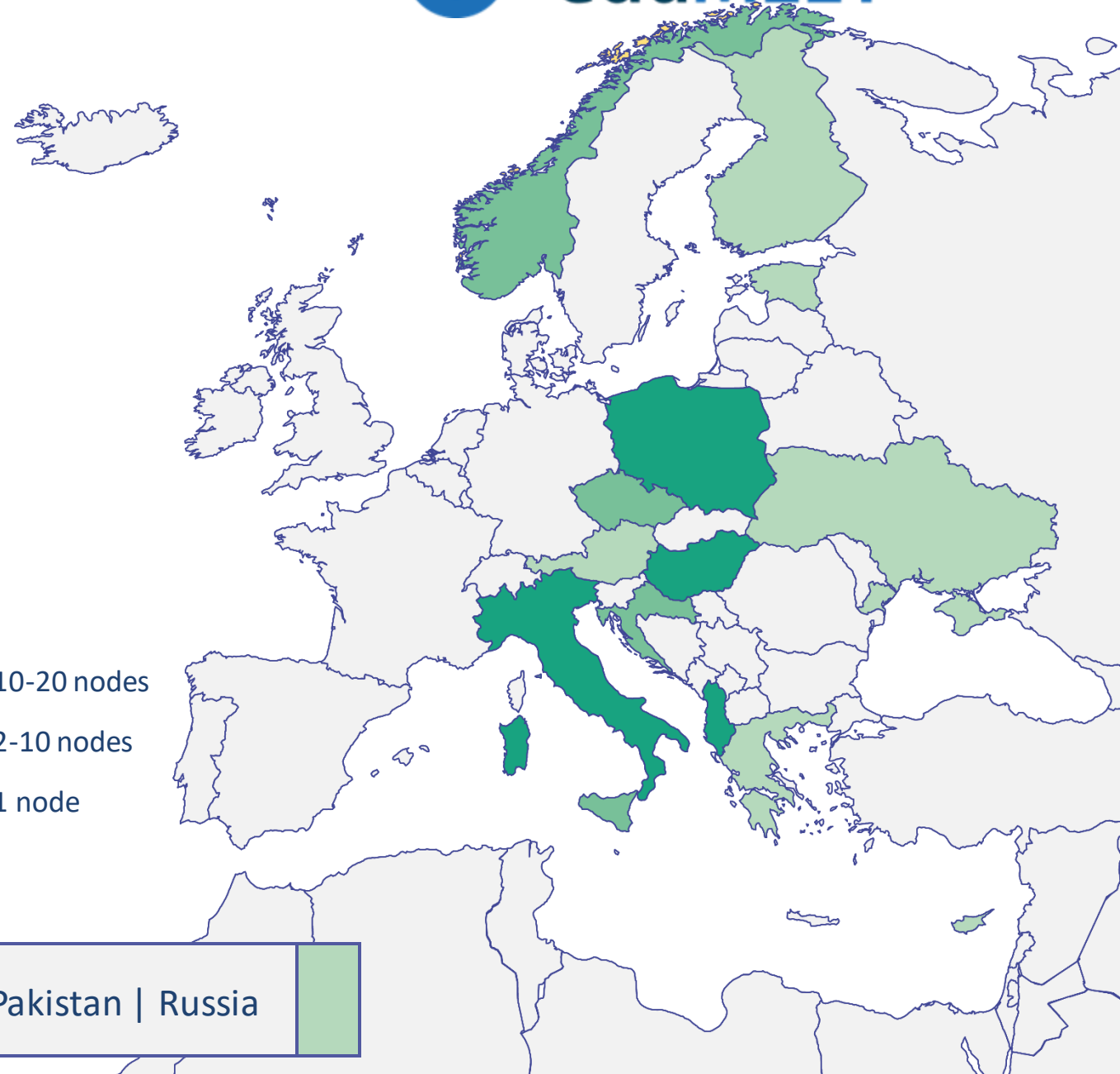
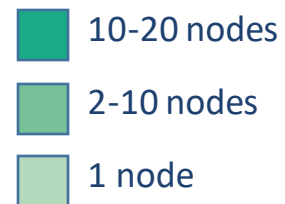
GitHub

1000

unique users/month

200

download/month



GÉANT | UP2U

Kazakhstan | Malaysia | Pakistan | Russia

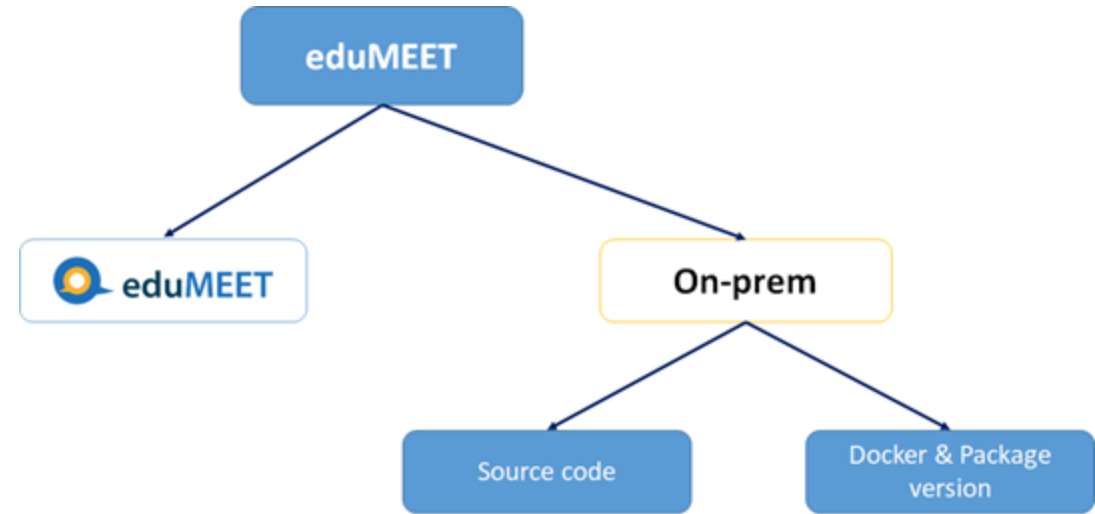
## Operations: Delivery model

Software package and documentation

Available for download from publicly accessible repository as:

- *source code software*, under the MIT license (at GitHub)
- *package version* - DEB (Debian, Ubuntu) and RPM (CentOS)
- *docker version* - dockerised version + ansible scripts

In addition, eduMEET demo instance hosted by GÉANT



## Roadmap 1/2



Sub-versions releases -  
on a quarterly basis

Every quarter,  
subsequent versions  
containing bug fixes  
and minor functional  
changes will be  
released

Every six months, main  
versions containing  
new functionalities will  
be released

New versions will be  
promoted via website,  
GitHub, mailing lists  
and other community  
channels

# Roadmap 2/2



Delivered	Coming soon (mid 2021)	Big picture (2022)
SFU-based version	Mesh of servers	Continue integration with legacy VC systems
Peer-to-peer version		Advanced audio mixing
Basic VC functionalities	Streaming / webinars	Client optimisation (reducing size of streams)
STUN/TURN integration	Standardisation processes	Standardisation processes
Federated login	Claim rooms	Further integrations with LMS
Lobby	Self view (disable + mirror)	Whiteboard
Session management	Expanded error handling + sessions restore	Background blur
Localisation/translation	Private tracker for file sharing	
Basic integrations in LMS	Local recording feature	Advanced monitoring, Prometheus integration
Scalability	Remote recording feature	Hybrid version (SFU based with peer-to-peer)
Room management	Integrations in LMS (LTI)	Investigate new research and technical areas (8K, 3D, AR, VR, gestures & face recognition)



# Marketing



eduMEET EU trade mark (word mark, classes 9 and 38)

Webpages: [edumeet.org](http://edumeet.org)

Demo service: [edumeet.geant.org](http://edumeet.geant.org)

## Mailing lists

- [community@edumeet.org](mailto:community@edumeet.org) (open list, with open archive)
- [support@edumeet.org](mailto:support@edumeet.org) (open support mailing list)

Articles in CONNECT magazine, presentations & demonstrations, video being prepared

Integration with GÉANT services like eduTeams, but also with Moodle



# Thank you

[edumeet.org](https://edumeet.org)

[support@edumeet.org](mailto:support@edumeet.org)

[idzik@man.poznan.pl](mailto:idzik@man.poznan.pl)

[www.geant.org](https://www.geant.org)



© GÉANT Association  
As part of the GÉANT 2020 Framework Partnership Agreement (FPA),  
the project receives funding from the European Union's Horizon 2020  
research and innovation programme under Grant Agreement No.  
856726 (GN4-3).