
Secure real-time audio/video communication – H.350, Encryption & Gatekeeper/Proxy – using H.323 (...and a bit SIP)

Tutorial/Workshop Session
- Introduction -

**19th APAN Meeting
Bangkok, Thailand
January 2005**

Schedule

- **Session 1**
 - Introduction – Kewin, Egon
 - Introduction to VC technology and H.323 – Kewin
 - GDS, Vide, E.164, Numbering plan – Egon
- **Session 2**
 - H.350 Directory Services – Egon
 - H.350 & H.235
 - Installation/Setup of H.350 (OpenLDAP, etc.) – Egon
- **Session 3**
 - Introduction Gatekeeper/Proxy + Firewalls, Security concepts - Kewin
 - Installation of Gatekeeper/Proxy incl. H.350 - Kewin
- **Session 4**
 - The future of H.323 – Are H.323 and SIP merging? – Kewin
 - What is possible today (H.323 & SIP) – Kewin
 - Data collaboration: H.239, T.120, VNC – Egon
 - Further Q&A session

Dr. ir. Egon Verharen



- Dr.ir. Egon M. Verharen is innovation manager at the Advanced Services department at SURFnet, the Dutch national research network, where he oversees SURFnet's applications and services innovation program, including running projects on digital videoconferencing and -streaming. He is chair of the TERENA (European education and research networks association) taskforce on voice, video and collaboration (TF-VVC), is a member of the ViDe (Video Development initiative) steering committee, and was chair of Vidmid-vc, the ViDe/Internet2 Middleware initiative workgroup on videoconferencing middleware, and a member of the Internet2 Commons videoconferencing service management team. Egon serves on the Internet2 Application Strategy Council and DFN's (German research network) technical advisory board and gives regularly presentations and advice to other European education and research networks on videoconferencing and streaming. Formerly an assistant professor on Information technology at Tilburg University, where he received his PhD on research on intelligent agents, Egon joined SURFnet in 1997 where he has been working on the development of advanced internet applications and services.

Kewin Stoeckigt (BSc)



- Kewin studied Computer science at the Universities of Leipzig and Goettingen. In 2002 he received his BSc in Computer science with a minor in Internet- and communication law. He then joined the Computing Center of Max-Planck Gesellschaft and the Institute of Plasmaphysics, where he is responsible for the videoconferencing infrastructure (Kewin is still employed and he is working as a tele-worker over the Internet). He is also doing research in Quality of service as well as other affiliate areas. Kewin was involved in a QoS project of the DFN Verein (German R&D network) in cooperation with the Alfred-Wegener Institute for Marine and Polar Science. On a regular basis he is advising several European Universities as well as research institutes on H.323 and Firewall issues as well as Gatekeeper hierarchies, including the security of videoconferences. In 2003 he went to New Zealand, where he is currently writing his MSc thesis at the University of Auckland. Kewin's main research interests are focused on Congestion control, management and avoidance, active/passive network measurement, Quality of service, communication theory as well as network security. He is a member of the IEEE, ACM, GI, RSNZ, the Remote Participation Project of EFDA (European Fusion Development Agreement) and Viktas, an advisory board for German Universities for the use of Videoconferencing and Streaming in higher education. After his MSc, Kewin wants to study towards a PhD.

Objectives of the workshop

- (short) Introduction to H.323 and real-time voice/video communication
 - The standard, dial schemes, GDS, international usage,...
- Understand and build and H.350 directory service
- Understand and build a Gatekeeper/Proxy (GnuGK)
- An overview of how H.323 & SIP can be peered together
 - Advantages/Disadvantages/Problems/current status
- other topics
 - data collaboration
 - ...

Objectives of the workshop (cont')

The objectives of this workshop to introduce the technique of H.323 for audio- and videoconferencing, help participants to master the installation and configuration of GnuGK and openLDAP for directory server, and get an insight into security issues, numbering plans and directory services for videoconferencing.

This full day event is separated into 4 sessions, whereas the first session will be a theoretical introduction to H.323, videoconferencing, Global Dialing Scheme (GDS), ViDe, etc. The second and the third session are separated into a theoretical and a practical part. The theoretical part will introduced H.350 Directory Services and after that, a H.350 Directory Service will be installed (OpenLDAP based) (Session 2). In session 3, GnuGK with it functionality is introduced and it will be explained, how this system can help you to bypass a firewall. Furthermore 2 security concepts will be demonstrated. In the practical part of this session, GnuGK is installed, with a connection to the H.350 Directory service, installed in the earlier practical session. The fourth session will then show the future of H.323 and SIP. In the second part, an introduction of data collaboration standards should sum up the workshop. In general we would like to see, that every one can take their own Gatekeeper/Proxy incl. H.350 Directory Service home, either on a CD-Rom or already installed on a system.

Objectives of the workshop (cont')

- Fun
- Informative
- Fun
- Interactive
- ...did I mentioned fun already??
- Motivating

Additional information

- More information are available on the workshop webpage at <http://www.rzg.mpg.de/vc/docs/apan/> . The page will be updated during the workshop, so check it out from time to time
 - Slides, handouts
 - Additional links/manuals
 - Software
 - ...

Ok, lets start...

Who are you, and what do you want?

- Short self introduction like
 - Who are you?
 - Where are you from?
 - What are you looking for, and what are your interests in taking this workshop?
 - ...