



Computing Center of Max-Planck-Society and
Institute of Plasmaphysics

ViDe & GDS

H.323 dialing on the public internet

**EFDA Remote Participation Training & Workshop
KFKI Budapest, Hungary
May 2004**



Outline of talk

- Where am I?
- ViDe
- GDS – Global Dialing Scheme
 - How does it work?
 - Who is responsible?
 - Dialing examples



Where am I?

- ~ 18000km south-east of Budapest
- Aotearoa – Land of the long white cloud (apparently its (almost) winter I see some grey clouds too)
- ...or better known as “Land of Mordor” or “Middlearth”
- Has the same size as Colorado
- I share the country with
 - 4 Million New Zealanders (...ok, there are some Aussis as well 😊)
 - 60 Million sheep





Where am I?



Auckland, New Zealand
36° 51' S, 174° 46' E



Budapest, Hungary
47° 30' N, 19° 5' E

When every thing goes 'arse-up', NZ'ers come out on top.





ViDe

- ViDe stands for Video Development Initiative
- Hosted at University of North Carolina at Chapel Hill (UNC)
- ViDe belongs to the Internet2 initiative
- Was founded by several representatives of universities and educational networks
- ViDe wants to deploy digital audio and video in research and higher education
- Numerous workgroups doing “active” research in different areas, e.g. data collaboration, streaming, etc.





ViDe

- Virtual network, based on the H.323 standard
 - Network consists of several zones (more about zones later)
- ViDe comprised several autonomously managed H.323 gatekeeper around the world
 - Management of IP traffic
 - Get “your personal videonumber (E.164)”
 - Allows interaction with MCU (multipoint conference units; needed if more than 2 systems want to communicate with each other)





GDS – Global Dialing Scheme

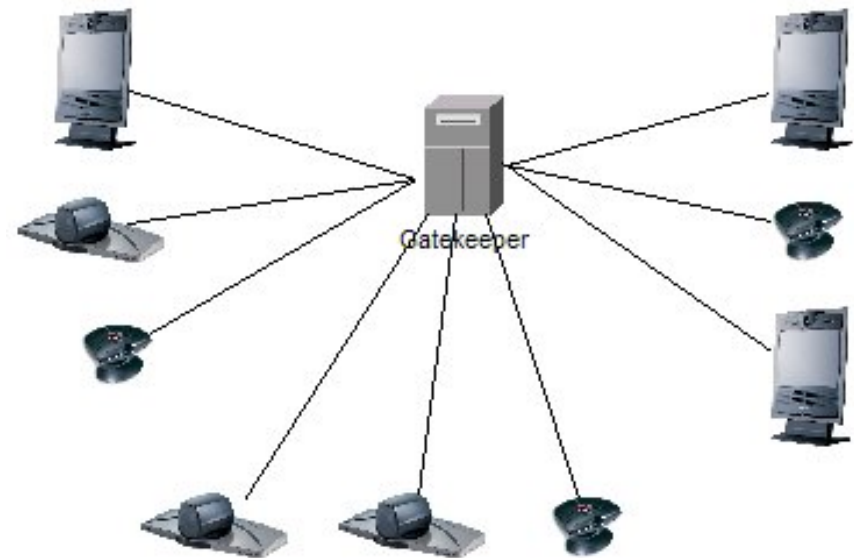
- GDS is a numbering plan for videoconferencing systems, MCU conferences, gateways and other audio/video communication related systems
- GDS is similar to the telephone numbering scheme
 - IAC (International access code): 00
 - CC (country code): e.g. 36 for Hungary, 49 for Germany, etc.
 - OP (Organization prefix): e.g. 200 for KFKI, 893299 for IPP Garching
 - EN (Endpoint number): e.g. 2011 for P. Giese, 6004 for U. Schwenn
 - An E.164 number (~ GDS number) consist of <IAC><CC><OP><EN>





GDS – Global Dialing Scheme

- GDS uses a hierarchy of gatekeeper
- Each gatekeeper represents one zone
 - A Zone is a pool of videoconferencing systems, belonging to one Organization prefix
 - It does not matter, if videoconferencing systems are on the same network; they can be widespread





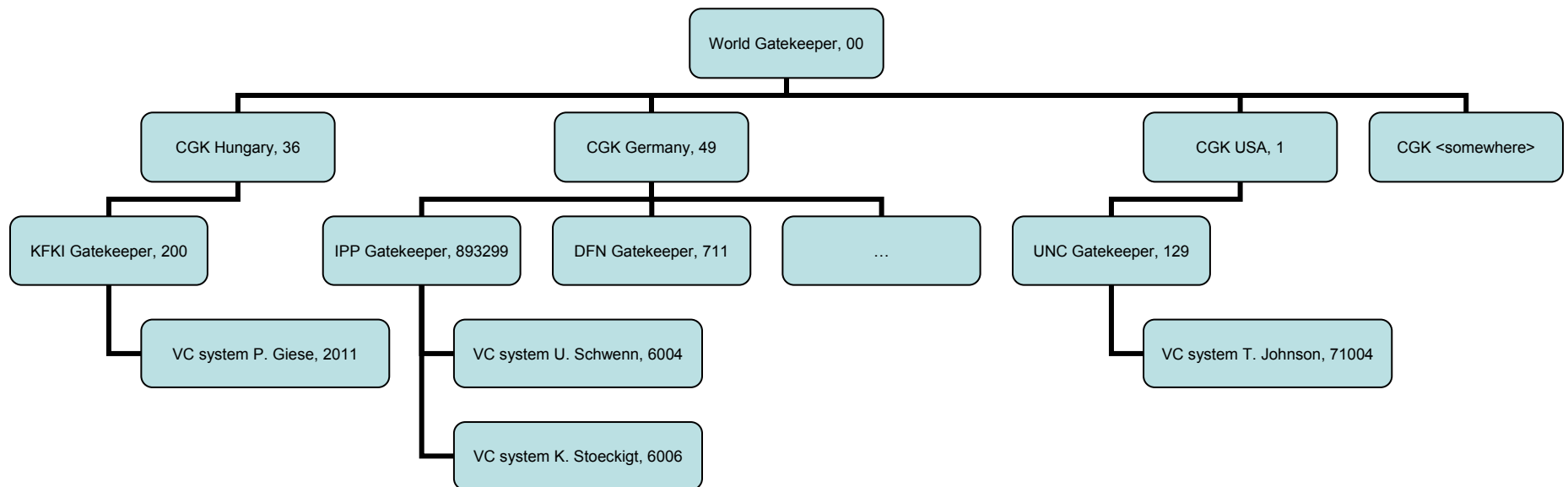
GDS – Global Dialing Scheme

- Several research network provider, like NIIF, DFN, etc. host country gatekeeper who represent the country code (CC)
- Those CGKs are connected to the world gatekeeper (root, 00), hosted by the Welsh Video Network, University of Wales, Ireland. Several redundant servers are located in the United States, Australia and Asia





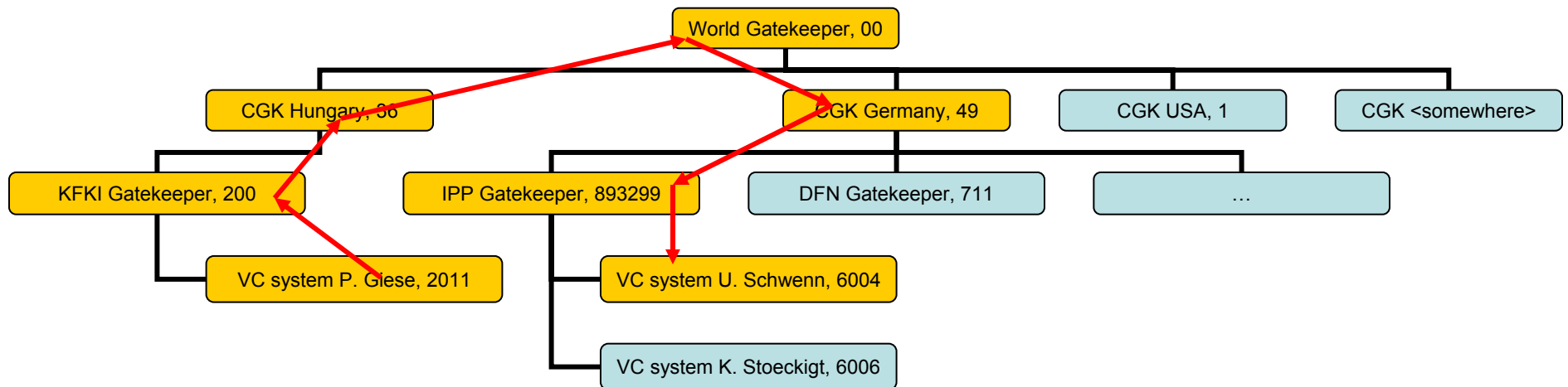
GDS – Global Dialing Scheme





GDS – Global Dialing Scheme

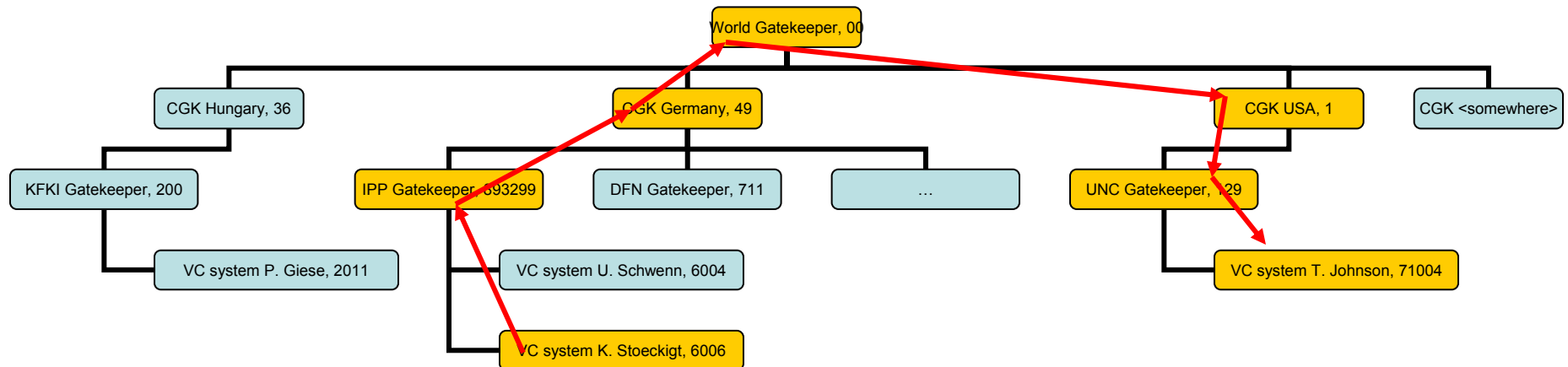
- P. Giese → U. Schwenn: 00498932996004





GDS – Global Dialing Scheme

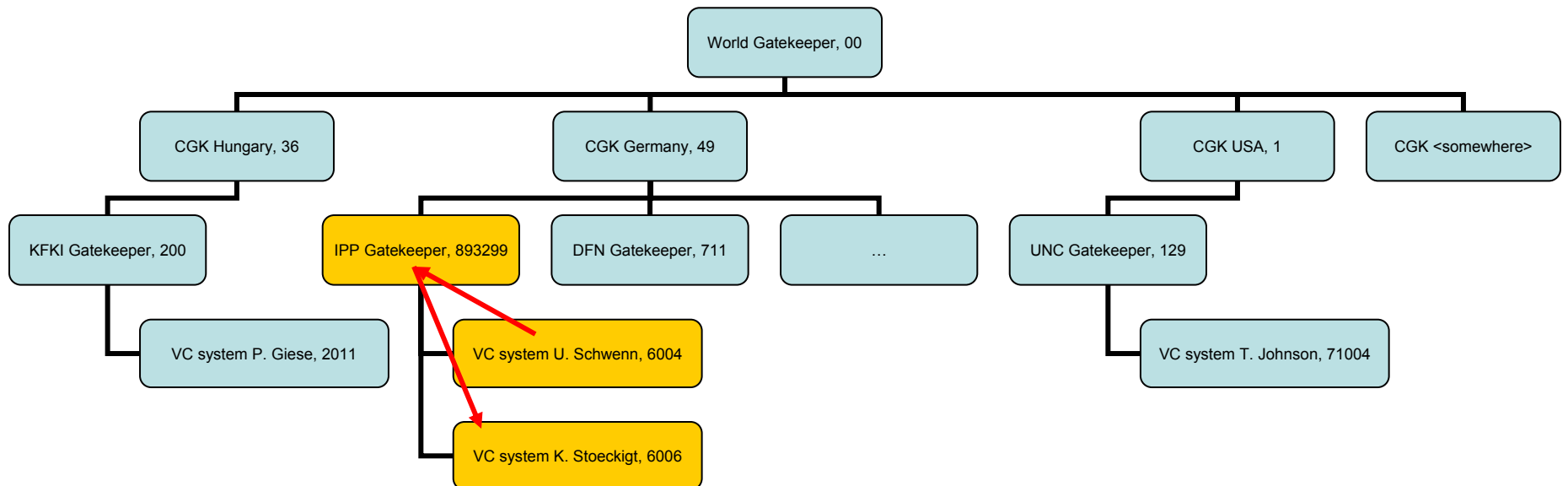
- K. Stoeckigt → T. Johnson: 00112971004





GDS Global Dialing Scheme

- U. Schwenn → K. Stoeckigt: 00498932996006





ViDe & GDS

- ViDe
 - <http://www.vide.net>
 - <http://videnet.unc.edu>
- GDS
 - <http://www.wvn.ac.uk/support/h323address.htm>
 - <http://www.rzg.mpg.de/vc/index.php>
 - <http://www.vidkonf.niif.hu/index.php>



Acknowledgement

- U. Schwenn, H. Soenke, P. Pflueger, K. Behler – IPP
- H. Pfeiffenberger, S. Bunne – AWI
- P. Giese – KFKI
- J. Hornung – DFN
- F. Schulze et al. - VCC