

Campus Best Practices

[GN3/NA3/T4]



Objective

The overall objective of the GEANT3 task 'Campus Best Practices' is to address key challenges for European campus networks, organise working groups and provide an evolving and to-the-point set of best-practice documents (BPDs) for the community. Dissemination of results on a European-wide level is a key objective.

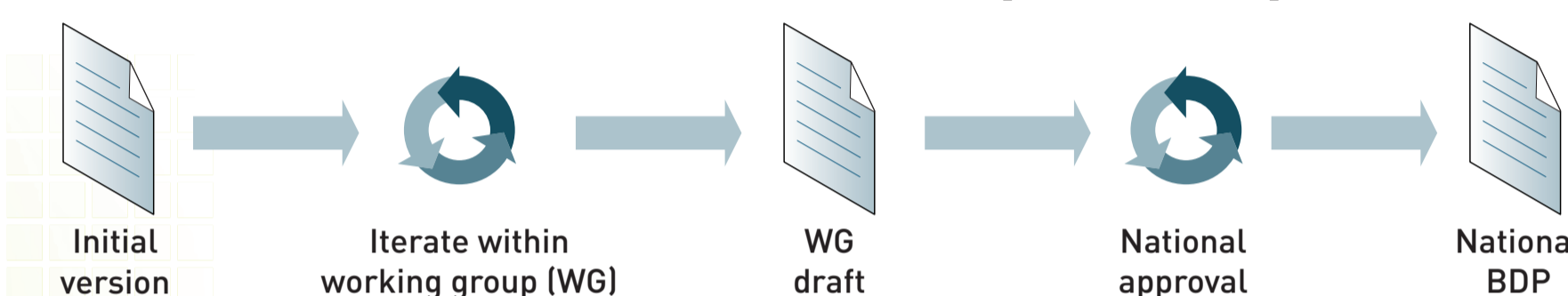
Working methods

The working methods build on the experiences from UNINETT's GigaCampus project (2006-2009). Each NREN organises a number of working groups dealing with campus issues in different technical areas. Participants from universities are invited to participate in the working groups, which work to propose recommendations in best-practice documents.

Technical Areas

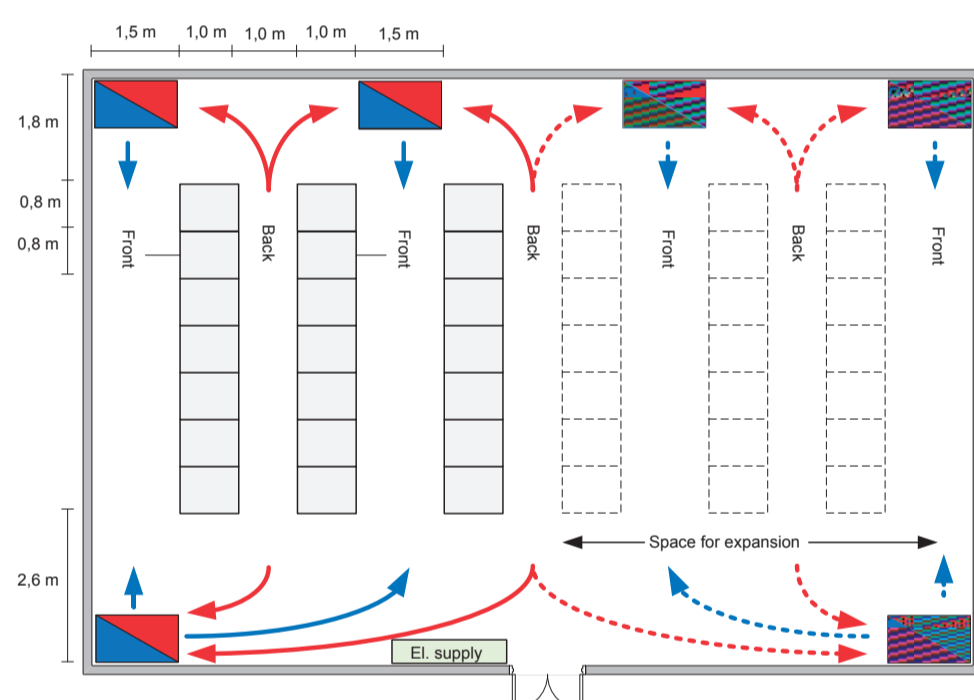
A total of nine technical areas are covered: physical infrastructure, audio-visual (AV), lightpath service, LAN infrastructure (including IPv6), wireless, Network monitoring, SIP and IP telephony, security and procurements.

The National BPD development process



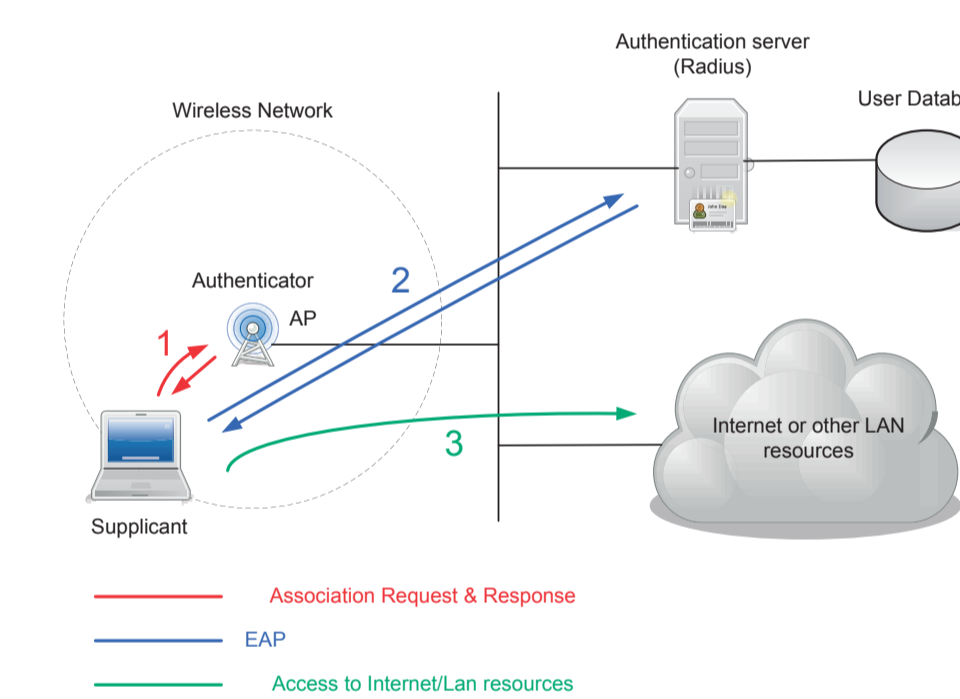
Norway: Robust Physical and AV Infrastructure

UNINETT has a head start with their GigaCampus project and has 8 working groups operational and has produced 22 BPDs. Currently 10 BPDs are available in English. 5 of these cover the area of physical infrastructure setting sound requirements to the cabling system and to ventilation, cooling, power and fire protection in ICT rooms on campus. The working group on audio-visual (AV) has made another two BPDs available that deal with the technical and functional requirement for AV equipment in lecture halls and meeting rooms.



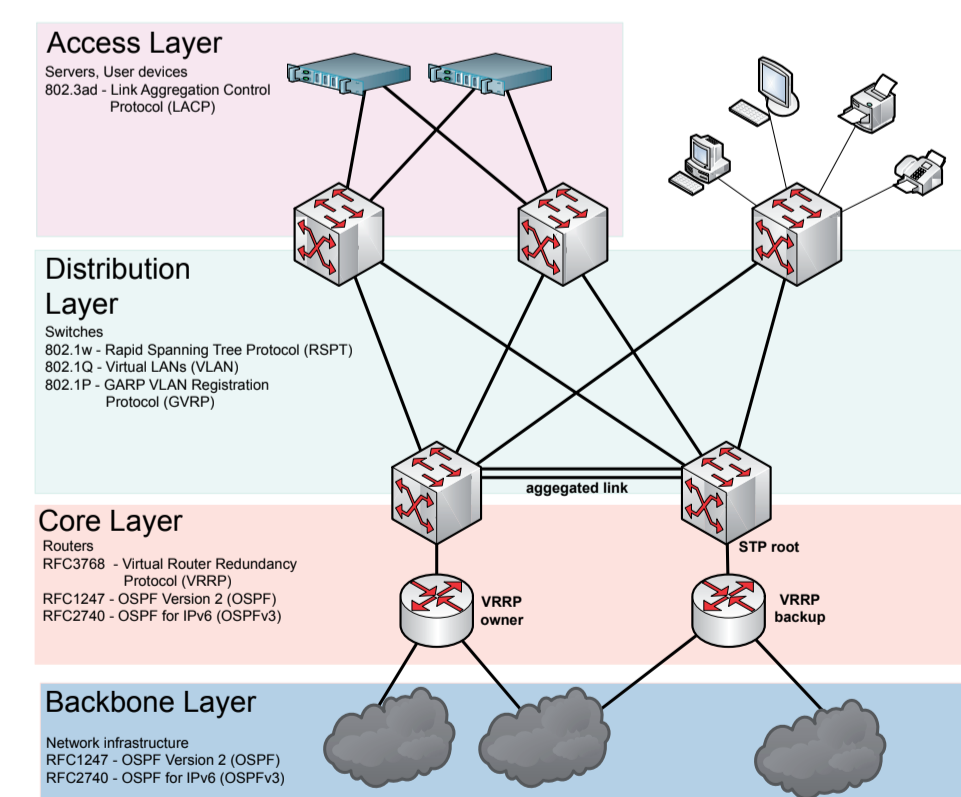
Finland: MobileFunet and AccessFunet to enhance campus networks

In Finland two working groups have been established: MobileFunet, to collaborate on matters related to wireless networks and roaming, and AccessFunet, to collaborate on matters related to the fixed parts of campus networks. So far, MobileFunet has produced a BPD on WLAN security and AccessFunet is finalizing a BPD on equipment at the LAN edge.



Czech Republic: Resilient Campus Network, IPv6 and IPT

CESNET has made a BPD on resilient campus network covering the core network, the distribution switches and server connections. Single points of failure are avoided by duplicating devices and connections. Use of standardised protocols is encouraged to allow devices from different vendors to interoperate. Configurations should be kept simple.



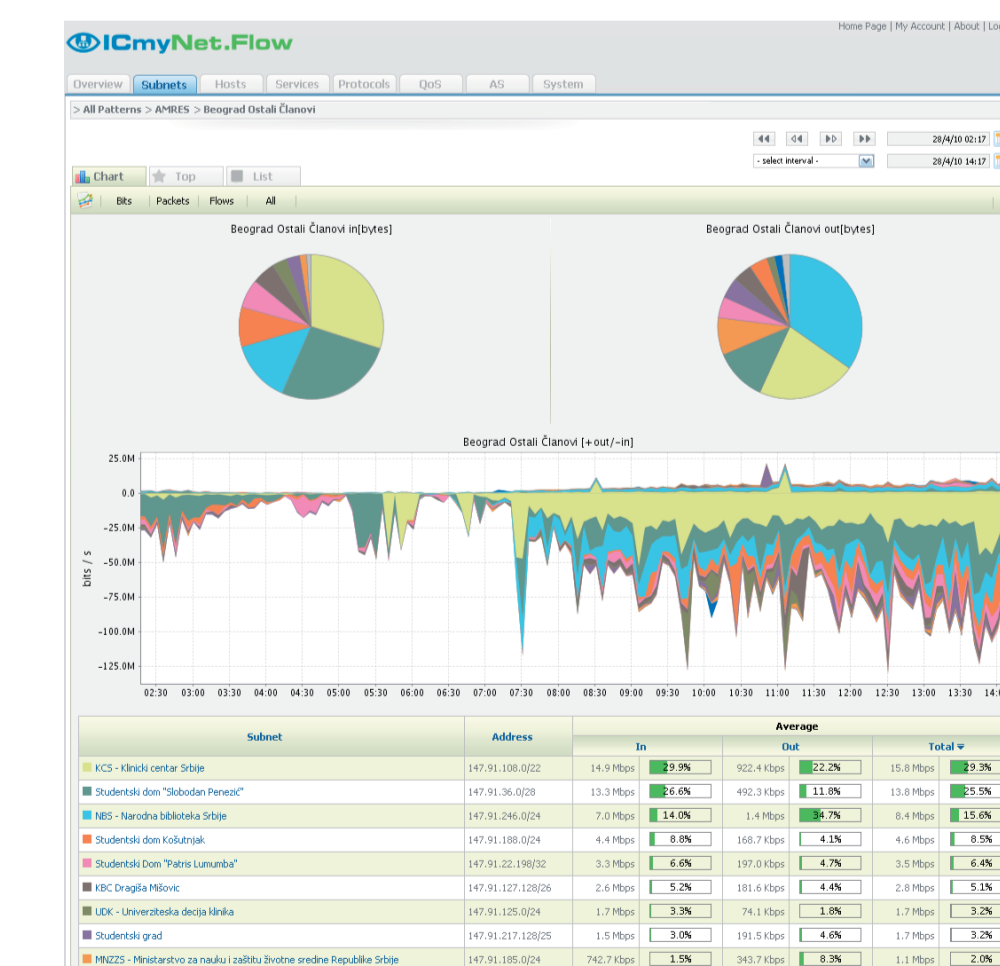
CESNET has also organized a working group dealing with IPv6 challenges on campus. A third working group focuses on SIP based IP telephony (IPT).

Serbia: Proactive Network Monitoring

The Serbian working group on network monitoring has made a best practice on network management architecture.

The document identifies a minimum of three components that should be covered by the campus management system; monitoring, log management and configuration management.

The document is based on long-time experience in deployment of a self-developed management tool (ICMyNet) in AMRES.



Participating NRENS
Norway. Finland. Czech Republic. Serbia.

