

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.

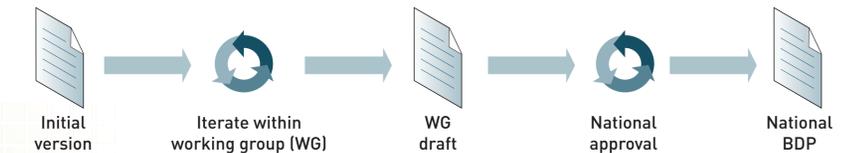
Technical Areas

A total of six technical areas are covered: physical infrastructure, campus networking, mobility, security, network monitoring and real-time communications.

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.

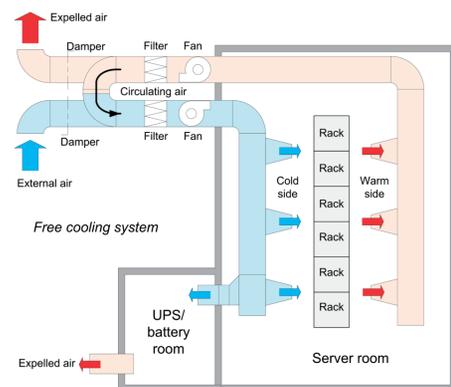
The National BPD development process



Norway: Robust Physical Infrastructure, implemented security policy

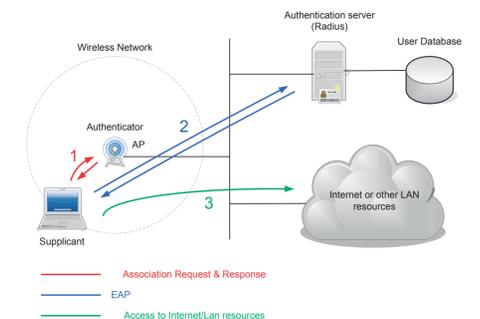
UNINETT has working groups in the area of physical infrastructure and Audio-visual (AV) that have made guidelines for the implementation of a robust physical and AV infrastructure. A total of nine BPDs are produced covering requirements to the cabling system and to ventilation, cooling, power and fire protection in ICT rooms on campus, as well as the technical and functional requirement for AV equipment in lecture halls and meeting rooms.

In the area of security, best practices from experiences with implementing security policies at Norwegian universities are published, as well as a recommended campus security architecture.



Finland: MobileFunct and AccessFunct to enhance campus networks

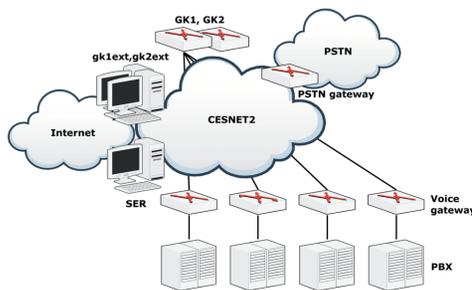
In Finland two working groups are operational: MobileFunct, for collaboration on matters related to wireless networks and roaming, and AccessFunct, for collaboration on matters related to light paths, IPv6 and network monitoring. MobileFunct has produced best practice documents on WLAN information security and WLAN network planning. AccessFunct are preparing best practices on light path usage and monitoring system requirements.



Czech Republic: IPv6, network monitoring and IP Telephony

CESNET has organised a working group addressing the current IPv6 deployment challenges on campus with a particular focus on smooth transition schemes for large user communities. CESNET has also made recommendations for resilience, covering the core campus network, the distribution switches and server connections.

A second working group focuses on network monitoring solutions for the campus networks with respect to performance, reliability and security. A third group deals with IP telephony and has collected and published best practices from several Czech universities, as well as implementations seen elsewhere in Europe.



Serbia: Proactive Network Monitoring

Serbian working groups have been active in three technical areas: physical infrastructure, network monitoring and security.

The best practice documents on network management are based on long-time experience in deployment of a self-developed management tool (ICMyNet) in AMRES. These documents provide recommendations for monitoring, log management, configuration management and netflow configuration in campus environment.

The working group on security promotes the adoption of digital certificates in the higher education and research community.



Participating NRENs
Norway. Finland. Czech Republic. Serbia.

