

Grid - the view of SWITCH

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SWITCH

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Grid and Co-operation

Co-operation is at the very core of Grid computing
(concept of a virtual organization)

Co-operation between

- **Sites with resources**
- **Local sites and centralized services**
- **Scientists**
- **Scientists and Computer Scientists**
- **Scientists and IT infrastructure**

with the goal to advance science and education

Grid Strategy of SWITCH (1/2)

- **Build a “support infrastructure for grids” in Switzerland by**
 - operating central services
 - carrying out *co-operative* projects with our partners
 - participating in international projects
- **while exploiting SWITCH’s core competences in**
 - Security
 - Middleware
 - Network

Grid Strategy of SWITCH (2/2)

Goal	Benefit for Education and Research in Switzerland
Co-operation projects	<ul style="list-style-type: none"> • Building and broadening a Grid-Support-Infrastruktur in Switzerland • Dissemination of Grid Know-How in Switzerland • Fostering the common spirit between SWITCH and its partners
Exploit synergies with existing IT infrastructures in Switzerland	<ul style="list-style-type: none"> • Optimal use of existing infrastructures (e.g. SWITCHaai, SWITCHpki) • Optimal allocation of resources
Stable operation of common services by SWITCH	<ul style="list-style-type: none"> • Stable operation of common services • Guarantees the local site authority (federal character of Swiss education and research sector)
Successful participation in international projects	<ul style="list-style-type: none"> • SWITCH is knowledgeable contact point for its partners

AAA/SWITCH Grid Co-operation Projects

- SWITCH's contribution to Grid in Switzerland
- There are various Grid activities on-going in Switzerland
 - HEP
 - Life sciences
 - Campus grids
 - ...
- Key is joint involvement of Science and IT infrastructure

AAA/SWITCH and SwiNG

- Aim of SwiNG as the forum that brings science and IT infrastructure together
- AAA/SWITCH co-operation projects as one possibility to do Grid projects in Switzerland
 - but SwiNG must not entirely rely on AAA/SWITCH for funding
- Responsibility of AAA/SWITCH projects stays with the (lead) institution and SWITCH

Where do we see projects?

- Improved sharing of computing resources within a site
- Improved sharing of computing resources between sites
- Access to computing resources not available at local institution

- Improved access to data
 - Link between computations and data

- Collaboration between scientists (applications) and IT infrastructure (resources)
 - Porting applications to Grid environments

- Support for virtual organizations
 - See VO support within AAA/SWITCH