SWITCH

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AAI
Introductory Tutorial

The SWITCHaai Team, <aai@switch.ch>

Without AAI

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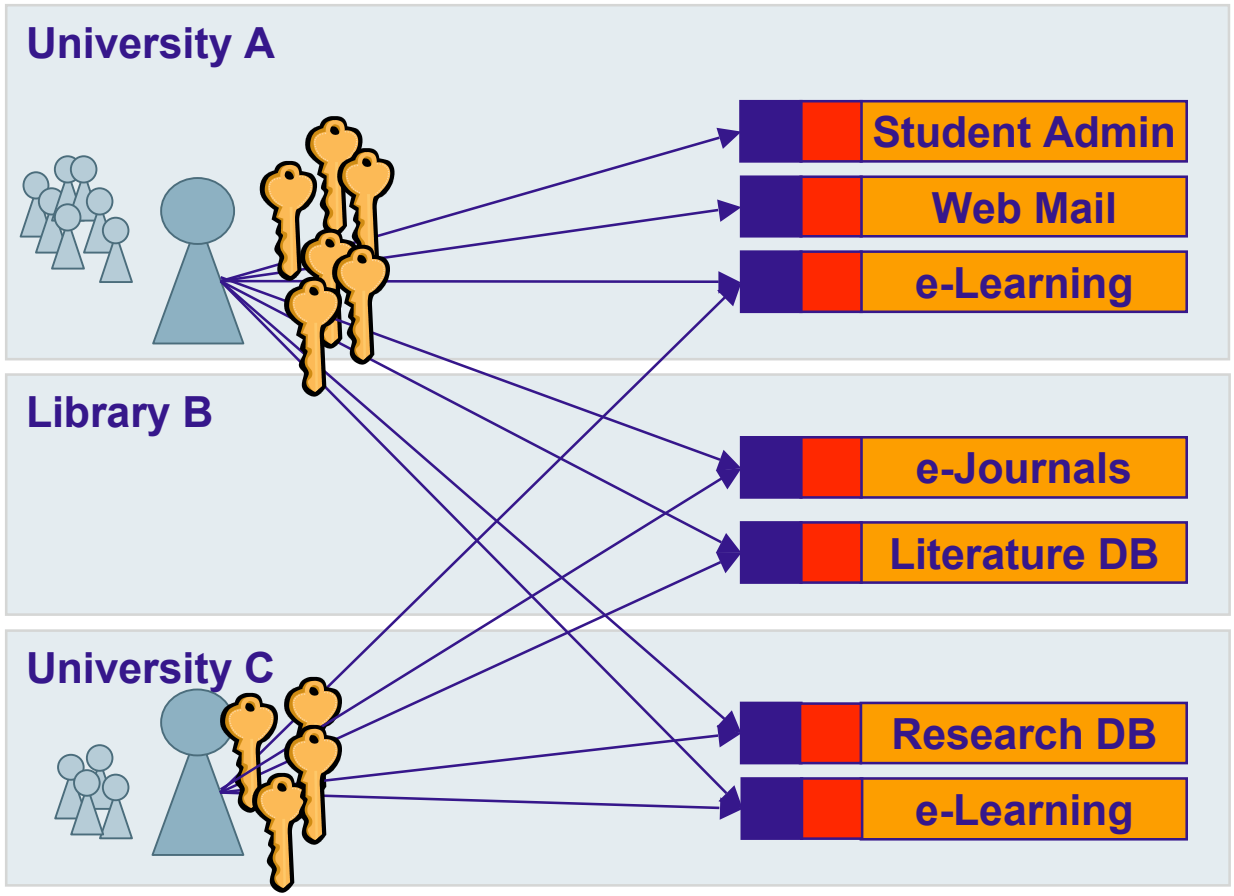
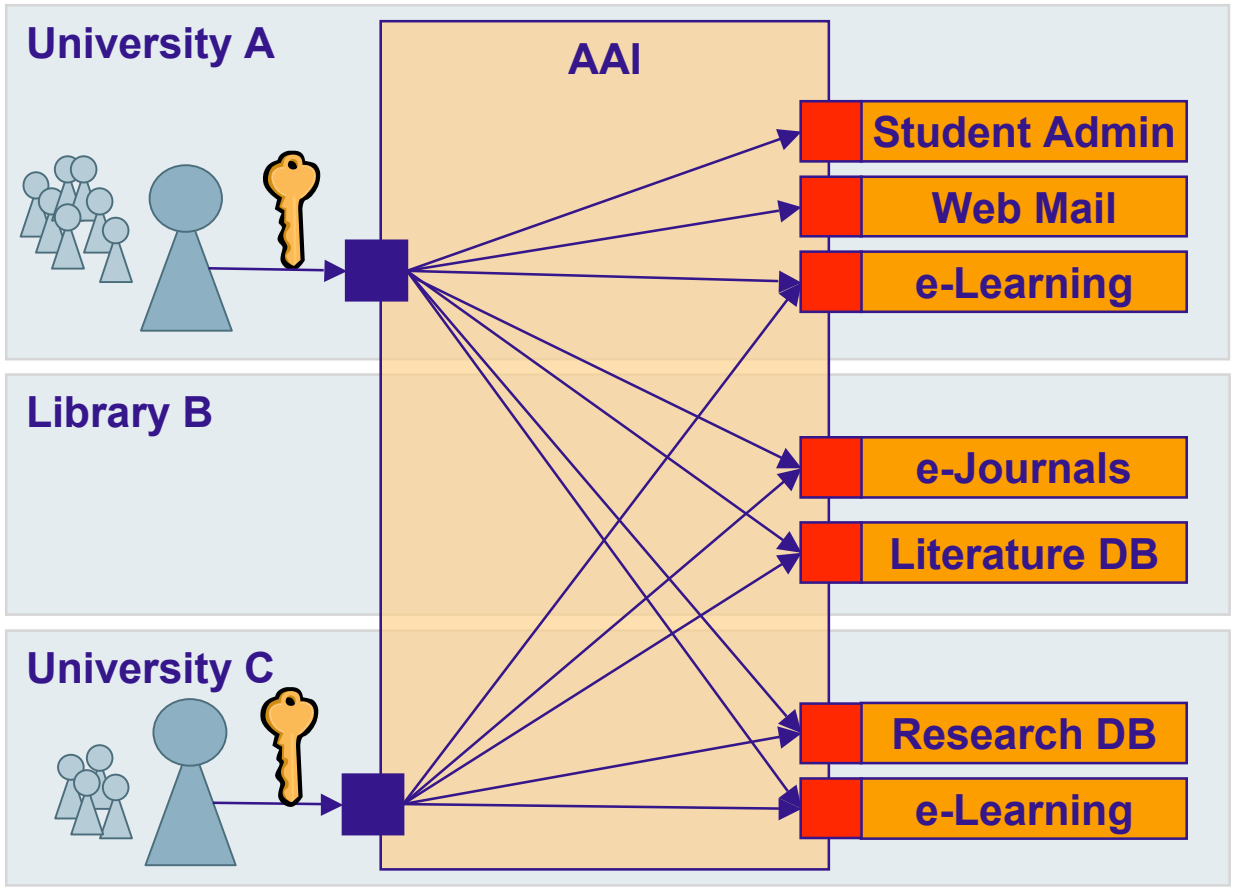


- Tedious user registration at all resources
- Unreliable and outdated user data at resources
- Different login processes
- Many different passwords
- Many resources not protected due to difficulties
- Often IP-based authorization
- Costly implementation of inter-institutional access

User Administration Authentication | Authorization | Resource | Credentials

With AAI



- No user registration and user data maintenance at resource needed
- Single login process for the users
- Many new resources available for the users
- Enlarged user communities for resources
- Authorization independent of location
- Efficient implementation of inter-institutional access

User Administration Authentication | Authorization | Resource | Credentials

Shibboleth

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- Open Source
- Developed by Internet2
- Federated Approach
- Privacy
- National deployment projects in the US, UK and Finland, growing interest in other European countries
- For web resources only - as a first step
- Based on SAML
- Cooperations with Liberty Alliance
- Cooperations with Content Providers (e-journals)

http://shibboleth.internet2.edu/

Demo (Try it yourself)

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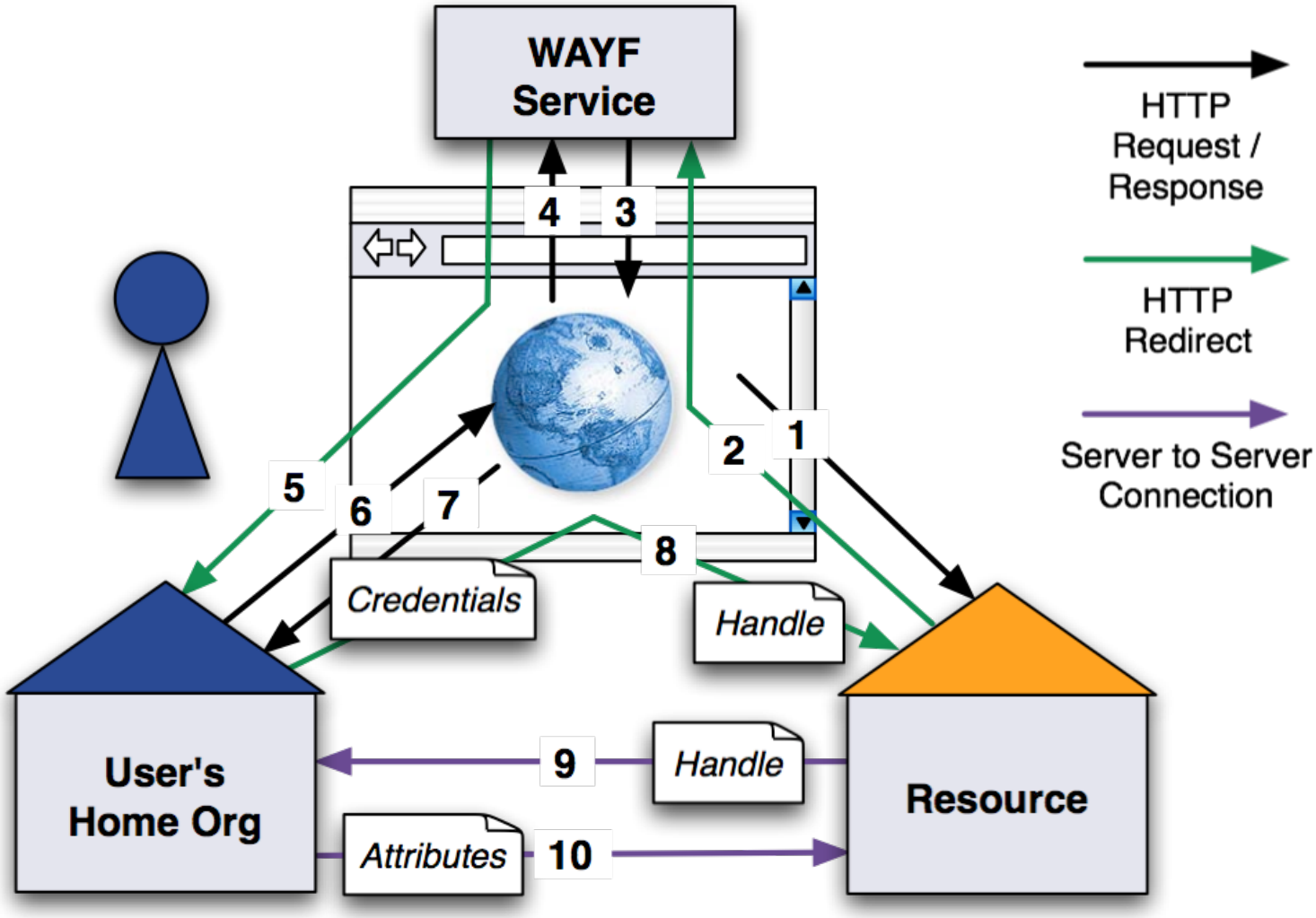
- http://www.switch.ch/aai

-> Live Demo

-> demo resource

http://www.switch.ch/aai/demo/demo_live.html

Demo



https://kohala.switch.ch/secure

Single Sign On

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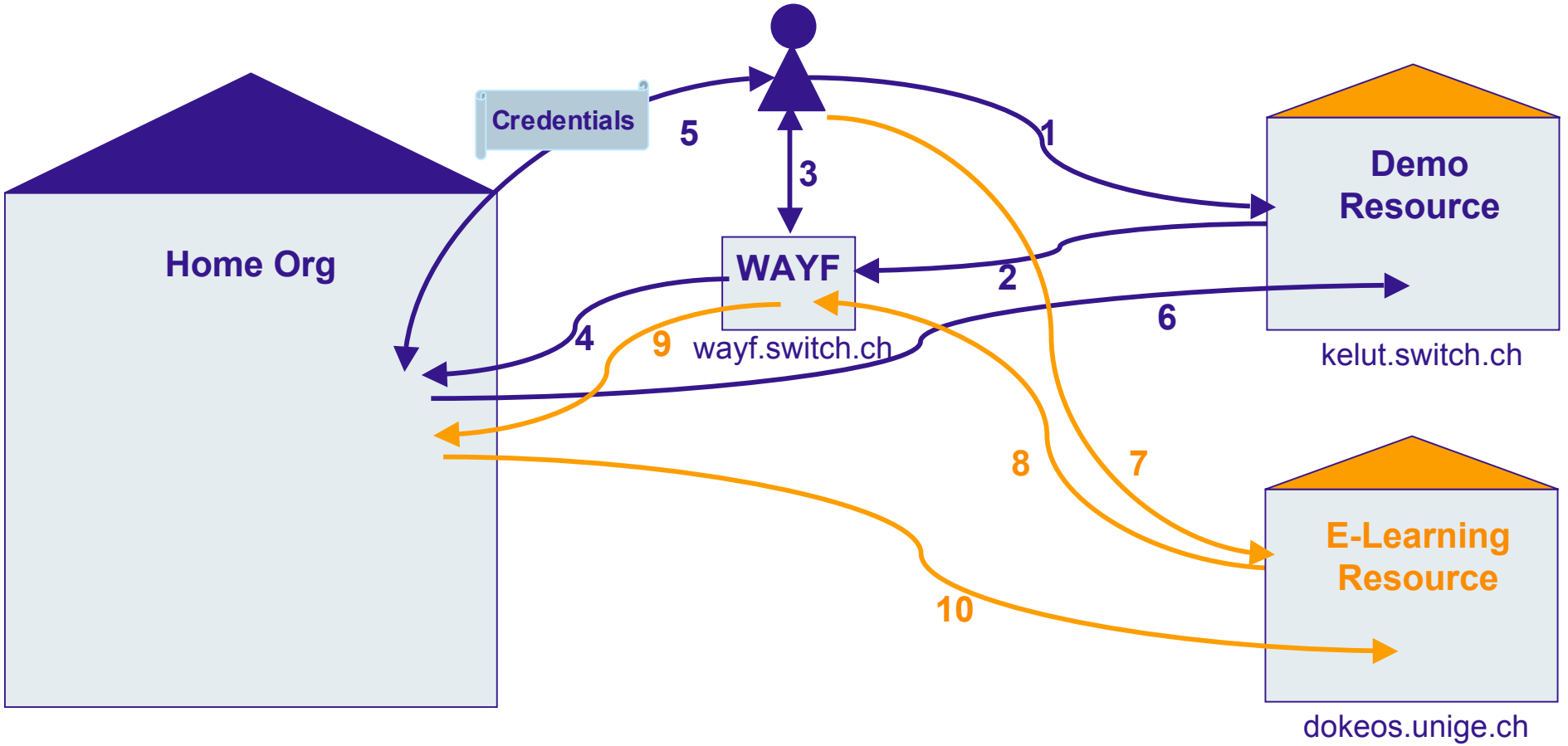

https://dokeos.unige.ch/aai/login.php

SWITCHaai Building Blocks

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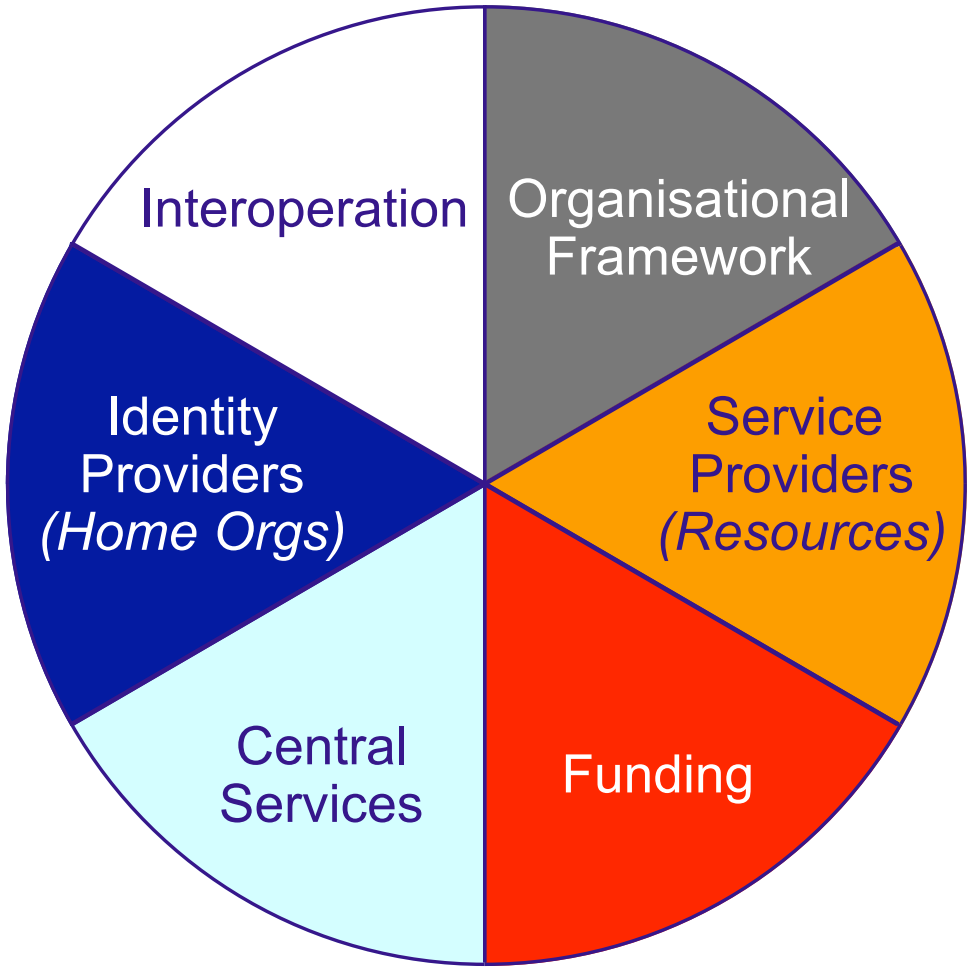

Identity Providers (Home Orgs) in SWITCHaai

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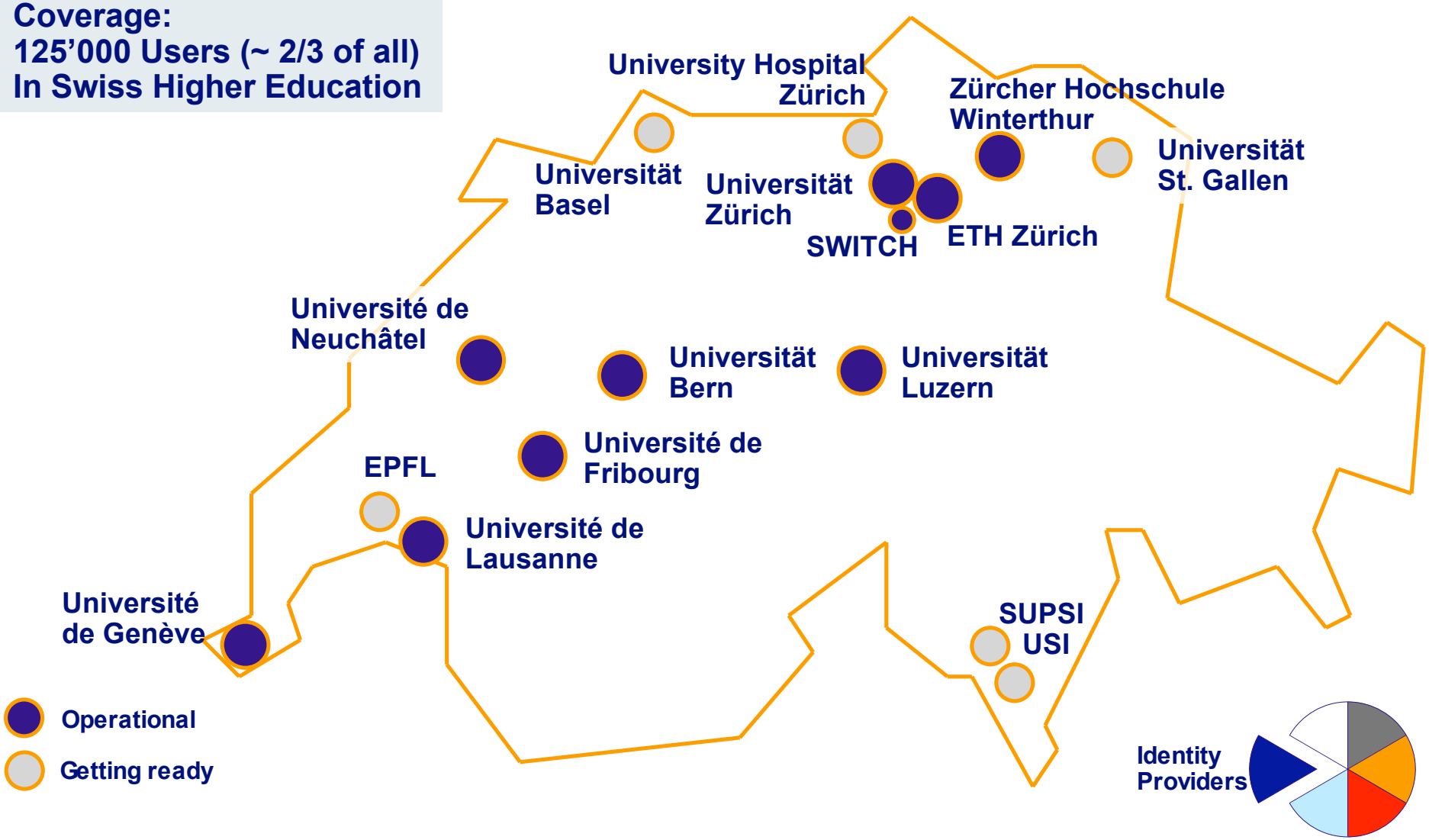
Coverage:
125'000 Users (~ 2/3 of all)
In Swiss Higher Education



AAI-enabling your Home Organization

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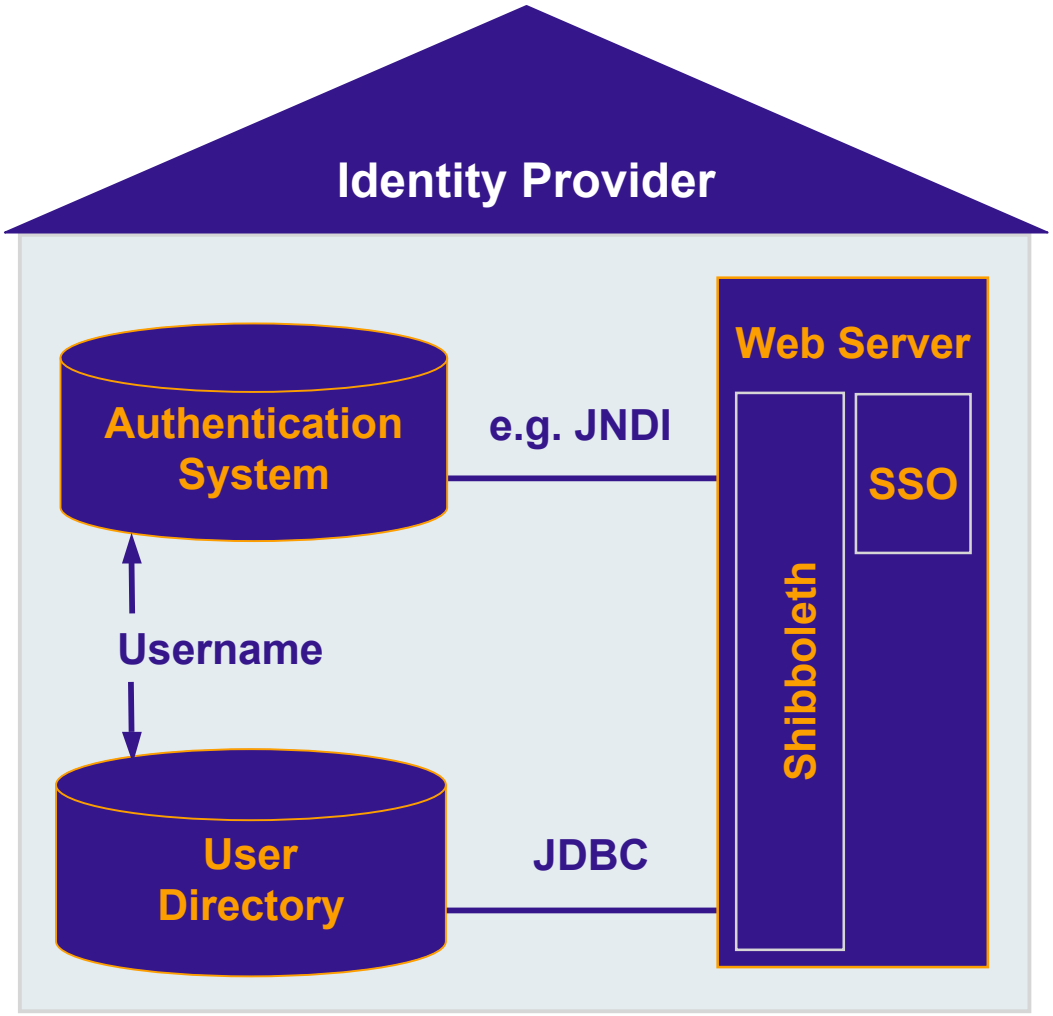

Web Servers

- Tomcat
- Apache + Tomcat
- IIS + Tomcat

Web Single Sign-On (SSO)

- CAS
- Pubcookie

Authentication Systems / User Directories

- OpenLDAP, Active Directory
- MS SQL, Oracle
- …

Authorization Attributes

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Personal

Unique Identifier
Surname
Given name

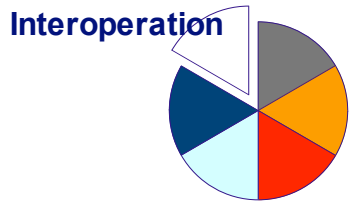
E-mail
Address(es)
Phone number(s)
Preferred language
Date of birth
Gender

Group Membership

Home Organization Name
Home Organization Type
Affiliation (student, staff, …)

Study branch
Study level
Staff category
Group membership
Organization Path
Organizational Unit Path

- Implementation of Attributes
  - Mandatory
  - Recommended or optional
- Based on
  - eduPerson Attributes
  - "Schweizerisches Hochschulinformationssystem" (SHIS)
- NO username, password



Attribute Specification: http://www.switch.ch/aai/docs/AAI_Attr_Specs.pdf

Types of Service Providers

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e-learning

OLAT@UniZH **Vista@SVC**

WebCT@ETHZ **VITELS@UniBE**

DOIT@USZ **dokeos@UniGE**

Moodle **ILIAS@ETHZ**

AD Learn & Co Blackboard

libraries

Ezproxy@ETHBib

ScienceDirect

…

other web applications

eConf-Portal@SWITCH

Twiki@SWITCH

Web-SMS@SWITCH

CompiCampus@ETHZ

IS-Academia

commercial

SwissLex Cablecom

Bundesgericht eShops

15'000 daily active users

Protecting Resources

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	Apache	IIS
Static Content (HTML,…)	•Fine grained AuthZ •Shibbolization straightforward	•Only basic AuthZ (“valid user”) for static content •Shibbolization straightforward
Web Applications (PHP, ASP, Perl, Java [running on Tomcat or other App-Servers], …)	**•AuthZ by web server (see above) and/or by Application (Integration)** **•Shibbolization by adaptation of source code**	

Shibbolization of Resources

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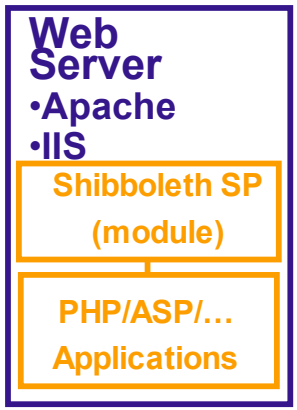
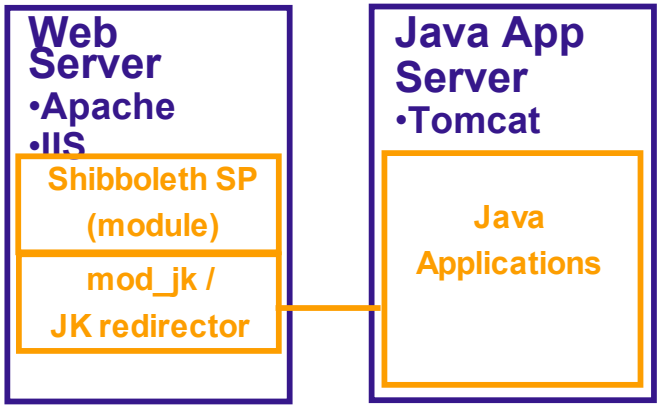
PHP/ASP/Perl Applications

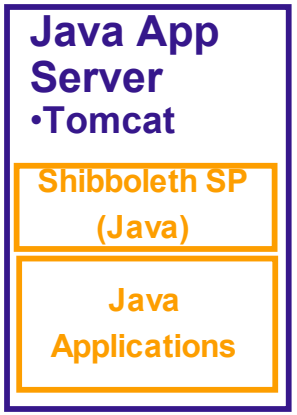


- Moodle
- ILIAS
- TWiki

Java Applications



- OLAT



- Only BETA

https://www.switch.ch/aai/tech/

Access Control Example: DOIT

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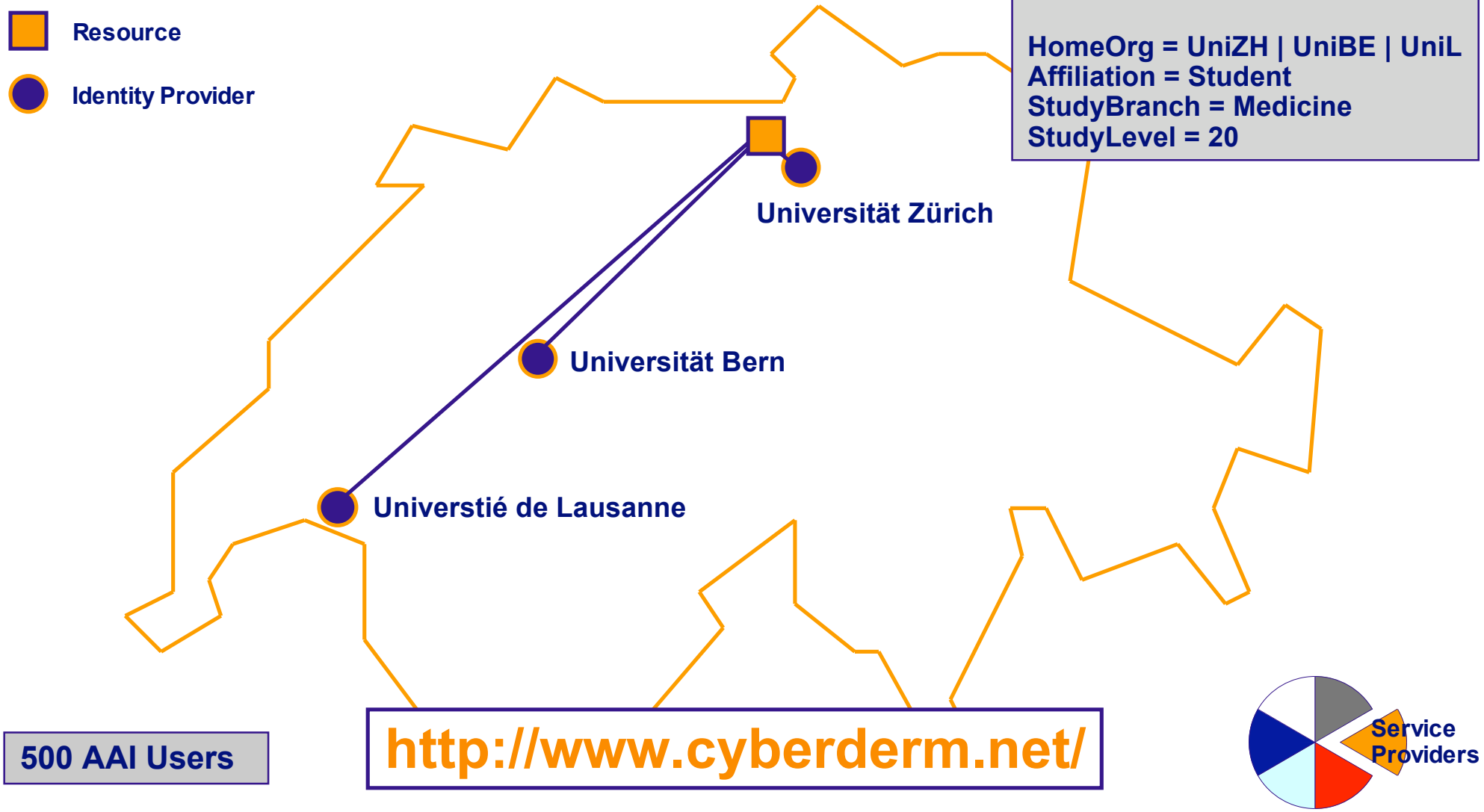
DOIT: Dermatology Online with Interactive Technology



Questions ?

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Q & A

http://www.switch.ch/aai

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