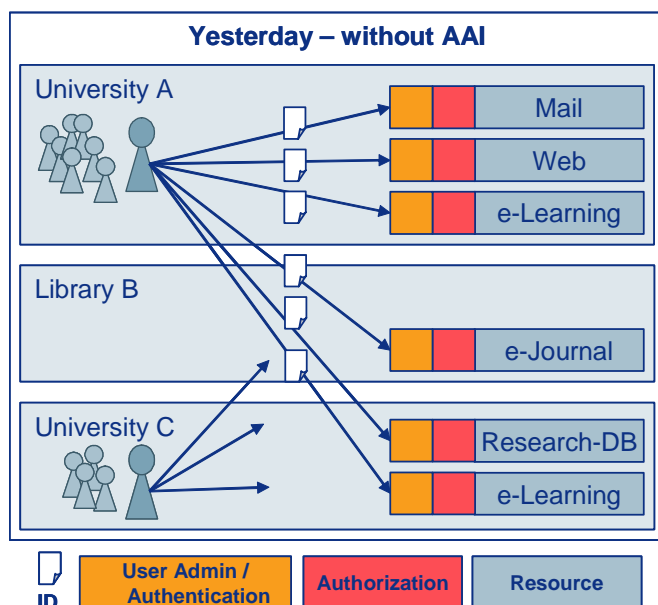# Authentication and Authorization Infrastructure (AAI) in a nutshell

For a number of reasons, resource owners may want to restrict the access to their resources to certain user groups, or provide user-specific contents. In both cases **authentication** and **authorization** is required.

The shortcomings of yesterday's system are evident:

- **Time-consuming user registration and administration** for every resource based on identification papers; thus no consistent user data management
- Users are overloaded with managing **countless passwords**
- **Unprotected resources**, because the effort to protect them is out of scale
- A possibly already existing central authentication ignores authorization issues, thus opening up new **security holes**
- Big effort needed to integrate users of other universities due to **lack of standardized interfaces**
- Authorization is **not always irrespective of location** (IP based authorization)

AAI uses a federated approach, insofar as each party controls the steps relevant to it: universities register and authenticate their members and resource owners define their access rules. All parties involved profit by a standards-based AAI:
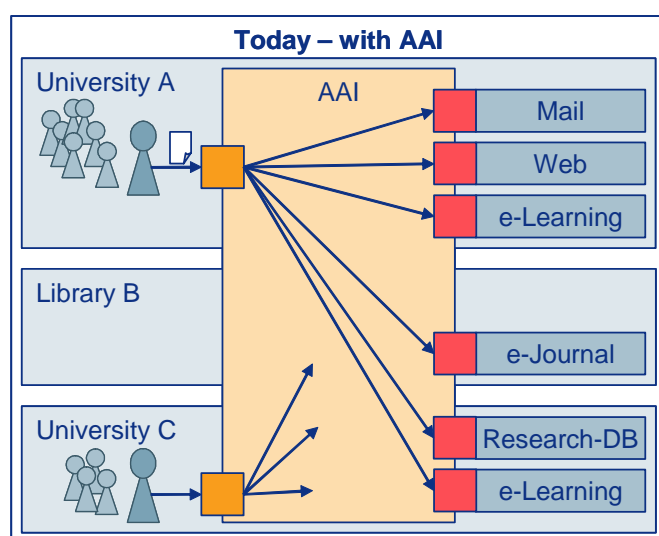
- Due to the digital ID, resources can save the effort of registering and administering users based on paperwork.
- A standardized authentication mechanism allows users to **access various resources of a number of organizations**
- Resources can reach a **larger number of potential users**
- Integration among universities is no longer necessary
- **Data protection** requirements are observed

AAI already exists. Today, members of five important universities can use AAI. For further information please refer to http://www.switch.ch/aai/, or contact us at 044 268 1505 or aai@switch.ch

Authentication and Authorization Infrastructure (AAI): Solutions for Resource Integration

Starting position

The authentication and authorization infrastructure (AAI) planned in the years 2002-2003 and proven and tested in pilot projects has gone live. Over 100'000 users of the universities of Berne, Geneva, Lausanne, Lucerne and Zurich as well as the ETH Zurich are in a position to authenticate within AAI by means of their user accounts.

This opens up entirely new possibilities for resource owners to authenticate these members of the universities and to grant them, if authorized, access to the resources – without having to register and administrate users themselves.

But what steps need to be taken to AAI-enable a resource? Does every resource lend itself to it? Which effort does it take? Who has the necessary know-how and can support resource operators?

Support by SWITCH

As operator of the central AAI components, SWITCH is experienced in AAI-enabling different types of resources and offers the following support services to resource owners:

- Guide on how to install the AAI software and integrate the resource
- Workshops on the integration of different kinds of resources like Apache and IIS Web servers, WebCT, and so on.
- Individual consulting and hands-on support
- Pre-configured solutions for typical resources
- Development of individual solutions for non-standard resources

The following examples show integration possibilities with AAI and the cooperation with SWITCH on the basis of some typical resources.

Some example resources

A) Apache, IIS Web server or Tomcat

- AAI components can be added to Web servers by standard procedures.
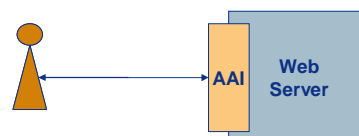
- SWITCH provides a detailed installation and configuration guides. On request, SWITCH also carries out ready-to-use integrations of web-sites.

B) WebCT

- The e-learning platform WebCT Vista of the Swiss Virtual Campus (SVC) is being integrated with AAI. The registration of individual users of the universities mentioned above is thus no longer necessary.

- SWITCH supports providers of courses on the SVC platform with the specific configuration of their authorization concept or helps operators to integrate their own WebCT platforms with AAI.

C) Web-based applications

- There are portal and proxy solutions for Web applications which cannot be integrated directly with the AAI.

- SWITCH has a tool box which helps integrating such „black box" applications.

Contact

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