

AMAAIS – Accounting and Monitoring of AAI-Services

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- Motivation and Project Goals
- Use of Accounting Data
- Use Cases
- Accounting Architecture for AAI



Motivation and Project Goals

- ❑ SWITCH AAI Infrastructure
 - User **authentication** and service access **authorization**
 - Enables the use of services **across organizations**
 - ⇒ Identity Provider, Service Provider
 - Based on **Shibboleth**
- ❑ AAI infrastructure **lacks accounting and monitoring** mechanisms
 - No information about service usage
 - No statistical data about AAI
- ❑ **Goal: to extend the AAI infrastructure with accounting**
 - Accounting and monitoring of AAI and service usage
 - Mapping of usage to users and/or organizations
 - Statistical analysis of AAI usage
 - Enable charging and billing
- ❑ **Collaboration partners: UZH, SWITCH, ETHZ**

Use of Accounting Data

□ Monitoring

- Management of the AAI infrastructure
- Error diagnosis and debugging
- Authentication and authorization statistics
- Usage statistics
- Top users, top SPs, top IdPs

□ Charging and billing

- User-based or organization-based (universities, departments, ...)
- IdP keeps an account of the user/organization
 - ⇒ Single-bill approach, user/organization gets a single bill for all services
 - ⇒ Requires accounting data exchange and financial clearing
- SP keeps an account of the user/organization
 - ⇒ Separate bills from all SPs
 - ⇒ No need for accounting data exchange between IdP and SP

Use Cases

□ Monitoring of the AAI infrastructure

- Collection of service-independent accounting attributes
 - ⇒ User identifier, SP identifier, IdP identifier (home organization)
 - ⇒ Date and time, Success/failure
 - ⇒ Accessed service and attribute assertion
- For the management and monitoring of AAI services
- Visualization and integration in network management tools

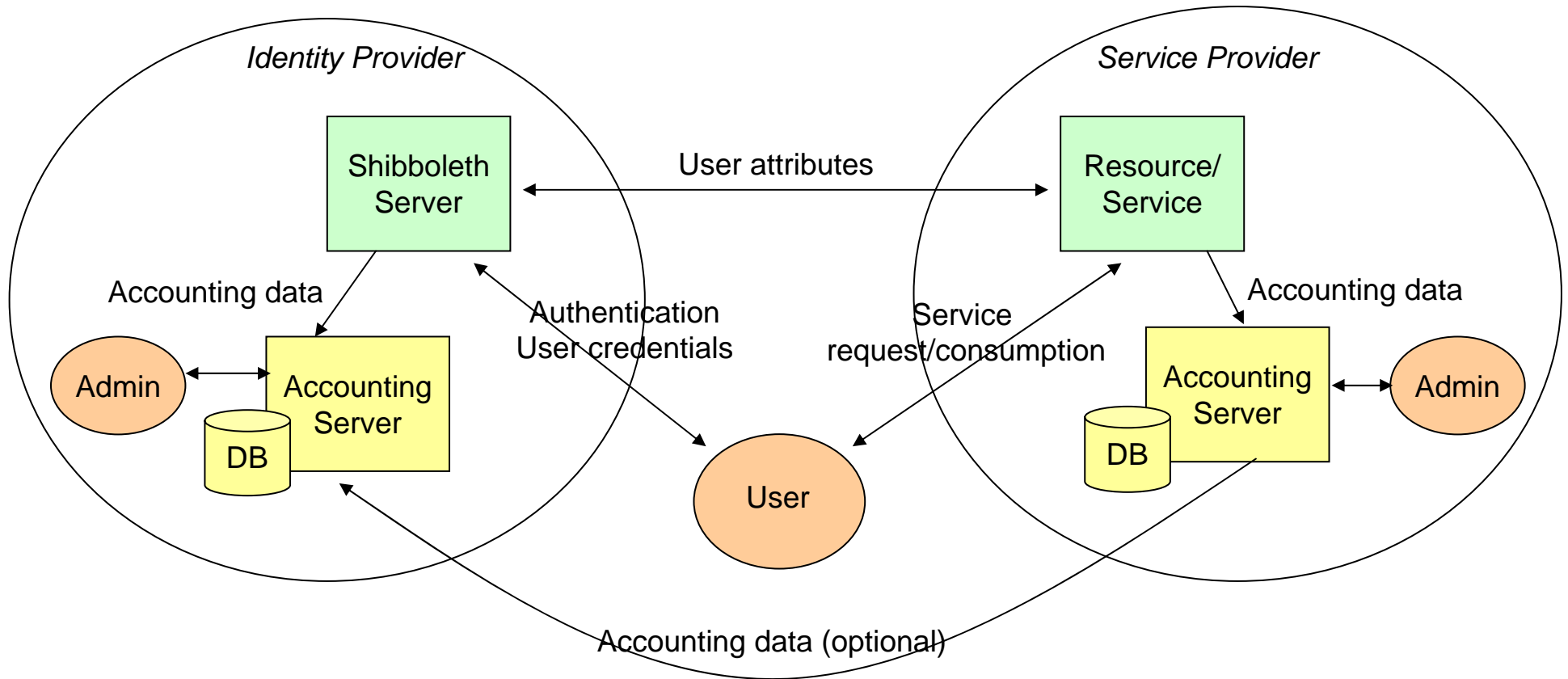
□ Accounting for printing service

- Collection of service-specific accounting attributes
 - ⇒ Number of pages, BW/color, type of printer
- Integration with existing printing services (ETHZ)

□ Accounting for SMS-Gateway service

- Collection of service-specific accounting attributes
 - ⇒ Number of SMS

Accounting Architecture for AAI



- ❑ If IdP and SP are the same entity, one accounting server is enough
- ❑ There can be a single accounting server (e.g., at a university) for several SPs

Thank you for your attention