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AMAAIS

Accounting and Monitoring of AAI Services

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Background

- ❑ Shibboleth open source software for Web-based Single Sign-on (SSO)
- ❑ Shibboleth-based Authentication and Authorization Infrastructure (AAI) enables:
 - Access to different Web resources in a common manner
 - Use of a single user identity for different services across or within provider domains

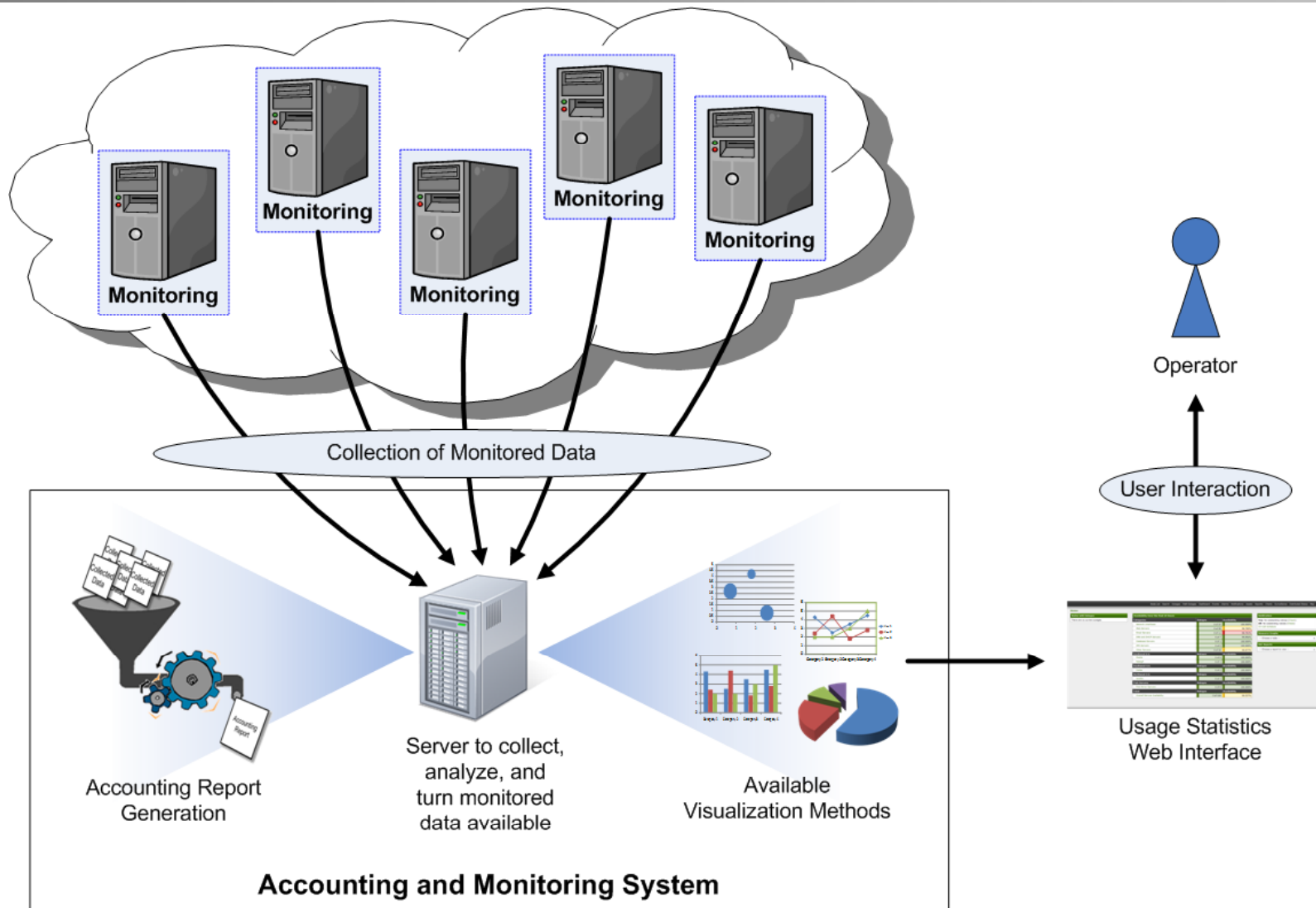
Introduction

- AMAAIS (Accounting and Monitoring of AAI Services) aims to:
 - Extend the current SWITCH Shibboleth-based AAI (SWITCHaai) with accounting and monitoring support, enabling
 - Inter-domain accounting
 - An enhanced management of the AAI

Benefits from AMAAIS

- ❑ Ease the management of the whole Shibboleth-based AAI
- ❑ Provide a better understanding of how AAI is used:
 - Quality
 - Quantity
 - User's behavior
- ❑ Support certain administrative decisions
- ❑ Apply additional policies depending on usage statistics
 - *E.g., restrict usage amount of a given resource at night, for some institutions, due to overload*
- ❑ Detect not explicit service disruptions
- ❑ Detect possible service misuse

AMAAIS Overview



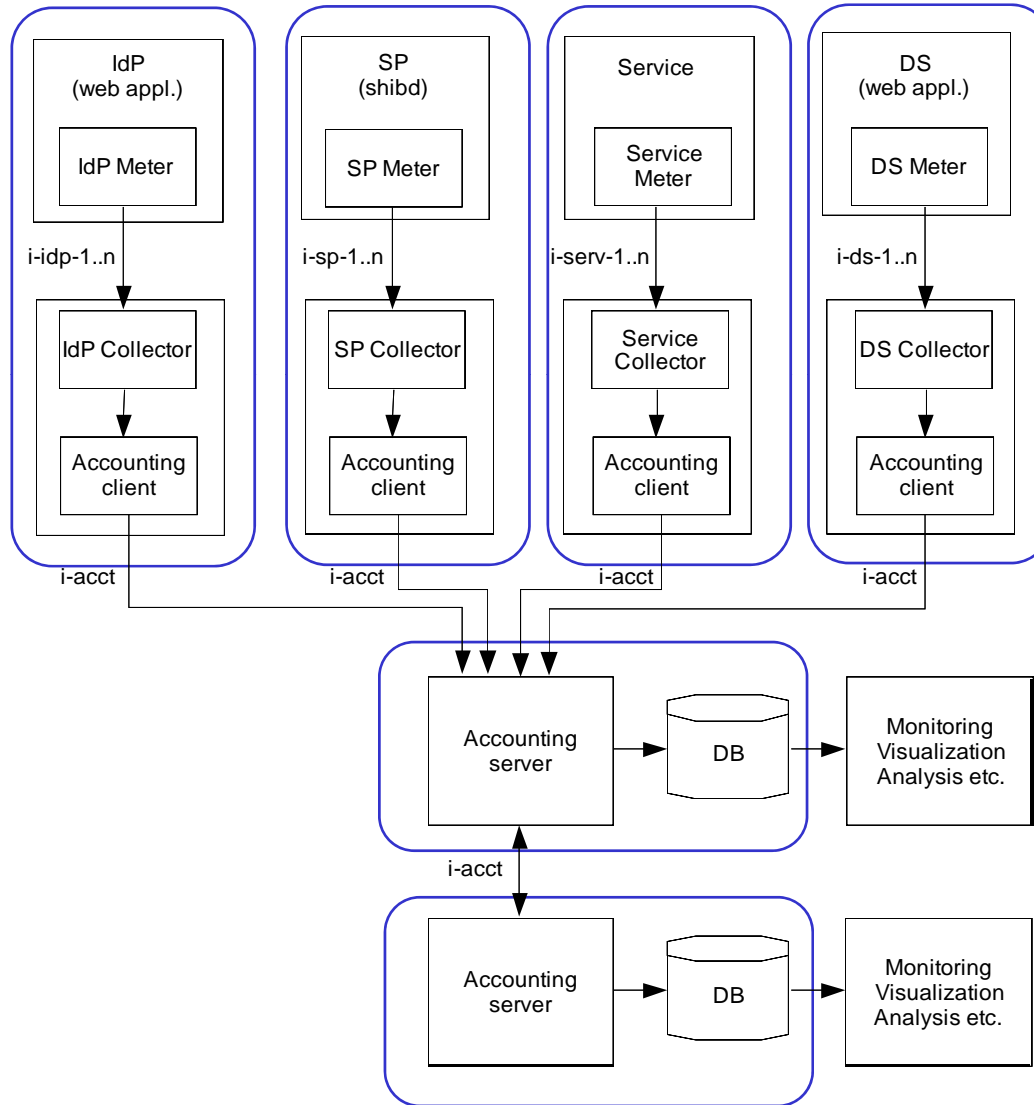
AMAAIS Overview

- AMAAIS builds a common architecture to enable Accounting and Monitoring of AAI Services, implemented in a Shibboleth environment
- Require a solid architecture and protocols/APIs to enable
 - Scalability
 - Security
 - Easy manageability (includes flexibility, extensibility)
 - Reliability

Current Project Status

- Detailed description of 5 scenarios (with accountable attributes and specific requirements for each)
 - Service-Independent
 - AAI Usage Statistics
 - Service-Dependent
 - Printing Service
 - SMS Service
 - SWITCHpoint
 - SWITCHcast and nanoo.tv
- Description of functional and non-functional requirements

Current Project Status



Current Project Status

- Preliminary design of interfaces / APIs
 - Study of accounting protocols (comparative analysis, RADIUS, DIAMETER, etc)
- Study of Shibboleth Logging Capabilities
 - Which data can be gathered from Shibboleth Logs?
 - The lack of some data impacts on the proposed scenarios?
 - Configuration files state

Next Steps

- Final architecture refinement
 - Definition of protocols / standards for each proposed interface (*on-going*)
- Implementation of (*start: end january*)
 - All architectural components
 - Data structures (*e.g.*, store acct. records)
- Prototype evaluation
 - Envisaging a possible extension of the current SWITCHaai environment