Axiomatics Policy Server is a software solution that allows users to manage, simulate and enforce policies written in the eXtensible Access Control Markup Language (XACML).

The Issue

Enterprises have to manage many different proprietary access control mechanisms coexisting in their IT-environment, since access control models are usually implemented as part of the business logic of the applications. Managing and maintaining consistent access control policies across the enterprise becomes then a costly and error-prone procedure. Adapting to new situations and new regulatory requirements is cumbersome as in many cases it requires changes in application code.

The Solution

The eXtensible Access Control Markup Language (XACML) that is being developed within the Organization for Advancement of Structured Information Standards (OASIS), defines an architecture and a language for expressing and enforcing access control policies.

Axiomatics Policy Server

Axiomatics Policy Server (APS) natively implements the XACML 2.0 standard as well as the XACML 3.0 working draft, which facilitates policy exchange across enterprises and with other XACML products. Its main components are:

- Policy Decision Point (PDP) – implementing v. 2.0 and 3.0.
- Policy Administration Point (PAP) – graphical user interface for creating and modifying XACML policies.
- Policy Repository (PR) – database storage of XACML policies.
- Policy Enforcement Point (PEP) – J2EE Servlet PEP.

Key Features

- Externalized, uniform, service-oriented authorization
- Expressive policy language and model
- Effective delegation tool
- Support for policy life cycle management
- Support for optional XACML features

Key Benefits

- Reduces application development cost
- Streamlines policy management
- Increases control on access as well as on administrative policies
## Detailed Features of Axiomatics Policy Server

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<th>Feature</th>
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| **Externalized, uniform, service-oriented authorization** | - Policy updates without rewriting application code.  
- A uniform authorization mechanism that simplifies auditing procedures.  
- Compatible with service-oriented architecture. |
| **Expressive policy language and model** | - Based on the Attribute-Based Access Control (ABAC) model enabling fine-grained authorization management.  
- Superset of most well-known access control models including Role-Based Access Control (RBAC). |
| **Effective delegation tool** | - Enables decentralized policy management which shortens lead time for policy updates.  
- Empowers local decision makers to define and install their authorization policies. |
| **Support for policy life cycle management functions** | - Policy development, simulation and deployment.  
- Full deployment history for audit purposes.  
- Policy debugging.  
- Multiple PDP instances.  
- Signed policies for secure audit. |
| **Support for optional XACML features** | - All optional data types and functions including XPath expressions.  
- Obligations and Attribute Selectors.  
- The following profiles: Optimized Multiple Resource, Hierarchical Resource, RBAC, Privacy Policy, and XACML Digital Signature. |

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### About Axiomatics

- Axiomatics is the leading company in the XACML-based authorization market.
- As a sponsor member of OASIS and as one of the driving forces in the XACML Technical Committee, Axiomatics is dedicated to promote the use of the XACML standard in the industry.
- Axiomatics Policy Server has been chosen by the Swedish Medical Care Advice Service in the world's largest deployment of the XACML standard.

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