AXIOMATICS POLICY SERVER
AUTHORIZATION FOR BUSINESS APPLICATIONS

The Axiomatics Policy Server is the industry-leading solution to control access to critical applications. Using externalized dynamic authorization, it provides the most efficient policy engine on the market, and the most complete solution available for enterprise-wide roll out of Policy and Attribute Based Access Control (PBAC and ABAC).

FEATURES

- **Context-aware, dynamic authorization** controls access to applications based on circumstances and mode of access

- **Complete solution for enterprise rollout** of Policy and Attribute Based Access Control (PBAC and ABAC) which grants or denies access to application features or resources based on the organization's rules of operation

- **Authorization policies are centrally managed** for all applications

- **Changes in authorization policies are centrally managed**

- **Cloud-native technology** that feels equally at home in cloud, on-premise or hybrid deployments

- **Industry standard policies** are implemented using eXtensible Access Control Markup Language (XACML) 3.0

CONTROL AND VISIBILITY IN A COMPLEX ECOSYSTEM

As the IT environment gets more complicated, enterprises need a new approach to managing and changing complex access control models, often as part of customer-focused, digital transformation or business initiatives, security drivers such as secure information sharing, IP and critical asset protection,and compliance and audit requirements.

The Axiomatics Policy Server simplifies authorization. Unlike standard API keys or Role Based Access Control (RBAC) that fail in high-volume complex environments, this policy-driven approach provides next-generation access control security across the digital technology stack with the caliber required to support leading-edge initiatives, on-premise, hybrid environments or in the cloud.

Part of the larger Axiomatics Dynamic Authorization Suite, Axiomatics Policy Server is an independent solution which easily integrates with Identity Management (IdM) tools from leading vendors. The rich APIs and advanced authorization services for all types of scenarios come combined with user-friendly interfaces for policy lifecycle management, service administration and monitoring.

Unmatched performance, cost savings and speed-to-market makes Axiomatics Policy Server the preferred choice in many Fortune 2500 enterprises and government agencies.[1]

[1] *Enabling infrastructure with ABAC capabilities is being prioritized in US Government IT organizations as outlined in NIST Special Publication 800-162.*

WHY DYNAMIC AUTHORIZATION?

Unlike standard API keys or Role-based Access Control that fail in high-volume complex environments, this policy-driven approach provides the precision of access control security required to support leading-edge initiatives, on-premise, hybrid and in the cloud. Dynamic Authorization empowers users with the visibility and control needed to meet the demands of quickly-changing regulations, the need for scalable, flexible environments, and customer satisfaction.
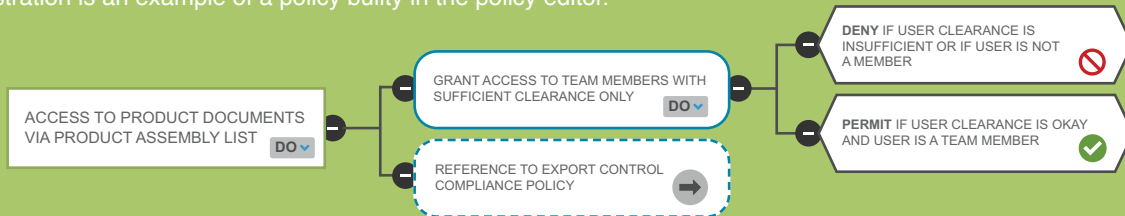
> *Attribute Based Access Control from Axiomatics has reduced costs of both application development and maintenance cost – around 20% savings respectively has been realized annually.*
>
> Head of IAM, Large EU Bank

USER-FRIENDLY POLICY MANAGEMENT

Field implementations of all sizes have helped refine two options for simplifying and streamlining the creation and management of authorization polices. The Axiomatics Language for Authorization (ALFA), is a lightweight syntax that lets you write authorization policies extremely easily, reducing the friction of writing policies in XACML, while reaping the benefits of it and having the capability to express relationships and graphs. ALFA can be used in conjunction with the standalone ALFA compiler tool, or as a plugin for the Eclipse IDE.

The web-based Policy Editor is built into the Services Manager. The graphical user interface of the Policy Editor simplifies policy authoring and policy verification, and allows easy visualization of even extremely complex and nested expressions. This illustration is an example of a policy builty in the policy editor.

ACCESS TO PRODUCT DOCUMENTS VIA PRODUCT ASSEMBLY LIST **DO ⌄**

GRANT ACCESS TO TEAM MEMBERS WITH SUFFICIENT CLEARANCE ONLY **DO ⌄**

REFERENCE TO EXPORT CONTROL COMPLIANCE POLICY

DENY IF USER CLEARANCE IS INSUFFICIENT OR IF USER IS NOT A MEMBER 🚫

PERMIT IF USER CLEARANCE IS OKAY AND USER IS A TEAM MEMBER ✅

You can download a copy of ALFA to see how it works **here** or at www.axiomatics.com/alfa/

MAIN COMPONENTS

- **Policy Decision Point (PDP):** This primary service makes policy-based permit/deny decisions. It evaluates policies written in the XACML 3.0 language, a rich, standards-based policy language capable of handling any level of complexity. This is available in both on-premise and cloud native form factors. The cloud native PDP works easily with cloud orchestration tools such as Kubernetes.

- **Customized authorization:** API services that allows customers to implement advanced access control conditions that are unique to each customer's environment.

SUPPORTING COMPONENTS

Authorization is not a one-size-fits all approach, and specialized components are available to ensure your use case is handled according to the requirements of your organization.

- **Reporting and auditing modules:** Eases the burden of reporting and management for ongoing reporting and policy auditing tasks.

- **Axiomatics Reverse Query:** Solves complex use cases with powerful filtering and queries beyond standard authorization deliverables.

FLEXIBLE DEPLOYMENT

To help your organization move quickly on a complex access control project, Axiomatics can assist with a variety of configuration requirements for your enterprise. We offer successful implementation paths for on-premise, hybrid and cloud deployments.

Axiomatics Policy Server has been built to work with the overarching philosophy that authorization needs to be simple to set up and consume by developer communities. The design of key features help faciliate implementation:

- API Centric - makes the system extensible and flexible.

- Authorization-as-code.

- A REST/JSON interface to query for authorization decisions.

- A simplified authorization language called ALFA (Abbreviated Language for Authorization).

SIMPLIFIED TEAM COLLABORATION

The ability to write, edit, review and publish policies as a team has been streamlined within Axiomatics Policy Server. This meets the complex requirements of managing isolated access control projects across business units. This simultaneous work on multiple policies, allows administrators to maintain confidentiality, internal governance and regulatory compliance requirements throughout the policy authoring lifecycle.