

Fine-grained Access Control for APIs

The Axiomatics CA API Gateway Integration

Benefits in Brief

- **Enhances the CA API Gateway** with context-aware authorization.
- **Ensures compliance and governance requirements are met** by enforcing fine-grained access controls.
- **Streamlines policy editing and management** thanks to centralized XACML policy server.
- **Delivers Attribute Based Access Control** which considers multiple external factors for authorization.
- **Supports multiple environments** including mobile cloud and homegrown application scenarios.
- **Easily scales** while providing low latency, high performance authorization.

Gartner predicts 2015

“By 2020, 70% of enterprises will use Attribute Based Access Control (ABAC) as the dominant mechanism to protect critical assets, up from less than 5% today.”

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The API revolution and what it means for security

APIs have revolutionized the way that application data can be accessed. The richness they offer enables organizations to cater for today’s modern way of communicating in a way that simply isn’t possible with a stand-alone legacy system approach.

APIs have now become a prerequisite if you want a flexible and scalable system that can provide staff, end users and other third parties with access to data on-premises or in the cloud, from multiple devices. Data security is often handled by API Gateways, which provide firewall services for applications and protocols. This delivers a layer of security across frameworks that can support both legacy systems and open solutions – across data centers and clouds.

Enhancing CA API Gateway security with attribute based access control

The CA API Gateway provides services for routing, transformation, caching, composition, throttling, protocol-bridging and basic traffic control rule enforcement. These features can be greatly enhanced with the Axiomatics CA API Gateway Integration. The Attribute Based Access Control (ABAC) solution brings context-awareness to authorization decisions enforcing regulatory requirements and business policies.

With this extra layer of fine-grained access control a wide number of attributes can be used to enforce user permissions and to govern access to data. This is particularly important if you are exposing business critical or sensitive data via your APIs.



The ABAC model brings fine-grained authorization to CA API Management

The attribute-based way to provide secure access to data

Attribute Based Access Control (ABAC) allows you to manage who can access what information under what conditions. ABAC solutions from Axiomatics use a standards-based and rich policy language - the eXtensible Access Control Markup Language, XACML - to capture organizational or regulatory policies and rules.

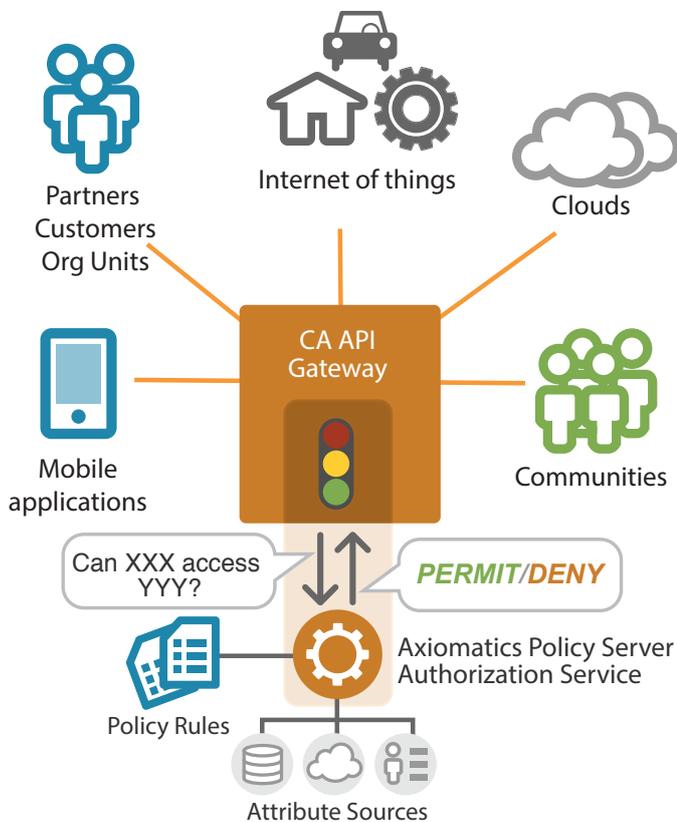
It enables you to manage the actions individuals or services can carry out, such as edit or view a document, create, sign off, or view a transaction, and at what amount. This is all done in real-time to provide the

level of service required by users in today's on-demand society.

Additionally, all policies are stored, managed and enforced from one central point in the Axiomatics Policy Server. Any changes to policies are therefore easy to implement throughout the IT environment as they only need editing once, centrally.

Through the integration with CA API Gateway, ABAC capabilities are made available to a broad variety of environments and systems.

Standard API integration for fine-grained access control



- The CA API Gateway intercepts an incoming request via one of the channels it protects.
- It automatically generates an authorization request and forwards it to the Axiomatics Policy Server.
- The Axiomatics Policy Server evaluates the request against applicable policies. If external factors must be taken into account, it retrieves further attributes from connected sources.
- The Axiomatics Policy Server reaches a decision - PERMIT or DENY - and returns it to the CA API Gateway.
- The CA API Gateway enforces the authorization decision.

Find out how you can increase security of your web access management solution and protect sensitive and business critical data. Contact webinfo@axiomatics.com to learn more about our standard extension for CA API Gateway.



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