API GATEWAY: KEY SECURITY FEATURES

Hardened security and threat protection

Akana API Gateway provides a comprehensive security and threat protection solution for enterprise APIs. It covers a wide range of identity and access, message encryption, threat protection, and compliance use cases. Akana API Gateway streamlines development, management, deployment, and operation of APIs, enhancing security and regulatory compliance through authentication, authorization, and audit capabilities. It is available as software or as a virtual appliance for ease of installation and configuration.

Standards support

- Digital signatures, HMAC, HTTP Basic, Kerberos, LDAP, OAuth 1.0a, OAuth 2.0, RSA, SAML 1.1, SAML 2.0, SHA-1, SHA-2, SSL Client Authentication, WS-Security, WS-Trust, X.509 certificates, XACML, OpenID, OpenID Connect

Authentication and authorization

- Use a wide array of authentication schemes, standards, and token types
- Integrate with leading identity and access management providers or use the built-in access control system
- Discover a credential, authenticate the subject against internal or existing IDM systems, and return a new credential type or token

Transport and message-level security

- Ensure the privacy of data in flight and at rest (a key requirement for PCI)
- Support SSL and TLS as well as message-based encryption and decryption using the XML-Encryption standards
- Sign and verify messages and headers to provide non-repudiation
- Simplify key and certificate generation, distribution, and management with built-in PKI services
- Use policy to select the appropriate level of and how much of each transaction or message to encrypt

Certificate authority

- Built-in PKI to create, manage, and distribute public/private key pairs or integrate with existing PKI solutions
- Certificate revocation and management
- Root or subordinate CA
- XKMS based key and certificate distribution
- Support for HSM
Threat protection
- Protect APIs against unintentional abuse or intentional attacks
- Provide a content firewall, protecting against malicious content
- Validate message content including message headers, form and query parameters, XML and JSON data structures, OOTB policies for XML and JSON DoS
- Protection against viruses in attachments and other binary content via ICAP integration with leading anti-virus engines
- Prevent denial-of-service attacks with quota management and white/blacklisting
- Detect and prevent SQL, JavaScript, or XPath/XQuery injection attacks
- Network address and range blacklists/whitelists

Federation
- Integrated STS and SAML 1.1/2.0 support
- Security token exchange and mediation services providing credential mapping and identity federation

First and last-mile security
- Optional delegates and agents integrate with the API Gateway to provide a complete end-to-end solution

OAuth
- Easy management of app and API key pairs and certificates
- Support multiple authentication mechanisms for mobile and web
- Use existing enterprise security systems to create an OAuth authorization server
- Brandable user experience to integrate OAuth seamlessly into existing apps
- Define how OAuth resources map to APIs to enforce authorization decisions at the edge of your network

Mobile
- Leverage existing identity and access management providers or use the built-in access control system
- Map between different web, mobile, and enterprise credential mechanisms