

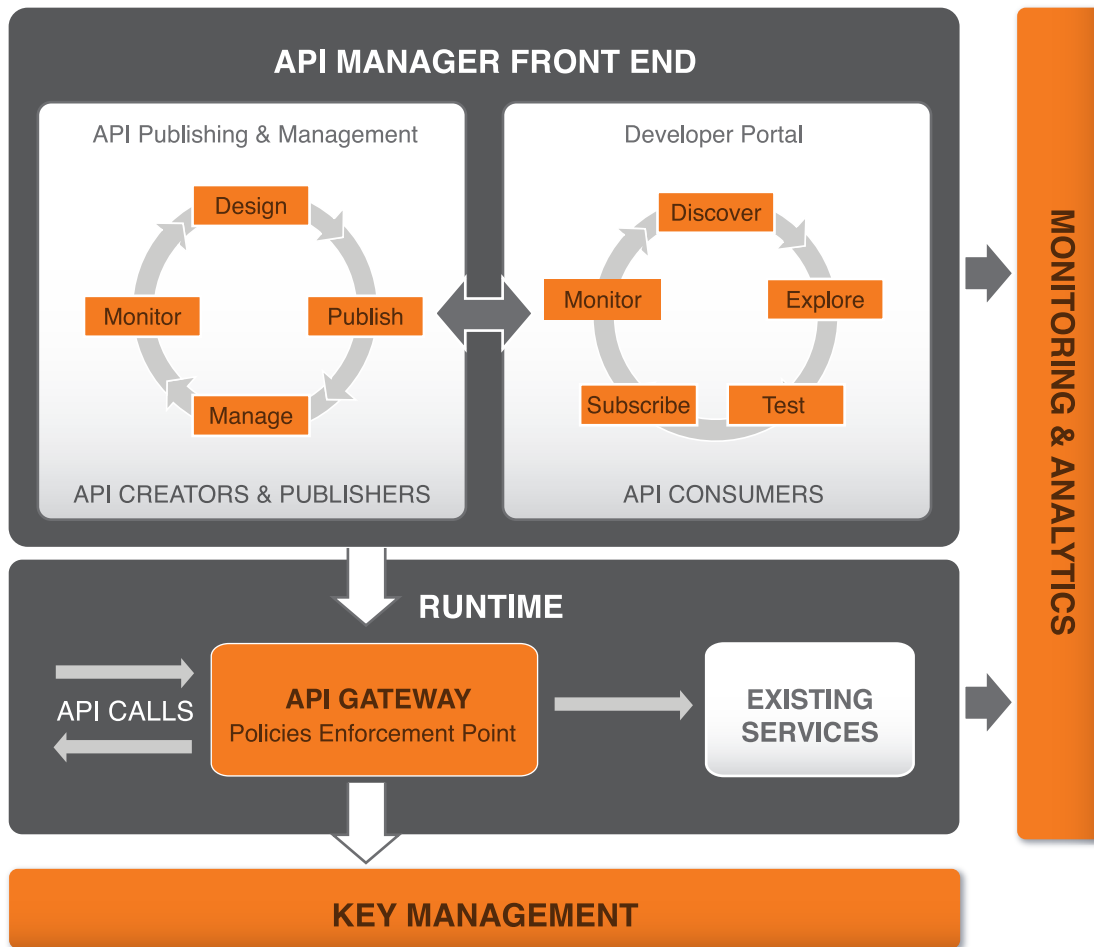


# API Management

The huge amount of data and devices that make up the connected world have pushed APIs to the forefront of IT transformation for companies of all sizes, everywhere. Exposing enterprise data and processes to your customers, partners, or mobile developers can be a challenging task. You can leverage WSO2's API Management solutions to design, implement, secure, and monitor your APIs and quickly deliver the value of APIs to your organization.

WSO2 API Manager supports API design and publishing as well as API lifecycle management, includes a developer portal, provides APIs access control, and offers a comprehensive set of analytics for IT operations and API product managers.

- Enables API **discovery** by providing a store experience, similar to mobile applications public stores. APIs can be documented, tagged, categorized, and tested right from the store itself
- Defines a **role-based** access to API publication, by clearly separating API developers (creators) from API publishers (who hold the responsibility to make an API publicly available)
- Provides **self-service** API access, while retaining **control** by associating approval workflows to critical actions such as subscriptions, application creation, or user self-sign-up
- **Secures** APIs leveraging OAuth standard and supports common OAuth grant profiles such as SAML, IWA, Password, or Implicit, allowing APIs to be invoked in the context of web applications or mobile applications
- **Monitors** API behavior, at operation and business levels, and supports Google Analytics as well as the WSO2 analytics platform



WSO2 API Manager is part of a comprehensive, composite platform that can enable you to provide more functionality to your customers. You can adopt the rest of the platform at your pace, as your API management deployment matures and grows. Potential scenarios include:

- Federated identity based on SAML or OpenID Connect
- Policy-based authorization with XACML
- Integrated service and API governance
- Advanced data and protocol transformation

## WSO2 ADVANTAGES

Only production-ready, 100% open source API management solution available today, on-premise and in the cloud
A single API gateway node handles more than 100 million requests/day. eBay, which uses WSO2 solutions, handles billions/day!
Developer's portal can use social logins such as Facebook, Google Apps, and many others
Supports federated identity across products such as Salesforce™ or Google Apps
Extensible via server-side public APIs
Recognized as a Strong Performer for API Management Solutions by Forrester in 2014

<b>FEATURES</b>	
<b>Design and Prototype APIs</b>	<ul style="list-style-type: none"> <li>• Design APIs, gather developers' feedback before implementing (API First Design). Design can be done from the publishing interface or via importing an existing Swagger 2.0 definition</li> <li>• Deploy a prototyped API, provide early access to APIs, and get early feedback</li> <li>• Mock API implementation using JavaScript</li> <li>• Supports publishing SOAP, REST, JSON, and XML style services as APIs</li> <li>• Supports grouping of multiple APIs based on the version</li> <li>• A sample API to try-out for a hassle-free first experience</li> </ul>
<b>Publish and Govern API Use</b>	<ul style="list-style-type: none"> <li>• Publish APIs to external consumers and partners, as well as to internal users</li> <li>• Ability to publish APIs to a selected set of gateways in a multi-gateway environment</li> <li>• Support enforcement of corporate policies for actions like subscriptions, application creation, etc. via customizable workflows</li> <li>• Manage API visibility and restrict access to specific partners or customers</li> <li>• Manage API lifecycle from cradle to grave: create, publish, block, deprecate, and retire</li> <li>• Publish both production and sandbox keys for APIs to enable easy developer testing</li> <li>• Manage API versions and deployment status by version</li> <li>• One-click deployment to API gateway for immediate publishing</li> <li>• Support custom lifecycles leveraging WSO2 Governance Registry</li> </ul>
<b>Control Access and Enforce Security</b>	<ul style="list-style-type: none"> <li>• Apply security policies to APIs (authentication, authorization)</li> <li>• Rely on OAuth2 standard for API access (implicit, authorization code, client, SAML, IWA Grant Type)</li> <li>• Restrict API access tokens to domains/IPs</li> <li>• Supports plugging in third-party key servers for application registration, token generation &amp; token validation apart from the WSO2 Key Manager</li> <li>• Block a subscription and restrict a complete application</li> <li>• Associate API available to system-defined service tiers</li> <li>• Encodes JWT with Base64 and Base64URL</li> <li>• Leverage XACML for entitlements management and fine-grain authorization</li> <li>• Configure Single Sign-On (SSO) using SAML 2.0 for easy integration with existing web apps</li> </ul>
<b>Create a Store of all Available APIs</b>	<ul style="list-style-type: none"> <li>• Graphical experience similar to popular applications stores</li> <li>• Browse and search APIs by provider, tags, or name</li> <li>• Provision API keys</li> <li>• Subscribe to APIs and manage subscriptions on per-application basis</li> <li>• Subscriptions can be at different service tiers based on expected usage levels</li> <li>• Try APIs directly from the storefront</li> <li>• Internationalization support</li> <li>• Common view of the store for users registered under same organization</li> </ul>
<b>Manage Developer Community</b>	<ul style="list-style-type: none"> <li>• Self-registration for developer community to subscribe to APIs</li> <li>• Developer interaction with APIs via forums, comments, and ratings</li> <li>• View API consumer analytics</li> </ul>
<b>Manage API Traffic</b>	<ul style="list-style-type: none"> <li>• API gateway can act as SSL termination point</li> <li>• Supports protocol transformation, data transformation, and API composition</li> <li>• Maps between HTTP(s) and other protocols, such as JMS or writing to file systems</li> <li>• Extremely high performance pass-through message routing with minimal latency</li> <li>• Enforces rate limiting and throttling policies for APIs by consumer</li> <li>• Throttling hard limit for API</li> <li>• Horizontally scalable with easy deployment into cluster using proven routing infrastructure</li> <li>• Supports up to 1300 TPS on a single node</li> </ul>

FEATURES (CONT)	
Monitor and Monetize	<ul style="list-style-type: none"> <li>• All API usage published to pluggable analytics framework</li> <li>• Out-of-the-box support for WSO2 Data Analytics Server and Google Analytics. Supports configuring WSO2 Data Analytics Server through a graphical interface</li> <li>• Track consumer analytics per API, per API version, per tiers, and per consumer</li> <li>• Configurable payment schemes to monetize API usage</li> <li>• Monitor SLA compliance</li> <li>• Alerting, real-time dashboards</li> <li>• Publish your own events and create your own dashboards</li> <li>• OOB support for events based on throttling, faults, latency within and from WSO2 API Manager to target and approval/rejection of self-registration, subscription and app creation</li> </ul>
Pluggable, Extensible, and Themeable	<ul style="list-style-type: none"> <li>• All components are highly customizable through styling, theming, and code extensions</li> <li>• Storefront implemented with Jaggery/JavaScript (jaggeryjs.org) for easy customization</li> <li>• REST API with an extensible security mechanism; OAuth 2.0 is used by default</li> <li>• Pluggable to third-party analytics systems and billing systems</li> <li>• Pluggable to existing user repositories including Microsoft Active Directory, LDAP, databases, or Apache Cassandra</li> <li>• Components usable separately: API store can be used to catalog APIs deployed in third-party gateways</li> </ul>
Easily Deployable in Your Enterprise	<ul style="list-style-type: none"> <li>• Role-based access control for managing users and their authorization levels</li> <li>• Storefront can be deployed in DMZ for external access with publisher inside the firewall for private control</li> <li>• Different user stores for developer-focused storefront and internal operations in publisher</li> <li>• Integrates with enterprise identity systems including LDAP and Microsoft Active Directory</li> <li>• Gateway can be deployed in DMZ with controlled access to WSO2 Identity Server (for authentication/authorization) and governance database behind firewall</li> </ul>
WSO2 Platform Multi-tenancy Support	<ul style="list-style-type: none"> <li>• Run a single instance and provide API management to multiple customers, each in their own domain</li> <li>• Share APIs between different departments in a large enterprise</li> </ul>

**Accelerate mobile application delivery:** Take an API-centric approach to securely expose data and processes via APIs

**Foster internal agility:** Complement your SOA infrastructure with managed APIs to increase service re-use, integrate applications faster, and track services adoption

**Unleash developers' innovation:** Expose open APIs and let external developers leverage the value of your data



Contact : [bizdev@wso2.com](mailto:bizdev@wso2.com) for more details on how we can help with your next enterprise IT project.

