API Management and API Portal 7.7

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Product Management

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API Management Overview 7.7

- We are excited to announce API Management and API Portal 7.7. This release introduces the following improvements:

Subscription Usage Licensing

Enhanced Customizability

Enhanced UX

DevOps Improvements

Security Updates

Enhance Compliance and User Management

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API Gateway Enhancements

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API Gateway Enhancements

Traffic monitor enhancements

- It is now possible to disable/enable monitoring per path, instead of per interface, allowing a more fine grained monitoring configuration for Traffic Monitor data.
- Support for JMS custom property searches in Traffic Monitor using the filter options.

Subscription Licensing for API Management

- The API Gateway/Manager now supports usage based subscription licensing when deployed in container mode. More information can be found in "How to enable API Management Subscription Licensing".

NOTE: This feature is available for container mode only.

Configure nested paths in API Gateway Manager

- It is now possible to edit and configure nested paths (sub paths) in the API Gateway Manager UI, bringing consistency between the API Gateway Manager UI and Policy Studio for nested paths.

Redaction support for API Gateway trace log levels

- Redaction support has been added for trace data DEBUG and DATA settings.

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API Gateway Enhancements

ESExplorer added to standalone tools package

- The ESExplorer tool has been added to the standalone tools installer.

API Management EMT Mode Enhancements

- Added ability to use environment variable to set trace level in API Management container
- Added ability to insert files into a container at start-up.
- Added ability to use selectors for log file naming to facilitate persistent storage of files in volume

Policy Studio Filter enhancements

- The ICAP filter now supports custom headers.

Third-party library updates

- OpenJDK replaces JRE as the Java runtime for API Gateway/Manager.

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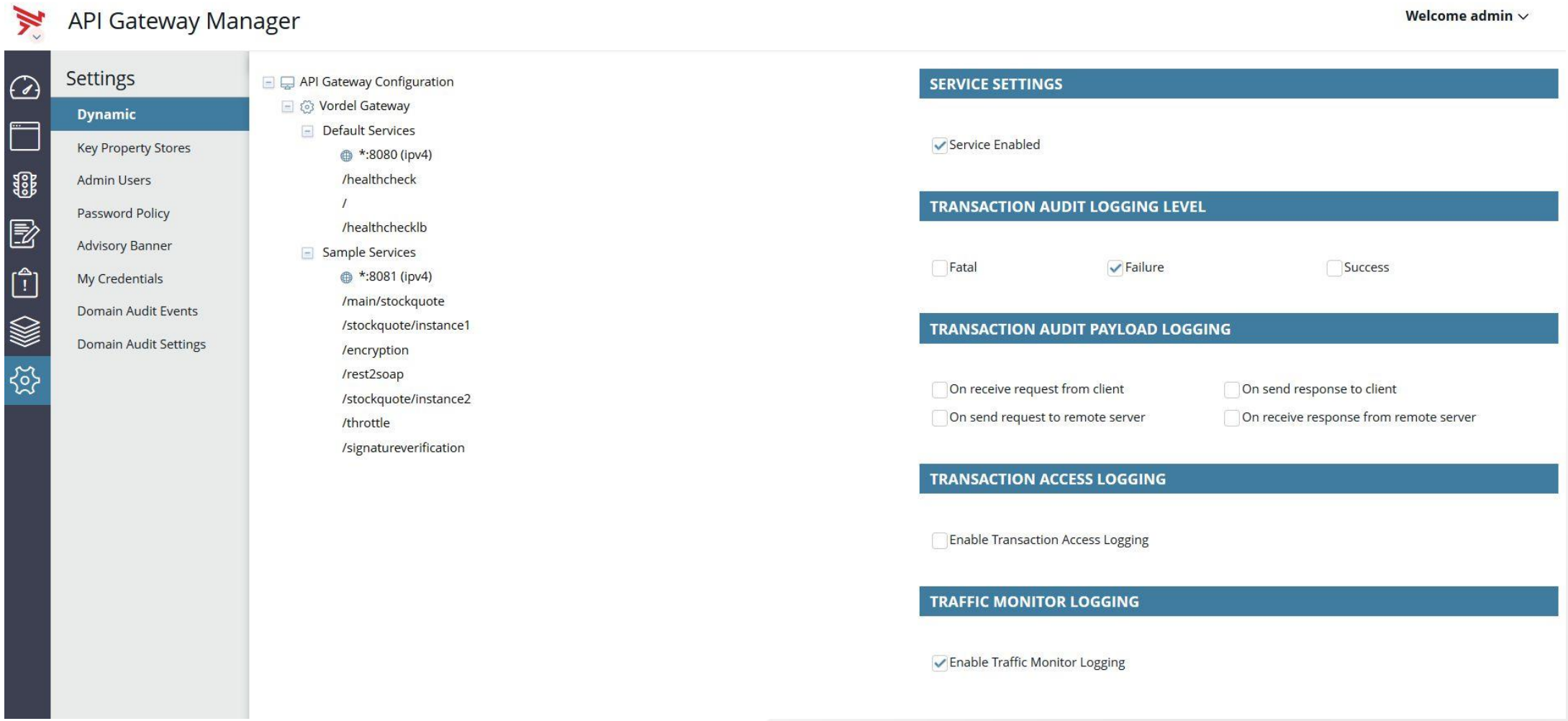
Traffic monitor enhancements

Options to dynamically turn off/on logging on the path level.



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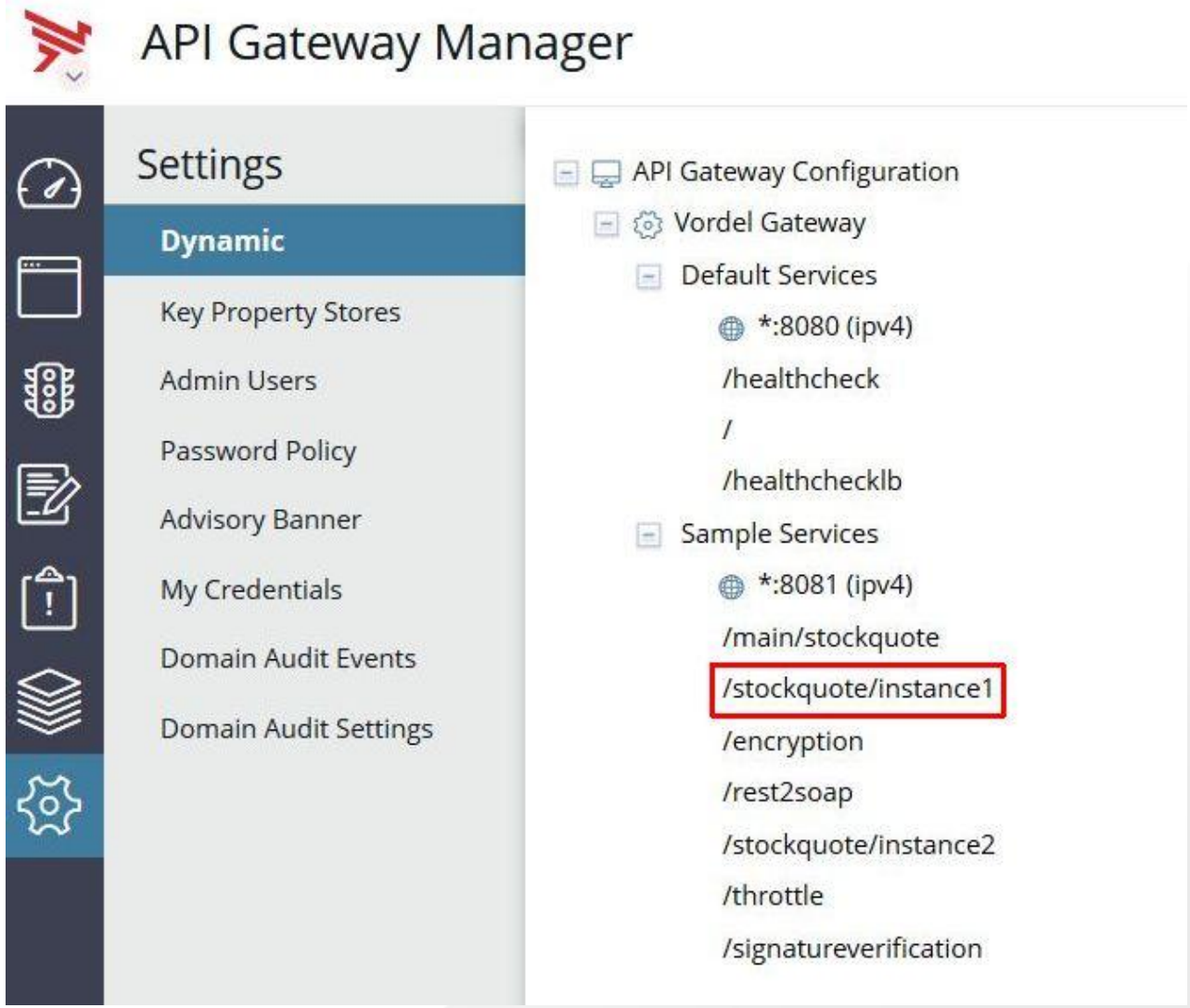
API Gateway Manager UI Enhancements

Nested paths are now shown under the Settings – Dynamic tab



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Redaction for DEBUG and Data trace level

Redaction configuration is now supported for DEBUG and DATA trace level and can be configured using regex in the Redaction.xml file.

```
<TraceRedactor level="DEBUG">
    <Regex exp="creditcard\s*=\s*(\d{16})" redact="1"
        icase="true" />
    <Regex exp="source:\b(\d{1,3}).(\d{1,3})\.\d{1,3}\.\d{1,3}\b"
        redact="1,2" icase="true"/>
    <Regex exp="\d{16}" redact="*" icase="false" />
</TraceRedactor>
```


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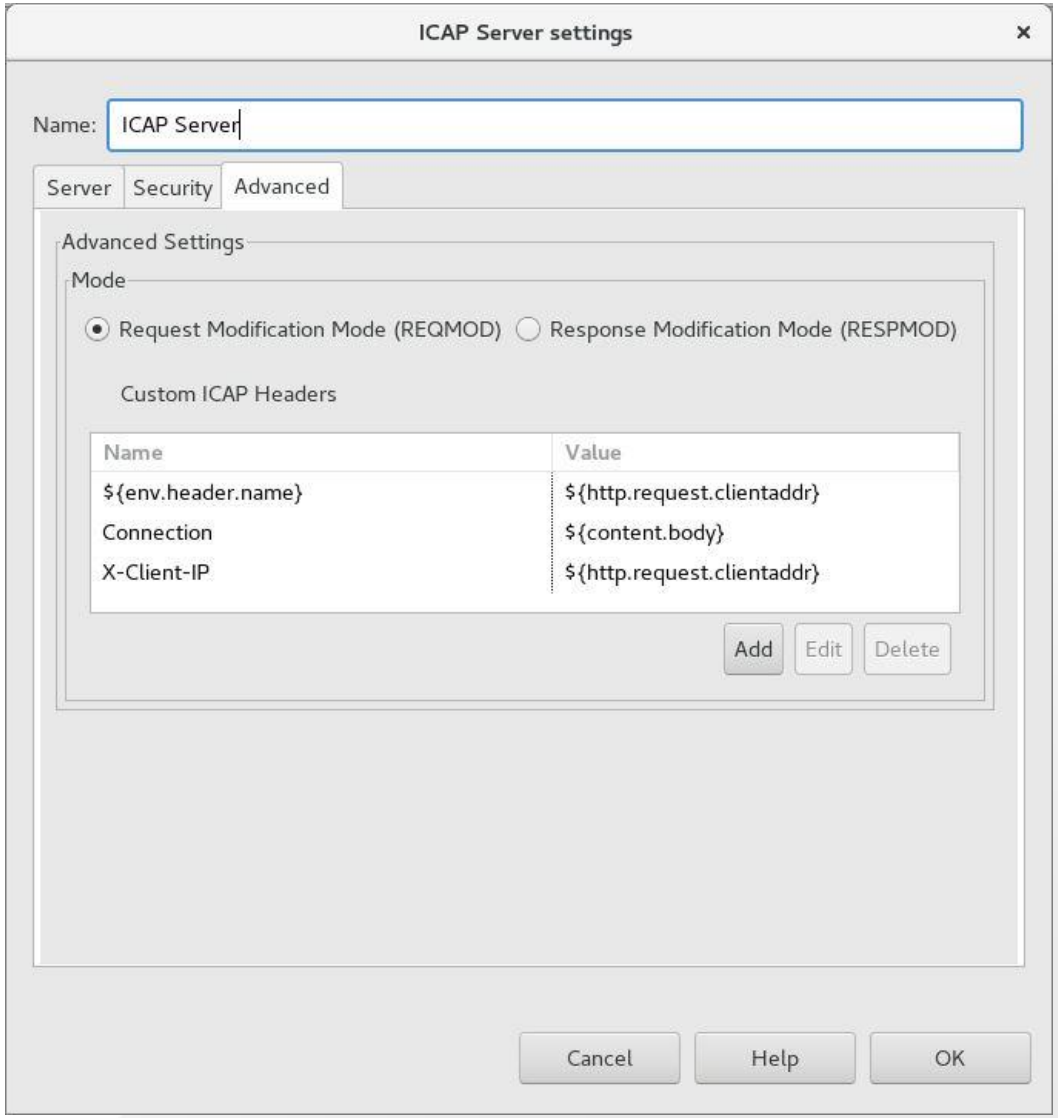
ICAP filter custom header support

Custom header support allows for integration with additional ICAP servers i.e. OPSWAT



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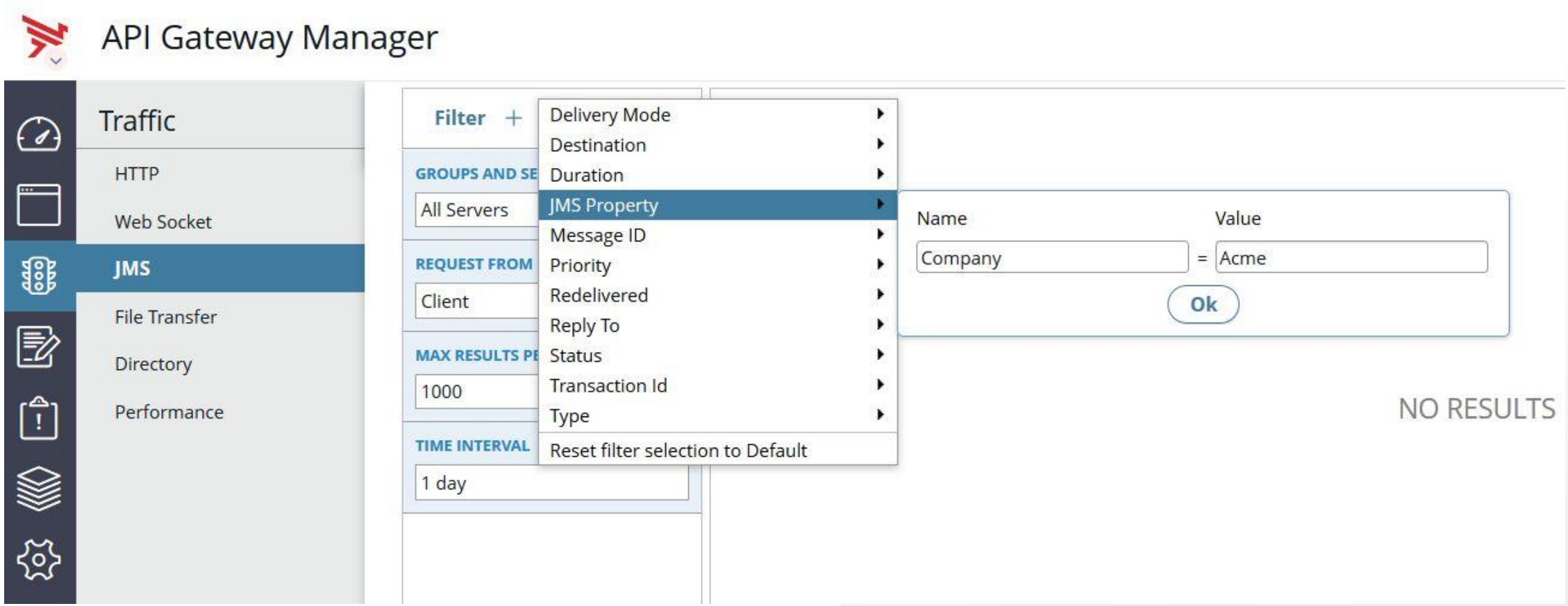
Traffic Monitor JMS Properties Search Filter

New filter added for JMS in Traffic Monitor to search for JMS properties configured.



OpenJDK Support

API Gateway and API Manager now support OpenJDK JRE and the default API Gateway installation includes an OpenJDK JRE only.

Apache Cassandra can be configured to use the API Gateway OpenJDK JRE or you can install a separate JRE (OpenJDK or Oracle) for use with Cassandra.

If using Cassandra TLS/SSL with JDK8u151 or later, it is no longer necessary to download Java Cryptographic Extension (JCE) policies for your JRE.

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API Manager Enhancements

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API Manager Enhancements

Enhanced Swagger 2 support

- API Manager now preserves additional Swagger fields as part of the API Catalog Swagger representation and will be available in API Catalog Swagger exports.

API Manager support for Swagger in YAML format

- API Manager now supports Swagger 2.0 documents that are in YAML format including support for external references.

API Management Custom Properties

- A new REST API for viewing all existing custom properties and their values (including metadata) for API's, users, orgs and apps.
- Support for validation and default values for custom properties.

API Management Compliance Enhancements

- Users will now be forced to change their password after login in the first time.
- The last login time will be displayed to the user.
- Advisory Banner support has been added.
- API Manager UI session timeout will now correctly redirect to the login screen.

API Management Auditing Enhancements

- Various missing audit events added to audit logging.

Additional search field support for front and back-end API's

- Support to retrieve front-end APIs that are exposed on a particular path as well as the ability to query for backend API's with a particular basePath, resourcePath, organizationId, or serviceType.

API Management Try it/Try Method improvements

- Improvements for entering authentication credentials in **Try it/Try Method** by allowing to select an application, and subsequently, where appropriate, an API Key/OAuth credential. Credentials can also be validation to ensure they are configured correctly.

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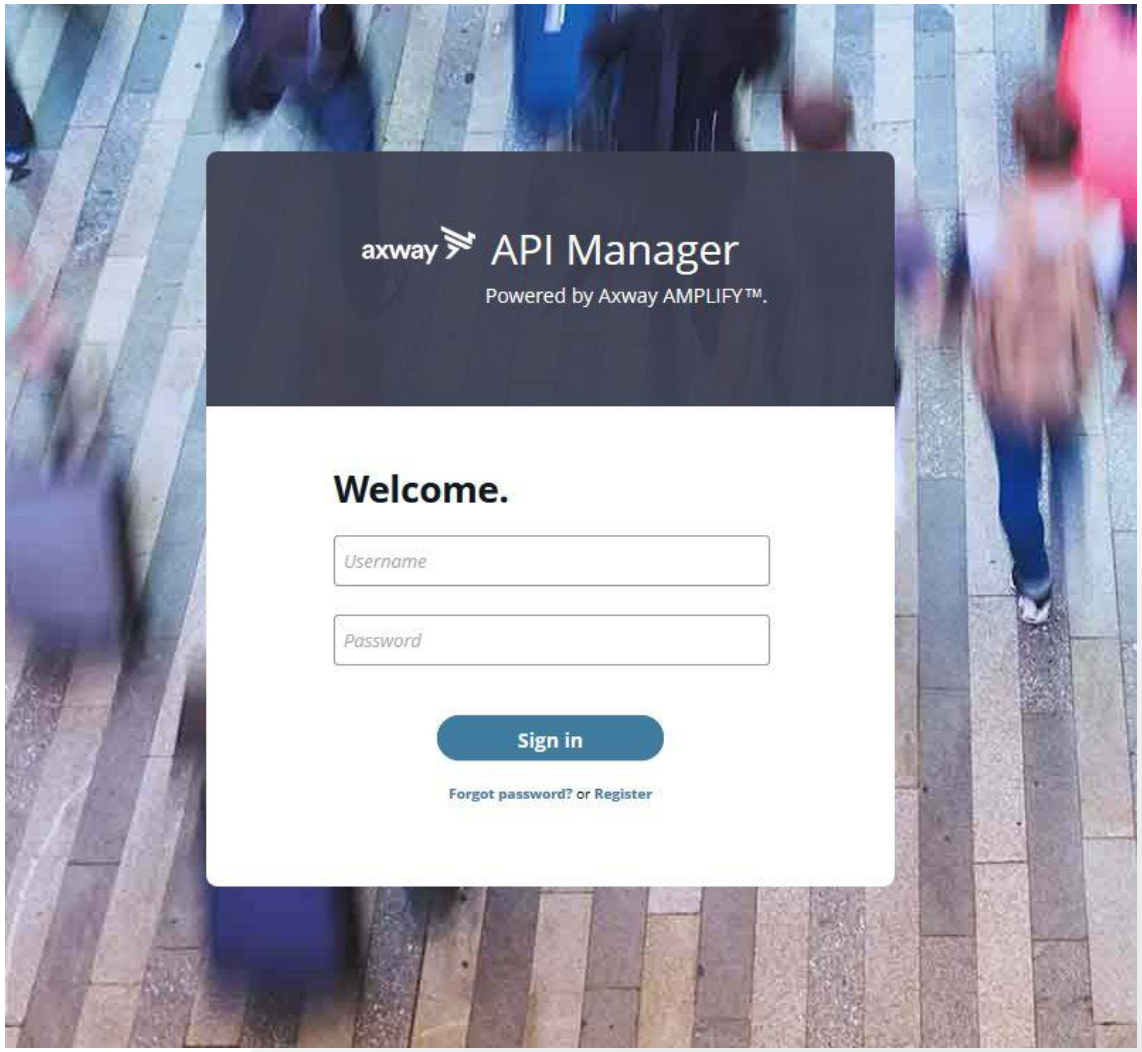
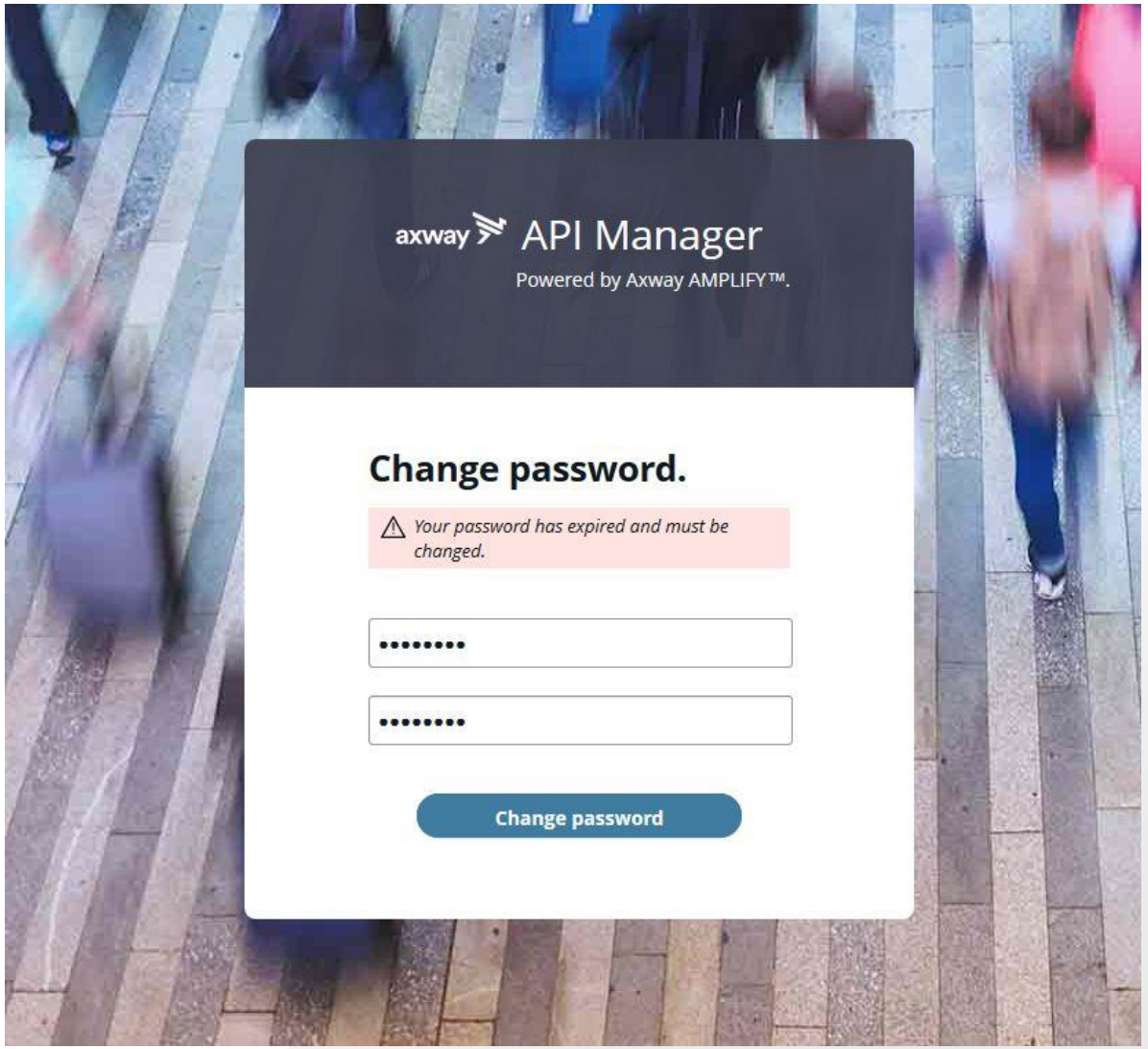
API Manager: Compliance Enhancements

API Manager UI session timeout now redirects to the login screen



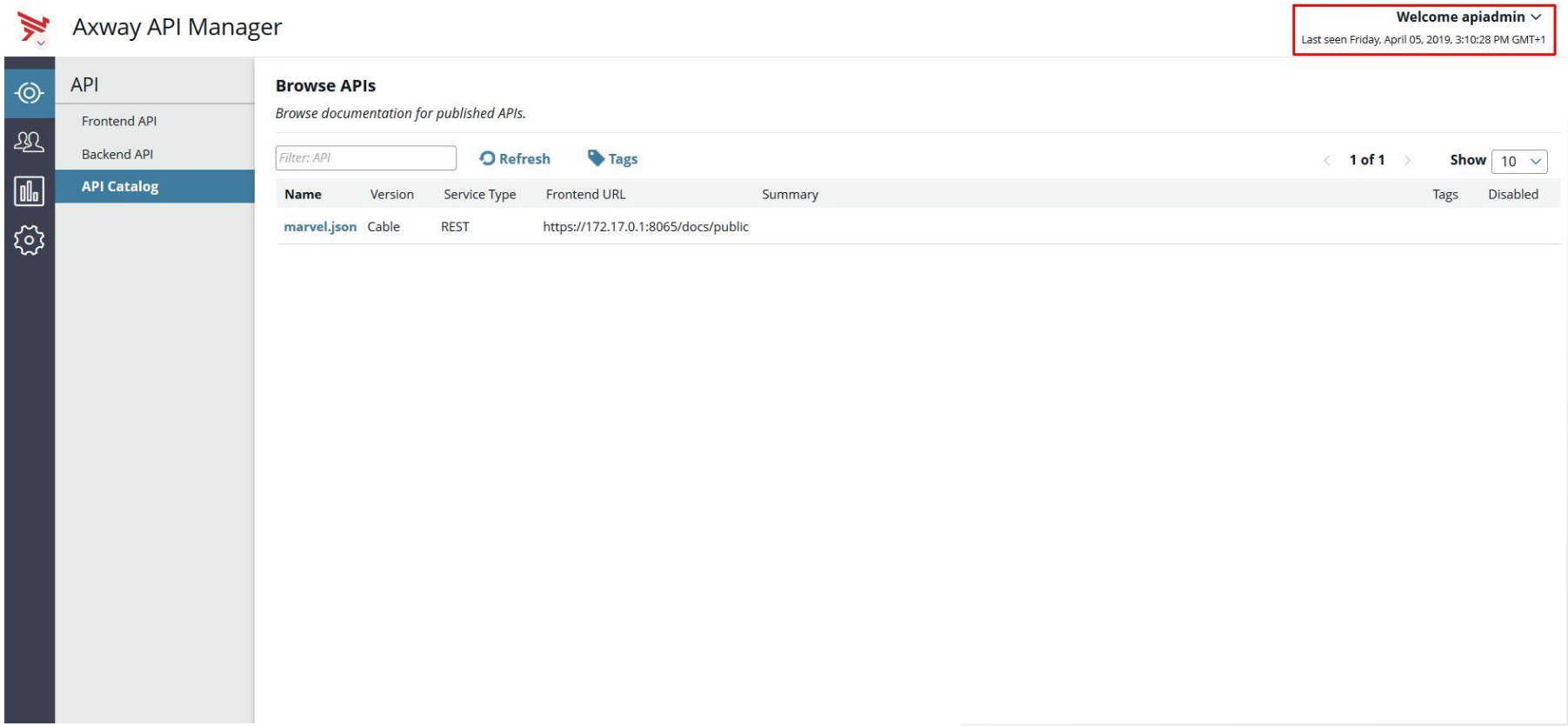
API Manager: Compliance Enhancements

Password change is now enforced after first login.



API Manager: Compliance Enhancements

The last login time will be displayed for a user once logged in.



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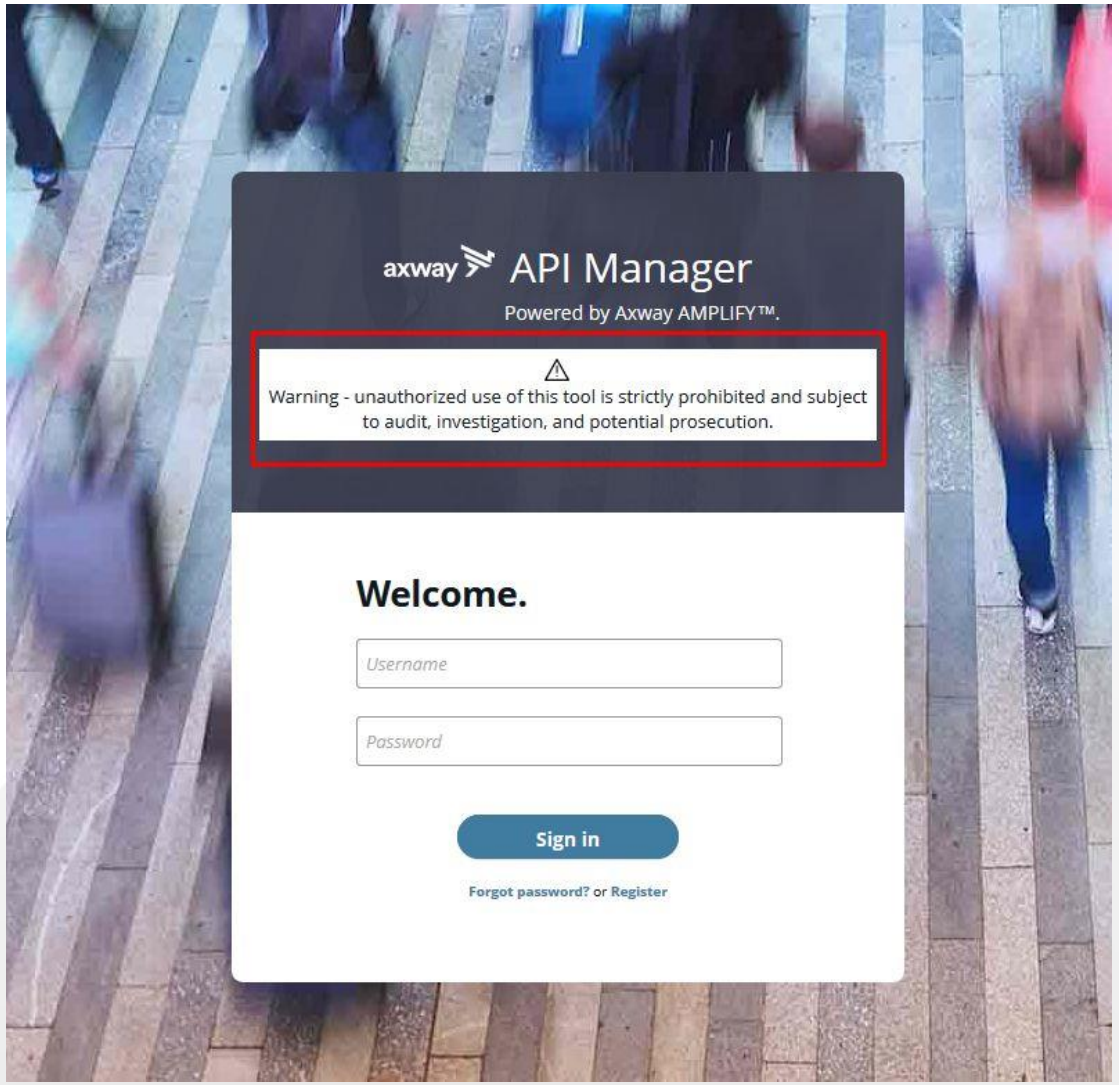
API Manager: Compliance Enhancements

API Manager now supports the ability to add an custom advisory banner to the login screen.

This option can be enabled under the API Manager Settings and text is customizable.



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API Manager: Additional search field support for front-end and back-end APIs

API Manager now supports retrieval of front-end APIs that are exposed on a particular path

It also supports the ability to query back-end APIs with a particular base path, resource path, organization Id, or service type.

Four new filter fields added:

- basePath
- resourcePath
- organizationId
- serviceType

example, the following call can be used to retrieve a backend API exposed on base path '/mybackend':

```
https://localhost:8075/api/portal/v1.3/apirepo?field=basePath&op=eq&value=/mybackend
```

API Documentation has been updated to reflect the updates.

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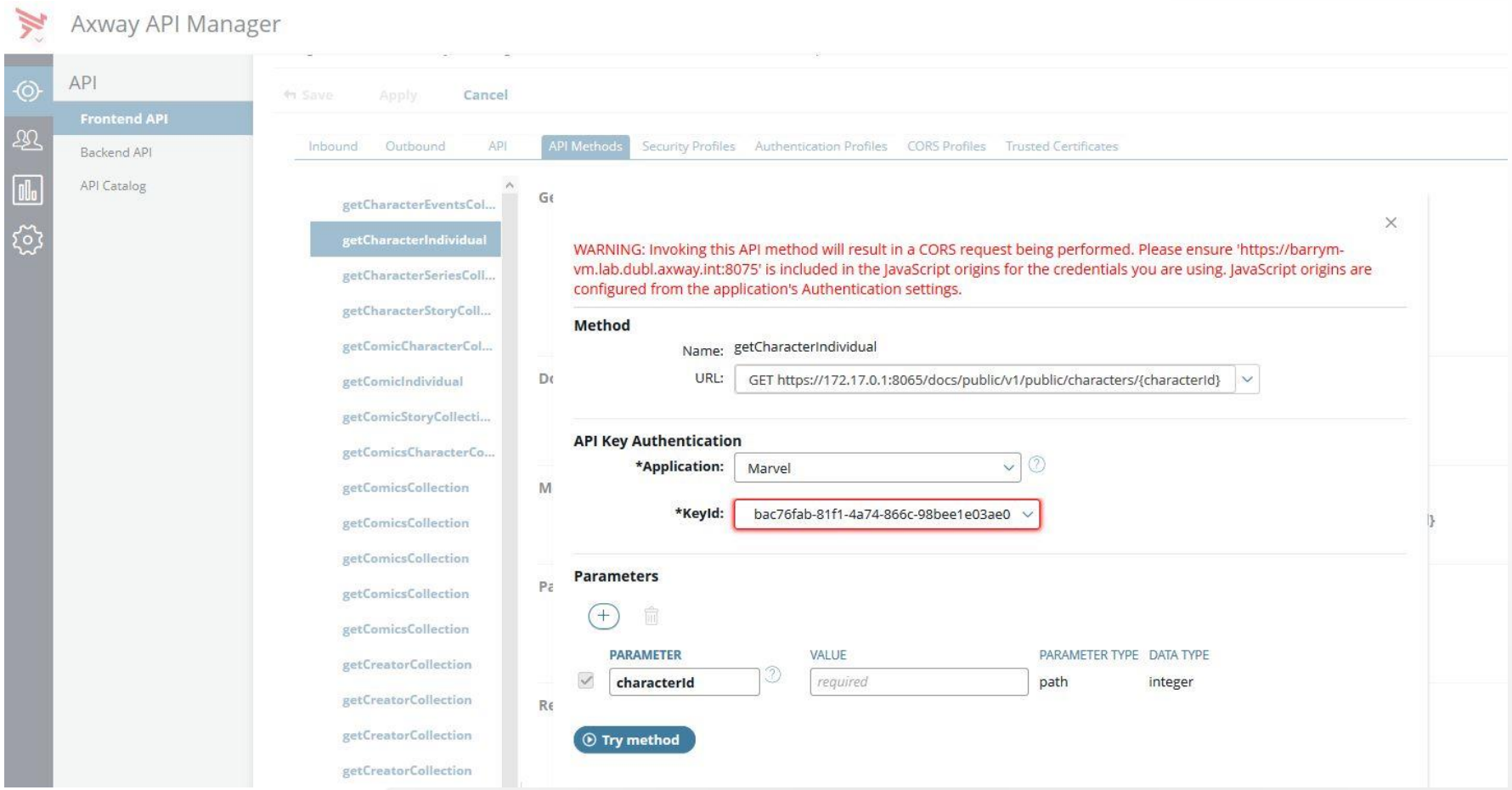
API Manager: Try it and Try Method UX Enhancements

Improvements for entering authentication credentials in Try it and **Try Method** UI.

A user can try each method of an API by clicking on a **Try it** button for front end API Methods or **Try Method** as listed in API Catalog, and if authentication credentials are required, you can select an application and an API Key/OAuth credential from a drop-down list.

We have added CORS/Javascript Origin validation to the credentials to minimize CORS issues when Try It is performed.



Swagger 2.0 support enhancements

API Manager now preserves the following fields as part of the API Catalog Swagger representation and will be available in API Catalog Swagger exports.

Previously the virtualization of Swagger 2 API's resulted in the removal of various fields as represented in the Swagger representation in the API Catalog.

Root document level:
- tags
- externalDocs

Info level:
- termsOfService
- contact
- license

Operation level:
- tags
- externalDocs

Parameters level:
- default
- enum
- minLength (string parameters)
- maxLength (string parameters)
- pattern (string parameters)
- maximum (integer/number parameters: int32, int64, float, double)
- minimum (integer/number parameters: int32, int64, float, double)
- exclusiveMaximum (integer/number parameters: int32, int64, float, double)
- exclusiveMinimum (integer/number parameters: int32, int64, float, double)
- multipleOf (integer/number parameters: int32, int64, float, double)
- collectionFormat (array parameters)
- minItems (array parameters)
- maxItems (array parameters)
- uniqueItems (array parameters)
- items.default (array parameters)
- items.enum (array parameters)

Responses level:
- headers

Schema objects defined at the **definitions** level
- enum
- default

Container Mode Enhancements (EMT Mode: External Managed Topology)

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Container Script Enhancements

Environment variable to set trace level in API Management container

`EMT_TRACE_LEVEL`: Specifies the trace level for the ANM or API Gateway. This can be useful for debugging issues in the runtime environment without having to build a new image. Possible values: INFO, DEBUG, DATA. Sample usage: `-e EMT_TRACE_LEVEL=DEBUG`.

Insert files into a container at start-up

Many files can be added to images at build time. These include certificates, license, FED file, and a merge directory. Sometimes, however, files must contain information that is only known in the runtime environment.

Such files can be added at container startup by mounting a volume at a specific location.

The mount point is `/merge/apigateway` for ANM and Gateway containers, and`/merge/analytics` for Analytics containers:

```
```shdocker run -v /tmp/apigateway:/merge/apigateway --name=anm
...docker run -v /tmp/analytics:/merge/analytics --name=analytics ...
```
```

Files from the mounted volume are copied into the container's installation directory before the ANM/Gateway/Analytics server is started. Existing files are overwritten, and new files and folders are created.

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Container Script Enhancements

Use selectors for log file naming to facilitate persistent storage of files in volume

When a Docker container is removed, all data within it is lost. Runtime logs can be preserved by writing them to Docker volumes that are mounted inside the container. These logs can be accessed after the container is gone, but can no longer be viewed in the API Gateway Manager UI (if applicable).

We have already seen how Transaction Event Logs can be written to a directory on the host server from an API Gateway container. The same approach can be used to store other logs outside of containers. For example, the following commands result in a Gateway's Transaction Event Logs and Trace Logs being persisted to host directories:

```sh
mkdir -p /tmp/emt/events /tmp/emt/trace

docker run -d -v /tmp/emt/events:/opt/Axway/apigateway/events \
           -v /tmp/emt/trace:/opt/Axway/apigateway/groups/emt-group/emt-service/trace \
           -e EMT_ANM_HOSTS=anm:8090 --network=api-gateway-domain \
           api-gateway-defaultgroup
```

Note that log filenames include the container ID (f96f6248e822 in the example below), so logs from multiple Gateways can be collected in the same volume:

```sh/tmp/emt$ tree
├── events
│   ├── MyGroup_f96f6248e822_2018-07-17-10-34.log
│   └── MyGroup_f96f6248e822.log
└── trace
└── f96f6248e822_20180717103335.trc```
```

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API Portal Enhancements

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API Portal Enhancements

Improved GDPR Compliance and Privacy Management Features

- Privacy policy support
- Improved application sharing
- Password expiration policies

Continuous UX Improvements

- Show API-Summary instead of API-Description
- Show API-Version in App-Screen
- Indicate Deprecated/Unpublished APIs in App-Screen
- Create Application from within API details
- Allow users to change the default API Portal 404 page to use their own look and feel
- Consent message before login

Improved Customizability

- Allow API Portal users to update custom properties set and configured by API Manager
- Map user-roles after login
- Wildcard-Support for Tags
- Optionally disable Monitoring in Portal
- Force user to include employer name in registration

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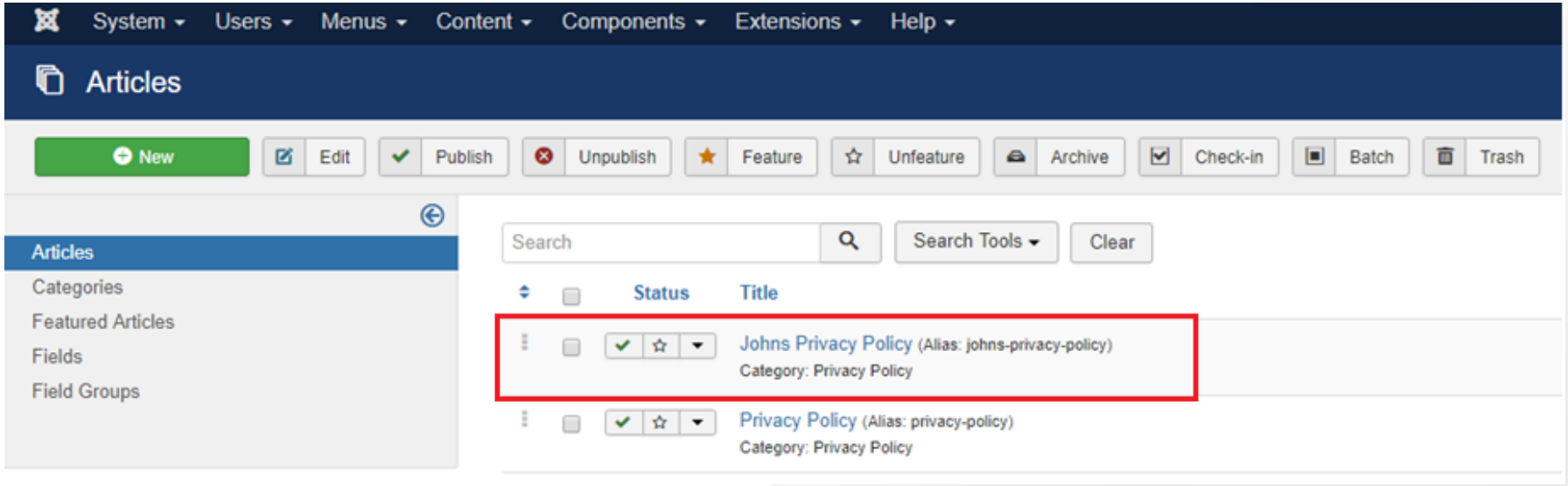
Privacy Policy

Improved GDPR Compliance and Privacy Management Features

Allow customers to define and manage their privacy policies that users must accept on sign up to their portal.

- New support for adding, configuring and auditing privacy policy acceptances
- Version control and management
- API Portal will ship with a default “Privacy Policy” article. To add your own privacy policy, create a new article with Category = “Privacy Policy”



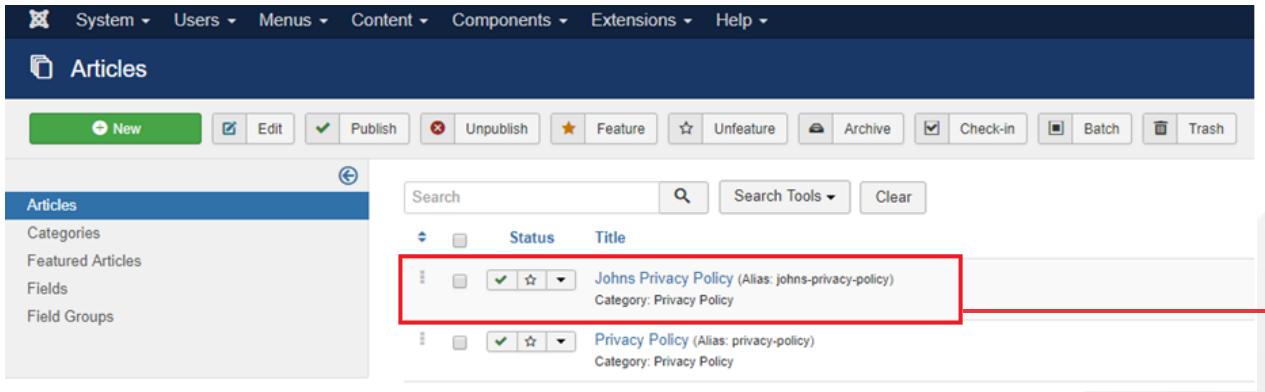
Privacy Policy

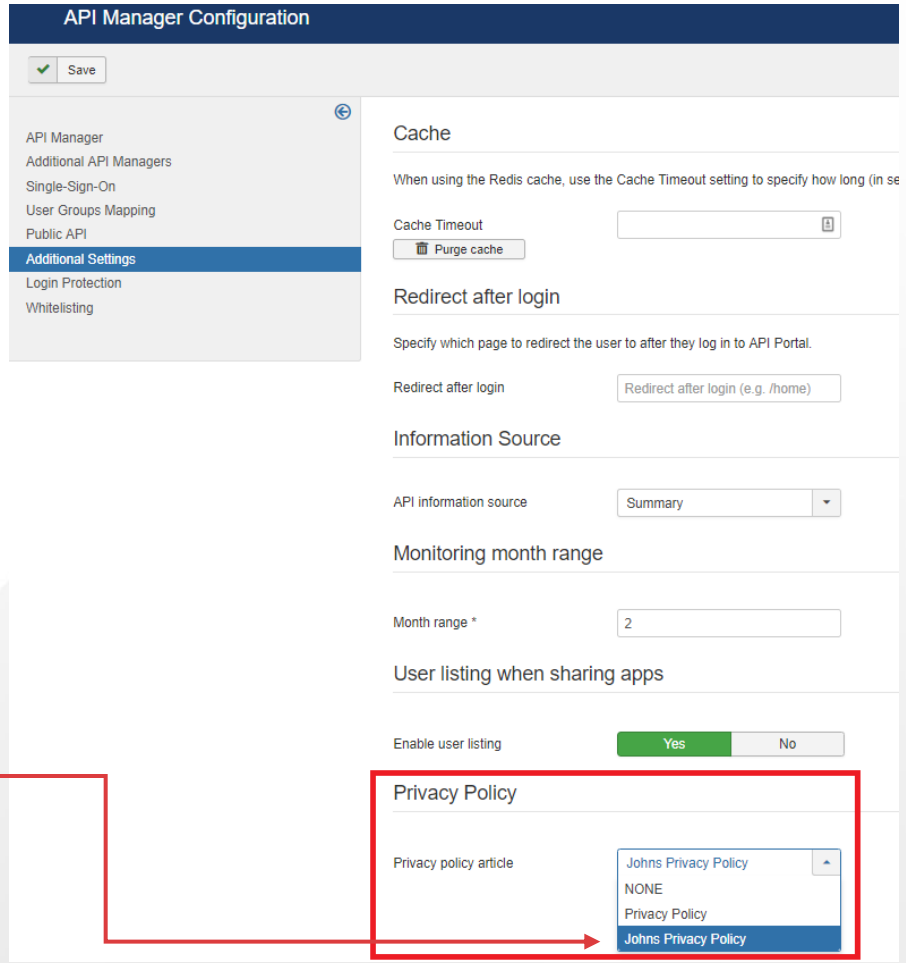
Improved GDPR Compliance and Privacy Management Features

Privacy Policy Support

- To use you newly defined privacy policy article, set it active in the “Privacy Policy” section under Additional Settings in the Joomla Admin interface

- To disable Privacy Policy support, set to NONE





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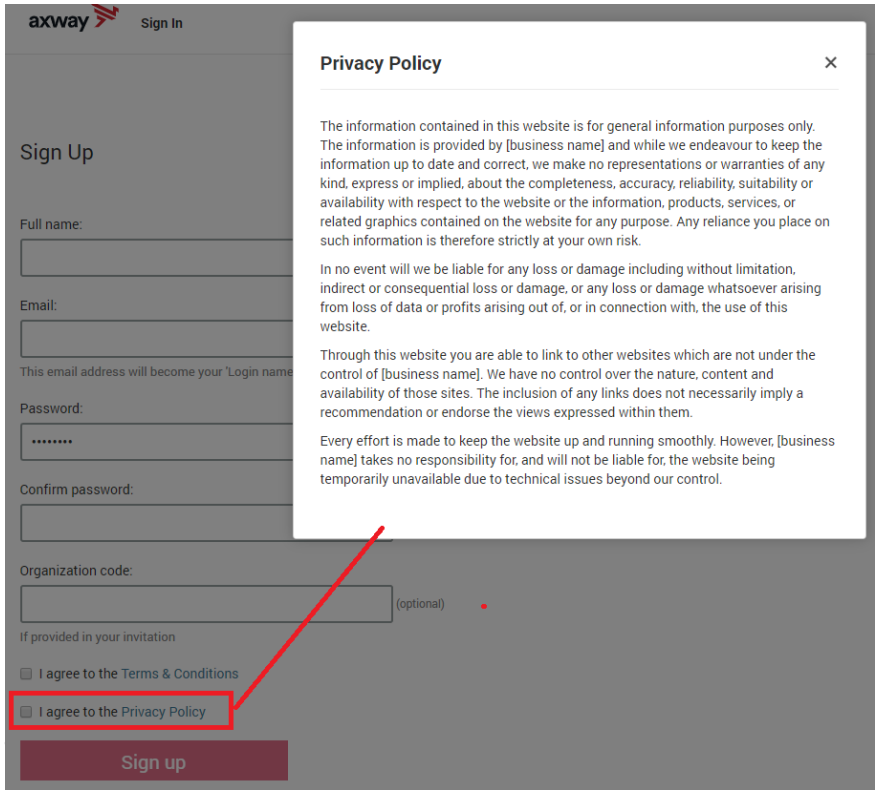
Privacy Policy

Improved GDPR Compliance and Privacy Management Features

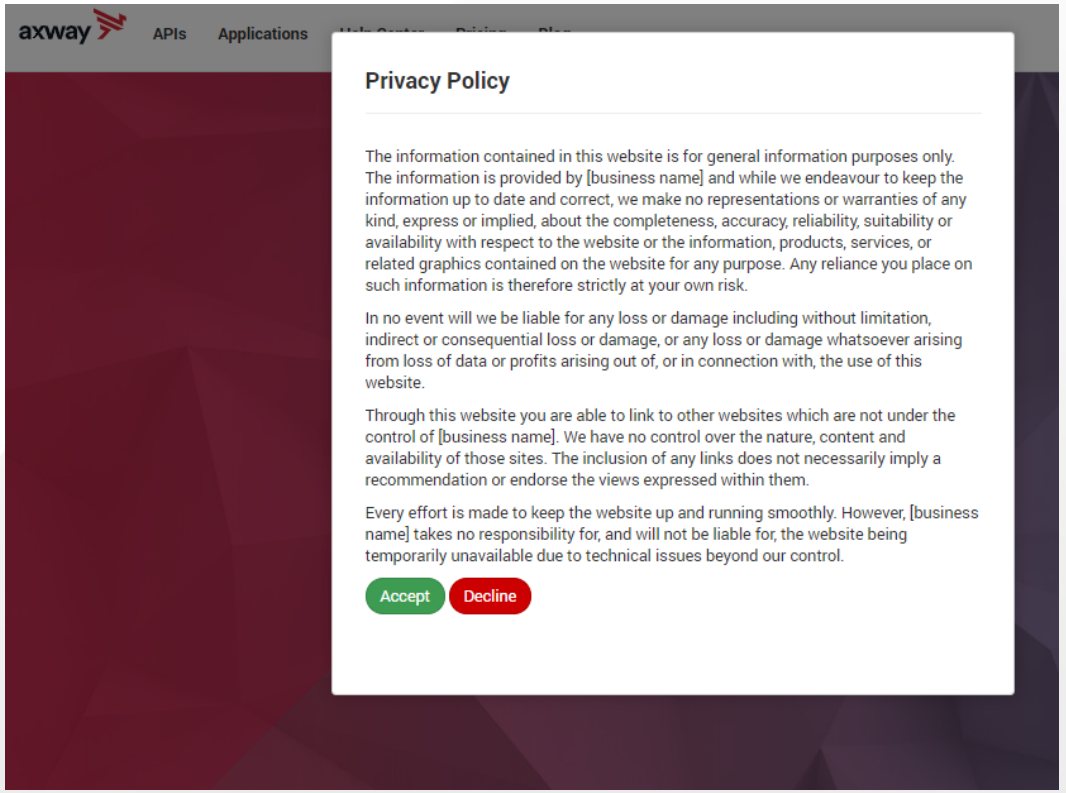
Privacy Policy Support

- Once configured, the privacy policy text is displayed on both Sign Up and Signed in
- If configured ON, Privacy policy is displayed to logged in users and they have not previously accepted it. If a user declines to accept it, they are logged out of the application



Sign Up

Signed In

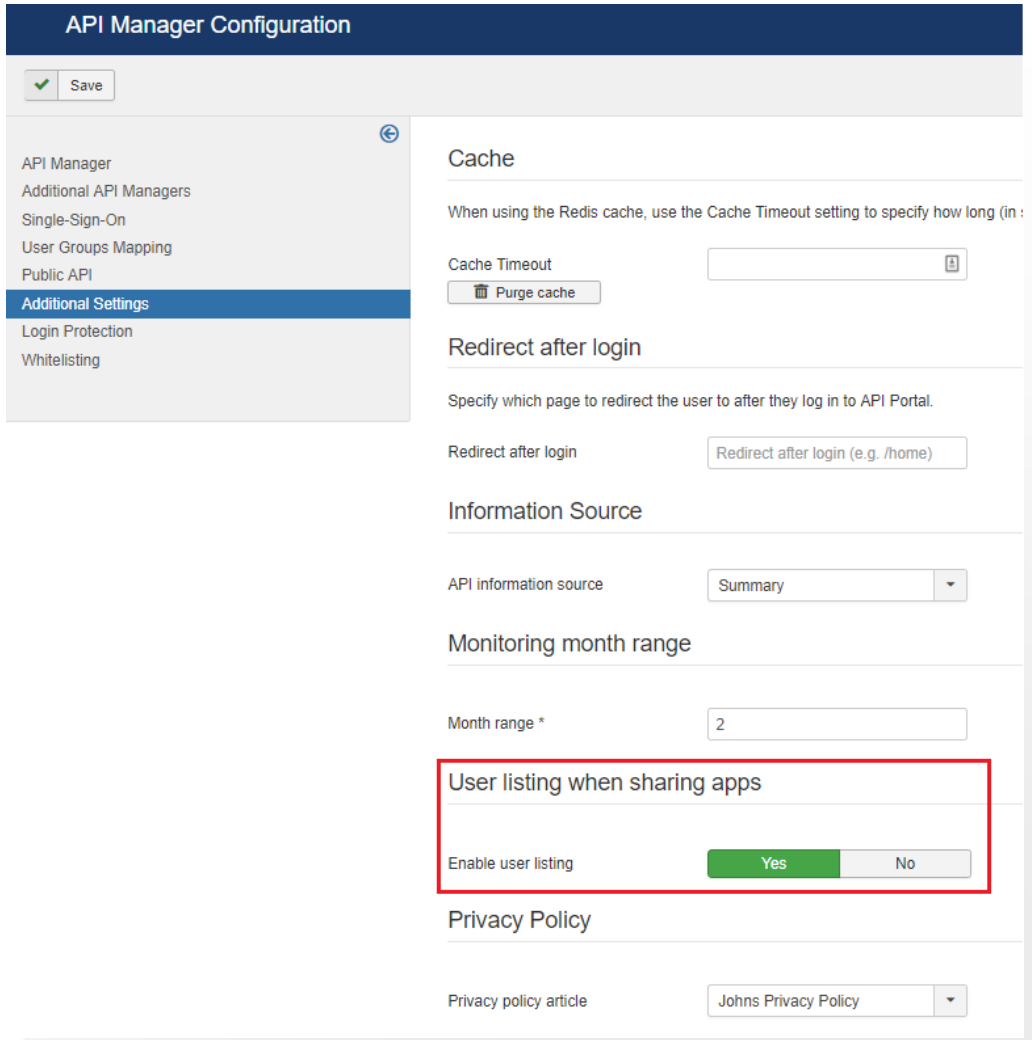


Privacy Controls

Improved GDPR Compliance and Privacy Management Features

Enhanced privacy controls to allow customers a configurable way to restrict the amount of user data that is exposed while sharing Applications.

- New setting “Enable user listing” added to Joomla Admin interface



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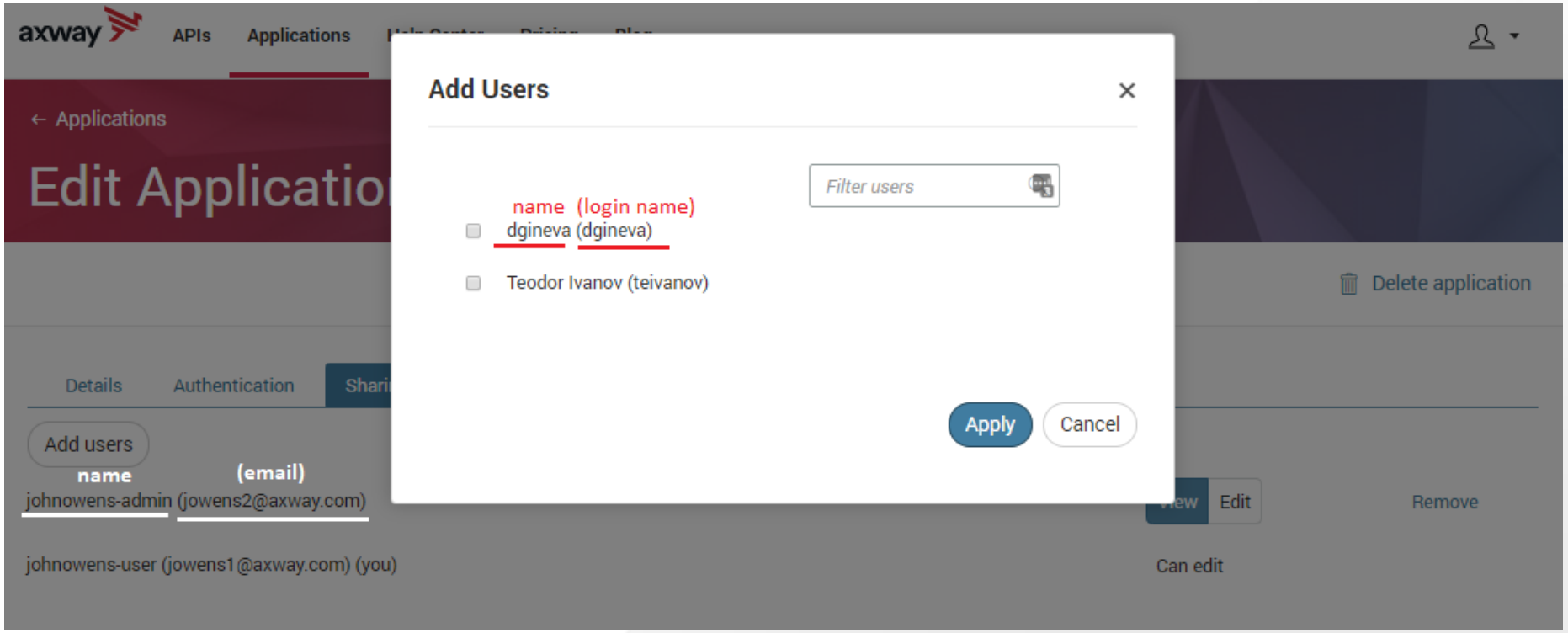
Enhanced Application Sharing

Improved GDPR Compliance and Privacy Management Features

Improved Application Sharing

When “Enable user listing” = Yes (default)

- the sharing of applications works as it always did
- name, login name (shown on Add Users dialog) and email (shown on sharing listing) are shown



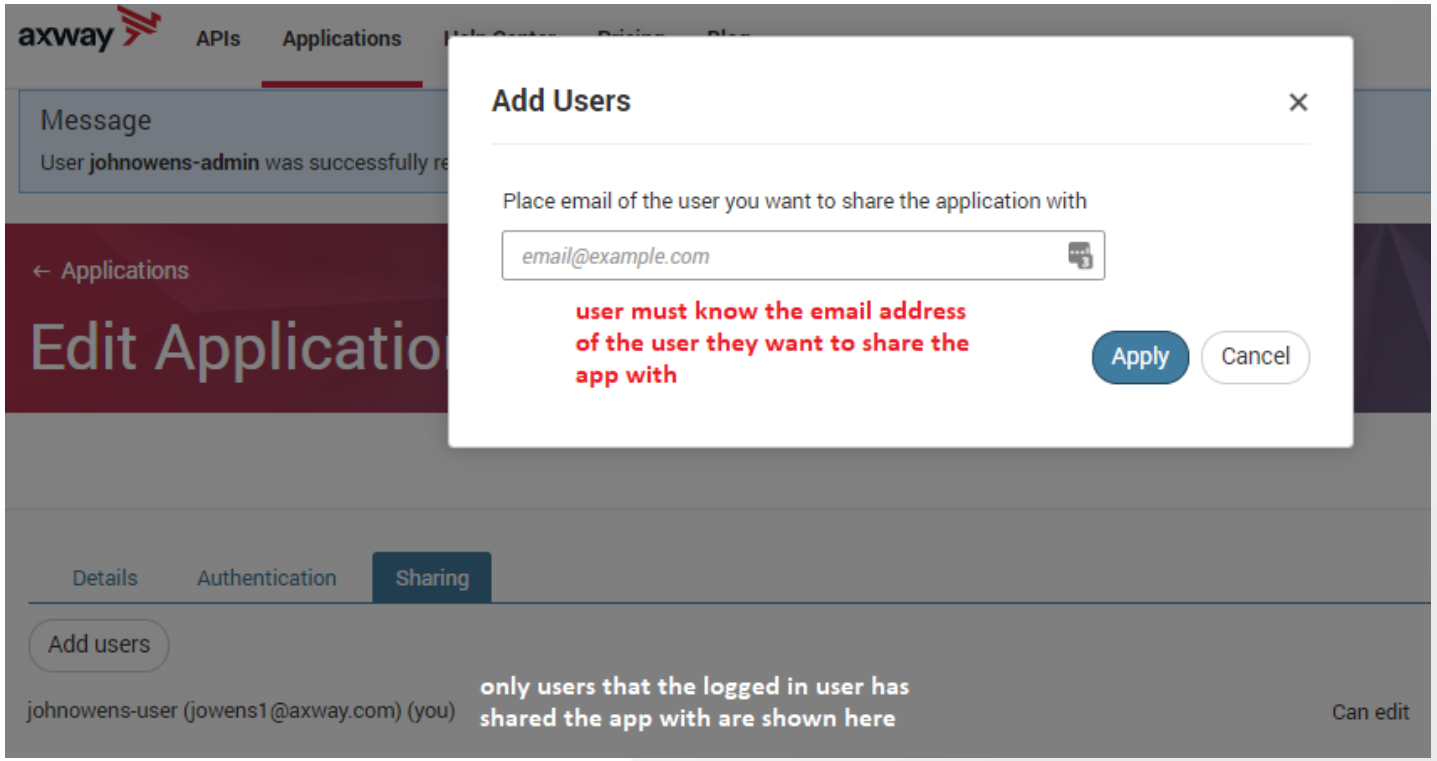
Enhanced Application Sharing

Improved GDPR Compliance and Privacy Management Features

Improved Application Sharing

When “Enable user listing” = No

- you must know the email of the user you want to share the app with
- only users that you have shared the app with are listed



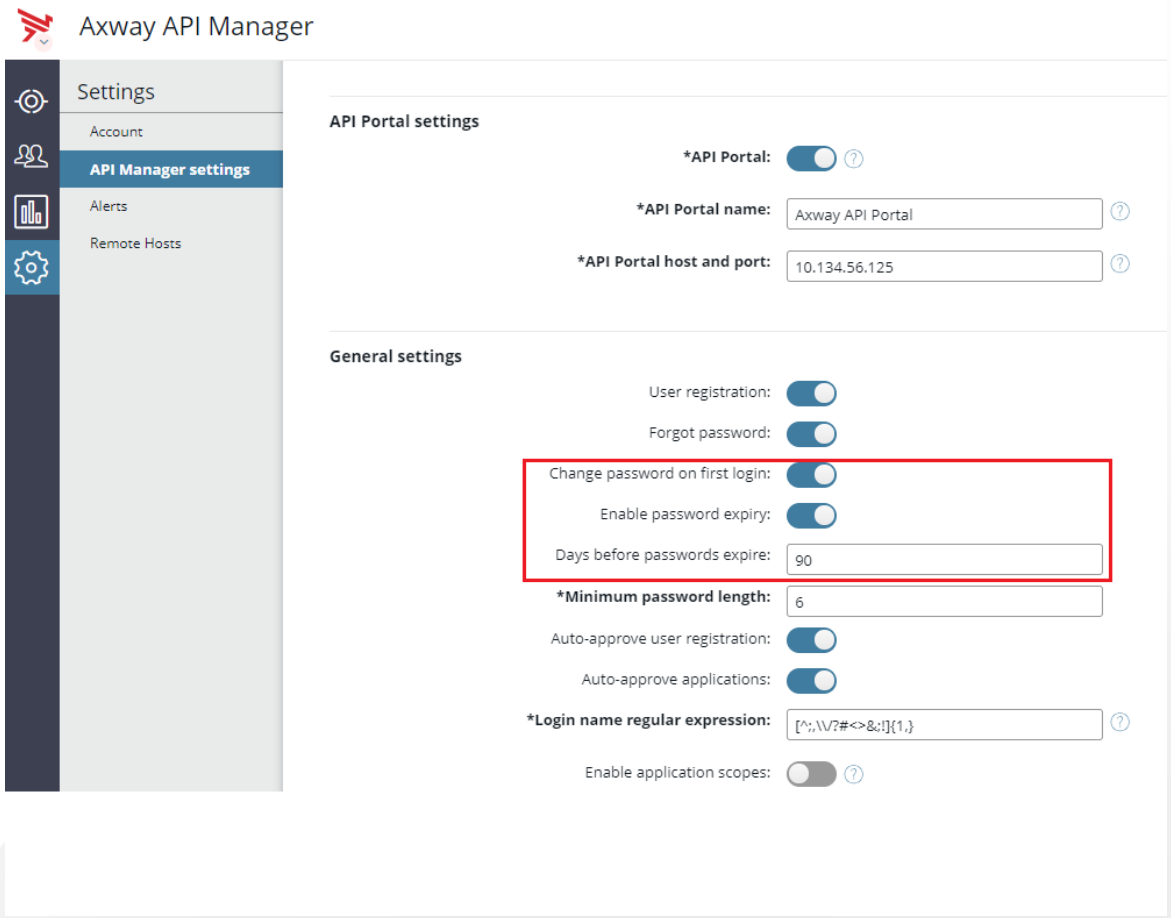
Enhanced Password Management

Improved GDPR Compliance and Privacy Management Features

Allows customers to apply improved governance controls on user passwords

- change password at first login
- password expiration
- configurable password intervals
  - change password every X days

Portal is now aware of and applies the API Manager policies configured in General settings



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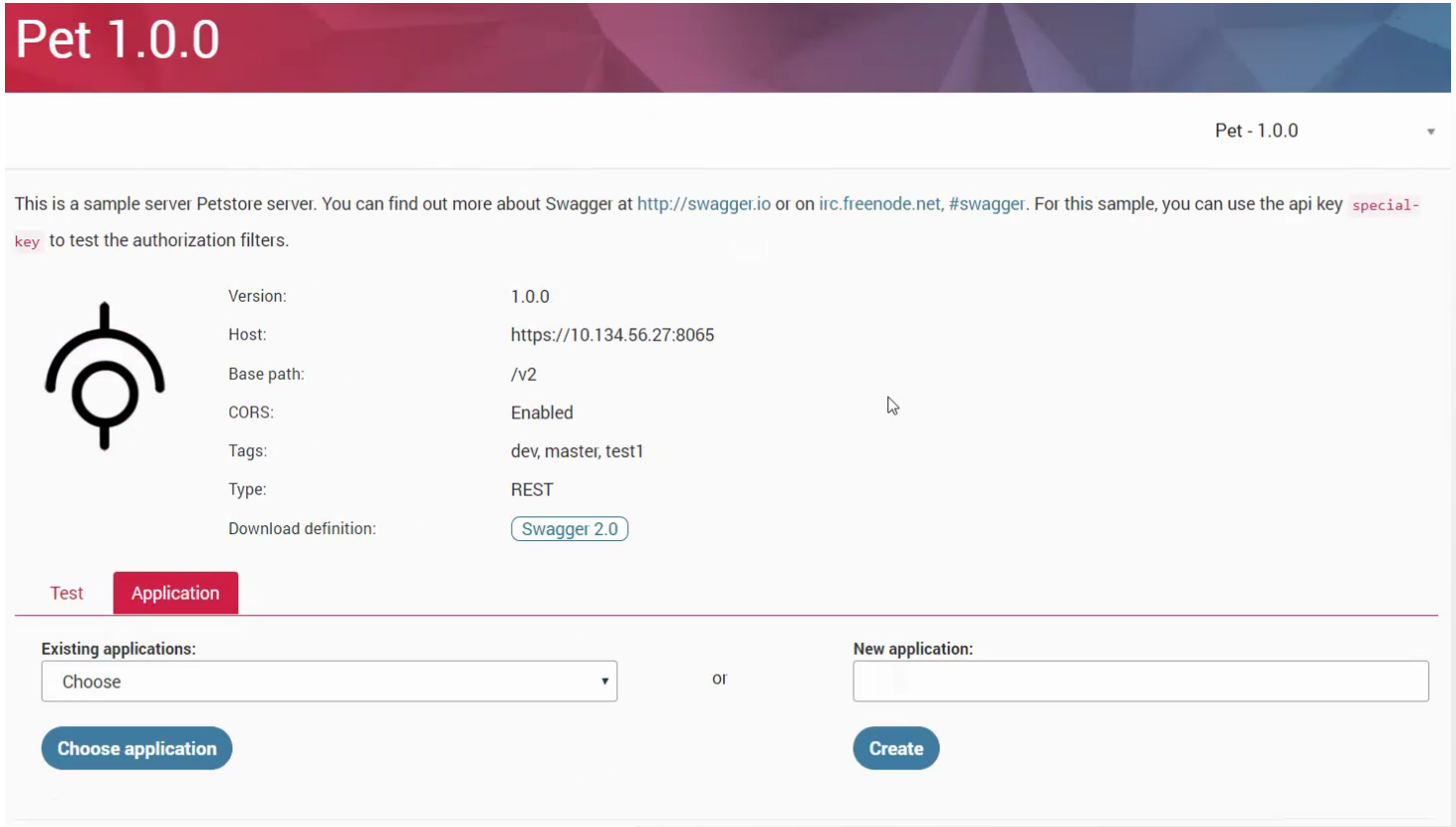
Quality of Life Improvements

Continuous UX Improvements

Streamlined the ux so that app devs do not have to leave the API details screen to create an application to use to subscribe to an API. App create can be done from within the API details screen now.



Quality of Life Improvements

Continuous UX Improvements

Better inform app devs when they are subscribing to API so they do not mistakenly subscribe to a deprecated API.

Benefit: Show the app dev a quicker view of what the API is about via a summary instead of a long description. Improve load times by loading less data.

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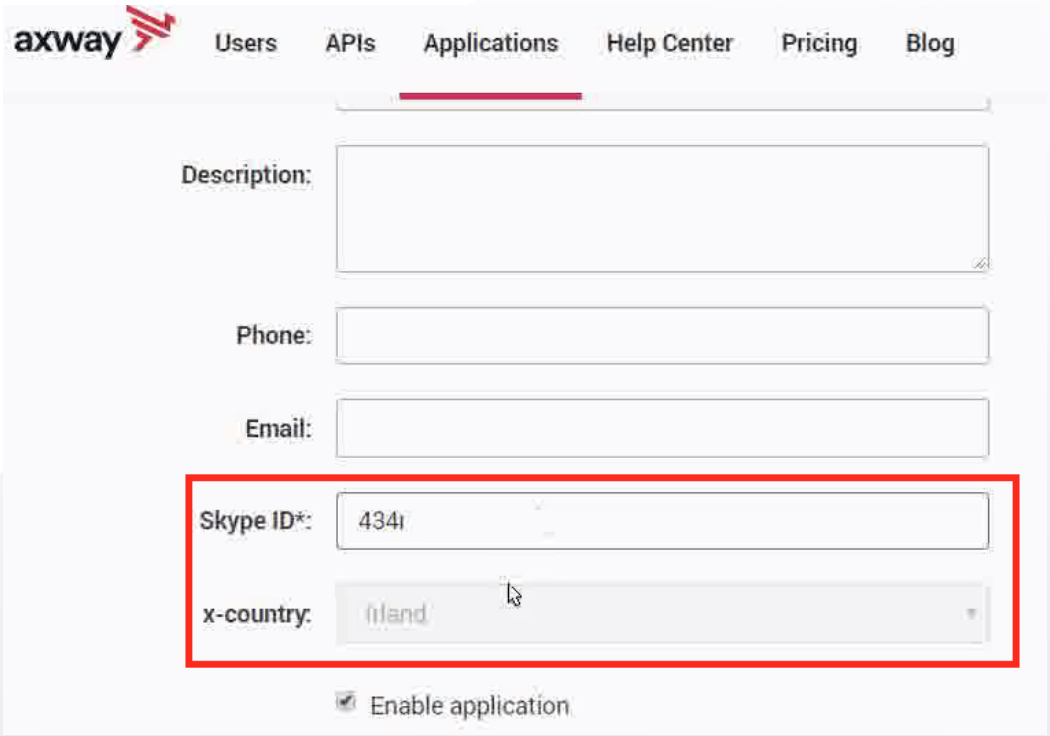
Enhanced Customizability

Providers could configure custom properties in API Manager but now there is a way for their consumer users to update those properties directly via the API Portal. Combined with the ability to make attributes available in policies, this means that our customers could make different policy decisions based on configuration done by their consumers.

Benefit: Easier to control the API catalog
by using improved visibility controls with wildcards



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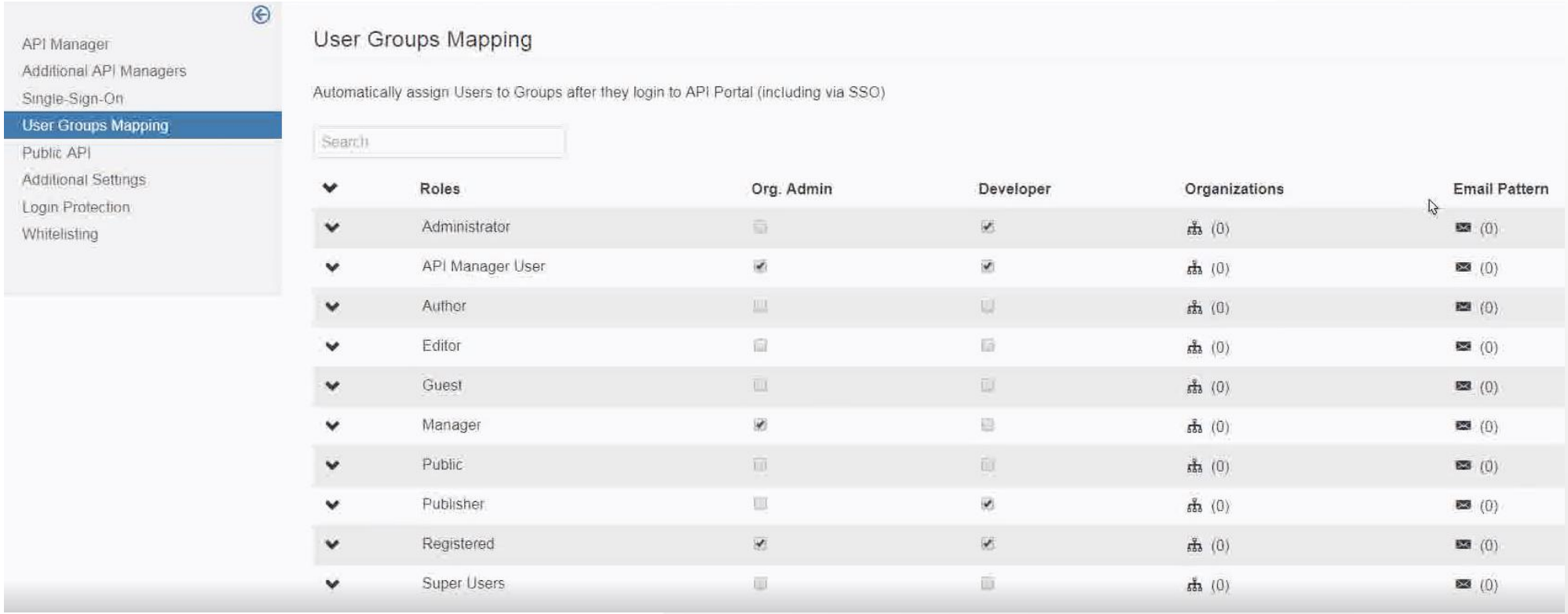
User Role Mapping

Customers will be able to expose different capabilities of the Joomla Admin interface based on whether the user is a standard user or an org admin but also the organization the user belongs to or even per email address.



Market Place Updates

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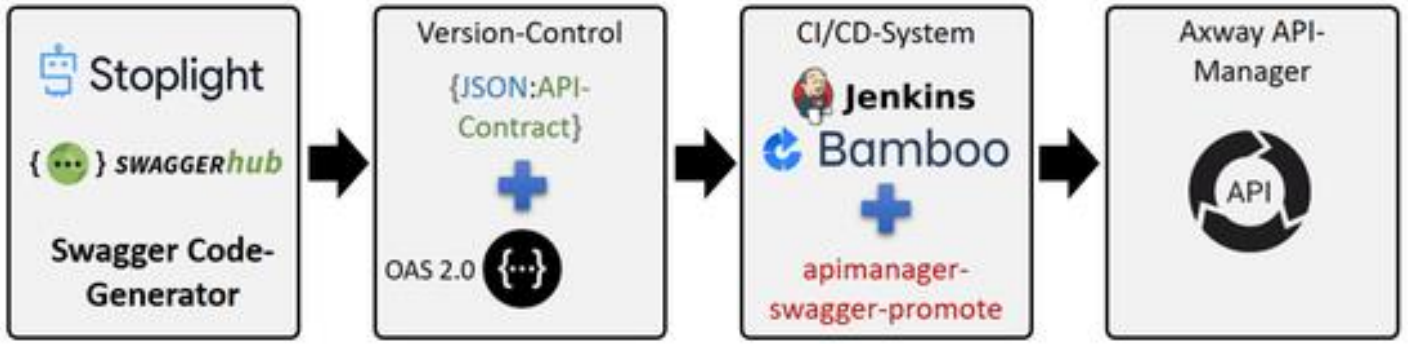
DevOps approach for Swagger Promotion

This project simplifies the DevOps experience when using Amplify API Manager Version 7.x. It provides the ability to declare a "**desired**" API state, which will be replicated into the API-Manager to become the **actual** API state.

By comparing the **desired** with the **actual**-state it can perform all necessary actions, using the API-Manager REST-API, to replicate the desired state into the API-Manager. This includes state-changes, re-publishing or deleting an API, etc.



Seamless integration of API-Management

- Remove the burden of using the API-Manager UI
- Make repeatable changes easy using DevOps
- Start with what Developers have – The Swagger-File
- Better support for API-First using tools like Stoplight.io or Swagger-Hub

A Single-Source for APIs to rule them all

- It becomes a matter of deployment

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Product Lifecycle Updates

End of Support and End of Life Updates

Physical and Virtual Appliances (End of Life)

Release	Appliance	End of Support
API Manager/Gateway 7.5.x *	Virtual Appliance	15 November 2020
API Manager/Gateway	Amazon Machine Image	15 November 2020
API Manager/Gateway	Physical Appliance	15 November 2020

API Management (End of Support)

Release	Platform	End of Support
API Management 7.5.x *	Linux, Windows	15 November 2020
API Management 7.6.2	Linux, Windows	15 November 2020

API Portal (End of Support)

Release	Platform	End of Support
API Portal 7.5.5	All Platforms	15 November 2020
API Portal 7.6.2	All Platforms	15 November 2020

* 7.5.x = includes 7.5.0, 7.5.1, 7.5.2 and .7.5.3
API Manager 7.7 is a Long-Term Release mandated by Product Lifecycle 3.0. For more information please refer to https://support.axway.com

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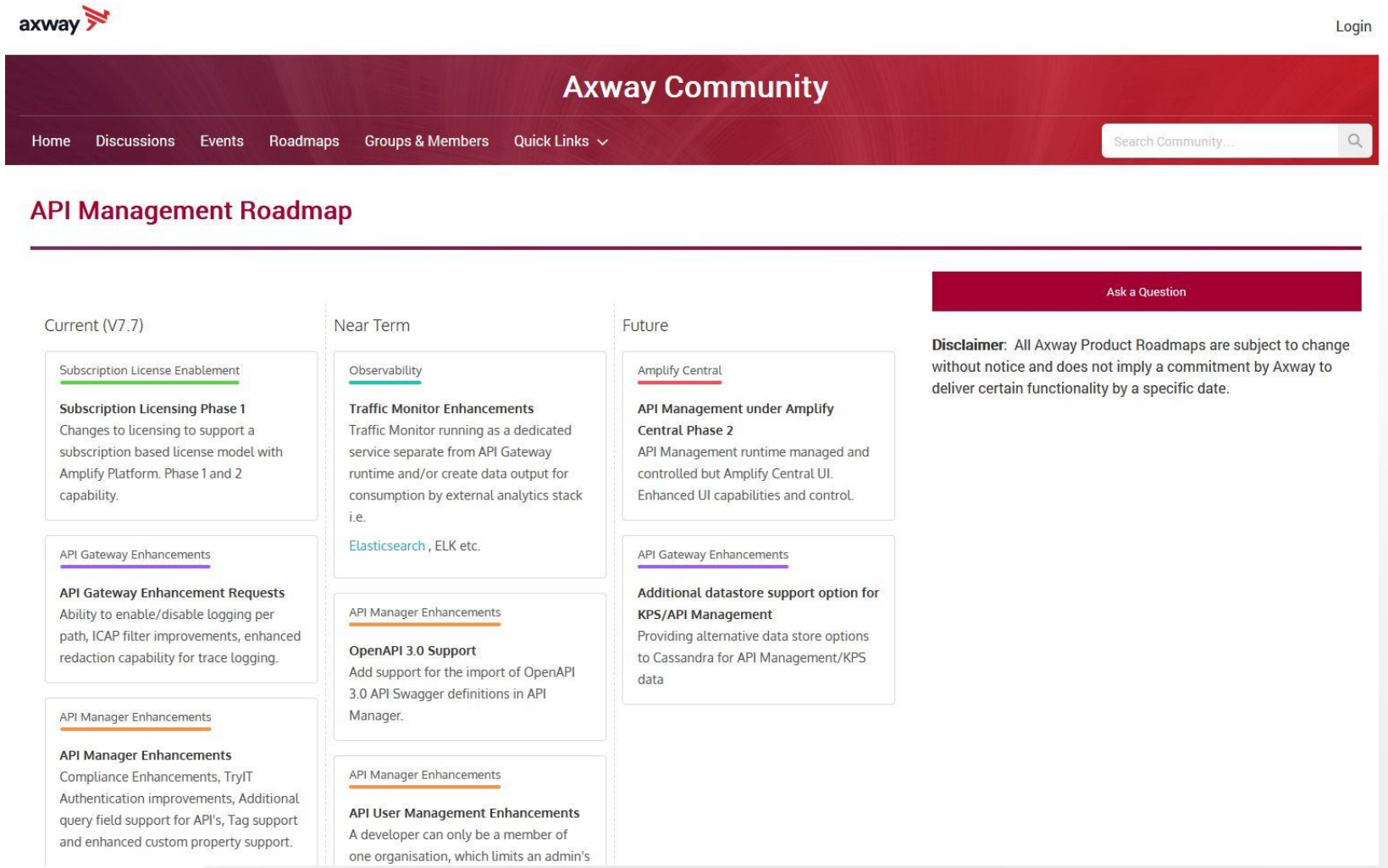
Roadmap and Release Plan 2019

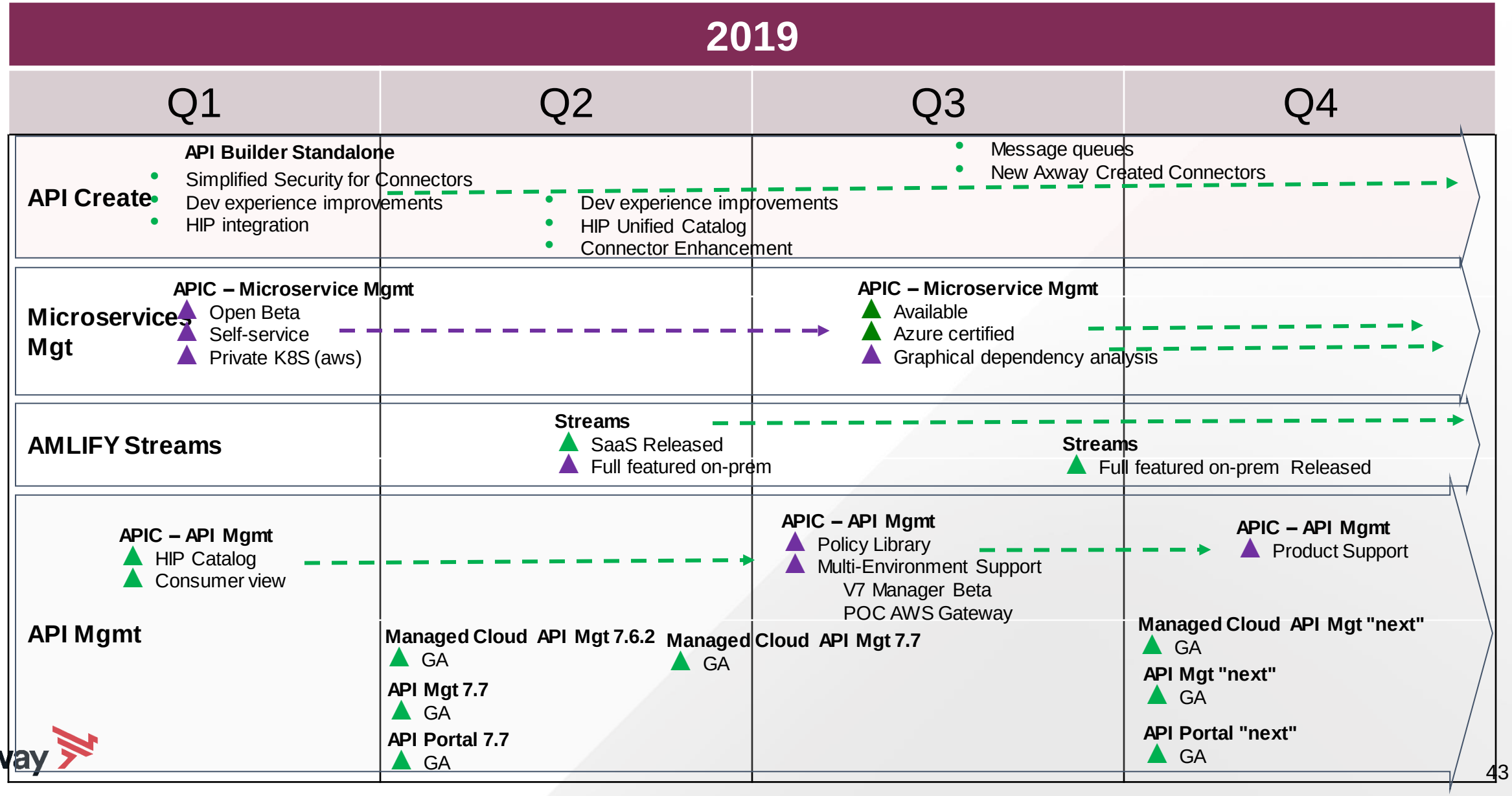
API Management and API Portal Roadmap 2019

We are proud to announce that the API Manager, API Portal and API Builder roadmaps are published publicly on the **Axway Community Portal**

https://community.axway.com/s/product-roadmaps



API & Microservice Release Plan



THANK YOU!

Please visit docs.axway.com for the latest details and information on features etc.

https://docs.axway.com

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