

webMethods API Gateway Quick Start

Version 10.11

October 2021

This document applies to webMethods API Gateway 10.11 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Let's get you started

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Welcome to API Gateway.

To get you started, this quick start takes you through the process of the installation and basic operations that can be performed with API Gateway. In addition, it explains how to install API Portal and publish an API to API Portal. You can also publish APIs to configured service registries.

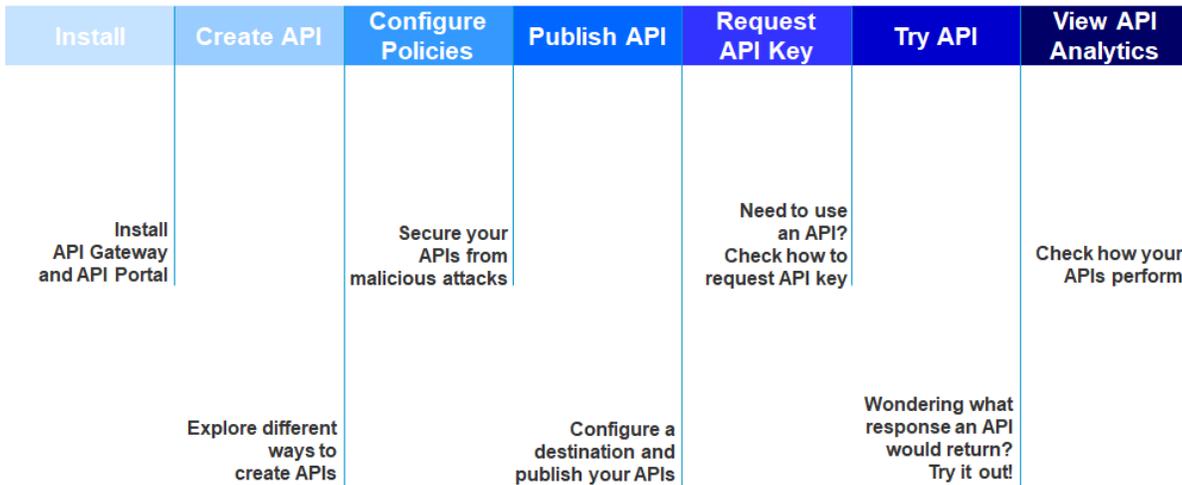
The sections of this document explain the basic functions with mandatory steps and necessary screenshots wherever applicable. For detailed instructions and about more functions that can be performed using API Gateway, see *webMethods API Gateway User Guide*.

API Gateway Overview

- Secures your APIs from malicious attacks.
- Monitors the traffic that flows to and from your APIs.
- Manages the entire lifecycle of APIs, from their creation to publication.
- Collects API usage data for analytics.

Quick Start Milestones

The following diagram depicts the quick start milestones:



2 Install API Gateway

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How Do I Install API Gateway?

This section describes the steps required to install API Gateway using Software AG Installer.

Note:

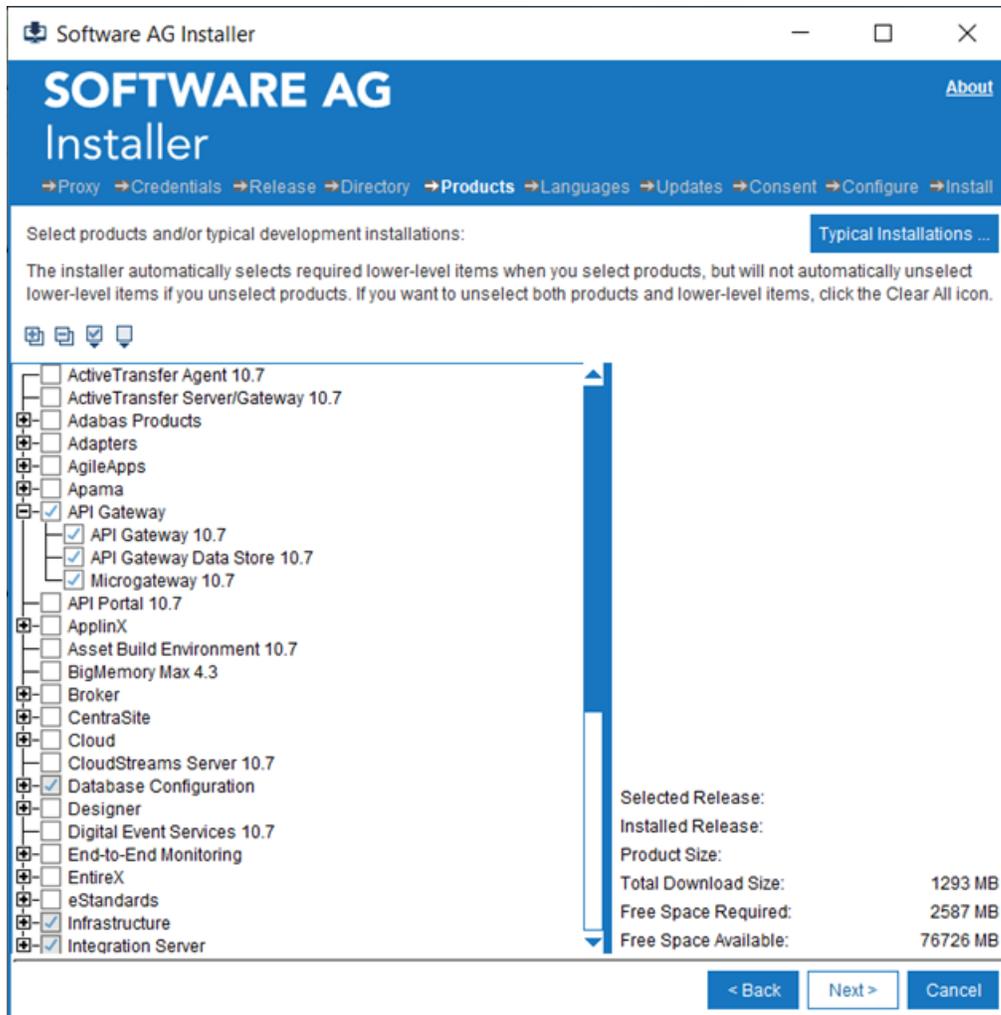
You can also install the application through other channels like automated scripts or Docker store. Also, webMethods.io API does not require the installation through Software AG Installer.

Pre-requisite

- Ensure that you have the Software AG Installer and the license file copied to the system in which you want to install API Gateway.

➤ **To install API Gateway**

1. Double-click to open the Software AG Installer.
2. In the **Credentials** tab, provide your Empower credentials in the **Username** and **Password** fields and click **Next**.
3. In the **Directory** tab, modify the installation folders, if required, and click **Next**.
4. In the **Products** tab, select API Gateway from the list of Software AG products and click **Next**.



5. Read through the license agreement and select the checkbox below the agreement to provide your consent. Click **Next**.
6. In the **Configure** tab, click **Browse** to select the license file, from your local folder. The default primary ports 5555 for the Integration Server instance and 9999 for the diagnostic port appear. Modify the ports, if required, and click **Next**.



7. Select **Embedded Database** in the **Database Connection** section and click **Next**.
8. Modify the default values of HTTP port and HTTPS port, if required. They are, by default, 9072 and 9073 respectively. Click **Next**.
9. Modify the default values of API Gateway Data Store HTTP port and TCP/IP port, if required. They are, by default 9240 and 9340 respectively. Click **Next**.
10. Check the specified configuration and click **Install**.

API Gateway is installed.

How Do I Install API Gateway using an Image in Windows system?

This section describes the steps required to install API Gateway using an installation image in a Windows system.

Pre-requisite

- Ensure that you have the Software AG Installer, the installation image, and the license file copied to the system in which you want to install API Gateway.

➤ To install API Gateway using an installation image

1. Double-click to open the Software AG Installer.
2. Click **Advanced Options** and select the **Images** tab.
3. Select **Use Installation Image** and select **Install from image**.

- Click **Browse** and select the installation image file.

Advanced Options

Scripts Images Caching Logging Server

If you need to create installations on machines that cannot go outside your corporate firewall, create an image that contains downloaded products. Then run the image and create a customized installation on each machine.

Use installation image

Create image

Image file: Browse...

Image platform:

Install from image

Image file: Browse...

Image Contents...

Validate Image

OK Cancel

- Click **Ok** and click **Next**.
- Select **API Gateway** from the **Products** tab and click **Next**.
- Read through the license agreement and select the checkbox below the agreement to provide your consent. Click **Next**.
- In the **Configure** tab, click **Browse** to select the license file, from your local folder. The default load balancer ports appear. Modify the ports, if required, and click **Next**.
- Check the specified configuration and click **Install**.

API Gateway is installed.

How Do I Install API Gateway using an Image in Linux system?

This section describes the steps required to install API Gateway using an installation image in a Linux system.

Pre-requisite

- Ensure that you have the Software AG Installer bin file (SoftwareAGInstaller-Linux_x86_64.bin), the installation image, and the license file copied to the system in which you want to install.

> To install API Gateway using an installation image

1. Run the following command in your Linux console:

```
sh SoftwareAGInstalleryyyymm-operating_system.bin  
-readImage full_path_to_image_file -console
```

For example,

```
sh "/home/APIGateway/SoftwareAGInstaller-Linux_x86_64.bin"  
-readImage "/home/APIGateway/Image/apig_64bit.zip" -console
```

2. Provide the full path of the folder in which you want to install the application and press **Enter**.

For example,

```
Select the installation directory. Enter X to exit the installer.  
Installation directory: [ /opt/softwareag ] ? /home/APIGateway
```

3. Provide the number adjacent to API Gateway from the list of products and press **Enter**.

```

Select a new item to install by entering the item number. [X] marks items to install; [#] indicates a partial installation. [I] marks already-installed items.
When you select products, the installer automatically selects lower-level items that support those products. If you need to unselect products, clear all previous
selections to unselect the associated lower-level items as well.

Install? Product Name                                     (Toggle for Build) Size
-----
1) [X] Select All
2) [ ] API Gateway
3) [ ] API Gateway 10.7                                 624 MB
4) [ ] API Gateway Data Store 10.7                    104 MB
5) [ ] Database Configuration
6) [ ] Integration Server and Microservices Runtime Embedded Database Scripts 10.735 KB
7) [#] Infrastructure
+) Jump to products 8 to 17 out of 104                  Total: 255 MB
S) Search for a product T) Toggle J) Jump to index
N) Next B) Back X) Exit

Enter: [ N ] ? 22

Product Name                                             Release
-----
4) API Gateway Data Store                               10.7.0.0.398
6) Database Configuration > Integration Server and Microservices Runtime Embedded Database Scripts 10.7.0.0.196
8) Infrastructure > Event Routing Event Type Store      10.7.0.0.445
10) Integration Server > Adapter Runtime                10.7.0.0.65
11) Integration Server > Flat File                     10.7.0.0.28
12) Integration Server > Integration Core               10.7.0.0.196
15) Libraries > Shared Libraries                       10.7.0.0.434
17) Libraries > Broker Libraries                       10.5.0.0.760
18) Libraries > CentraSite Libraries                   10.7.0.0.597
19) Libraries > Composite Applications Runtime          10.7.0.0.496
20) Libraries > Database Component Configurator Core   10.7.0.0.34
21) Libraries > Database Driver Libraries              10.7.0.0.38
22) Libraries > Designer Libraries                     10.7.0.0.312
23) Libraries > Digital Event Services                 10.7.0.0.368
24) Libraries > Glue Libraries                         8.0.0.9000.196
25) Libraries > Installer Libraries                   10.7.0.0.417
26) Libraries > Migration Framework Libraries          10.7.0.0.196

```

4. Provide the full path of the license file and press **Enter**.

For example,

```

Integration Server
License file:[ ] ? "/home/APIGateway/APIGatewayLicense.xml"

```

5. Provide the required port numbers and press **Enter**.

The default port numbers appear next to each field. You may use the same or provide port numbers of your choice. For example,

```

Secure port:[ 5543 ] ? 5543
Primary port:[ 5555 ] ? 5555
Diagnostic port:[ 9999 ] ? 9999

```

The list of products that will be installed appears.

6. Check the provided configurations, the list of products, type N and press **Enter**.

After installation, the list of installed products appears.

7. Type F to finish the process and press **Enter**.

API Gateway installation is complete.

How Do I Install API Portal?

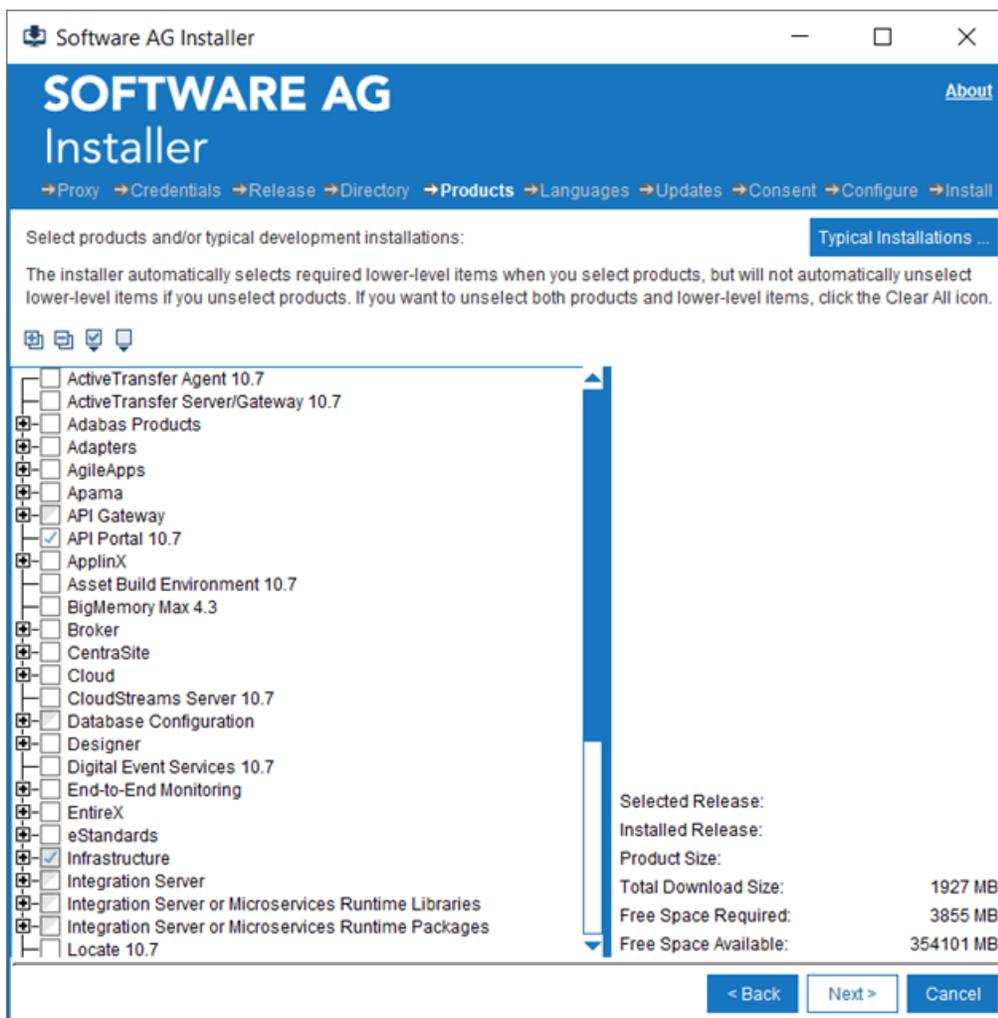
This section describes the steps required to install API Portal using Software AG Installer.

Pre-requisite

- Ensure that you have the Software AG Installer and the license file copied to the system in which you want to install API Portal.

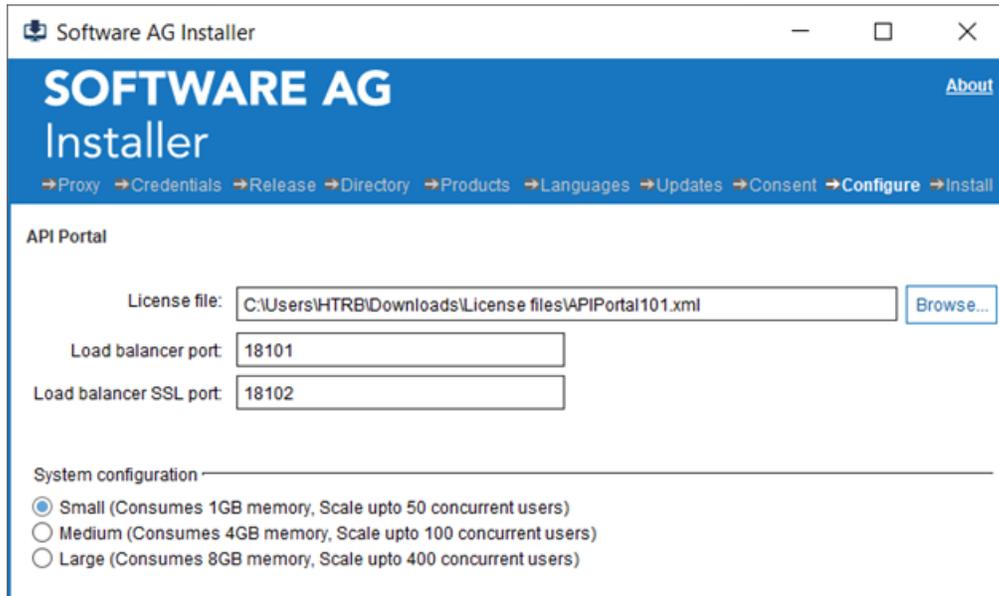
> To install API Portal

1. Double-click to open the Software AG Installer.
2. In the **Credentials** tab, provide your Empower credentials in the **Username** and **Password** fields and click **Next**.
3. In the **Directory** tab, modify the installation folders, if required, and click **Next**.
4. In the **Products** tab, select API Portal from the list of Software AG products and click **Next**.



5. Read through the license agreement and select the checkbox below the agreement to provide your consent. Click **Next**.

- In the **Configure** tab, click **Browse** to select the license file, from your local folder. The default load balancer ports appear. Modify the ports, if required, and click **Next**.



- Check the specified configuration and click **Install**.

API Portal is installed.

3 Getting Started

- How Do I Launch and Log on to API Gateway? 18
- How Do I Launch and Log on to API Portal? 18

How Do I Launch and Log on to API Gateway?

➤ To launch and log on to API Gateway

1. Perform one of the following based on your operating system:

- **Windows** - Go to , type Start Integration Server, and press **Enter**.
- **Linux** - Run `startup.sh` from the `../SoftwareAG/profiles/IS_default/bin/` path. For example,

```
/home/admin/SoftwareAG/profiles/IS_default/bin/startup.sh
```

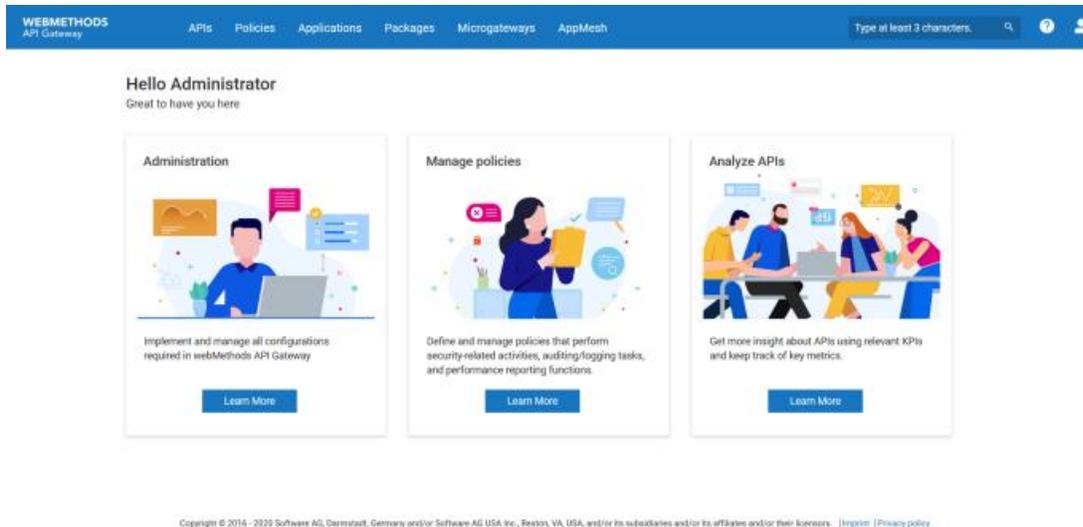
2. Type the following URL in your browser's address bar and press **Enter**:
`http://defaulthost:defaultport`.

For example, `http://localhost:9072`. Port is the HTTP port of API Gateway configured during installation; by default, `9072`.

3. Provide your **Username** and **Password**, and click **Log in**.

The default user name is Administrator and password is manage.

The home page appears.



How Do I Launch and Log on to API Portal?

➤ To launch and log on to API Portal

1. Perform one of the following based on your operating system:

- **Windows** - Go to , type Start API Portal, and press **Enter**.
- **Linux** - Run the following command to start API Portal Cloud Controller (ACC):

```
Software AG_directory/API_Portal/server/acc/acc.sh
```

and then run the following command in the ACC command prompt:

```
startall
```

2. Type the following URL in your browser's address bar and press **Enter**:
`http://defaulthost:defaultport`.

For example, `http://localhost:18101`. Port is the HTTP port of API Portal configured during installation; by default, `18101`.

3. Provide your **Username** and **Password**, and click **Log In**.

The default user name is `system` and password is `manager`.

The home page appears.

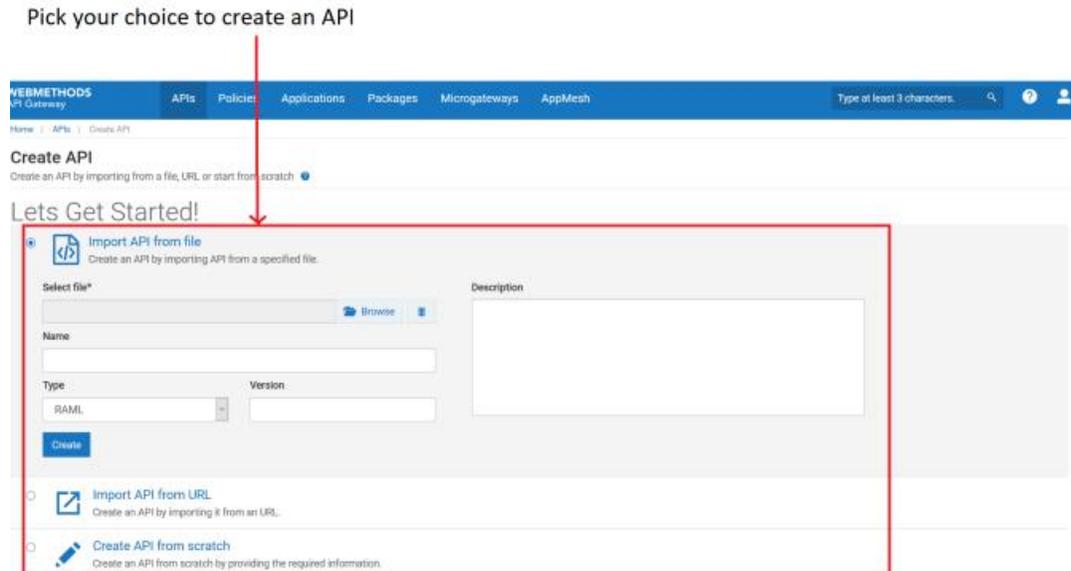
4 Create an API

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- How Do I Create an API by Importing from a File? 22
- How Do I View API Details? 23
- How Do I Enforce Policies to Protect My APIs? 24
- How Do I Enable Transaction Logs? 24

How Do I Create an API?

> To create an API

1. Click **APIs** on the title navigation bar of the home page.
2. Click **Create API**.



For more information, see the section APIs in the *webMethods API Gateway User's Guide*.

How Do I Create an API by Importing from a File?

> To create an API by importing a file

1. In the **Create API** page, select **Import API** from file.
2. Click **Browse** and select the file to import.

Import API from file
Create an API by importing API from a specified file.

Select file*
EmployeeService.json [Browse](#)

Name
EmployeeService

Type
Swagger

Version
1.0

[Create](#)

Description
API for managing employee services.

[Import API from URL](#)
Create an API by importing it from an URL.

[Create API from scratch](#)
Create an API from scratch by providing the required information.

3. Provide the API name in the **Name** field, if required.
4. Provide the required **Description**, **API Type**, **Version**, and click **Create**.

The API is created and appears in the APIs list under the **APIs** tab.

How Do I View API Details?

The details of API are displayed once an API is created.

WEBMETHODS
API Gateway

APIs Policies Applications Packages Microgateways AppMesh

Type at least 3 characters. [Search](#) [Help](#) [User](#)

Home > APIs > EmployeeService

EmployeeService
View API details, basic and technical information, resources and methods available, and API specifications.

[Publish](#) [Edit](#) [Deactivate](#) [Info](#)

API details **Scopes** Policies Mashups Applications Analytics

Basic information

Name	EmployeeService
Version	1.0
Owner	Administrator Edit
Active	Yes
Maturity state	Beta
Created	22 Feb 2021 19:26:08 (IST)
Last updated	22 Feb 2021 19:48:46 (IST)
Description	API for managing employee services

Technical information

Native endpoint(s)	http://localhost:5555/rest/apigateway
--------------------	---------------------------------------

Basic information
Technical information
Resources and methods
API mocking
Components
Documentation

Click a tab to perform a task for the API

Click a link to view the relevant information

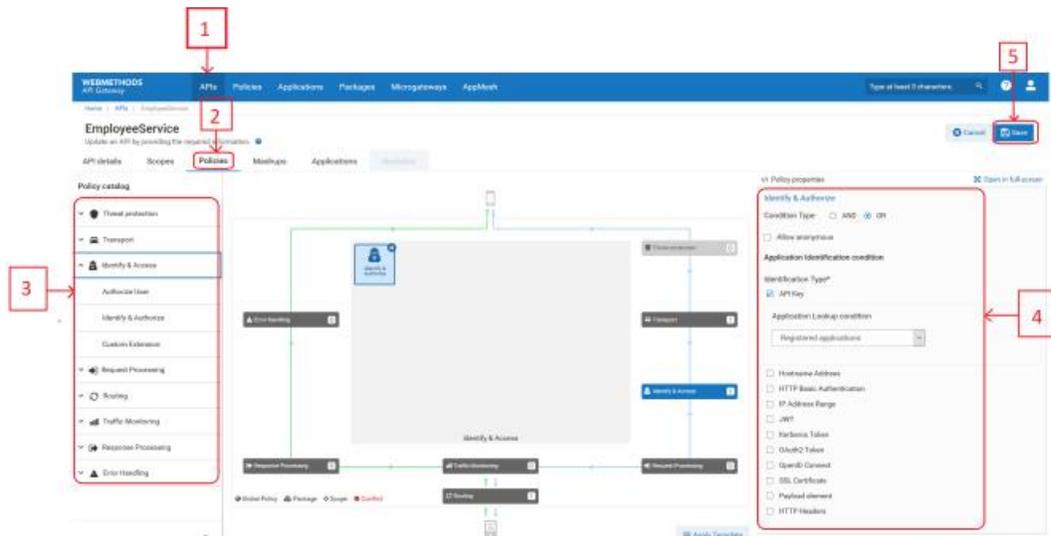
You can also click the **APIs** from the title navigation bar and select the required API from the available list of APIs to view its details.

How Do I Enforce Policies to Protect My APIs?

This section explains the steps to secure your API using the API Key check policy. This policy enables you to identify and validate the client's identity for exposing an API. After configuring policies, you must configure transaction logger to save API Gateway transaction event logs.

➤ To enforce policies on APIs

1. Click **APIs** in the title navigation bar and select the required API.
2. Click **Policies** and click **Edit**.



3. Select the policy stage and the required policy.

The details of the policy appear.

4. Provide the properties for the selected policy and click **Save**.

The policy is applied to the API.

For more information, see the section Policies in the *webMethods API Gateway User's Guide*.

How Do I Enable Transaction Logs?

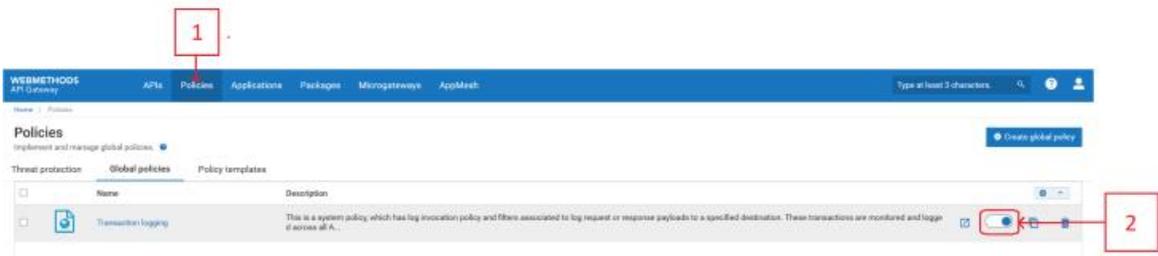
You must enable the **Transaction Logging** policy, which is a global policy, to log the request and response payloads performed against an API. The policy is disabled, by default. Since it is a global policy, the policy is applied to all APIs across the application, when you enable the policy.

Important:

This step is mandatory to view the performance metrics of APIs in the **Analytics** tab.

> To enable transaction logs

1. Click **Policies** in the title navigation bar of the home page and click **Global Policies**.
2. Enable the **Transaction logging** policy by clicking the  button adjacent to the policy name.



5 Publish an API

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How Do I Configure Destination for Publishing APIs?

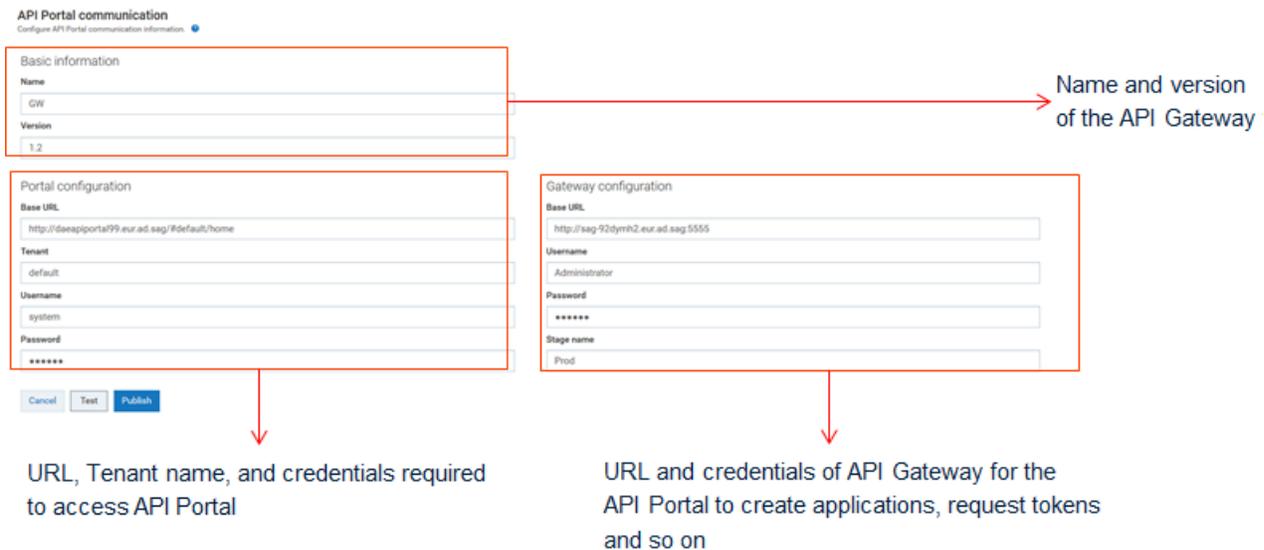
You have to specify and configure details of the destination where you want to publish your APIs. You cannot publish an API, if a destination is not configured.

Pre-requisite

- Ensure that you have launched the required API Portal instance. For information on launching API Portal, see [“How Do I Launch and Log on to API Portal?”](#) on page 18

➤ To configure the destination for publishing your APIs

1. Select **Administration** from the menu options icon () in the title navigation bar.
2. Select the **Destinations** tab, expand **API Portal** in the left pane, and select **Configuration**.



The screenshot shows the 'API Portal communication' configuration page. It is divided into three main sections:

- Basic information:** Contains fields for Name, GW, and Version. The Version field is pre-filled with '1.2'. An arrow points from this section to the text: 'Name and version of the API Gateway'.
- Portal configuration:** Contains fields for Base URL, Tenant, Username, and Password. The Base URL is 'http://deesapiportal99.eur.ad.sag/#default/home', Tenant is 'default', Username is 'system', and Password is masked with '*****'. An arrow points from this section to the text: 'URL, Tenant name, and credentials required to access API Portal'.
- Gateway configuration:** Contains fields for Base URL, Username, Password, and Stage name. The Base URL is 'http://sag-92dymh2.eur.ad.sag:5555', Username is 'Administrator', Password is masked with '*****', and Stage name is 'Prod'. An arrow points from this section to the text: 'URL and credentials of API Gateway for the API Portal to create applications, request tokens and so on'.

At the bottom of the form are three buttons: 'Cancel', 'Test', and 'Publish'.

3. Click **Test** to test the connection and click **Publish**.

The destination details are saved.

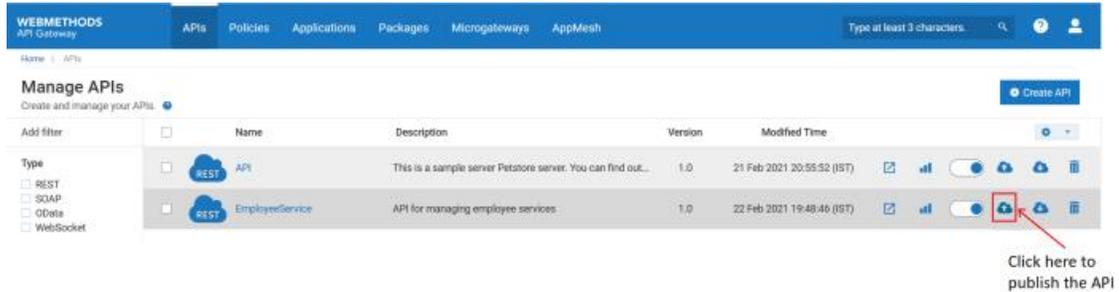
For more information, see the Publish APIs section in the *webMethods API Gateway User's Guide*.

How Do I Publish an API?

➤ To publish an API to the configured destination

1. Click **APIs** on the title navigation bar of the home page.

- Click the **Publish** icon next to the API that you want to publish.



- Select **API Portal** and select the required communities. The default community is public and all users have access to this community.
- Click **Publish**.

The API is published to API Portal.

For more information, see the Publish APIs section in the *webMethods API Gateway User's Guide*.

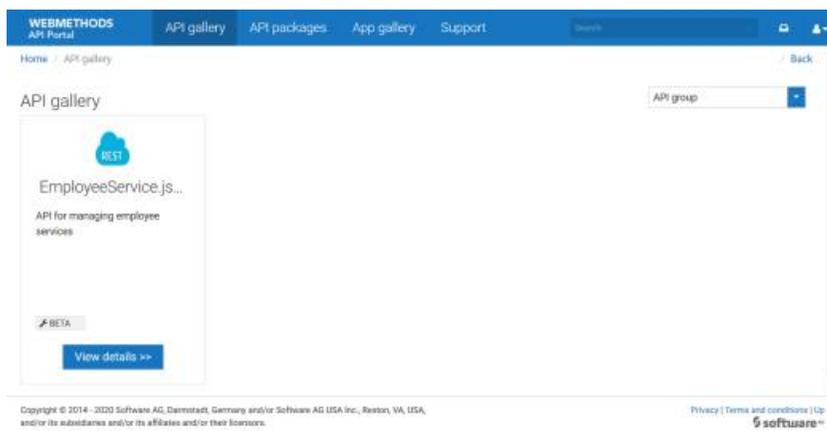
How Do I View the published API?

You can view the published API in API Portal Gallery.

➤ To view the API in API Portal

- Log on to API Portal and click **API gallery** in the navigation bar.

The API gallery appears.



- Click **View details** of your API to view API details.

6 Try an API

- [How Do I Request API Key to Access a Protected API?](#) 32
- [How Do I Test a REST API in API Portal?](#) 32

How Do I Request API Key to Access a Protected API?

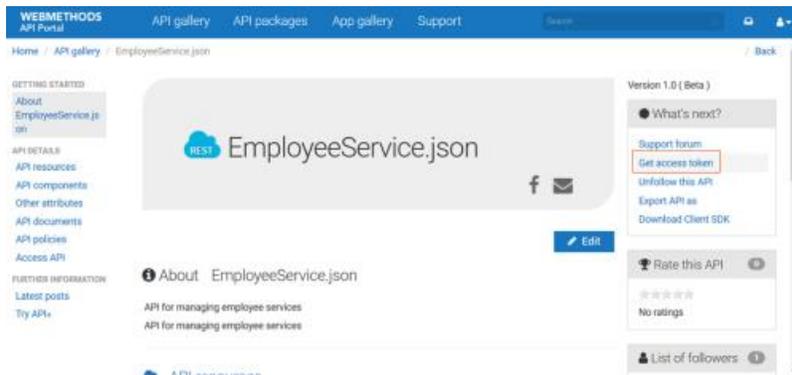
When you have enforced an API with the Identify and Authorize policy with API Key, your consumers have to follow these steps to get access to your APIs.

The Identify & Authorize policy is used to identify the application, authenticate the request based on policy configured and authorizes it against all applications registered in API Gateway.

➤ To request an API key

1. Log on to **API Portal** and click **API gallery**.
2. Click **View details** for the required API. The details of the selected API appear.
3. Click **Get access token** to request an access token to access and use the API.

This option is available only for the latest API version.



The access tokens are supplied to the client by the resource owner.

How Do I Test a REST API in API Portal?

When you have enforced an API with the Identify and Authorize policy with API Key, your consumers have to follow these steps to get access to your APIs in order to test them. If you have specified an Approval Configuration in API Gateway, the access tokens are automatically approved if the Identify and Authorize policy is applied with OAuth, JWT, or API Key.

➤ To test a REST API

1. In the **API gallery** page, click **View details** for the required API and click **Try API**.
2. Select the required stage of the API that you want to test, in the **Environment** field.

The applications associated with the selected stage appear in the **Applications** field.

3. Select an **Application** to test.

The associated resources appear.

4. Select a resource.

The methods associated with the resource that can be tested appear.

5. Click a method and type a value for the path parameters and a query parameter and its corresponding value.

The screenshot shows the webMethods API Gateway interface. The top navigation bar includes 'WEBMETHODS API Gateway', 'API gallery', 'API packages', 'App gallery', and 'Support'. The main content area is titled 'EmployeeService.json'. On the left, there is a 'Resources' sidebar with a tree view showing various endpoints like '/get', '/get/{petId}', etc. The main configuration area has a 'Request' section with tabs for 'Parameters', 'Authorization', 'Headers', and 'Body'. The 'Authorization' tab is selected, showing fields for 'Authorization type' (set to 'OAuth 2.0'), 'Token name', 'Grant type' (set to 'Authorization Code'), 'Authorization URL', 'Access token URL', 'Redirect URL(s)', 'Client ID', 'Client secret', 'Scopes', and 'Credentials in' (set to 'As Basic authentication header'). A 'SEND' button is visible in the top right of the configuration area.

6. In the **Authorization** tab, select the required **Authorization Type** and provide the corresponding API key to identify and validate your identity.
7. Type in the required **Header names** and corresponding values in the **Headers** tab and click **Send**.

The request and the response of the API appear.

API Gateway saves the details of access requests made to use an API and reports the data required to analyze the performance and usages of APIs through the **API Analytics** dashboard.

7 API Analytics

- How Do I View API Analytics? 36

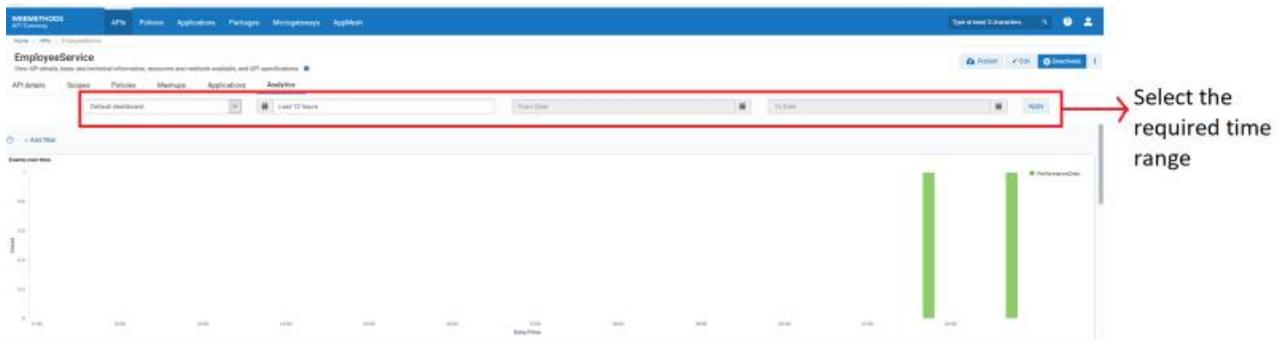
How Do I View API Analytics?

You must enable the Transaction Logging policy to capture the analytics data of APIs. For information on enabling the policy, see [“How Do I Enable Transaction Logs?”](#) on page 24.

➤ To view API analytics

1. Go to **APIs**, select your API from the list of APIs, and click the **Analytics** tab.

You can view the performance analytics data of the selected API.



The tab displays the data for events incurred in last 12 hours.

2. Select **Custom** and select the period that you want to view analytics and click **Apply filter**.

The **Analytics** dashboard is refreshed based on your input criteria.

For more information, see the API Analytics section in the *webMethods API Gateway User's Guide*.

8 Quick Start.. In a Jiffy!

- Quick Start Cheat-sheet 38

Quick Start Cheat-sheet

	Install	Install API Gateway	Install API Portal
	Create API	Create API from a JSON file	View API Details
	Secure API	Enable Identify & Authorize Policy	Enable Transaction Logging
	Publish API	Configure API Portal as Destination	Publish to API Portal
	Consume or Test API	Test API	
	Analyze API	View API Analytics	