



API Management Plus

Activity Guide

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Boomi, Inc.
Attn: LEGAL Dept.
legal@boomi.com

With a copy:

Boomi, Inc., Legal Department, 11 W Elm St #200, Conshohocken, PA 19428

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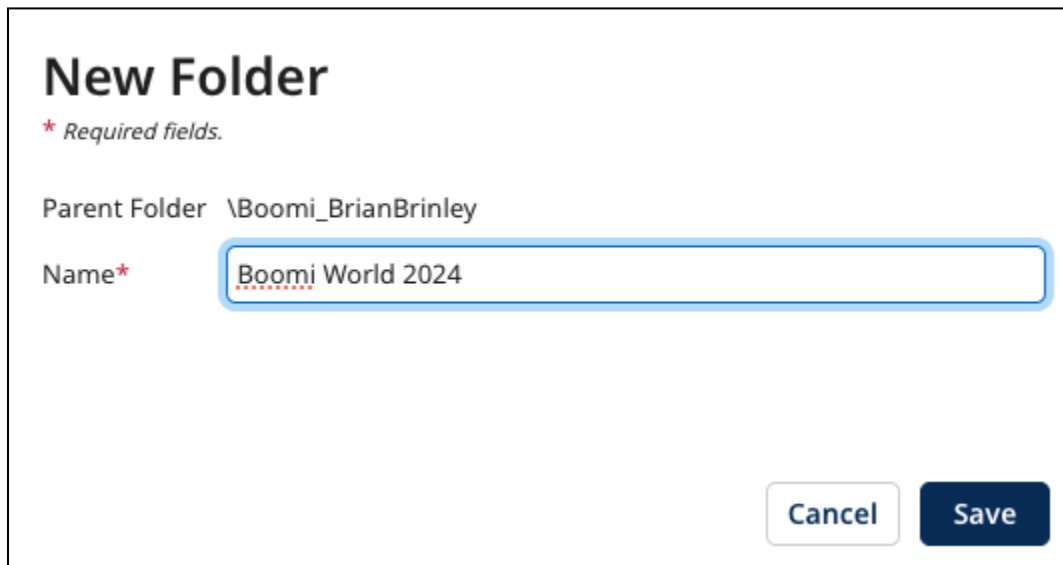
APIM Training - Create a Sample API

Welcome to API Management Plus Boomi World Training, where you'll build a working basic API Hosted in the Boomi Public Cloud and accessible from any device connected to the internet.

In this activity you'll create a basic Web Service that will acknowledge the users request and generate a random number in order to affirm that a successful execution has been completed.

Step 1 - Create a new Folder in the Build Tab

This folder will be the repository for the integration processes we create.



New Folder

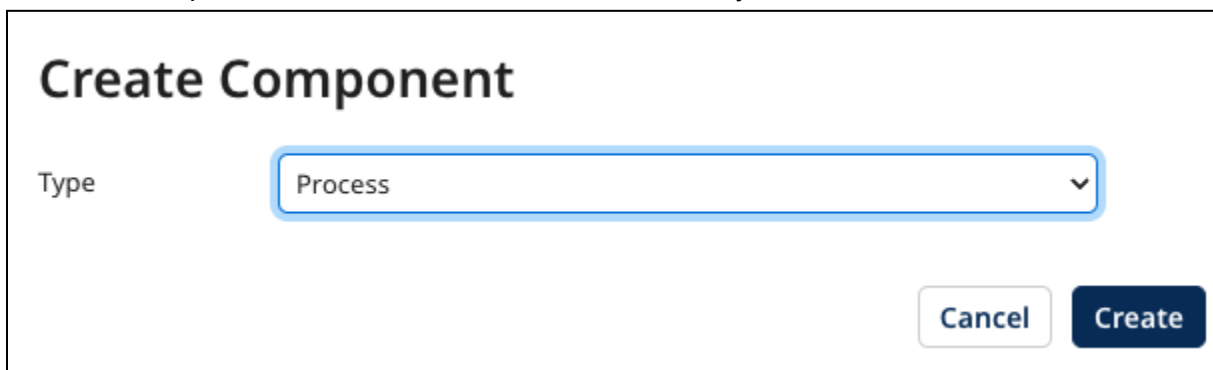
** Required fields.*

Parent Folder \Boomi_BrianBrinley

Name*

Step 2 - Create a new Integration Process

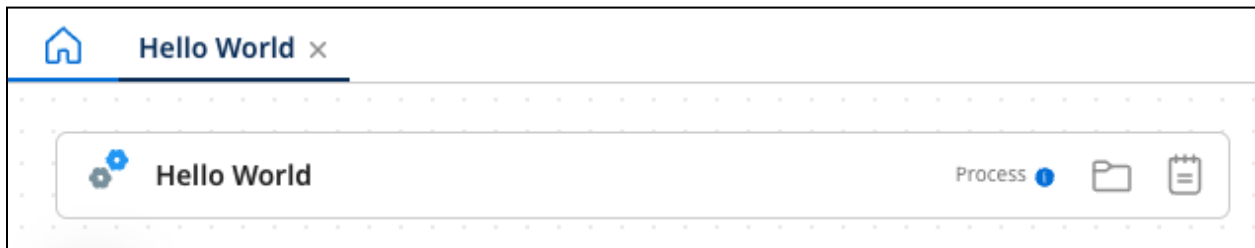
2.a - The new process should be created inside the newly created Boomi World folder.



Create Component

Type

2.b Name the new Process Hello World





Step 3 - Configure the Start Shape

Configure the Start shape to use a Web Services Server Connector by selecting the Web Service Server as the Connector Type.

A screenshot of the 'Start Shape' configuration page. The page has a title 'Start Shape' with an information icon. Below the title, there is a paragraph: 'The Start shape is the main shape that begins the process flow. It is automatically added to each new process and it cannot be removed.' Under 'Process Mode', the 'General' tab is selected. Under 'Type', the 'Connector' radio button is selected. A yellow warning box contains a triangle icon and text: 'For Processes starting with a Listen Action, we recommend that you disable Capture Run Dates and enable Allow Simultaneous Executions. Make the recommended changes for me.' Below the warning box, there are two tabs: 'General' and 'Parameters'. The 'General' tab is active. It contains several fields: 'Display Name' (empty text box), 'Connector' (dropdown menu showing 'Web Services Server' with a red dashed arrow pointing to it), 'Connection' (text field with 'The Atom Web Server will manage connection settings.'), 'Action' (dropdown menu showing 'Listen'), and 'Operation' (dropdown menu with a search icon and 'Choose...' text, and a green plus icon).

Step 4 - Configure the Start Shape Operation


4.a - Click the plus icon to generate a new Operation

 **Start Shape** 

The Start shape is the main shape that begins the process flow. It is automatically added to each new process and it cannot be removed.


Process Mode General


Type ☒ Connector ☐ Trading Partner ☐ Data Passthrough ☐ No Data

 For Processes starting with a Listen Action, we recommend that you disable Capture Run Dates and enable Allow Simultaneous Executions. Make the recommended changes for me.

General Parameters

Display Name


Connector 


Web Services Server 

Connection


The Atom Web Server will manage connection settings.

Action

Listen 

Operation 

🔍 Choose...

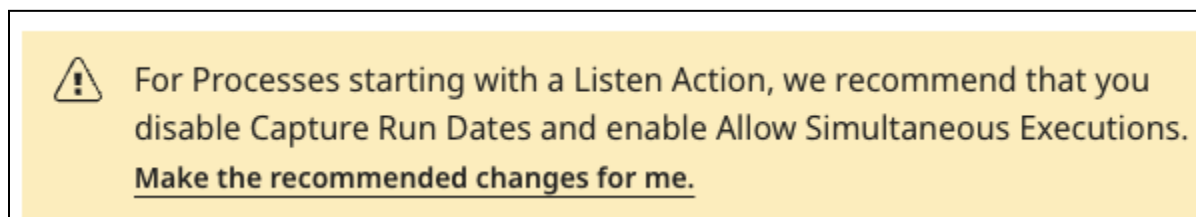


4.b - Configure the following Operation Details.

1. Operation Type = Get
2. Object = HelloWorld
3. Expected Input Type = None
4. Response Output Type = Single Data
5. Result Content Type = application/json

4.c - Click the Save and Close Button to close the operation.

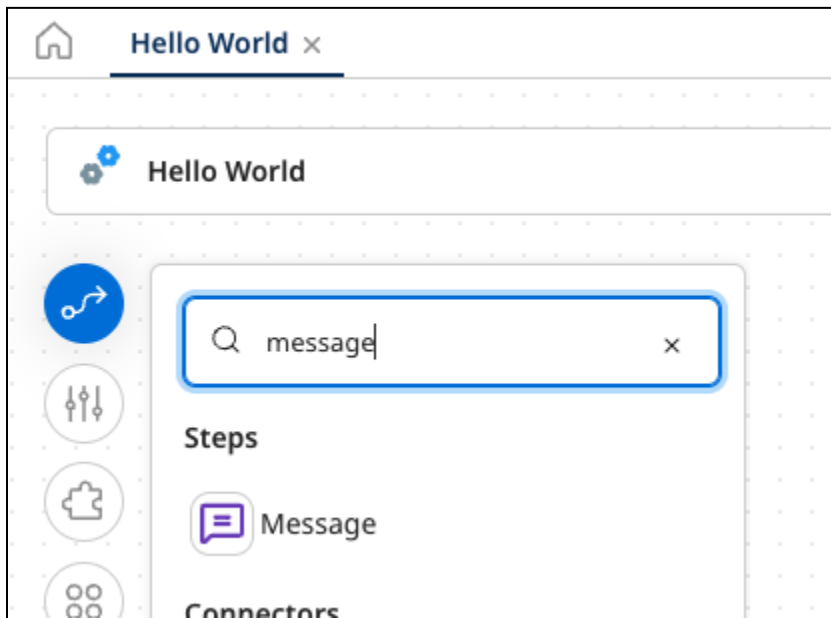
4.d - Choose the “Make the recommended changes for me” option on the Start Shape popup menu.



4.e - Click the OK button on the Start Shape to save the changes.



Step 5 - Create a response message.

5.a - Add a new Message Shape to your Process Canvas.



5.b - Connect the Start Shape to the new Message Shape on the Canvas.


5.c - Configure the message shape to populate a response message, plus a variable that will contain an random number.

 **Message Shape** 

To transform incoming document data into a free-form message using a combination of static and dynamic variables, use the Message shape. The Message shape is often used to construct email messages.

Display Name

Option

☐ Combine documents into a single message 



Message

Howdy, here's a random number to start your day !

{1}

Edit Message


5.d - Configure the Variable by clicking the plus symbol

 **Message Shape** 

To transform incoming document data into a free-form message using a combination of static and dynamic variables, use the Message shape. The Message shape is often used to construct email messages.

Display Name

Option

☐ Combine documents into a single message 






Message

Howdy, here's a random number to start your day!

{1}

Edit Message

Variables

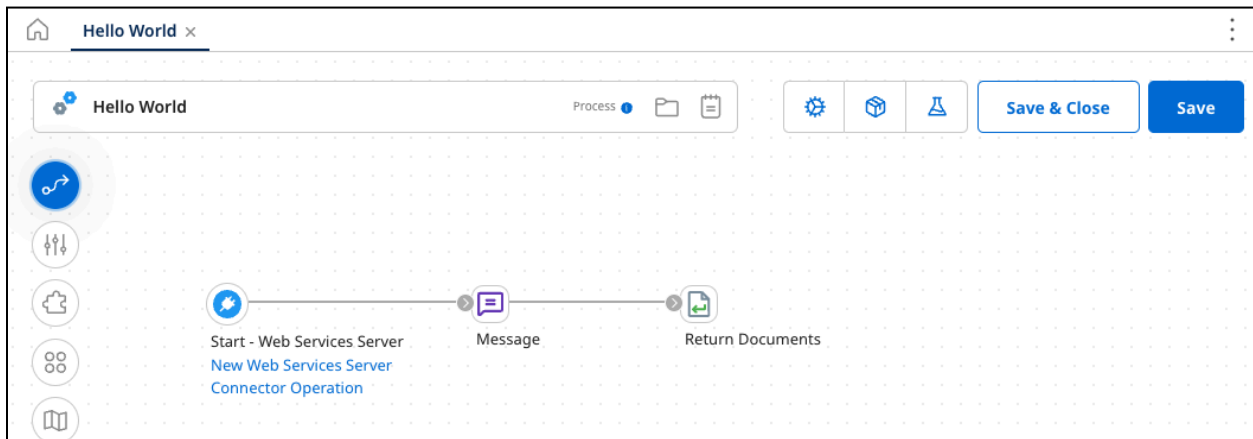
5.e - Select Unique Value as the Type

Parameter Value

Type Unique Value

No configuration Necessary

5.f - Add a Return Documents shape and connect the message shape to the return documents shape. At this point your integration should look like the following.

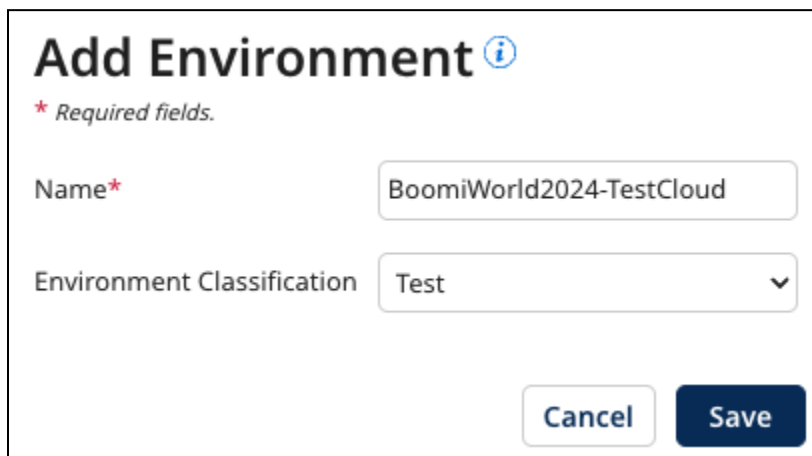


Step 6 - Create a new deployment environment

6.a - Create a new test Environment by clicking on the Manage > Atom Management Menu Item. NOTE: If you already have an existing public test atom cloud setup you can skip directly to Step 8.



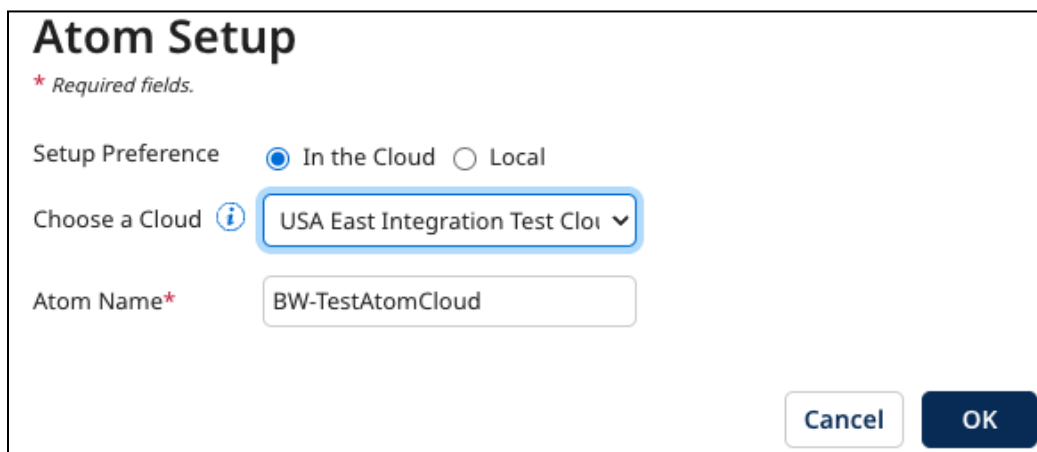
Click the New button and select Environment - Name your new Environment with a unique name. Example Below -

The screenshot shows the 'Add Environment' form. It has a title 'Add Environment' with an information icon. Below the title is a note '* Required fields.' There are two input fields: 'Name*' with the value 'BoomiWorld2024-TestCloud' and 'Environment Classification' with a dropdown menu showing 'Test'. At the bottom right are 'Cancel' and 'Save' buttons.

Step 7 - Create and Attach a new Atom Cloud

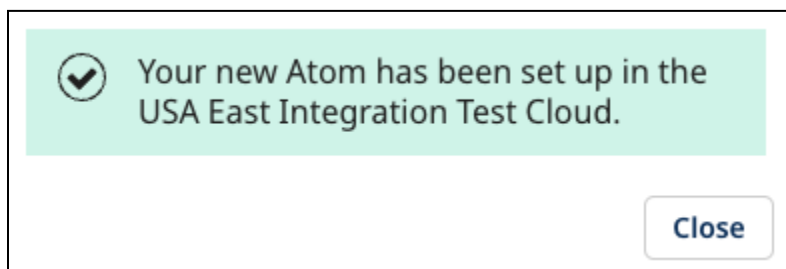
Now that we have created a new Environment, we need to create a new Test Atom Cloud. By default you are provided one test and production atom cloud attachment as part of your atomsphere licensing.

7.a - At the same Atom Management Menu we selected a new environment, we will now again select New and then choose Select Atom. At the popup window we will select the In the Cloud preference and then select an available test cloud. Provide a name for reference, you can also use the same name as the newly created environment.



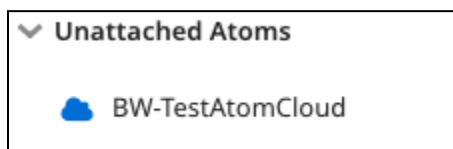
The image shows a dialog box titled "Atom Setup". Below the title is a red asterisk followed by the text "Required fields.". There are two radio buttons for "Setup Preference": "In the Cloud" (which is selected) and "Local". Below this is a "Choose a Cloud" label with an information icon and a dropdown menu showing "USA East Integration Test Cloud". Below that is an "Atom Name" label with a red asterisk and a text input field containing "BW-TestAtomCloud". At the bottom right are "Cancel" and "OK" buttons.

Click the OK button to continue. If all is successful you will receive a confirmation, as noted below.



The image shows a confirmation message in a light green box. It contains a checkmark icon and the text "Your new Atom has been set up in the USA East Integration Test Cloud." Below the message is a "Close" button.

7.b - Next we need to attach the newly created Atom to the newly created environment. Navigate to the Unattached Atoms section of the Atom and Environments list and select the newly created Atom







Once selecting the name of the Atom. In the right pane you will now be presented with the option to attach this atom to an environment. Select from the dropdown and choose your newly created environment. NOTE: Upon clicking the environment it will immediately begin the attachment, so be cautious when selecting the correct environment.

[Environments](#) » BW-TestAtomCloud


BW-TestAtomCloud


The properties for the Atom, Molecule, or Atom Cloud selected in the list, whether it is online or offline.

Atom ID	47a37c32-3ff7-43d0-9221-9e3c894f18ec
Type	Cloud
Status	 Online
Environment Classification	Test
Instance ID 	boomi_brianbrinley-D1R00U.6SWD10
Atom Owner	Boomi Parent
Host Name 	USA East Integration Test Cloud
Date Installed 	03 Aug 2022 13:57:32
Version	24.05.0

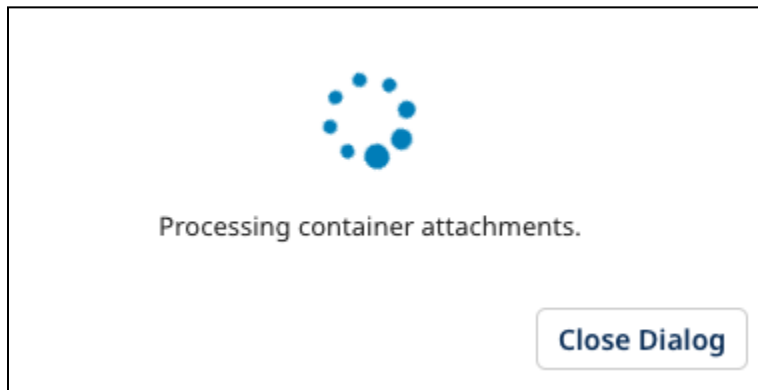
Atom Controls

Attach To Environment

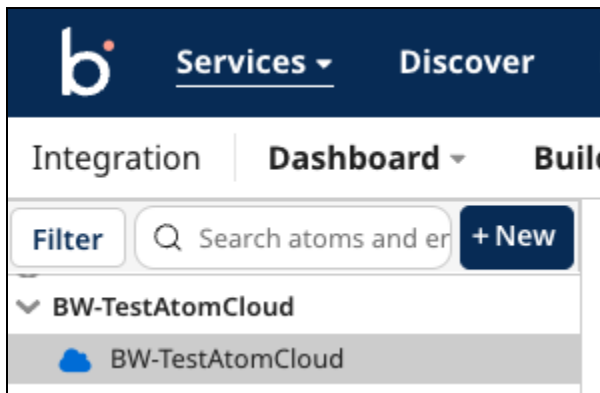


 [Delete Atom](#)

Once selected you will be prompted with the following status update letting you know it is being processed.



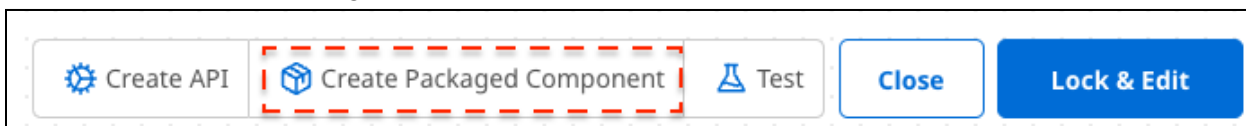
Once completed, you will now see the atom as part of the new environment.



Step 8 - Deploy to the newly Created Public Atom Cloud

Navigate back to the Boomi Build Canvas and open the newly created Hello World Service from Step 2.

Choose the "Create Packaged Component" Button, do not select the Create API option.



Click the Next: Add Details to populate the release details.

Create Packaged Components: Select Components

Select one or more deployable components from the Component Explorer to create a packaged component of each selection. Although you can select multiple components to package at one time, each selected component results in its own individual version to be deployed independently. If the selected component was packaged previously, details of the latest packaged component version appear to the right.

Filter

- ☒ Boomi_BrianBrinley
- ☒ Boomi World 2024
- ☒ Hello World

Branch	Actions	Component Name	Component Type	Latest Version	Latest Notes
main		Hello World	Process	None	None

Previous 1-1 of 1 Next

Cancel Next: Add Details

Populate an initial version number and Package release notes

Create Packaged Components: Add Details

Optionally apply details to the newest version of your packaged components. When you have multiple packaged components selected at one time, the details you specify are applied in bulk to all selected components, though each selected component results in its own individual version.

Component Name	Branch	Latest Version	Latest Notes	Action
Hello World	main	None	None	View Included Components

Version for all

If you do not supply a name, a version number is automatically generated for each individual packaged component, and increments based on the latest version number.

Package Notes for All

3985 characters remaining.

Sharing

☒ Not Allowed

☐ Allowed

This setting is ignored for components that cannot be shared.

Cancel Back: Select Components Create Packaged Component (1)

Next, click the Create Packaged Components and you should be prompted with the option to Deploy

Packaged Components Successfully Created

Your packaged components were successfully created.
To deploy your packaged components, click on the deploy button below.

CloseDeploy

Click the Deploy button to proceed and select the newly created environment and add an initial deployment note.

Deploy: Select Environment

Select the environment in which to deploy your packaged component(s), and optionally add notes about the deployment.

Deployment Environment

Deployment Notes

Initial Deployment

3982 characters remaining.

Choose Select Versions and then click Review

Deploy: Select Packaged Components

Environment: BW-TestAtomCloud | Deployment Notes: Initial Deployment

Select one or more packaged components from the Component Explorer. By default, the latest version of each packaged component is selected. Packaged components can be created from the [Packaged Components](#) page. You can deploy a maximum of 250 packaged components at one time.

Filter

a1c1d2e4-50c7-44a1-b8b2-t x e

☒

Boomi_BrianBrinley

☒

Boomi World 2024

☒

Hello World

Actions	Name	Type	Selected Version	Deployed Version
	Hello World	Process	v1.0 View details Select different package	N/A

Cancel

Back: Select Environment

Next: Review

Finally, confirm the selected values are correct and select the Deploy button.

Deploy: Review

You're almost done! Before deploying this version of your packaged component, confirm that the destination environment you have selected is correct.

Environment: BW-TestAtomCloud

Deployment Notes: Initial Deployment

Name	Type	Selected Version	Deployed Version	Duplicate
Hello World	Process	v1.0	N/A	—

« Previous

1-1 of 1

Next »

Cancel

Back: Select Versions

Deploy

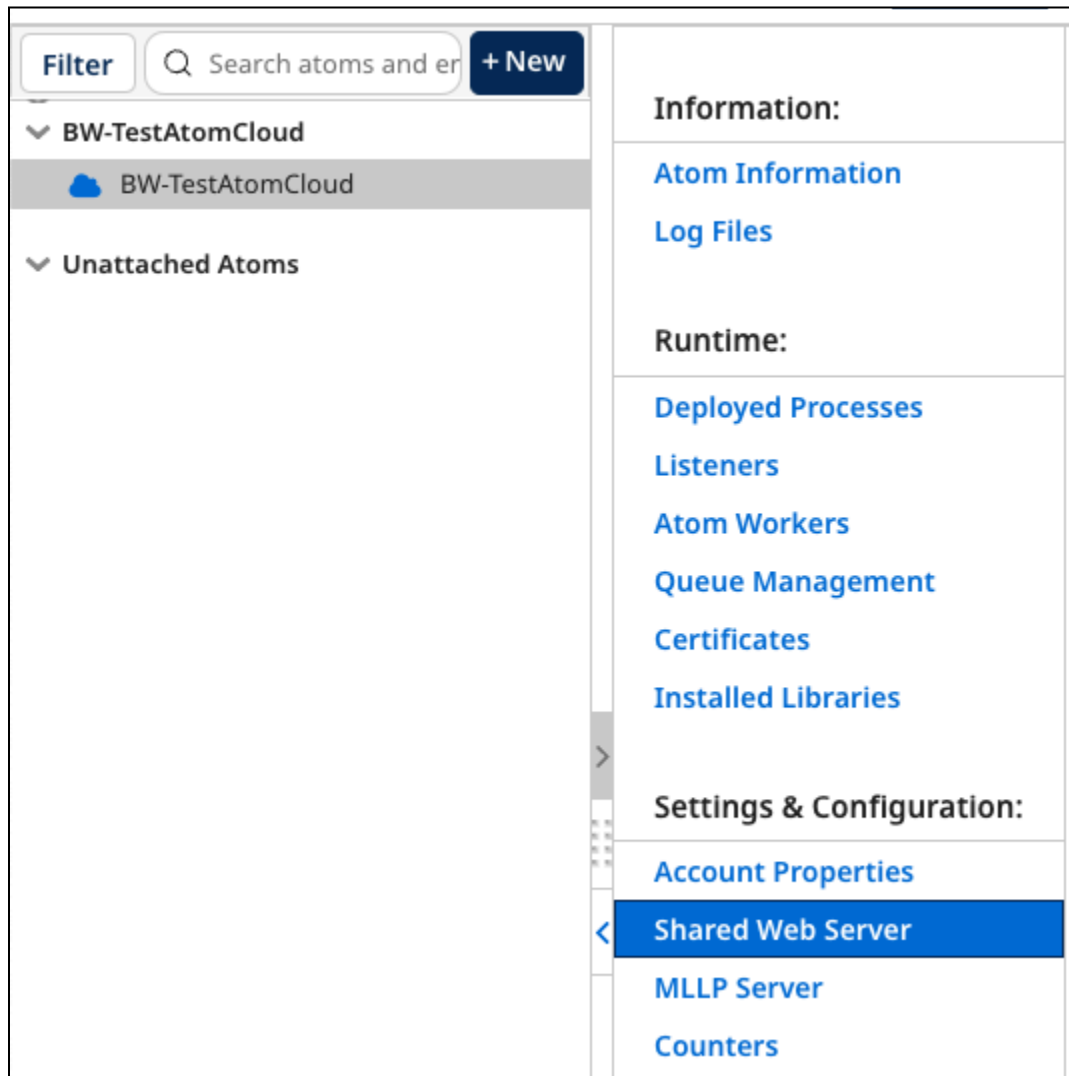
API Management

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Step 9 - Gather URL Details -

Now that we've deployed the service, next we need to determine the published URL.

9.a - Navigate back to the Atom management screen and select the newly created test cloud atom.



9.b - Once selected, navigate to the Shared Web Server sub menu to determine the base URL.


Environments » BW-TestAtomCloud » BW-TestAtomCloud » Shared Web Server


Shared Web Server

Configure the selected Atom's web server settings for web service publishing.

General User Management

Basic Settings

Base URL for API Requests  ☒ Use Default ☐ Override Default

API Type 

Save the copied URL for future reference.


9.c - We will then need to create a new user to pass for authentication.





Navigate to the User Management Tab inside the Shared Web Server Settings, and click the Blue Plus symbol to create a new User.


Shared Web Server

Configure the selected Atom's web server settings for web service publishing.

General **User Management**

Enable API Management Internal Roles ☐ 

Users    

boomi_brianbrinley-D1R00U.6 

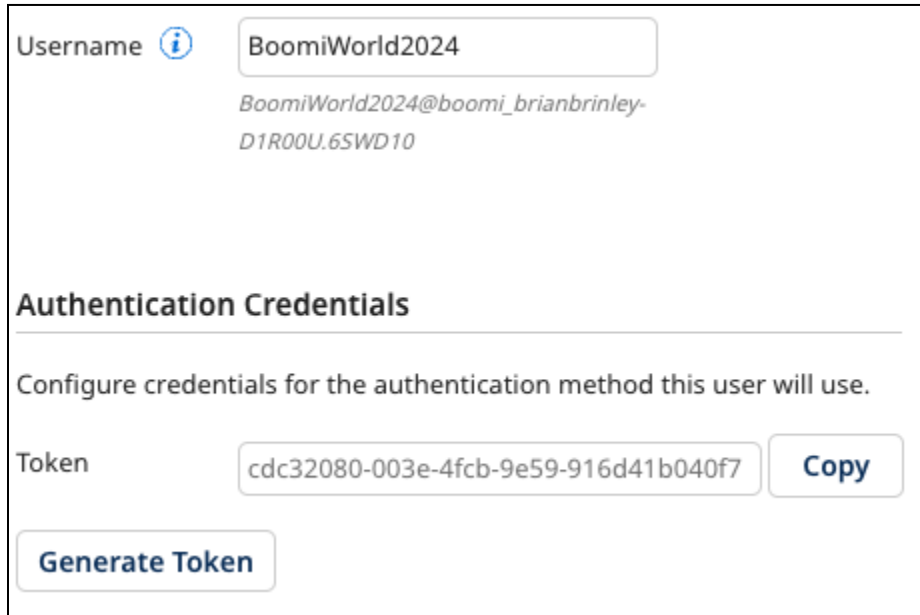
Username boomi_brianbrinley-D1R00U.6SWD10

Authentication Credentials

Configure credentials for the authentication method this user will use.

Input a value for the name such as “BoomiWorld2024”, then click the Save button.

Once you have saved the new user you can now click the Show Token button to generate the users authentication password for basic authentication.



The screenshot shows a user management interface. At the top, there is a 'Username' field with an information icon and the value 'BoomiWorld2024'. Below this, the email address 'BoomiWorld2024@boomi_brianbrinley-' and a token 'D1R00U.6SWD10' are displayed. The 'Authentication Credentials' section is highlighted with a horizontal line. It contains the instruction 'Configure credentials for the authentication method this user will use.' Below this, there is a 'Token' field with the value 'cdc32080-003e-4fcb-9e59-916d41b040f7' and a 'Copy' button. At the bottom of this section is a 'Generate Token' button.

Step 10 - Call your new Service

The final step is to generate a web URL to call the new service. In our previous steps we gather enough information to generate the complete path to our newly created integration.

10a - The overall URL template is as follows.

<<Base URL for API Requests>>/<<Simple URL Path>>

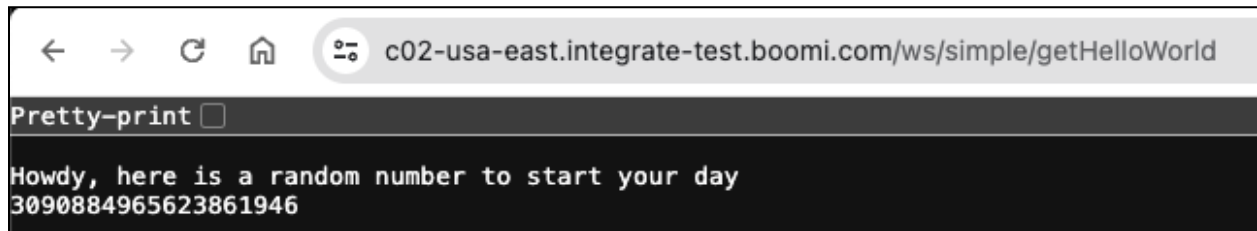
10b - Add the Authentication. Since the new service requires Basic Authentication, we are able to pass these values in the form of the URL path. Note: There is a colon between the username and token, and an “@” before the Base URL.

https://<<Username>>:<<Token>>@<<Base URL for API Requests, minus the
https://>>/<<Simple URL Path>>

10c - Example URL: - Note: The authentication below is for reference only and not a valid login

https://BoomiWorld@boomi_brianbrinley-D1R00U.6SWD10:4732cd0a-6d21-433c-bacf-8fa0cb9f012e@c02-usa-east.integrate-test.boomi.com/ws/simple/getHelloWorld

10d - Paste the new URL into your web browser, if all is successful you will receive a response message as such.



Congratulations, you've built a working API Integration.