



# EPYC Cloud Instance Advisor User Guide



Experience the cloud with AMD



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# Version History

Version	Release Date	What's New		Upcoming / What's Next
		Major Features	Minor Improvements	
V3.0.0	May, 2025	<ul style="list-style-type: none"> <li>▪ Google Cloud Platform (GCP): GCP support has been extended to all regions globally. (regional availability should be considered)</li> <li>▪ AWS CloudWatch Telemetry Connector: Users can now link their AWS CloudWatch account to View all instances and Receive tailored recommendations and cost advice.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Excel Export Enhancements: <ul style="list-style-type: none"> <li>• Improved font size and note color for better readability.</li> <li>• Current instance details such as Instance Type, Cost, Power, and Carbon emission are now frozen in the export excel file, enabling more accurate comparisons.</li> </ul> </li> <li>▪ General Bug Fixes and Performance Enhancements.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Azure Application Insights Integration: Support for Azure App Insights to enhance telemetry data collection and analysis.</li> <li>▪ Hyper-V VM's support for recommendations/cost advice.</li> <li>▪ Automated CUR Ingest: Customers can upload a data file, and the EPYC advisory service will extract the necessary data and create an input file for the cost advisor and instance advisor.</li> <li>▪ Custom Headroom Recommendations.</li> <li>▪ Enhanced Interactive Demo Experience.</li> <li>▪ Refined EIA (EPYC Instance Advisor) Recommendations. Clear differentiation between the recommendations for EIA. <ul style="list-style-type: none"> <li>• Cost optimized instances.</li> <li>• Performance-optimized instances.</li> </ul> </li> <li>▪ Less power and less carbon producing instances.</li> </ul>
V2.0.0	April, 2025	<ul style="list-style-type: none"> <li>▪ GCP support extended to include the US, UK, Netherlands, India, and Australia.</li> <li>▪ Microsoft Azure is now supported across all countries and regions.</li> <li>▪ Support added for 'Spot Instance' pricing model enabling more cost-effective recommendations.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Current instance columns are now frozen in the instance advice table for easier comparison with optimal, best and good options.</li> <li>▪ GCP Datadog telemetry is included. It allows customers to link their Datadog account with GCP VMs, eliminating the need to export and upload data for instance recommendations.</li> <li>▪ Azure Datadog telemetry is included. It allows customers to link their Datadog account with Azure VMs, eliminating the need to export and upload data for instance recommendations.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Extended telemetry tool with AWS CloudWatch to further enhance data collection and analysis.</li> <li>▪ Full global coverage for all countries and regions on Google Cloud Platform.</li> </ul>

			<ul style="list-style-type: none"> <li>▪ Users can request a role change directly within the platform. Admins have the ability to approve or deny these requests.</li> <li>▪ Access to specific features and operations will adjust automatically based on the user's assigned role.</li> <li>▪ No instance recommendations are shown if the current instance is already using the latest AMD processor.</li> <li>▪ Customers are provided with interactive demos during registration, login, and for EIA application for enhanced onboarding experience.</li> </ul>	
v1.7.0	Mar, 2025	<ul style="list-style-type: none"> <li>▪ GCP Support - Users can now add their GCP accounts to retrieve VM details and receive instance advice/recommendations.</li> <li>▪ GCP Region Availability: Currently, GCP support is available only for US regions.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Azure Pricing Model: Added support for the "reserved" pricing model in Azure Cloud.</li> <li>▪ Bug Fixes and Performance Improvements: Various bug fixes and optimizations for improved performance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ GCP 'Modernization and Downsizing' Recommendations: Future support for GCP cost optimization with modernization and downsizing recommendations.</li> <li>▪ Expanded GCP Region Support: GCP recommendation support will extend to four additional countries: UK, Netherlands, India, and Germany.</li> <li>▪ Global Azure Support: Azure cloud recommendations will be available for all countries.</li> </ul>
v1.6.1	Mar, 2025	<p style="text-align: center;"><b>Interim Release</b></p> <p>Minor Improvements:</p> <ul style="list-style-type: none"> <li>▪ Users can now name an instance when adding it to receive instance advice. This will help users identify instances based on the VM's purpose.</li> <li>▪ Users can now upload a maximum of 20,000 records in a single file to receive instance advice and recommendations.</li> <li>▪ Instance aggregation has been removed. If a user uploads 10 similar instances, the recommendation will include 10 instances.</li> </ul> <p>Enhanced User sessions:</p> <ul style="list-style-type: none"> <li>▪ Users can now experience a more seamless interaction with the EPYC advisory application, as the need to log in multiple times within a short period is eliminated.</li> <li>▪ By utilizing the refresh token technique, users can stay logged in for an extended period without needing to re-enter their login credentials.</li> </ul> <p>Note: If users manually clear cookies or site data, they will be required to log in again.</p>	Azure Regional Beta: <ul style="list-style-type: none"> <li>▪ Azure recommendation will be available in the US, UK, Denmark, India, and Germany regions by the second week of March.</li> </ul>	
v1.6.0	Feb, 2025	<p>AWS Telemetry Connector:</p> <ul style="list-style-type: none"> <li>▪ Customers are enabled with Datadog telemetry connector to</li> </ul>	<p>Delete Error Button:</p> <ul style="list-style-type: none"> <li>▪ If users encounter multiple errors after uploading a file, a new</li> </ul>	Azure Regional Beta: <ul style="list-style-type: none"> <li>▪ Azure recommendation will be available in the US, UK,</li> </ul>

## EPYC Cloud Instance Advisor User Guide

		<p>fetch metrics, supporting advisory services. This effort serves as a backup for the need to use the StatsCollector tool offered by advisory services.</p> <ul style="list-style-type: none"> <li>▪ This enhancement allows for seamless collection of metrics from Datadog, enabling users to receive tailored instance advice for selected instances.</li> </ul>	<p>Delete Error button has been added. Clicking this button will remove all instance rows with errors at once.</p> <ul style="list-style-type: none"> <li>▪ This option simplifies the process by eliminating the need to delete each error row individually, making it easier to manage and correct the data.</li> </ul>	<p>Denmark, India, and Germany regions by the second week of March.</p>
v1.5.0	Jan, 2025	<ul style="list-style-type: none"> <li>▪ Users can select their preferred Cloud Service Provider (CSP) between AWS and AZURE and create portfolios within these CSPs.</li> <li>▪ ‘Find and replace’ functionality to correct multiple errors at once. Applicable for Region and Instance type.</li> <li>▪ Simplified switching between saved portfolios for users.</li> <li>▪ Users can now upload files in addition to manually adding instances with custom metrics. <ul style="list-style-type: none"> <li>○ Users have the option to upload their own metrics or self-performance assessment data to receive tailored advice based on the provided information.</li> </ul> </li> <li>▪ Added support for 4<sup>th</sup> generation Azure VMs.</li> </ul>	<ul style="list-style-type: none"> <li>▪ User can now export summary graphs as PNG files.</li> <li>▪ User guide PDF now opens in a new tab instead of downloading directly.</li> <li>▪ Added help sections for recommendation.</li> <li>▪ Recommendations have been updated from R1,R2,R3 to Optimal, Best, Good.</li> </ul>	<ul style="list-style-type: none"> <li>▪ AWS telemetry connector support.</li> </ul>
v1.4.0	Dec, 2024	<ul style="list-style-type: none"> <li>▪ Azure Support</li> <li>▪ Customer Support/Feedback: A support button has been added with contact details (hotline number and email) for easy access to customer support.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Updated User Guide: The user guide has been updated with the latest information.</li> <li>▪ Updated Online Help: Enhanced online help content to support user needs.</li> <li>▪ Performance Enhancements and Bug Fixes: Various performance improvements and bug fixes to ensure smoother functionality.</li> <li>▪ Failed Instance Reports: Failed instances will be displayed during data upload</li> </ul>	<ul style="list-style-type: none"> <li>▪ Azure Support</li> </ul>
V1.3.0	Nov, 2024	<ul style="list-style-type: none"> <li>▪ Pricing Format: The pricing and costs are now formatted with a '\$' value.</li> <li>▪ CSV &amp; XLSX Support: A response in both CSV and XLSX formats is provided for skipped instances.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Performance Improvement Option: Added performance improvement option in EIA.</li> <li>▪ Updated Online Help: Enhanced online help content to support user needs.</li> <li>▪ Skipped Instances:</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enhanced customer support / feedback features.</li> <li>▪ Improved error handling and reporting.</li> <li>▪ Expanded region and instance support.</li> <li>▪ Ongoing performance optimizations.</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Azure Recommendation: Recommendations are now supported for Azure.</li> </ul>	<ul style="list-style-type: none"> <li>a. Skipped instances are now displayed in the recommendations table.</li> <li>b. Added hyphen for skipped instances in the table and other UI changes.</li> </ul> <ul style="list-style-type: none"> <li>▪ Export Excel: Included Grand Total in Excel export.</li> <li>▪ Table Updates: Added vCPU(s) in the recommendation table.</li> <li>▪ Genoa Update: Support for CO2 and power data for Genoa instance.</li> </ul>	<ul style="list-style-type: none"> <li>▪ More detailed user resources and guides</li> </ul>
V1.2.0	Oct, 2024	<ul style="list-style-type: none"> <li>▪ Initial release with basic setup and usage instructions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Standardized font sizes throughout the guide</li> </ul>	

# About Cloud Instance Advisor

**Cloud Instance Advisor** is a powerful recommendation engine designed to analyze historical system statistics and provide suitable instance recommendations.

To get started, download the Stat Collector package by clicking the "**Stat Collector**" button. This package includes executables that gather essential system statistics such as CPU, memory, network, and I/O utilization. For detailed instructions, refer to [Readme.txt](#) file in the downloaded package.

Once you've collected the system statistics, upload the generated files to receive tailored instance recommendations. You can upload a single XLSX file containing statistics for multiple systems or use the downloadable template to input the required details manually.

Alternatively, for a more automated solution, you can integrate your **Datadog** account with Cloud Instance Advisor. By providing your **API key**, **Application key** and **Host Tag**, the system will directly fetch instance metrics and telemetry data from Datadog, eliminating the need to run the Stat Collector manually on each instance and simplifying the process of receiving instance recommendations.

## Benefits

- **Comprehensive Data Collection:** The EIA gathers essential system metrics, such as CPU, memory, and network performance, providing a holistic view of your cloud environment.
- **Cross-Platform Compatibility:** The stat collector works seamlessly on both Windows and Linux platforms, ensuring accessibility for diverse user environments.
- **Simplified Data Management:** By consolidating metrics into a single XLSX file, the EIA simplifies data handling, making it easy to analyze multiple instances at once.
- **Personalized Recommendations:** The recommendation engine leverages the collected data to deliver tailored suggestions for ideal instances, enhancing system performance based on specific needs.
- **Environmental Impact Reduction:** By identifying the most efficient instances, the EIA helps significantly lower carbon emissions and energy consumption, contributing to more sustainable cloud operations.
- **Enhanced Decision-Making:** With actionable insights and metrics analysis, users can make informed decisions about instance selection, optimizing resource allocation and cost efficiency.

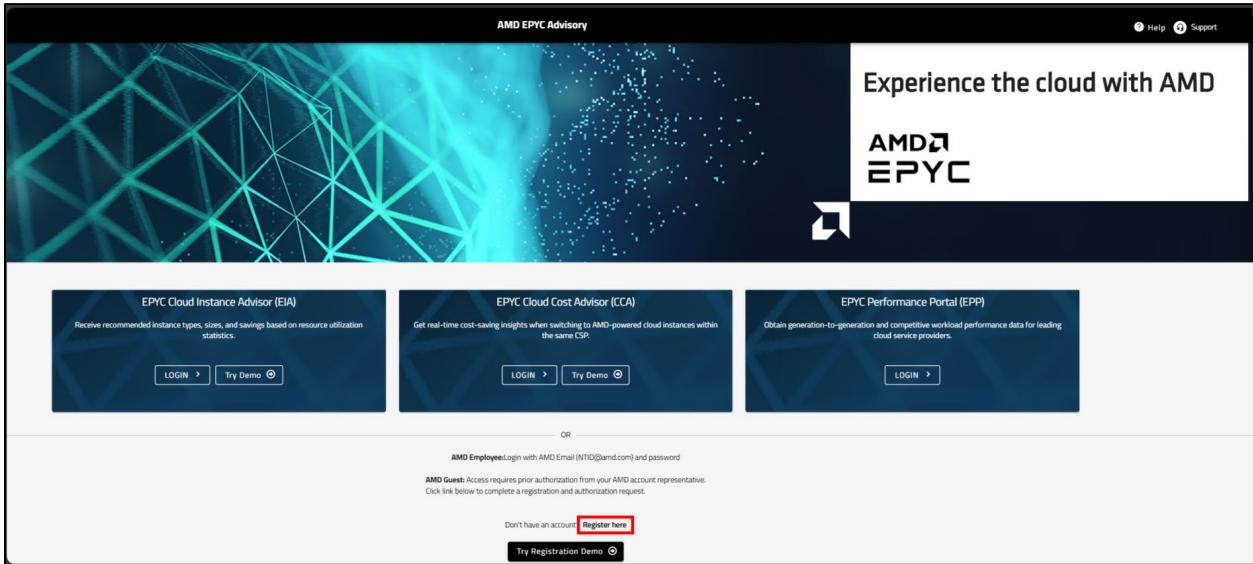
## Getting Started

### Registration for New Users

#### Step 1: Visit the Registration Page

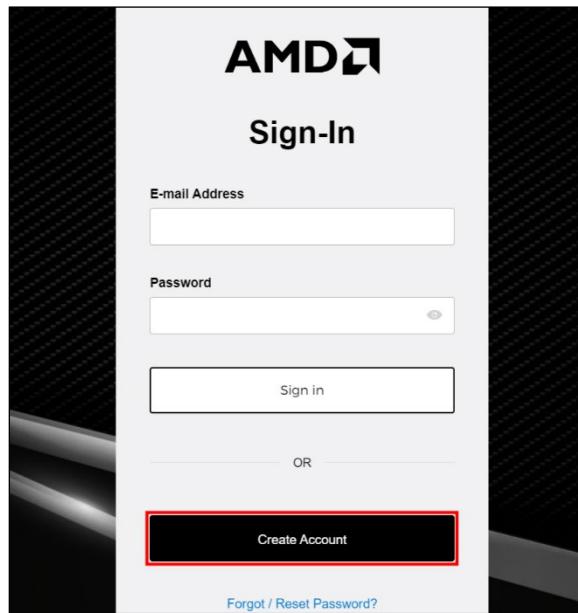
- Go to the AMD EPYC Advisory portal

- Click on “**Register here**”.



## Step 2: Create an Account

- On the Sign-In page, click “**Create Account**”.



## Step 3: Fill in Your Details

- First Name
- Last Name
- E-mail: Business users, please provide your company email address for full access. All other users use your personal email address.

**Note:** Internal AMD users must use **username@amd.com** for sign in. Please do not use the format **firstname.lastname@amd.com** as it will not work. AMD users may not create or reset accounts through this system.

- Preferred Language
- Location
- Complete the **CAPTCHA** to prove you are not a robot.
- Review the details and click “**Submit**”.

**AMD Account Creation**

To create an account, complete the form below.

An account activation message with an **Access Token** will be sent via e-mail to the address you specify below.

First Name \*

Last Name \*

E-mail \*

Business users, please provide your company e-mail address for full access to licensing, support, and services. All other users, please use your personal e-mail address.

Preferred Language \*

Location \*

By creating an account, you agree to the AMD [Terms of Use](#) and [Privacy Policy](#).

I'm not a robot

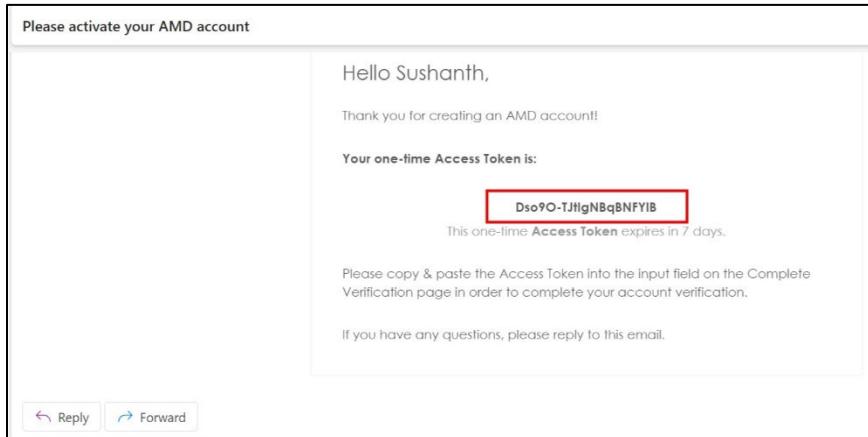
reCAPTCHA

[Privacy + Terms](#)

**Submit**

#### Step 4: Receive Activation Email

- Check your registered email inbox for a message with an Access Token to activate your account.



## Account Activation

### Step 1: Enter Access Token

- Input the access token you received in your email.

### Step 2: Set Your Password

- Provide a strong password.
- Confirm the password.
- Complete the **CAPTCHA** to prove you are not a robot.
- Click **Activate Account**.

**Note:** If you did not receive an activation email, request the code again by clicking Resend Activation Email.

**Next Step - Activate Your Account**

Please check your e-mail for your AMD account activation message.

To activate your account, enter the **Access Token** from the account activation e-mail message and create a password.

Access Token +  
Dso9O-TjlgNBqBNFYIB

Password +  
\*\*\*\*\*

Password Strength: Strong

- Must contain a minimum of 10 characters and a maximum of 72 characters
- Must contain at least 1 lowercase letter, 1 uppercase letter, 1 number and 1 special character (eg. !@#\$%^&+=-)
- Must not contain parts of your E-mail address, first name or last name
- Must not be a commonly used password

Confirm Password +  
\*\*\*\*\*

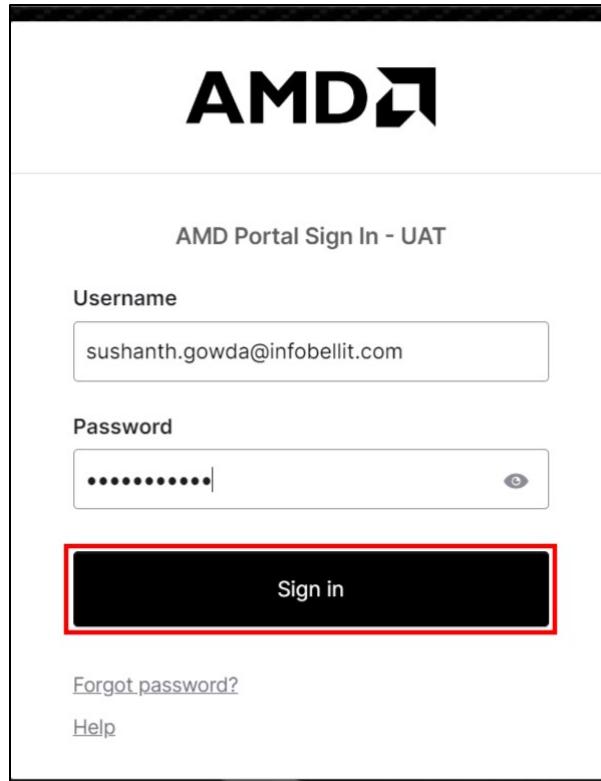
Password match: Yes

I'm not a robot reCAPTCHA  
Privacy + Terms

**Activate Account**   **Resend Activation E-mail**

Note: If you do not receive a confirmation e-mail within a few minutes please check your junk mail folder and add sender [account.help@amd.com](mailto:account.help@amd.com) to your address book.

- Once you click on Activate Account, you will be directed to the sign-in screen.
- Enter your Username and Password, then click **Sign in**.



- You will be redirected to the Secure Application Access Request page.

## Secure Application Access Request

### Step 1: Fill in Your Details

- First Name, Last Name, and Email will be auto populated.
- Company Name
- Address Line 1
- Address Line 2
- Location
- State/Province
- City
- Postal Code
- Phone
- Job Function

### Step 2: Agree to Terms

- Input your full name in the **I Agree** field to acknowledge the terms and conditions.

### Step 3: Submit Request

- Review the details and click "**Register Now**".

**Secure Application Access Request - EPYC Instance Advisor**

Important Notice: Before migrating to an AMD EPYC™ processor-based cloud instance, you must verify that such migration is covered in the agreement between you and your cloud service provider. If AMD-based cloud instances are not covered in your agreement, please contact your cloud provider sales account manager. For further assistance, please contact AMD sales at [cloudsales@amd.com](mailto:cloudsales@amd.com).

---

First Name :  Last Name :

E-mail :

Company Name :

Address 1 :

Address 2 :

Location :  State/Province :

City :  Postal Code :

Phone :

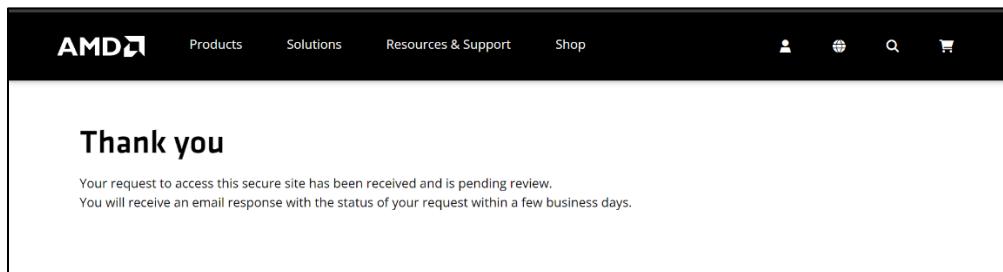
Job Function :

I Agree :

By typing my name in the box above, I agree and am authorized to agree on behalf of the entity listed above, to the terms and conditions, in the Notice of Non-Disclosure Agreement, for which terms and conditions may be reviewed, downloaded and printed from the link provided.

You understand that by pressing "REGISTER NOW" you are providing this information to allow you access to the AMD EPYC Cloud Instance Advisor tool. AMD may also use this information to send you updates regarding the tool. You may opt out from receiving tool updates at any time. You can read about your personal data rights, how AMD handles your personal data, and how you can contact AMD in the privacy policy.

- A Thank you message will appear, confirming that your access request has been received.



- You will receive an email confirming that your access request is being processed.



- Once your request is reviewed and approved by the respective administrator, you will receive another email with a login link.



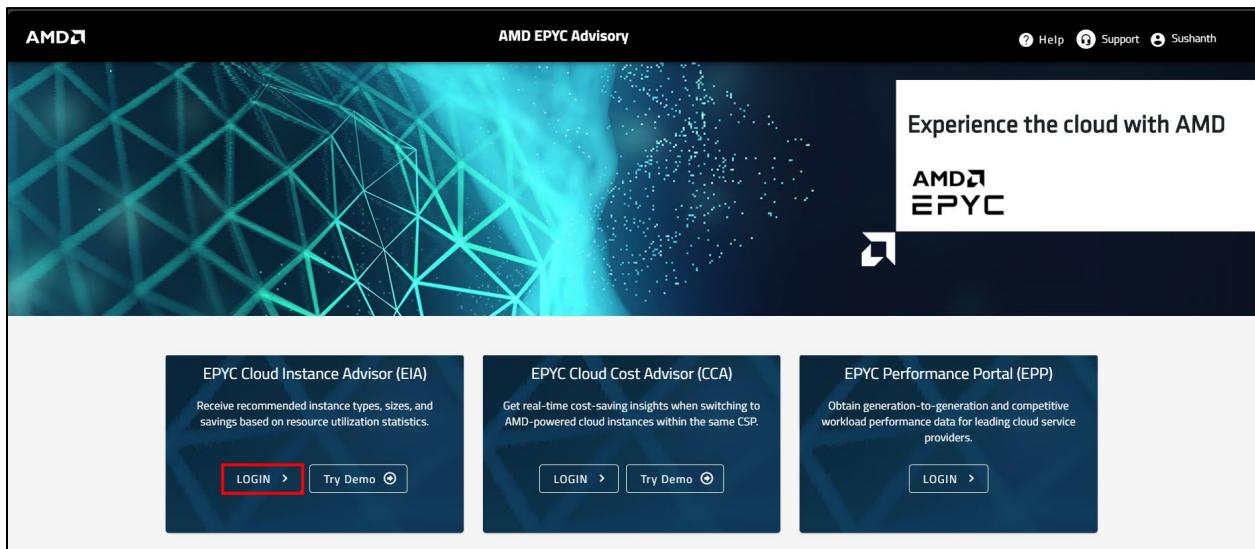
- By clicking the login link, you will be directed to the AMD EPYC Cloud Instance Advisor portal, where you can sign in to the application. You can also log in through the AMD EPYC Advisory Portal.

## Login

### Login through AMD EPYC Advisory Portal

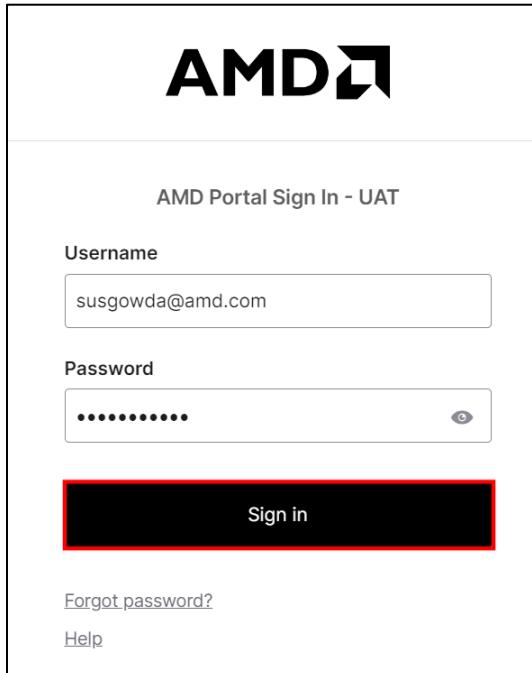
#### Step 1: Sign In

- Go to AMD EPYC Advisory portal.
- Click on “**Login**” under EPYC Cloud Instance Advisor (EIA) tile.



**Step 2: Input Credentials**

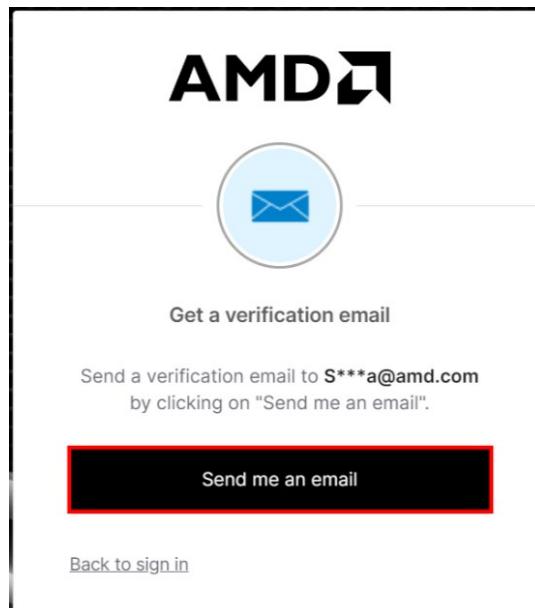
- Enter your email address and password.
- Click **Sign-in**.



The screenshot shows the AMD Portal Sign In - UAT page. At the top is the AMD logo. Below it, the text "AMD Portal Sign In - UAT". There are two input fields: "Username" containing "susgowda@amd.com" and "Password" containing a series of dots. A red box highlights the "Sign in" button. Below the button are links for "Forgot password?" and "Help".

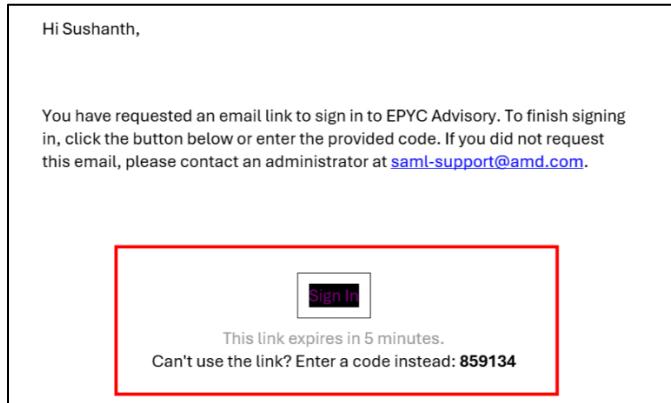
**Step 3: Verify Your Email**

- Click **Send me an email** to receive a verification code.

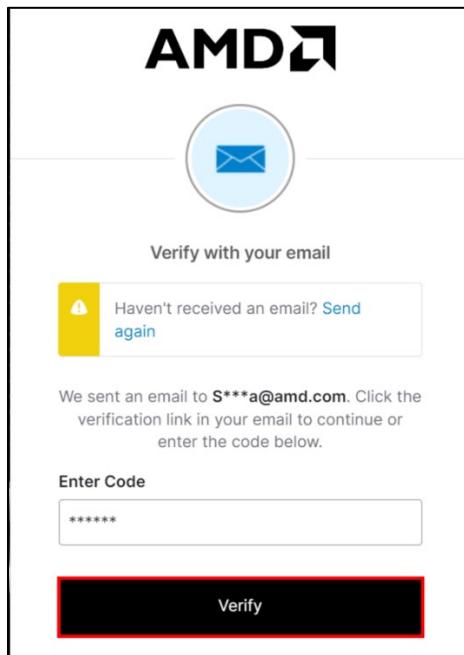


The screenshot shows a page titled "Get a verification email". It features the AMD logo at the top and a large blue circle with an envelope icon in the center. Below the icon, the text "Get a verification email" is displayed. Further down, it says "Send a verification email to S\*\*\*a@amd.com by clicking on "Send me an email"". A red box highlights the "Send me an email" button. At the bottom, there is a link "Back to sign in".

- Check your email for the one-time verification code.



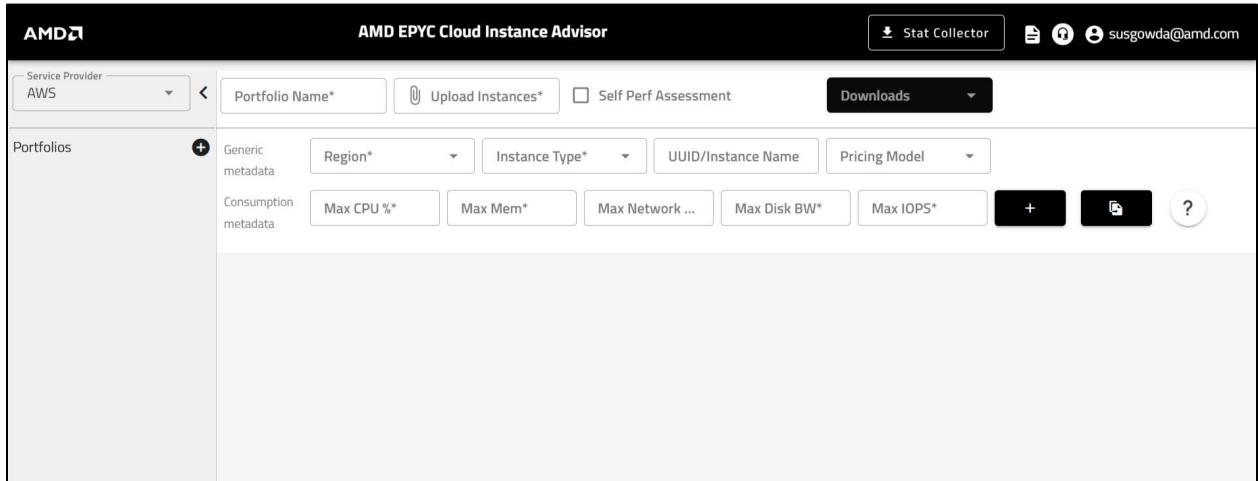
- On the sign-in page, enter the verification code and click “Verify”.



- You will be logged in to the AMD EPYC Cloud Instance Advisor home page.

# Accessing AMD EPYC Cloud Instance Advisor

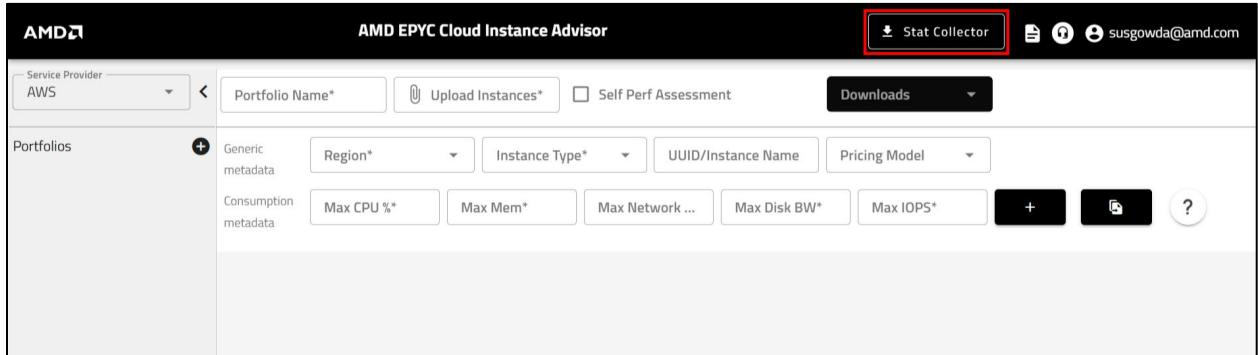
- Upon login, you will be directed to AMD EPYC Cloud Instance Advisor homepage.



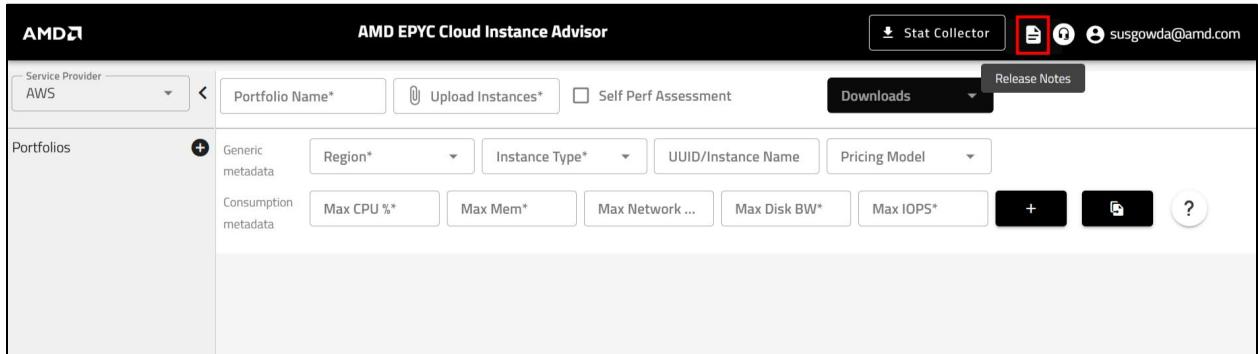
## Navigating to Home Page

Upon accessing the tool, you will be directed to the home page. The navigation bar features buttons and options for different functionalities:

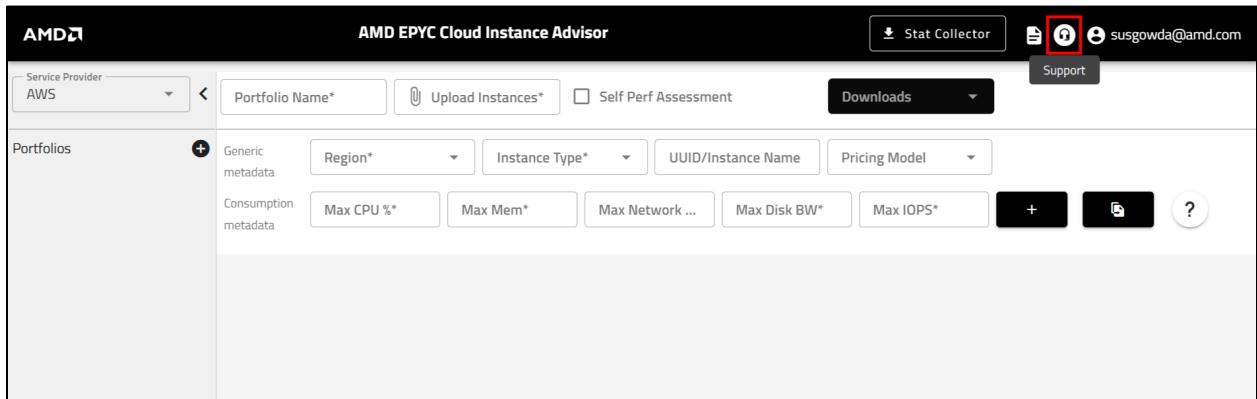
- Stat Collector Download:** Click to download the Stat Collector package.



- Release Notes:** Click the "📄" view the release notes. The release notes will automatically pop up on your first login, and each time a new version is released thereafter.



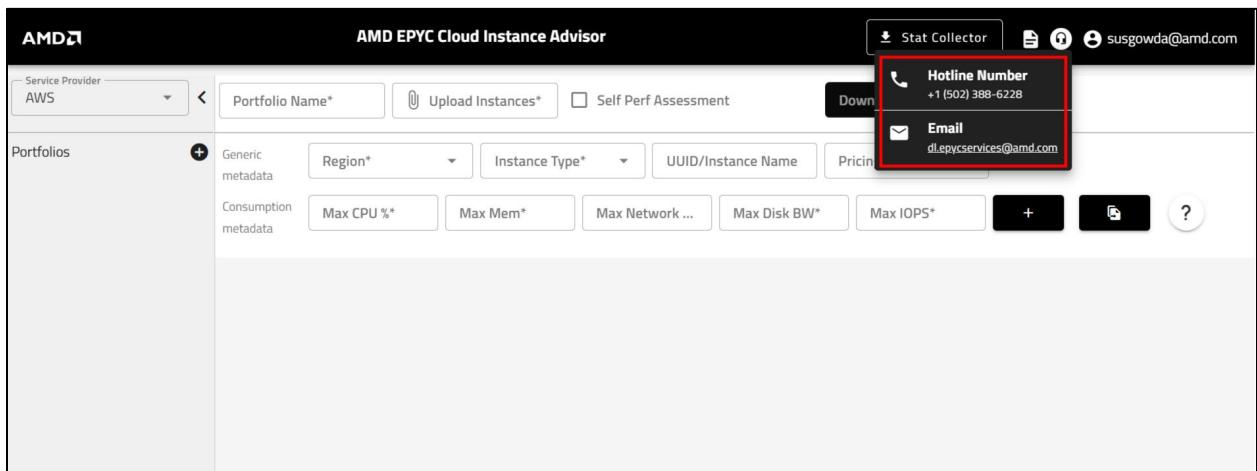
- ▶ **Support:** Represented by the “” icon. If you need assistance or have any questions, click on the support icon to reach out for help.



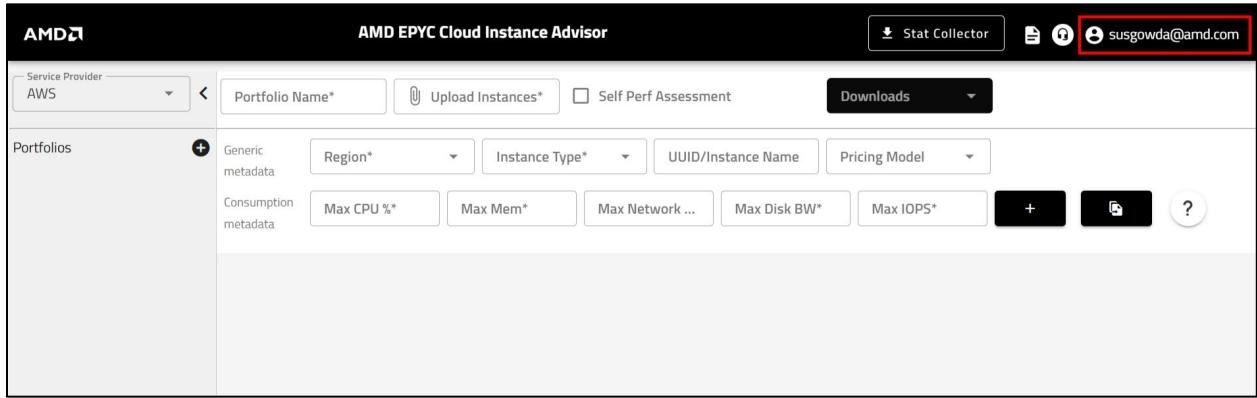
You can connect with us through the hotline number or email us your query:

**Hotline number:** +1 (502) 388-6228

**Email:** [dl.epycservices@amd.com](mailto:dl.epycservices@amd.com)

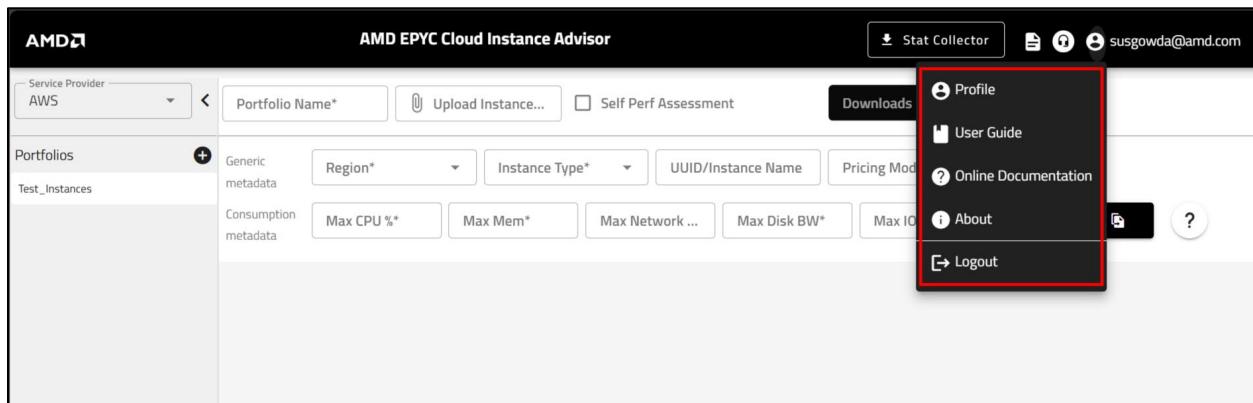


- ▶ **Profile:** Displays the email ID of the logged-in user.



It also provides the following options:

- **Profile:** Click the “” icon to navigate to your profile settings, where you can manage account details and permissions.
- **User Guide:** Click the “” icon to download the user guide for detailed instructions.
- **Online Documentation:** Represented by the “” icon, offers on-screen instructions and information about the current page.
- **About:** Click the “” icon to view an overview of the application
- **Logout:** To log out, click the icon and select the "Logout" option.



## Profile Settings and Role Change Request

When you click on the Profile option (the “” icon), you will be redirected to the Profile Settings page. On this page, you can view the following details:

- **Email:** Your registered email address.
- **Full Name:** Your full name associated with your account.
- **Current Role:** Your current role within the application.

A screenshot of the AMD EPYC Advisory Profile Settings page. The top navigation bar includes the AMD logo, the title 'AMD EPYC Advisory', and the user's email 'susgowda@amd.com'. The main content area is titled 'Profile Settings' with the sub-instruction 'Manage your account details and permissions'. Three specific fields are highlighted with a red box: 'Email' (susgowda@amd.com), 'Full Name' (Sushanth Gowda), and 'Current Role' (admin). Below this, there are two sections: 'Role Change Request' and 'Generate API Key'. The 'Role Change Request' section contains fields for 'Application Name' and 'Role'. The 'Generate API Key' section contains fields for 'Label/Tag' and 'Expires In' (set to 7 days).

Additionally, if you wish to change your role, you can submit a **Role Change Request** directly from the Profile Settings page.

- On the **Profile Settings** page, locate the **Role Change Request** section.
- **Application Name:** Specify the application (either **EIA** or **CCA**) for which you want to change your role.
- **Role:** Choose the role you wish to request. (By default, the current role will be set to "User").
- **Reason for Role Change:** Enter a brief explanation for why you are requesting a role change.

AMD EPYC Advisory

Profile Settings

Manage your account details and permissions

Full Name: Sushanth Gowda

Current Role: admin

**Role Change Request**

Application Name\*: EPYC Cloud Cost ...

Role\*: Manager

Reason for Role Change: Requesting Role Change as Manager

Role Description: All Access

**Submit**

- After reviewing your details, click the **Submit** button. Once submitted, an email notification will be sent to the admin for review and action.

AMD EPYC Advisory

Profile Settings

Manage your account details and permissions

Full Name: Sushanth Gowda

Current Role: admin

**Role Change Request**

Application Name\*: EPYC Cloud Cost ...

Role\*: Manager

Reason for Role Change: Requesting Role Change as Manager

Role Description: All Access

**Submit**

- Your request details will appear in the table. If you wish to cancel the request, click the “**delete** (trash) button”.

The screenshot shows the AMD EPYC Cloud Instance Advisor (EIA) user interface. At the top, there's a navigation bar with the AMD logo, the title "AMD EPYC Advisory", and links for Help, Support, and email (susgowda@amd.com). Below this is a "Profile Settings" section titled "Manage your account details and permissions". It shows basic account info: Email (susgowda@amd.com), Full Name (Sushanth Gowda), and Current Role (admin). There's a "Role Change Request" form with fields for Application Name\*, Role\*, and Reason for Role Change, along with a "Cancel" and "Submit" button. To the right is a "Generate API Key" section with fields for Label/Tag and Expires In (set to 7 days), and a "Generate API Key" button. At the bottom, there's a table listing a single user entry:

Username	Application	Email	Current Role	Requested Role	Requested Date	Actions
Sushanth Gowda	CCA	susgowda@amd.com	admin	Manager	May 26, 2025 12:41 PM	<input type="button" value="Edit"/>

Below the table are pagination controls: "Items per page: 10", "1-1 of 1", and navigation arrows.

- You will receive a notification once your role change request is either approved or rejected by admin of your organization.

## Stat Collector

- ▶ The Stat Collector is a powerful executable tool designed for both Windows and Linux platforms. It efficiently fetches performance metrics from one or multiple instances, consolidating this data into a single XLSX file.
- ▶ This XLSX file can then be uploaded to the AMD EPYC Cloud Instance Advisor (EIA) user interface, enabling you to receive tailored recommendations based on your system's performance.

### Key Components

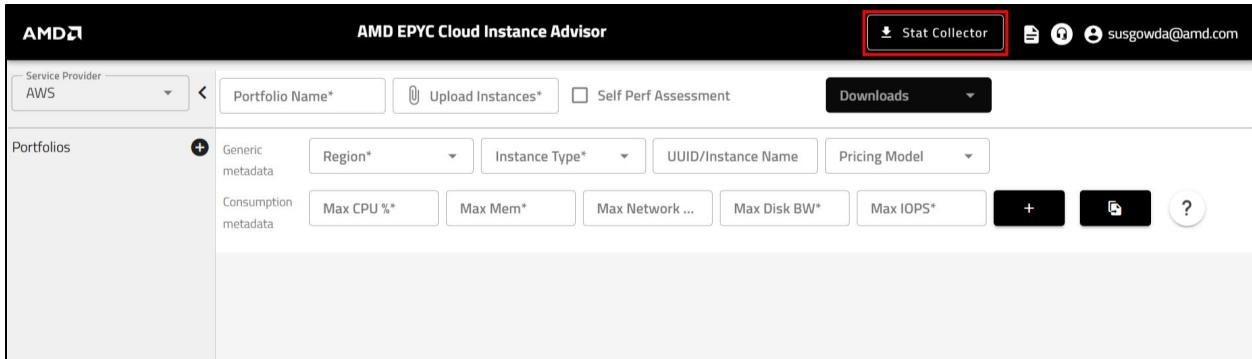
**Stat Collector:** This component is responsible for collecting statistics in real-time from a single node instance. The collected data is stored in a XLSX file for easy upload and analysis.

**Multi Stat Controller:** This component is designed for environments with multiple server nodes. It collects stats in real-time from all specified nodes and combines the data into a single output XLSX file.

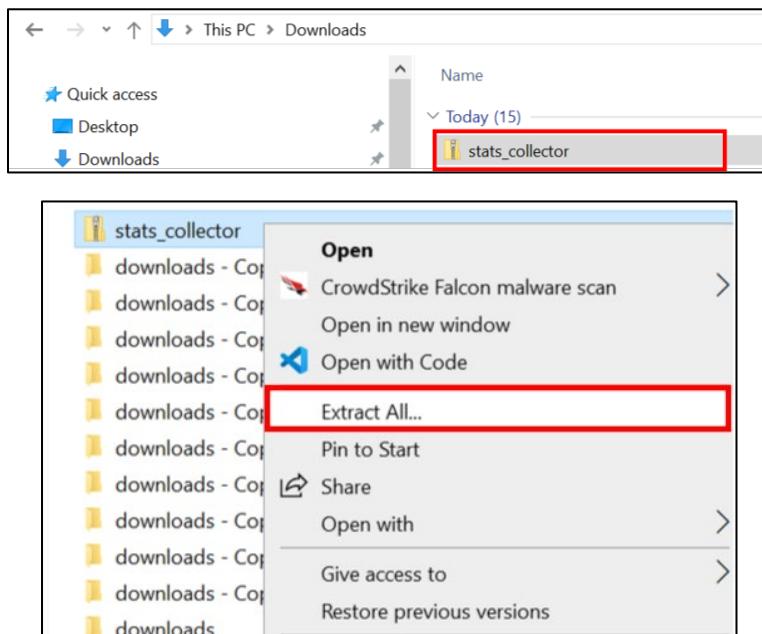
### Stat Collector Download

To begin using the Stat Collector, follow these steps to download and prepare the tool for execution:

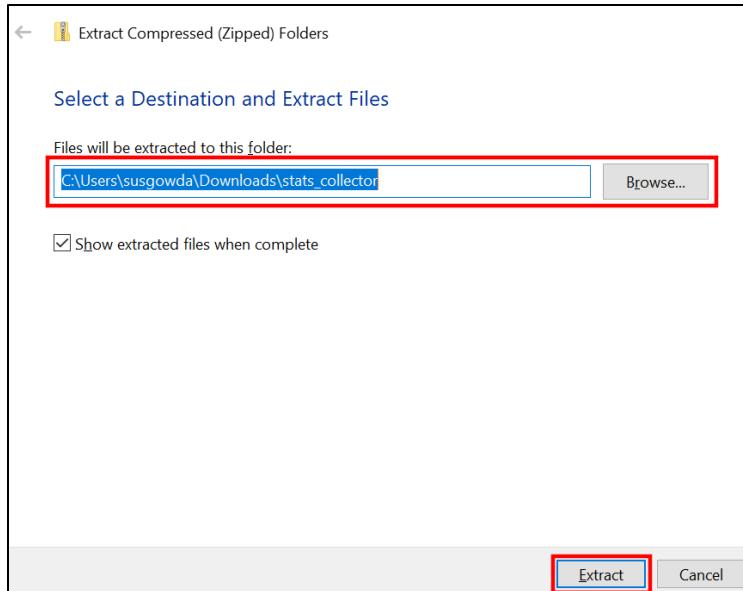
- Navigate to the EIA portal.
- Click on '**Download Stat Collector**' to download the `stat\_collector.zip` file.



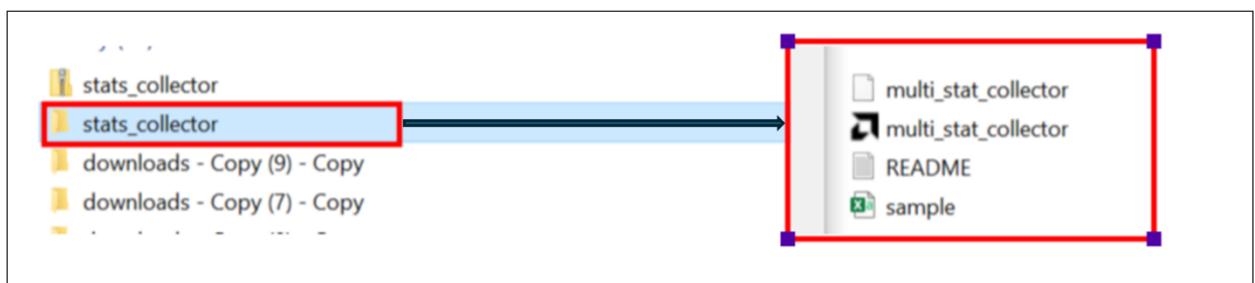
- Once the download is complete, unzip the file to a specific location on your machine where you can easily access it.
  - Right-click the zipped folder and choose **Extract All**.



- Select a folder to unzip to.
- If you want to place the unzipped files in a location other than the current folder in which the ZIP folder is stored, click **Browse** and choose the desired folder.
- Click **Extract**.



5. This extracts the ZIP file's contents to an unzipped folder in the selected location.
6. The extracted stat\_collector folder includes the following:
  - i. **multi\_stat\_collector**: A binary file that works on Linux to execute the stat\_collector.
  - ii. **multi\_stat\_collector.exe**: An executable file for Windows to run the stat\_collector.
  - iii. **README**: A text file containing execution instructions
  - iv. **Sample**: A sample input file for the stat\_collector when running the executable remotely.



## Stat Collector Execution

The stat\_collector component allows you to collect statistics in real-time from a single instance. Follow these steps to execute it:

- ▶ **Open a Command Prompt or Terminal:** Navigate to the directory where the 'stat\_collector' executable is located.

```
azureadmin@collect-azure-instance-data:~/stat$ ls
stat_collector.zip
azureadmin@collect-azure-instance-data:~/stat$ unzip stat_collector.zip
Archive: stat_collector.zip
  inflating: multi_stat_collector
  inflating: multi_stat_collector.exe
  inflating: README.txt
  inflating: sample.csv
azureadmin@collect-azure-instance-data:~/stat$ ls
README.txt  multi_stat_collector  multi_stat_collector.exe  sample.csv  stat_collector.zip
azureadmin@collect-azure-instance-data:~/stat$
```

- ▶ **Run the Command:** Execute the command to start collecting stats. The tool will gather performance metrics and store them in a XLSX file.

**a. For Linux:**

- Assign permission for execution.

```
azureadmin@collect-azure-instance-data:~/stat$ chmod +x multi_stat_collector
azureadmin@collect-azure-instance-data:~/stat$ ls
README.txt  multi_stat_collector  multi_stat_collector.exe  sample.csv  stat_collector.zip
azureadmin@collect-azure-instance-data:~/stat$
```

- Execute the command to start collecting stats.

```
azureadmin@collect-azure-instance-data:~/stat$ ./multi_stat_collector -d 30s -i 5 -t run_azure
Collecting data for 30s duration at 5s interval.
CSV file created: run_azure_2e95f9518c9f64c02fce7cbb2ebe142b.csv
```

- ▶ **Locate the Output XLSX File:** Once the collection is complete, you will find the generated XLSX file in the specified output location.

multi_stat_collector	10/15/2024 5:19 PM	File	45,229 KB
multi_stat_collector	10/15/2024 5:19 PM	Application	37,314 KB
README	10/15/2024 5:19 PM	Text Document	7 KB
sample	10/15/2024 5:19 PM	Microsoft Excel Com...	1 KB
test_18c82bb6db308378c15d88d3a4b64f52	10/16/2024 10:05 AM	Microsoft Excel Com...	1 KB

- ▶ **Help Command:** For description of parameters, execute the help command:

```
azureadmin@collect-azure-instance-data:~/stat$ ./multi_stat_collector -h
usage: multi_stat_collector [-h] -d DURATION -t TAG -i INTERVAL [-f FILE]

Process command-line arguments for duration, tag, and interval.

optional arguments:
-h, --help            show this help message and exit
-d DURATION, --duration DURATION
                      Duration in seconds
-t TAG, --tag TAG    Tag for identification
-i INTERVAL, --interval INTERVAL
                      Interval in seconds
-f FILE, --file FILE Path to the CSV file containing remote machine details

Example usage: ./multi_stat_collector.exe -d 10m -t my_tag -i 5
azureadmin@collect-azure-instance-data:~/stat$
```

### b. For Windows:

```
C:\Users\susgowda\Downloads\stat_collector>multi_stat_collector.exe -d 30s -t test -i 5
Collecting data for 30s duration at 5s interval.
CSV file created: test_18c82bb6db308378c15d88d3a4b64f52.csv
```

- ▶ **Locate the Output XLSX File:** Once the collection is complete, you will find the generated XLSX file in the specified output location.

multi_stat_collector	10/15/2024 5:19 PM	File	45,229 KB
multi_stat_collector	10/15/2024 5:19 PM	Application	37,314 KB
README	10/15/2024 5:19 PM	Text Document	7 KB
sample	10/15/2024 5:19 PM	Microsoft Excel Com...	1 KB
test_18c82bb6db308378c15d88d3a4b64f52	10/16/2024 10:05 AM	Microsoft Excel Com...	1 KB

## Multi-node Execution

If you need to collect statistics from multiple server nodes, use the `multi_stat_controller` component. Follow these steps to execute it:

**Note:** You should have the sample file with the details below to execute `multi_stat_controller`:

- **OS:** This indicates the type of operating system running on the target machine, such as Linux or Windows
- **IP:** This is the Internet Protocol address of the remote machine to establish a connection and execute `stat_collector`.
- **Username:** This is the name of the user account used to connect to the remote system. It is required for authenticating the connection.
- **Pem\_key:** The PEM (Privacy-Enhanced Mail) key is a private key file used for secure SSH connections, primarily to Linux servers.
- **Password:** This is the password associated with the user account on the remote machine.

A	B	C	D	E
os	ip	username	pem_key	password
linux	xx.xx.xx.xx	admin	/home/connection.pem	
windows	xx.xx.xx.xx	Administrator		8TB*****V

1. **Open a Command Prompt or Terminal:** Navigate to the directory where the `'multi_stat_controller'` executable is located.
2. **Run the Command:** Execute the command to start collecting stats from all specified nodes. The tool will aggregate the data into a single XLSX file.

```
azureadmin@collect-azure-instance-data:~/stat$ ./multi_stat_collector -d 30s -i 5 -t run_azure -f sample.csv
Total number of hosts listed in the given input file: 2
*****
Connected and executing stat_collector on admin@[REDACTED]
Connected and executing stat_collector.exe on Administrator@[REDACTED]
Finished execution on admin@[REDACTED]
Finished execution on Administrator@[REDACTED]
*****
CSV file created: epyc_advisor_run_azure_1728388241.csv
azureadmin@collect-azure-instance-data:~/stat$
```

3. **Locate the Combined Output XLSX File:** After the collection process is complete, the resulting XLSX file containing metrics from all nodes will be saved in the designated output location.

epycadvisor_multi_node_session_1719221027_...	10/16/2024 3:55 PM	Microsoft Excel Com...	1 KB
multi_stat_collector	10/15/2024 5:19 PM	File	45,229 KB
multi_stat_collector	10/15/2024 5:19 PM	Application	37,314 KB
README	10/15/2024 5:19 PM	Text Document	7 KB
sample	10/16/2024 3:55 PM	Microsoft Excel Com...	1 KB
test_18c82bb6db308378c15d88d3a4b64f52	10/16/2024 10:05 AM	Microsoft Excel Com...	1 KB

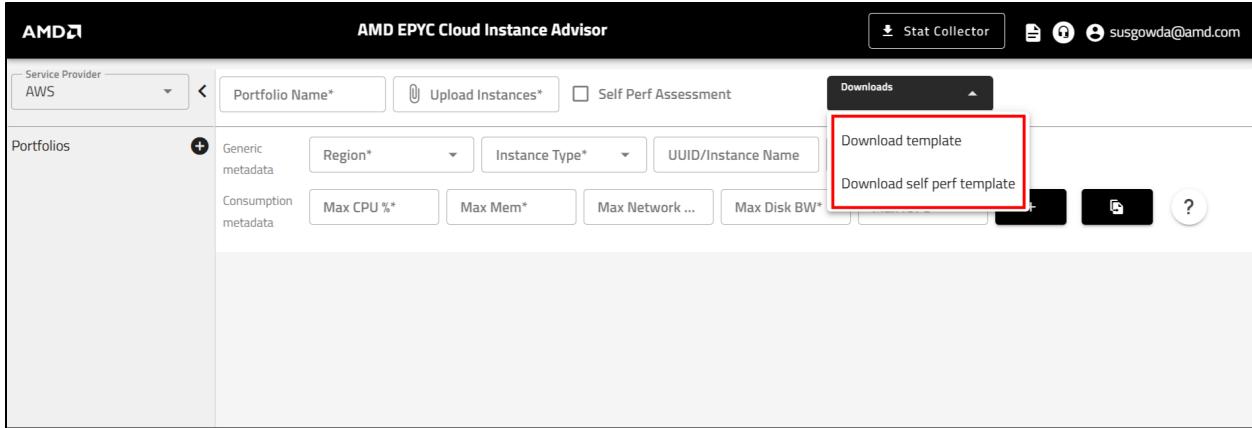
## Downloads

This section provides options to download the templates, allowing you to update the details manually for the upload.

- ▶ Click on “Downloads”.

The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there's a navigation bar with the AMD logo, the title "AMD EPYC Cloud Instance Advisor", and user information (susgowda@amd.com). Below the title, there are several input fields: "Service Provider" (set to AWS), "Portfolio Name\*", "Upload Instances\*", "Self Perf Assessment" (unchecked), and a "Downloads" button which is highlighted with a red box. To the left, there's a sidebar titled "Portfolios" with a "+" button. On the right, there are dropdown menus for "Region\*", "Instance Type\*", "UUID/Instance Name", and "Pricing Model". Below these are four input fields labeled "Max CPU %\*", "Max Mem\*", "Max Network ...", and "Max Disk BW\*". There are also "Max IOPS\*" and a "Help" (?) button. A "Print" icon is also visible.

- ▶ You will see options to download templates for **Instance Details** and **Self-Perf Assessment**. The Self-Perf Template is optional and can be filled out if applicable.



- ▶ In the Instance Details template, fill in the following details:
  - **uuid**: This is a unique identifier for the system, generated based on the system's fully qualified domain name (FQDN).
  - **Cloud (CSP)**: This indicates the cloud service provider (CSP) that hosts the instance.
  - **Instance type**: Refers to the specific hardware configuration of a cloud instance.
  - **Region**: The geographical location of the data center where the instance is hosted
  - **max cpu%**: Represents the maximum CPU utilization percentage recorded during the execution period
  - **max mem used**: Indicates the maximum amount of memory (RAM) used during the execution period, measured in gigabytes (GB).
  - **max network bw**: The maximum network bandwidth utilization recorded, measured in megabits per second (Mbps).
  - **max disk bw used**: The maximum disk bandwidth usage observed during the period, measured in bytes per second.
  - **max iops**: The maximum Input/Output Operations Per Second (IOPS) observed.
  - **Pricing Model**: The pricing model of the current instance (ondemand, reserved, or spot).

**Note:** Cloud service providers (CSPs) offer spot instances at discounted rates, but pricing is dynamic and depends on current demand and capacity. Availability is not guaranteed, and instances can be reclaimed by the CSP at any time for workloads that can handle interruptions.

A	B	C	D	E	F	G	H	I	J	
1	uuid	cloud_csp	instance type	region	max cpu%	max mem used	max network bw	max disk bw used	max iops	Pricing Model
2										
3										
4										
5										
6										
7										
8										

- ▶ In the Self-Perf Assessment template, fill in the following details: (Optional)
  - Instance Type
  - SAPs (Self-Perf Assessment Points)

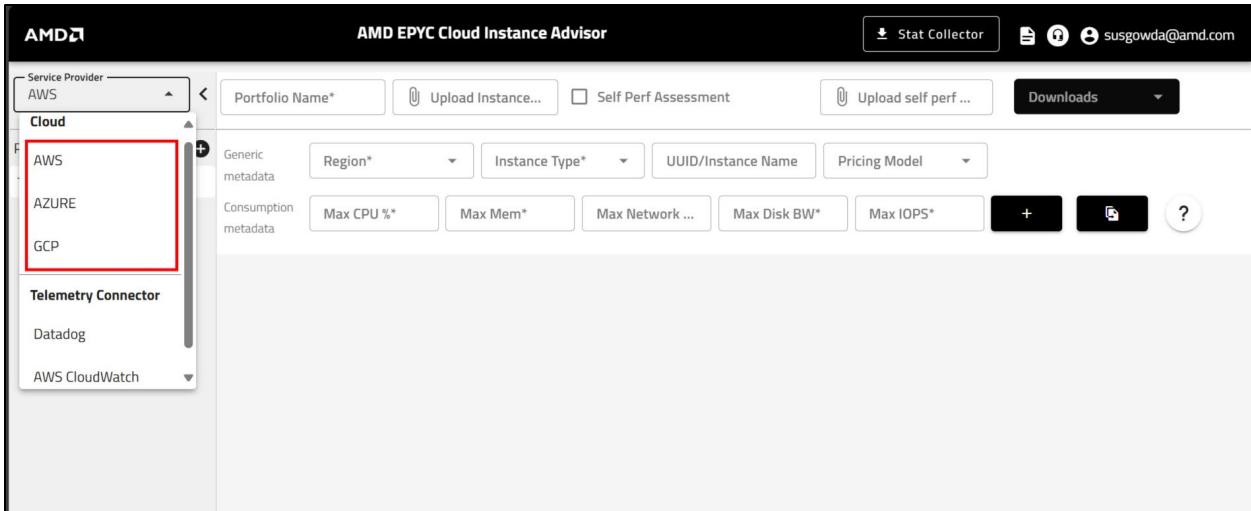
A	B	C	D	E	F
1	instance type	performance score			
2					
3					
4					
5					
6					
7					
8					
9					
10					

## Upload Stats

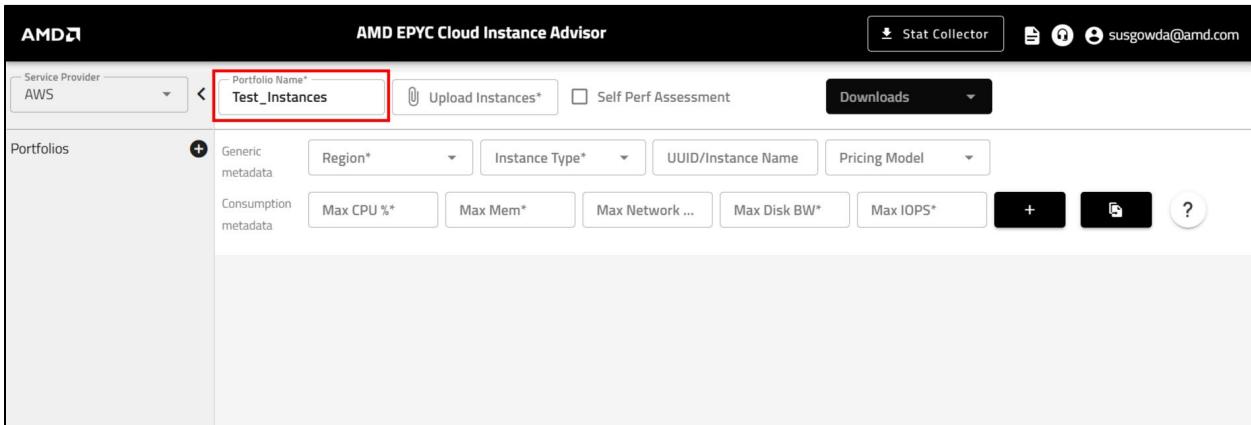
- ▶ After executing the Stat Collector, you will have a generated XLSX file containing a comprehensive set of system metrics for one or multiple instances. This file includes critical information such as:
  - Instance type
  - CPU utilization
  - Memory usage
  - Disk IOPS
  - Bandwidth
  - Network performance
- ▶ This file serves as the primary input for the AMD EPYC Cloud Instance Advisor (EIA) user interface.
- ▶ Additionally, you can browse and upload the updated template file containing the instance details, as well as upload your own metrics or self-performance assessment data.

## Steps to Upload the File

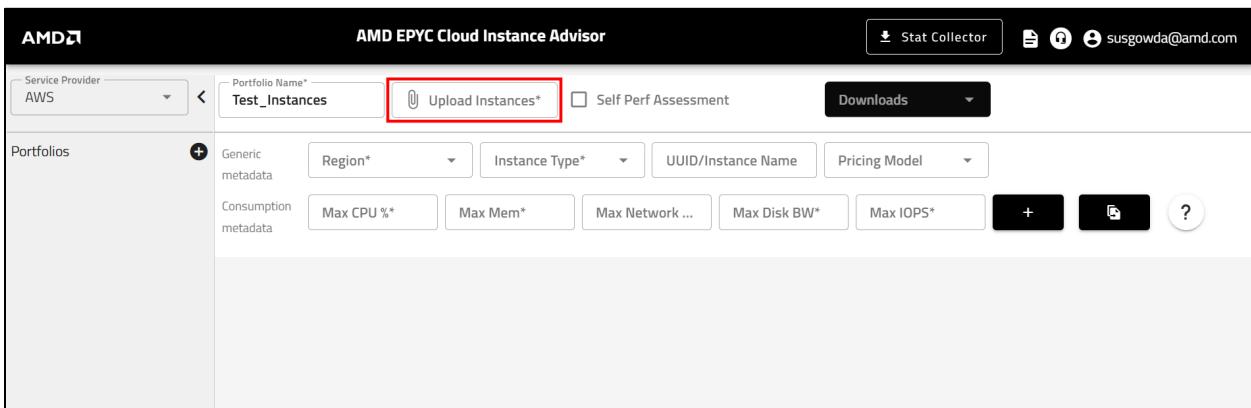
1. Choose the **Cloud Service Provider**.



## 2. Enter the Portfolio name.



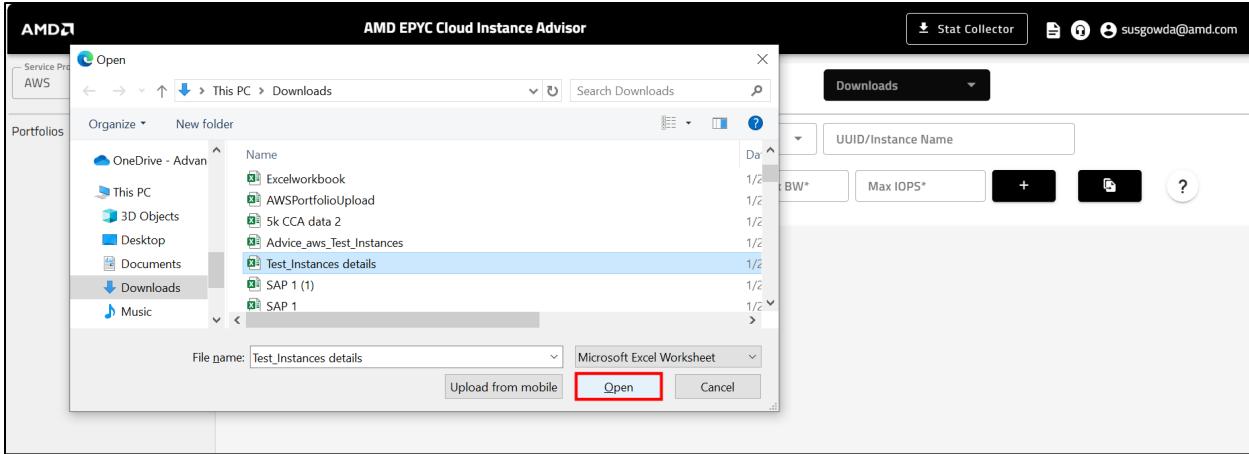
## 3. Locate the Upload Section and click the Upload Instances button.



## 4. Browse and select the file with instance details. Users can upload XLSX format files.

## 5. Once the file is selected, click Open to submit the file for analysis.

**Note:** Upload a file with a maximum of 20,000 records.

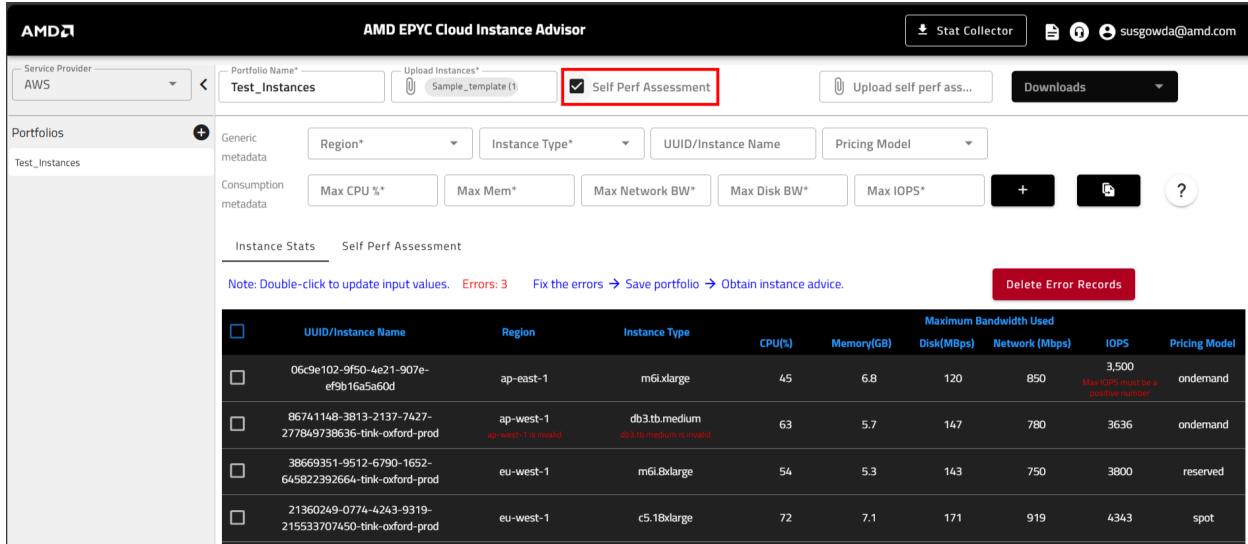


6. After the file is uploaded, the **instance details** will be reflected in the table under the “**Instance Stats**” section.

	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	06c9e102-9f50-4e21-907e-ef9b16a5a60d	ap-east-1	m6i.xlarge	45	6.8	120	850	3,500 <small>Max IOPS must be a positive number</small>	ondemand
<input type="checkbox"/>	86741148-3813-2137-7427-277849730636-tink-oxford-prod	ap-west-1 <small>ap-west-1 is invalid</small>	db3.tb.medium <small>db3.tb.medium is invalid</small>	63	5.7	147	780	3636	ondemand
<input type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
<input type="checkbox"/>	21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

### Self-Perf Assessment:

1. Check the box to enable the upload field for the **Self-Perf Assessment** file.



The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there's a navigation bar with the AMD logo, user information (susgowda@amd.com), and a Stat Collector button. Below the navigation is a search bar with fields for 'Portfolio Name' (set to 'Test\_Instances'), 'Upload Instances' (with a 'Sample\_template (1)' button), and a checked checkbox for 'Self Perf Assessment'. There are also 'Downloads' and a 'Stat Collector' button.

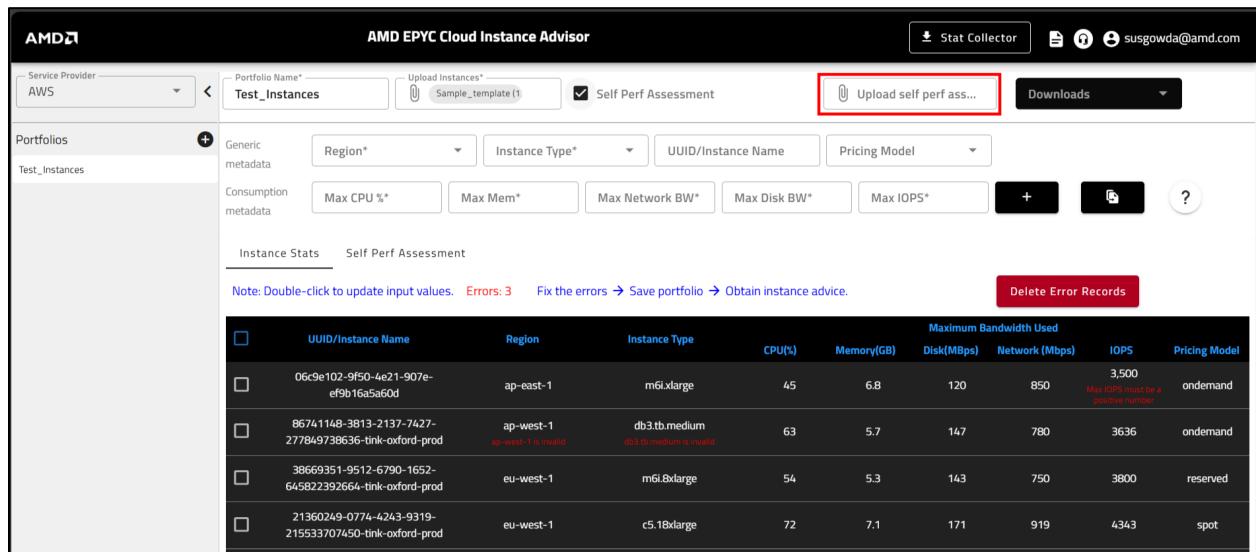
The main area is titled 'Portfolios' and shows a list of instances under 'Test\_Instances'. It includes sections for 'Generic metadata' (Region\*, Instance Type\*, UUID/Instance Name, Pricing Model) and 'Consumption metadata' (Max CPU %\*, Max Mem\*, Max Network BW\*, Max Disk BW\*, Max IOPS\*). Buttons for '+' and '?' are available.

Below these settings are two tabs: 'Instance Stats' (selected) and 'Self Perf Assessment'. A note at the bottom says: 'Note: Double-click to update input values. Errors: 3 Fix the errors → Save portfolio → Obtain instance advice.' A red box highlights the 'Self Perf Assessment' tab. A 'Delete Error Records' button is also present.

The data table below lists four instances:

	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(MBps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	06c9e102-9f50-4e21-907e-ef9b16a5a60d	ap-east-1	m6i.xlarge	45	6.8	120	850	3,500 <small>Max IOPS must be a positive number</small>	ondemand
<input type="checkbox"/>	86741148-3813-2137-7427-277849738636-tink-oxford-prod	ap-west-1 <small>ap-west-1 is invalid</small>	db3.tb.medium <small>db3.tb.medium is invalid</small>	63	5.7	147	780	3636	ondemand
<input type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
<input type="checkbox"/>	21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

## 2. Click Upload Self-Perf Assessment.



This screenshot is identical to the one above, but the 'Upload self perf ass...' button in the top right of the header is highlighted with a red box.

3. Browse and select the file with self-performance assessment data. Users can upload only **XLSX** format files.
4. Once the file is selected, click **Open** to submit the file for analysis.
5. To view the uploaded **Self-Perf Assessment** details, navigate to the “**Self-Perf Assessment**” tab.

The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there are dropdowns for 'Service Provider' (set to AWS) and 'Portfolio Name' (set to 'Test\_Instances'). Below these are buttons for 'Upload Instances' (with 'Test\_Instances' selected), 'Self Perf Assessment' (checked), and 'Downloads'. A red box highlights the 'Self Perf Assessment' tab. The main area displays 'Instance Stats' for SAPs, listing the following data:

Instance Type	saps
m5.metal	142000
m5.2xlarge	135230
m5.16xlarge	90153
m5.12xlarge	67615
m5.8xlarge	45077

- If any instance upload fails, an error message will appear on the screen with specific comments for the failed instances.

The screenshot shows the same interface after an instance upload attempt. The 'Self Perf Assessment' tab is still active. A red box highlights the 'Self Perf Assessment' tab. Below it, an error message is displayed: "Note: Double-click to update input values. Errors: 3 Fix the errors → Save portfolio → Obtain instance advice." A red box highlights the 'Delete Error Records' button. The main table shows the following data with validation errors:

UUID/Instance Name	Region	Instance Type	Maximum Bandwidth Used						Pricing Model
			CPU(%)	Memory(GB)	Disk(MBps)	Network (Mbps)	IOPS		
06c9e102-9f50-4e21-907e-e9b16a560d	ap-east-1	m6i.xlarge	45	6.8	120	850	3,500	ondemand	
B6741148-3813-2137-7427-277849738636-tink-oxford-prod	ap-west-1	db3.tb.medium	63	5.7	147	780	3636	ondemand	
38669351-9512-5790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved	
21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot	

A red box highlights the 'ap-west-1' region value and the 'db3.tb.medium' instance type value in the second row, both of which are marked as invalid.

- You can update the information by **double-clicking** on the field.

The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there are service provider dropdowns for AWS, portfolio name (Test\_Instances), and instance type (Region, Instance Type, UUID/Instance Name, Pricing Model). Below these are consumption metadata fields for Max CPU %, Max Mem, Max Network BW, Max Disk BW, and Max IOPS. A 'Self Perf Assessment' checkbox is checked. On the right, there are buttons for 'Stat Collector', 'SAP.csv', and 'Downloads'. The main area shows portfolios under 'Test\_Instances'. A dropdown menu is open over the 'Instance Type' field, listing regions and instance types: af-south-1, ap-east-1, ap-northeast-1, ap-northeast-2, ap-northeast-3, ap-south-1, and ap-west-1. The 'ap-west-1' option is highlighted with a red box. To the right is a table of instance details with columns: Instance Type, CPU(%), Memory(GB), Disk(MBPs), Network (Mbps), IOPS, and Pricing Model. One row shows an error: 'db3.tb.medium' is invalid, with a note 'Max IOPS must be a positive number'.

### Note:

- If the cloud is empty, invalid, or unsupported, it will be converted to the default CSP selected.
- 8. Once you've made the necessary edits, click anywhere on the table to apply the changes. The table will update with the new information.

### Find & Replace:

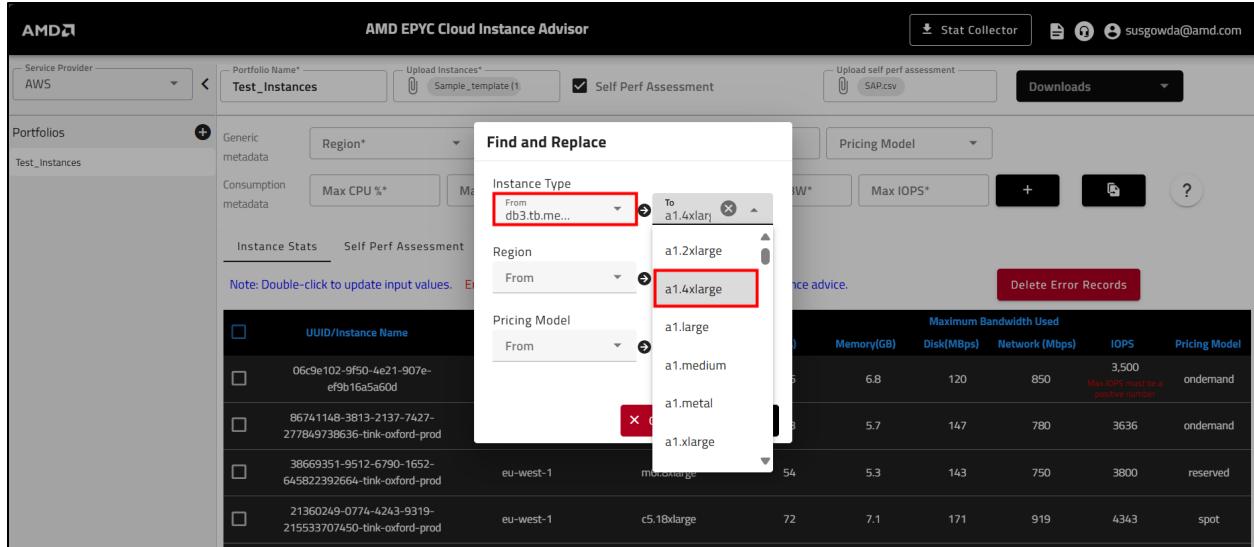
You can also update or modify field values using the Find & Replace option.

1. Click on Find & Replace.

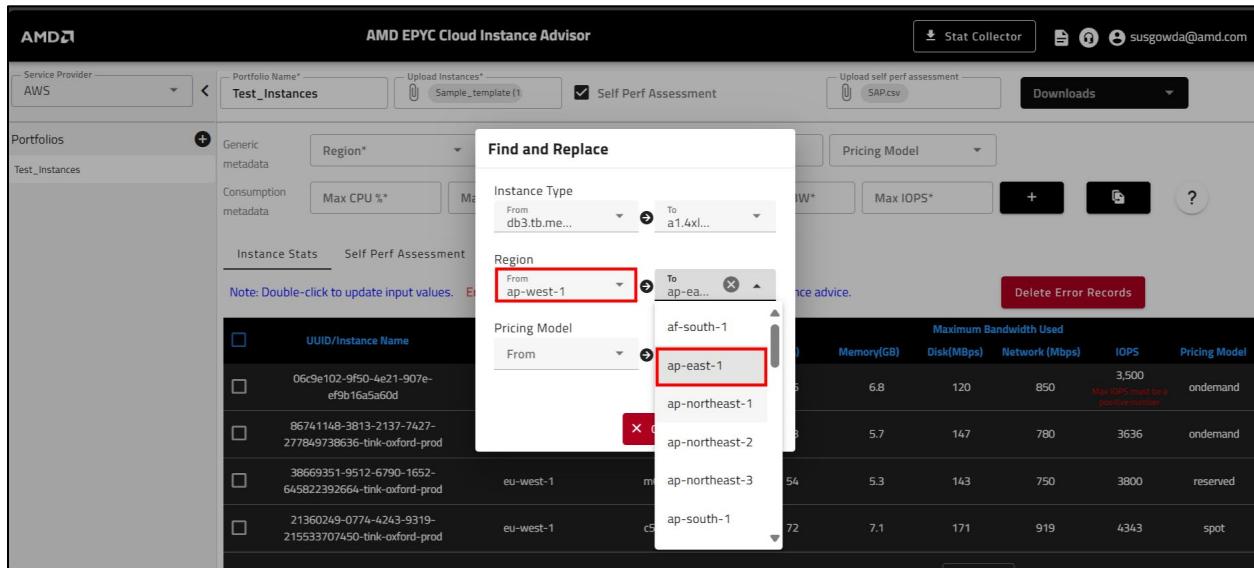
The screenshot shows the same interface as above, but the 'Find & Replace' button in the top right corner is highlighted with a red box. The table below shows the same instance data as before, with one row containing an error: 'db3.tb.medium' is invalid, with a note 'Max IOPS must be a positive number'.

2. Find and replace the values as needed:

- a) **Instance Type:** From the “From” dropdown, select the instance type that you wish to change, then choose the desired instance type from the “To” dropdown



- b) **Region:** From the “From” dropdown, select the region that you wish to change, then choose the desired region from the “To” dropdown.



3. Click **Replace All**. This will replace all selected instance types and regions with the chosen values.

Instance Type	Region	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
db3.tb.medium	ap-east-1	63	5.7	147	780	3636	ondemand
m6i.8xlarge	eu-west-1	54	5.3	143	750	3800	reserved
c5.18xlarge	eu-west-1	72	7.1	171	919	4343	spot

4. If needed, repeat the above step for other Instance Types, Regions, or Pricing Models.
5. Click **Save** to apply changes.

### Delete Error Records:

1. To delete all the error records at once, click on the "**Delete Error Records**" button.

UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
06c9e102-9f50-4e21-907e-ef9b16a5a60d	ap-east-1	m6i.8xlarge	45	6.8	120	850	3,500	ondemand
86741148-3813-2137-7427-277849738636-tink-oxford-prod	ap-west-1	db3.tb.medium	63	5.7	147	780	3636	ondemand
38669351-9512-6790-1652-645922392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

2. A confirmation popup will appear asking you to confirm the deletion.
3. To confirm, click the "**Delete**" button in the popup. This will remove all the error records from your list.

The screenshot shows the AMD EPYC Cloud Instance Advisor interface. A modal dialog box titled "Confirm Delete Error Records?" is displayed in the center. It contains the question "Are you sure you want to delete?" with "Cancel" and "Delete" buttons. The "Delete" button is highlighted with a red box. In the background, there is a table of instance statistics with two rows visible. The first row has a checkbox next to "UUID/Instance Name". The second row has checkboxes for "Region", "Instance Type", "CPU(%)", "Memory(GB)", "Disk(MBps)", "Network (Mbps)", "IOPS", and "Pricing Model". The "IOPS" column for the second row shows a validation error: "Max IOPS must be a positive number". The "Pricing Model" column for the second row shows "ondemand".

#### 4. Click “Save” to apply changes.

The screenshot shows the AMD EPYC Cloud Instance Advisor interface after changes have been saved. The modal dialog from the previous step is no longer present. The table of instance statistics now shows two rows. The first row has a checkbox next to "UUID/Instance Name". The second row has checkboxes for "Region", "Instance Type", "CPU(%)", "Memory(GB)", "Disk(MBps)", "Network (Mbps)", "IOPS", and "Pricing Model". The "IOPS" column for the second row now shows "3800" and the "Pricing Model" column shows "reserved". At the bottom of the page, there is a note: "Note: Please upload file with maximum of 20,000 records" and a "Save" button, which is highlighted with a red box. Other buttons like "Cancel" and "Instance advice" are also visible.

#### 5. After saving, you can view the added portfolio in the portfolios list on the left side of the page.

The screenshot shows the AMD EPYC Cloud Instance Advisor interface after changes have been saved. The left sidebar now lists the portfolio "Test\_Instances1" under the "Portfolios" section, with a red box highlighting it. The main content area displays the same table of instance statistics as before, with two rows. The first row has a checkbox next to "UUID/Instance Name". The second row has checkboxes for "Region", "Instance Type", "CPU(%)", "Memory(GB)", "Disk(MBps)", "Network (Mbps)", "IOPS", and "Pricing Model". The "IOPS" column for the second row shows "3800" and the "Pricing Model" column shows "reserved". The "Save" button at the bottom of the page is no longer highlighted.

## Adding Instances:

1. To add additional instances, select the portfolio and fill in the below details:

### 1. Under Generic Metadata:

- Select the Region
- Select the Instance Type
- Enter UUID/Instance Name
- Pricing Model (ondemand, reserved, or spot)

### 2. Under Consumption Metadata, enter the data/values for:

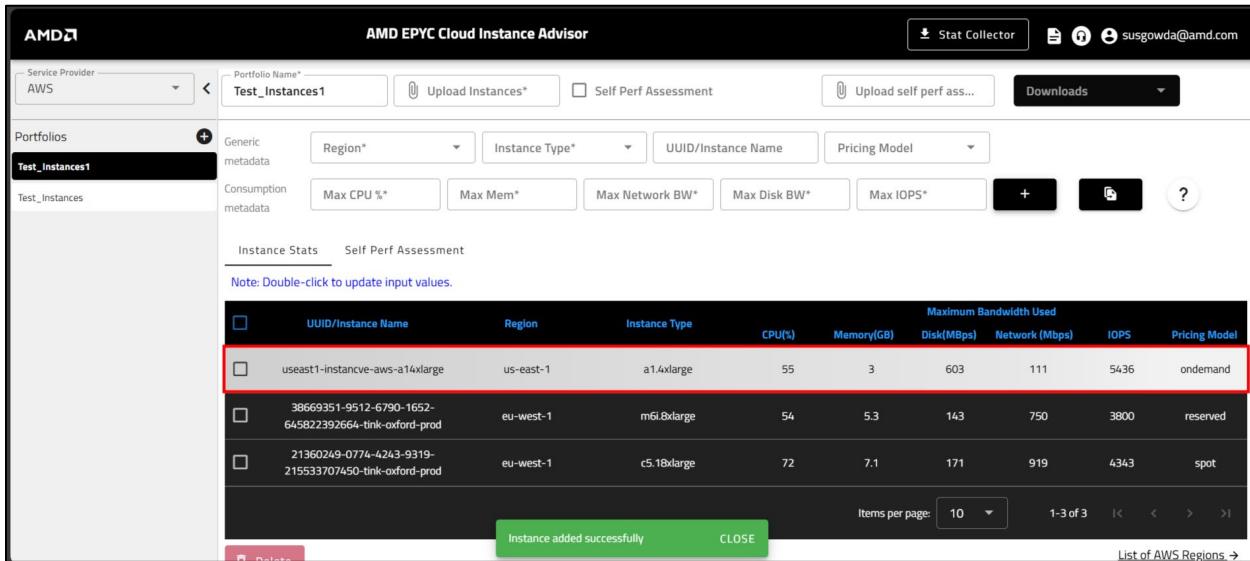
- Max CPU%
- Max Memory
- Max Network Bandwidth
- Max Disk Bandwidth
- Max IOPS

Region*	Instance Type*	UUID/Instance Name	Pricing Model	
us-east-1	a1.4xlarge	useast1-instancne-aws-a	ondemand	
Max CPU %*	Max Mem*	Max Network BW*	Max Disk BW*	Max IOPS*
55	3.0	111	603	5436

2. Click on the Add Instance button (indicated by the + symbol).

UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

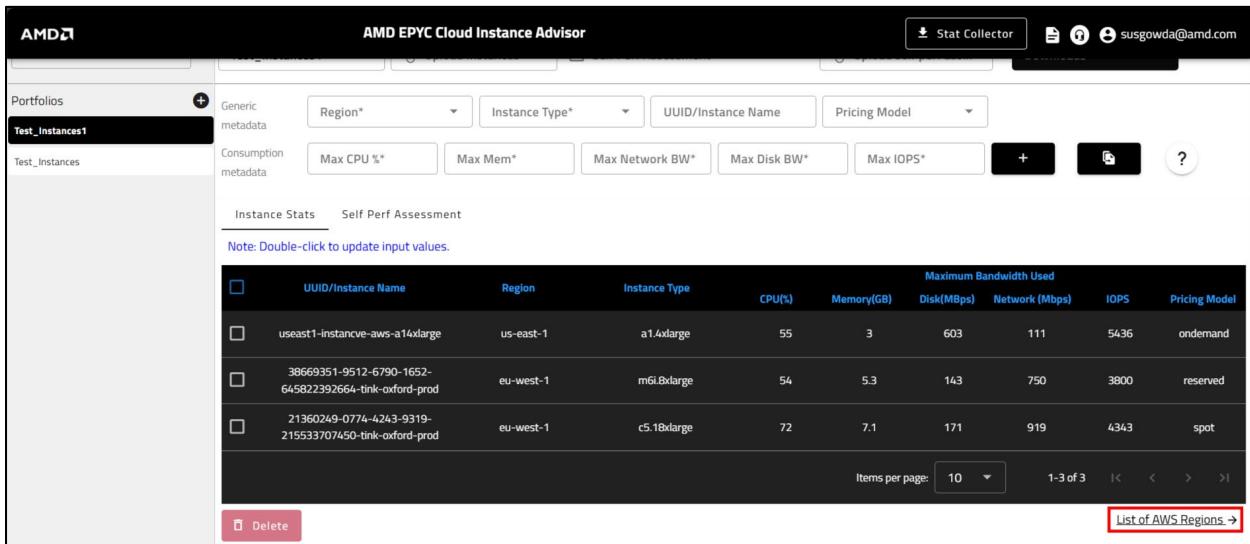
3. The entered instance details will be added to the table.



The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there's a header with the AMD logo, a Stat Collector button, and a user email (susgowda@amd.com). Below the header, the service provider is set to AWS, and the portfolio name is "Test\_Instances1". There are buttons for "Upload Instances\*", "Self Perf Assessment", "Upload self perf ass...", and "Downloads". On the left, there's a sidebar with "Portfolios" and "Test\_Instances1" selected. The main area has tabs for "Instance Stats" and "Self Perf Assessment", with a note: "Note: Double-click to update input values." Below this is a table with columns: UUID/Instance Name, Region, Instance Type, CPU(%), Memory(GB), Disk(MBps), Network (Mbps), IOPS, and Pricing Model. Three instances are listed: one in us-east-1 and two in eu-west-1. A green success message at the bottom says "Instance added successfully" with a "CLOSE" button. At the bottom right, there are links for "List of AWS Regions" and "List of GCP Regions".

	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(MBps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	useast1-instancve-aws-a14xlarge	us-east-1	a1.4xlarge	55	3	603	111	5436	ondemand
<input type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
<input type="checkbox"/>	21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

4. Click on "**List of AWS Regions**" below the instance list table to view the supported AWS regions and instances. Similarly, when you select Azure as your cloud provider, click "**List of Azure Regions**" or "**List of GCP Regions**" to explore the supported Azure or GCP regions and instances.



This screenshot shows the same interface as the previous one, but the "List of AWS Regions" link at the bottom right is highlighted with a red box. The rest of the interface is identical to the first screenshot, showing the instance list and the success message.

5. Click **Save** to save the updated details to the portfolio.

The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there's a navigation bar with the AMD logo, user information (susgowda@amd.com), and a 'Stat Collector' button. Below the header, the main interface has a sidebar on the left with 'Portfolios' and a list item 'Test\_Instances1'. The main content area is titled 'AMD EPYC Cloud Instance Advisor' and contains several search and filter fields: 'Region\*', 'Instance Type\*', 'UUID/Instance Name', and 'Pricing Model'. There are also input fields for 'Max CPU %\*', 'Max Mem\*', 'Max Network BW\*', 'Max Disk BW\*', and 'Max IOPS\*'. A 'Delete' button is located at the bottom of this section.

The central part of the screen displays a table of instance statistics. The columns include: **UUID/Instance Name**, **Region**, **Instance Type**, **CPU(%)**, **Memory(GB)**, **Disk(Mbps)**, **Network (Mbps)**, **IOPS**, and **Pricing Model**. The table lists three instances:

UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
useast1-instance-aws-a14xlarge	us-east-1	a14xlarge	55	3	603	111	5436	ondemand
30669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

At the bottom of the table, there are buttons for 'Items per page' (set to 10), '1-3 of 3', and navigation arrows. A note says 'Note: Double-click to update input values.' and a link 'List of AWS Regions'.

At the very bottom, there are buttons for 'Cancel', 'Delete portfolio', 'Save' (which is highlighted with a red box), and 'Instance advice'.

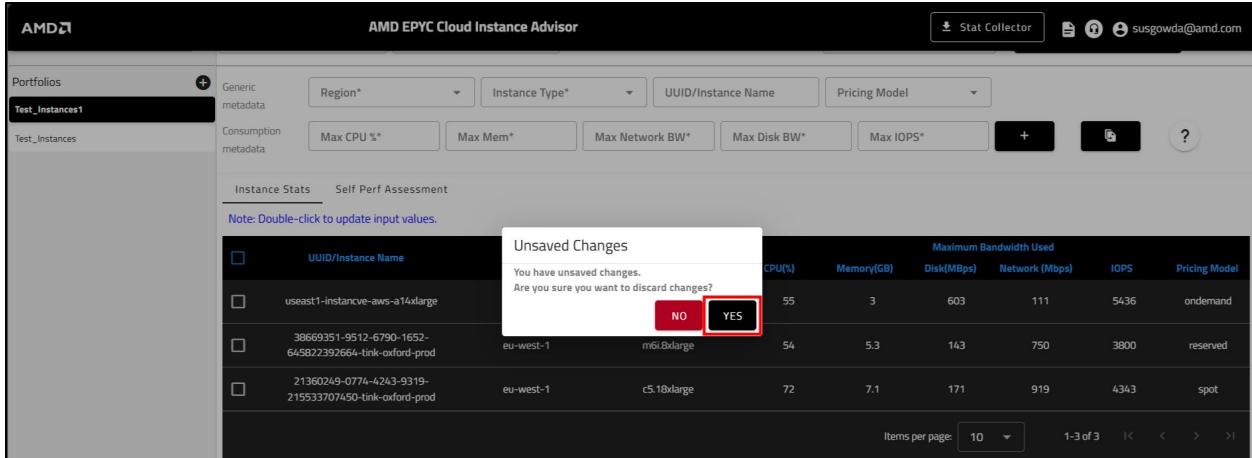
## User Actions

### Remove Unsaved Instances

- To remove the unsaved instances from the list, click “**Cancel**”.

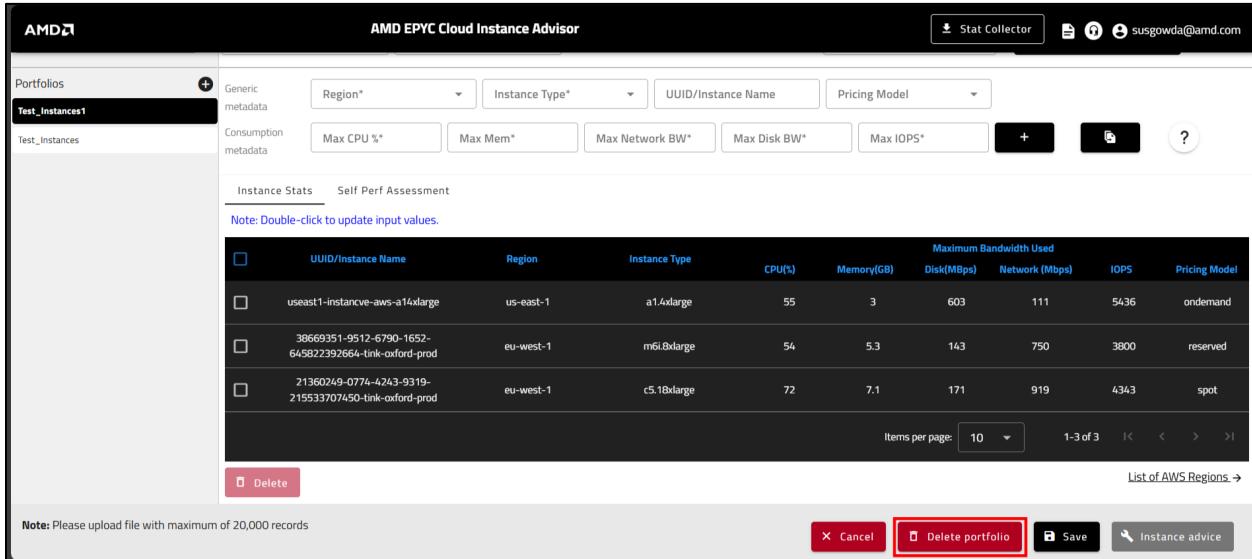
This screenshot is identical to the one above, showing the AMD EPYC Cloud Instance Advisor interface with the 'Test\_Instances1' portfolio selected. The 'Cancel' button at the bottom of the interface is highlighted with a red box.

- A confirmation popup will appear. Click "Yes" to proceed with the removal.

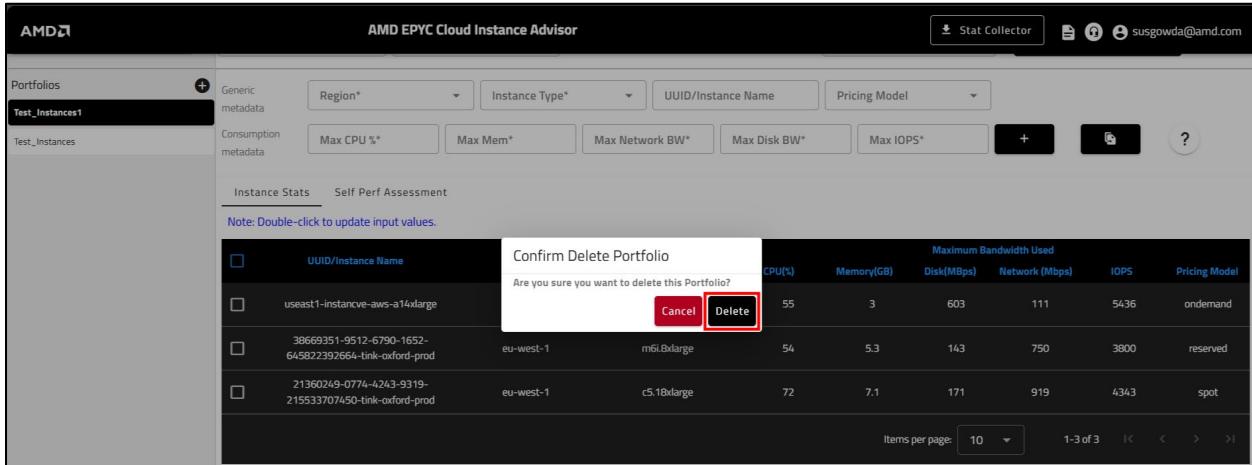


## Delete Portfolio

- If you wish to delete the portfolio, select the portfolio and click on “Delete Portfolio”.



- A confirmation popup will appear. Click "Delete" to proceed.



## Delete Instances

- Select the instance(s) that you want to remove from the list and click **Delete** at the bottom of the table.

	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	useast1-instance-aws-a14xlarge	us-east-1	a1.4xlarge	55	3	603	111	5436	ondemand
<input checked="" type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
<input checked="" type="checkbox"/>	21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

Items per page: 10 | 1-3 of 3 | < > >>

[List of AWS Regions](#) →

**Delete(2)**

- A confirmation popup will appear. Click "**Delete**" to proceed.

Are you sure you want to delete 2 instances?

	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	useast1-instance-aws-a14xlarge	us-east-1	a1.4xlarge	55	3	603	111	5436	ondemand
<input checked="" type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
<input checked="" type="checkbox"/>	21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

## Add Portfolio

- Click the “+” in the portfolios section to reset the page and create a new portfolio.

	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	useast1-instance-aws-a14xlarge	us-east-1	a1.4xlarge	55	3	603	111	5436	ondemand
<input type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved

# Telemetry Connector

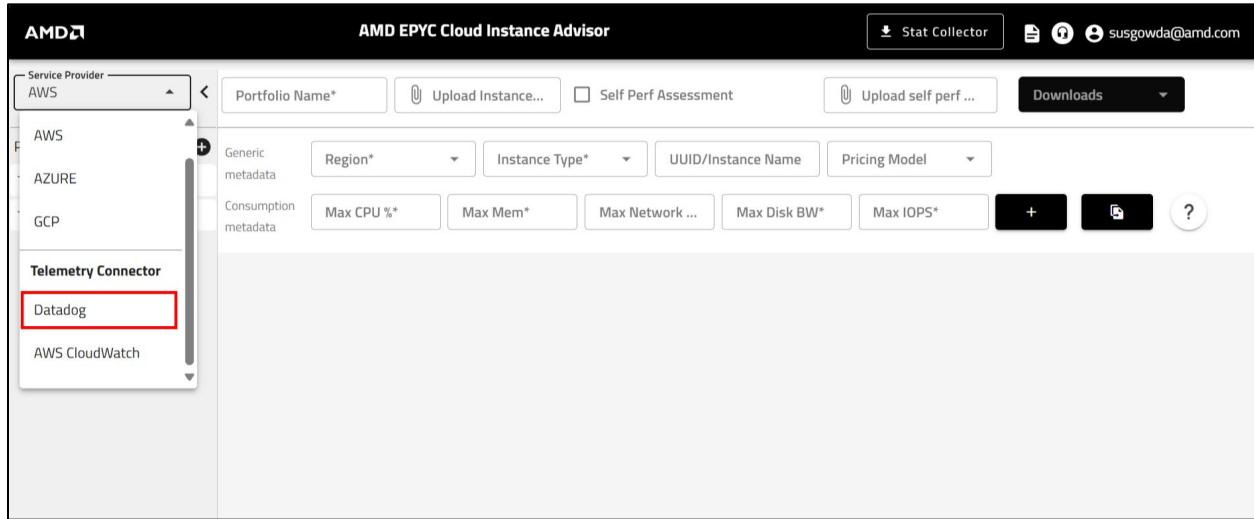
The **Telemetry Connector** option allows you to link your monitoring service - such as **Datadog** or **AWS CloudWatch** - to automatically discover and add instances being monitored through telemetry data.

## Add Instances via Datadog

With the Telemetry Connector option, you can link your Datadog account by providing your **API Key**, **Application Key** and **Host**. The platform will authenticate your Datadog account and retrieve the instances that are already being monitored through Datadog's telemetry data .

### To add instance via Datadog:

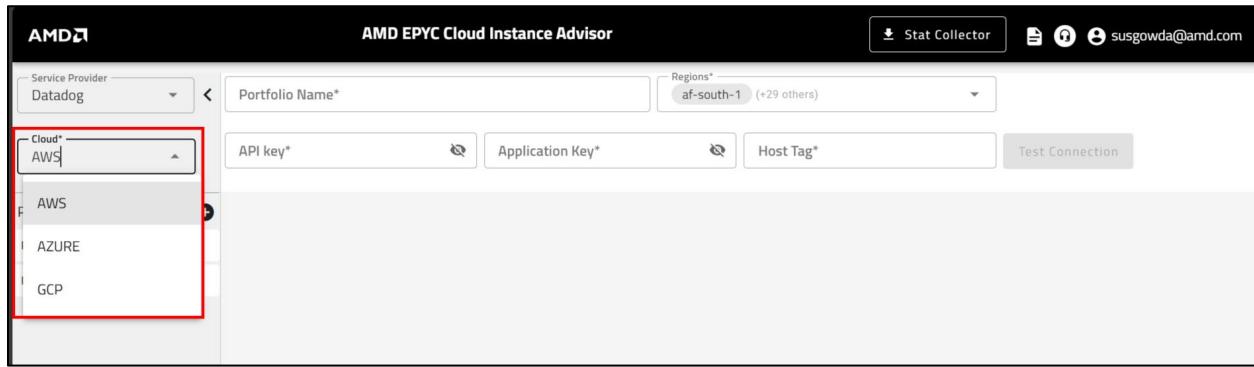
- 1) From the service provider dropdown, select **Datadog**.



The screenshot shows the AMD EPYC Cloud Instance Advisor web interface. At the top, there is a navigation bar with the AMD logo, user information (susgowda@amd.com), and links for Stat Collector, Downloads, and Help. Below the navigation is a search bar with fields for Portfolio Name\*, Upload Instance..., Self Perf Assessment, and a button to Upload self perf ...

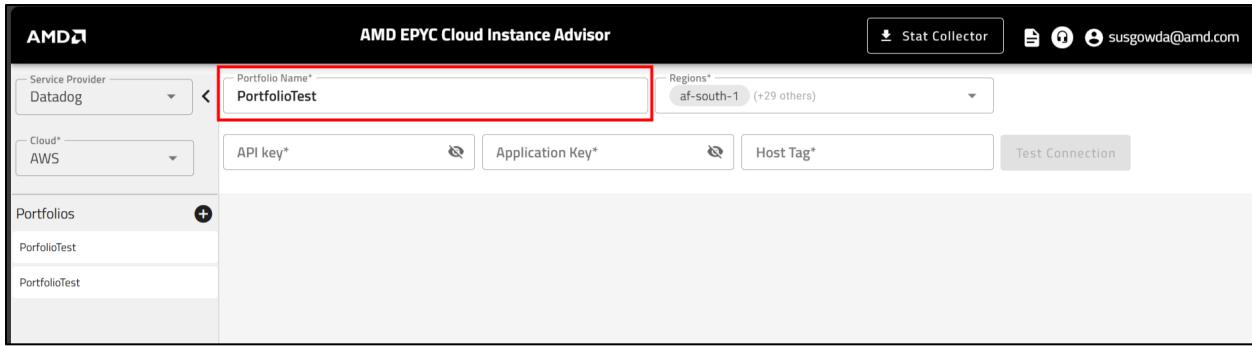
The main area has a sidebar on the left with a 'Service Provider' dropdown set to 'AWS'. The sidebar also lists 'AZURE' and 'GCP'. Under 'Telemetry Connector', 'Datadog' is selected and highlighted with a red box. Other options like 'AWS CloudWatch' are also listed.

- 2) Select **Cloud** (AWS, Azure, or GCP).

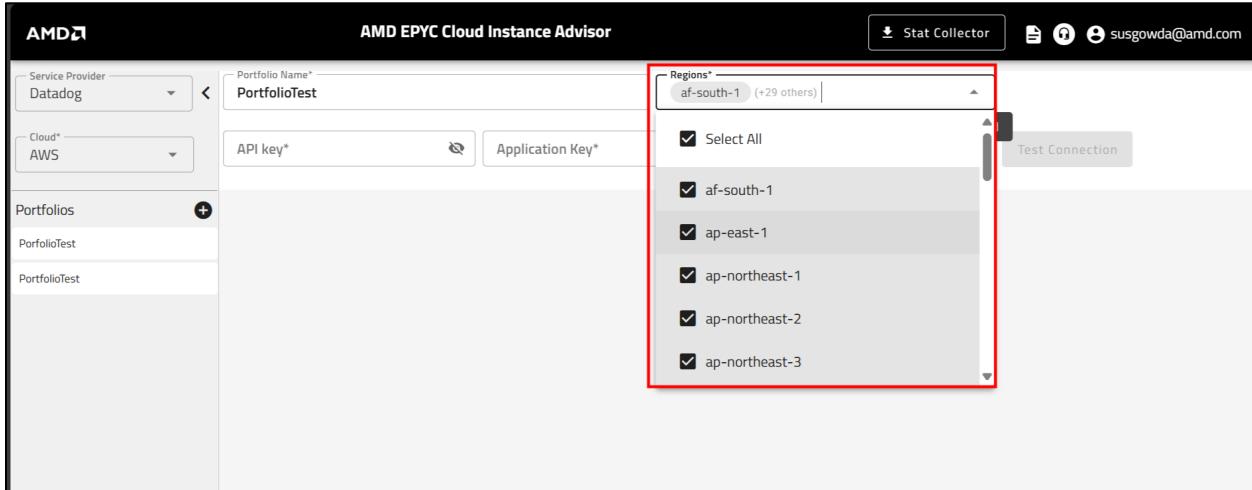


This screenshot shows the same interface as the previous one, but with the 'Service Provider' dropdown now set to 'Datadog'. The 'Cloud' dropdown in the sidebar is expanded, showing 'AWS' selected and highlighted with a red box, along with 'AZURE' and 'GCP'.

- 3) Provide a name for your portfolio.

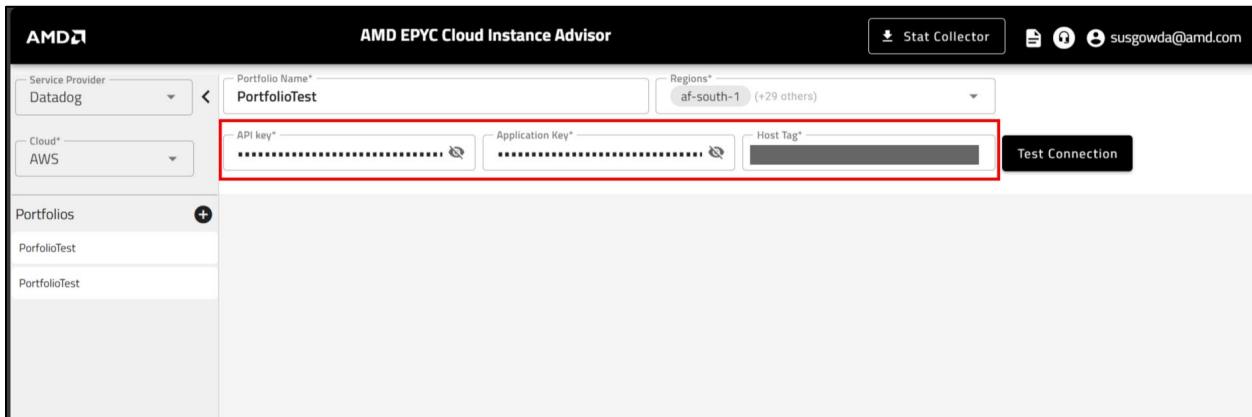


- 4) Select the **Region**. By default, all applicable regions will be selected, but you can edit this to choose only the specific regions needed.

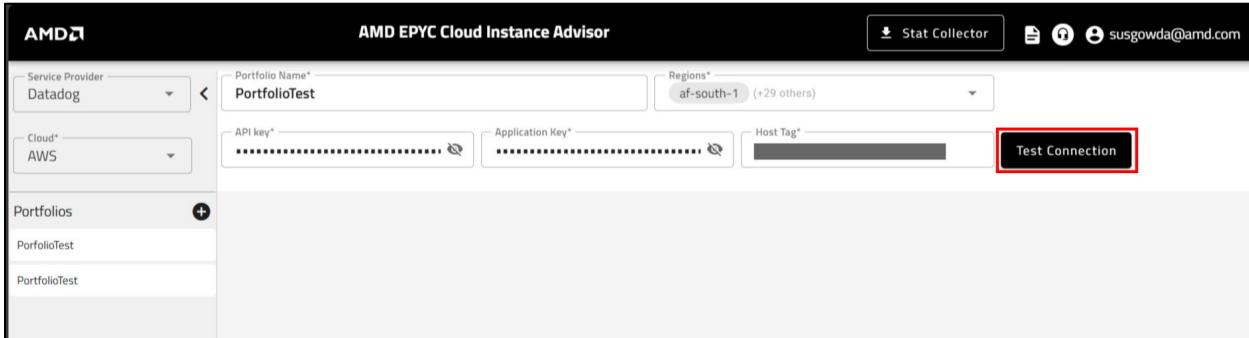


- 5) Enter the below details

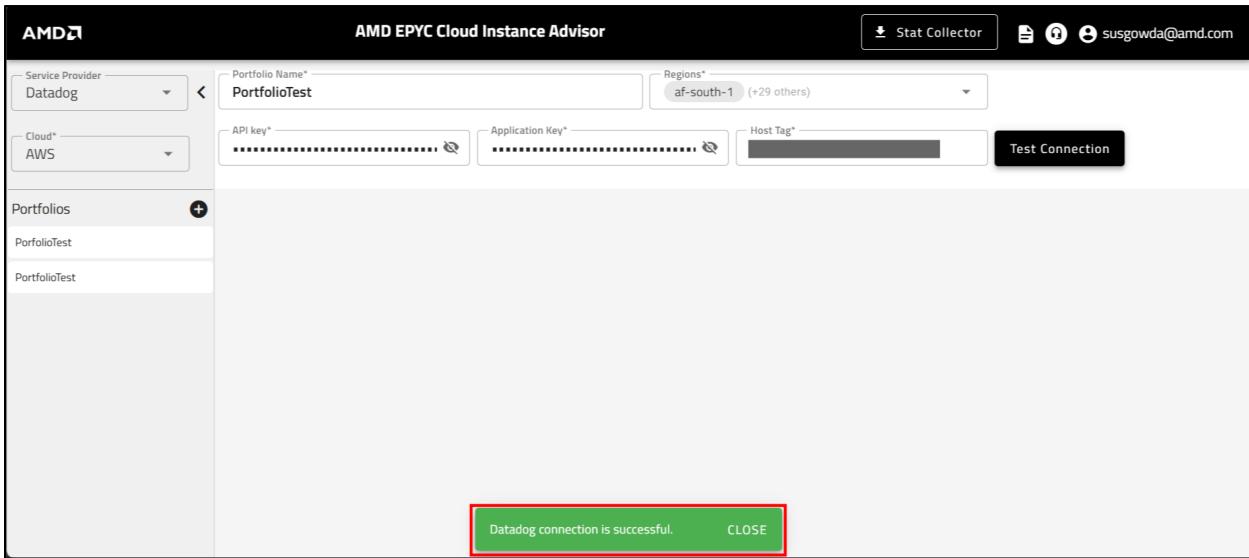
- API Key:** your Datadog API Key to authenticate the connection.
- Application Key:** Provide your Datadog Application Key for secure access to your telemetry data.
- Host Tag:** Input the Host associated with your Datadog account.



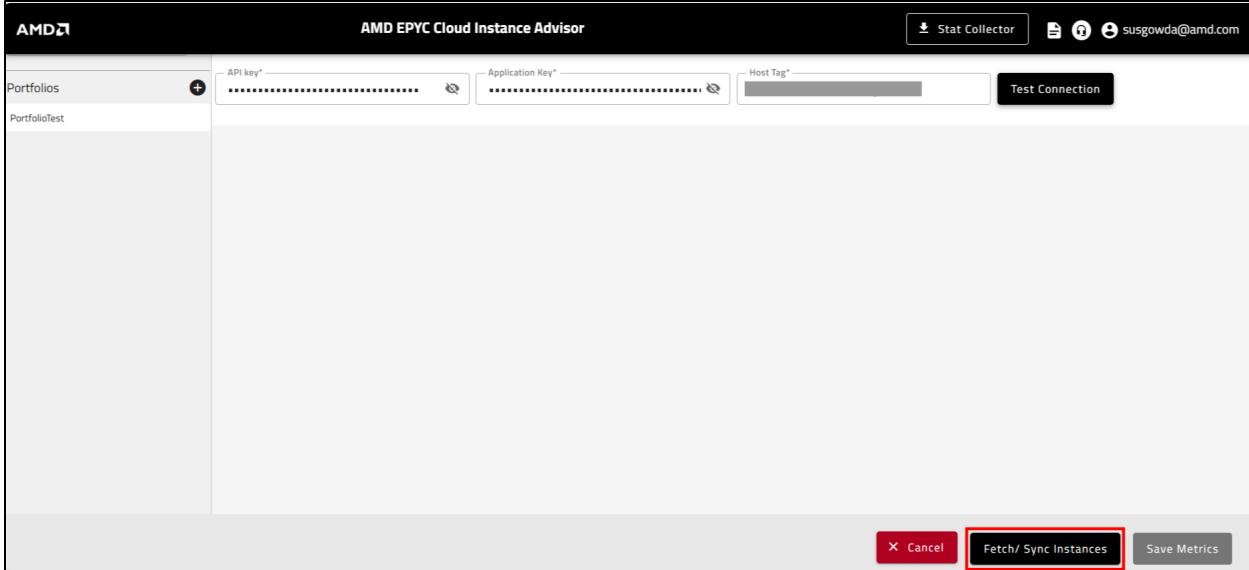
- 6) Click **Test Connection** to verify the connection.



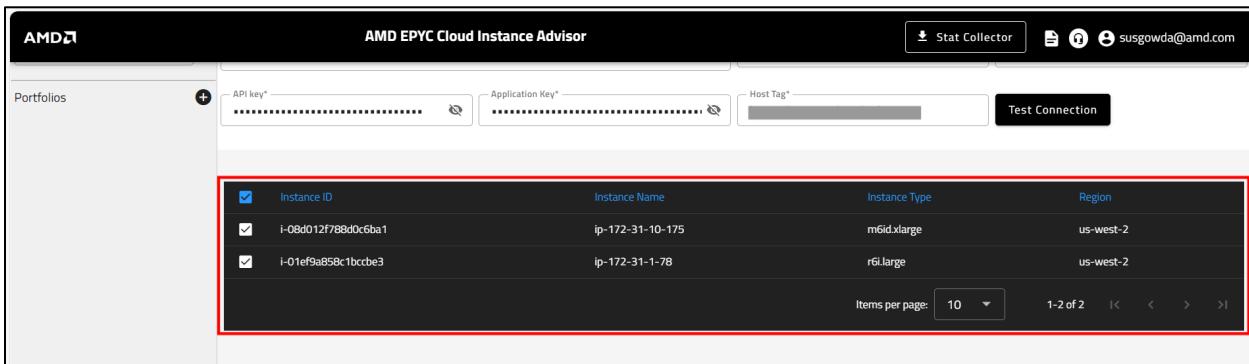
- 7) Once the connection is successful, a confirmation message “**Datadog connection is successful**” will appear.



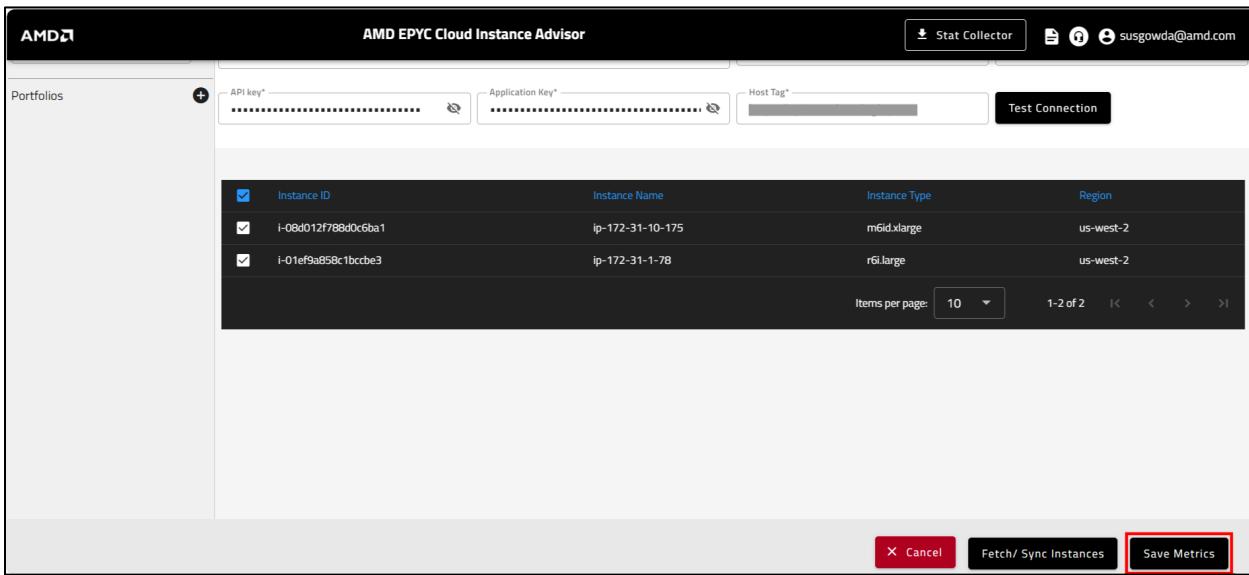
- 8) Click on **Fetch/Sync Instances** to retrieve all the instances that are linked to your Datadog telemetry account.



- 9) The system will retrieve all instances linked to your Datadog telemetry account. You can then choose the instances that are required for Instance Advice.



- 10) Click **Save Metrics** to save the portfolio with the selected instances for cost analysis.



11) After saving, you can view the added portfolio in the **portfolios** list on the left side of the page.

UUID/Instance Name	Region	Instance Type	Maximum Bandwidth Used				
			CPU(%)	Memory(GB)	Disk(GB)	Network(Mbps)	IOPS
2624069baaaf75693bbaf481a84d77f4_ip-172-31-10-175	us-west-2	m6id.xlarge	63.98	7.31	36.75	0.22	194.49
2624069baaaf75693bbaf481a84d77f4_ip-172-31-1-78	us-west-2	r6i.large	1.97	6.31	0.15	0.22	27.44
2624069baaaf75693bbaf481a84d77f4_ip-172-31-1-138	us-west-2	c5a.large	9.15	3.47	0.75	0.28	8.77

## Add Instances via AWS CloudWatch

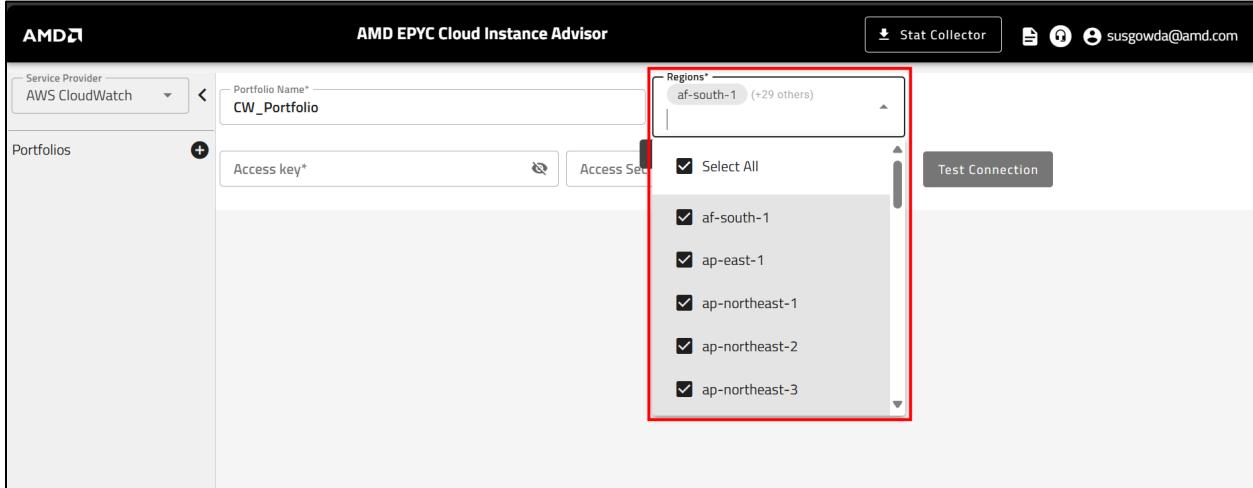
With the Telemetry Connector option, you can link your **AWS CloudWatch** account by providing your **AWS Access Key** and **Access Secret**. The platform will authenticate your AWS credentials and retrieve the instances that are already being monitored through CloudWatch telemetry data.

To add instance via AWS CloudWatch:

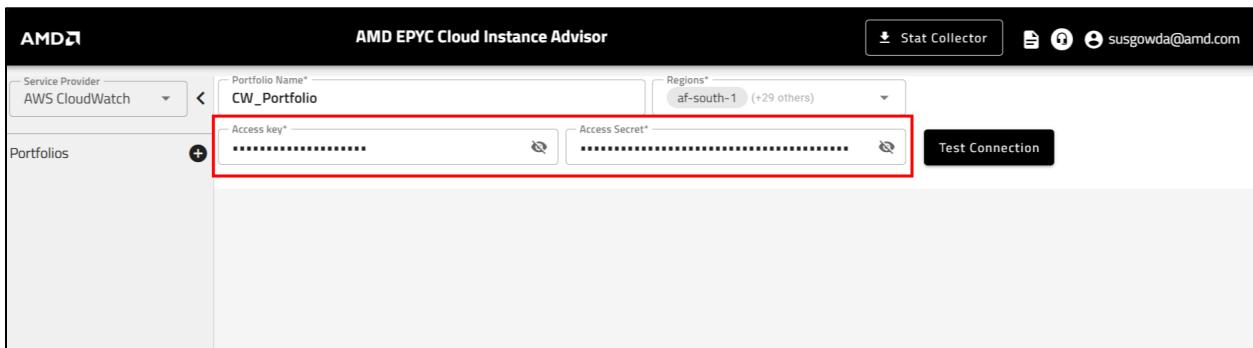
- From the service provider dropdown, select **AWS CloudWatch**.

- Provide a name for your portfolio.

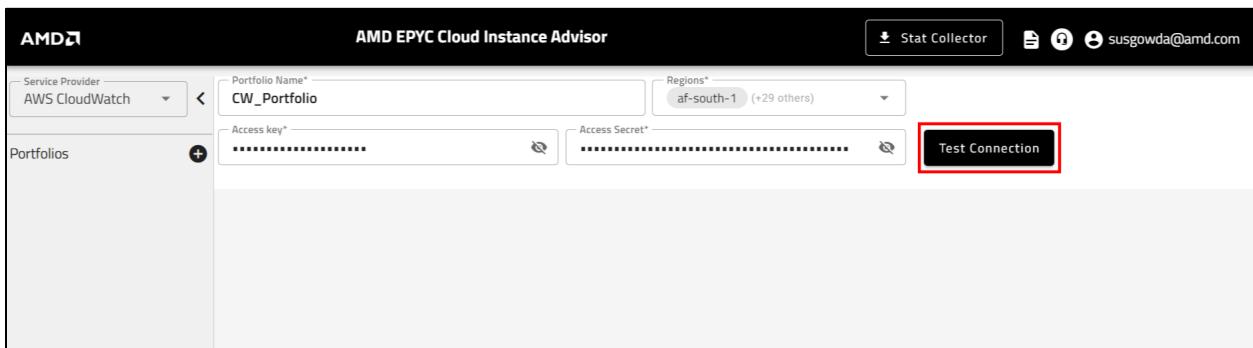
- 3) Select the **Region**. By default, all applicable regions will be selected, but you can edit this to choose only the specific regions needed



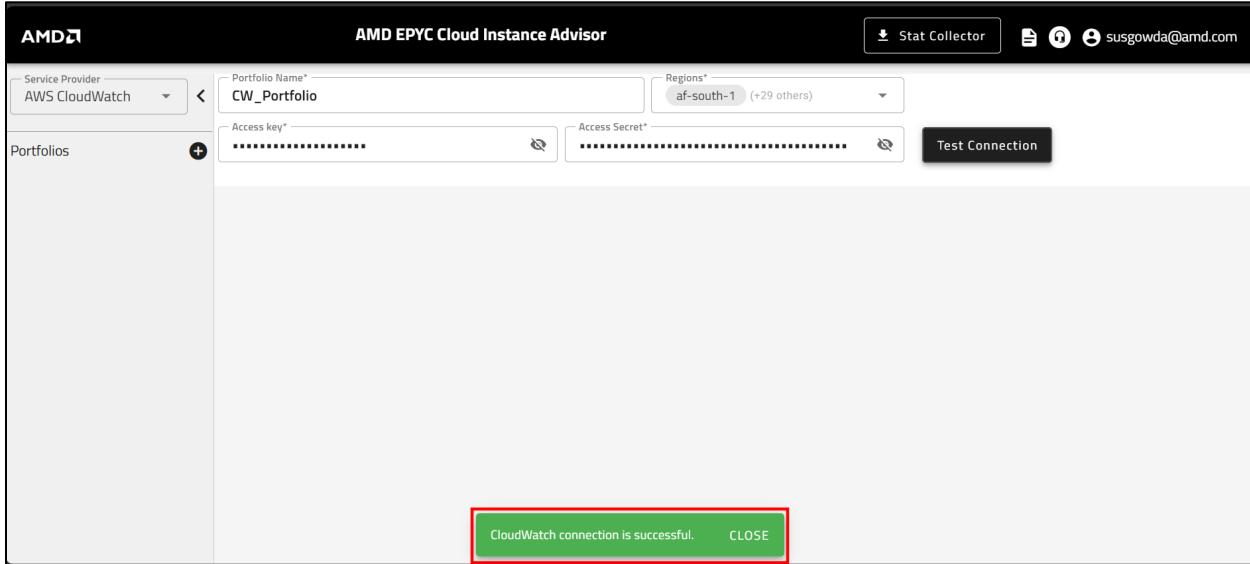
- 4) Enter the details below:
- Access Key:** your AWS Access Key to authenticate the connection.
  - Access Secret:** Provide your AWS Access Secret for secure access to your telemetry data.



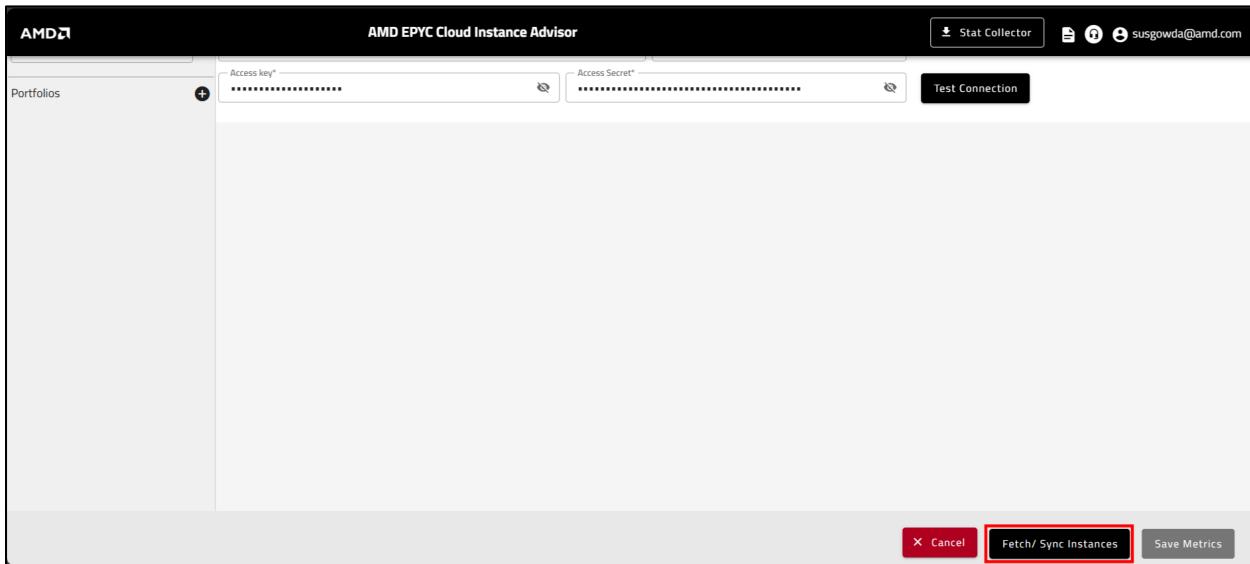
- 5) Click **Test Connection** to verify the connection.



- 6) Once the connection is successful, a confirmation message “**CloudWatch connection is successful**” will appear.



- 7) Click on **Fetch/Sync Instances** to retrieve all the instances that are linked to your CloudWatch telemetry account.



- 8) The system will retrieve all instances linked to your CloudWatch telemetry account. You can then choose the instances that are required for cost advice.

The screenshot shows the AMD EPYC Cloud Instance Advisor interface. At the top, there are fields for 'Portfolio Name' (set to 'CW\_Portfolio'), 'Regions' (set to 'af-south-1 (+29 others)'), 'Access key', and 'Access Secret'. Below these, a table lists instances with columns for 'Instance ID', 'Instance Name', 'Instance Type', and 'Region'. One instance, 'i-0b803b697b0d1b831' with name 'DataDogTeam' and type 'm5.2xlarge' in 'us-west-2', is selected and highlighted with a red border. The bottom right of the table area shows pagination controls: 'Items per page: 10', '1-1 of 1', and navigation arrows.

9) Click **Save Metrics** to save the portfolio with the selected instances for cost analysis.

This screenshot is similar to the previous one but includes a red box highlighting the 'Save Metrics' button at the bottom right of the page. The rest of the interface is identical, showing the selected instance in the table.

10) After saving, you can view the added portfolio in the portfolios list on the left side of the page

The screenshot shows the AMD EPYC Cloud Instance Advisor interface with the 'Portfolios' list on the left. The portfolio 'CW\_Portfolio' is selected and highlighted with a red box. To its right is a table titled 'List of cloud watch Instances' showing one instance: 'DataDogTeam' in 'us-west-2' with type 'm5.2xlarge'. The table includes columns for 'UID/Instance Name', 'Region', 'Instance Type', 'CPU(%)', 'Memory(GB)', 'Disk(GB)', 'Network(Mbps)', and 'IOPS'. The bottom right of the table area shows pagination controls: 'Items per page: 10', '1-1 of 1', and navigation arrows.

**Note:** Once the telemetry portfolio is saved, you will no longer be able to update or modify account credentials such as Access Key and Access Secret. These fields will become read-only).

## User Actions for Telemetry Connector Portfolios

- **Delete Portfolio:**
  - If you wish to delete the portfolio, select the portfolio and click on “**Delete Portfolio**”.

UUID	Region	Instance Type	CPU(%)	Memory(GB)	Disk(GB)	Network(Mbps)	IOPS
2624069baaaaf75693bbaf481a84d77f4_ip 172-31-10-175	us-west-2	m6id.xlarge	65.71	6.77	36.74	4.87	196.53
2624069baaaaf75693bbaf481a84d77f4_ip 172-31-1-78	us-west-2	r6i.large	7.37	1.72	0.88	2.07	5.78

Items per page: 10 | 1-2 of 2 | < > >>

**Delete portfolio** **Update Credentials** **Instance advice**

- A confirmation popup will appear. Click "Delete" to proceed.

UUID	Region	Instance Type	CPU(%)	Memory(GB)	Disk(GB)	Network(Mbps)	IOPS
2624069baaaaf75693bbaf481a84d77f4_ip 172-31-10-175	us-west-2	m6id.xlarge	65.71	6.77	36.74	4.87	196.53
2624069baaaaf75693bbaf481a84d77f4_ip 172-31-1-78	us-west-2	r6i.large	7.37	1.72	0.88	2.07	5.78

Items per page: 10 | 1-2 of 2 | < < > >>

Confirm Delete Portfolio  
Are you sure you want to delete this Portfolio?  
**Cancel** **Delete**

- **Update Credentials:** To update the portfolio credentials, click on “**Update Credentials**”.

UUID	Region	Instance Type	CPU(%)	Memory(GB)	Maximum Bandwidth Used	Disk(GB)	Network(Mbps)	IOPS
2624069baaf75693bbaf481a84d77f4_ip 172-31-10-175	us-west-2	m6id.xlarge	65.71	6.77	36.74	4.87	196.53	
2624069baaf75693bbaf481a84d77f4_ip 172-31-1-78	us-west-2	r6i.large	7.37	1.72	0.88	2.07	5.78	

## Instance Advice

The KD Tree algorithm uses the collected metrics to determine the optimal instance. It analyzes the data, applies internal logic to generate recommendations that lead to selecting the best instance based on the performance and requirements defined by the metrics.

1. Ensure your portfolio with instance details is saved.
2. Navigate to the **Portfolio** section and click on the desired portfolio account.

3. Click on "Instance Advice."

The screenshot shows the AMD EPYC Cloud Instance Advisor (EIA) platform. At the top, there are dropdown menus for Region\*, Instance Type\*, UUID/Instance Name, and Pricing Model. Below these are input fields for Consumption metadata: Max CPU %\*, Max Mem\*, Max Network BW\*, Max Disk BW\*, and Max IOPS\*. There are also buttons for '+', a file icon, and a question mark icon.

The main area displays 'Instance Stats' and 'Self Perf Assessment'. A note says: 'Note: Double-click to update input values.' Below this is a table with columns: UUID/Instance Name, Region, Instance Type, CPU(%), Memory(GB), Disk(Mbps), Network (Mbps), IOPS, and Pricing Model. Two rows of data are shown:

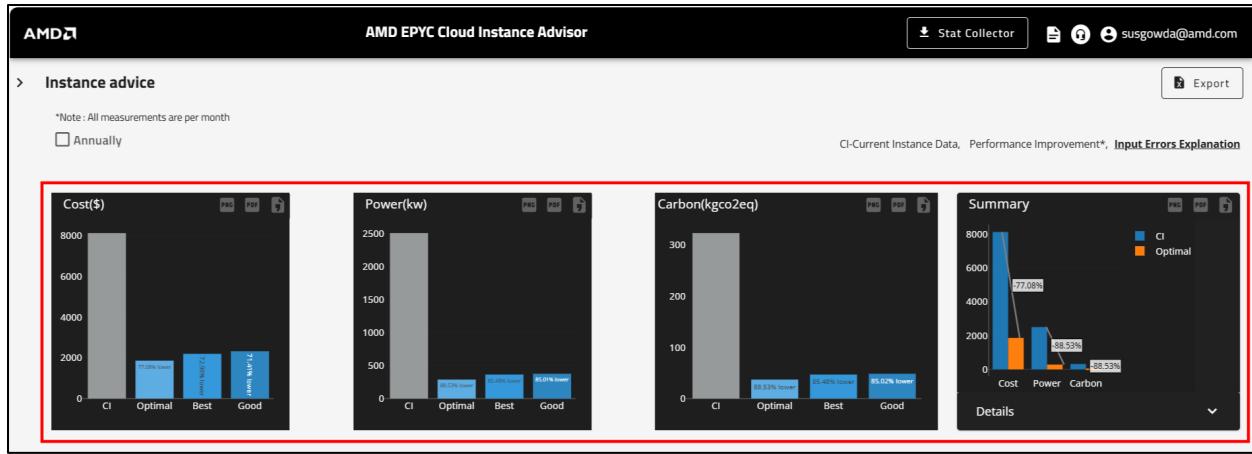
	UUID/Instance Name	Region	Instance Type	CPU(%)	Memory(GB)	Disk(Mbps)	Network (Mbps)	IOPS	Pricing Model
<input type="checkbox"/>	38669351-9512-6790-1652-645822392664-tink-oxford-prod	eu-west-1	m6i.8xlarge	54	5.3	143	750	3800	reserved
<input type="checkbox"/>	21360249-0774-4243-9319-215533707450-tink-oxford-prod	eu-west-1	c5.18xlarge	72	7.1	171	919	4343	spot

At the bottom, there are buttons for 'Delete', 'Cancel', 'Delete portfolio', 'Save', and 'Instance advice' (which is highlighted with a red box). A note at the bottom left says: 'Note: Please upload file with maximum of 20,000 records.'

The **AMD EPYC Cloud Instance Advisor (EIA)** platform analyzes the instance details and provides instance recommendations and insights through a set of graphical representations and a table. These graphs help visualize key metrics, allowing you to compare your current cloud instance with optimized recommendations.

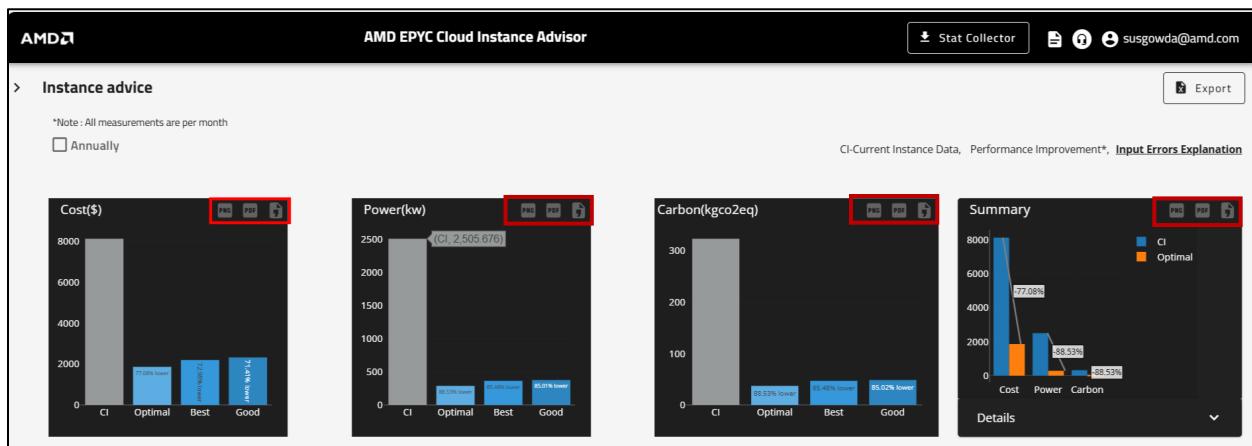
The following graphs are displayed:

- ▶ **Cost (\$)** Graph: This bar graph compares the monthly cost of your current instance with the three recommendations (Optimal, Best, Good). It shows how much you could save or spend more if you switch to a recommended instance.
- ▶ **Power (kW)** Graph: This graph displays the power consumption of your current instance versus the recommended instances. The goal here is to understand how switching instances impacts power usage.
- ▶ **Carbon (kgCO<sub>2</sub>eq)** Graph: This graph presents the carbon footprint in terms of kilograms of CO<sub>2</sub> equivalent for each instance. It compares the environmental impact of your current instance with the suggested options.
- ▶ **Summary**: A side-by-side comparison of **Cost**, **Power**, and **Carbon** between the **Current Instance (CI)** and **Optimal Instance**. This graph summarizes the changes in key metrics, allowing you to easily assess whether switching to a recommended instance provides benefits or drawbacks in any of these categories.



The following terms are used across the graphs:

- **Current Instance Data (CI):** Represents the existing cloud instances.
- **Recommended Instances (Optimal, Best, and Good):** These are the optimized instance options recommended by the tool to potentially reduce costs, power consumption, and carbon emissions.
- To download the graph, click the corresponding button located on the graph to export it in **PNG**, **PDF**, or **CSV** format.



- Below the graphical representations, a detailed table is provided. This table contains a breakdown of the metrics for both the **Current Instance** and the optimized **Recommendations**. Here's what each column represents:
  - **Current Instance Details:** This section includes:
    - **Instance Type:** The type or model of the current instance.
    - **Cost (\$):** The current monthly cost associated with the instance. Monthly cost is calculated by multiplying the hourly price (in \$) with the total number of hours in a month (730 hours).

- **Power (kW):** The amount of power consumed by the instance. Power consumption is fetched by Boavizta API, determined based on the CPU utilization/load percentage.
- **Carbon (kgCO<sub>2</sub>eq):** The carbon emissions generated by the instance. Carbon emission is fetched by Boavizta API, calculated based on CPU utilization/load percentage.
- **UUID / Instance Name:** A unique identifier for each cloud instance being analyzed.
- **Cloud:** The cloud platform hosting the instance.
- **Pricing Model:** The pricing model of current instance (ondemand, reserved, or spot).

**Note:** Cloud service providers (CSPs) offer spot instances at discounted rates, but pricing is dynamic and depends on current demand and capacity. Availability is not guaranteed, and instances can be reclaimed by the CSP at any time use only for workloads that can handle interruptions.

- **vCPU(s):** The number of virtual CPUs assigned to each instance.
- **Remark:** Additional comment on the current instance.

The screenshot shows the AMD EPYC Cloud Instance Advisor web application. At the top, there's a navigation bar with the AMD logo, the title "AMD EPYC Cloud Instance Advisor", a "Stat Collector" button, and a user email "susgowda@amd.com". Below the header is a table titled "Current" showing instance details. The table has columns: Instance Type, Cost(\$), Power(kw), Carbon(kgCO<sub>2</sub>eq), UUID/Instance Name, Cloud, Pricing Model, vCPU(s), and Remark. It lists five AWS instances: c5.18xlarge, m6i.4xlarge, m6i.8xlarge, m6i.16xlarge, and a Grand Total row. A red box highlights the first four rows. To the right of the main table is a sidebar titled "Recommendation" with a table showing recommended instances: c6a.8xlarge, c5a.2xlarge, c7a.2xlarge, c7a.xlarge, and a Grand Total row. At the bottom of the page is a note about spot instances and a "Close" button.

Instance Type	Cost(\$)	Power(kw)	Carbon(kgCO <sub>2</sub> eq)	UUID/Instance Name	Cloud	Pricing Model	vCPU(s)	Remark
c5.18xlarge	453.77	1,914.63	431.38	06c9e102-9f5...5a60d	AWS	spot	72	-
m6i.4xlarge	624.88	182.44	23.56	38669351-951...prod	AWS	ondemand	16	-
m6i.8xlarge	1,249.76	499.97	64.56	86741148-381...prod	AWS	ondemand	32	-
m6i.16xlarge	2,499.52	701.84	90.61	21360249-077...prod	AWS	ondemand	64	-
Grand Total	4,827.93	3,298.88	610.11					

Instance Type	vCPU(s)	Cost(\$)	Power
c6a.8xlarge	32	288.64	205.19
c5a.2xlarge	8	251.12	40.78
c7a.2xlarge	8	321.55	40.94
c7a.xlarge	4	160.78	20.49
		1,022.09	307.31

**Note :** Cloud service providers (CSPs) offer spot instances at discounted rates, but pricing is dynamic and depends on current demand and capacity. Availability is not guaranteed, and instances can be reclaimed by the CSP at any time—use only for workloads that can handle interruptions.

- **Recommendation Instance Details Optimized:** This section provides alternative instance types that could optimize cost, power consumption, or carbon footprint:
  - **Optimal, Best and Good:** These columns include:
    - **Instance Type:** The type or model of the recommended instance.
    - **vCPU(s):** The number of virtual CPUs assigned to recommended instance.
    - **Cost (\$):** The monthly cost associated with the recommended instance. Monthly cost is calculated by multiplying the hourly price (in \$) with the total number of hours in a month (730 hours).

- **Power (kW):** The amount of power consumed by the recommended instance. Power consumption is fetched by Boavizta API, determined based on the CPU utilization/load percentage.
- **Carbon (kgCO2eq):** The carbon emissions generated by the recommended instance. Carbon emission is fetched by Boavizta API, calculated based on CPU utilization/load percentage.
- **Savings (\$):** The amount of cost savings achieved by transitioning to the recommended cloud instance, compared to the current instance configurations. This is calculated as the difference between the monthly cost of the current instance and the recommended instance.
- **Performance Improvement:** This is the factor by which the recommended cloud instance outperforms the current instance. Hover over the values to view the exact multiple by which the recommended instance performs better than the current instance.  
It is calculated by dividing the SPECint score of the recommended cloud instance by the SPECint score of the current cloud instance.

Recommendation instance details optimized																			
Optimal					Best					Good									
Type	vCPU(s)	Cost(\$)	Power(kW)	Carbon(kgCO2eq)	Savings(\$)	Performance improvement*	Type	vCPU(s)	Cost(\$)	Power(kW)	Carbon(kgCO2eq)	Savings(\$)	Performance improvement*	Type	vCPU(s)	Cost(\$)	Power(kW)	Carbon(kgCO2eq)	Savings(\$)
c5a.xlarge	4	125.56	20.44	2.65	499.32	1.27	c5a.2xlarge	8	251.12	40.57	5.23	373.76	2.54	m7a.large	2	94.32	14.19	1.82	530.56
c6a.4xlarge	16	479.35	72.08	9.31	770.41	1.03	m6a.4xlarge	16	562.39	103.61	13.38	687.37	1.09	m7a.4xlarge	16	754.53	113.07	14.61	495.23
c5a.4xlarge	16	502.24	81.53	10.52	1997.28	1.54	m7a.2xlarge	8	377.26	56.66	7.30	2122.26	1.25	c6a.4xlarge	16	479.35	71.67	9.25	2020.17
m7a.4xlarge	16	754.53	113.33	14.54	2994.75	1.25	c5a.8xlarge	32	1,004.48	163.90	21.05	2744.80	1.53	r7a.4xlarge	16	994.32	176.56	22.78	2754.96
		1,861.68	287.38	37.11	6,261.76	1.27			2,195.25	363.75	46.96	5,928.19	1.60			2,322.52	375.50	48.46	5,800.92

- **Grand Total:** Represents the overall sum of costs, power consumption, and carbon emissions for all instances across all pages. For the Performance Improvement column, it shows the average for all instances across all pages.

#### Note:

- **Smart Recommendations:** No cost recommendations are shown if the current instance is already using the latest AMD processor.
- **Skipped Instances:** If any of the current instances are invalid or not supported for a recommendation, the recommendation fields will be marked with a **hyphen (-)**, indicating them as “**Skipped Instances**”.
- The reason for skipped instances will be displayed under the “**Remarks**” column.

Current									Optimal					
Instance Type	Cost(\$)	Power(kw)	Carbon(kgCO2eq)	UUID/Instance Name	Cloud	Pricing Model	vCPU(s)	Remark	Instance Type	vCPU(s)	Cost(\$)	Power(kw)	Carbon(kgCO2eq)	Savings(\$)
c5.12xlarge	270.17	542.87	120.00	f3765047-299..57cc9	AWS	spot	48	-	c5a.4xlarge	16	287.84	89.56	19.79	-17.67
c5.18xlarge	-	-	-	025a6c87-0e9..381d0	AWS	reserved	-	CCA is Recommended	-	-	-	-	-	-
c5.12xlarge	-	-	-	4f13ed5f-836..9a082	AWS	spot	-	CCA is Recommended	-	-	-	-	-	-
a1.medium	-	-	-	a291ca48-b5e..fe3e1	AWS	spot	-	Invalid or Unsupported Instance	-	-	-	-	-	-
c5.18xlarge	-	-	-	f4c4b16b-47e..0166c	AWS	ondemand	-	CCA is Recommended	-	-	-	-	-	-
Grand Total	270.17	542.87	120.00							287.84	89.56	19.79	-17.67	

- To learn more about scenarios involving Invalid or Unsupported instances, click on the “Input Errors Explanation” tooltip

The screenshot shows the AMD EPYC Cloud Instance Advisor web interface. In the 'Instance advice' section, there are three bar charts: 'Cost(\$)', 'Power(kw)', and 'Carbon(kgco2eq)'. Below each chart is a legend: 'CI' (grey), 'Optimal' (blue), 'Best' (light blue), and 'Good' (green). A tooltip for 'Input Errors Explanation' is shown over the 'Power(kw)' chart, containing the following text:

**Invalid or Unsupported Scenarios:**  
Region or Instance input data is invalid or specifies an unsupported instance type

1. Instances for which performance data is unavailable.
2. Older generation series (e.g., 3rd generations) with insufficient performance data..
3. Smaller instance types (e.g., micro, nano, medium) that are not ideal for EIA recommendations.
4. Graviton instances, which are not currently supported by EIA.

- Click **Export** to download the data as an Excel file.

The screenshot shows the same AMD EPYC Cloud Instance Advisor interface as the previous one, but with the 'Export' button in the top right corner highlighted with a red box.

- An Excel file will be downloaded. The file includes three sheets: **Recommended Instance**, **Total Annual Savings** and **Legal Disclaimer**.
- The **Recommended Instance** sheet includes the following details:
  - UUID/Instance Name, Cloud Service Provider (CSP), Pricing Model.
  - Current instance details:** Instance type, Current vCPU, Current Monthly Cost (\$), Current Instance Energy Consumption (kwh), and Current Instance Emission (kgco2eq).

EPYC Cloud Instance Advisory Recommendations									
Current Instance	Current Monthly Cost	Current Instance Energy Consumption (kwh)	Current Instance Emission (kgco2eq)	UUID/Instance Name	Cloud	Pricing Model	Current vCPU(s)	Remark	
c5.12xlarge	270.17	542.87	120	7e0317-298d-45fd-9427-fa89fe37c2	AWS	spot	48		
c5.18xlarge	-	-	-	5a8c07-0a94-404e-93eb-f1b5884181d0	AWS	reserved	-	CCA is Recommended	
c5.12xlarge\$8	-	-	-	13edff5-8361-4b80-8bc3-b57cd5994a82	AWS	spot	-	CCA is Recommended	
a1.medium	-	-	-	91ca48-b3ee-49df-8bc9-5897f99fe3e1	AWS	spot	-	Invalid or Unsupported Instance	
c5.18xlarge	-	-	-	pb1b-47ed-4ec4-8bcd-9c913e90156c	AWS	ondemand	-	CCA is Recommended	
Grand Total	270.17	542.87	120						
Note : Green color instances indicate positive savings.									

3. **Recommended instance details:** Categorized as Optimal, Best, and Good. Each category includes information such as Instance Type, vCPU(s), Monthly Cost (\$), Monthly Savings (\$), Instance Energy Consumption (kwh), Instance Emission (kgco2eq), Performance Improvement.

A	J	K	L	M	N	O	P	Q	R	S	T	U
Current Instance	OPTIMAL						BEST					
	Instance	vCPU(s)	Monthly Cost	Monthly Savings	Instance Energy Consumption (kwh)	Instance Emission (kgco2eq)	Performance Improvement	Instance	vCPU(s)	Monthly Cost	Monthly Savings	Instance Energy Consumption
m6i.8xlarge	r7a.4xlarge	16	\$425.74	\$400.98	81.38	10.5	1.84	m7a.4xlarge	16	\$499.12	\$327.60	112.96
c5.18xlarge	r7a.8xlarge	32	\$578.16	\$556.63	162.66	21.02	1.76	r7a.8xlarge	32	\$715.25	\$419.54	226.11
Grand Total			\$1,003.90	\$957.61	244.03	31.52	1.8			\$1,214.37	\$747.14	339.07

- The **Total Annual Savings** sheet provides the total cost details, and total savings achieved for each recommended category against total current cost.

A 1 Current Cost	B OPTIMAL		C BEST		D GOOD	
	Total Cost	Total Savings	Total Cost	Total Savings	Total Cost	Total Savings
\$58,296.00	\$11,718.48	\$46,577.52	\$10,450.80	\$47,845.20	\$17,275.68	\$41,020.32
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						

< > Recommended-Instance **Total Annual Savings** Legal Disclaimer + : ◀ ▶

- The Legal Disclaimer sheet displays the disclaimer statement, copyright and terms of use statements.

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< > Recommended-Instance Total Annual Savings **Legal Disclaimer** + : ◀ ▶

## Analysis and Recommendations

The Recommendation output from the AMD EPYC Cloud Instance Advisor provides a comprehensive comparison between your current system instance and suggested alternative instances. This comparison focuses on critical factors such as price, energy consumption, and carbon emissions. By analyzing these metrics, the EIA aims to help you make informed decisions that optimize both performance and sustainability.

### Sample Output Explanation

The output consists of several columns, each providing essential information for your decision-making process. Here's a breakdown of each column in the recommendation report:

<b>UUID</b>	A unique identifier for the instance or system being analyzed, allowing for tracking and distinction among instances
<b>Cloud</b>	The cloud platform hosting the instance.
<b>Current Instance</b>	The name or type of the current instance being used (e.g., t2.micro, m5.large), identifying existing specifications.
<b>Pricing Model</b>	The pricing model of the current instance (ondemand, reserved, or spot).
<b>vCPU</b>	The number of virtual CPUs assigned to current instance.
<b>Current Monthly Price (\$)</b>	The monthly cost is associated with running the current instance, indicating expenditure over a month.
<b>Current Instance Energy Consumption (kwh)</b>	The amount of energy consumed by the current instance, measured in kilowatt-hours (kWh), is used to evaluate its impact on energy usage.
<b>Current Instance Emission (kgco2eq)</b>	The carbon emissions resulting from the current instance's energy consumption, typically expressed in metric tons of CO2, reflect environmental impact.
<b>Recommendation Instance(s)</b>	The suggested alternative instance type (e.g., c5.large, r5.xlarge) based on performance, cost, and environmental factors.
<b>vCPU</b>	The number of virtual CPUs assigned to recommended instance.
<b>Monthly Price (\$)</b>	The projected monthly cost for the recommended instance, facilitating direct cost comparison with the current instance.
<b>Instance Energy Consumption (kWh)</b>	The expected energy consumption in kilowatt-hours (kWh) for the recommended instance, indicating its energy efficiency relative to the current instance.
<b>Instance Emission (kgco2eq)</b>	The projected carbon emissions, in metric tons of CO2, for the recommended instance, enabling comparison of environmental impact.
<b>Savings (\$)</b>	The amount of cost savings achieved by transitioning to the recommended cloud instance, compared to the current instance configurations.
<b>Perf Improvement</b>	Factor by which the recommended cloud instance outperforms the current instance.

# Appendix A: Supported Regions and Instances for AWS, Azure, and GCP

AWS: [Supported Regions and Instances - AWS](#)

Azure: [Supported Regions and Instances - Azure](#)

GCP: [Supported Regions and Instances - GCP](#)

**Note:** This list may vary over time as cloud providers add or deprecate regions. Please refer to the official documentation of the respective cloud service provider (AWS, Azure, or GCP) for the most up-to-date region list.

# Appendix B: Supported CPU Generations and Cloud Classes

## I. AWS Cloud Support

### Supported CPU Generations:

CPU Generation	AMD Generation	Supported?
7 <sup>th</sup> gen	4 <sup>th</sup> Gen - Genoa (AMD EPYC™ Processor - 9xx4)	Yes
6 <sup>th</sup> gen	3 <sup>rd</sup> Gen - Milan (AMD EPYC™ Processor - 7xx3)	Yes
5 <sup>th</sup> gen	2 <sup>nd</sup> Gen - Rome (AMD EPYC™ Processor 7xx2)	Yes
4 <sup>th</sup> gen and below	-	No

### Supported AWS Instance Families:

Instance Families	Supported?
General purpose	Yes
Compute optimized	Yes
Memory optimized	Yes
Accelerated computing	No
HPC optimized	No
Storage optimized	No

### Reference:

**Amazon EC2 Instances Powered by AMD EPYC™ Processors:**

<https://www.amd.com/en/products/processors/server/epyc/aws.html>

**Amazon EC2 Instance Types:**

<https://aws.amazon.com/ec2/instance-types/>

## II. Azure Cloud Support

### Supported CPU Generations:

CPU Generation	AMD Generation	Supported?
6 <sup>th</sup> gen	4 <sup>th</sup> Gen - Genoa (AMD EPYC™ Processor - 9xx4)	Yes
5 <sup>th</sup> gen	3 <sup>rd</sup> Gen - Milan (AMD EPYC™ Processor - 7xx3)	Yes
4 <sup>th</sup> gen	2 <sup>nd</sup> Gen - Rome (AMD EPYC™ Processor 7xx2)	Yes
3 <sup>rd</sup> gen and below	-	No

### Supported Azure VM Series:

VM Series	Supported?
General purpose	Yes
Compute optimized	Yes
Memory optimized	Yes
Accelerated computing	No
FPGA	No
Storage optimized	No
HPC	No
Burst	No

### Reference:

#### Microsoft Azure VMs Powered by AMD EPYC™ Processor:

<https://www.amd.com/en/products/processors/server/epyc/microsoft-azure.html>

### III. Google Cloud (GCP) Support

#### Supported CPU Generations:

CPU Generation	AMD Generation	Supported?
4 <sup>th</sup> gen	4th Gen - Genoa (AMD EPYC™ Processor - 9xx4)	Yes
3 <sup>rd</sup> gen	3rd Gen - Milan (AMD EPYC™ Processor - 7xx3)	Yes
2 <sup>nd</sup> gen	2 <sup>nd</sup> Gen - Rome (AMD EPYC™ Processor 7xx2)	Yes

#### Supported GCP Instance Families:

VM Series	Supported?
General purpose	Yes
Compute optimized	Yes
Memory optimized	Yes
Accelerated computing	No
Storage optimized	No
HPC	No

# Need Help? Contact Us

If you need assistance or have any questions, please don't hesitate to reach out to our support team through the following contact options:

## **Hotline Number:**

- Call us at: +1-(502)388-6228

## **Email:**

- Email us at: [dl.epycservices@amd.com](mailto:dl.epycservices@amd.com)

## **Business Hours:**

- 24/7