Integrating CogniSphere with Amazon Bedrock

Introduction

Amazon Bedrock is a fully managed service that provides access to a variety of high-performing foundation models (FMs) from leading AI companies such as Anthropic, AI21 Labs, Cohere, Meta, Mistral AI, Stability AI, and Amazon. These models are accessible via a single API, allowing organizations to develop advanced AI solutions efficiently.

This guide will walk you through the process of integrating the **CogniSphere** application with Amazon Bedrock. You will learn how to:

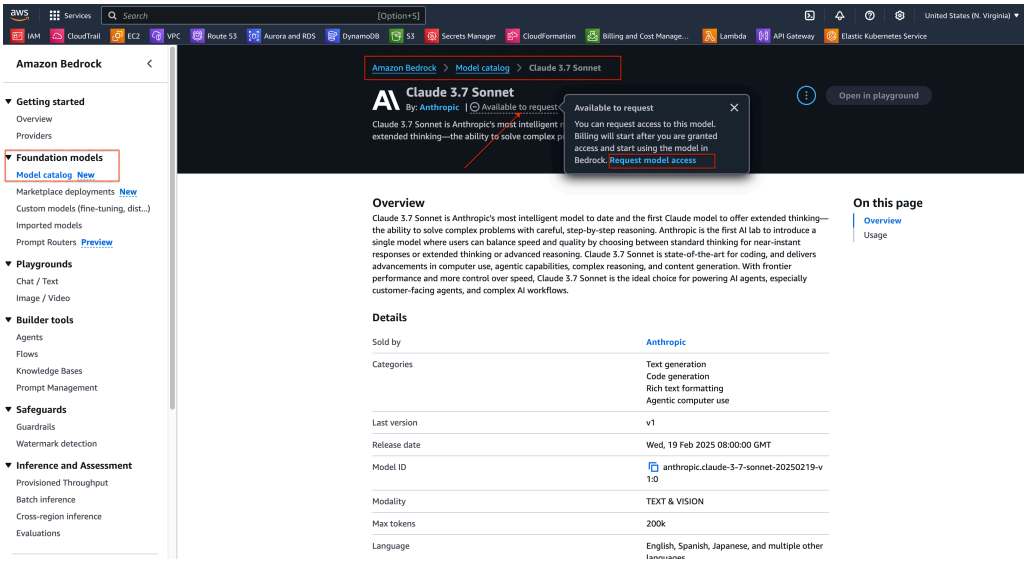
- Set up the required models on Bedrock
- Configure Identity and Access Management (IAM) permissions
- Test the application

Prerequisites

Before proceeding, ensure that you have the following:
✅ An **AWS account** with the required permissions to complete the integration steps.
✅ **CogniSphere application** installed on your server.

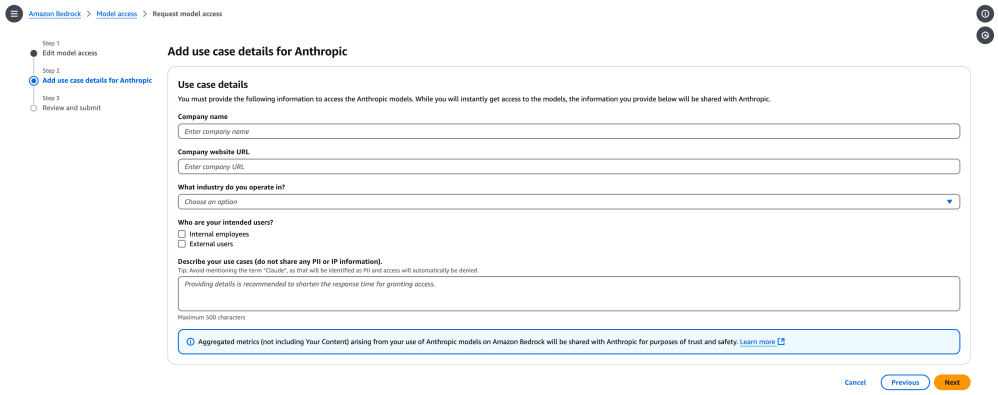
1. Select Foundation Models (FMs)

1. Log in to the **AWS Management Console**.
2. Navigate to **Amazon Bedrock**.
3. Request access to one or more foundation models (FMs) you want to integrate with.

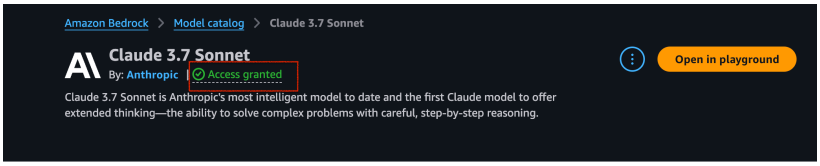


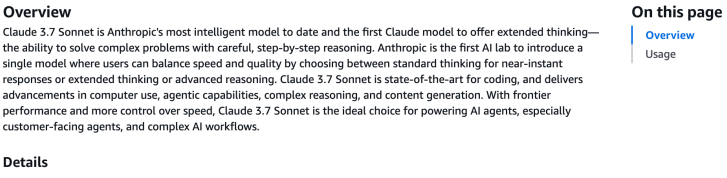
Note: This guide uses **Anthropic Claude 3.7 Sonnet** as an example. Not all models are available in all AWS regions.

4. Fill in the required details and submit the request.



5. Wait approximately **2 minutes** for access to be granted. You should see a confirmation once access is approved.

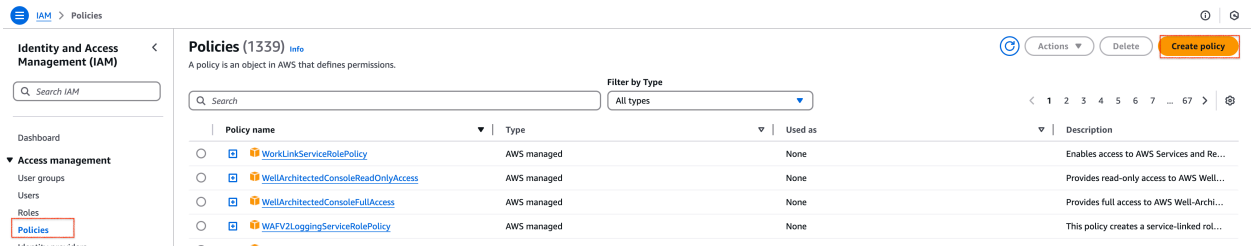


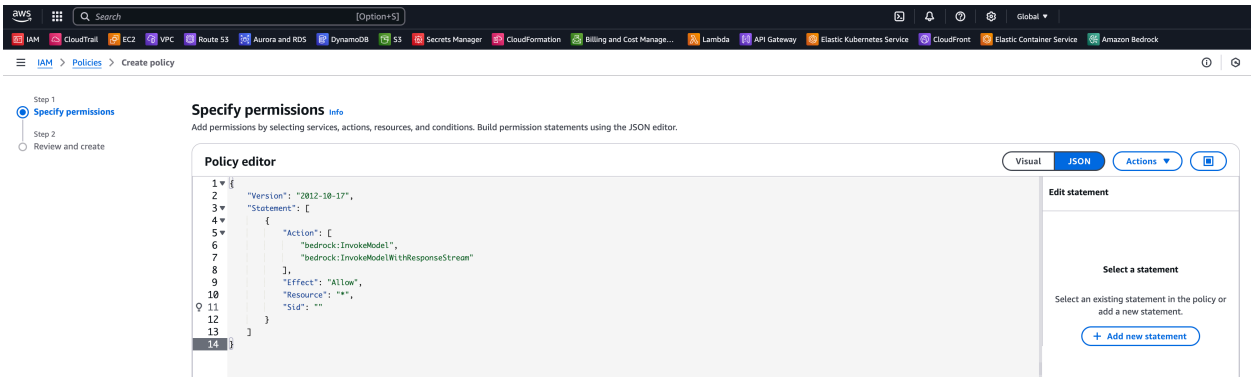


2. Create IAM Access Keys

Step 1: Create a New IAM Policy

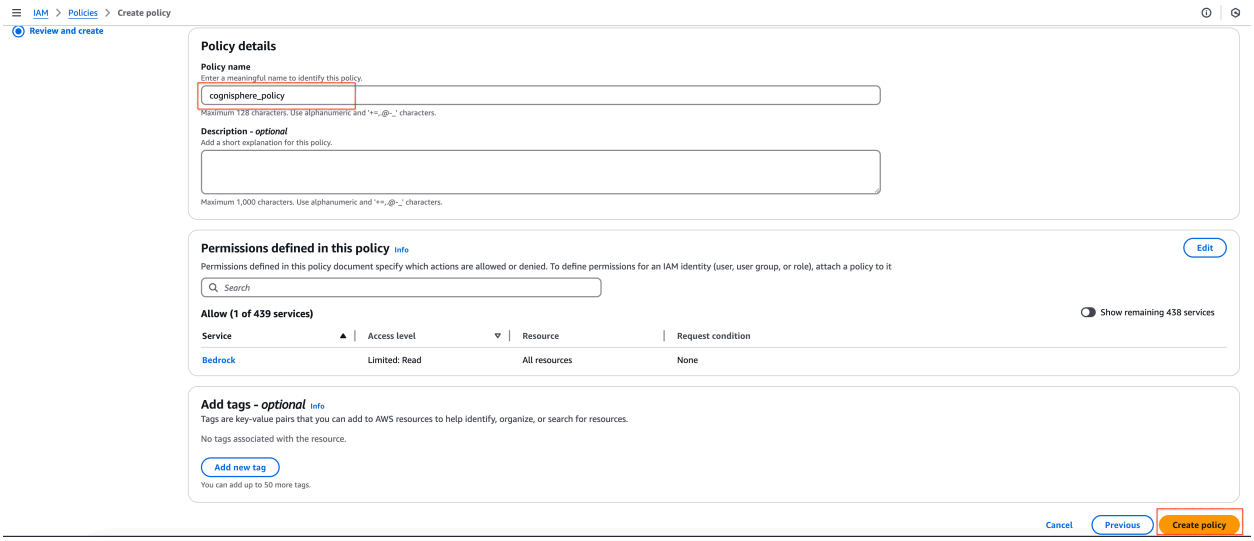
1. Go to **AWS Identity and Access Management (IAM)**.
2. Create a **new policy** with the required permissions for integration.





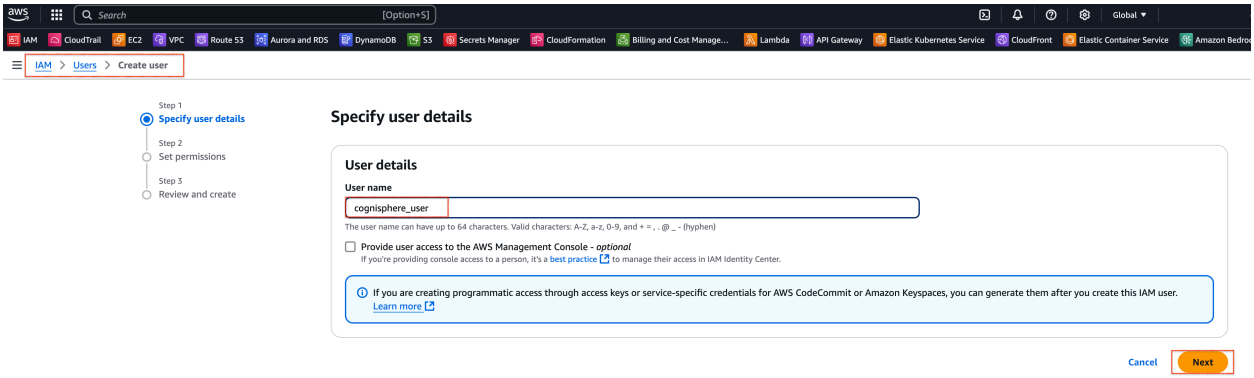

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Action": [
                "bedrock:InvokeModel",
                "bedrock:InvokeModelWithResponseStream"
            ],
            "Effect": "Allow",
            "Resource": "*",
            "Sid": ""
        }
    ]
}
```

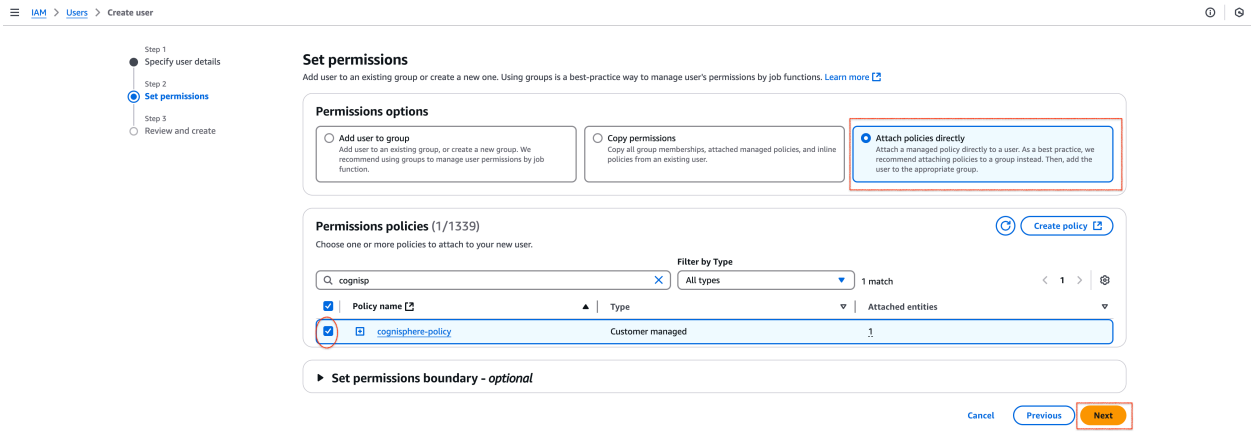
3. Give the policy a meaningful name.

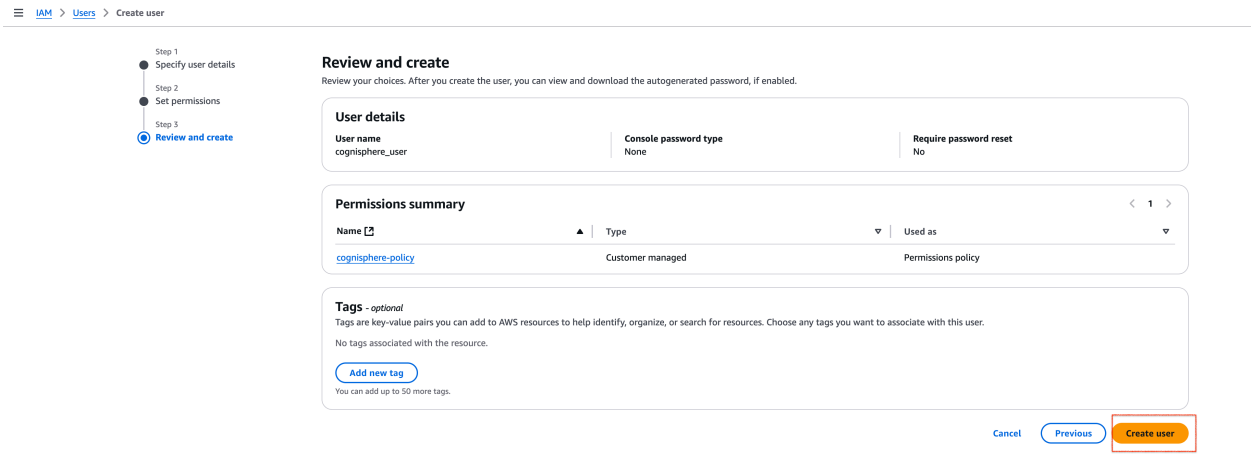


Step 2: Create an IAM User

1. Navigate to **IAM > Users** and create a new user for integration.
2. Assign the **previously created policy** to this user.

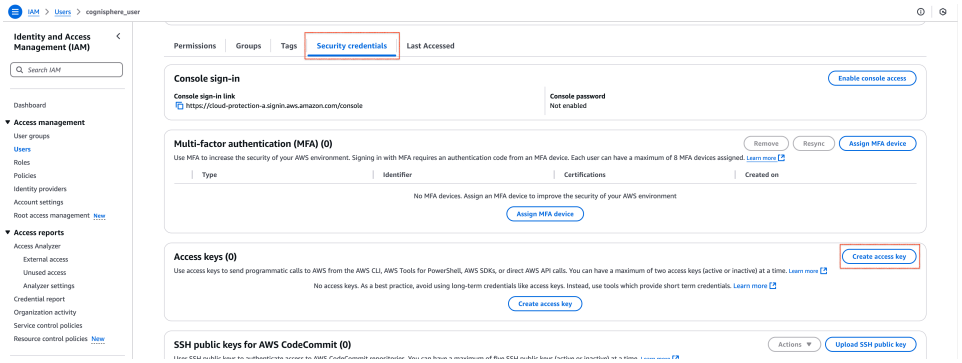


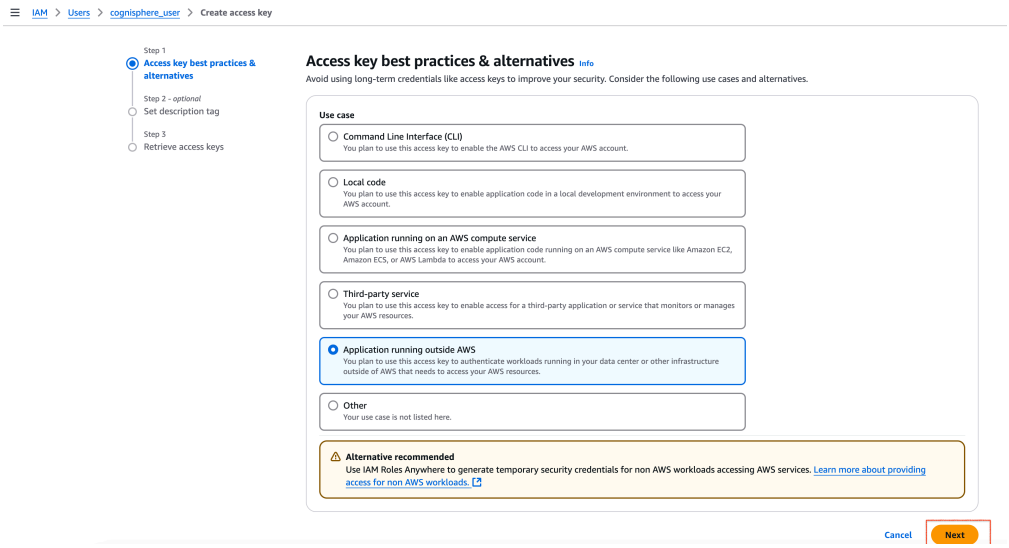


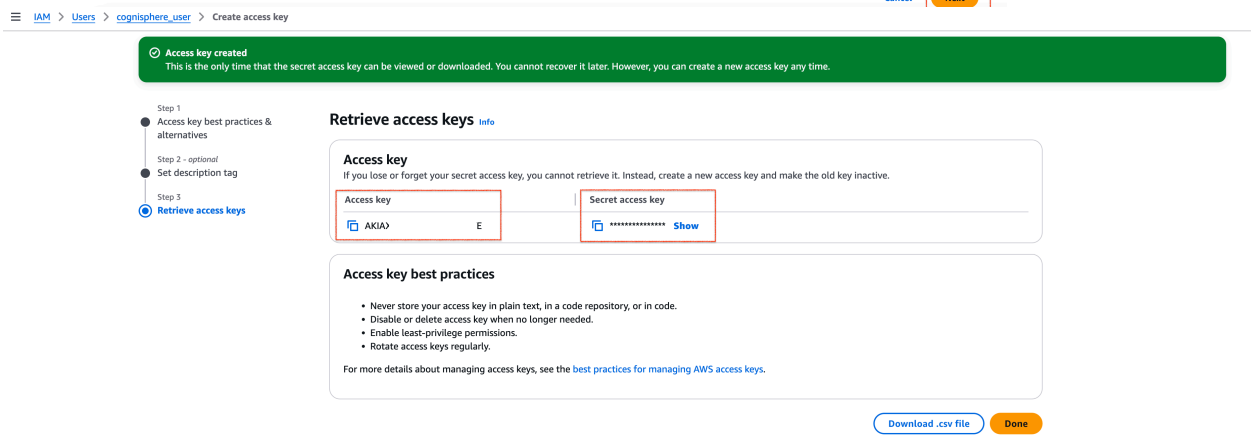


Step 3: Generate Access Keys

1. Open the **Security Credentials** tab for the IAM user.
2. Click **Create Access Key**.
3. Choose **Application running outside AWS** as the use case.
4. Complete the credential creation process.
5. **Save** the **Access Key ID** and **Secret Access Key** securely.

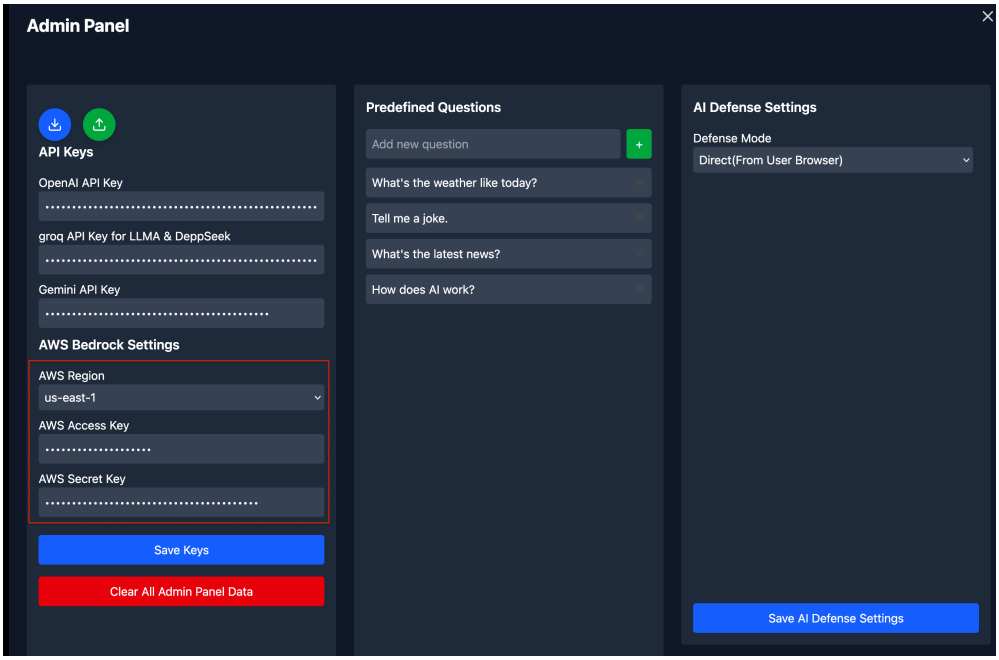






3. Configure CogniSphere with AWS Credentials

1. Open the **CogniSphere** application and navigate to **Admin Panel**.
2. Enter the following details in the configuration settings:
    - **AWS Region**
    - **AWS Access Key ID**
    - **AWS Secret Access Key**
3. Save the configuration.



Your **CogniSphere application** is now integrated with Amazon Bedrock! 🎉, We can test