Quintrix

Amazon Connect Integration

MODULE 4 – CHAT

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Amazon Connect – Chat

Amazon Connect enables a chat channel that uses the same contact flows as the voice channel. In a truly omnichannel design, the only distinction between a chat interaction and a voice interaction is the channel field in the data.

To deploy chat, you need to enable it in the routing profiles, the contact flows, and you need to enable the ingress of the chat conversation, which is usually your customer webpage.

This course will step you through the process to deploy and test a chat demo with your Amazon Connect contact flows.

Learning objectives

After completing this training, you will be able to:

- Describe the Amazon Connect architecture and chat solution.
- Setup the prerequisite environment in your contact flow.
- Create a website with a prebuilt chat widget.
- Build the chat solution and connect to an Amazon Connect agent

Amazon Connect – Chat

Solution architecture

The solution you will build creates a simple website that enables a customer to start a chat with a prebuilt widget. The end user enters their name and the username of the agent they would like to speak with, which puts the customer into that agent's queue.

The AWS CloudFormation stack creates a website hosted in Amazon S3 that is served by Amazon CloudFront. The website calls an Amazon API Gateway endpoint that triggers an AWS Lambda function. This Lambda function invokes the Amazon Connect service StartChatContact API, stores the result in Amazon DynamoDB, and returns the result to the front end.

https://docs.aws.amazon.com/en_pv/connect/latest/APIReference/API_StartChatContact.html

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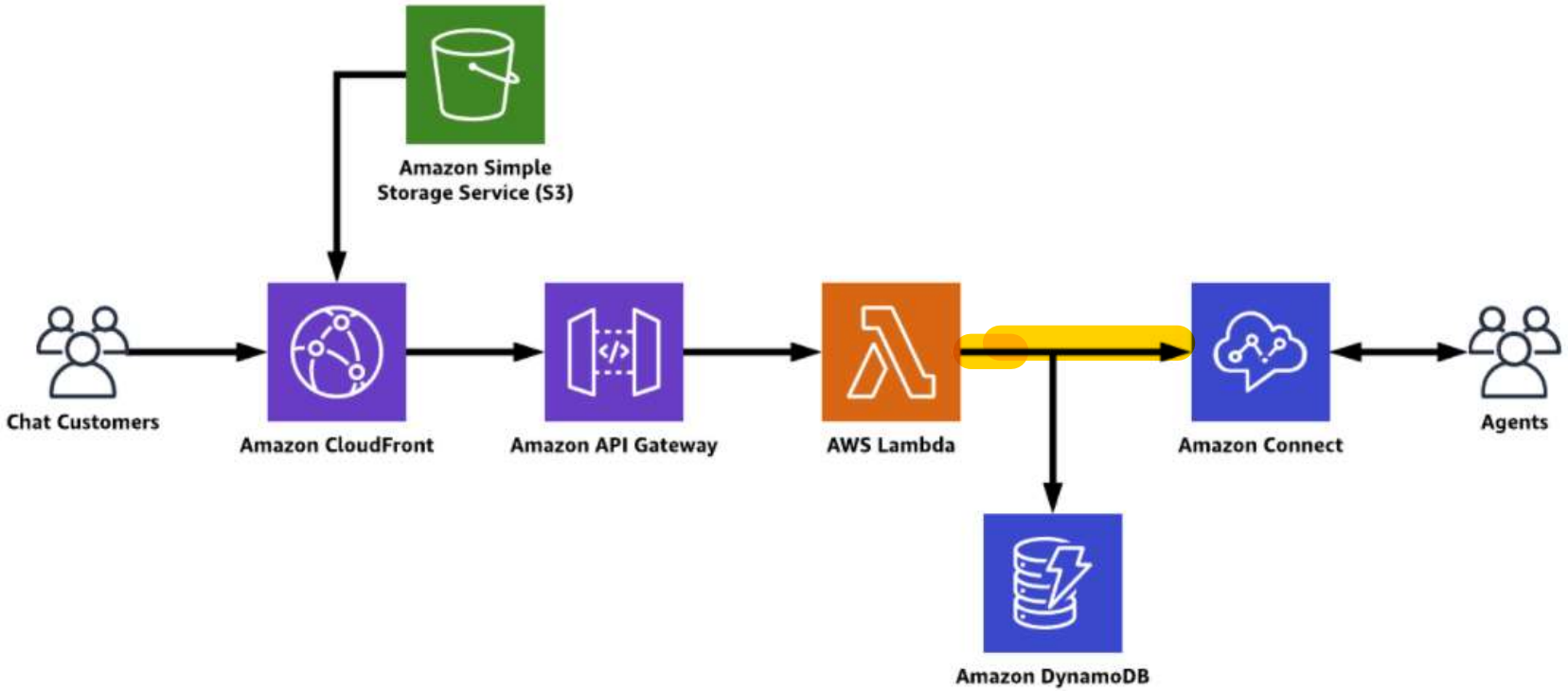
Solution architecture



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Active chat open

In addition to starting the chat and storing the results in DynamoDB (DDB), the Lambda function helps determine whether the user has an active chat open. Before starting the chat, the Lambda function checks the DDB to see whether there is an existing chat open for that user. If so, the current chat is returned to the website instead of starting a new one. This enables your user to pick up the existing chat where they left off on any device.

This functionality is possible by knowing who the user is and keeping track of whether there is an open chat session. An open chat session is determined by the presence of a chat transcript in Amazon S3. At the end of a chat conversation, when the chat transcript is uploaded to S3 bucket, a Lambda function is triggered to update the DDB with the S3 bucket location of the chat transcript. If there is no S3 bucket location for a chat, then we assume the chat is still in session.

Amazon Connect – Chat

Prerequisites to Enable Chat

Within an existing instance

For this lesson, you will need to enable the chat testing mode to use the simulated environment provided for testing.

There are two parts to this process:

1. Enabling the chat testing mode in your instance.
2. Enabling chat in the Routing Profile.

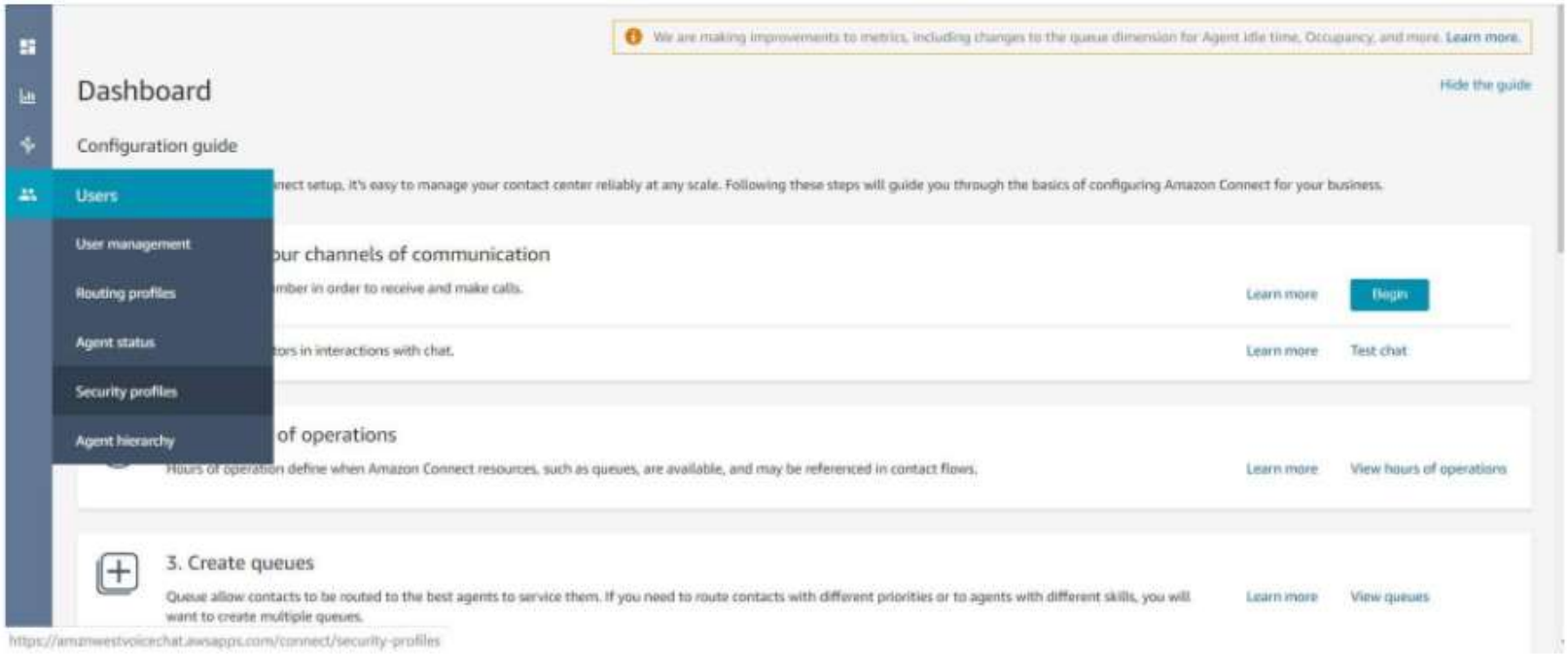
Note: Another option for enabling the chat testing mode is to create a new security profile specifically for testing chat and assign testers to that profile.

Amazon Connect – Chat

Enabling Chat Testing Mode

Security Profile Dashboard

From the main dashboard, go to the Security Profile.



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Admin Profile

Click the **Admin Profile**

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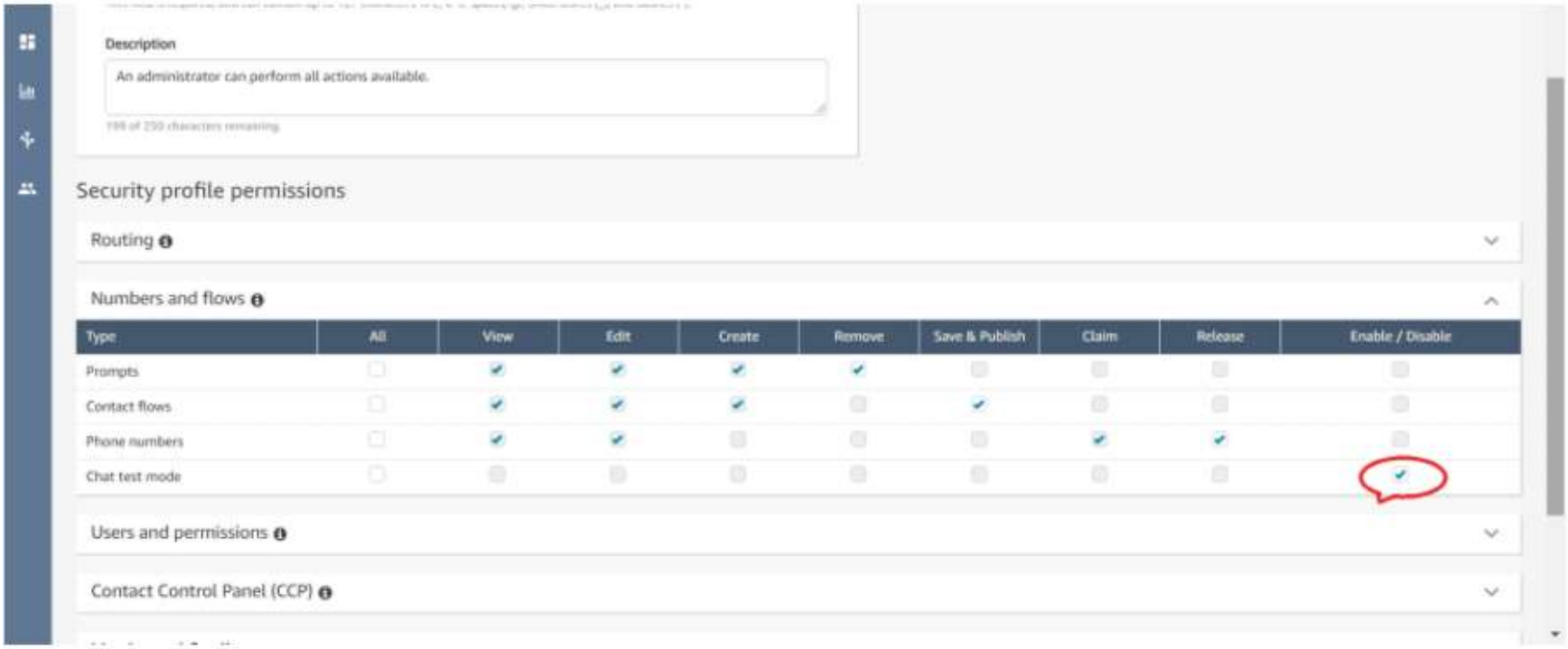
Enable Chat

Enable Chat under the Chat Test Mode.

Scroll down and click **Save**



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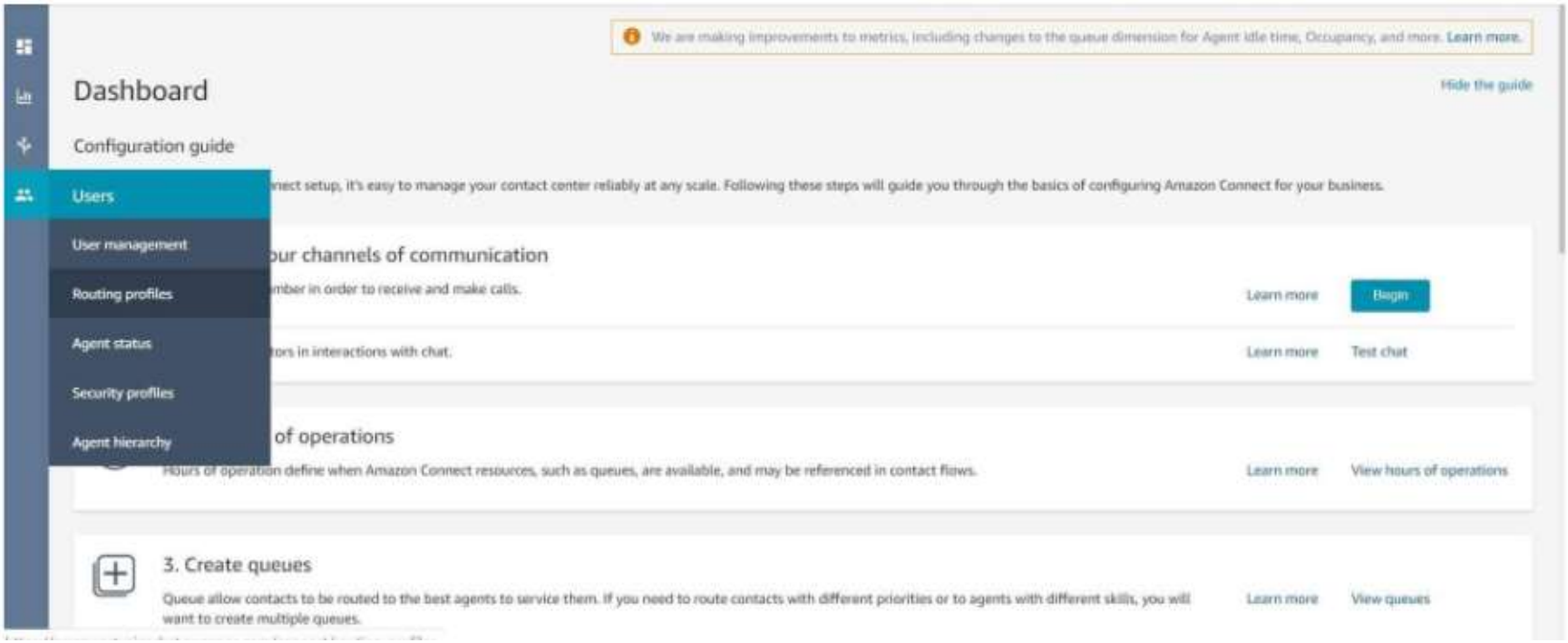
Enabling Chat in the Routing Profile

Instance - Routing Profile

Go into your instance's website and go to the **Users > Routing Profiles**



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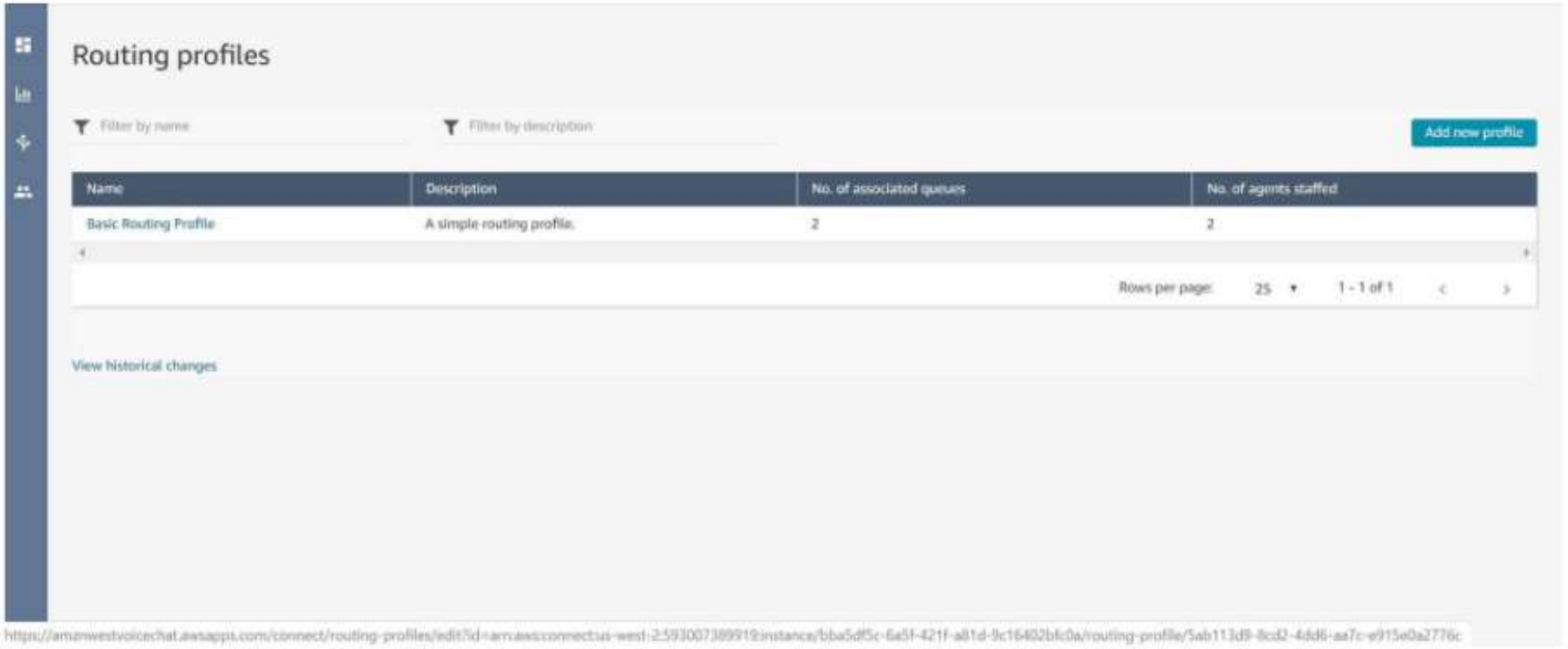
Enabling Chat in the Routing Profile

Choose Routing Profile

Choose the routing profile that needs Chat enabled.



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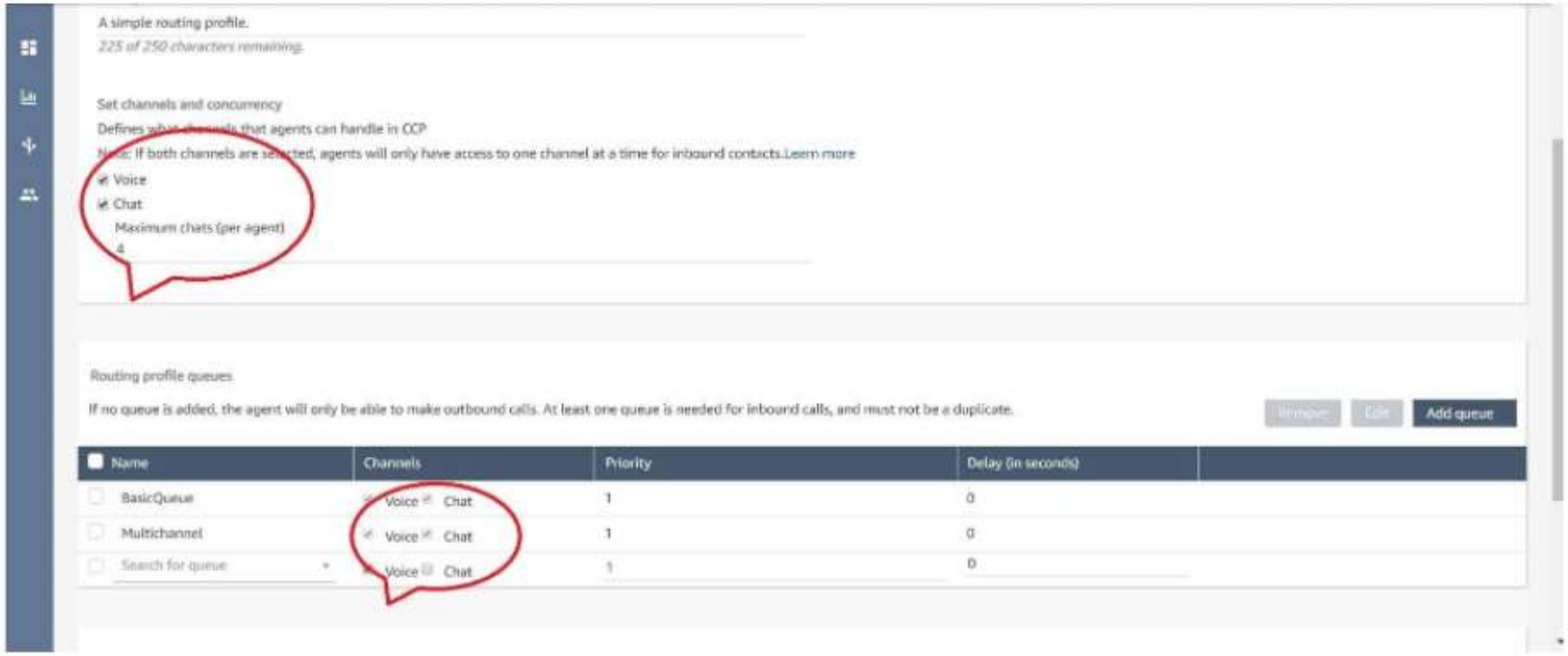
Enabling Chat in the Routing Profile

Enable Chat in the Routing Profile

Add the **Basic Queue** to the profile and under Channels, check the box to enable **Chat**.



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Contact flows blocks

Your existing contact flows will work for chat, however, you will need to review how they work. The introduction of the chat feature has added two new blocks and updated a number of existing action blocks which are listed in the table below.

New	Updated for Chat
Wait Set Disconnect Flow	Play Prompt Get Customer Input Store Customer Input Set Recording Prompt

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Reports and CTRs

With the addition of chat, your metric reports and the contact trace records (CTRs) will reflect chat as a channel.

Note the following changes to metrics:

- Agent Activity: Existing reports that used Agent Status as the column name will use Agent Activity as the column name.
- Availability: This metric has a new definition to account for chat. The change has no impact on metrics for voice calls.
- Capacity: This is a new real-time metric.
- Contact State: This metric has a few changes so the states are better aligned to what the agent sees in the updated Call Control Panel (CCP).

Amazon Connect – Chat

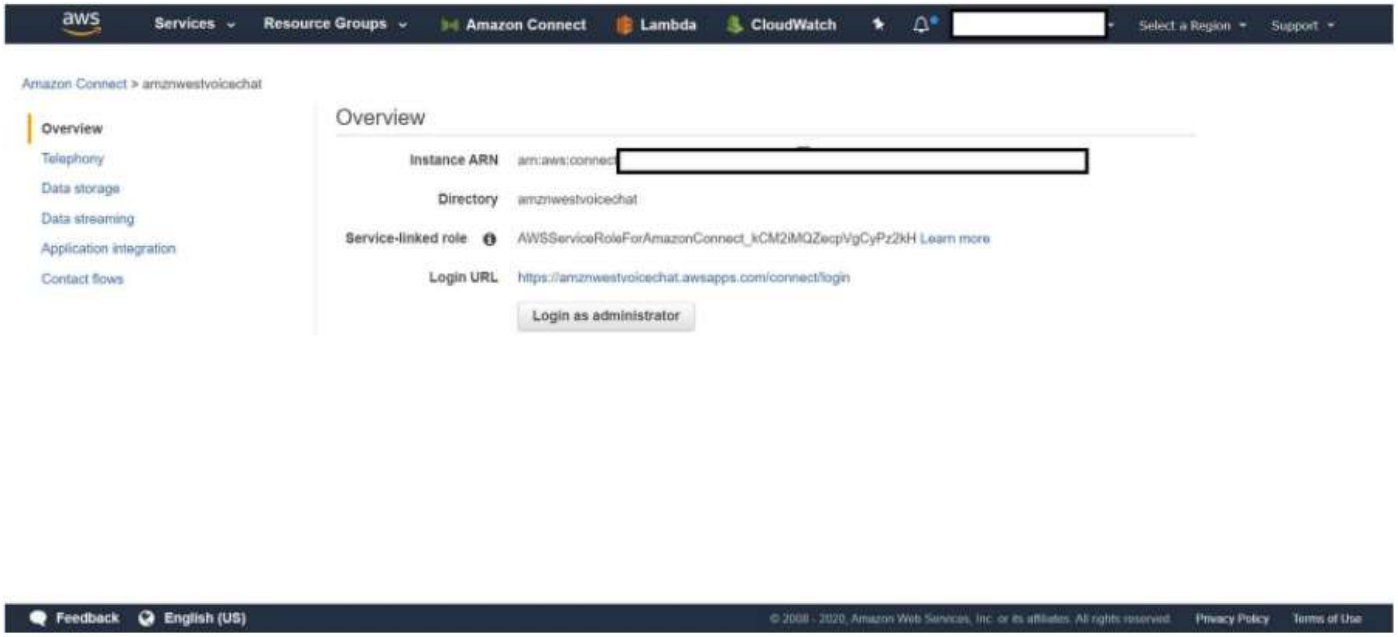
Chat transcripts

You can enable chat transcripts in Amazon Connect by viewing your instance settings, clicking on the Data Storage section, and adding an S3 bucket in the Chat Transcripts section.

Follow the steps shown here.

Select your Instance – Overview

Got to Amazon Connect Console and select the instance to get to the **Overview** page.



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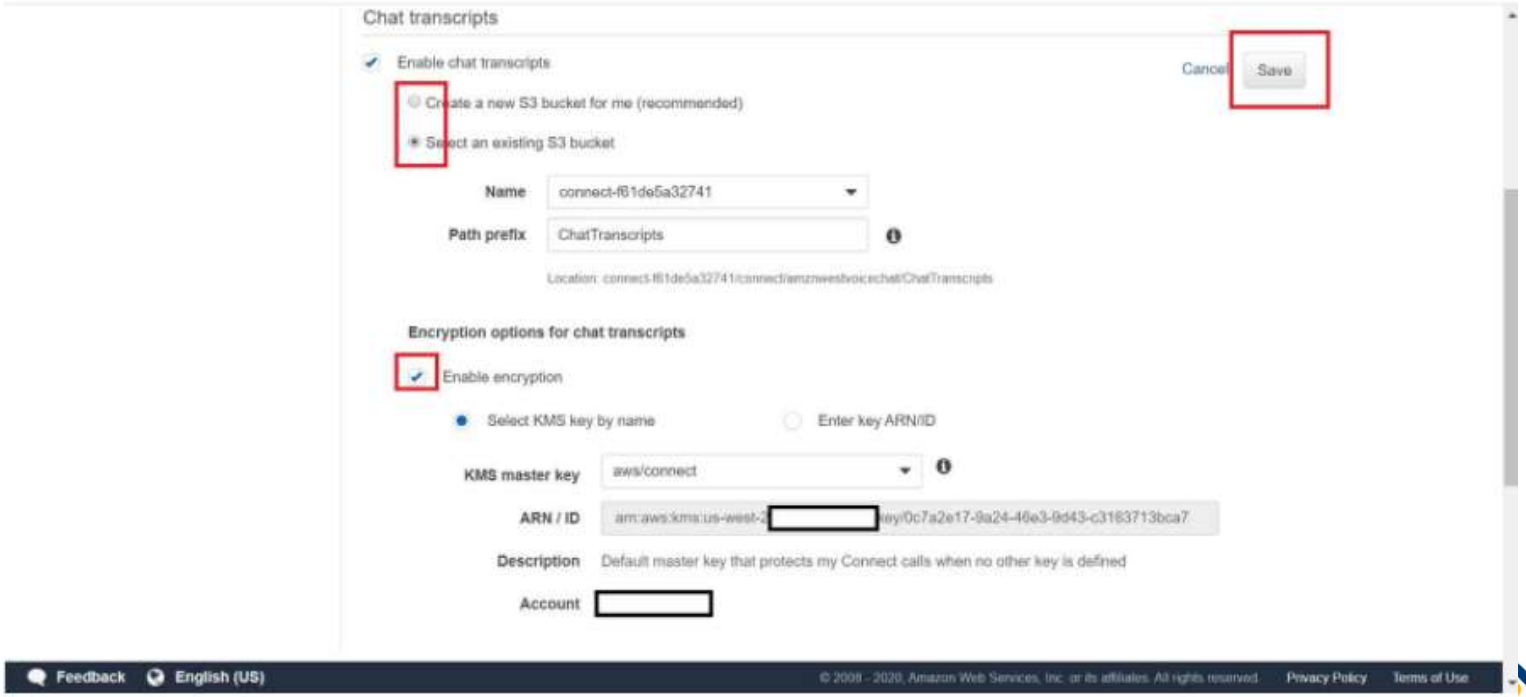
Chat transcripts

Instance - Data Storage

Select the **Data Storage** tab in the menu on the left.

Select the check box **Chat Transcripts** to enable Amazon Connect to store the transcripts.



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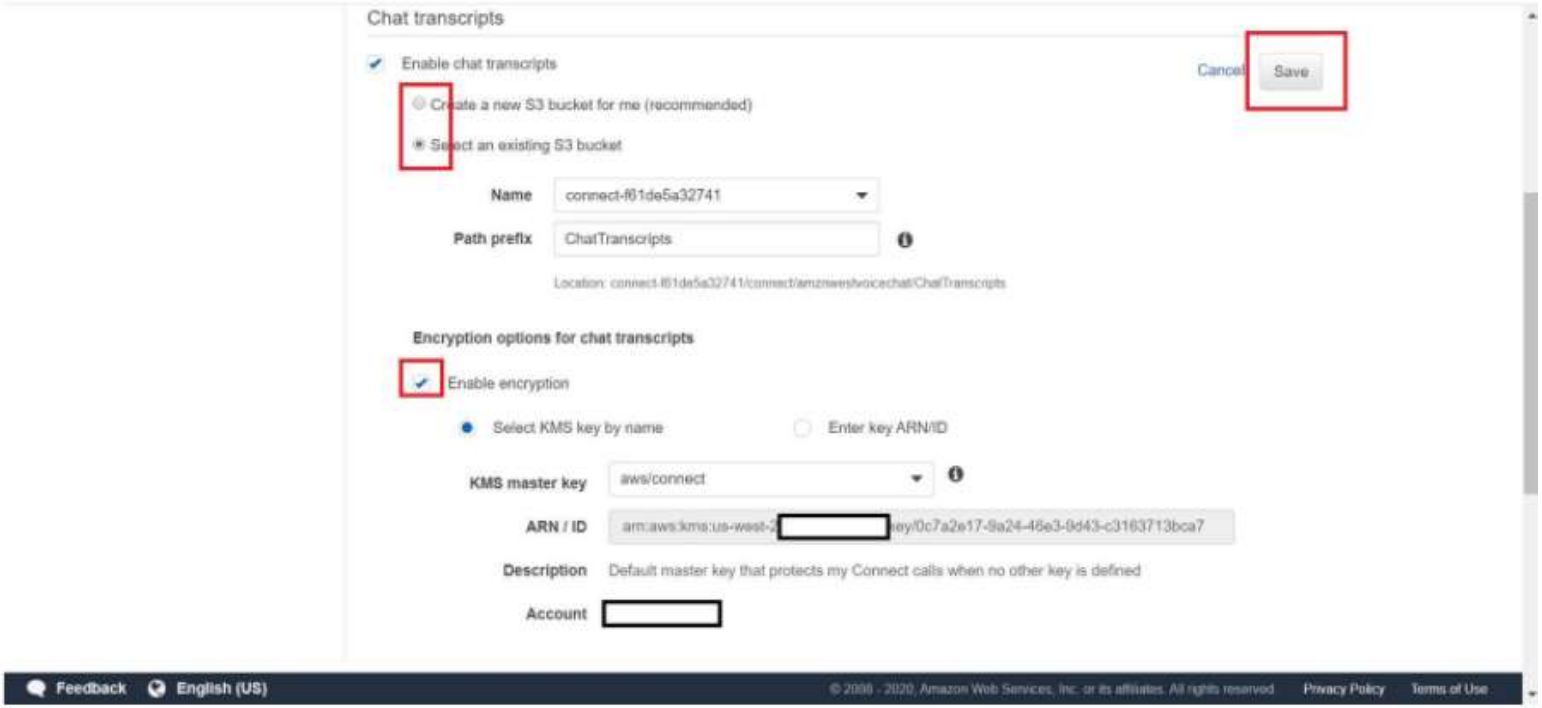
Chat transcripts

Instance - Chat Transcripts

Select the **S3 bucket** to store the transcripts and check **Enable Encryption** to encrypt the data in the bucket.

Select **Save**.



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Amazon Lex bots

If you are using Amazon Lex bots in your contact center, and your Amazon Connect instance was created before October 12, 2018, we recommend that you add a new Lex bot (which you can later remove) to automatically update permissions to ensure your service-linked role has "lex:PostText" permissions.

CCP interface

When you're ready to deploy the updated CCP, give the URL to those agents who are going to handle voice and chat contacts, or only chat contacts. Those agents who are only handling voice contacts can continue using the original CCP.

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Deploy the Chat Demo

Import Contact Flows

To create the required contact flows for this solution, you need to download the following two JSON files from the GitHub Repository and import them into your Amazon Connect instance.

- Basic Chat.json
- Basic Chat Disconnect Flow.json

https://github.com/amazon-connect/amazon-connect-chat-ui-examples/tree/master/cloudformationTemplates/asyncCustomerChatUX

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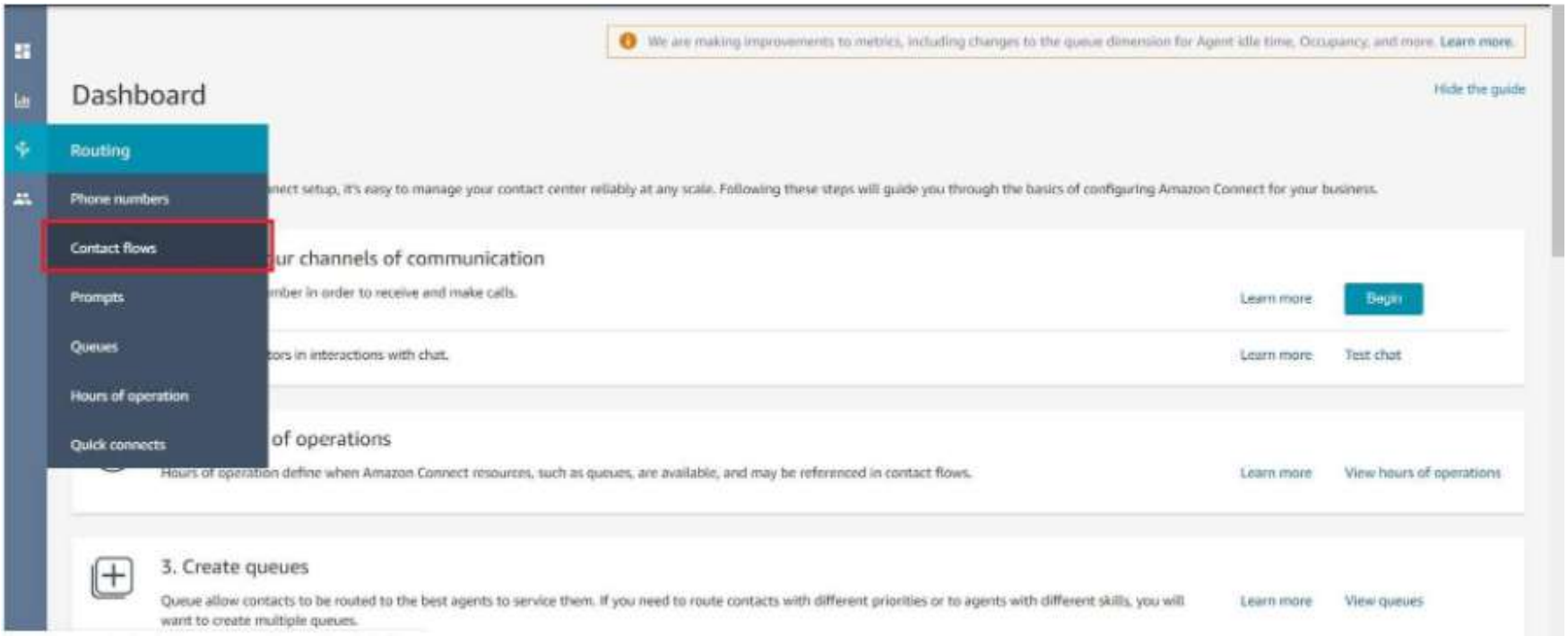
Deploy the Chat Demo

Choose Contact Flow

Under the Routing menu choose Contact Flow.



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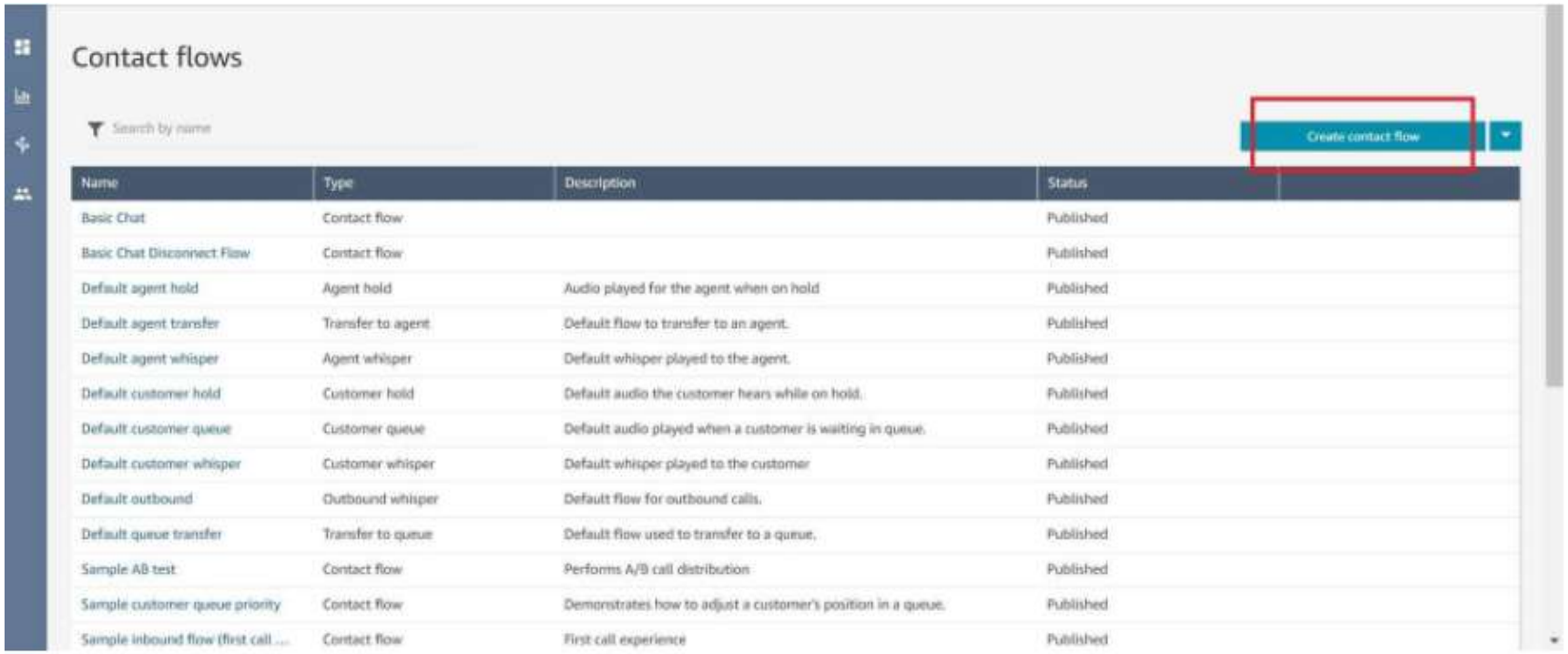
Deploy the Chat Demo

Create Contact Flow

Select **Create Contact Flow.**



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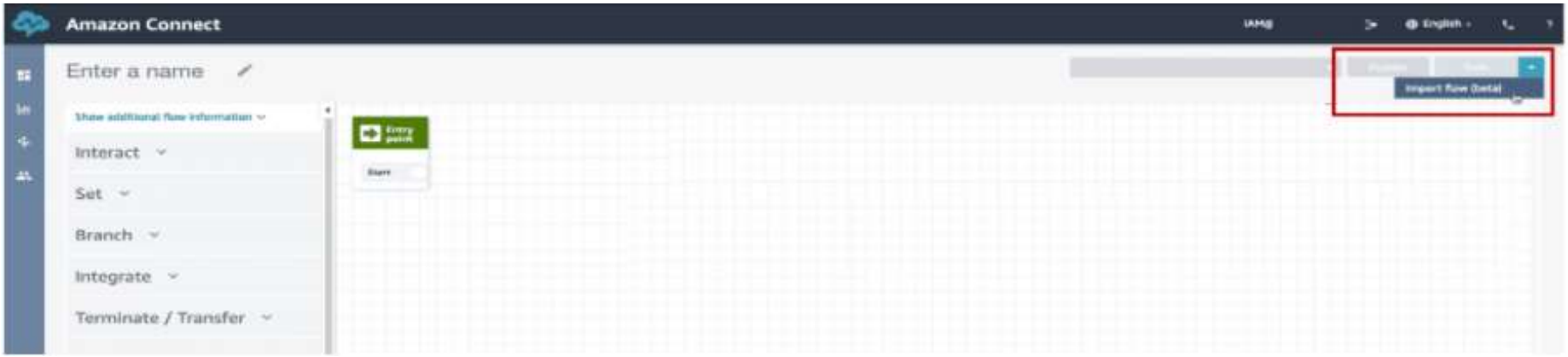
Deploy the Chat Demo

Import Flow

Select the **Save** drop-down and choose **Import flow (beta)**



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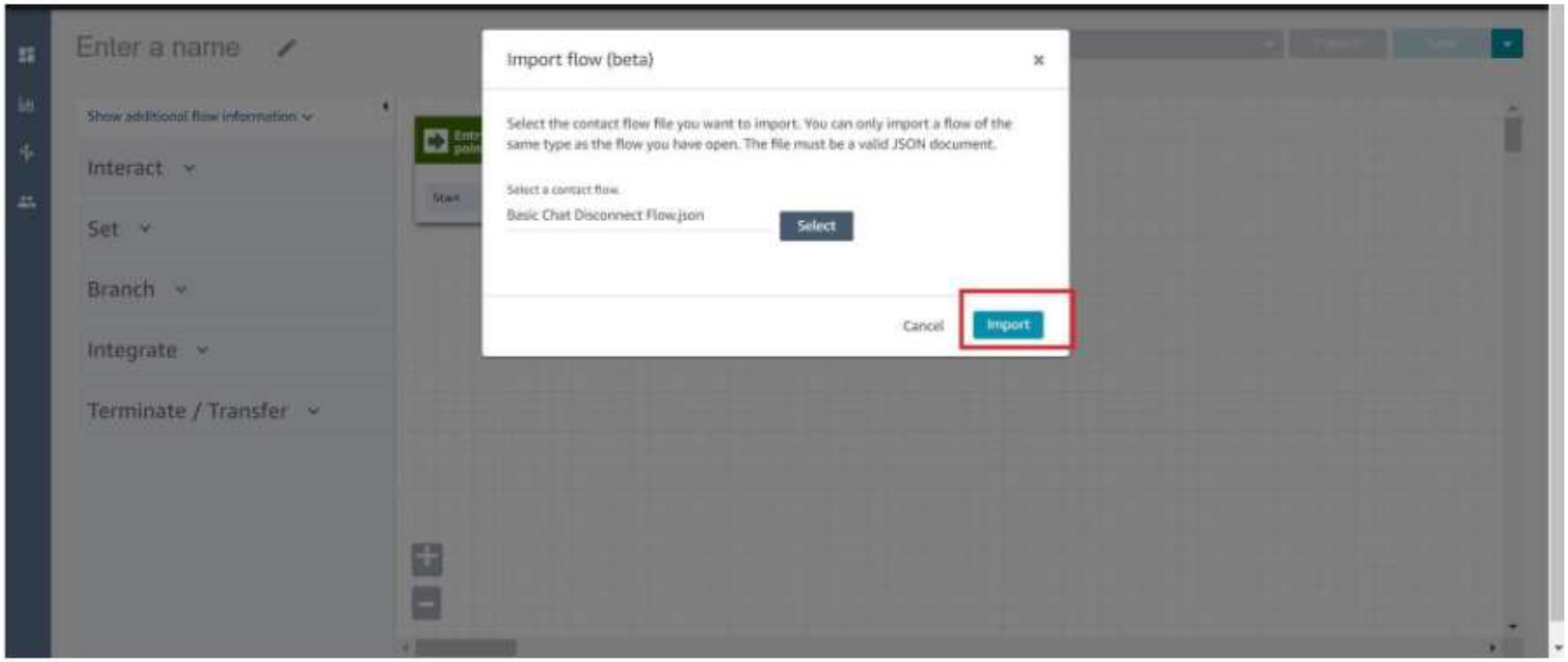
Deploy the Chat Demo

Import Basic Chat Disconnect

Import the Basic Chat Disconnect Flow.json



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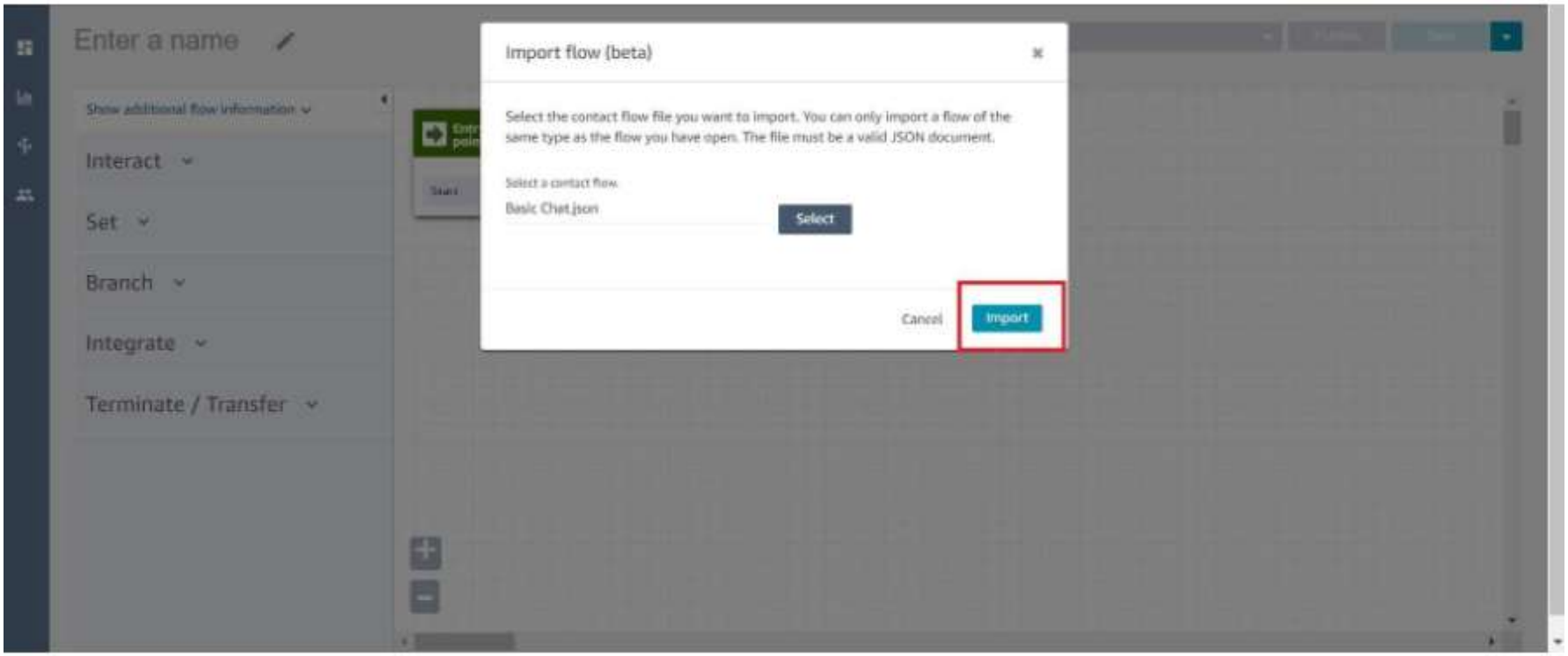
Deploy the Chat Demo

Import Basic Chat

Import the Basic Chat.json.



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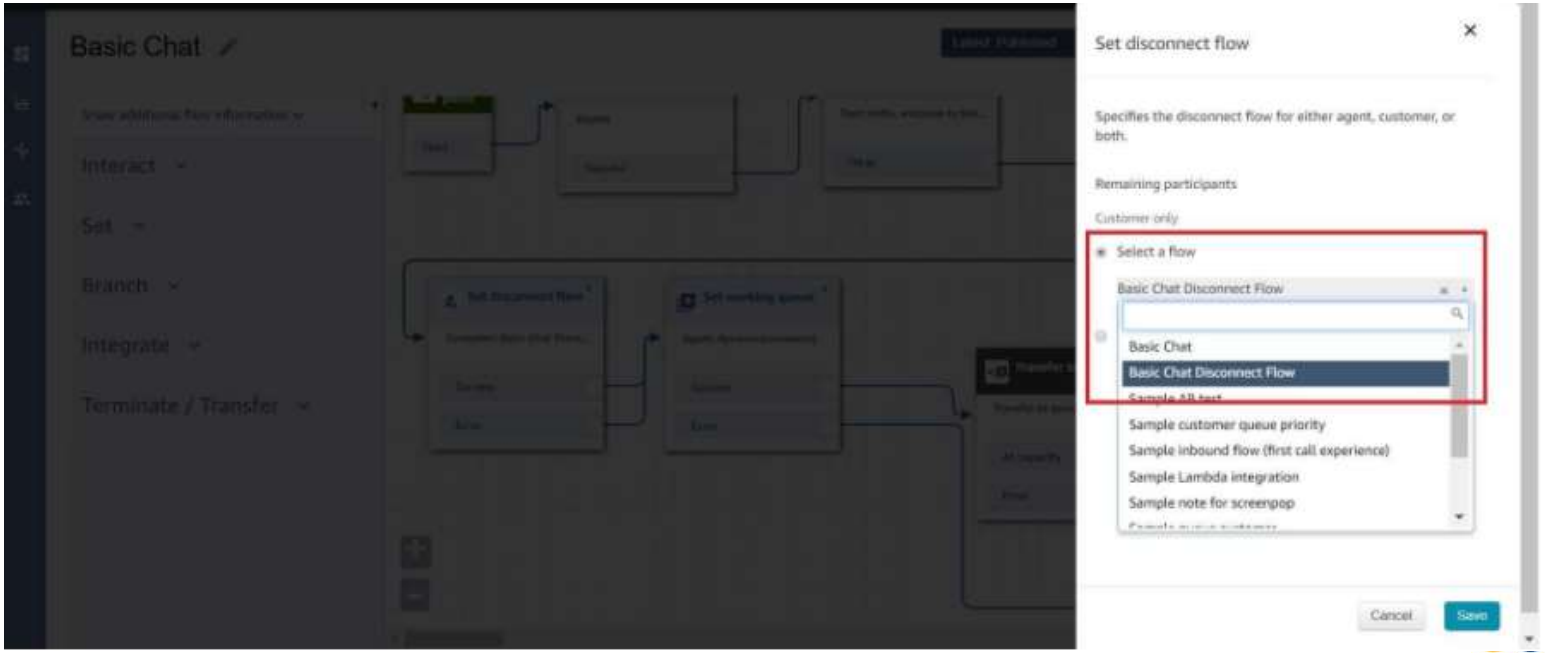
Deploy the Chat Demo

Update Set disconnect flow block

Open the **Basic Chat** contact flow.

Select the **Set disconnect flow** block and point to the Basic Disconnect Flow, then select **Save.**

Click **Publish** to adapt to the change



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Launching the CloudFormation template

The next step in the process is to launch the CloudFormation template . The template is used to provision the resources required to launch a website for a customer-facing chat interaction with Amazon Lex and Amazon Connect Agents.

Amazon Connect – Chat

Launching the CloudFormation template

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Updating parameters

When creating the template stack, you will need to review the parameters defined in the template and input custom values. Examples are explained here:

- WebsiteS3BucketName:

This should be the name of a new S3 bucket that will be created on your behalf to store the website contents

Amazon Connect – Chat

Updating parameters

- contactFlowId:

This is the ID of the Basic Chat Flow you imported in earlier. You can find the contact flow ID when viewing the contact flow and clicking on the Additional information link.

For example, if the ARN for your flow is 'arn:aws:connect:us-west-2:123456789012:instance/11111111-1111-1111-1111-111111111111/contact-flow/22222222-2222-2222-2222-222222222222', the contact flow id is '22222222-2222-2222-2222-222222222222'

- instanceId:

This is the ID of the Amazon Connect instance you want to use. You can find this on the Amazon Connect console or when viewing the contact flow.

For example, if the ARN for your flow is 'arn:aws:connect:us-west-2:123456789012:instance/11111111-1111-1111-1111-111111111111/contact-flow/22222222-2222-2222-2222-222222222222', the instance id is '11111111-1111-1111-1111-111111111111'

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Updating parameters

- AmazonConnectS3BucketName:

This is the bucket that holds the chat transcripts for your Amazon Connect instance. You can find this in the Amazon Connect console when viewing the Data Storage section in your instance details.

For example, if your instance has connect-xxx/connect/instanceName/ChatTranscripts, enter connect-xxx

- transcriptPath:

This is the path in the S3 bucket that contains the chat transcripts. You can find this in the Amazon Connect console when viewing the Data Storage section in your instance details.

For example, if your instance has connect-xxx/connect/instanceName/ChatTranscripts, enter connect/instanceName/ChatTranscripts.

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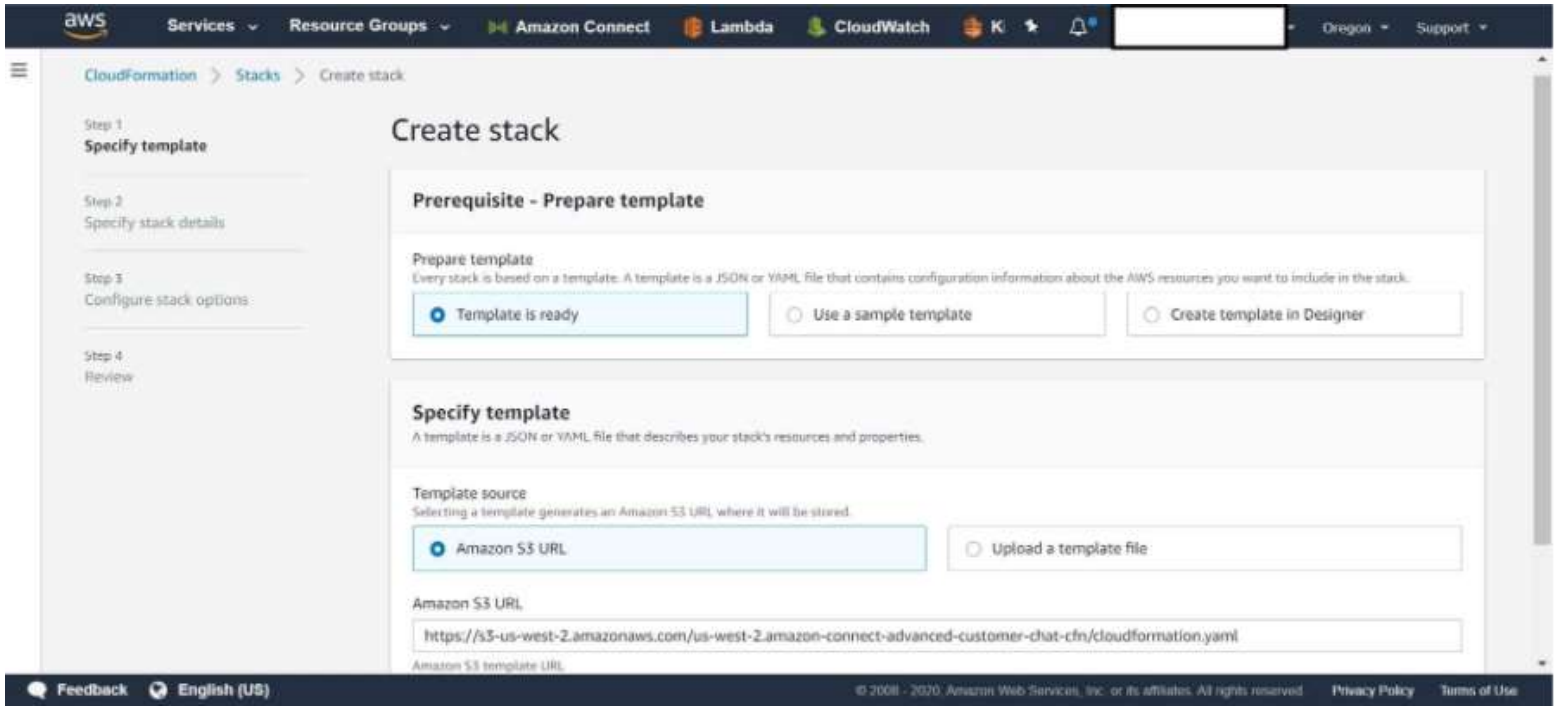
Choose a region to deploy the template

You can deploy the CloudFormation template from one of the regions that supports Amazon Connect

Select the link for your region and sign into the AWS Management Console. CloudFormation will open in the chosen region at the Create stack page.

Follow the steps shown here to continue set up of the CloudFormation template.



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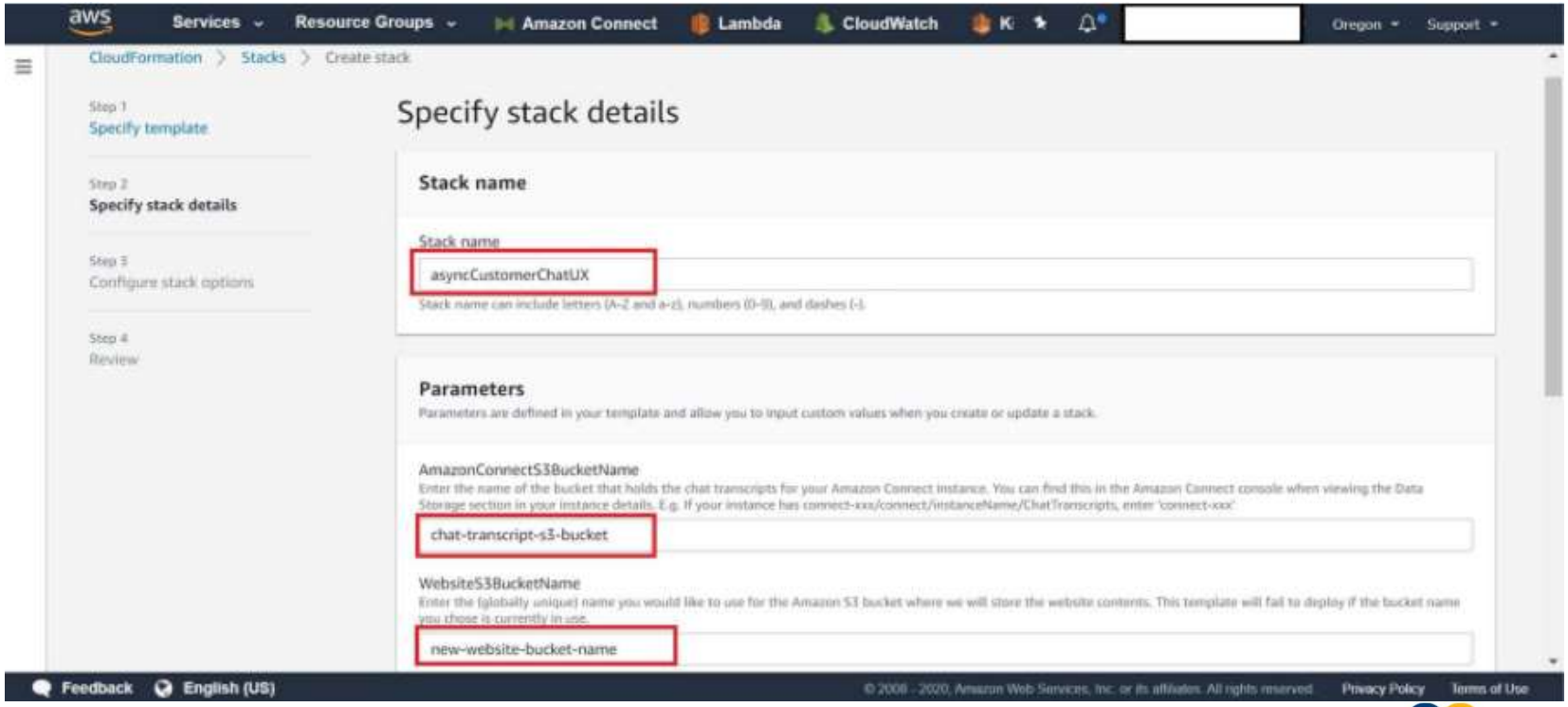
Specify stack details 1

Enter a unique name for the following:

- Stack: asyncCustomerChatUX
- S3 Bucket: Where the chat transcripts will reside; chat-transcript-s3-bucket
- S3 Bucket: Where the website will be created for testing; new-website-bucket-name



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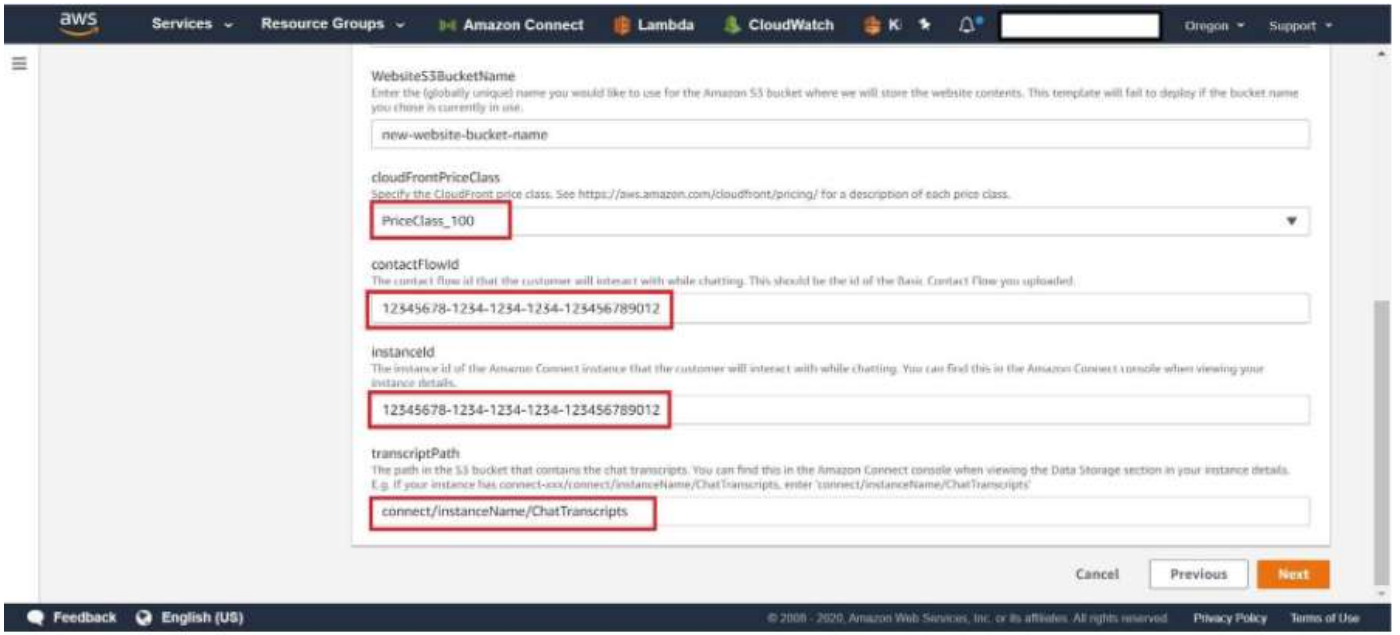
Specify stack details 2

Scroll down and choose the CloudFront PriceClass based on your needs.

Enter the details for your Amazon Connect Instance settings below.

- **contactFlowId**
- **InstanceId**
- **transcriptPath**.

Once all the details are entered and verified, select Next.



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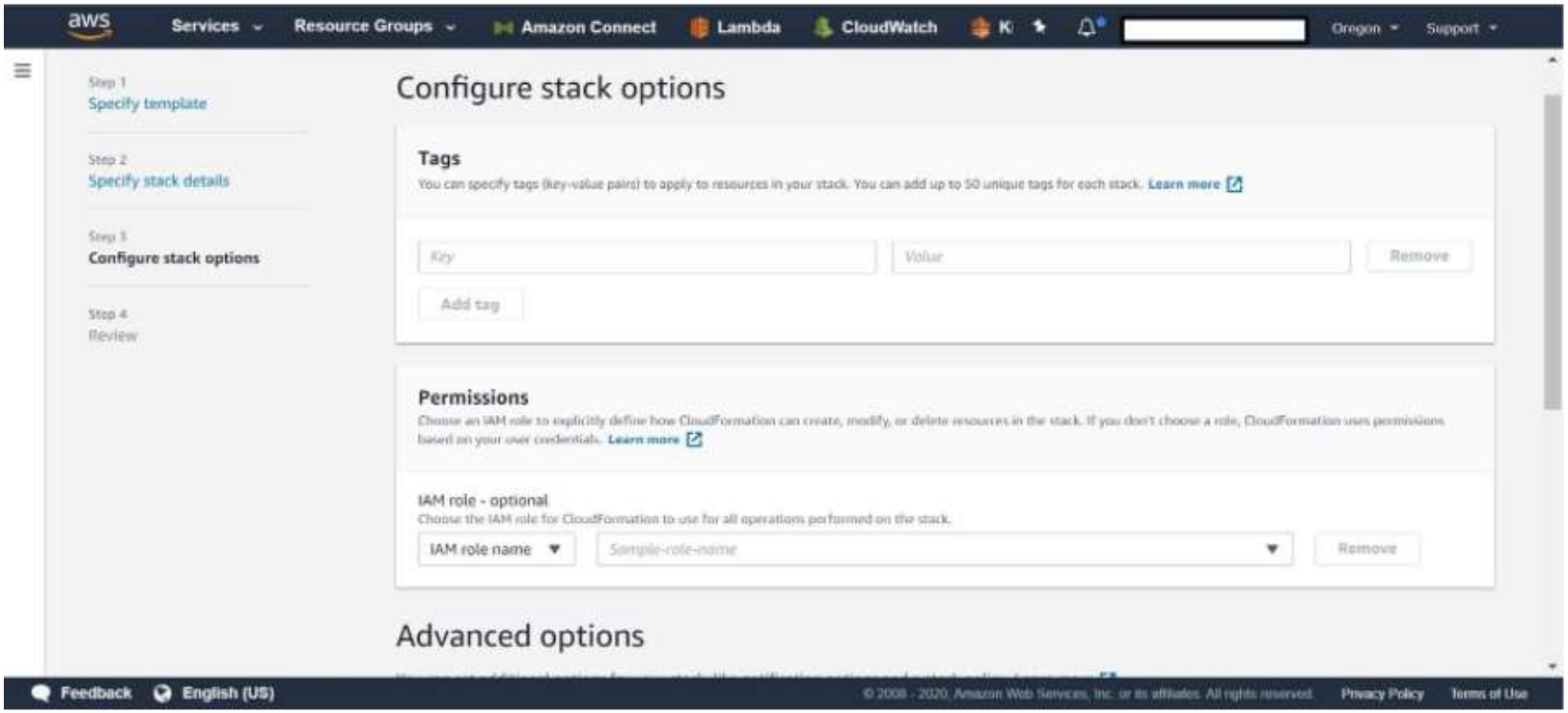
Configure stack options

Review the stack options, make changes if required, and click Next



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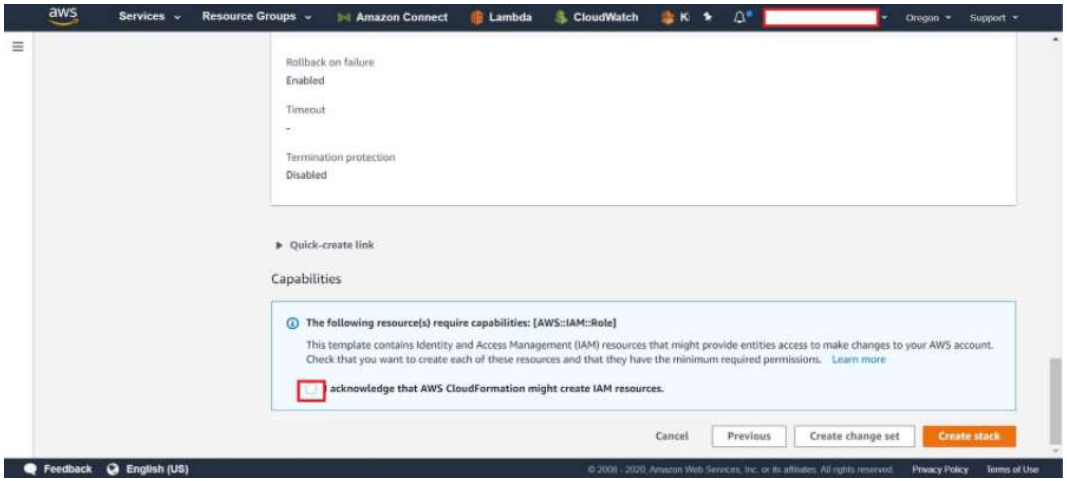
Review

Review all your inputs, then scroll down and select the check box
I acknowledge that AWS CloudFormation might create IAM resources, so that the requested resources can be created.

Select Create stack.

Wait for the CloudFormation template to complete the creation process. Check the stack status to ensure it says CREATE_COMPLETE.

Note: This process can take several minutes to complete. Expect to wait at least 5 minutes for the CloudFormation stack to deploy.



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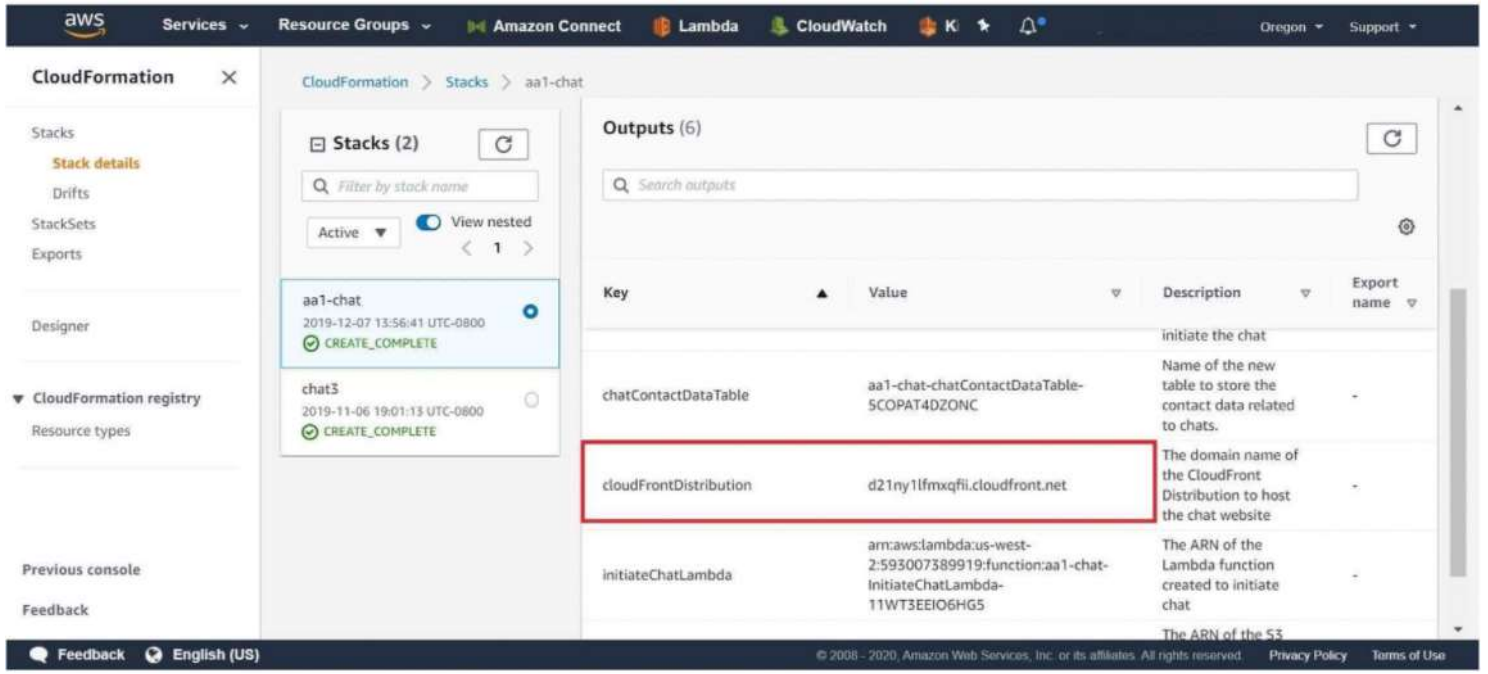
Test Amazon Connect Chat

Once the CloudFront distribution is ready, it's time to test the chat!

1. Find the CloudFront URL under the Outputs tab of the CloudFormation stack, next to the key cloudFrontDistribution.

Note: If you get an Access Denied error saying it cannot read the file from S3 bucket, the CDN is not ready. It could take over an hour to be ready.



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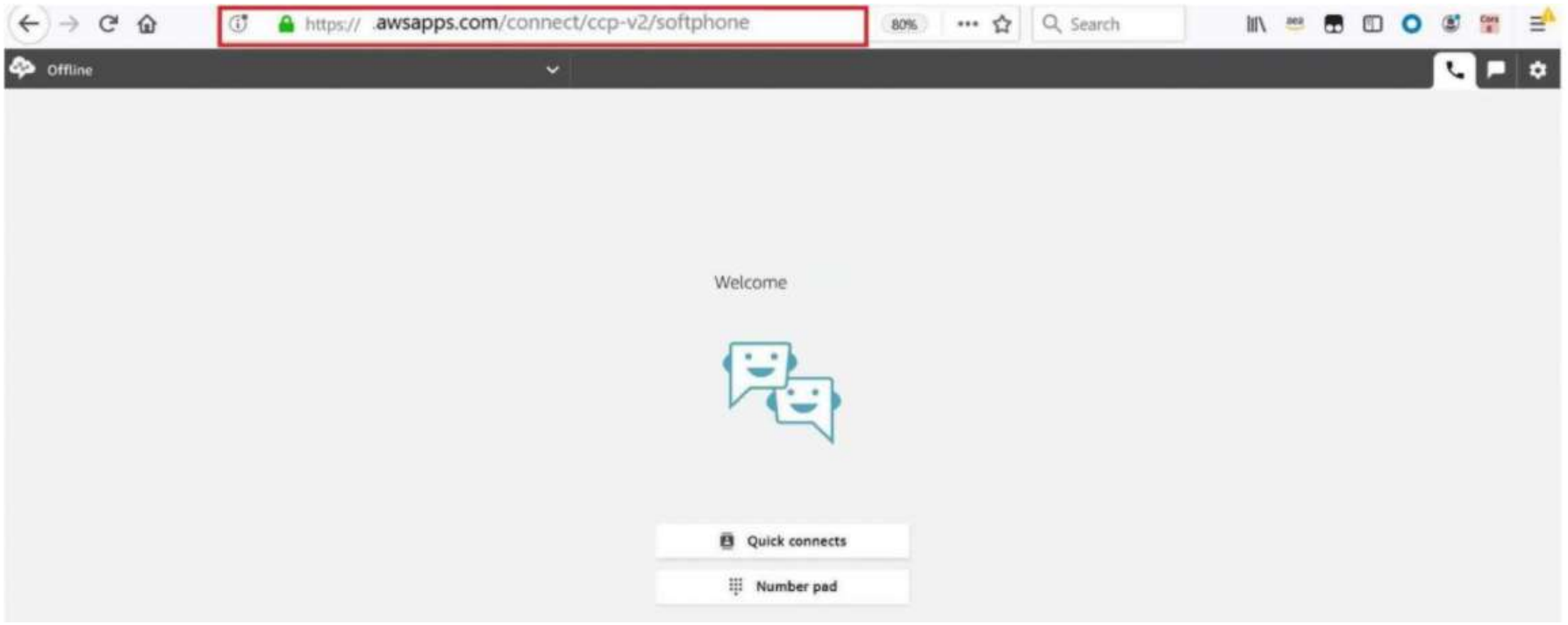
Test Amazon Connect Chat

2. To update the Agent Call Control Panel URL, open the CCP URL from Amazon Connect and change the /ccp portion of the URL to /ccp-v2



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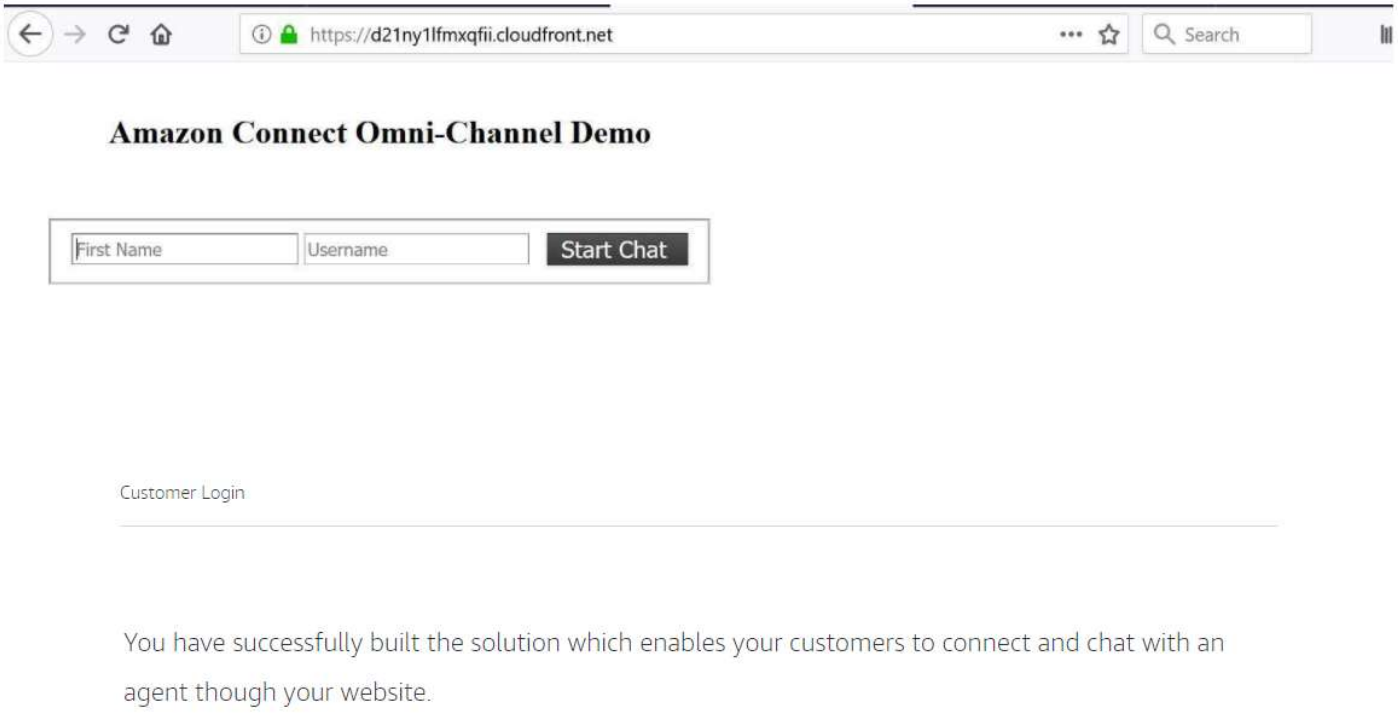
Test Amazon Connect Chat

3. Customer Login: On your CloudFront web page, enter the username of the agent you would like to speak to. The Contact Flow connects you to the agent specified in the username field. Then select Start Chat.

Note: Ensure the agent is configured under your instance and logged in to take the chat interaction. If the username entered cannot be found, it puts the caller into the Basic Queue.



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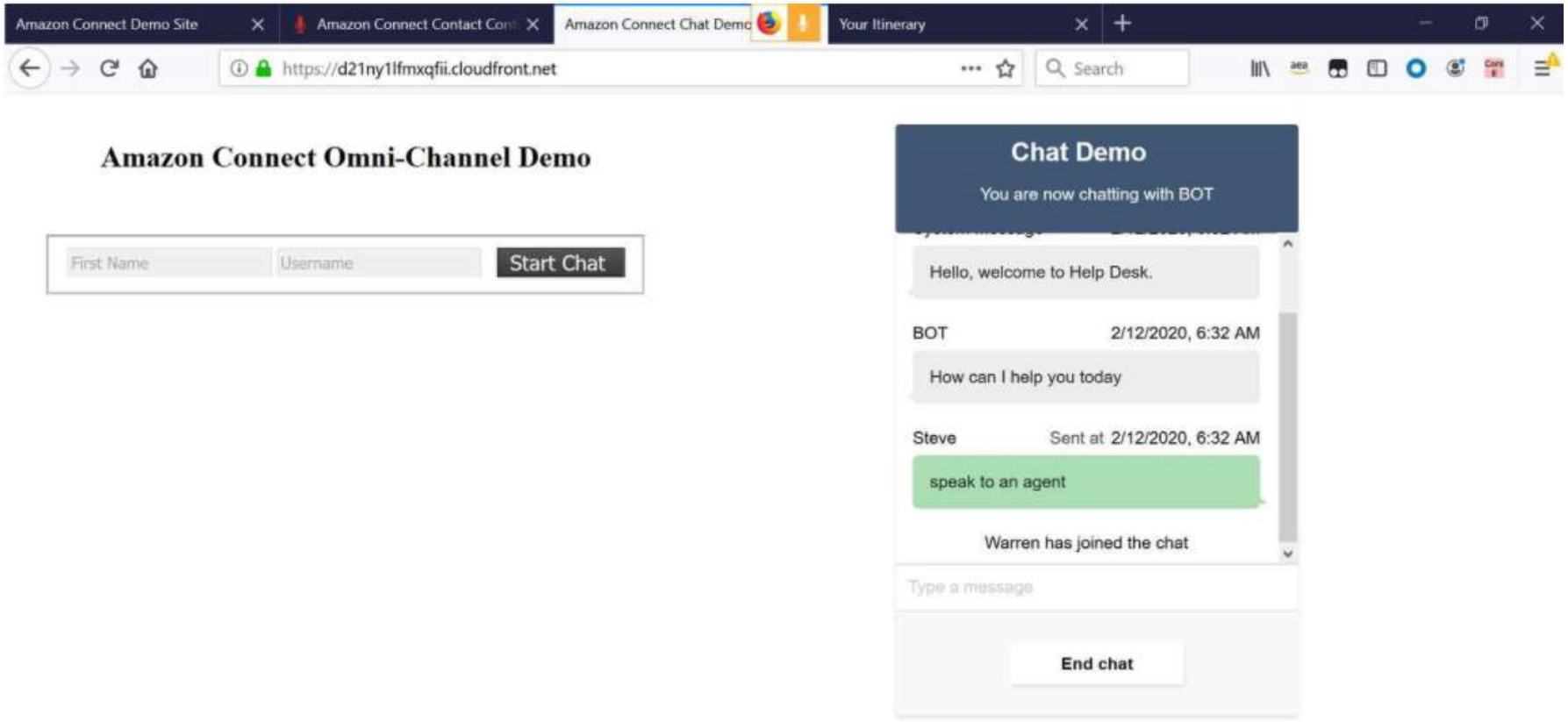
Test Amazon Connect Chat



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Some layout options

1.4 Million
unfilled computing jobs by 2020(1)

75 Percent
of companies face disruption(2)

$116 Billion
lost productivity per year(3)

Current Options Are Not Solving the Problem

STAFFING AGENCY	CAMPUS HIRING	VISA TALENT	INTERNAL TRAINING	BOOTCAMPS
Do not help with shortage	Not enterprise ready	High compliance & legal costs; delays	Not core competency; bureaucratic	Demand-supply mismatch; fragmented

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Sources: (1) Bureau of Labor Statistics. (2) Gartner. (3) CIO Magazine.