Linux Academy

Hands-on Lab

Configuring a CloudFront Distribution

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Lab Connection Information

- Labs may take up to five minutes to build
- Access to an AWS Console is provided on the Hands-on Lab page, along with your login credentials
- Ensure you are using the N. Virginia region
- Labs will automatically end once the alloted amount of time finishes

Related Courses

AWS Certified Solution Architect - Associate

Related Videos

CloudFront Essentials

Performance Consideratons with CloudFront

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In this lab, we're going to set up a CloudFront distribution, using an S3 bucket as its origin. We'll also configure DNS records for our CloudFront distribution using Route 53.

To begin, log in to the AWS console with the credentials provided on the Hands-On Lab page.

Check the S3 Origin

Once logged in, we'll navigate to the **S3 Dashboard** to see the bucket that's been provisioned for us. Look for a bucket with a name that includes your Linux Academy username, and click it. Inside, we should see two files: *myindexpage.html* and *myerrorpage.html*.

We'll be using this bucket as the origin, or data source, for our distribution.

Create a Distribution

Navigate back to the **AWS Services Console** and select **CloudFront** from the **Networking and Content Delivery** section. On the CloudFront page, click the **Create Distribution** button.

We'll have two choices when creating a new distribution: Web and RTMP. For this lab, we'll be creating a web distribution, so click **Get Started** under the **Web** section.

Next, we'll configure the distribution. In the **Origin Domain Name** field, click the text box and we should see a list of our S3 buckets. Select the one containing your Linux Academy username.

Further down on the page, we'll find the **Distribution Settings** section. Here, find the **Alternate Domain Names** field and enter *cdn.linuxacademylab.com*. We'll need to configure this domain further, however, before we proceed.

Open the **AWS Services Console** in a new browser tab, and navigate to the **Route 53** service under **Networking and Content Delivery**.

At the top of the page, we'll see the **DNS Management** heading. Under that heading, click the *Hosted zones* link.

On the next page, we'll see a domain name that's been configured for this lab, such as *linuxacademylab43.com*. Make note of the number in the domain name, navigate back to the first browser tab, which should still have the CloudFront distribution page open, and add that number to the domain. For example, if the domain name is *linuxacademylab43.com*, we'll update our **Alternate Domain Name** to *cdn.linuxacademylab43.com*.

Back on the CloudFront distribution creation page, we can continue down the page, leaving the default settings for the rest of the values, and click **Create Distribution**.

Review the New Distribution

Once we've created our distribution, we'll be taken back to the main CloudFront page.

Note that there may be distributions created by other users in this lab environment. If you're having trouble finding the one we created above, scroll right and click the **Last Modified** tab to sort and find the one that was created most recently.

Once we find our distribution, we can see its **State** is *disabled* and its **Status** is *In Progress*. It may take up to 15-20 minutes to finish creating, so take this time to look around the CloudFront page and check out the different options that are available with the service.

Once the distribution's **Status** changes from *In Progress* to *Deployed*, we'll be ready to proceed.

Configure DNS

Navigate back to the **AWS Services Console** and select **Route 53**. From the main Route 53 page, click the *Hosted zones* link under **DNS Management**. Alternatively, we can simply go back to our second browser tab if it's still open.

We'll see a domain name for the lab environment (the same one we referenced when configuring the CNAME). Click the domain name.

On the next screen, we'll be setting our record sets. However, there may be unnecessary records from previous labs. We'll select any record sets with types that are _not_ **NS** or **SOA** and click the **Delete Record Set** button at the top of the page.

Next, click the **Create Record Set** button. For the **Name**, enter *cdn* (as in *cdn.linuxacademylab43.com*). Make sure the **Type** is *A*, and **Alias** is set to *Yes*. In the **Alias Target** field, we'll be able to select our distribution's name from a list. Finally, click **Create**.

Test the Distribution

We can enter a URI in our domain in a new browser tab to test our distribution. For instance, a valid URI for this lab will be our full domain name followed by a file name. To use the example domain from earlier, this will be *cdn.linuxacademylab43.com/myindexpage.html*.

When the page loads, we'll see an access error. This is due to our S3 permissions, so we'll need to go back to the **S3 Dashboard** to fix them.

On the main S3 page, we'll select the bucket we used as an origin. We'll see our list of files again and we can click each one, select the **More** menu at the top of the page, and click *Make Public* to set the proper

permissions.

Now if we return to the URI we entered previously, we'll see the contents of the index page.

Review

In this lab, we set up a CloudFront distribution to serve content from an S3 bucket. We also configured DNS records for it with Route 53. The benefit of such a system is that users, no matter where they're located geographically, will be able to access your content faster. The traffic will also be distributed across the CloudFront edge locations rather than having every request handled by a single S3 bucket, which can help with performance under heavy loads.

Congratulations! You've completed the lab on configuring a CloudFront distribution!