aws marketplace

Implementation Guide:

CloudCheckr CMx

November 2020

CloudCheckr CMx

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Foreword

Enterprises of all sizes face similar challenges when stepping into the cloud. Initially, monitoring spending and allocating cloud costs are a top priority. However, users must quickly turn their attention to securing their dynamic environments and maintaining compliance to exercise control at scale.

CloudCheckr CMx unifies AWS data streams to provide actionable insights and recommendations that help manage the costs and security of AWS environments. The platform replaces multiple point solutions by consolidating cost management, security monitoring, compliance benchmarking, and automated remediation into a single dashboard.

The purpose of this AWS Implementation Guide is to enable every AWS Marketplace customer to seamlessly activate, deploy and configure CloudCheckr CMx accounts in an AWS Control Tower environment. Additionally, it allows customers to take full advantage of the resources pre-configured by AWS Control Tower as part of the initialization.

Solution overview and features

CloudCheckr CMx unifies disparate data sources to provide immediate and actionable insights that allow users to achieve significant cost savings, while ensuring a high level of AWS security and compliance. When integrated with AWS Control Tower, users can quickly deploy new accounts and apply a multi-functional toolkit of cloud governance solutions with CloudCheckr CMx.

CloudCheckr CMx features include:

- ✓ More than 600 best practice checks for security, performance, availability, and cost efficiency
- ✓ Actionable insights and optimization recommendations
- ✓ Compliance benchmarking for more than 35 international frameworks
- ✓ Comprehensive and customizable reporting
- ✓ Remediation and self-healing automation
- ✓ Continuous configuration and utilization analysis

Architecture diagram

The solution uses Amazon CloudWatch Events rules triggered by AWS Control Tower lifecycle events to call an installed Lambda function. This Lambda function creates a new account in CloudCheckr CMx, provisions an identity and access management (IAM) role within the new AWS account. It then credentials the newly created account in CloudCheckr CMx using this role's Amazon Resource Name (ARN).

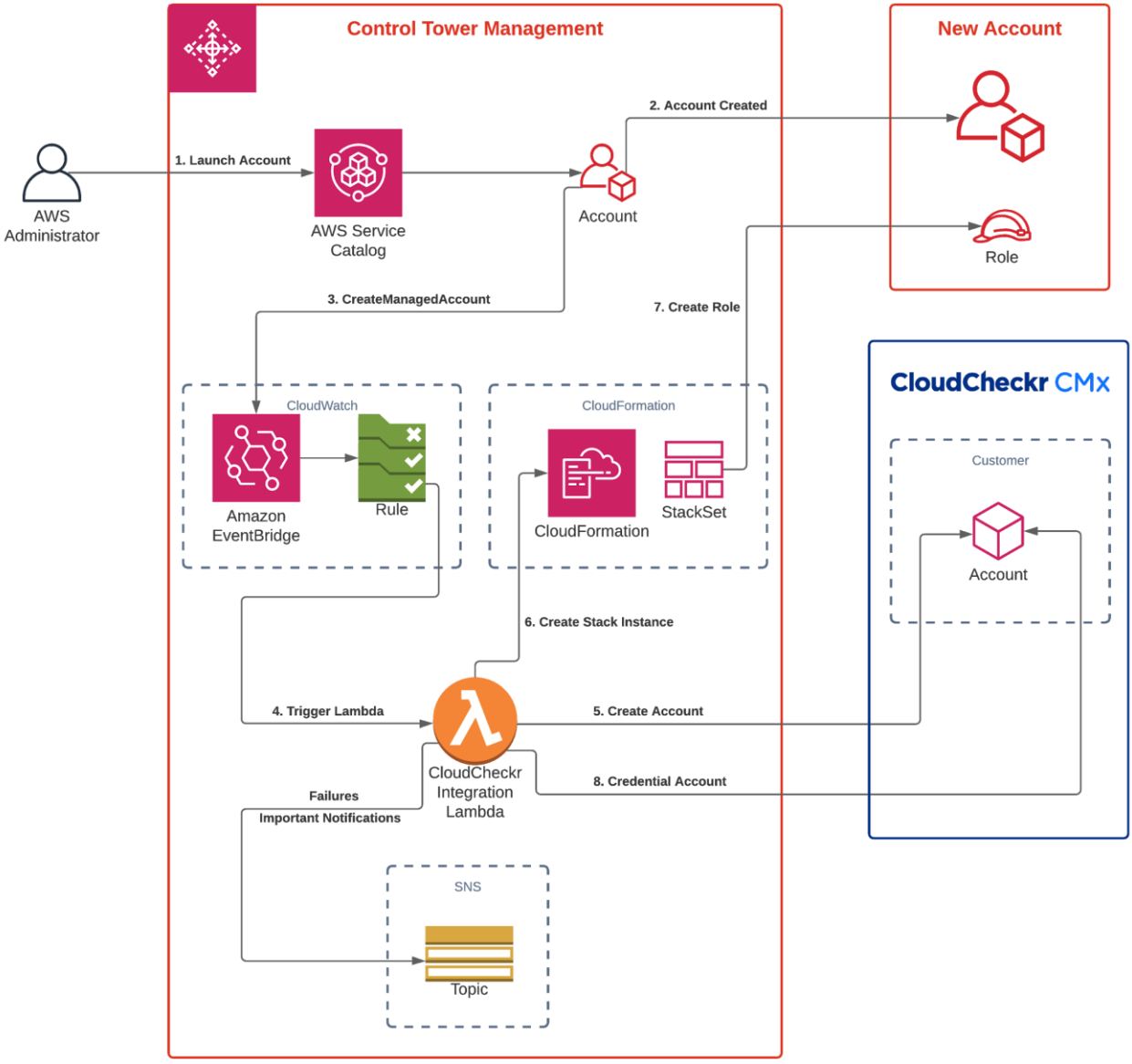

Figure 1: CloudCheckr CMx architecture diagram

The following resources will be created by the onboarding template:

- KMS key or alias
- Lambda function
- Lambda IAM permission or role

- Event rule
- SNS topic - The SNS topic is created, but no subscriptions are predefined. This allows you to choose how you would like to consume these notifications.

Pre-requisites

This guide assumes two things:

1) AWS Control Tower is already enabled in your AWS Management Account. To get started with AWS Control Tower, view the documentation here.
2) You already have a CloudCheckr subscription. To get started today, please purchase CloudCheckr on AWS Marketplace or contact sales@cloudcheckr.com.

Deployment and configuration steps

1. Provision an API client within CloudCheckr CMx

Step 1.1: Login to CloudCheckr CMx

Using your email and previously created CMx password, login to the web application (be sure to use the correct URL for the region you are subscribed to).

Region	URL
North America / US	https://app-us.cloudcheckr.com
European Union / EU	https://app-eu.cloudcheckr.com
Australia / AU	https://app-au.cloudcheckr.com
US GovCloud / GOV	https://app-gov.cloudcheckr.com

Step 1.2: Open the Setting menu in the top right corner (denoted by the "3 dots")

Expand Access Management and select Permission Sets.

Step 1.3: Create a new Permission Set

Click the "CREATE" button.

Within the drawer, enter the following:

- Name = AWS Control Tower Integration Permissions
- Permission(s) Selected = Manage general accounts; Update account credentials

Enter a description (optional), if desired.

Click SAVE.

Step 1.4: Switch to the Roles tab

From the list of tabs in the top left corner, select Roles.

Step 1.5: Create a new Role

Click the “CREATE” button.

Enter “AWS Control Tower Integration Role” as the role name. Enter a description (optional), if desired.

Save the new role. *NOTE*: You must save the new role before continuing.

After saving, the Assets section at the bottom becomes enabled.

Switch to the Permission Sets tab. Select “AWS Control Tower Integration Permissions” (created in step 1.3).

Switch to the Accounts tab. Check the Select All Accounts check box.

Save and close the role.

Step 1.6: Switch to the Clients tab

From the list of tabs in the top left corner, select Clients.

Step 1.7: Create a new API Client

Click the “CREATE” button.

Enter the following on the create page:

- Name = AWS Control Tower Integration Client
- Client Role(s) = AWS Control Tower Integration Role (created in step 1.5)
- Description (optional), if desired

Save the new client.

After saving, the ID field is populated. Save this ID to a secure location. It will be used with the access key (created later) to authenticate in the CMx API.

Within the Access Keys section on the right, click the “CREATE” button.

Enter the following on the create modal that opens:

- Key Name = {specify any name}

- Days Until Expiry = {Enter desired number of days for the key to remain valid; if left blank, key will not expire}

After creating the access key, a new modal displays the key value. *IMPORTANT*: Save this key to a secure location. Once this modal is closed, there is no way to retrieve it again.

Close the modal and save any changes to the client.

At this point, you will have a valid client ID and secret key.

2. Configure integration in AWS Management Account

Step 2.1: Login in to AWS Management Account in AWS Control Tower

Make sure you:

- Have AWS Administrator Access permissions
- Select the AWS region where your AWS Control Tower is deployed

Step 2.2: Launch CloudFormation Quick Create Stack

Ensure you are logged in to the correct account (step 2.1). Then, open the following URL to launch stack creation:

https://console.aws.amazon.com/cloudformation#/stacks/create/review?stackName=CloudCheckr-ControlTower-Integration&templateURL=https%3A%2F%2Fs3.amazonaws.com%2Fcc-public-resources-us-east-1%2Ftemplates%2Fcloudcheckr-controltower-integration.template.yaml

Step 2.3: Enter parameters

Integration Configuration:

- Stack Name = CloudCheckr-ControlTower-Integration
- ApiClientId = Client ID created in step 1.7
- ApiClientSecret = Client access key created in step 1.7
- ApiClientEndpoint = Select the region for which you are subscribed (match URL used in step 1.1)
- ApiClientRegionGroup = Commercial (only supported option at this time)

Cloud Formation and StackSets Information

- LambdaBucket = cc-public-resources (this is the prefix of the S3 bucket, do not change)
- StackSetTemplateUrl = https://cc-public-resources-us-east-1.s3.amazonaws.com/templates/cc_aws_cfn_iam_stack.template.json

Select the checkbox acknowledging IAM resources may be created.

Click Create stack.

3. Configuration complete!

CloudCheckr CMx integration setup is complete. When a new account is created in AWS Control Tower, a corresponding account will be setup in CloudCheckr CMx. This includes account creation, provisioning an IAM role in the new AWS account, and applying that role to CloudCheckr CMx.

After a new account has been created in Control Tower and the enrollment has completed, you can verify the new account in CloudCheckr CMx by logging back into the application via the URL from step 1.1.

Upon logging in, open the “Account Switcher” in the top right corner and click the “Go to Account Hierarchy” link. Switch to the “View By: List” tab and search for your new account name. Verify that the “Credentials” column includes a green check mark. This denotes that CloudCheckr is successfully configured to begin pulling in data for the new account.

Solution Estimated Pricing

There are no additional CloudCheckr pricing implications when using this integration. Once the accounts are linked (and data is pulled into CloudCheckr), standard pricing applies.

FAQs

Introduction to CloudCheckr CMx

Additional resources

https://success.cloudcheckr.com/

https://cloudcheckr.com/

Partner contact information

sales@cloudcheckr.com

support@cloudcheckr.com