



Configuring the Amazon EC2 data collector

Cloud Insights

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Table of Contents

- Configuring the Amazon EC2 data collector 1
 - Requirements 1
 - Configuration 1
 - Advanced Configuration 1
 - IAM Access Key 2
 - IAM Role 2
 - Mapping Amazon tags to Cloud Insights annotations 2
 - Include Extra Regions 3
 - Collecting from AWS Child Accounts 3
 - Troubleshooting 3

Configuring the Amazon EC2 data collector

Cloud Insights uses the Amazon EC2 data collector to acquire inventory and performance data from EC2 instances.

Requirements

In order to collect data from Amazon EC2 devices, you must have the following information:

- You must have one of the following:
 - The **IAM Role** for your Amazon EC2 cloud account, if using IAM Role Authentication. IAM Role only applies if your acquisition unit is installed on an AWS instance.
 - The **IAM Access Key** ID and Secret Access Key for your Amazon EC2 cloud account, if using IAM Access Key authentication.
- You must have the "list organization" privilege
- Port 443 HTTPS
- EC2 Instances can be reported as a Virtual Machine, or (less naturally) a Host. EBS Volumes can be reported as both a VirtualDisk used by the VM, as well as a DataStore providing the Capacity for the VirtualDisk.

Access keys consist of an access key ID (for example, AKIAIOSFODNN7EXAMPLE) and a secret access key (for example, wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY). You use access keys to sign programmatic requests that you make to EC2 if you use the Amazon EC2 SDKs, REST, or Query API operations. These keys are provided with your contract from Amazon.

Configuration

Enter data into the data collector fields according to the table below:

Field	Description
AWS Region	Choose AWS region
IAM Role	For use only when acquired on an AU in AWS. See below for more information on IAM Roles .
AWS IAM Access Key ID	Enter AWS IAM Access Key ID. Required if you do not use IAM Role.
AWS IAM Secret Access Key	Enter AWS IAM Secret Access Key. Required if you do not use IAM Role.
I understand AWS bills me for API requests	Check this to verify your understanding that AWS bills you for API requests made by Cloud Insights polling.

Advanced Configuration

Field	Description
Include Extra Regions	Specify additional regions to include in polling.

Field	Description
Cross Account Role	Role for accessing resources in different AWS accounts.
Inventory Poll Interval (min)	The default is 60
Choose 'Exclude' or 'Include' to Apply to Filter VMs by Tags	Specify whether to include or exclude VM's by Tags when collecting data. If 'Include' is selected, the Tag Key field can not be empty.
Tag Keys and Values on which to Filter VMs	Click + Filter Tag to choose which VMs (and associated disks) to include/exclude by filtering for keys and values that match keys and values of tags on the VM. Tag Key is required, Tag Value is optional. When Tag Value is empty, the VM is filtered as long as it matches the Tag Key.
Performance Poll Interval (sec)	The default is 1800

IAM Access Key

Access keys are long-term credentials for an IAM user or the AWS account root user. Access keys are used to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK).

Access keys consist of two parts: an access key ID and a secret access key. When you use *IAM Access Key* authentication (as opposed to *IAM Role* authentication), you must use both the access key ID and secret access key together for authentication of requests. For more information, see the Amazon documentation on [Access Keys](#).

IAM Role

When using *IAM Role* authentication (as opposed to *IAM Access Key* authentication), you must ensure that the role you create or specify has the appropriate permissions needed to access your resources.

For example, if you create an IAM role named *InstanceEc2ReadOnly*, you must set up the policy to grant EC2 read-only list access permission to all EC2 resources for this IAM role. Additionally, you must grant STS (Security Token Service) access so that this role is allowed to assume roles cross accounts.

After you create an IAM role, you can attach it when you create a new EC2 instance or any existing EC2 instance.

After you attach the IAM role *InstanceEc2ReadOnly* to an EC2 instance, you will be able to retrieve the temporary credential through instance metadata by IAM role name and use it to access AWS resources by any application running on this EC2 instance.

For more information see the Amazon documentaiton on [IAM Roles](#).

Note: IAM role can be used only when the Acquisition Unit is running in an AWS instance.

Mapping Amazon tags to Cloud Insights annotations

The Amazon EC2 data collector includes an option that allows you to populate Cloud Insights annotations with tags configured on EC2. The annotations must be named exactly as the EC2 tags. Cloud Insights will always

populate same-named text-type annotations, and will make a "best attempt" to populate annotations of other types (number, boolean, etc). If your annotation is of a different type and the data collector fails to populate it, it may be necessary to remove the annotation and re-create it as a text type.

Note that AWS is case-sensitive, while Cloud Insights is case-insensitive. So if you create an annotation named "OWNER" in Cloud Insights, and tags named "OWNER", "Owner", and "owner" in EC2, all of the EC2 variations of "owner" will map to Cloud Insight's "OWNER" annotation.

Include Extra Regions

In the AWS Data Collector **Advanced Configuration** section, you can set the **Include extra regions** field to include additional regions, separated by comma or semi-colon. By default, this field is set to **us-.***, which collects on all US AWS regions. To collect on *all* regions, set this field to **.***.

If the **Include extra regions** field is empty, the data collector will collect on assets specified in the **AWS Region** field as specified in the **Configuration** section.

Collecting from AWS Child Accounts

Cloud Insights supports collection of child accounts for AWS within a single AWS data collector. Configuration for this collection is performed in the AWS environment:

- You must configure each child account to have an AWS Role that allows the main account ID to access EC2 details from the children account.
- Each child account must have the role name configured as the same string.
- Enter this role name string into the Cloud Insights AWS Data Collector **Advanced Configuration** section, in the **Cross account role** field.

Best Practice: It is highly recommended to assign the AWS predefined *AmazonEC2ReadOnlyAccess* policy to the ECS main account. Also, the user configured in the data source should have at least the predefined *AWSOrganizationsReadOnlyAccess* policy assigned, in order to query AWS.

Please see the following for information on configuring your environment to allow Cloud Insights to collect from AWS child accounts:

[Tutorial: Delegate Access Across AWS Accounts Using IAM Roles](#)

[AWS Setup: Providing Access to an IAM User in Another AWS Account That You Own](#)

[Creating a Role to Delegate Permissions to an IAM User](#)

Troubleshooting

Additional information on this Data Collector may be found from the [Support](#) page or in the [Data Collector Support Matrix](#).

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