



Configuring the Amazon EC2 data collector

Cloud Insights

Tony Lavoie, Dave Grace
April 01, 2020

This PDF was generated from https://docs.netapp.com/us-en/cloudinsights/task_dc_amazon_ec2.html on May 15, 2020. Always check docs.netapp.com for the latest.

Table of Contents

- Configuring the Amazon EC2 data collector 1
 - Requirements 1
 - Configuration 1
 - Advanced Configuration 2
 - Mapping Amazon tags to Cloud Insights annotations 2
 - Include Extra Regions 2
 - Collecting from AWS Child Accounts 3
 - IAM Roles 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 the IAM Access Key ID
- You must have the Secret Access Key for your Amazon EC2 cloud account
- You must have the "list organization" privilege
- Port 433 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	AWS IAM Role if running on EC2 instance to retrieve IAM temporary access key, secret and token. Required if you do not use IAM Access Key ID and Secret Access Key fields. 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.
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

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.

Related Information

- [Managing Access Keys for IAM Users](#)

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 master 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 master 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](#)

IAM Roles

When using *IAM Role* security, 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.

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

Troubleshooting

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

Copyright Information

Copyright © 2020 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system-without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.