



Inventorying – AWS

Inventorying of Amazon Web Services (AWS)

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1. About this document

The Amazon Web Services scan was implemented as an extension in October 2019 and provides the ability to inventory core areas of your AWS infrastructure. This HowTo describes the necessary steps and prerequisites to perform a successful AWS inventory.

The core areas that can be read out in this extension are:

- Elastic Compute Cloud (EC2)
- Identity and Access Management (IAM)
- Simple Storage Service (S3)
- Relational Database Services (RDS)
- Batch orders (batch)

Chapter 2 describes the preparations within AWS to perform the inventory with Docusnap.

- Creating a policy
- Assign this policy

Chapter 3 then describes the inventory with Docusnap.

The last revision of this HowTos and the screenshots took place on 27.09.2019. Please note that some information on the screenshots may not exist anymore. However, the basic steps remain valid.

1.1 Licensing requirements

For the AWS Inventory to be available, an Edition **Docusnap X Basic** or higher is required. The prerequisite for using the AWS Inventory is a service contract that is valid at the time of publication of this module.

If you have any questions regarding the licensing requirements, please do not hesitate to contact our sales and support team.

1.2 Important Information

The Amazon Web Services are regionally bound. If you use these services in different regions, you must ensure that a separate user and policies are created for each region.

2. Prepare your AWS environment for Docusnap

In this chapter we will describe what needs to be prepared in your AWS Identity and Access Management to be able to perform an inventory with Docusnap X.

Within the Inventory Wizard, the following information is required:

- display name
- access key ID
- Secret access key
- region

Inventory

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Company Selection

Domain Selection

Amazon Web Services

Summary

Scheduling

☒ Inventory Amazon Web Services

Display Name:

DocusnapAWSInventory

Access Key ID:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Secret Access Key:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx


Region:

EU (Frankfurt)

New

Save

Delete

<input checked="" type="checkbox"/>	DISPLAY NAME	REGION	
<input checked="" type="checkbox"/> 	DocusnapAWSInventory	eu-central-1	

Information: Completed successfully

Back

Next

Cancel

Fig. 1 - AWS Inventory Wizard

Please make sure to use a sufficiently authorized user. The latter must be allowed to make the following changes:

- Create policies
- Creating a user and assigning the created guidelines

2.1 Create policy

This paragraph uses EC2 as an example to describe how to create a dedicated policy for inventorying your AWS in Docusnap. This procedure must then be carried out for the other AWS core areas (RDS, S3, IAM and Batch).

Open the services and select IAM.

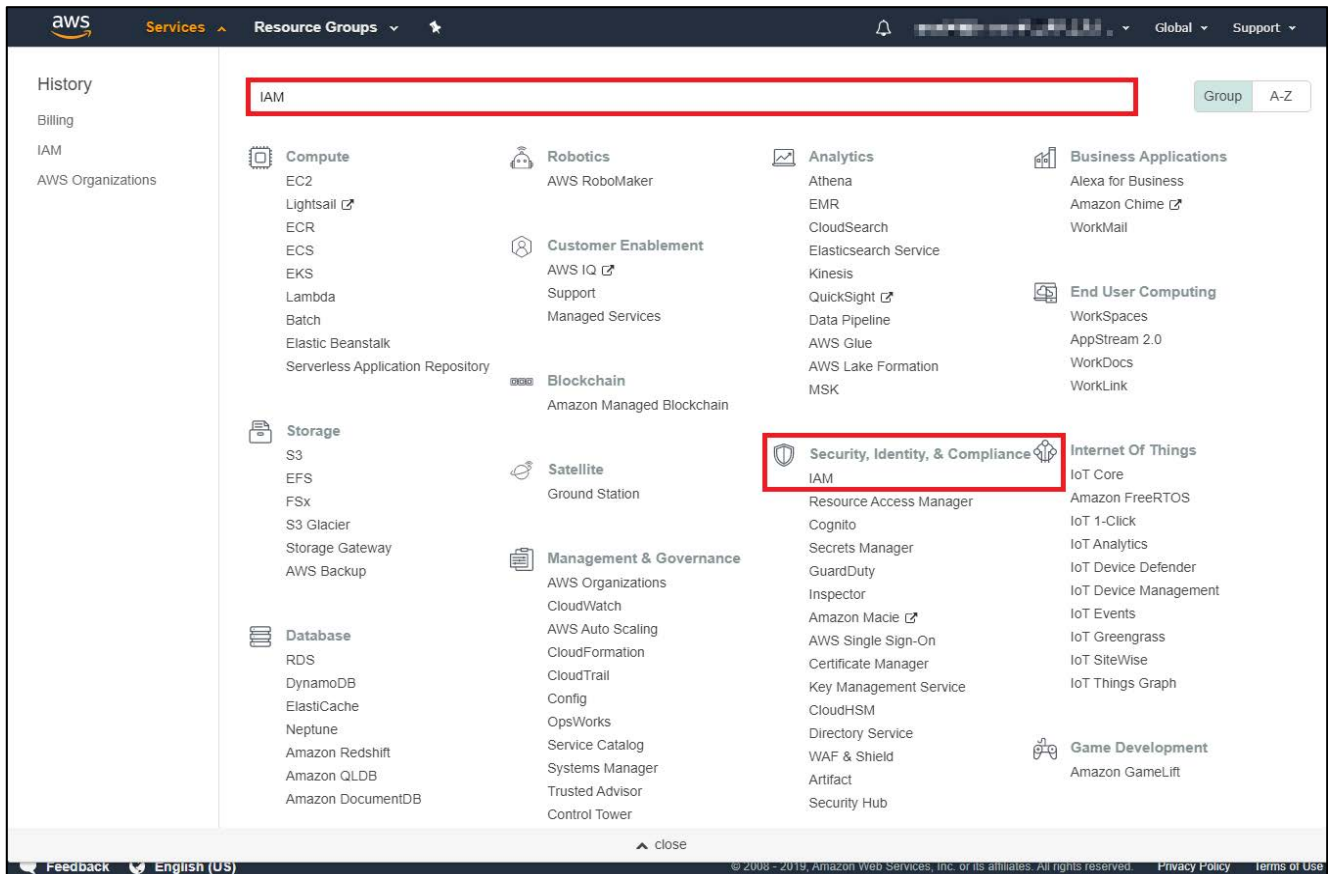
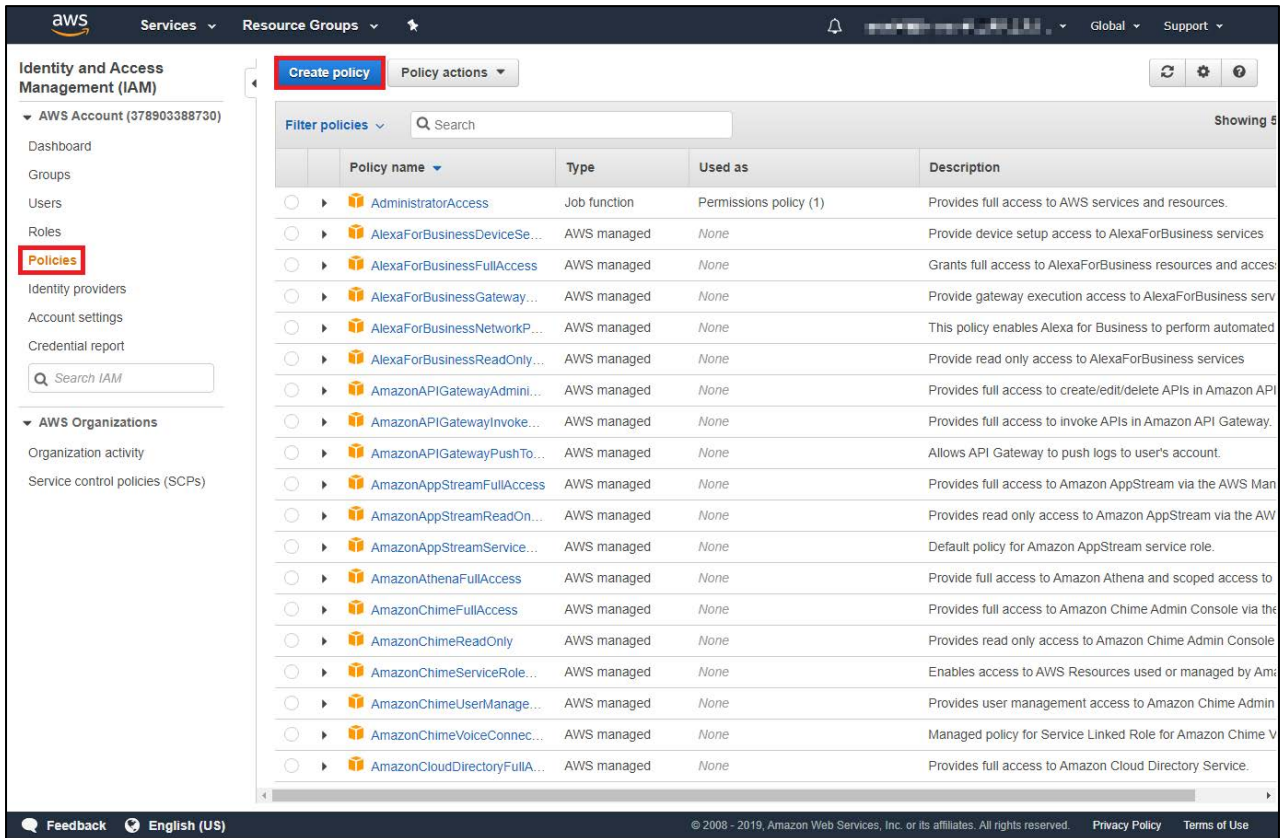


Fig. 2 The configuration of the policies and users takes place in the IAM area.

Now select Policies and create a new policy.



The screenshot shows the AWS IAM console interface. On the left sidebar, under 'Identity and Access Management (IAM)', the 'Policies' link is highlighted with a red box. At the top of the main content area, the 'Create policy' button is highlighted with a red box. The main area displays a table of AWS managed policies.

	Policy name	Type	Used as	Description
<input type="radio"/>	AdministratorAccess	Job function	Permissions policy (1)	Provides full access to AWS services and resources.
<input type="radio"/>	AlexaForBusinessDeviceSe...	AWS managed	None	Provide device setup access to AlexaForBusiness services
<input type="radio"/>	AlexaForBusinessFullAccess	AWS managed	None	Grants full access to AlexaForBusiness resources and acces
<input type="radio"/>	AlexaForBusinessGateway...	AWS managed	None	Provide gateway execution access to AlexaForBusiness serv
<input type="radio"/>	AlexaForBusinessNetworkP...	AWS managed	None	This policy enables Alexa for Business to perform automated
<input type="radio"/>	AlexaForBusinessReadOnly...	AWS managed	None	Provide read only access to AlexaForBusiness services
<input type="radio"/>	AmazonAPIGatewayAdmini...	AWS managed	None	Provides full access to create/edit/delete APIs in Amazon API
<input type="radio"/>	AmazonAPIGatewayInvoke...	AWS managed	None	Provides full access to invoke APIs in Amazon API Gateway.
<input type="radio"/>	AmazonAPIGatewayPushTo...	AWS managed	None	Allows API Gateway to push logs to user's account.
<input type="radio"/>	AmazonAppStreamFullAccess	AWS managed	None	Provides full access to Amazon AppStream via the AWS Man
<input type="radio"/>	AmazonAppStreamReadOn...	AWS managed	None	Provides read only access to Amazon AppStream via the AW
<input type="radio"/>	AmazonAppStreamService...	AWS managed	None	Default policy for Amazon AppStream service role.
<input type="radio"/>	AmazonAthenaFullAccess	AWS managed	None	Provide full access to Amazon Athena and scoped access to
<input type="radio"/>	AmazonChimeFullAccess	AWS managed	None	Provides full access to Amazon Chime Admin Console via the
<input type="radio"/>	AmazonChimeReadOnly	AWS managed	None	Provides read only access to Amazon Chime Admin Console
<input type="radio"/>	AmazonChimeServiceRole...	AWS managed	None	Enables access to AWS Resources used or managed by Ami
<input type="radio"/>	AmazonChimeUserManage...	AWS managed	None	Provides user management access to Amazon Chime Admin
<input type="radio"/>	AmazonChimeVoiceConnec...	AWS managed	None	Managed policy for Service Linked Role for Amazon Chime V
<input type="radio"/>	AmazonCloudDirectoryFullA...	AWS managed	None	Provides full access to Amazon Cloud Directory Service.

Fig. 3 - Amazon Web Services Policy Management

The Service, Actions and Resources areas are then defined one after the other using the visual editor.

- **Service**Select Service, you then search for the service for which you want to create the policy, in this case **EC2**.
- **Actions**The actions permitted in **EC2** are set at access level **List** and **Read**.
- **Resources**Here it is recommended to authorize the actions via **All resources** of the services.
- **Request conditions**This item is optional and is not required for a successful inventory.

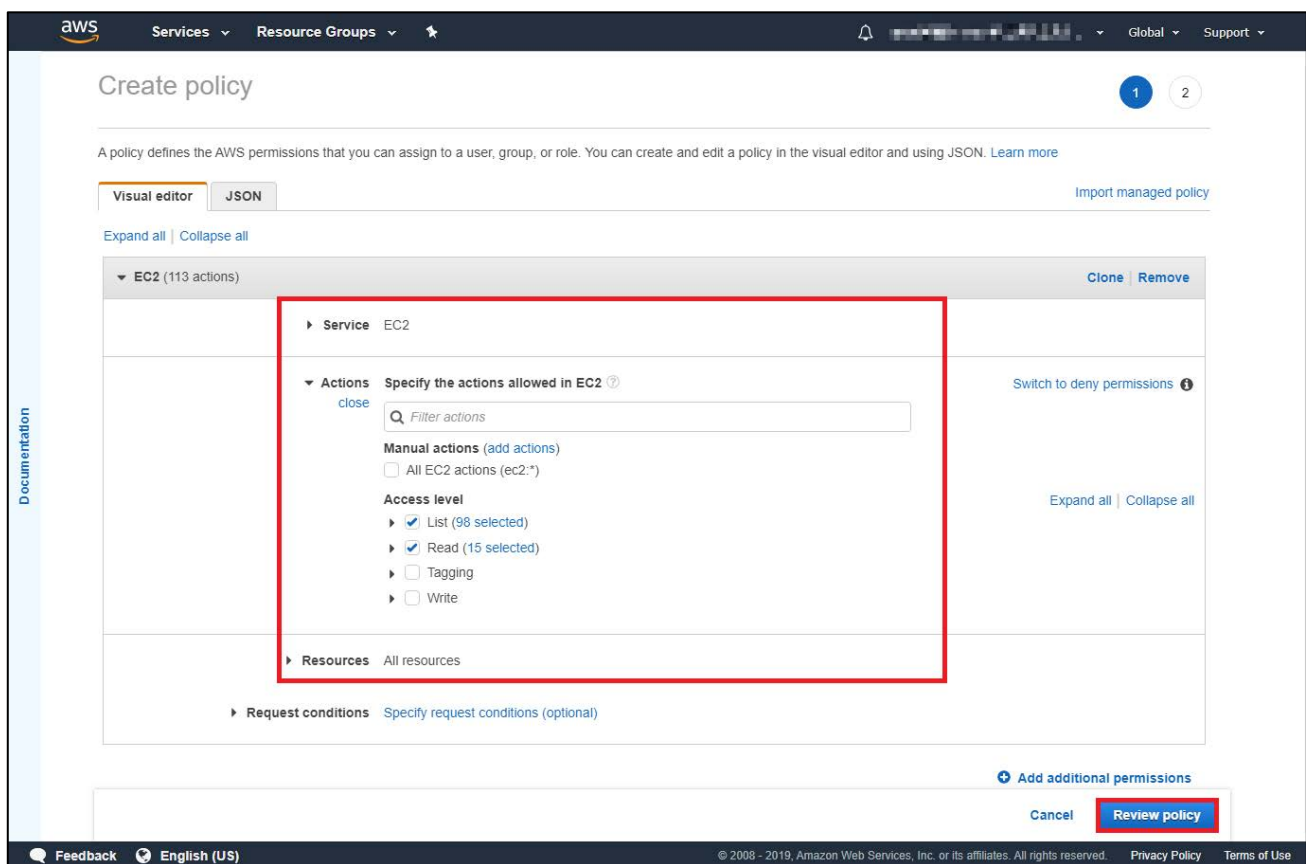
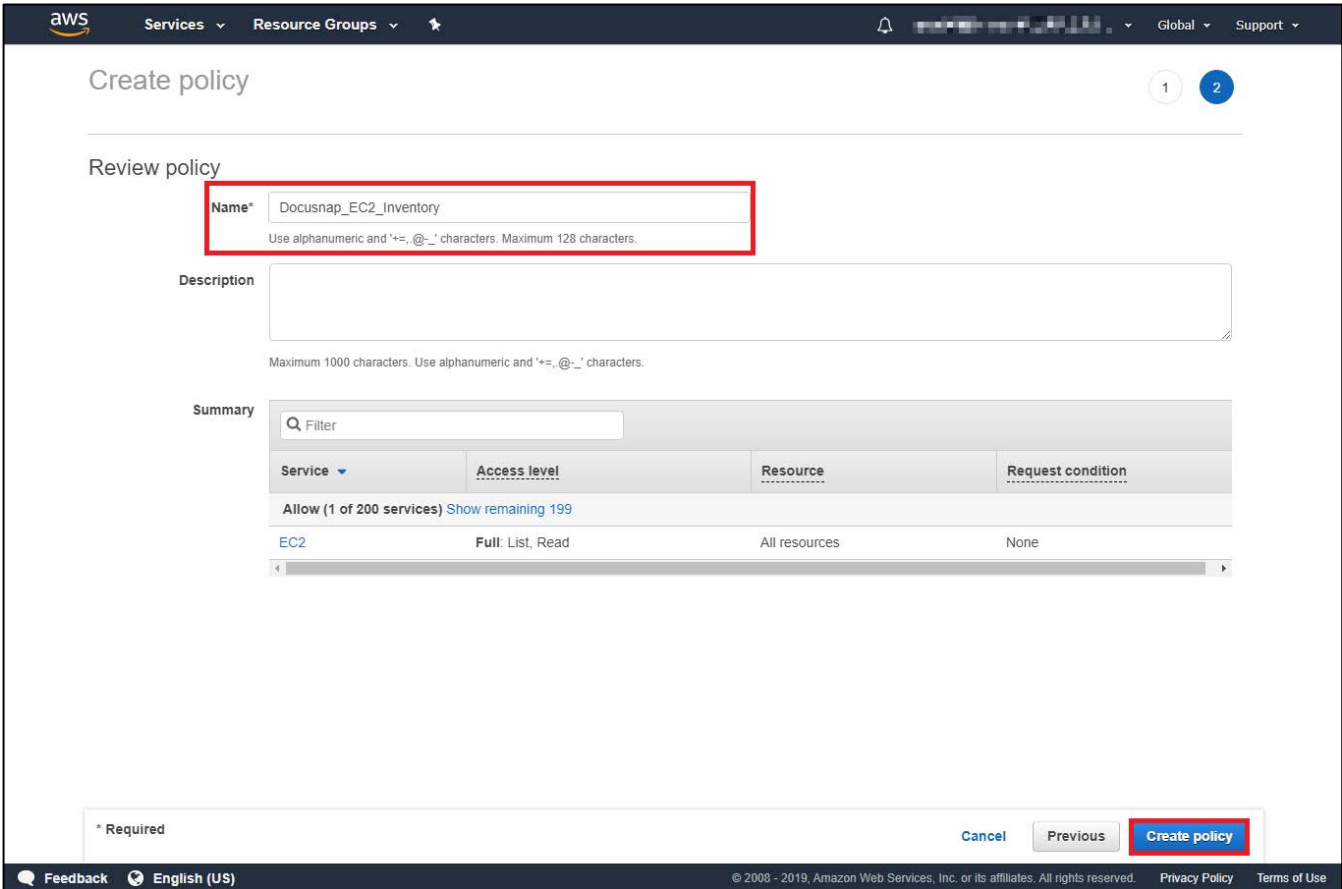


Fig. 4 - "Review policy" takes you to the next step of configuration

2.1.1 Check policy

Assign a unique name for the created policy (e.g. Docusnap_EC2_Inventory) and an optional description. The configuration is completed via **Create policy**.



Create policy

Review policy

Name* Docusnap_EC2_Inventory
Use alphanumeric and '+-=,@_.' characters. Maximum 128 characters.

Description
Maximum 1000 characters. Use alphanumeric and '+-=,@_.' characters.

Summary

Service	Access level	Resource	Request condition
Allow (1 of 200 services) Show remaining 199			
EC2	Full: List, Read	All resources	None

* Required

[Cancel](#) [Previous](#) **Create policy**

Fig. 5 - Complete policy configuration

The previously described steps for creating the policy using the EC2 service as an example must now be repeated for the other services that are to be inventoried with Docusnap.

2.2 Configure user

The previously created policies are now assigned to a user. Within AWS, switch to the Services - IAM again and select Users in the next step.

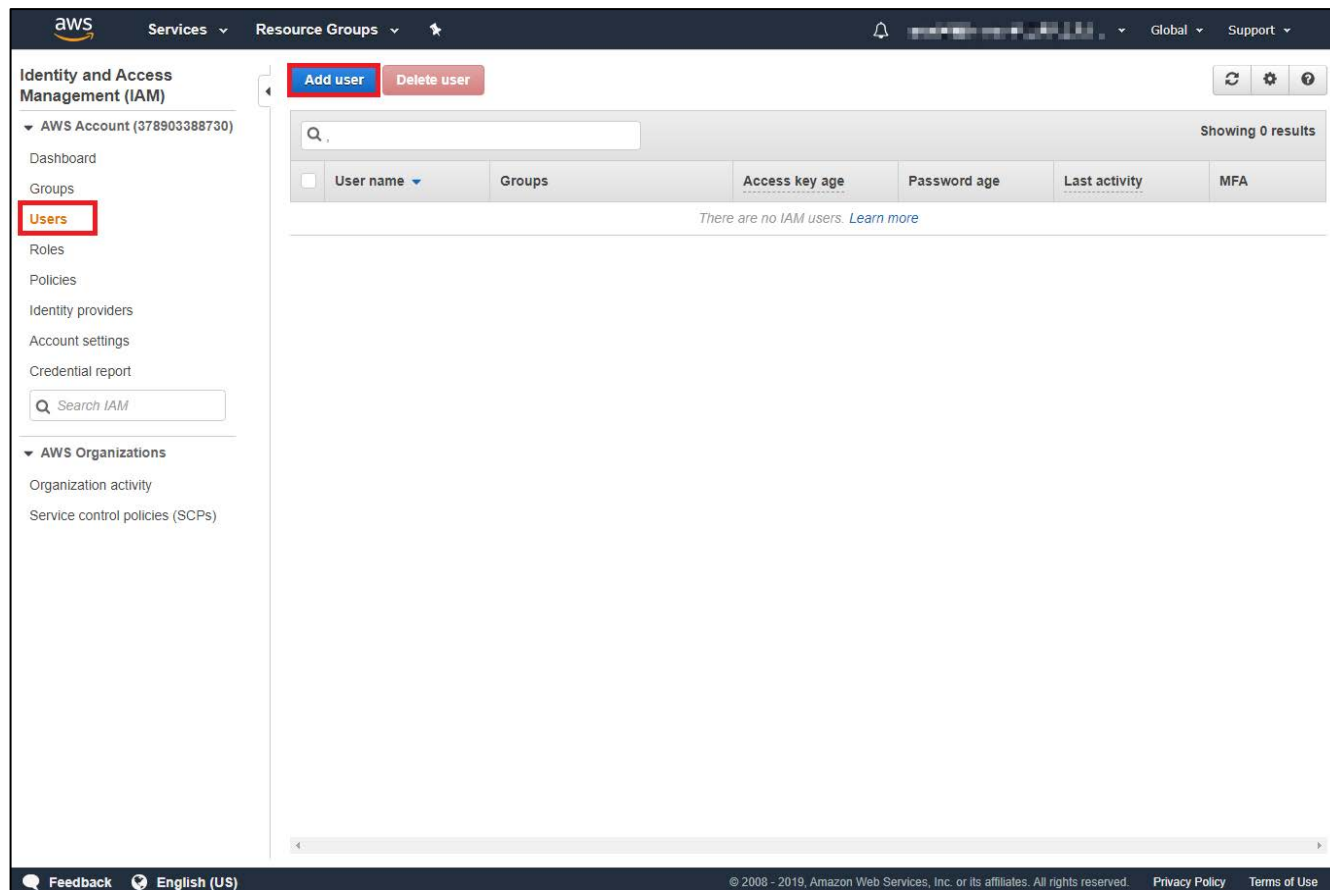


Fig. 6 - User Administration of Amazon Web Services

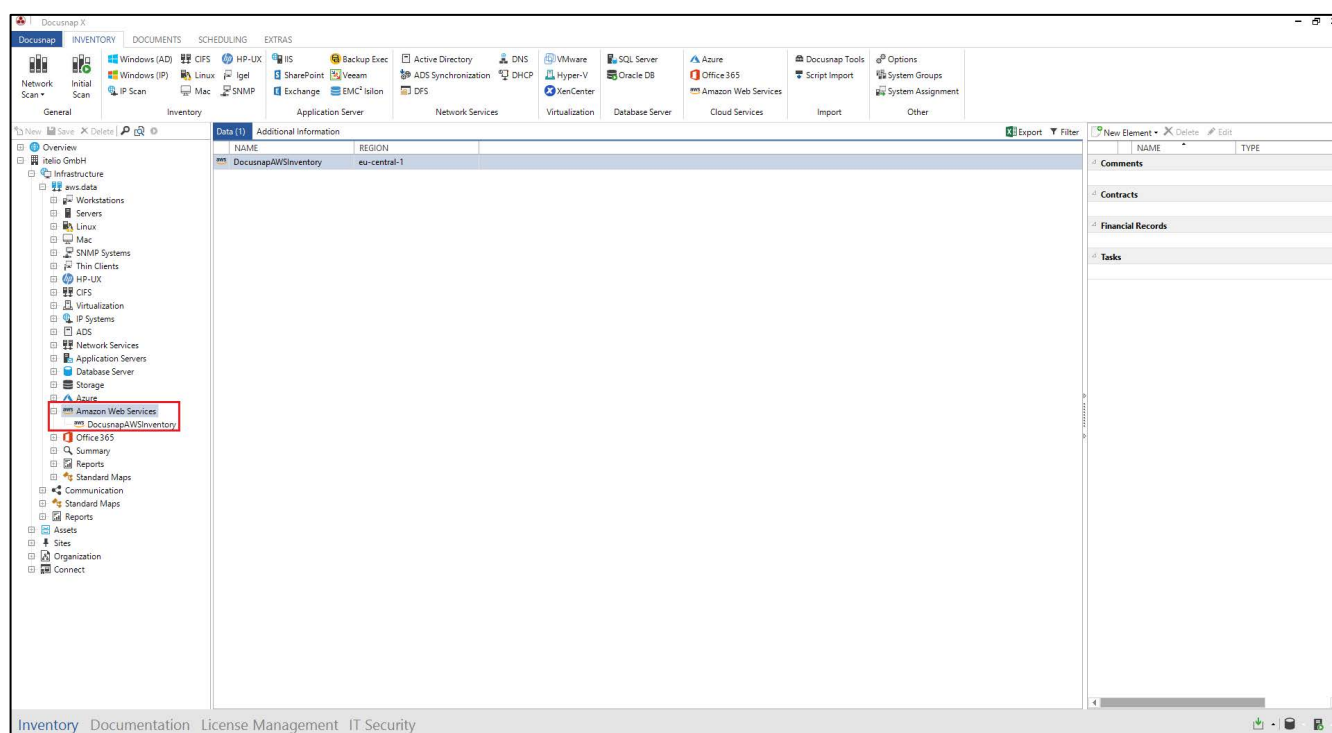


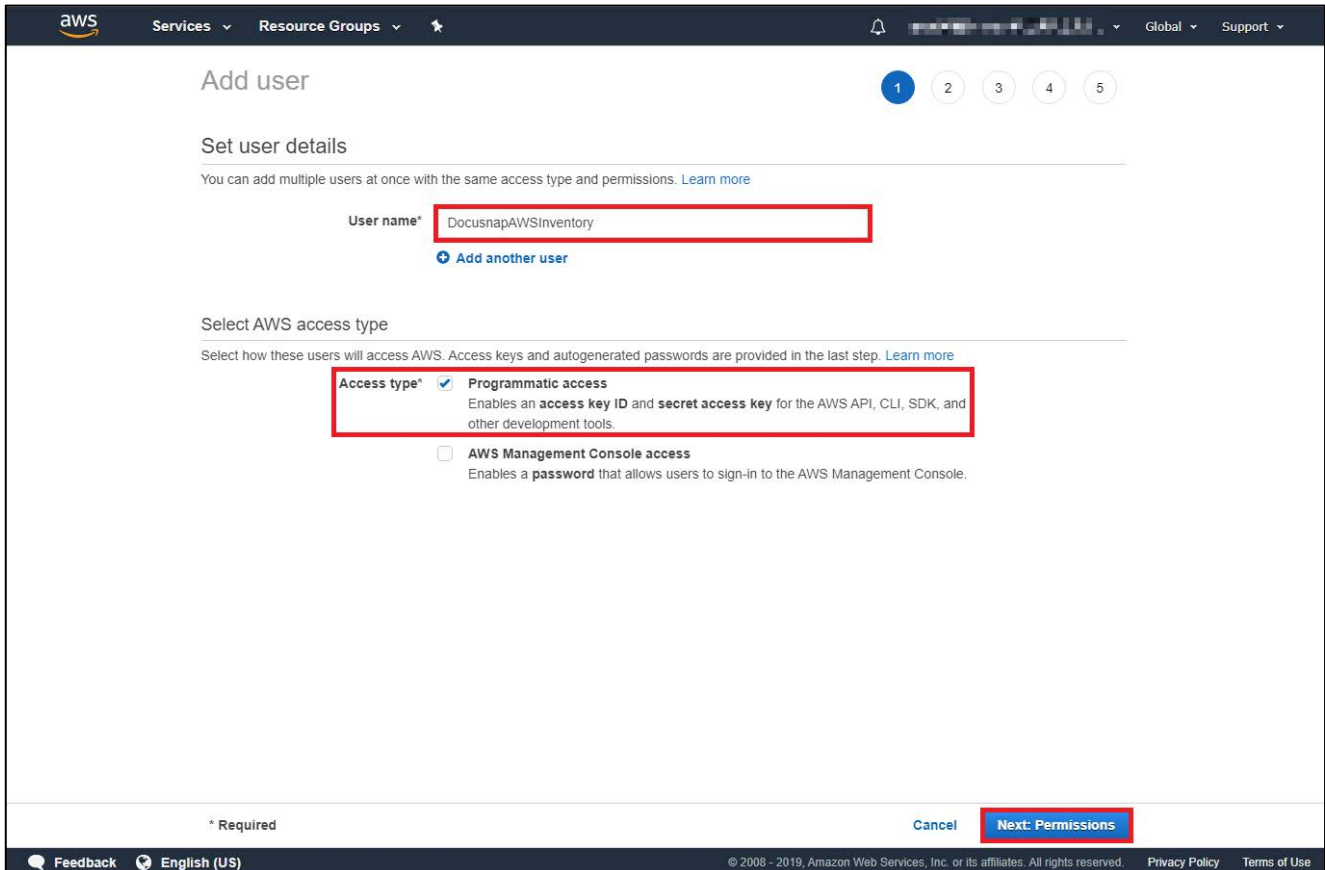
Fig. 7 - Arrangement in the Docusnap Tree Structure

Important: The arrangement of the displayed data in the Docusnap tree structure is based on the inventorizing user, this has the region binding described at the beginning as background. Please select the relevant user names for different regions here in order to assign them unambiguously.

2.2.1 Create user

Use Add user to create a new user. A user name and AWS access type are required.

As AWS access type select **Programmatic access**, via the button **Next: Permissions** you come to the next step.



The screenshot shows the AWS 'Add user' console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and a star icon. The main heading is 'Add user' with a progress indicator showing five steps, with the first step being active. The 'Set user details' section includes a note: 'You can add multiple users at once with the same access type and permissions. [Learn more](#)'. The 'User name*' field is populated with 'DocuSnapAWSInventory' and is highlighted with a red box. Below it is a link to 'Add another user'. The 'Select AWS access type' section includes a note: 'Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)'. The 'Access type*' section has two options: 'Programmatic access' (selected with a checked checkbox and highlighted with a red box) and 'AWS Management Console access' (unchecked). The 'Programmatic access' description states: 'Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.' The 'AWS Management Console access' description states: 'Enables a **password** that allows users to sign-in to the AWS Management Console.' At the bottom, there is a '* Required' label, a 'Cancel' button, and a 'Next: Permissions' button which is highlighted with a red box. The footer includes 'Feedback', 'English (US)', copyright information '© 2008 - 2019, Amazon Web Services, Inc. or its affiliates. All rights reserved.', and links for 'Privacy Policy' and 'Terms of Use'.

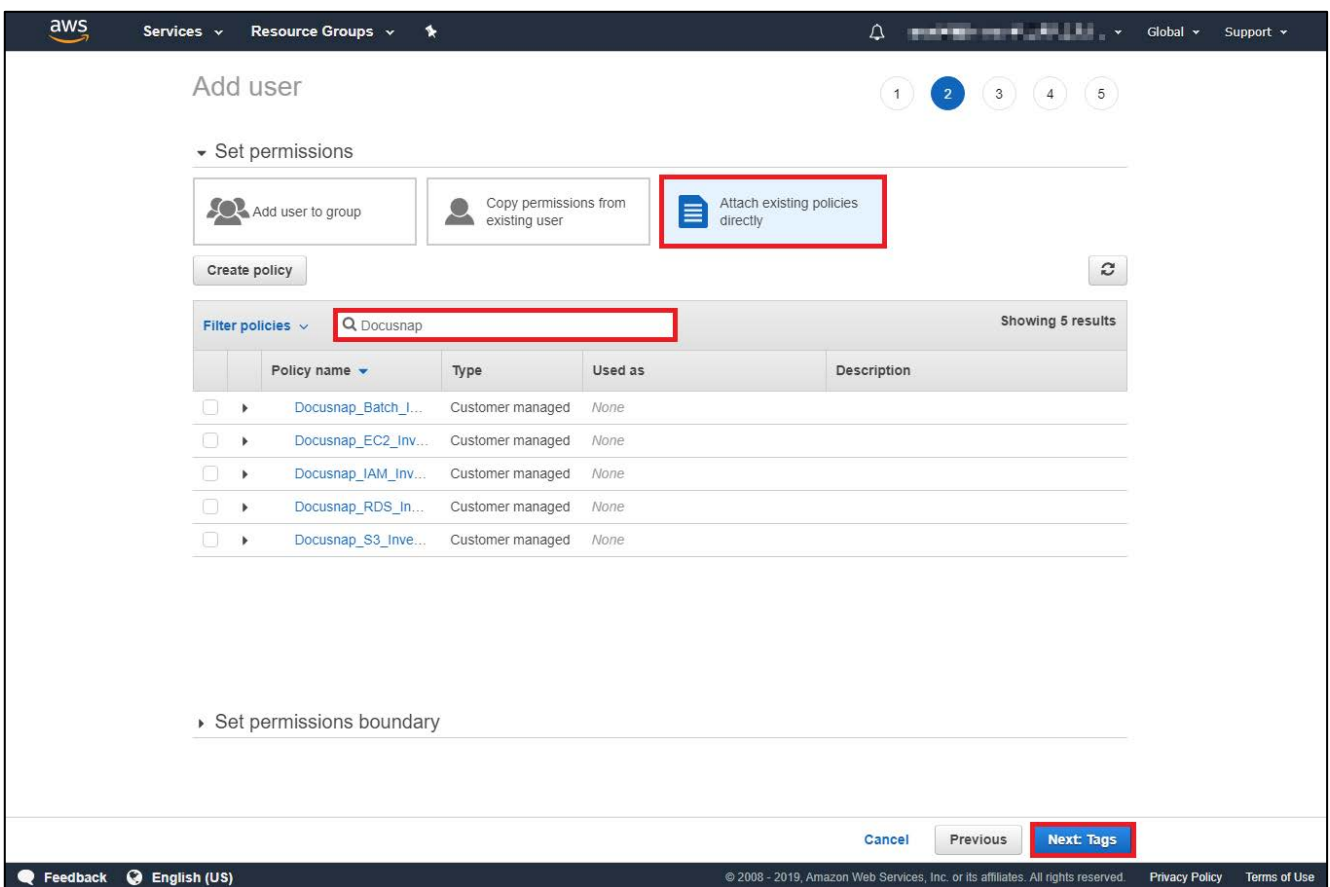
Fig. 8 - Defining the User Details for the Inventory Account

2.2.2 Define authorizations

Here you have two different possibilities to authorize your user for inventory.

- Add user to group
This option can be selected if you want to assign the created policies to a group. However, it is advisable to always carry out the inventory with the same user.
- Attach existing policies directly
This option is described in this HowTo to bind the pre-created policies directly to a user.

Select **Add existing policies directly** and navigate to the **Filter Policies** option and set the filter to **Managed by Customer**. Now select the created policies and add them to this user.

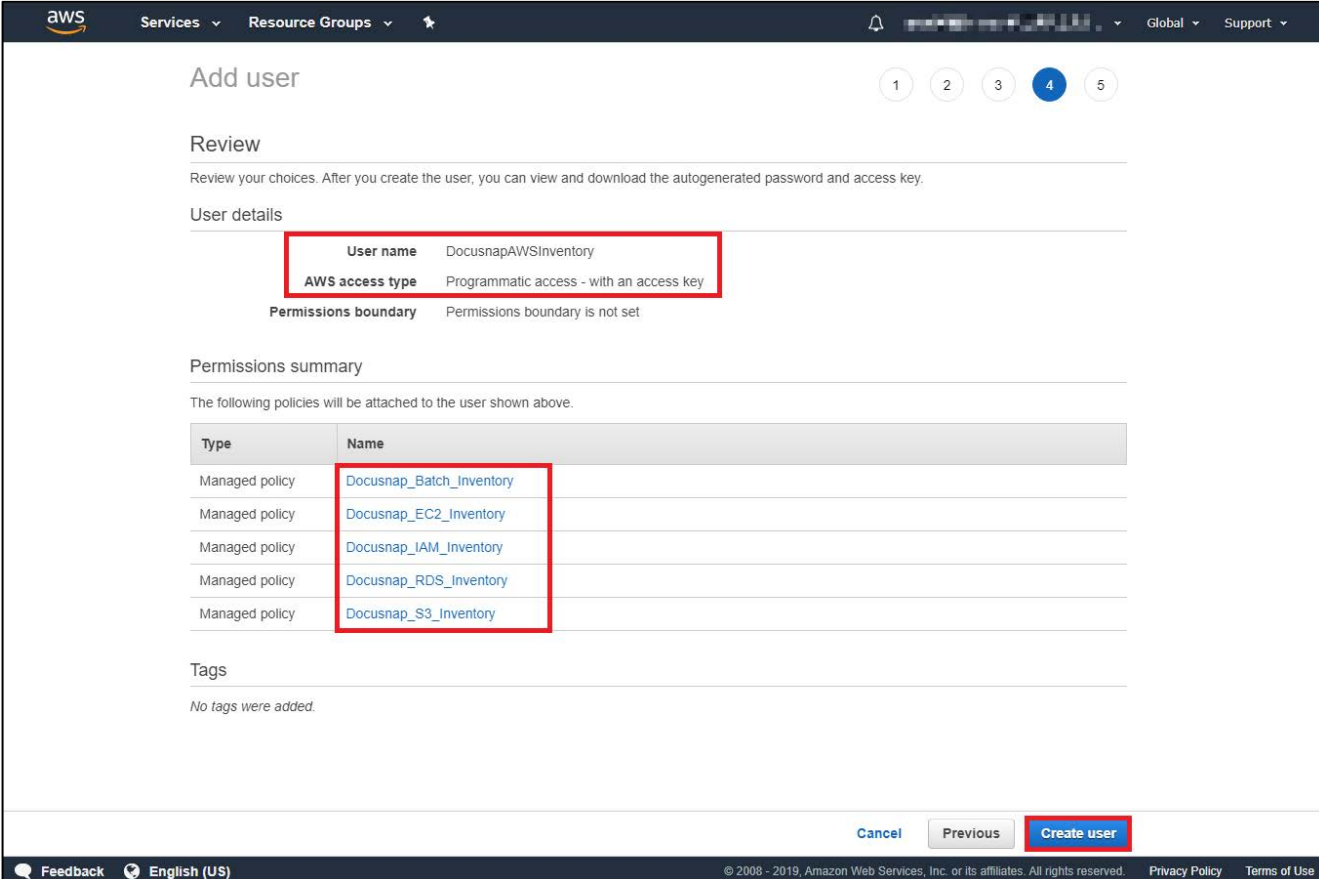


The screenshot shows the AWS IAM 'Add user' page. Under the 'Set permissions' section, the 'Attach existing policies directly' option is selected and highlighted with a red box. Below this, the 'Filter policies' search bar contains the text 'Docusnap' and is also highlighted with a red box. The search results show five policies, all of which are 'Customer managed' and have a 'None' value for 'Used as'. The policies listed are:

	Policy name	Type	Used as	Description
<input type="checkbox"/>	Docusnap_Batch_I...	Customer managed	None	
<input type="checkbox"/>	Docusnap_EC2_Inv...	Customer managed	None	
<input type="checkbox"/>	Docusnap_IAM_Inv...	Customer managed	None	
<input type="checkbox"/>	Docusnap_RDS_In...	Customer managed	None	
<input type="checkbox"/>	Docusnap_S3_Inve...	Customer managed	None	

At the bottom of the page, the 'Next: Tags' button is highlighted with a red box.

Fig. 9 - Assignment of created Docusnap Inventory Policies



aws Services ▾ Resource Groups ▾ ☆

1 2 3 **4** 5

Add user

Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	DocusnapAWSInventory
AWS access type	Programmatic access - with an access key
Permissions boundary	Permissions boundary is not set.

Permissions summary

The following policies will be attached to the user shown above.

Type	Name
Managed policy	Docusnap_Batch_Inventory
Managed policy	Docusnap_EC2_Inventory
Managed policy	Docusnap_IAM_Inventory
Managed policy	Docusnap_RDS_Inventory
Managed policy	Docusnap_S3_Inventory

Tags

No tags were added.

[Cancel](#) [Previous](#) [Create user](#)

[Feedback](#) [English \(US\)](#) © 2008 - 2019, Amazon Web Services, Inc. or its affiliates. All rights reserved. [Privacy Policy](#) [Terms of Use](#)

Fig. 10 - The information entered can then be checked again.

2.2.3 Receive user keys for inventory

Important: The final data created (user, access key ID and secret access key) are required for the inventory in DocuSnap and can be downloaded as CSV. These can only be viewed once after configuration!

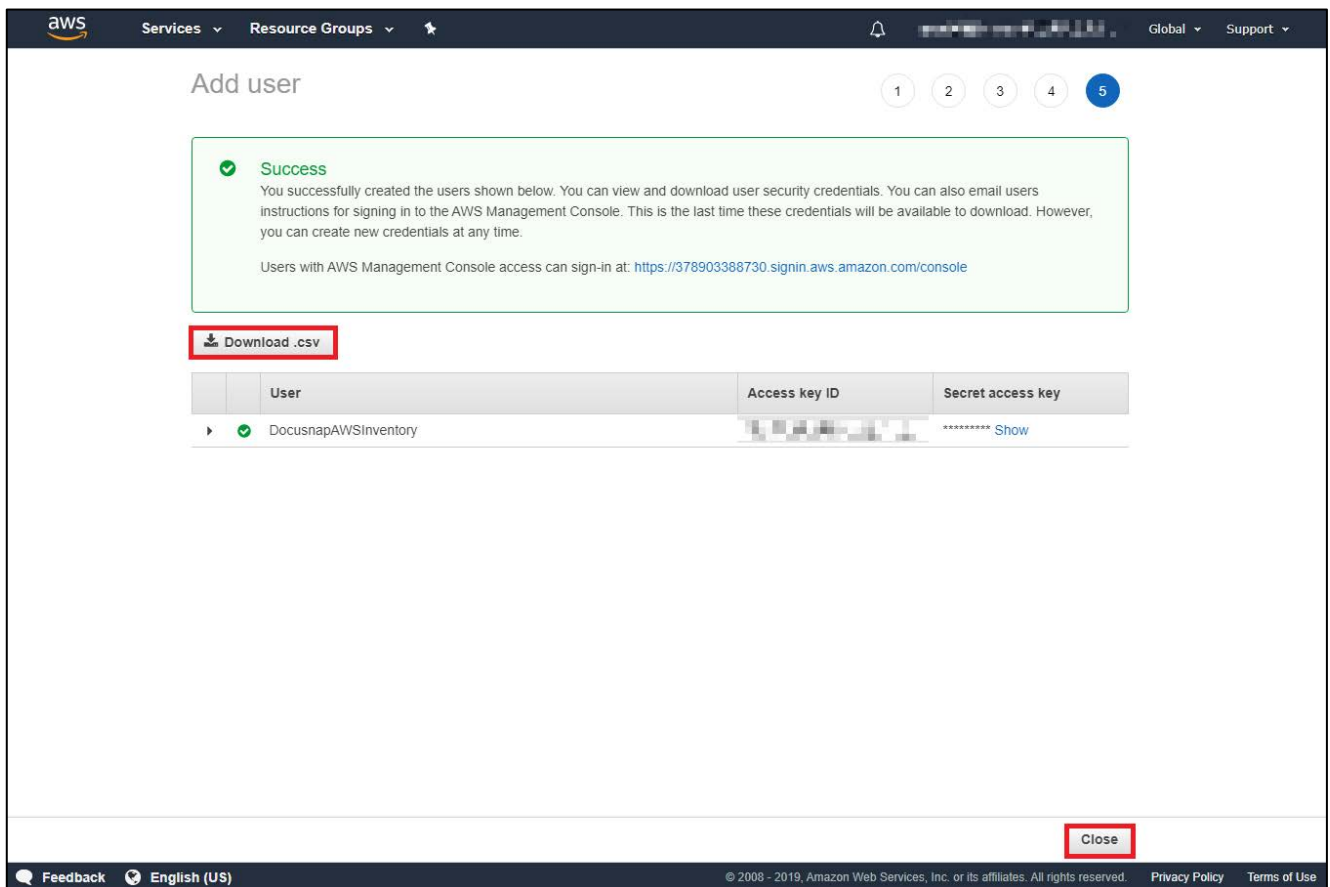


Fig. 11 - After completion of user creation, you will receive your keys

3. Inventory of the AWS in Docusnap

The created user is now used in combination with the created keys to perform the inventory in Docusnap.

To do this, please open the **Amazon Web Services** wizard via the Docusnap navigation bar.

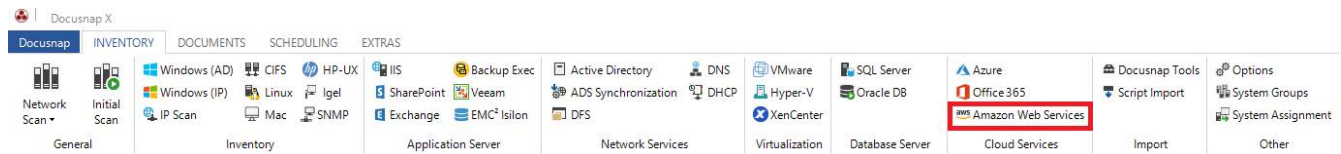


Fig. 12 - New Feature: Inventory Amazon Web Services

Then select your client, the domain to which the inventory results are to be assigned, and the Discovery Service in the subsequent dialog, and then enter the user created in the **Display name** field and the keys generated accordingly.

Inventory

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Company Selection

Domain Selection

Amazon Web Services

Summary

Scheduling

☒ Inventory Amazon Web Services

Display Name:

DocusnapAWSInventory

Access Key ID:

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Secret Access Key:


Region:

EU (Frankfurt)

New

Save

Delete

<input checked="" type="checkbox"/>	DISPLAY NAME	REGION
<input checked="" type="checkbox"/> 	DocusnapAWSInventory	eu-central-1

Information: Completed successfully

Back

Next

Cancel

Fig. 13 - The Create Keys are Entered in the Wizard

After successful saving, you will see a short summary via **Next** and can define in the last step whether you want to schedule the inventory time-controlled.

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VERSION HISTORY

date	Description of the
October 4, 2019	Version 1.0 - Description of the "Amazon Web Services" inventory module
