

Tools - AWS - How to Configure AWS Service Catalog - step by step

1. Download the AWS CloudFormation Template

To provision and configure portfolios and products, you use AWS CloudFormation templates, which are JSON– or YAML-formatted text files. These templates describe the resources that you want to provision. You can use the AWS CloudFormation editor or any text editor to create and save templates.

2. Create a Key Pair

To enable your end users to launch the product that is based on the sample template for this tutorial, you must create an Amazon EC2 key pair. A key pair is a combination of a public key that is used to encrypt data and a private key that is used to decrypt data.

End users must specify the name of a key pair when they use AWS Service Catalog to launch the product that is based on the template.

To create a key pair

- Open the Amazon EC2 console at <https://console.aws.amazon.com/ec2/>.
- In the navigation pane, under **Network & Security**, choose **Key Pairs**.
- On the **Key Pairs** page, choose **Create Key Pair**.
- For **Key pair name**, type a name that is easy for you to remember, and then choose **Create**.
- When the console prompts you to save the private key file, save it in a safe place.

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EC2 > Key pairs > Create key pair

Create key pair [Info](#)

Key pair
A key pair, consisting of a private key and a public key, is a set of security credentials that you use to prove your identity when connecting to an instance.

Name

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type [Info](#)
☒ RSA
☐ ED25519

Private key file format
☒ .pem
For use with OpenSSH
☐ .ppk
For use with PuTTY

Tags (Optional)
No tags associated with the resource.
[Add tag](#)
You can add 50 more tags.

[Cancel](#) [Create key pair](#)

Save the **cnlnew.pem** file safely.

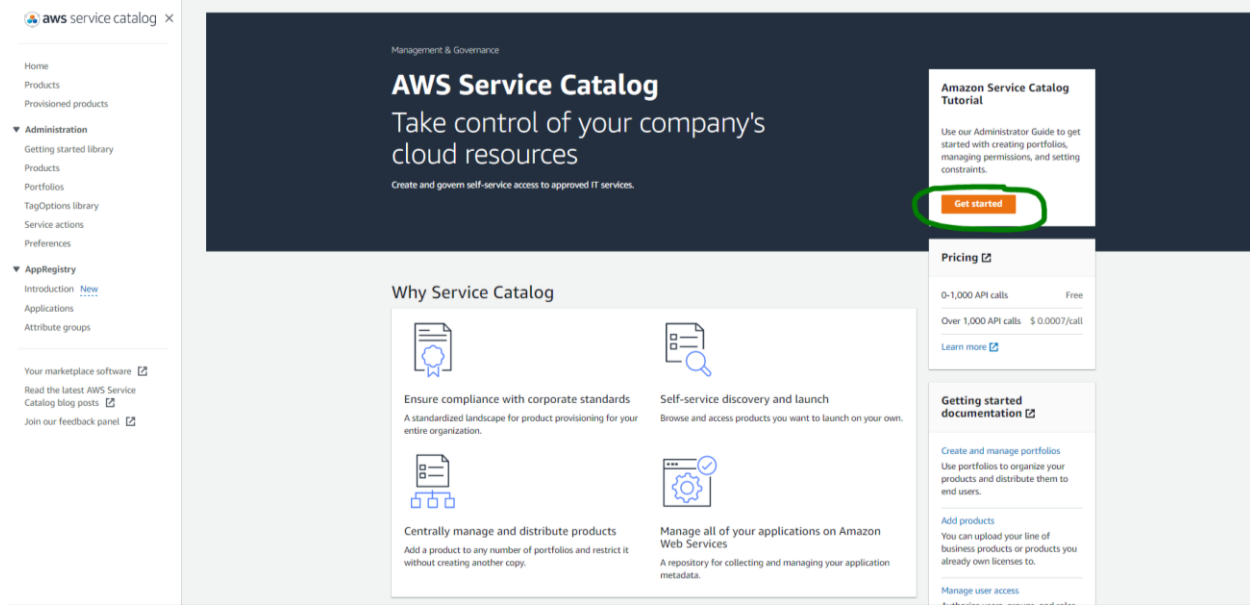
3. Create an AWS Service Catalog Portfolio

To provide users with products, begin by creating a portfolio for those products.

To create a portfolio

- Open the AWS Service Catalog console at <https://console.aws.amazon.com/servicecatalog/>.

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- If you are using the AWS Service Catalog administrator console for the first time, choose **Launch solutions with the Getting Started library** to start the wizard for configuring a portfolio. Otherwise, choose **Create portfolio**.
- Type the following values:
 - **Portfolio name** – Engineering Tools
 - **Description** – Sample portfolio that contains a single product.
 - **Owner** – IT (it@example.com)
- Choose **Create**.

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Service Catalog > Portfolios > Create portfolio

Create portfolio [Info](#)

Use portfolios to organize your products and distribute them to end users. Add products to a portfolio and grant permissions to allow users to view and launch products.

Portfolio name
Choose a name that you will recognize in a table of portfolios.

Engineering Tools

Maximum 100 alphanumeric characters.

Portfolio description - optional
Enter a brief description to detail the use cases of this portfolio.

Sample portfolio that contains a single product

Maximum 2000 alphanumeric characters.

Owner
The portfolio creator's name.

IT (it@example.com)

Maximum 50 alphanumeric characters.

Cancel **Create**

create portfolio → choose create option.

aws service catalog x Success
You successfully created portfolio Engineering Tools

Service Catalog > Portfolios

Portfolios [Info](#)

Local Imported

Local portfolios (1)

Search portfolios

	Name	Created time	Portfolio ID	ARN	Owner	Description	Current vs. budget	Forecast vs. budget
<input type="radio"/>	Engineering Tools	Tue, Sep 21, 2021, 1:59:09 PM GMT+2	port-rjb5cvs3gvagn	arn:aws:catalo g-us-east- 2:4567745155 40:portfolio/p ort- rjb5cvs3gvag n	IT (it@example.com)	Sample portfolio that contains a single product	-	-

Your marketplace software [Read the latest AWS Service Catalog blog posts](#) [Join our feedback panel](#)

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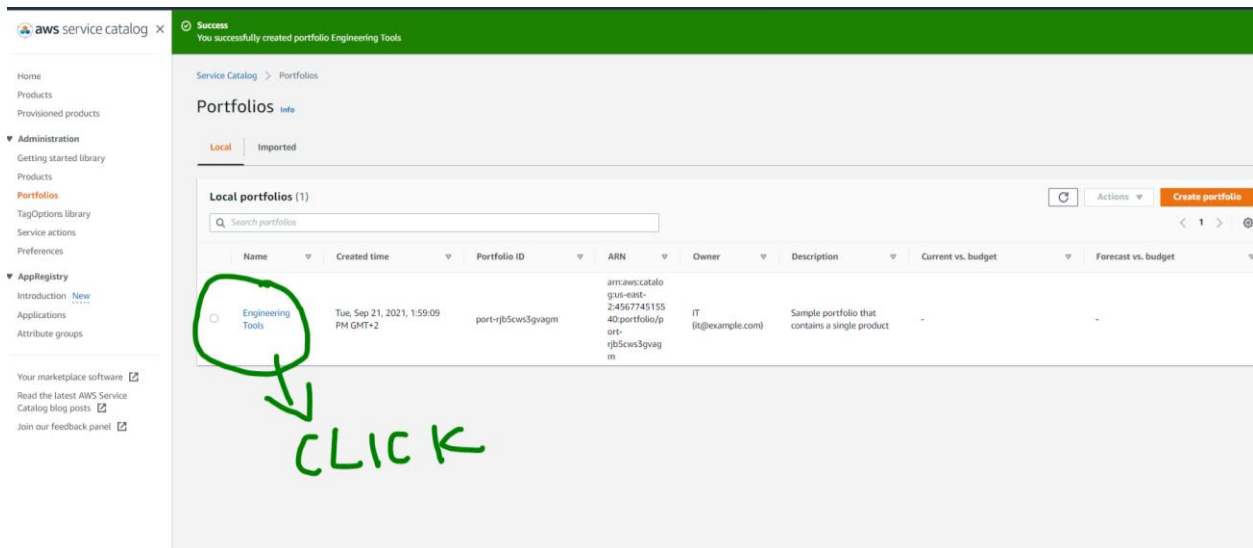
New portfolio has been created.

4. Create an AWS Service Catalog Product

After you have created a portfolio, you're ready to add a product. Now you will create a product called Linux Desktop, a cloud development environment that runs on Amazon Linux.

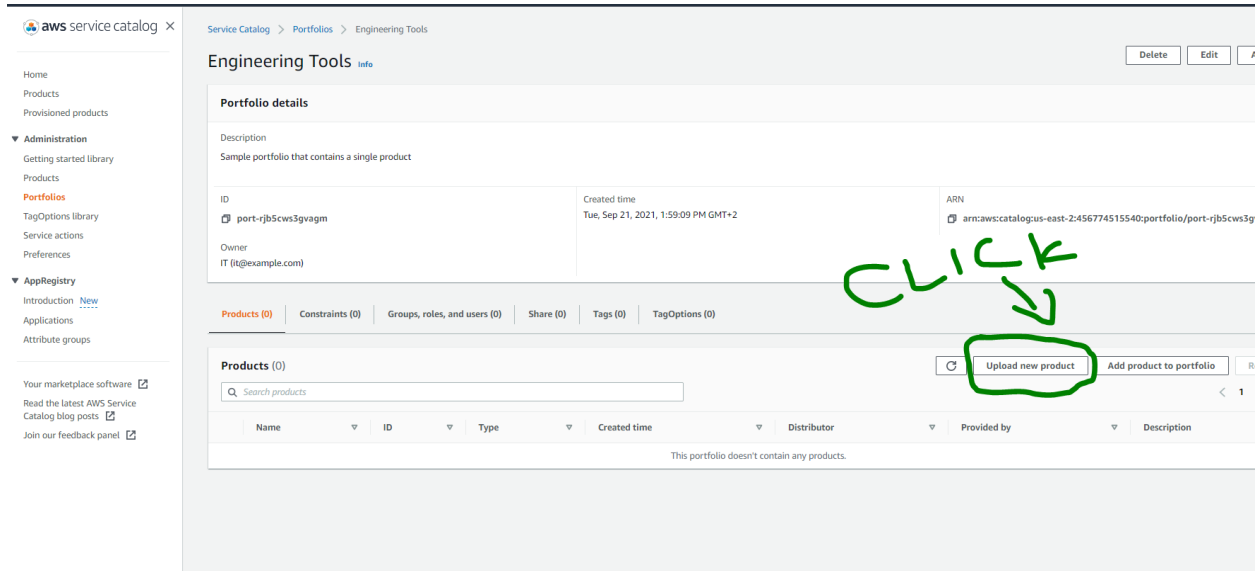
To create a product

- If you've just completed the previous step, the **Portfolios** page is already displayed. Otherwise, open <https://console.aws.amazon.com/servicecatalog/>.
- Choose the name **Engineering Tools** to open the portfolio details page, and then choose **Upload new product**.



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- On the **Enter product details** page, type the following and then choose **Next**:
 - **Product name** – Linux Desktop
 - **Description** – Cloud development environment configured for engineering staff. Runs AWS Linux.
 - **Provided by** – IT
 - **Vendor** – (blank)

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Service Catalog > Products > Create product

Step 1
Enter product details
Step 2
Review product details

Enter product details [Info](#)

Product details

Create your own products for private use within your organization. Add your products to portfolios to make them available to your users.

Product name
This is an easily identifiable name for your product.

The product name must contain from 1 to 100 characters.

Description - optional
This description appears in search results to help the user choose the correct product.

The product description must contain from 0 to 8191 characters.

Owner
This is the person or organization that publishes the product.

Distributor - optional
This is the name of the product's publisher. This information allows users to sort their product list to make it easier to find the products they need.

Version details

Use an uploaded template file or an AWS CloudFormation template to build your product.

Choose a method

☐ Use a template file
Upload your own template file

☒ Use a CloudFormation template
Specify a URL location for a CloudFormation template

☐ Use an existing Cloudformation Stack
Enter Stack ARN to upload template

Use a CloudFormation template

- On the **Enter support details** page, type the following and then choose **Next**:
 - Email contact** – ITSupport@example.com
 - Support link** – <https://wiki.example.com/IT/support>
 - Support description** – Contact the IT department for issues deploying or connecting to this product.

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Support details


Identify the organization within your company publishing this product, and provide a point of contact for support.

Email contact - *optional*
The email address to report issues with the product.

Support link - *optional*
The URL to a site where users can find support information or file tickets.

The URL must begin with http:// or https://.

Support description - *optional*
The description of how users should use the email contact and support link.



The support description must contain from 0 to 8191 characters.

CancelReview

- On the **Version details** page, choose **Specify an Amazon S3 template URL**, type the following, and then choose **Next**:
 - **Select template** – `https://awsdocs.s3.amazonaws.com/servicecatalog/development-environment.template`
 - **Version title** – `v1.0`
 - **Description** – Base Version

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Version details

Use an uploaded template file or an AWS CloudFormation template to build your product.

Choose a method

☐ Use a template file
Upload your own template file

☒ Use a CloudFormation template
Specify a URL location for a CloudFormation template

☐ Use an existing Cloudformation Stack
Enter Stack ARN to upload template

Use a CloudFormation template
This is an Amazon S3 template URL.

`https://awsdocs.s3.amazonaws.com/servicecatalog/development-environm`


The template URL must begin with either http:// or https://.

Version name - *optional*
The name for this version of the product.

`v1.0`

Description - *optional*
This description should explicitly specify the differences between this version and other versions.

Base Version



The version description must contain from 0 to 8191 characters.

- On the **Review** page, choose **Create**.

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Service Catalog > Products > Create product

Step 1
Enter product details

Step 2
Review product details

Enter product details [info](#)

Product details
Create your own products for private use within your organization. Add your products to portfolios to make them available to your users.

Product name
This is an easily identifiable name for your product.

The product name must contain from 1 to 100 characters.

Description - optional
This description appears in search results to help the user choose the correct product.

Owner
This is the person or organization that publishes the product.

Distributor - optional
This is the name of the product's publisher. This information allows users to sort their product list to make it easier to find the products they need.

Support details

Identify the organization within your company publishing this product, and provide a point of contact for support.

Email contact - optional
The email address to report issues with the product.

Support link - optional
The URL to a site where users can find support information or file tickets.

The URL must begin with http:// or https://.

Support description - optional
The description of how users should use the email contact and support link.

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Version details
Use an uploaded template file or an AWS CloudFormation template to build your product.

Choose a method

☒ Use a template file
Upload your own template file

☐ Use a CloudFormation template
Specify a URL location for a CloudFormation template

Upload a template file

Choose File

development-environment.templateX

File format must be in JSON or YAML.

Version title

The title for this version of the product.

Guidance [Info](#)

This information provides guidance to end users about which provisioning artifacts to use.

None (default)

Description - *optional*

This description should explicitly specify the differences between this version and other versions.

Base Version

Once completed the above 3 sections (Version details,Support details,Product Details) then click review

Support details
Identify the organization within your company publishing this product, and provide a point of contact for support.

Email contact - *optional*

The email address to report issues with the product.

Support link - *optional*

The URL to a site where users can find support information or file tickets.

The URL must begin with http:// or https://.

Support description - *optional*

The description of how users should use the email contact and support link.

Contact the IT department for issues deploying or connecting to this product.

Cancel

Review

Now create new product

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Service Catalog > Products > Create product

Step 1
Enter product details

Step 2
Review product details

Review product details

Product details

Product name	Description
Linux Desktop	Cloud development environment configured for engineering staff. Runs AWS Linux.
Owner	Distributor
IT	-

Version details

Version source	Version name
https://awsdocs.s3.amazonaws.com/servicecatalog/development-environment.template	v1.0
Guidance	Version description
None	Base Version

Support details

Email contact	Support link
ITSupport@example.com	https://wiki.example.com/IT/support
Support description	
Contact the IT department for issues deploying or connecting to this product.	

Cancel

Previous

Create product

aws service catalog

Success
Successfully added prod-pcmibnvaz2i to portfolio

Home
Products
Provisioned products

Administration
Getting started library
Products
Portfolios
TagOptions library
Service actions
Preferences

AppRegistry
Introduction
Applications
Attribute groups

Your marketplace software
Read the latest AWS Service Catalog blog posts
Join our feedback panel

Service Catalog > Portfolios > Engineering Tools

Engineering Tools

Delete Edit Actions

Portfolio details

Description
Sample portfolio that contains a single product

ID	Created time	ARN
port-rjb5cws3gvagm	Tue, Sep 21, 2021, 1:59:09 PM GMT+2	arn:aws:catalog:us-east-2:456774515540:portfolio/port-rjb5cws3gvagm
Owner	IT (it@example.com)	

Products (0)

Constraints (0) Groups, roles, and users (0) Share (0) Tags (0) TagOptions (0)

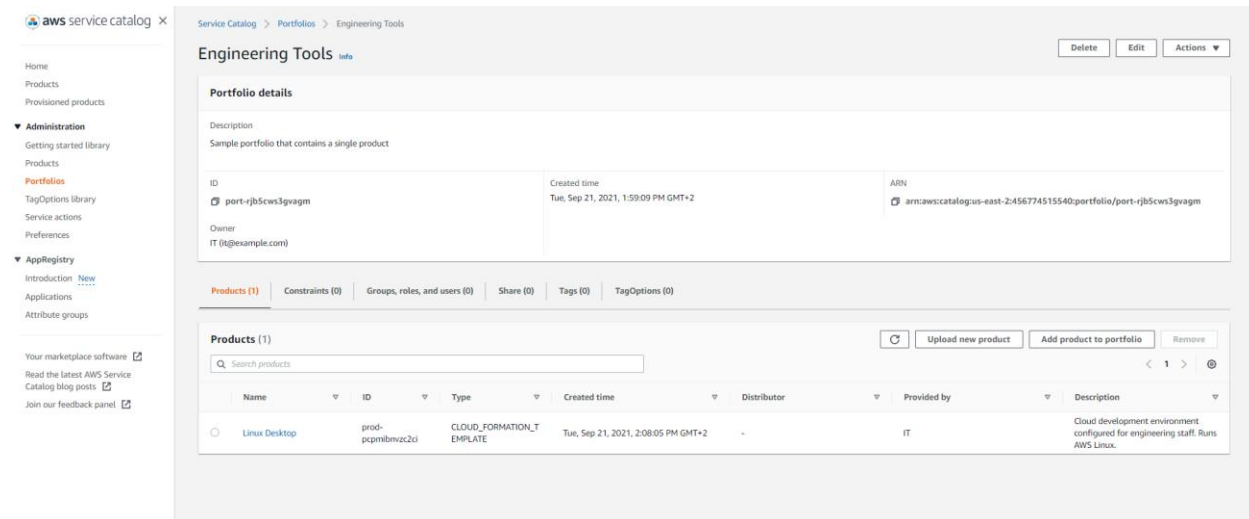
Products (0)

Upload new product Add product to portfolio Remove

Search products

Name	ID	Type	Created time	Distributor	Provided by	Description
This portfolio doesn't contain any products.						

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5. Add a Template Constraint to Limit Instance Size

Constraints add another layer of control over products at the portfolio level. Constraints can control the launch context of a product (launch constraints), or add rules to the AWS CloudFormation template (template constraints).

Now add a template constraint to the Linux Desktop product that prevents users from selecting large instance types at launch time. The development-environment template allows the user to select from six instance types; this constraint limits valid instance types to the two smallest types, `t2.micro` and `t2.small`.

To add a template constraint to the Linux Desktop product

- On the portfolio details page, expand the **Constraints** section, and choose **Add constraints**.
- In the **Select product and type** window, for **Product**, choose **Linux Desktop**. Then, for **Constraint type**, choose **Template**.
- Choose **Continue**.
- For **Description**, type `Small instance sizes`.
- Paste the following into the **Template constraint** text box:

```
{
  "Rules": {
    "Rule1": {
      "Assertions": [
```

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```
{
  "Assert" : { "Fn::Contains": ["t2.micro", "t2.small"], { "Ref":
    "InstanceType" } }},
  "AssertDescription": "Instance type should be t2.micro or t2.small"
}
]
}
}
}
```


The screenshot shows the AWS Service Catalog console. On the left is a navigation menu with sections like 'Administration', 'Portfolios', and 'AppRegistry'. The main area displays the 'Engineering Tools' portfolio details. A green arrow points to the 'Constraints' tab, with the word 'CLICK' written in green above it. The 'Products' tab is also visible, showing a table with one product: 'Linux Desktop'.

Name	ID	Type	Created time	Distributor	Provided by	Description
Linux Desktop	prod-pcmlbnc2u	CLOUD_FORMATION_T EMPLATE	Tue, Sep 21, 2021, 2:08:05 PM GMT+2	-	IT	Cloud development environment configured for engineering staff. Runs AWS Linux.

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 Services ▾

Search for services, features, marketplace products



Create constraint

Use constraints to control which rules are applied when the end user launches a product from a specific portfolio.

Create constraint [Info](#)

Constraints are active as soon as you create them. When created, constraints are applied to all versions of a product that are not already launched.

Product
Select the product from the portfolio to apply the constraints to. Constraints are applied to all versions of a product that are not already launched.

Linux Desktop ▾

Constraint type
Choose the type of constraint to apply to the product you've selected.

☐ Launch
Allows you to assign an IAM role to the product that is used to provision the AWS resources.

☐ Notification
Allows you to stream product notifications to an Amazon SNS topic.

☒ Template
Allows you to limit the options that are available to end users when they launch the product.

☐ StackSet
Allows you to configure product deployment across accounts and regions using AWS CloudFormation StackSets.

☐ Tag Update
Allows you to update tags after the product has been provisioned.

Template constraint [Info](#)

Apply template constraints to ensure that end users can use products while adhering to the compliance requirements of your organization. Template constraints consist of a rule or set of rules.

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Template constraint [Info](#)

Apply template constraints to ensure that end users can use products while adhering to the compliance requirements of your organization. Template constraints consist of a rule or set of rules.

Method

You can create a constraint by adding rules using the interactive editor or manually by using the text editor if you want to write your own rules. Or, use the text editor to view the output of the interactive editor.

☐ Interactive editor
Build a constraint with existing parameters and values.

☒ Text editor
Use the text editor to view the output of the interactive editor or write your own constraint JSON.

▼ Text editor

The text editor shows the output of rules you have added using the interactive editor. You can also write or edit your own constraint, or use a sample constraint for inspiration.

Samples

```
{
  "Rules": {
    "Rule1": {
      "Assertions": [
        {
          "Assert": { "Fn::Contains": ["t2.micro", "t2.small"], {"Ref": "InstanceType"} },
          "AssertDescription": "Instance type should be t2.micro or t2.small"
        }
      ]
    }
  }
}
```



The constraint body must be written in JSON.

Constraint description - optional

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▼ Text editor

The text editor shows the output of rules you have added using the interactive editor. You can also write or edit your own constraint, or use a sample constraint for inspiration.

Samples

```
{
  "Rules": {
    "Rule1": {
      "Assertions": [
        {
          "Assert": {"Fn::Contains": [{"t2.micro", "t2.small"}, {"Ref": "InstanceType"}]},
          "AssertDescription": "Instance type should be t2.micro or t2.small"
        }
      ]
    }
  }
}
```

The constraint body must be written in JSON.

Constraint description - *optional*
Add information about the constraint to help end users understand the rule or rules being enforced.

Small Instance Sizes

Cancel Create

- Choose **create**.

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The screenshot shows the AWS Service Catalog console. The left sidebar contains navigation links: Products, Provisioned products, Administration (Products, Portfolios, TagOptions library, Service actions, Preferences), Your marketplace software, Launch solutions with the Getting Started library, and Join our feedback panel. The main content area is titled 'Engineering Tools' and shows a sample portfolio. Below the portfolio details, there are tabs for Products (1), Constraints (0), Groups, roles, and users (0), Share (0), Tags (0), and TagOptions (0). The 'Constraints' tab is selected, showing a search bar and a table with columns: Description, Type, Product Name, Origin, and Id. A red arrow points to the 'Constraints (0)' tab, and another red arrow points to the 'Create constraint' button in the top right corner of the constraints section.

The screenshot shows the 'Create constraint' form in the AWS Service Catalog console. The left sidebar is the same as the previous screenshot. The main content area is titled 'Create constraint' and includes a description: 'Use constraints to control which rules are applied when the end user launches a product from a specific portfolio.' The form has two main sections: 'Product' and 'Constraint type'. The 'Product' section has a dropdown menu labeled 'Choose a product'. The 'Constraint type' section has three radio buttons: 'Launch' (selected), 'Notification', and 'Termination'. The 'Launch' option is described as 'Allows you to assign an IAM role to the product that is used to provision the AWS resources.' The 'Notification' option is described as 'Allows you to stream product notifications to an Amazon SNS topic.' The 'Termination' option is partially visible at the bottom.

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 aws service catalog ×

Products

Provisioned products

▼ Administration


Products

Portfolios


TagOptions library

Service actions

Preferences

Your marketplace software 

Launch solutions with the Getting Started library

Join our feedback panel 

Introducing the new Service Catalog end user experience (beta)
You are trying the beta version of the redesigned AWS Service Catalog console. Continue to use the new console and [let us know](#).

Use constraints to control which rules are applied when the end user launches a product from a specific portfolio.

Create constraint [Info](#)

Constraints are active as soon as you create them. When created, constraints are applied to all versions of a product that are not already launched.

Product
Select the product from the portfolio to apply the constraints to.

Linux Desktop ▼

Constraint type
Choose the type of constraint to apply to the product you've selected.

☐ **Launch**
Allows you to assign an IAM role to the product that is used to provision the AWS resources.

☐ **Notification**
Allows you to stream product notifications to an Amazon SNS topic.

☒ **Template**
Allows you to limit the options that are available to end users when they launch the product.

☐ **StackSet**
Allows you to configure product deployment across accounts and regions using AWS CloudFormation StackSets.

Template constraint [Info](#)

Apply template constraints to ensure that end users can use products while adhering to the compliance requirements of your organization. Template constraints consist of a rule or set of rules.

Method
You can create a constraint by adding rules using the interactive editor or manually by using the text editor if you want to write your own rules. Or, use the text editor to view the output of the interactive editor.

☐ **Interactive editor**
Build a constraint with existing parameters and values.

☒ **Text editor**
Use the text editor to view the output of the interactive editor or write your own constraint JSON.

▼ **Text editor**

The text editor shows the output of rules you have added using the interactive editor. You can also write or edit your own constraint, or use a sample constraint for inspiration.

Samples

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editor or write your own constraint JSON.

▼ Text editor

The text editor shows the output of rules you have added using the interactive editor. You can also write or edit your own constraint, or use a sample constraint for inspiration.

Samples

```
{
  "Rules": {
    "Rule1": {
      "Assertions": [
        {
          "Assert": { "Fn::Contains": [[ "t2.micro", "t2.small"], { "Ref": "InstanceType" } ] },
          "AssertDescription": "Instance type should be t2.micro or t2.small"
        }
      ]
    }
  }
}
```

The constraint body must be written in JSON.

Constraint description - *optional*

Add information about the constraint to help end users understand the rule or rules being enforced.

Small instance sizes.

Cancel>Create

aws service catalog

Products
Provisioned products

▼ Administration
Products
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TagOptions library
Service actions
Preferences

Your marketplace software
Launch solutions with the Getting Started library
Join our feedback panel

Introducing the new Service Catalog end user experience (beta)
You are trying the beta version of the redesigned AWS Service Catalog console. Continue to use the new console and [let us know what you think](#). Or you can use the old console.

Service Catalog > Portfolios > Engineering Tools

Engineering Tools [Info](#)

Sample portfolio that contains a single product.

Portfolio details

Id

port-chrghzv5ee4k

Owner

IT (it@example.com)

Created time

Sun, Sep 27, 2020, 6:59:03 PM GMT+2

ARN

arn:aws:catalog:eu-west-1:814496612438:portfolio/port-chrghzv5ee4k

Products (1)

Constraints (1)

Groups, roles, and users (0)

Share (0)

Tags (0)

TagOptions (0)

Success

Successfully created constraint.

Constraints (1)

○

Small instance sizes.

TEMPLATE

Linux Desktop

814496612438

cons-z5e3scvtrmxy

20 | Page

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Now constraints have been created.

6. Add a Launch Constraint to Assign an IAM Role

A launch constraint designates an IAM role that AWS Service Catalog assumes when an end user launches a product. For this step, you will add a launch constraint to the Linux Desktop product so that AWS Service Catalog can use the AWS resources that are part of the product's AWS CloudFormation template. This launch constraint will enable the end user to launch the product and, after it is launched, manage it as a provisioned product.

Without a launch constraint, you would need to grant additional IAM permissions to your end users before they could use the Linux Desktop product. For example, the `ServiceCatalogEndUserAccess` policy grants the minimum IAM permissions required to access the AWS Service Catalog end user console view. By using a launch constraint, you can keep your end users' IAM permissions to a minimum, which is an IAM best practice.

To add a launch constraint

- Open the IAM console at <https://console.aws.amazon.com/iam/>.
- In the navigation pane, choose **Policies**. Choose **Create policy** and do the following:
 1. On the **Create policy** page, choose the **JSON** tab.
 2. Copy the following example policy and paste it in **Policy Document**, replacing the placeholder JSON in the text field:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "cloudformation:CreateStack",
        "cloudformation>DeleteStack",
        "cloudformation:DescribeStackEvents",
        "cloudformation:DescribeStacks",
        "cloudformation:GetTemplateSummary",
        "cloudformation:SetStackPolicy",
        "cloudformation:ValidateTemplate",
        "cloudformation:UpdateStack",
        "ec2:*",
        "s3:GetObject",
        "servicecatalog:*",
        "sns:*"
      ]
    }
  ],
}
```

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```
    "Resource": "*"
  }
]
```

```
}
```

The screenshot shows the AWS IAM console 'Create policy' page. The 'JSON' tab is selected, displaying a policy document that grants permissions for various AWS CloudFormation actions. The policy is named 'linuxDesktopPolicy' and is attached to the 'linuxDesktopPolicy' group. The policy document is as follows:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "cloudformation:CreateStack",
        "cloudformation>DeleteStack",
        "cloudformation:DescribeStackEvents",
        "cloudformation:DescribeStacks",
        "cloudformation:GetTemplateSummary",
        "cloudformation:SetStackPolicy",
        "cloudformation:ValidateTemplate",
        "cloudformation:UpdateStack",
        "ec2:*",
        "s3:GetObject",
        "servicecatalog:*",
        "sns:*"
      ],
      "Resource": "*"
    }
  ]
}
```

The character count is 391 of 6,144. The 'Next: Tags' button is visible.

3. Choose **Review policy**.
4. For **Policy Name**, type linuxDesktopPolicy.

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Create policy

1 2 3

Review policy

Name* linuxDesktopPolicy

Use alphanumeric and "+=, @_-." characters. Maximum 128 characters.

Description

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

Summary

Filter

Service	Access level	Resource	Request condition
Allow (5 of 292 services) Show remaining 287			
CloudFormation	Full: Permissions management Limited: List, Read, Write	All resources	None
EC2	Full access	All resources	None
S3	Limited: Read	All resources	None
Service Catalog	Full access	All resources	None
SNS	Full access	All resources	None

Tags

Key	Value
No tags associated with the resource.	

* Required

Cancel Previous **Create policy**

CLICK

Chime EC2 Honeycode Personalize Trusted Advisor

CloudFormation EC2 - Fleet IAM Access Analyzer Purchase Orders VPC

CloudHSM EC2 Auto Scaling Incident Manager QLDB WorkLink

CloudTrail EC2 Image Builder Inspector RAM WorkMail

CloudWatch Alarms EKS IoT

CloudWatch Application Insights

Select your use case

Service Catalog

Allows Service Catalog to access AWS resources on your behalf.

Service Catalog AppRegistry - Resource Groups

Allows Service Catalog AppRegistry to manage Resource Groups on your behalf.

* Required

Cancel **Next: Permissions**

5. Choose **Create policy**.
- In the navigation pane, choose **Roles**. Choose **Create role** and do the following:
 - For **Select role type**, choose **AWS service** and then choose **Service Catalog**. Select the **Service Catalog** use case and then choose **Next: Permissions**.


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- Search for the **linuxDesktopPolicy** policy and then select the checkbox.


Create role


1 2 3 4

Select type of trusted entity

**AWS service**
EC2, Lambda and others

**Another AWS account**
Belonging to you or 3rd party

**Web identity**
Cognito or any OpenID provider

**SAML 2.0 federation**
Your corporate directory

Allows AWS services to perform actions on your behalf. [Learn more](#)

Choose a use case

Common use cases

EC2

Allows EC2 instances to call AWS services on your behalf.

Lambda

Allows Lambda functions to call AWS services on your behalf.

Or select a service to view its use cases

API Gateway	CloudWatch Events	EMR	IoT SiteWise	RDS
AWS Backup	CodeBuild	EMR Containers	IoT Things Graph	Redshift
AWS Chatbot	CodeDeploy	ElastiCache	KMS	Rekognition
AWS Marketplace	CodeGuru	Elastic Beanstalk	Kinesis	RoboMaker
AWS Support	CodeStar Notifications	Elastic Container Registry	Lake Formation	S3
Amplify	Comprehend	Elastic Container Service	Lambda	SMS
AppStream 2.0	Config	Elastic Transcoder	Lex	SNS
AppSync	Connect	ElasticLoadBalancing	License Manager	SWF
Application Auto Scaling	DMS	EventBridge	MQ	SageMaker
Application Discovery Service	Data Lifecycle Manager	Forecast	Machine Learning	Security Hub
Application Migration Service	Data Pipeline	GameLift	Macie	Service Catalog
Batch	DataBrew	Global Accelerator	Managed Blockchain	Step Functions
Braket	DataSync	Glue	MediaConvert	Storage Gateway
	DeepLens	Greengrass	Migration Hub	Systems Manager

select

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Create role

1 2 3 4

▼ Attach permissions policies

Choose one or more policies to attach to your new role.

Create policy



Filter policies ▼		Q linux	Showing 1 result
	Policy name ▼	Used as	
<input checked="" type="checkbox"/>	linuxDesktopPolicy	None	

▸ Set permissions boundary

* Required

Cancel

Previous

Next: Tags

- Choose **Next: Tags**, and then **Next: Review**.
- For **Role name**, type linuxDesktopLaunchRole.
- Choose **Create role**.

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Create role



Review

Provide the required information below and review this role before you create it.

Role name*

Use alphanumeric and '+=, @-_' characters. Maximum 64 characters.

Role description

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

Trusted entities AWS service: servicecatalog.amazonaws.com

Policies [linuxDesktopPolicy](#)

Permissions boundary Permissions boundary is not set

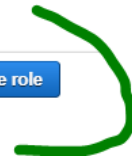
No tags were added.

* Required

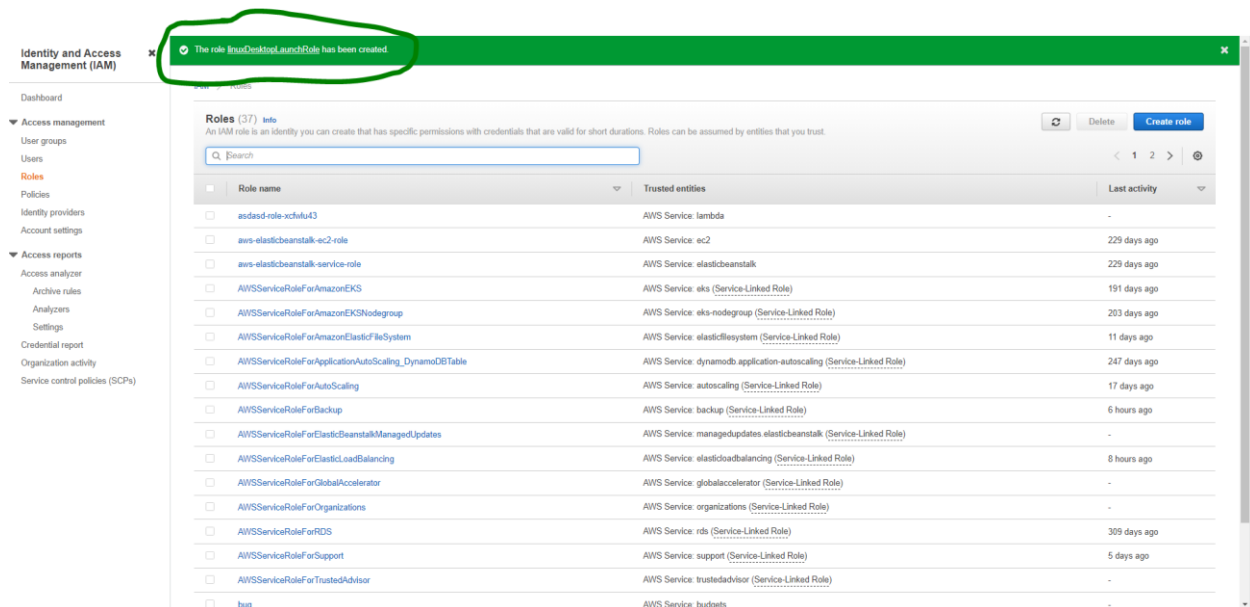
[Cancel](#)

[Previous](#)

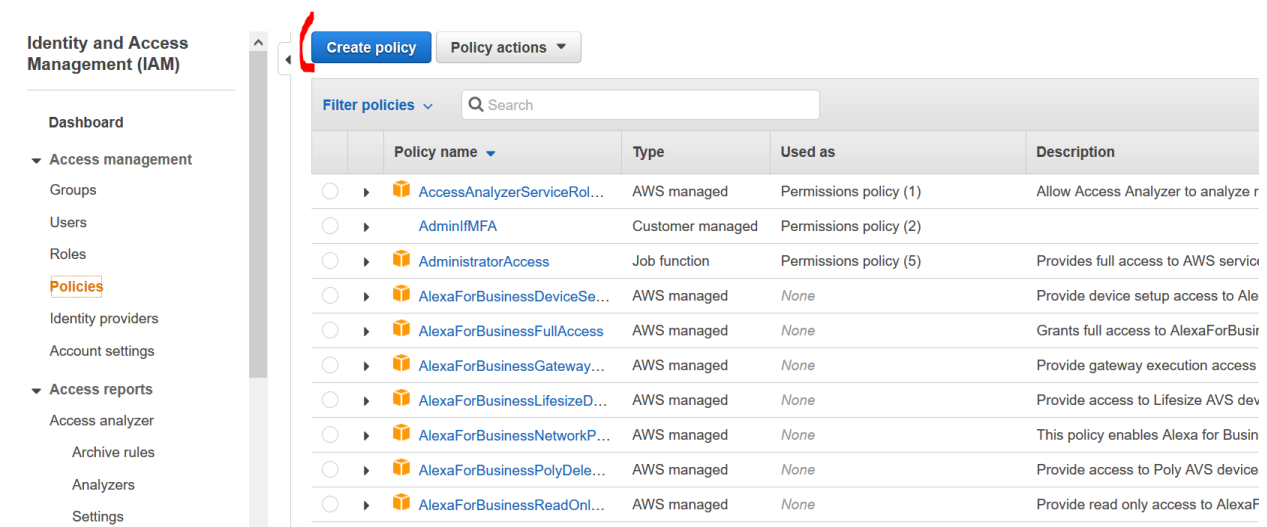
[Create role](#)



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- Open the AWS Service Catalog console at <https://console.aws.amazon.com/servicecatalog/>.
- Choose the **All engineering tools** portfolio.
- On the portfolio details page, choose the **Constraints** tab, and then choose **Create constraint**.
- For **Product**, choose **Linux Desktop**, and for **Constraint type**, choose **Launch**. Choose **Continue**.
- On the **Launch constraint** page, choose **Search IAM roles**, choose **linuxDesktopLaunchRole**, and then choose **Submit**.



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Open the AWS Service Catalog console

click the Engineering Tools portfolio

The screenshot shows the AWS Service Catalog console. On the left is a navigation sidebar with 'Administration' expanded, showing 'Portfolios' as the selected option. The main content area has a blue header with a message about the new console. Below this, the 'Portfolios' page is displayed with tabs for 'Local', 'Imported', and 'Getting Started library'. A success message at the top states: 'Success: Portfolio port-csw3fkmx4dwfw has been removed from the system.' Below this, the 'Local portfolios (1)' section shows a table with one portfolio:

Name	Created time	Portfolio ID	ARN	Owner	Description	Current vs. budget	Forecast vs. budget
Engineering Tools	Sun, Sep 27, 2020, 6:59:03 PM GMT+2	port-crhrqzv5ee4k	arn:aws:catalog:eu-west-1:814496612438:portfolio/port-crhrqzv5ee4k	IT (it@example.com)	Sample portfolio that contains a single product.	---	---

A red circle highlights the 'Engineering Tools' portfolio name in the table.


The screenshot shows the details of the 'Engineering Tools' portfolio. The 'Portfolio details' section shows the ID, Created time, ARN, and Owner. Below this, the 'Constraints (1)' tab is selected, showing a table with one constraint:

Description	Type	Product Name	Origin	Id
Small instance sizes.	TEMPLATE	Linux Desktop	814496612438	cons-z5e3scvtnmxay

A red circle highlights the 'Constraints (1)' tab, and another red circle highlights the 'Create constraint' button in the top right of the constraints section.

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 aws service catalog ×

Products

Provisioned products

▼ Administration


Products

Portfolios


TagOptions library

Service actions

Preferences

Your marketplace software 

Launch solutions with the Getting Started library

Join our feedback panel 

Service Catalog > Portfolios > Engineering Tools > Create constraint

Create constraint

Use constraints to control which rules are applied when the end user launches a product from a specific portfolio.

Create constraint [Info](#)

Constraints are active as soon as you create them. When created, constraints are applied to all versions of a product that are not already launched.

Product

Select the product from the portfolio to apply the constraints to.

Linux Desktop ▼

Constraint type

Choose the type of constraint to apply to the product you've selected.

☒ Launch

Allows you to assign an IAM role to the product that is used to provision the AWS resources.

☐ Notification

Allows you to stream product notifications to an Amazon SNS topic.

29 | Page

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Launch constraint [Info](#)

A launch constraint specifies the AWS Identity and Access Management (IAM) role that AWS Service Catalog assumes when an end user launches a product. Only one launch constraint can be applied to each product.

Method

You can search for the IAM role you want to assign as a launch constraint, or if you know the ARN of the role you can enter it.

☒ **Select IAM role**
Assign the role of the product using an IAM role in your account.

☐ **Enter ARN**
Assign a role to the product using an ARN.

☐ **Enter role name**
Assign a role to the product using the local role name.

IAM role

Browse and search for an IAM role.


linuxDesktopLaunchRole ▼

Description - optional

Describe the role assigned to the launch constraint. If left blank, this field will autopopulate with the default description. For example, "Launch as "arn:aws:iam::xxxxxxxxxxxx:abcde"

Enter constraint description

The description must contain 1-2000 characters.


[aws service catalog](#)

Products

Provisioned products

Administration

Products

Portfolios

TagOptions library

Service actions

Preferences

You marketplace software

Launch solutions with the Getting Started library

Join our feedback panel

Introducing the new Service Catalog end user experience (beta)

You are trying the beta version of the redesigned AWS Service Catalog console. Continue to use the new console and [let us know what you think](#). Or you can [use the old console](#).

port-crrhrqzv5ee4k

Sun, Sep 27, 2020, 6:59:03 PM GMT+2

arn:aws:catalog:eu-west-1:814496612438:portfolio/port-crrhrqzv5ee4k

Owner

IT (it@example.com)

Products (1)

Constraints (2)

Groups, roles, and users (0)

Share (0)

Tags (0)

TagOptions (0)

Success

Successfully created constraint.

Constraints (2)

Search constraints

1

	Description	Type	Product Name	Origin	Id
<input type="radio"/>	Launch as arn:aws:iam::814496612438:role/linuxDesktopLaunchRole	LAUNCH	Linux Desktop	814496612438	cons-mybyxcuvmdps
<input type="radio"/>	Small instance sizes.	TEMPLATE	Linux Desktop	814496612438	cons-z5e3scvtnmay

7. Grant Permissions to AWS Service Catalog End Users

Before the end user can use AWS Service Catalog, you must grant access to the AWS Service Catalog end user console view. To grant access, you attach policies to the IAM user, group, or role that is used by the end user. In the following procedure, we attach the **AWSServiceCatalogEndUserFullAccess** policy to an IAM group.

To grant permissions to an end user group

- Open the IAM console at <https://console.aws.amazon.com/iam/>.
- In the navigation pane, choose **Groups**.
- Choose **Create New Group** and do the following:
 - For **Group Name**, type **Endusers**, and then choose **Next Step**.
 - In the search field, type **AWSServiceCatalog** to filter the policy list.
 - Select the checkbox for the **AWSServiceCatalogEndUserFullAccess** policy, and then choose **Next Step**. You also have the option to choose **AWSServiceCatalogEndUserReadOnlyAccess** instead.
 - On the **Review page**, choose **Create Group**.
- In the navigation pane, choose **Users**.
- Choose **Add user** and do the following:
 - For **User name**, type a name for the user.
 - Select **AWS Management Console access**.
 - Choose **Next: Permissions**.
 - Choose **Add user to group**.
 - Select the checkbox for the **Endusers** group and choose **Next: Tags** and then **Next: Review**.
 - On the **Review page**, choose **Create user**. Download or copy the credentials and then choose **Close**.

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Identity and Access Management (IAM) ✕

Dashboard

▼ Access management

User groups

Users

Roles

Policies

Identity providers

Account settings

▼ Access reports

Access analyzer

Archive rules

Analizers

Settings

Credential report

Organization activity

Service control policies (SCPs)

[IAM](#) > [User groups](#) > Create user group

Create user group

Name the group

User group name

Enter a meaningful name to identify this group.

Endusers

Maximum 128 characters. Use alphanumeric and "+=", "@", "_" characters.

Add users to the group - *Optional* (0) [Info](#)

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS. A user can belong to up to 10 groups.

Q Search

< 1 > ⚙

User name [↗](#)

Groups

Last activity

Creation time

No resources to display

Attach permissions policies - *Optional* (Selected 1/693) [Info](#)

You can attach up to 10 policies to this user group. All the users in this group will have permissions that are defined in the selected policies.

Q Filter policies by property or policy name and press enter

7 matches

< 1 > ⚙

"servicecata" ✕

Clear filters

Policy Name [↗](#)

Type

Description

☒  AWSServiceCatalogEndUserFullAccess

AWS managed

Provides full access to

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The screenshot shows the AWS IAM console interface. On the left, the navigation pane is expanded to 'Access management' > 'User groups'. The main content area is titled 'Add users to the group - Optional (0)' and 'Attach permissions policies - Optional (Selected 1/693)'. Below the title, there is a search bar and a table of policies. The first policy, 'AWSServiceCatalogEndUserFullAccess', is selected. At the bottom right, the 'Create group' button is circled in green.

Attach permissions policies - Optional (Selected 1/693)

You can attach up to 10 policies to this user group. All the users in this group will have permissions that are defined in the selected policies.

Filter policies by property or policy name and press enter 7 matches

"servicecata" X Clear filters

	Policy Name	Type	Description
<input checked="" type="checkbox"/>	AWSServiceCatalogEndUserFullAccess	AWS managed	Provides full access to
<input type="checkbox"/>	AWSServiceCatalogAdminFullAccess	AWS managed	Provides full access to
<input type="checkbox"/>	AWSServiceCatalogEndUserReadOnlyAccess	AWS managed	Provides read-only acc
<input type="checkbox"/>	AWSServiceCatalogAppRegistryReadOnlyAccess	AWS managed	Provides read-only acc
<input type="checkbox"/>	AWSServiceCatalogAdminReadOnlyAccess	AWS managed	Provides read-only acc
<input type="checkbox"/>	AWSServiceCatalogAppRegistryFullAccess	AWS managed	Provides full access to
<input type="checkbox"/>	AmazonSageMakerAdmin-ServiceCatalogProductsServiceRolePolicy	AWS managed	Service role policy user

Cancel Create group

Create new user to test this service catalog functionality

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Add user



Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name*

[+ Add another user](#)

Select AWS access type

Select how these users will primarily access AWS. If you choose only programmatic access, it does NOT prevent users from accessing the console using an assumed role. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

- Select AWS credential type*
- ☒ **Access key - Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.
 - ☒ **Password - AWS Management Console access**
Enables a **password** that allows users to sign-in to the AWS Management Console.

- Console password*
- ☒ Autogenerated password
 - ☐ Custom password

- Require password reset ☐ User must create a new password at next sign-in
Users automatically get the [IAMUserChangePassword](#) policy to allow them to change their own password.

* Required

[Cancel](#)

[Next: Permissions](#)


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Add user

1 2 3 4 5

▼ Set permissions

 Add user to group

 Copy permissions from existing user

 Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Add user to group

Create group Refresh

Q Search		Showing 3 results
Group ▼	Attached policies	
<input type="checkbox"/> ec2admin	AdministratorAccess	
<input checked="" type="checkbox"/> Endusers	AWSServiceCatalogEndUserFullAccess	
<input type="checkbox"/> testgroup	AmazonEC2FullAccess	

► Set permissions boundary

Cancel

Previous

Next: Tags

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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	cnladmin
AWS access type	Programmatic access and AWS Management Console access
Console password type	Autogenerated
Require password reset	No
Permissions boundary	Permissions boundary is not set

Permissions summary

The user shown above will be added to the following groups.

Type	Name
Group	Endusers

Tags

No tags were added.

[Cancel](#)

[Previous](#)

[Create user](#)



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Add user

1 2 3 4 5



Success

You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://cnladmin.signin.aws.amazon.com/console>

Download .csv

	User	Access key ID	Secret access key	Password	Email login instructions
▶	✓ cnladmin	AKIAWUWPB7NKJO5G6WOZ	***** Show	***** Show	Send email

8. Grant End Users Access to the Portfolio

Now that you have created a portfolio and added a product, you are ready to grant access to end users.

Prerequisites

If you haven't created an IAM group for the endusers, see Section 7

To provide access to the portfolio

1. On the portfolio details page, choose the **Groups, roles, and users** tab.
2. Choose **Add groups, roles, users**.
3. On the **Groups** tab, select the checkbox for the IAM group for the end users.
4. Choose **Add Access**.

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aws service catalog x

Introducing the new Service Catalog end user experience (beta)
You are trying the beta version of the redesigned AWS Service Catalog console. Continue to use the new console and let us know what you think. Or you can use the old console.

Service Catalog > Portfolios > Engineering Tools

Engineering Tools Info

Sample portfolio that contains a single product.

Portfolio details Edit

Id port-crhrqhzv5ee4k	Created time Sun, Sep 27, 2020, 6:59:03 PM GMT+2	ARN arn:aws:catalog:eu-west-1:814496612438:portfolio/port-crhrqhzv5ee4k
Owner IT (it@example.com)		

Products (1) | Constraints (2) | **Groups, roles, and users (0)** | Share (0) | Tags (0) | TagOptions (0)

Groups, roles, and users (0) Remove group, role, or user **Add groups, roles, users**

Search groups, roles, and users

Name	Type	ARN
------	------	-----

aws service catalog x

Introducing the new Service Catalog end user experience (beta)
You are trying the beta version of the redesigned AWS Service Catalog console. Continue to use the new console and let us know what you think. Or you can use the old console.

Service Catalog > Portfolios > Engineering Tools > Add groups, roles, and users access

Add groups, roles, and users access to portfolio Info

Grant users access to the portfolio and allow them to view and launch its products.

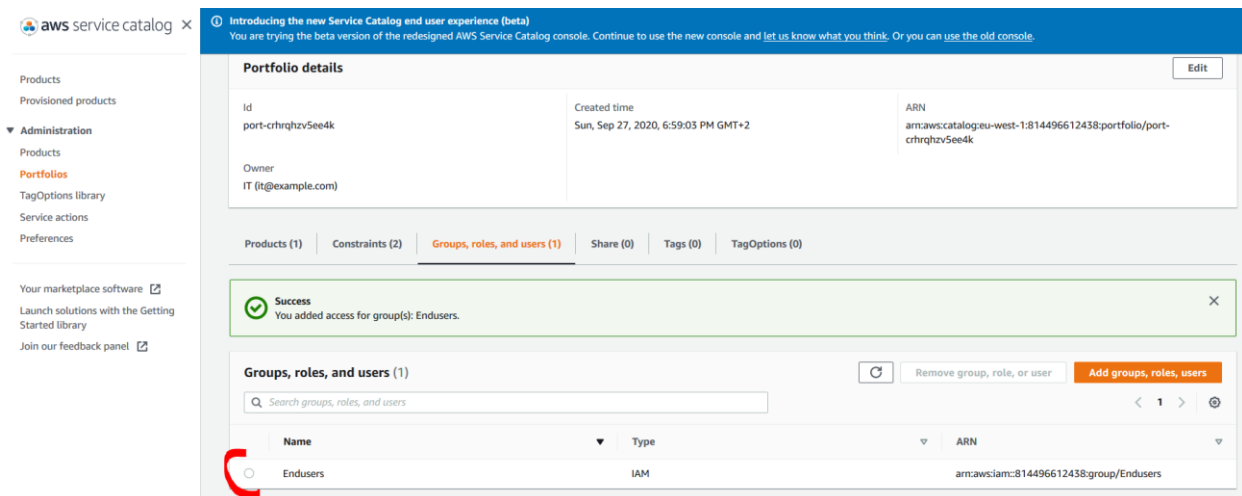
Groups | Roles | Users

Groups (1/6) Add access

Search groups

<input type="checkbox"/>	Group name	ARN	Access
<input type="checkbox"/>	datateam	arn:aws:iam:814496612438:group/datateam	-
<input type="checkbox"/>	dev-ops	arn:aws:iam:814496612438:group/dev-ops	-
<input type="checkbox"/>	devops	arn:aws:iam:814496612438:group/devops	-
<input checked="" type="checkbox"/>	Endusers	arn:aws:iam:814496612438:group/Endusers	-
<input type="checkbox"/>	eurobarometer	arn:aws:iam:814496612438:group/eurobaromete r	-
<input type="checkbox"/>	SDG_quicksight	arn:aws:iam:814496612438:group/SDG_quicksigh t	-

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9. Test the End User Experience

To verify that the end user can successfully access the end user console view and launch your product, sign in to AWS as the end user and perform those tasks.

To verify that the end user can access the end user console

1. To sign in as the IAM user, use account-specific URL. To find this URL, open the IAM console, choose **Dashboard** in the navigation pane, and choose **Copy Link**. Paste the link in your browser, and use the name and password of the IAM user.
2. In the menu bar, choose the region in which you created the `Engineering Tools` portfolio.
3. Open the AWS Service Catalog console at <https://console.aws.amazon.com/servicecatalog/> and select **Service Catalog, Dashboard** to see the following:
 - **Products** – The products that the user can use.
 - **Provisioned products** – The provisioned products that the user has launched.

To verify that the end user can launch the Linux Desktop product

1. In the **Products** section of the console, choose **Linux Desktop**.
2. Choose **Launch product** to start the wizard for configuring your product.
3. On the **Product version** page, for **Name**, type `Linux-Desktop`.
4. In the **Version** table, choose **v1.0**.
5. Choose **Next**.
6. On the **Parameters** page, type the following and choose **Next**:
 - **Server size** – Choose `t2.micro`.
 - **Key pair** – Select the key pair that you created in **Step 2: Create a Key Pair**.

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- **CIDR range** – Type a valid CIDR range for the IP address from which you will connect to the instance. This can be the default value (0.0.0.0/0) to allow access from any IP address, your IP address followed by /32 to restrict access to your IP address only, or something in between.
- 7. On the **Review** page, review the information that you typed, and then choose **Launch** to launch the stack. The console displays the stack details page for the Linux-Desktop stack. The initial status of the product is **Launching**. It takes several minutes for AWS Service Catalog to launch the product. To see the current status, refresh your browser. After the product is launched, the status is **Available**.

Now login AWS via the normal user.

Now logged in via normal user.

Goto to service catalog

Now the assigned product is getting listed in the user login.

see now user can provision instances only either t2.micro and t2.small sizes.

now launch the instance

The instance is now provisioned via Service catalog.

Now test normal user can able to launch EC2 instance directly from EC2 services or not ?