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.

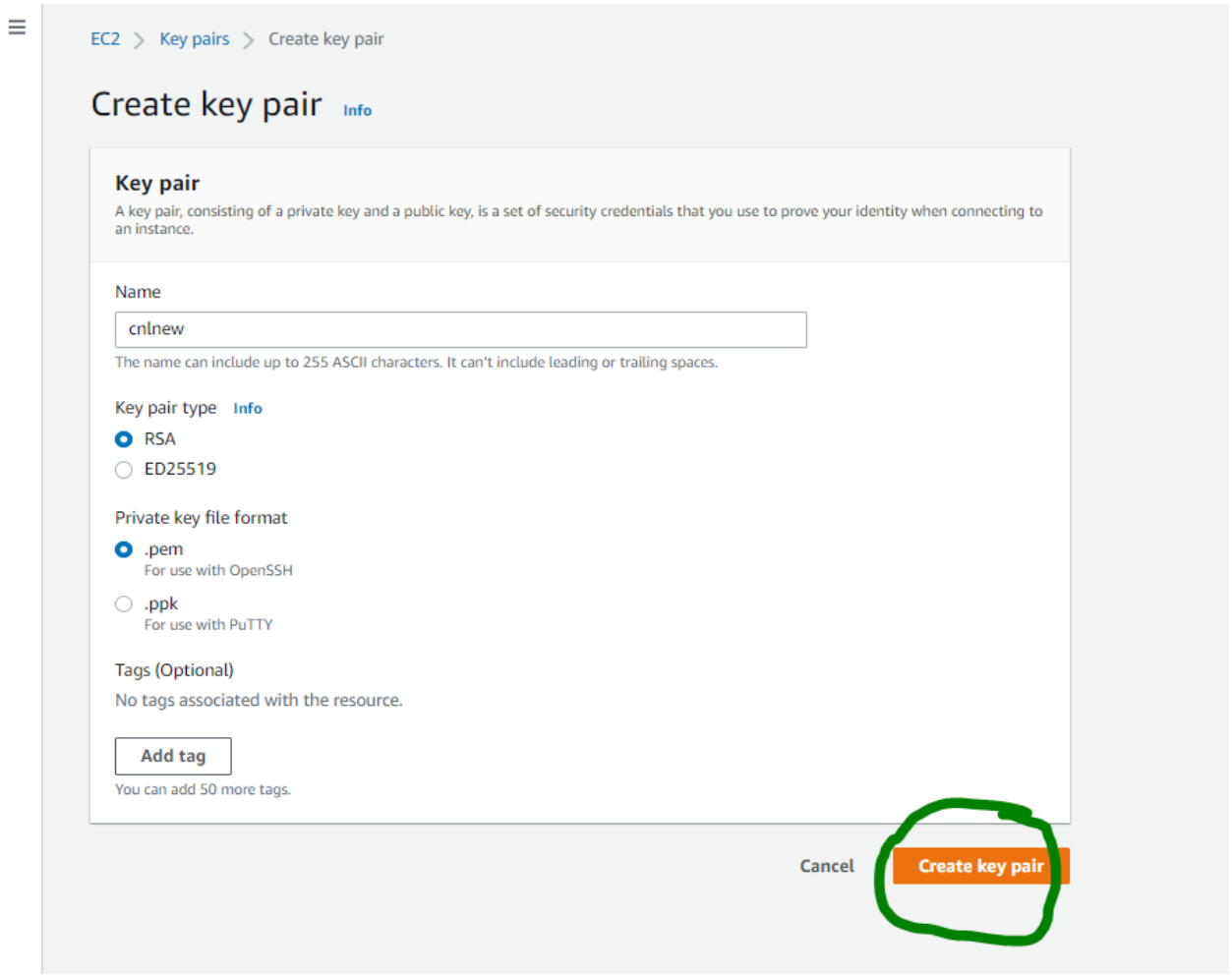
2. Create a Key Pair

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.



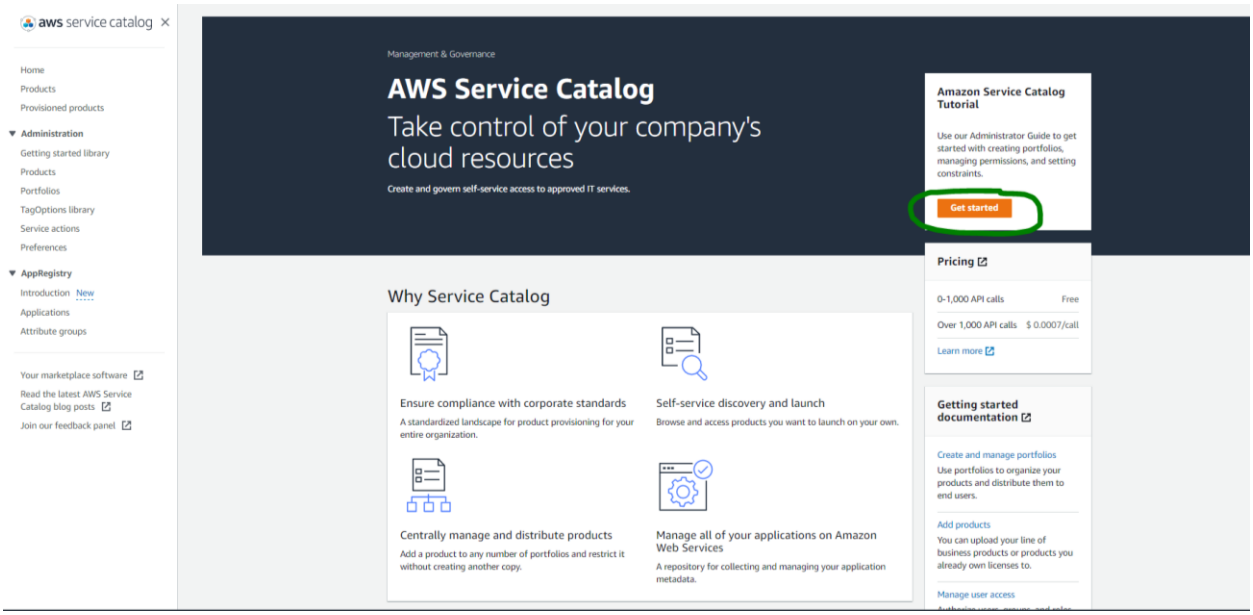
Save the **cnlnew.pem** file safely.

3. Create an AWS Service Catalog Portfolio

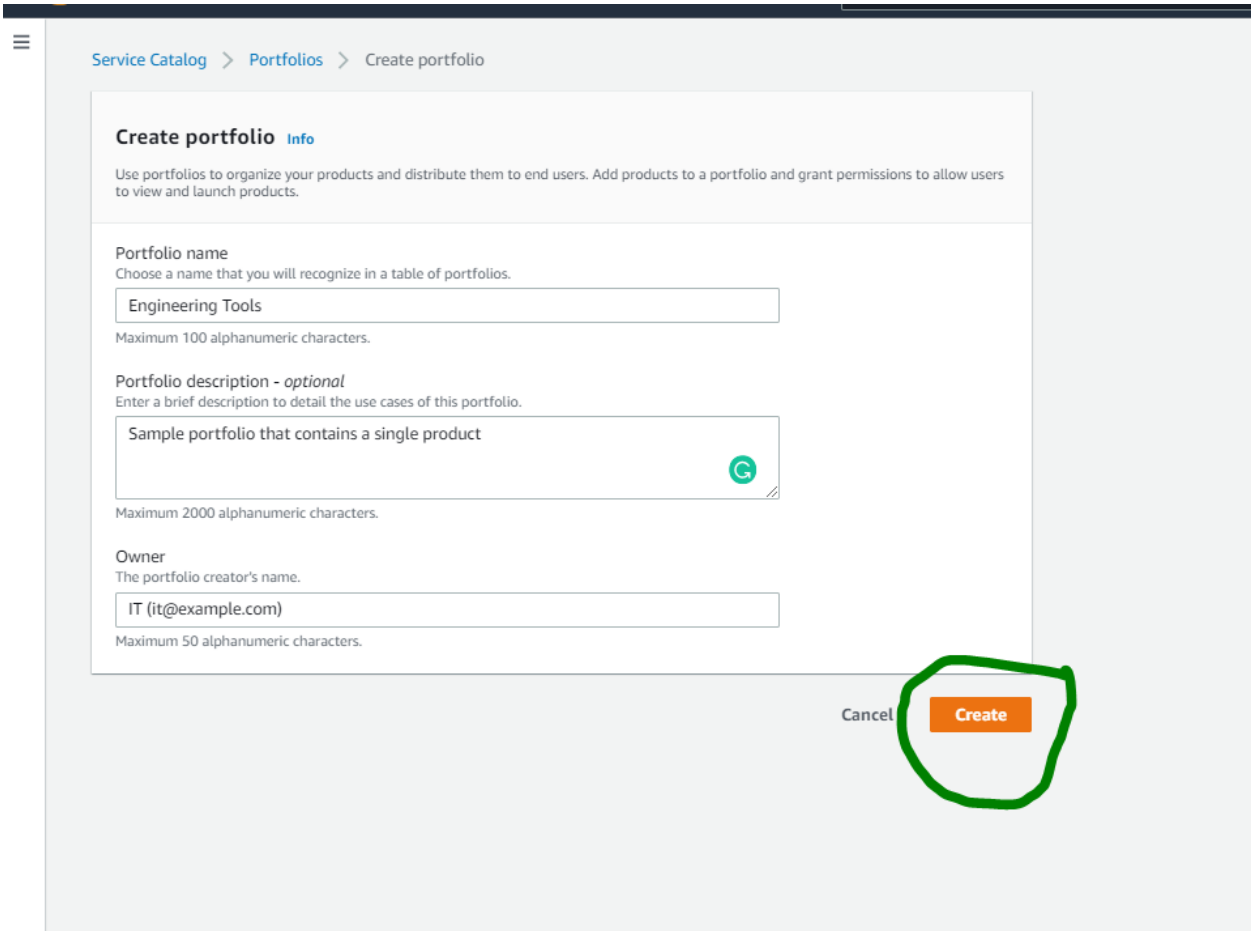
To provide users with products, begin by creating a portfolio for those products.

To create a portfolio

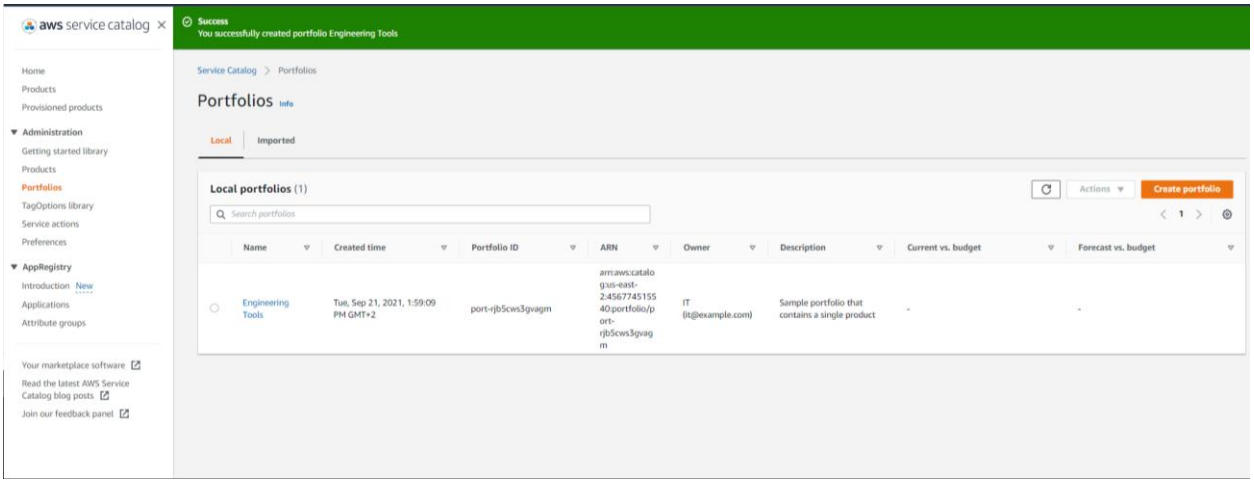
- Open the AWS Service Catalog console at https://console.aws.amazon.com/servicecatalog/.



- 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**.



create portfolio → choose create option.



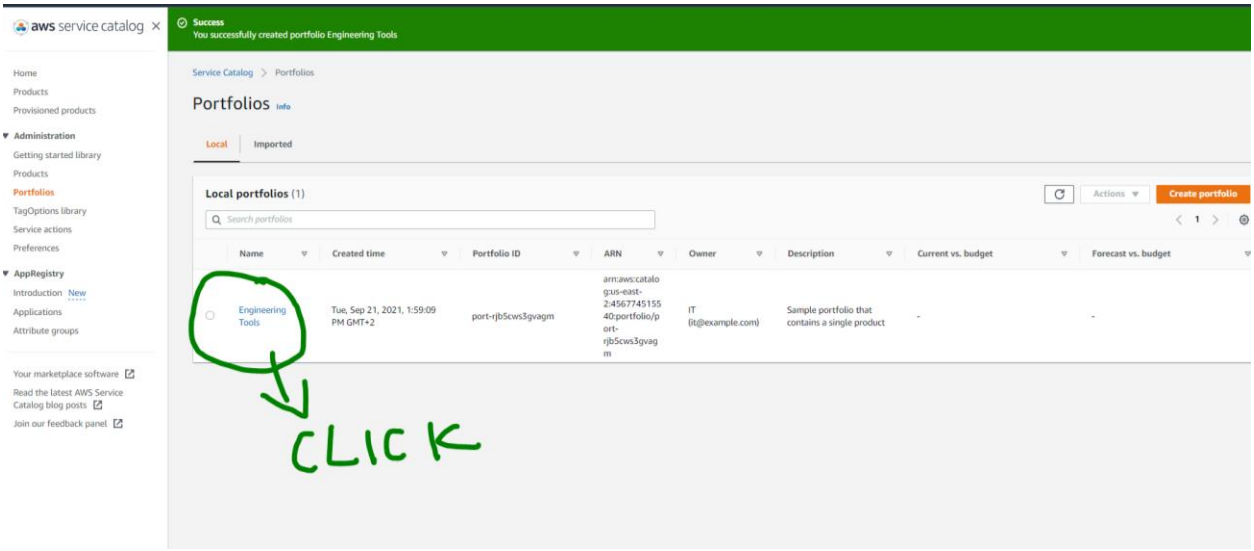
New portfolio has been created.

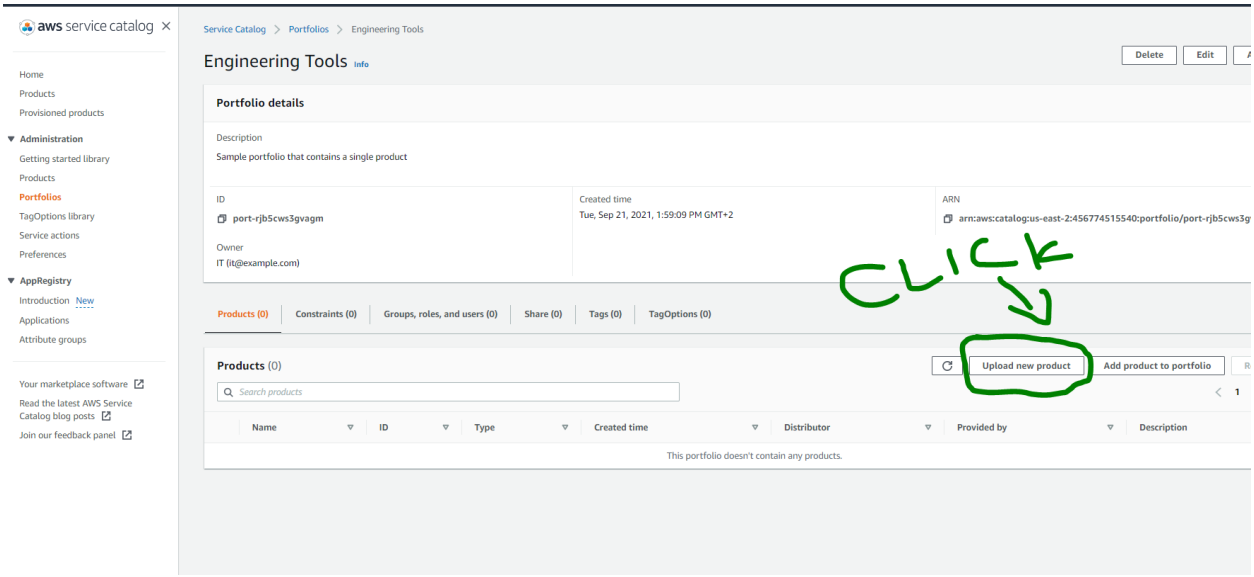
4. Create an AWS Service Catalog Product

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.

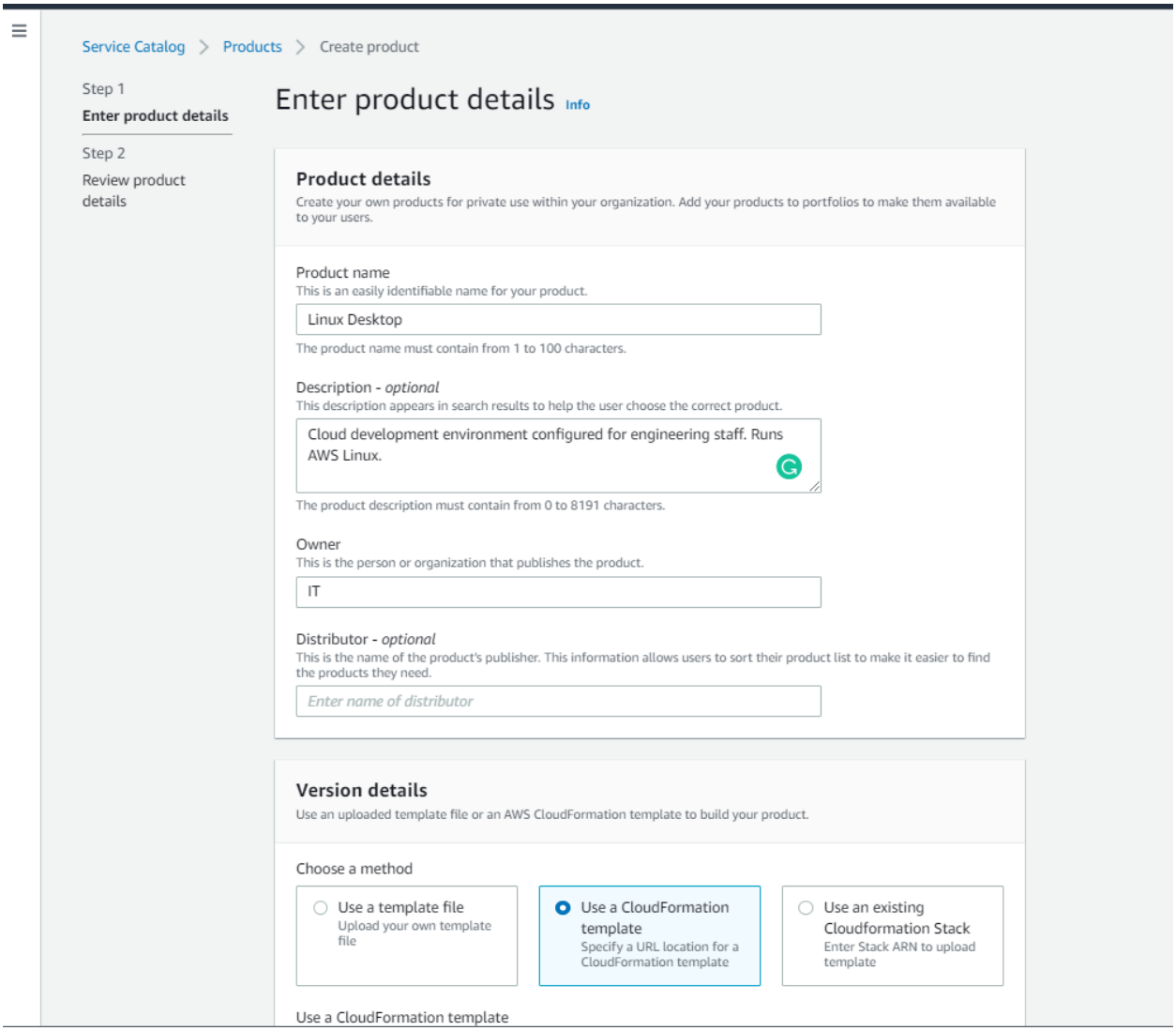
To create a product

- 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**.

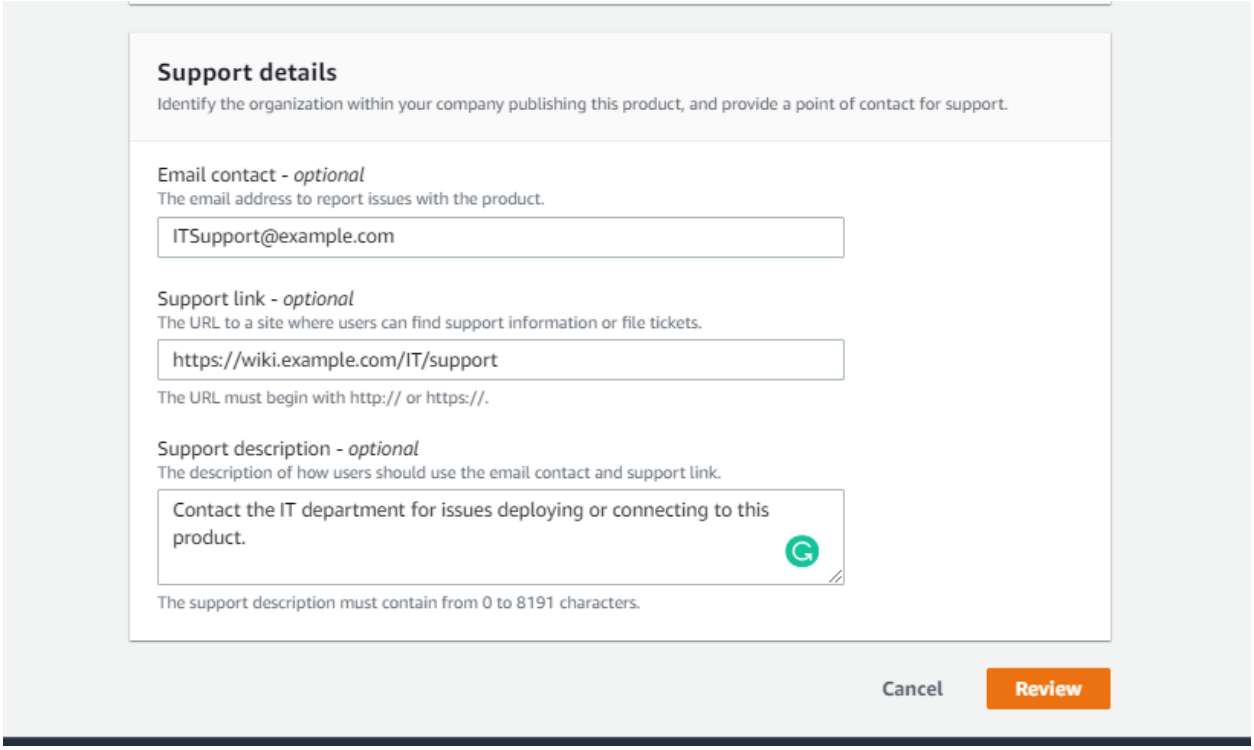




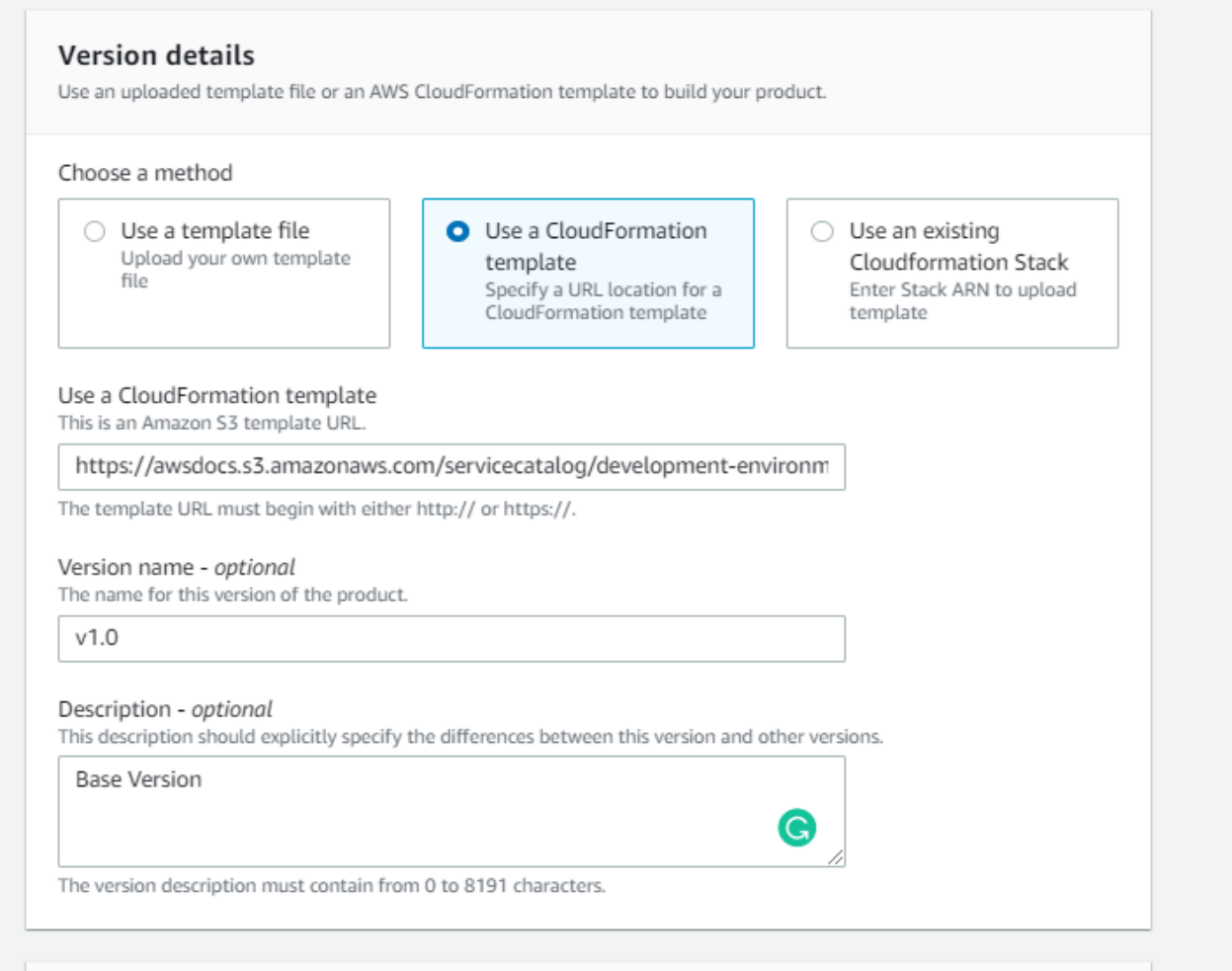
- On the **Enter product details** page, type the following and then choose **Next**:
  - **Product name** – `Linux Desktop`
  - **Description** – `Cloud development environment configured for engineering staff. Runs AWS Linux.`
  - **Provided by** – `IT`
  - **Vendor** – *(blank)*



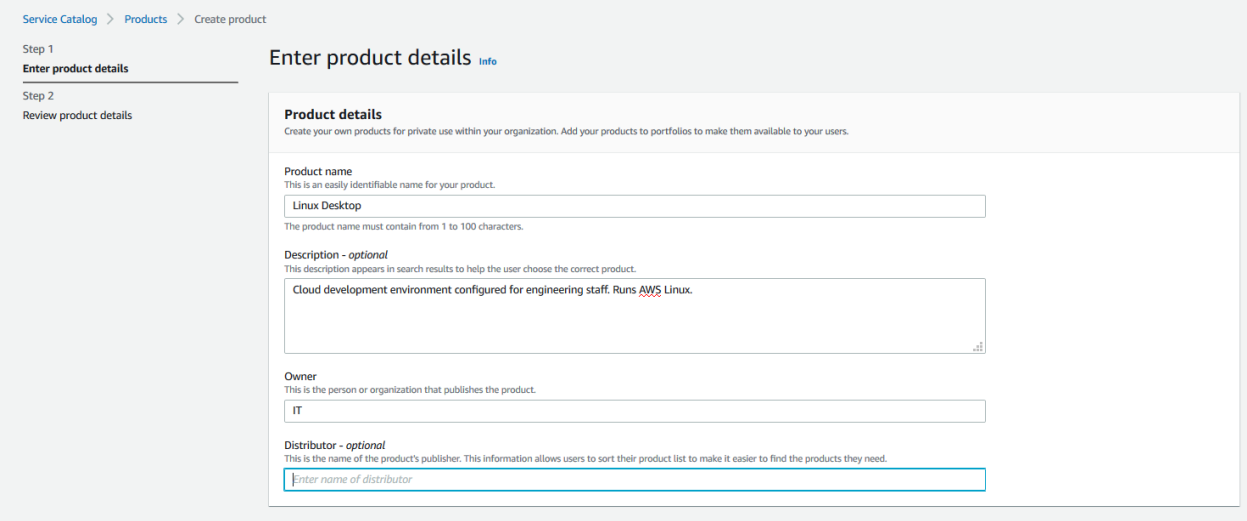
- On the **Enter support details** page, type the following and then choose **Next**:
  - **Email contact** – `ITSupport@example.com`
  - **Support link** – `https://wiki.example.com/IT/support`
  - **Support description** – `Contact the IT department for issues deploying or connecting to this product.`

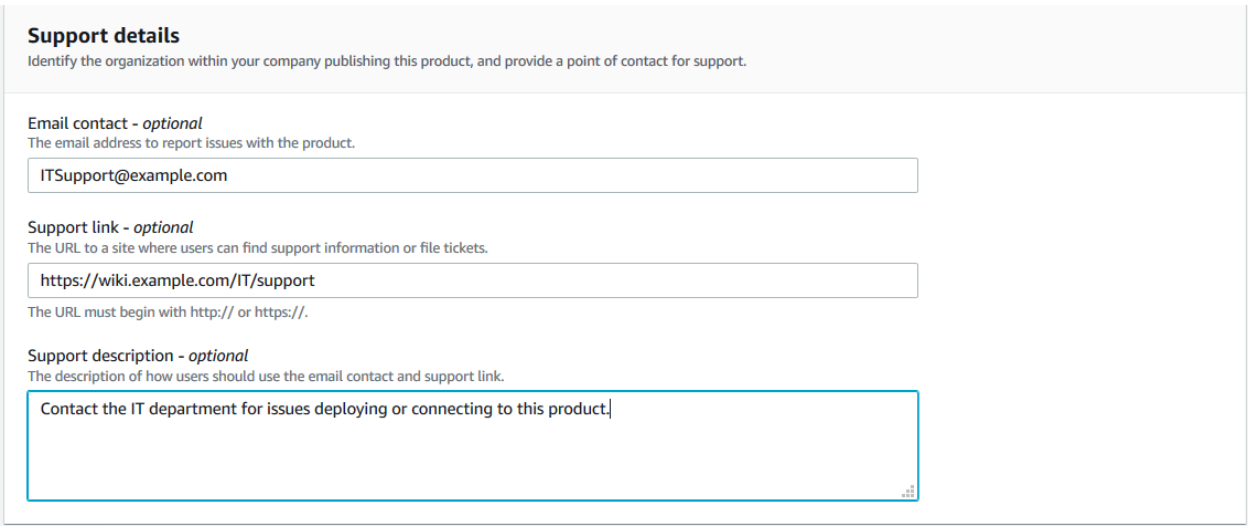


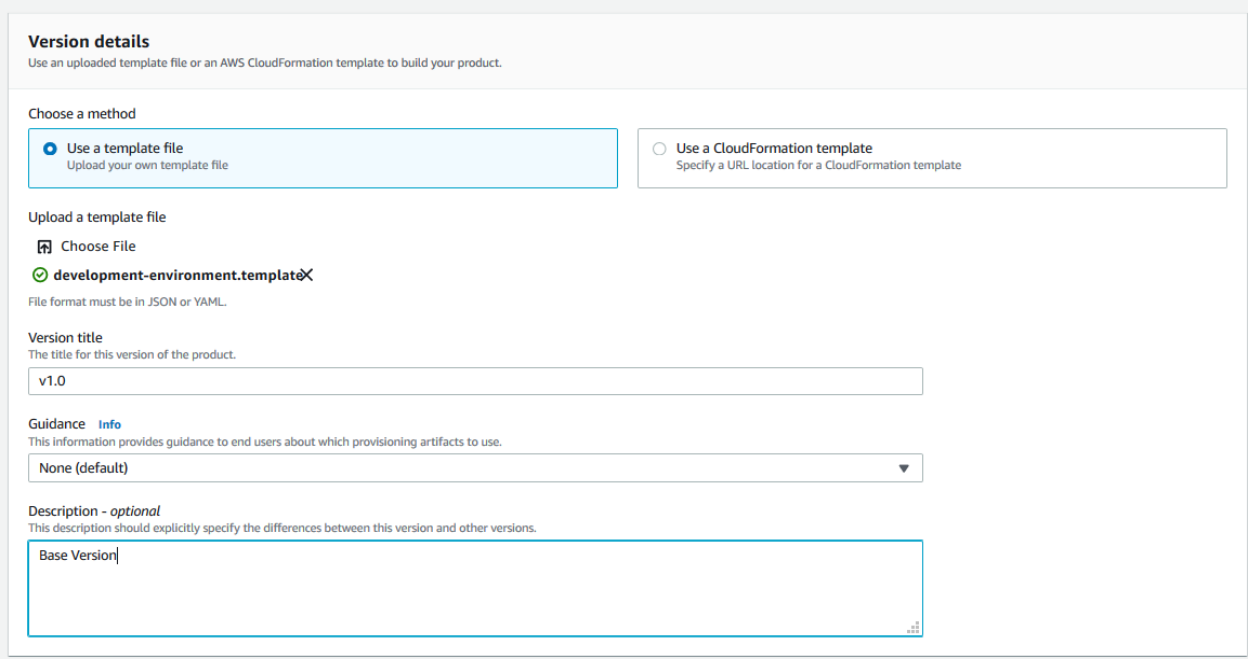
- On the **Version details** page, choose **Specify an Amazon S3 template URL**, type the following, and then choose **Next**:
  - **Select template** – `https://awsdocs.s3.amazonaws.com/servicecatalog/development-environment.template`
  - **Version title** – `v1.0`
  - **Description** – `Base Version`



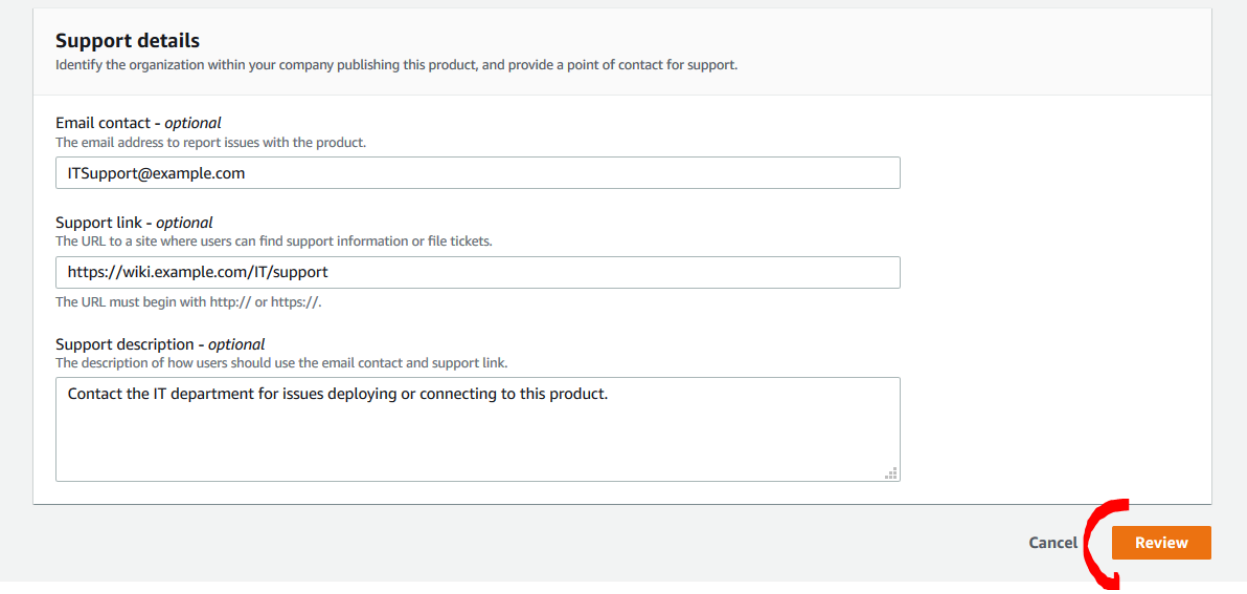
- On the **Review** page, choose **Create**.


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.
Linux Desktop
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.
Cloud development environment configured for engineering staff. Runs AWS Linux.
Owner
This is the person or organization that publishes the product.
IT
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.
Enter name of distributor

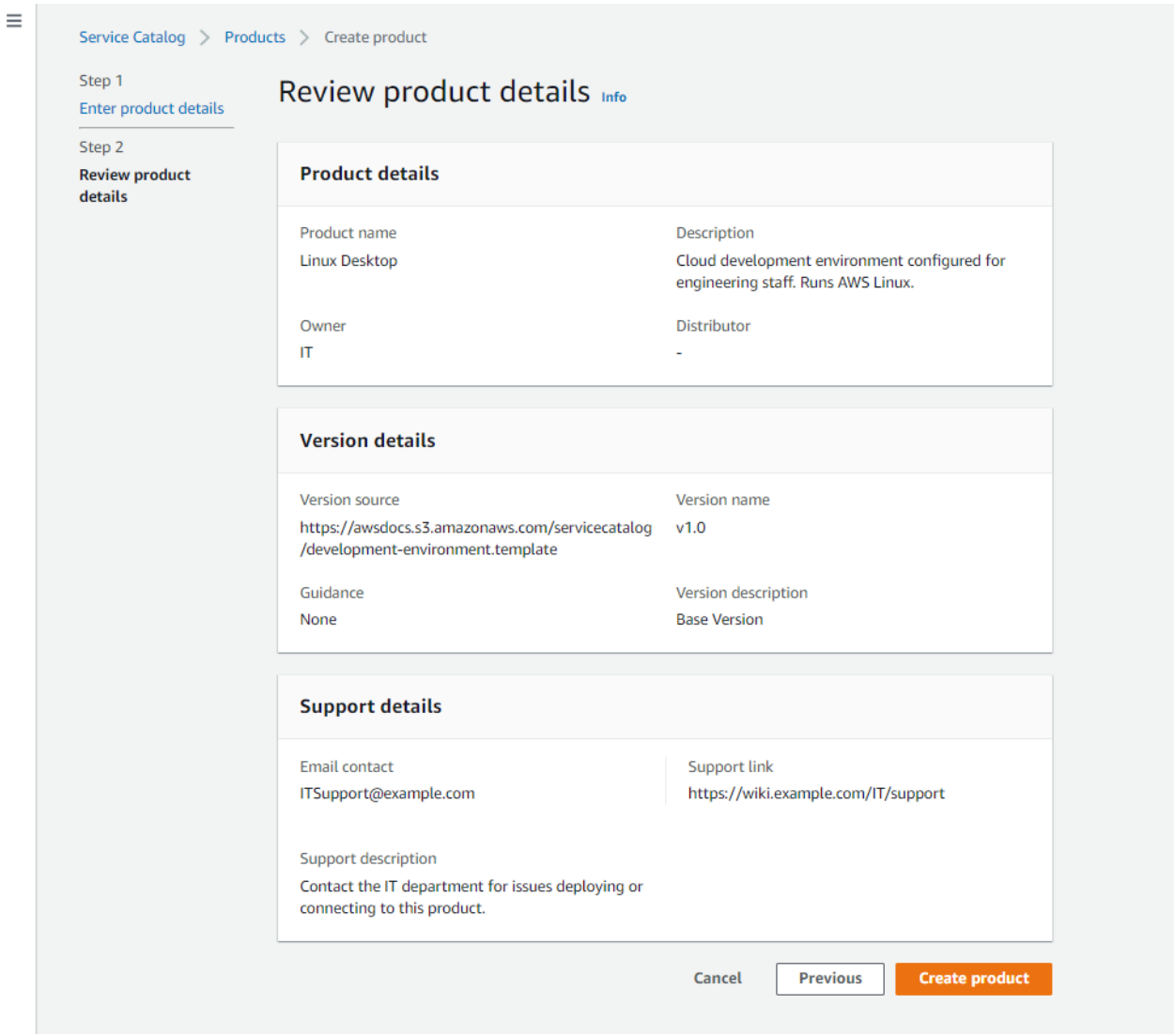

Support details
Identify the organization within your company publishing this product, and provide a point of contact for support.
Email contact - optional
The email address to report issues with the product.
ITSupport@example.com
Support link - optional
The URL to a site where users can find support information or file tickets.
https://wiki.example.com/IT/support
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.

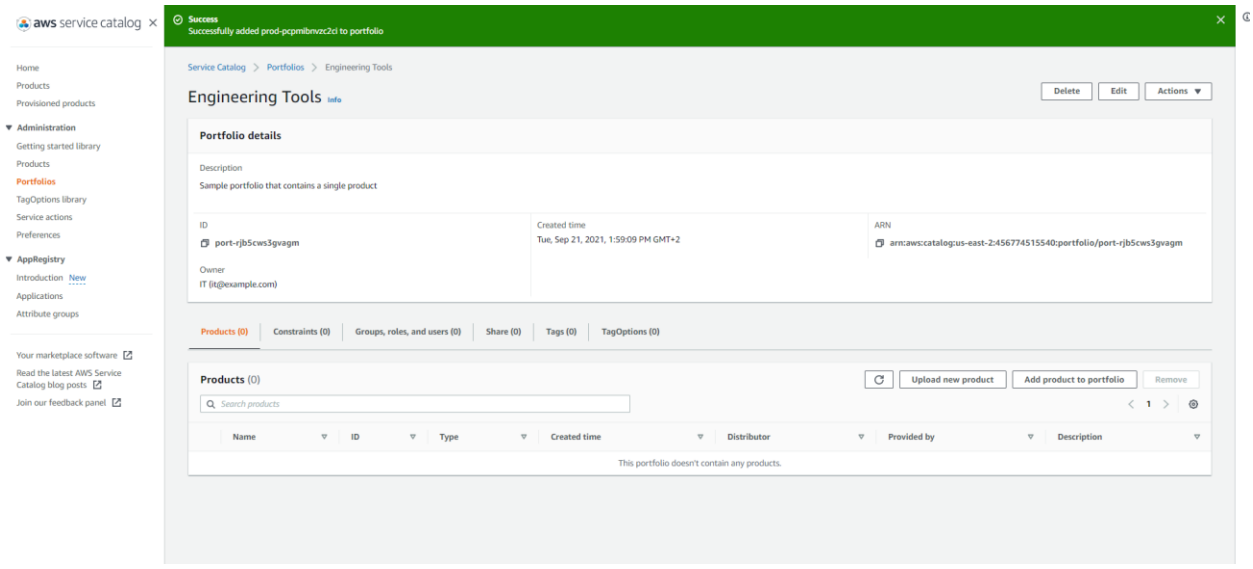


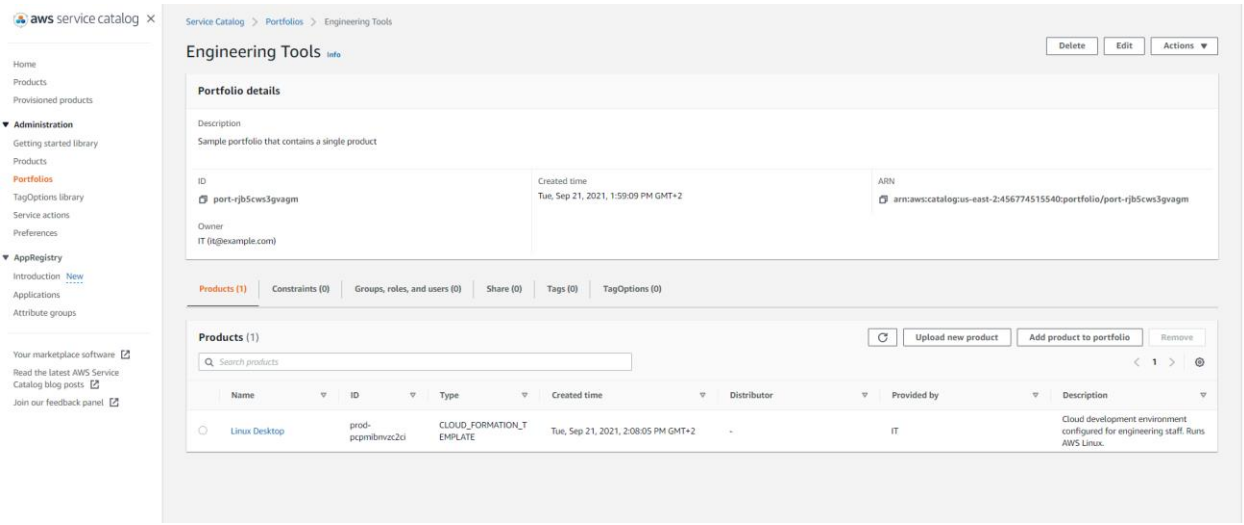
Once completed the above 3 sections (Version details,Support details,Product Details) then click review



Now create new product


Service Catalog > Products > Create product
Step 1
Enter product details
Step 2
Review product details
Review product details Info
Product details
Product name
Linux Desktop
Description
Cloud development environment configured for engineering staff. Runs AWS Linux.
Owner
IT
Distributor
-
Version details
Version source
https://awsdocs.s3.amazonaws.com/servicecatalog/development-environment.template
Version name
v1.0
Guidance
None
Version description
Base Version
Support details
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.
Cancel
Previous
Create product


aws service catalog
Success
Successfully added prod-pcpmibmvzc2ci to portfolio
Service Catalog > Portfolios > Engineering Tools
Engineering Tools Info
Delete
Edit
Actions
Portfolio details
Description
Sample portfolio that contains a single product
ID
port-rjb5cws3gvagm
Created time
Tue, Sep 21, 2021, 1:59:09 PM GMT+2
ARN
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
Name
ID
Type
Created time
Distributor
Provided by
Description
This portfolio doesn't contain any products.



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).

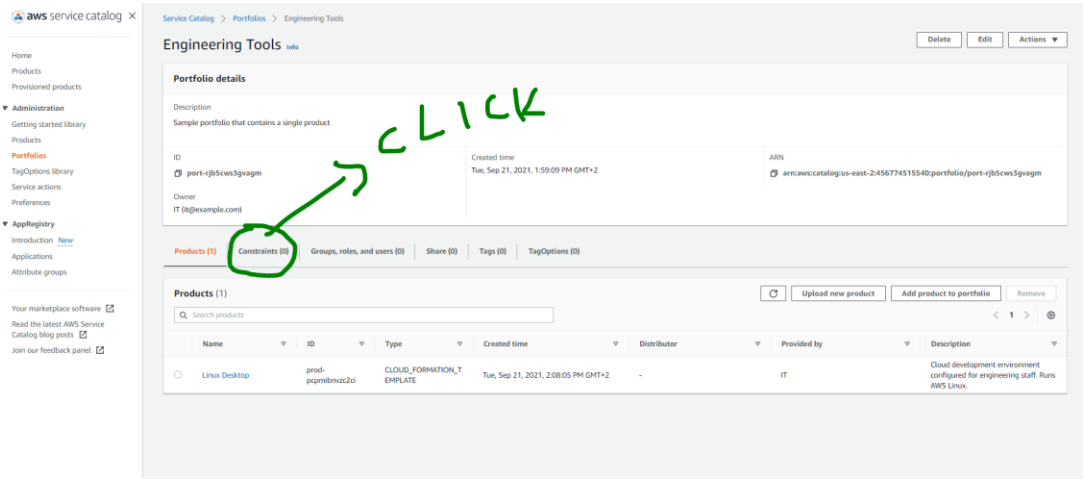
Now add a template constraint to the Linux Desktop product that prevents users from selecting large instance types at launch time. The development-environment template allows the user to select from six instance types; this constraint limits valid instance types to the two smallest types, `t2.micro`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

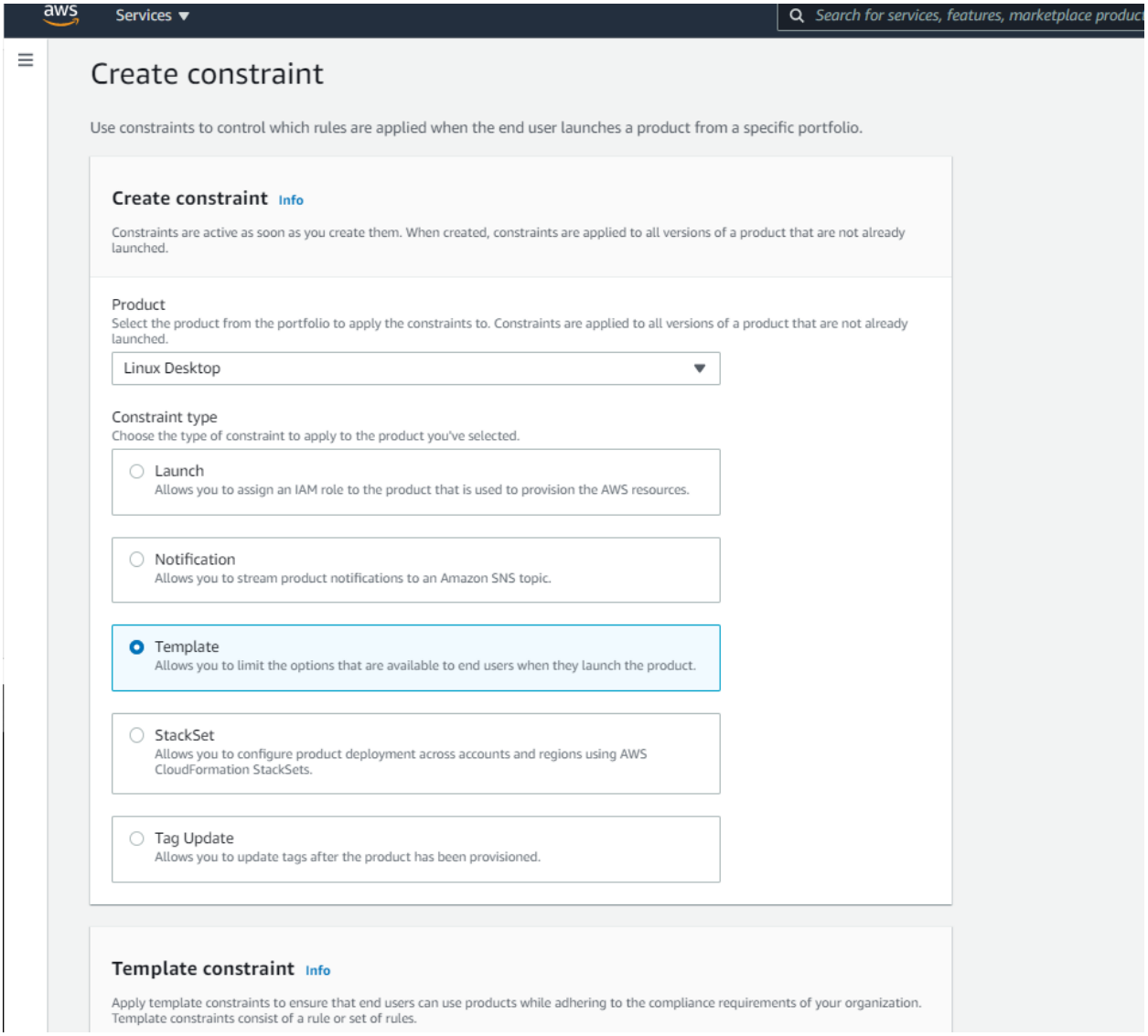
To add a template constraint to the Linux Desktop product

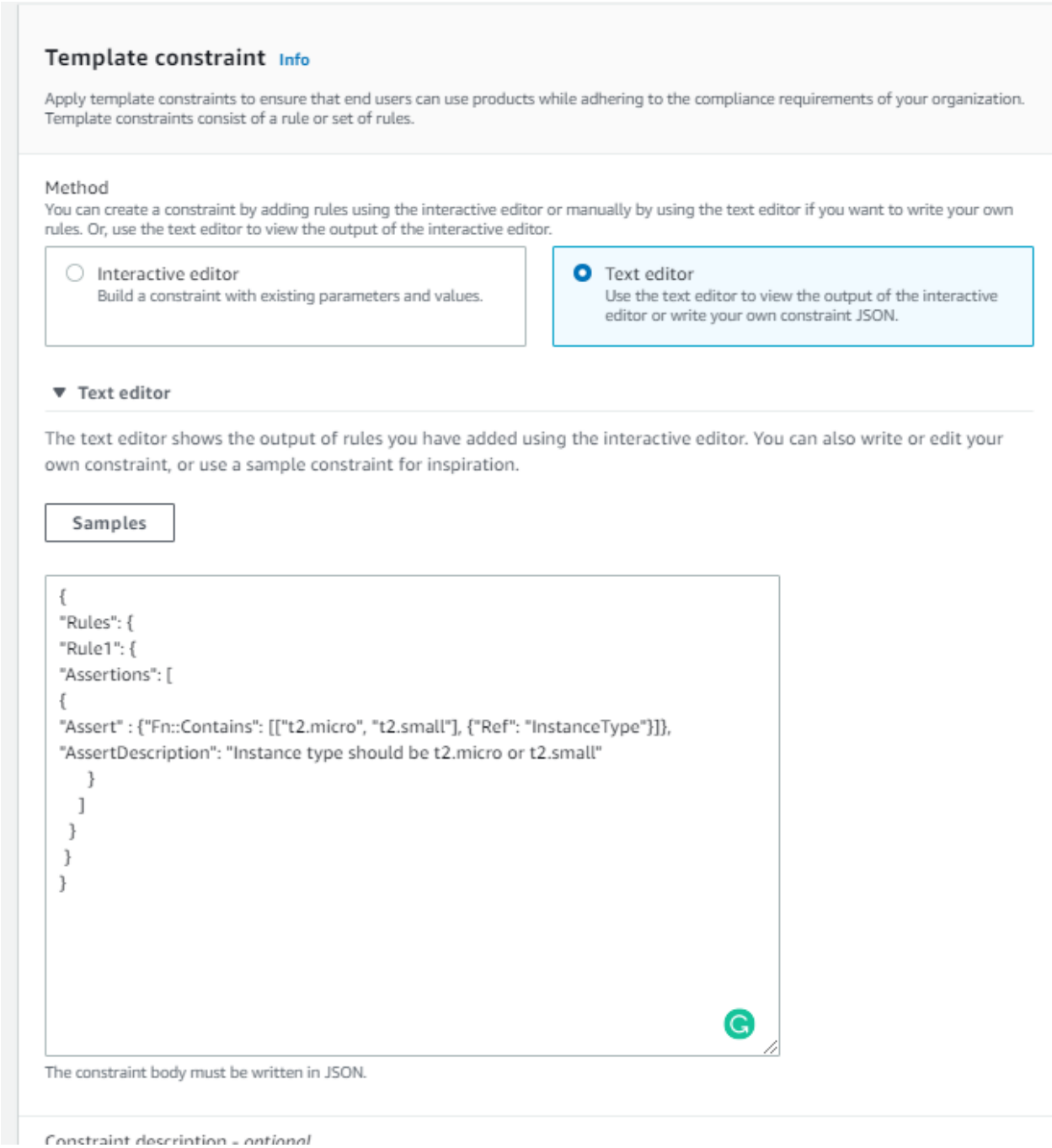
- On the portfolio details page, expand the **Constraints** section, and choose **Add constraints**.
- In the **Select product and type** window, for **Product**, choose **Linux Desktop**. Then, for **Constraint type**, choose **Template**.
- Choose **Continue**.
- For **Description**, type `Small instance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

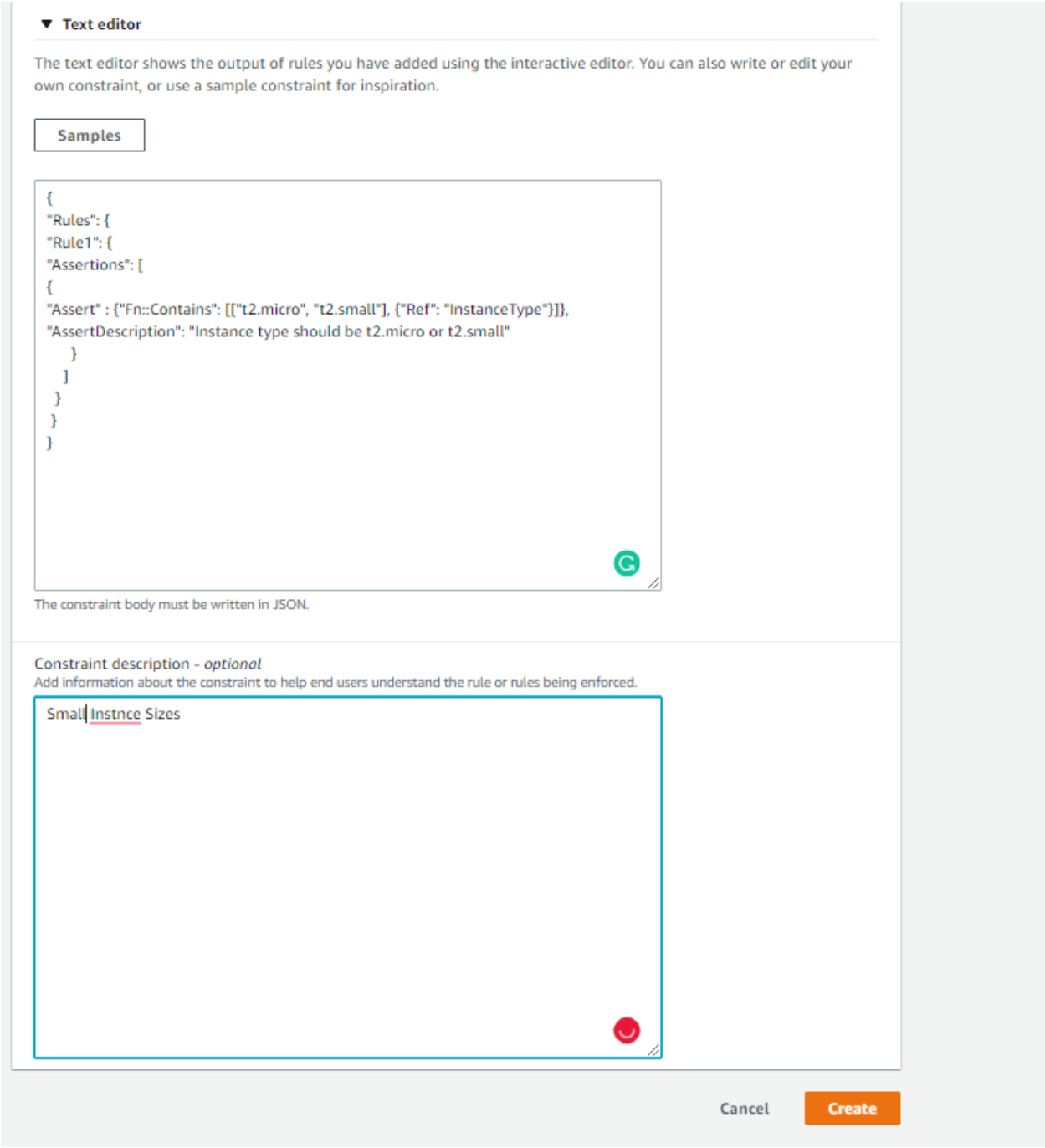
```
 {
"Rules": {
"Rule1": {
"Assertions": [
```

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

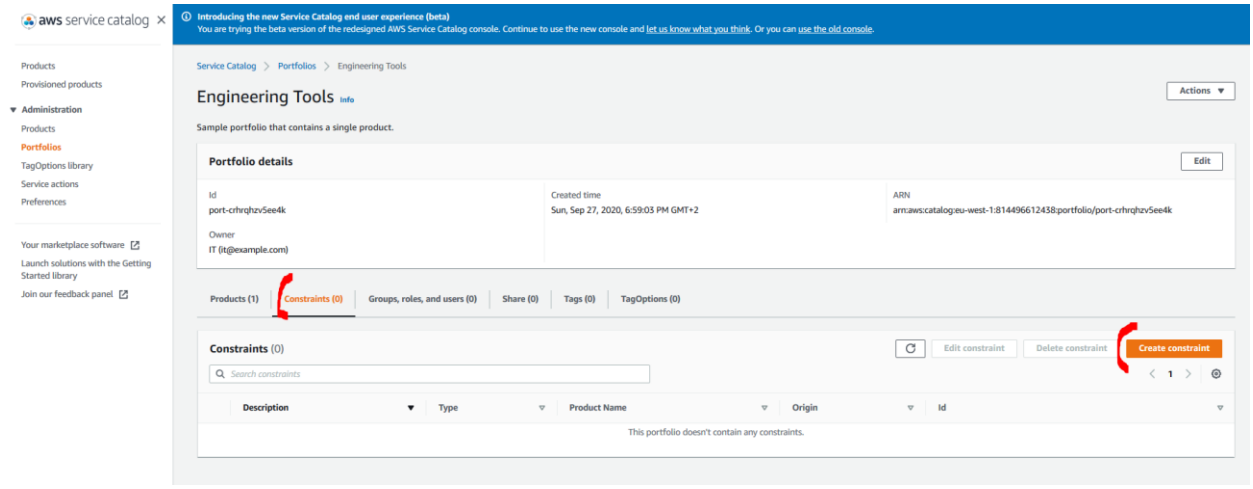


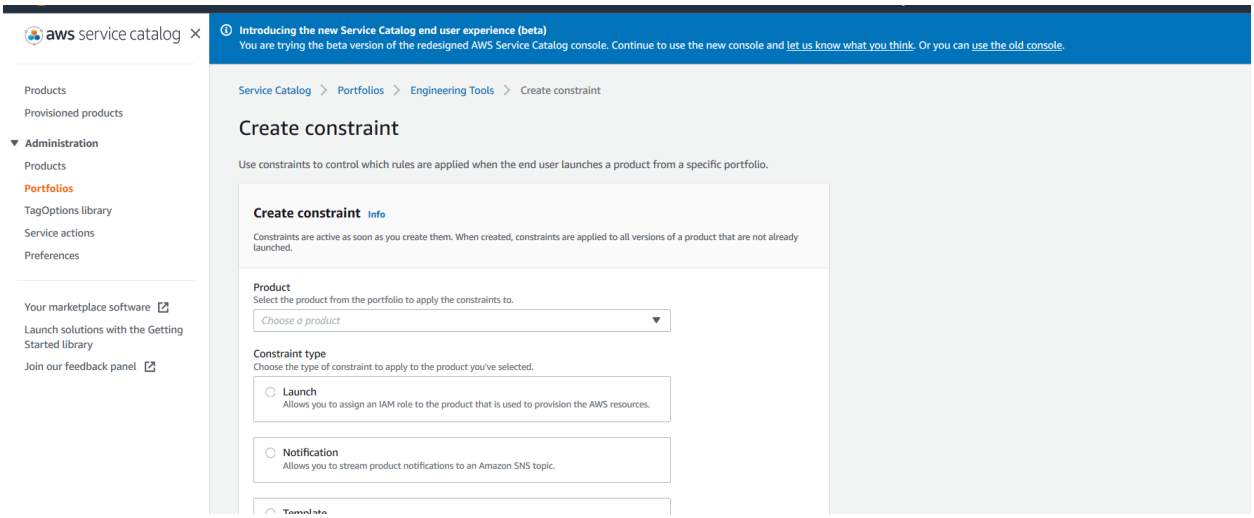

aws
Services
Search for services, features, marketplace product
Create constraint
Use constraints to control which rules are applied when the end user launches a product from a specific portfolio.
Create constraint Info
Constraints are active as soon as you create them. When created, constraints are 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.

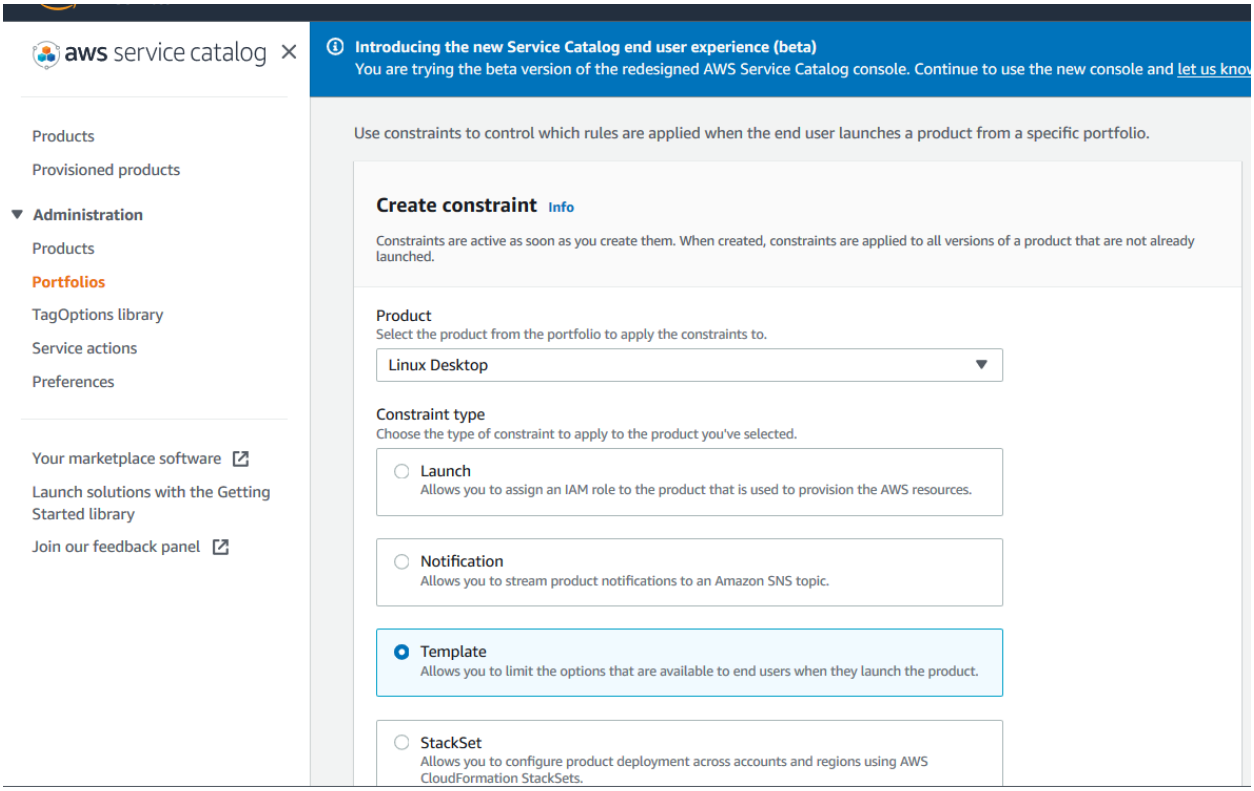

Template constraint Info
Apply template constraints to ensure that end users can use products while adhering to the compliance requirements of your organization. Template constraints consist of a rule or set of rules.
Method
You can create a constraint by adding rules using the interactive editor or 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.

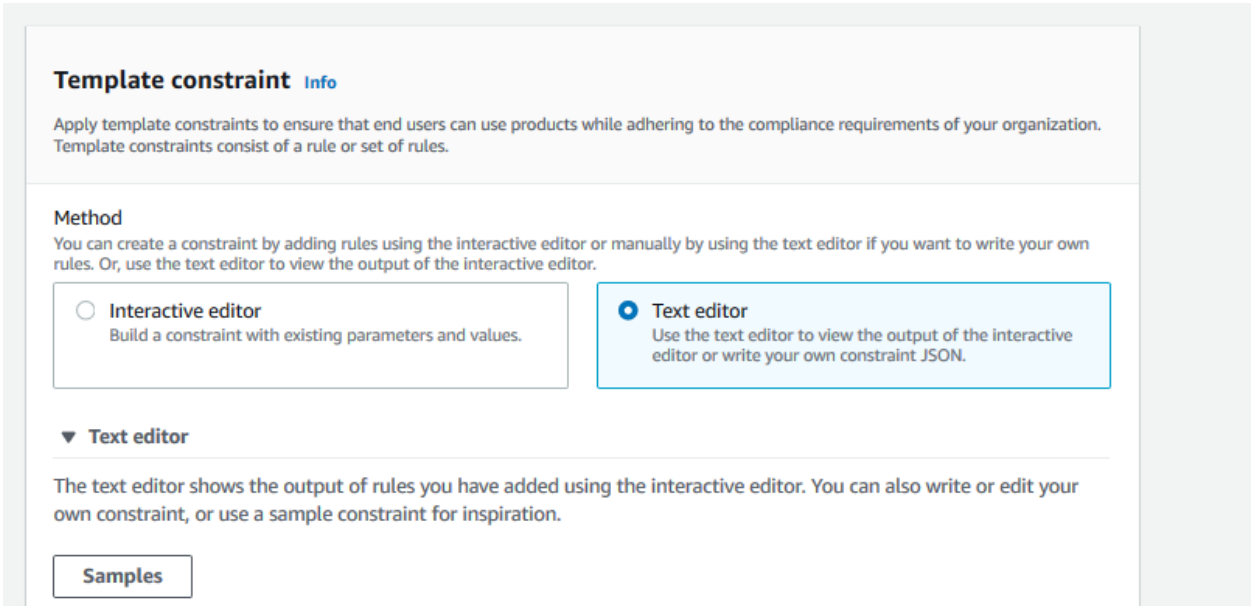


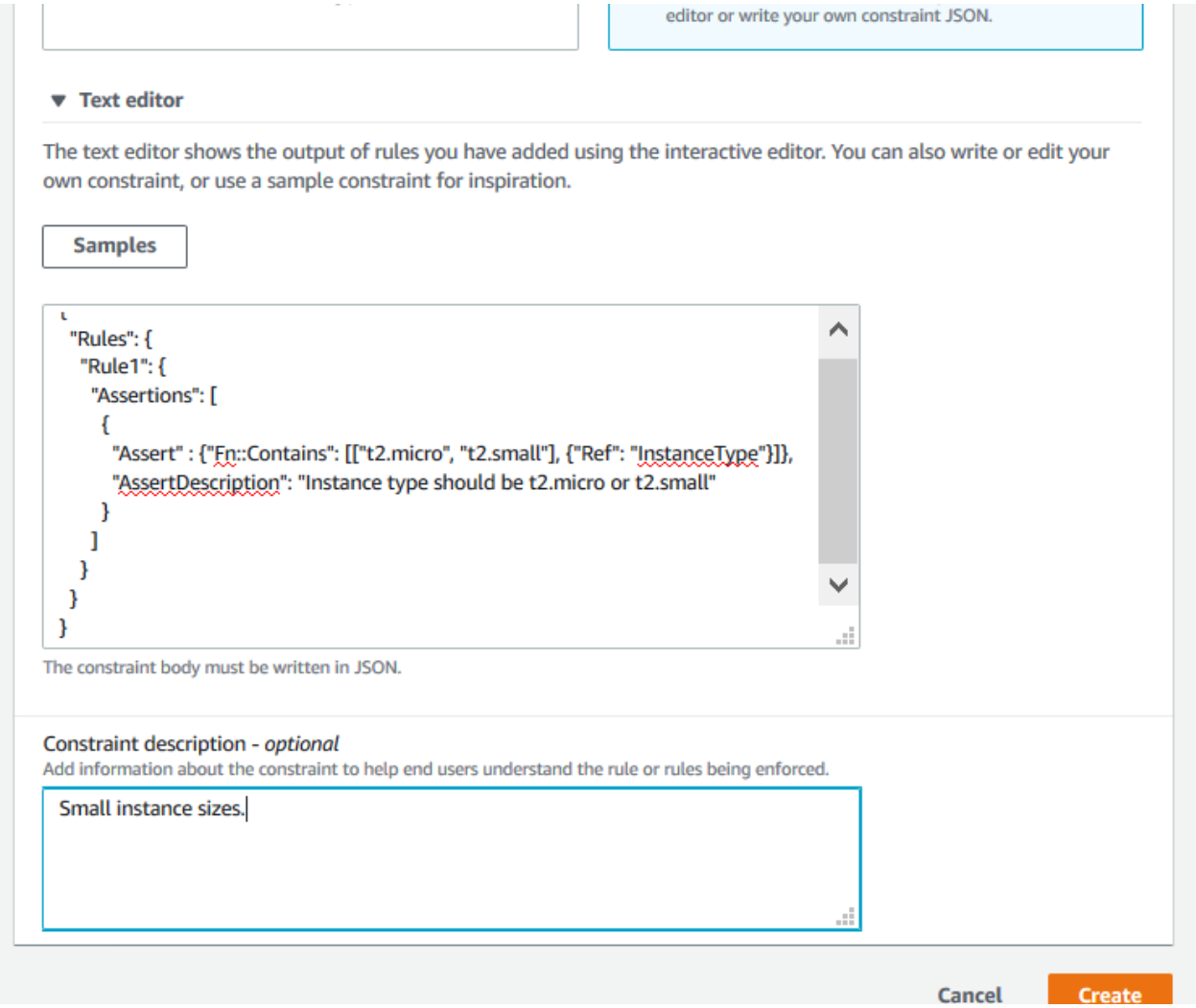
- Choose **create**.

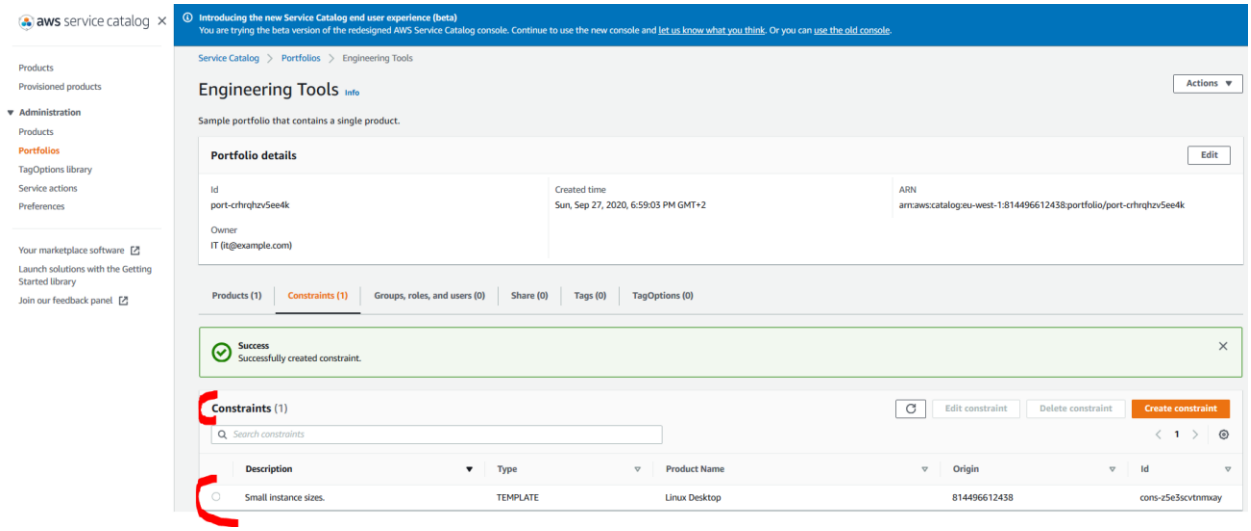

aws service catalog
Introducing the new Service Catalog end user experience (beta)
You are trying the beta version of the redesigned AWS Service Catalog console. Continue to use the new console and let us know what you think. Or you can use the old console.
Products
Provisioned products
Administration
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
Engineering Tools Info
Actions
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 (0)
Groups, roles, and users (0)
Share (0)
Tags (0)
TagOptions (0)
Constraints (0)
Edit constraint
Delete constraint
Create constraint
Search constraints
Description
Type
Product Name
Origin
Id
This portfolio doesn't contain any constraints.


aws service catalog
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.
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.
Choose a product
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.


aws service catalog
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 kno
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
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


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
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
Actions
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 (1)
Groups, roles, and users (0)
Share (0)
Tags (0)
TagOptions (0)
Success
Successfully created constraint.
Constraints (1)
Edit constraint
Delete constraint
Create constraint
Search constraints
Description
Type
Product Name
Origin
Id
Small instance sizes.
TEMPLATE
Linux Desktop
814496612438
cons-z5e3scvtnmxay

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.

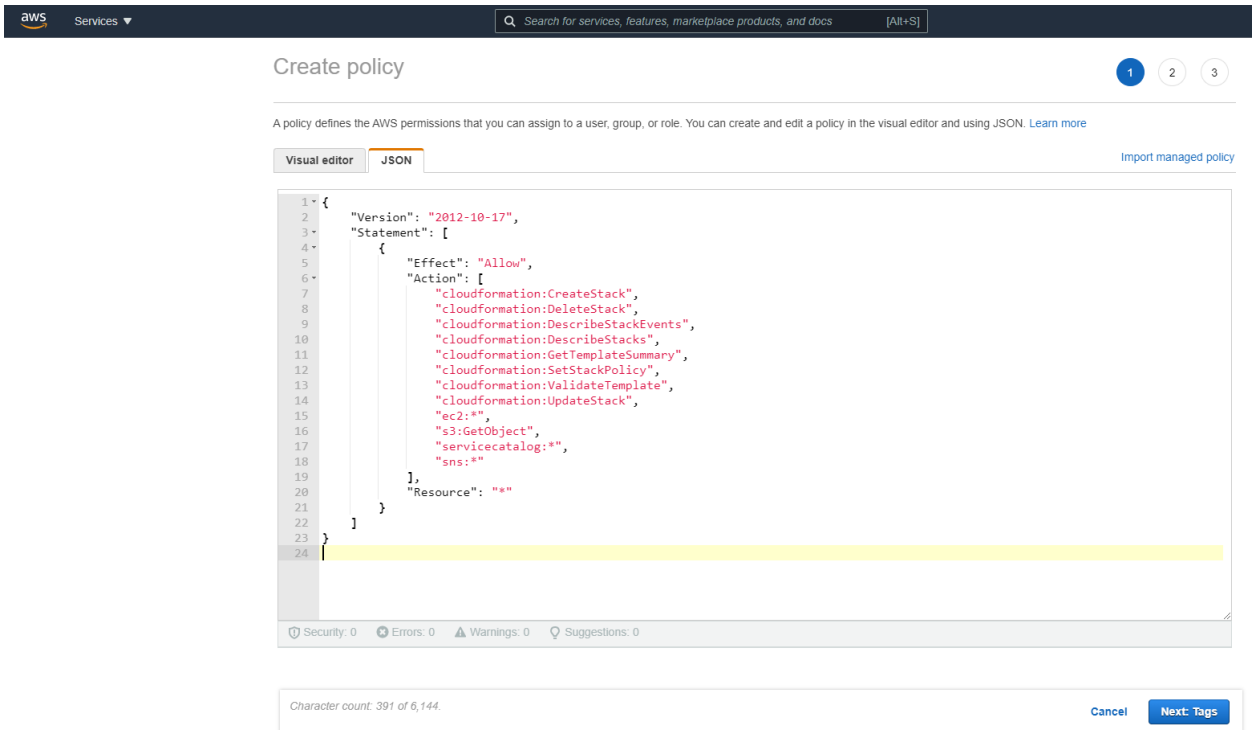
To add a launch constraint

- 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:

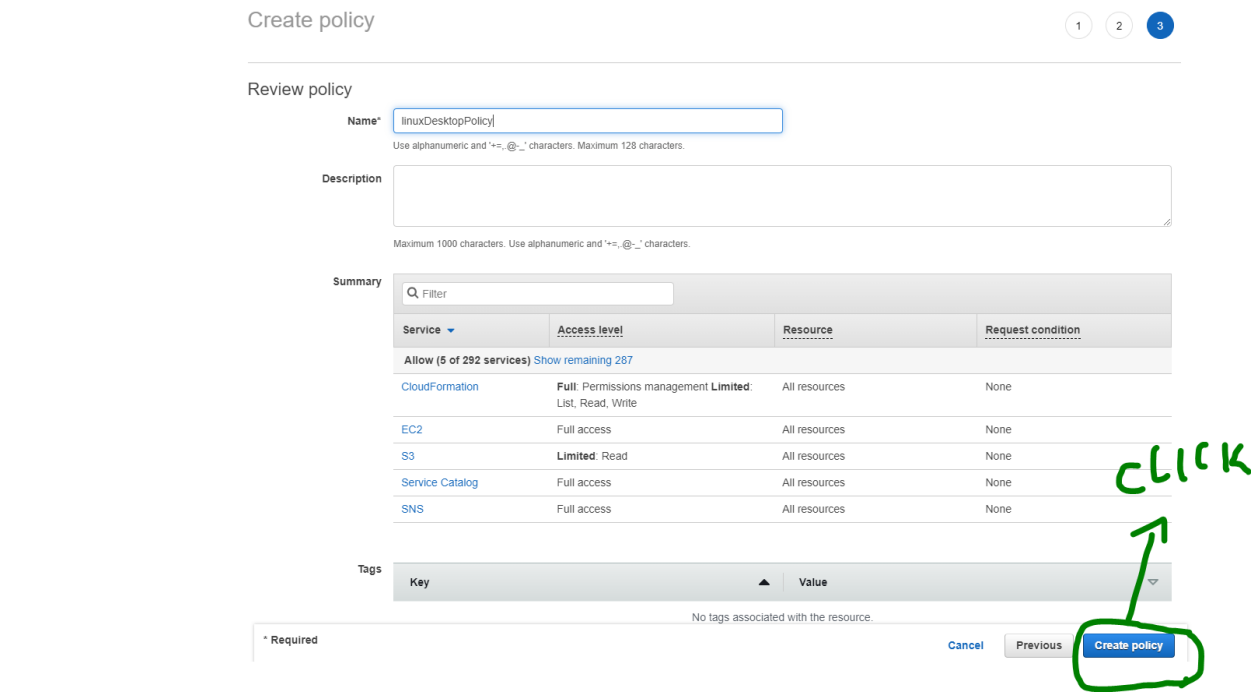
```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": [
                "cloudformation:CreateStack",
                "cloudformation:DeleteStack",
                "cloudformation:DescribeStackEvents",
                "cloudformation:DescribeStacks",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

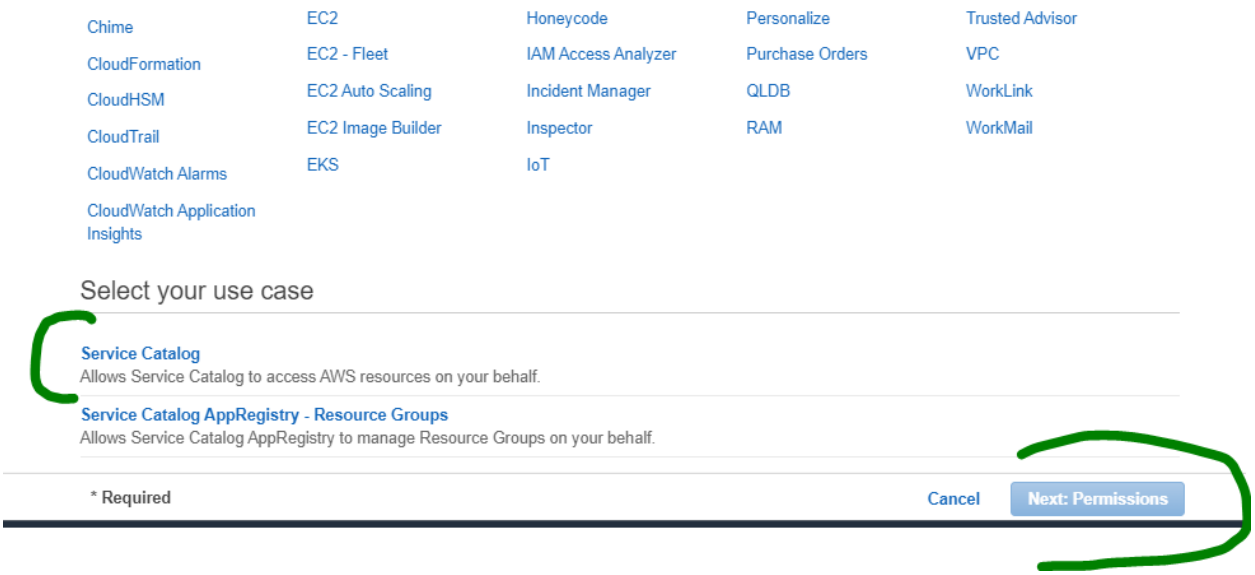
```
            "Resource": "*"
        }
    ]

}
```



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

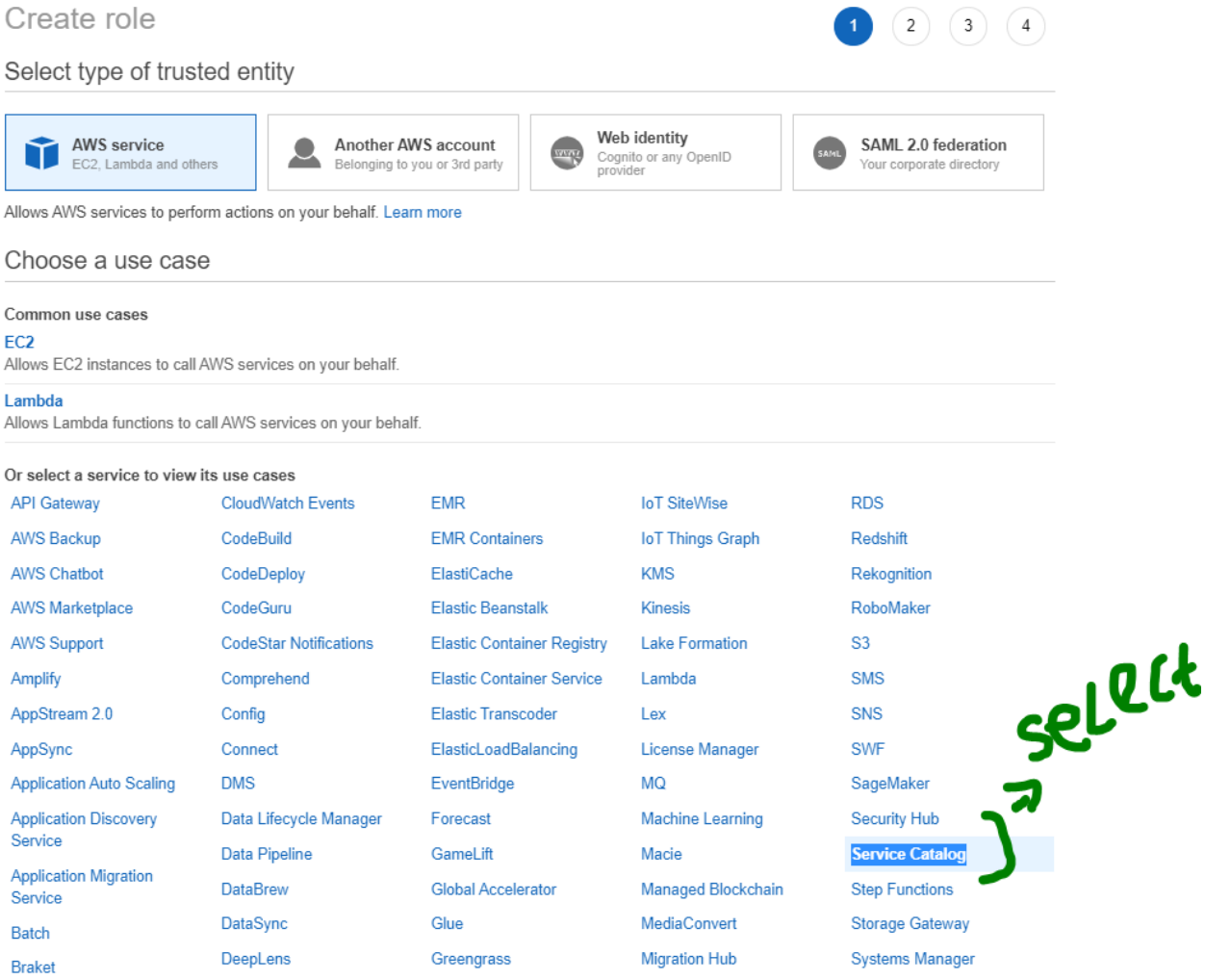


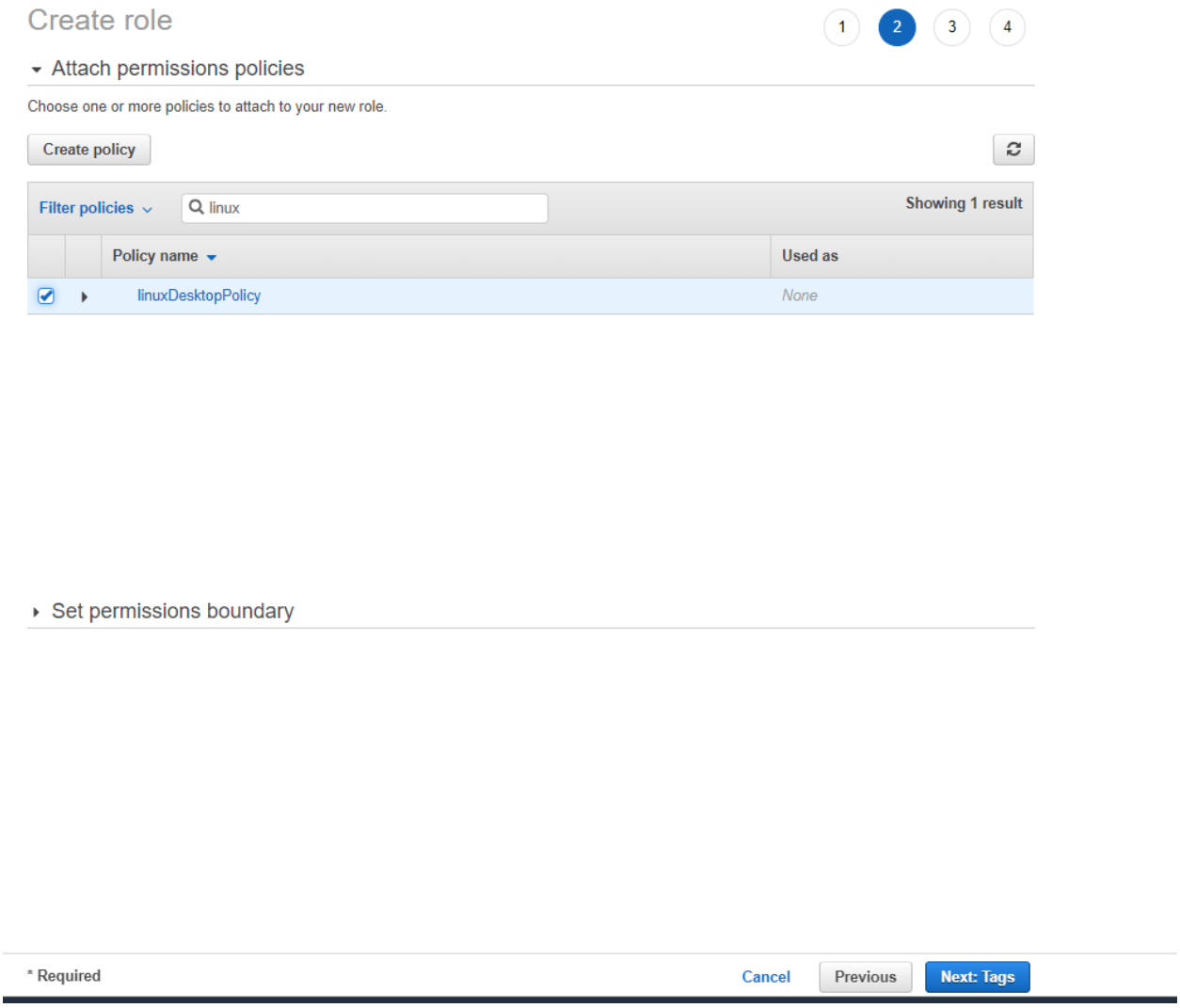


5. Choose **Create policy**.

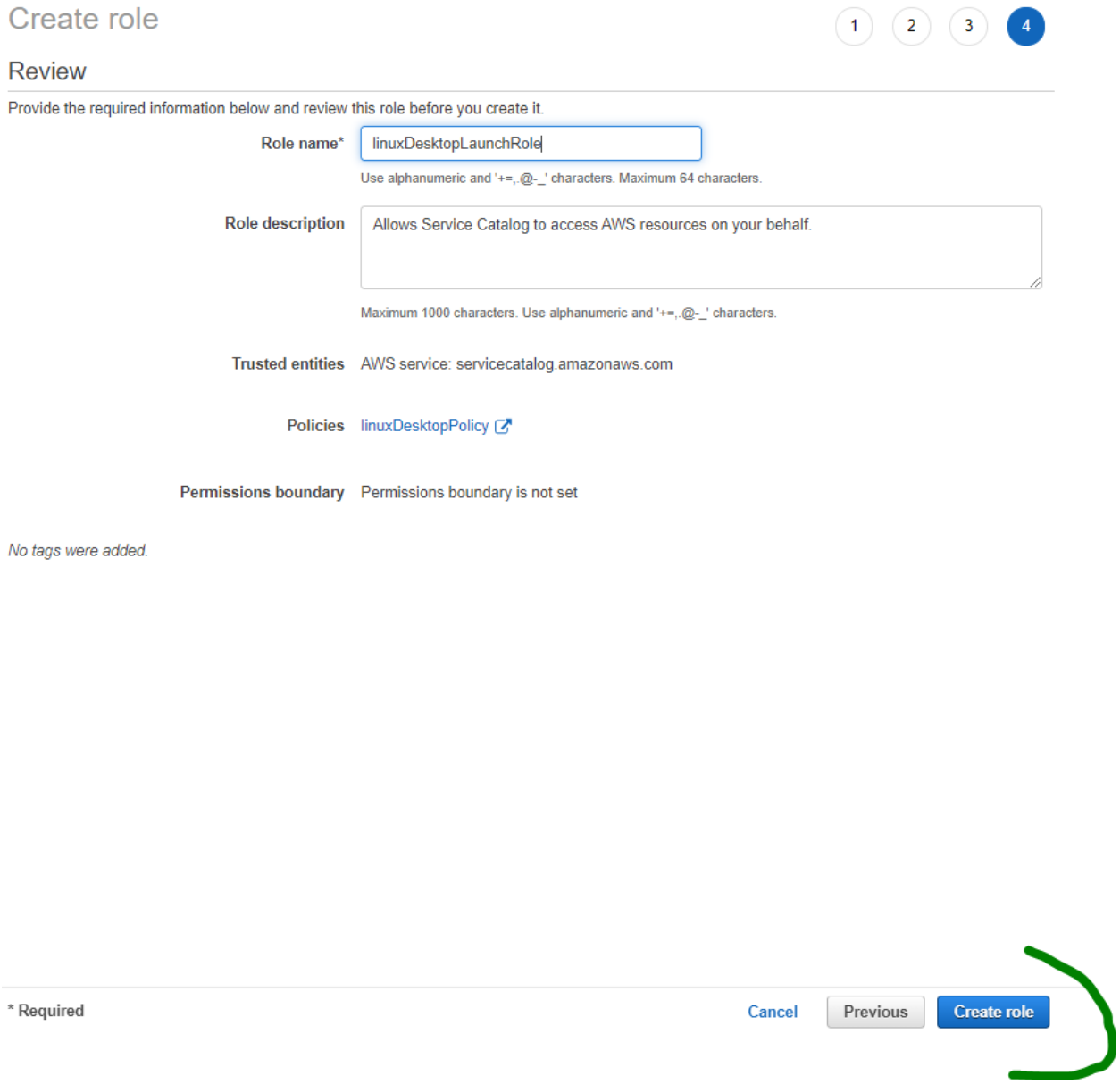
- In the navigation pane, choose **Roles**. Choose **Create role** and do the following:
  - For **Select role type**, choose **AWS service** and then choose **Service Catalog**. Select the **Service Catalog** use case and then choose **Next: Permissions**.

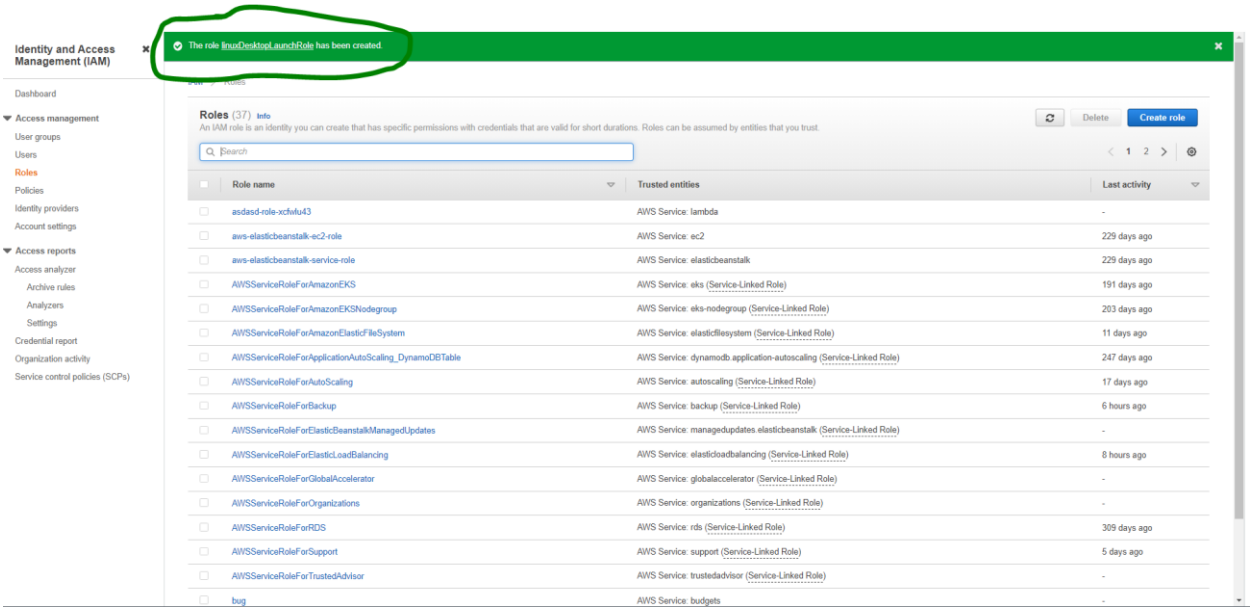
- Search for the **linuxDesktopPolicy** policy and then select the checkbox.



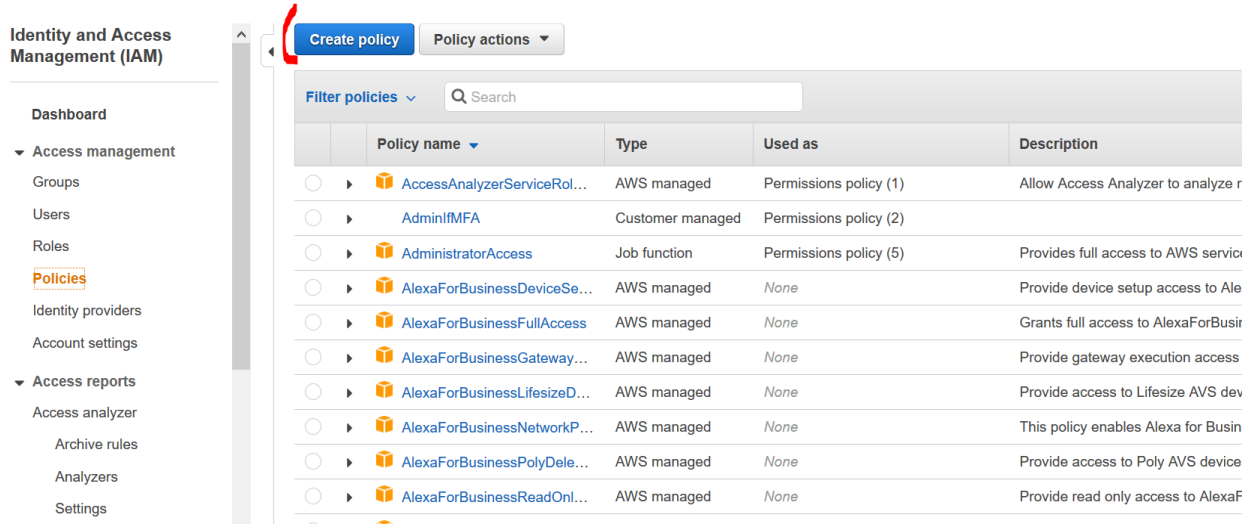


- Choose **Next: Tags**, and then **Next: Review**.
- For **Role name**, type `linuxDesktopLaunchRole`.
- Choose **Create role**.


Create role
1
2
3
4
Review
Provide the required information below and review this role before you create it.
Role name*
linuxDesktopLaunchRole
Use alphanumeric and '+=,.@-_' characters. Maximum 64 characters.
Role description
Allows Service Catalog to access AWS resources on your behalf.
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

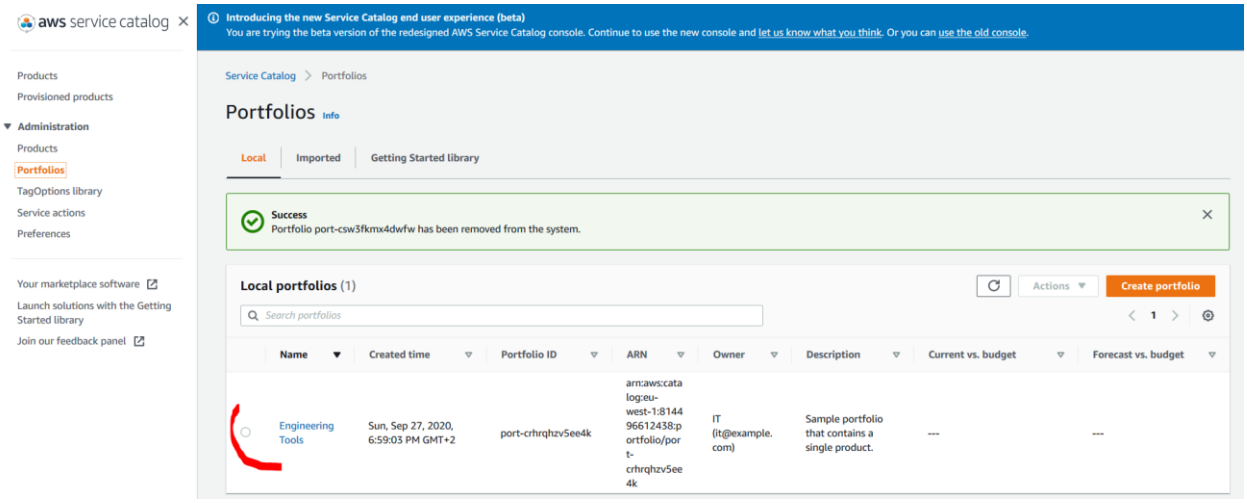


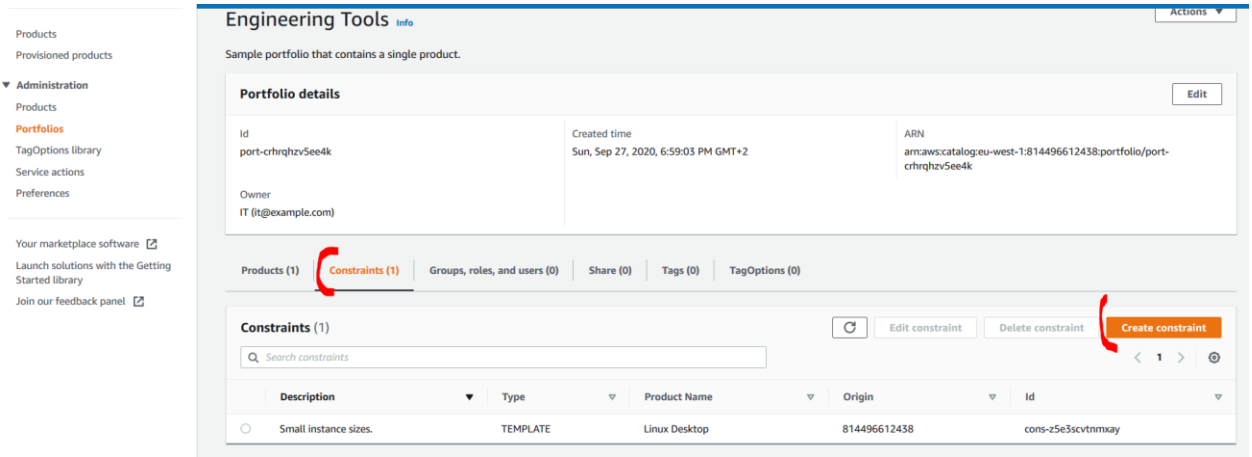
- Open the AWS Service Catalog console at https://console.aws.amazon.com/servicecatalog/.
- Choose the **All engineering tools** portfolio.
- On the portfolio details page, choose the **Constraints** tab, and then choose **Create constraint**.
- For **Product**, choose **Linux Desktop**, and for **Constraint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

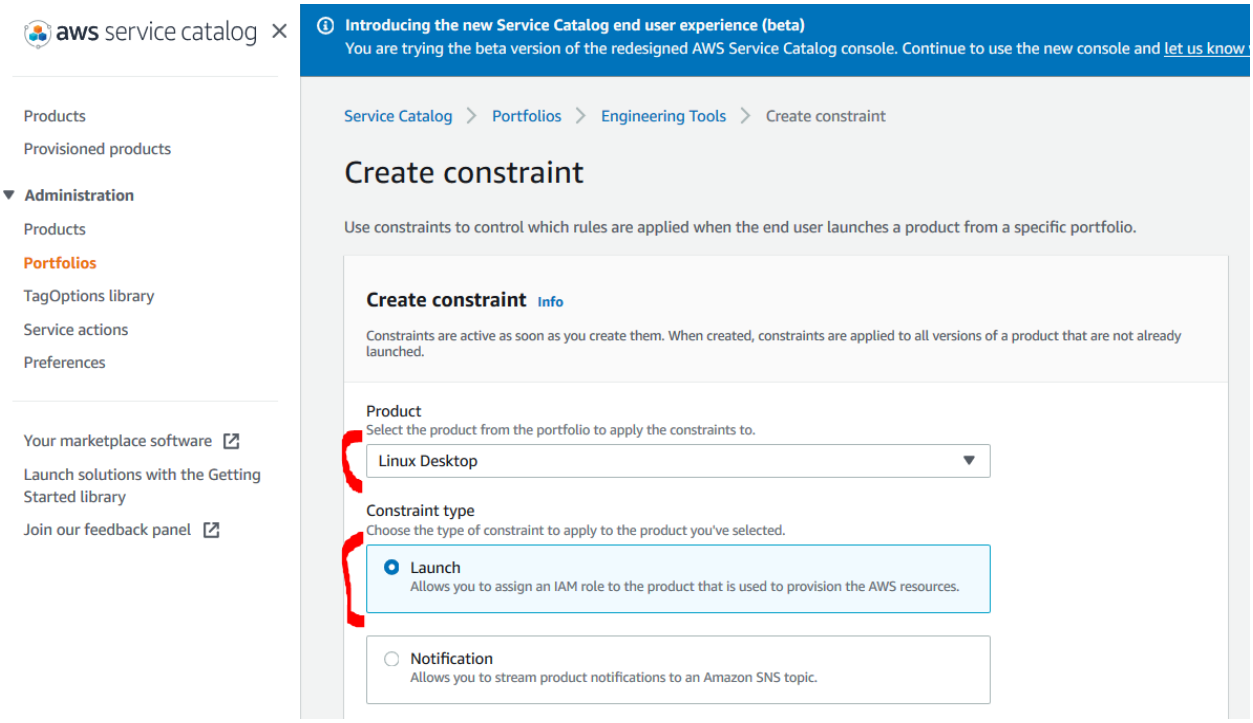


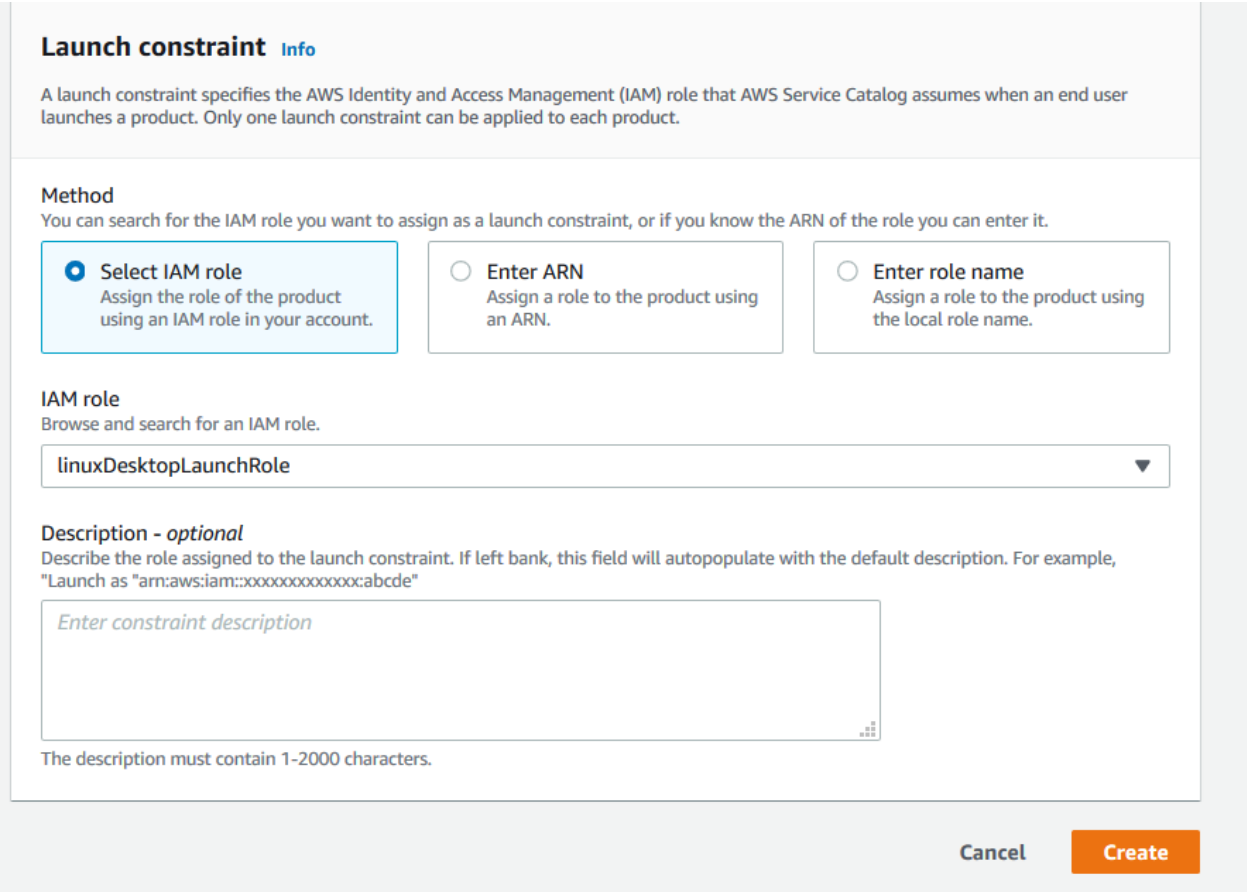
Open the AWS Service Catalog console

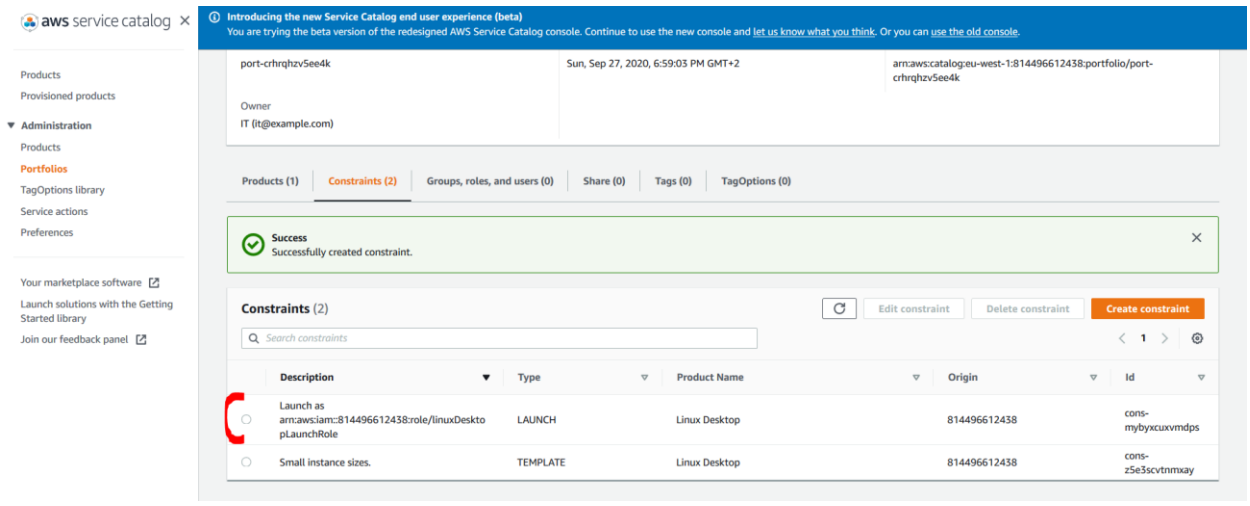
click the Engineering Tools portfolio






aws service catalog
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
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.



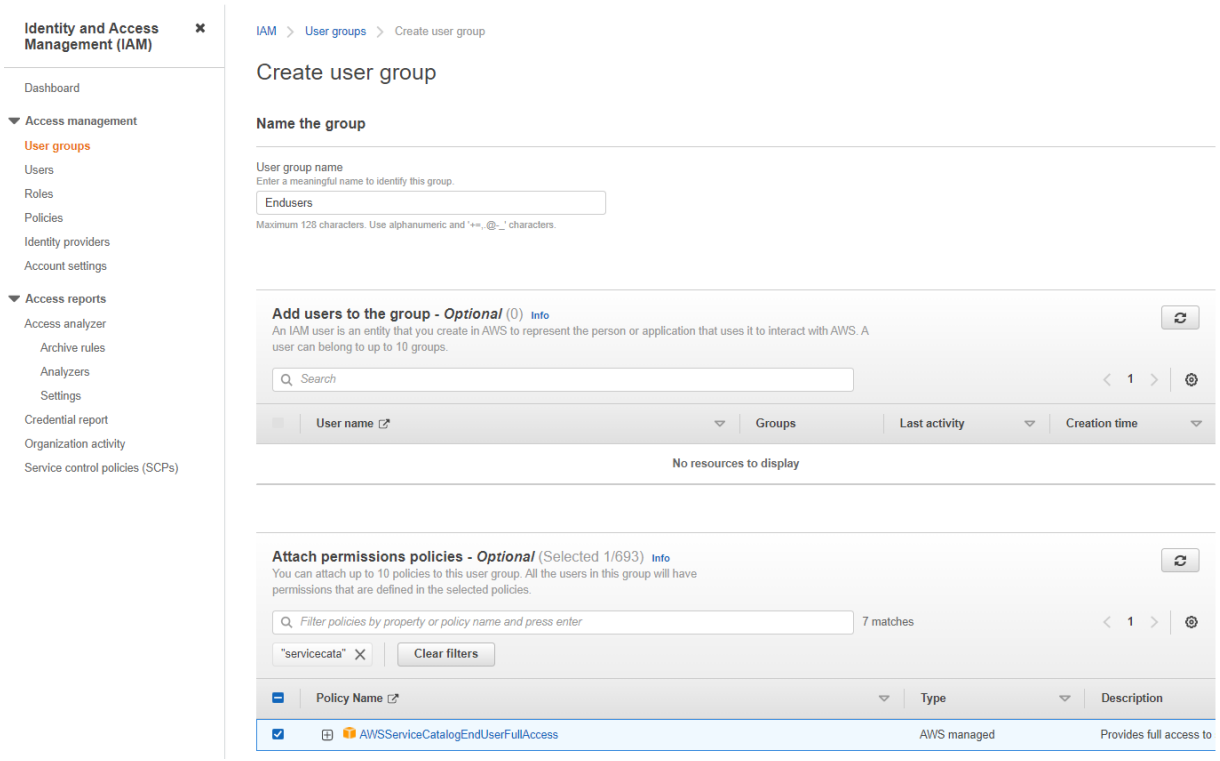


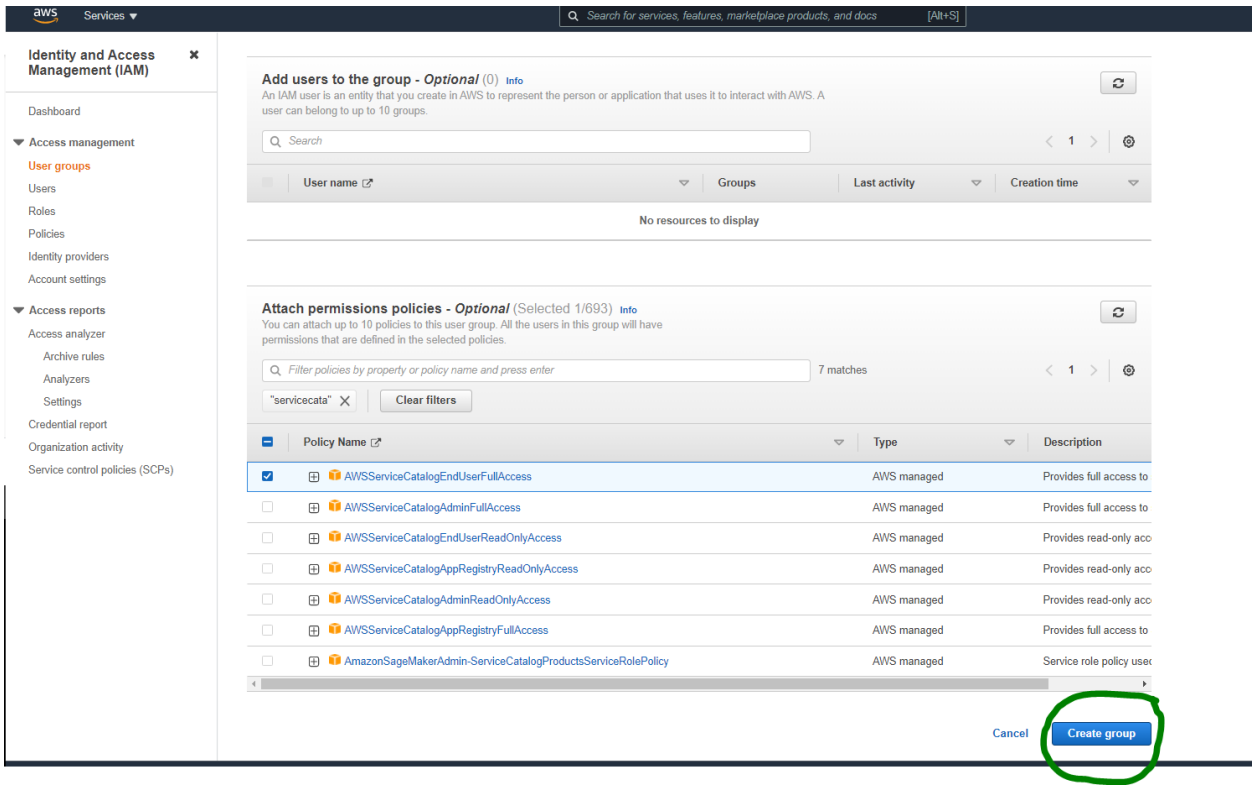
7. Grant Permissions to AWS Service Catalog End Users

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.

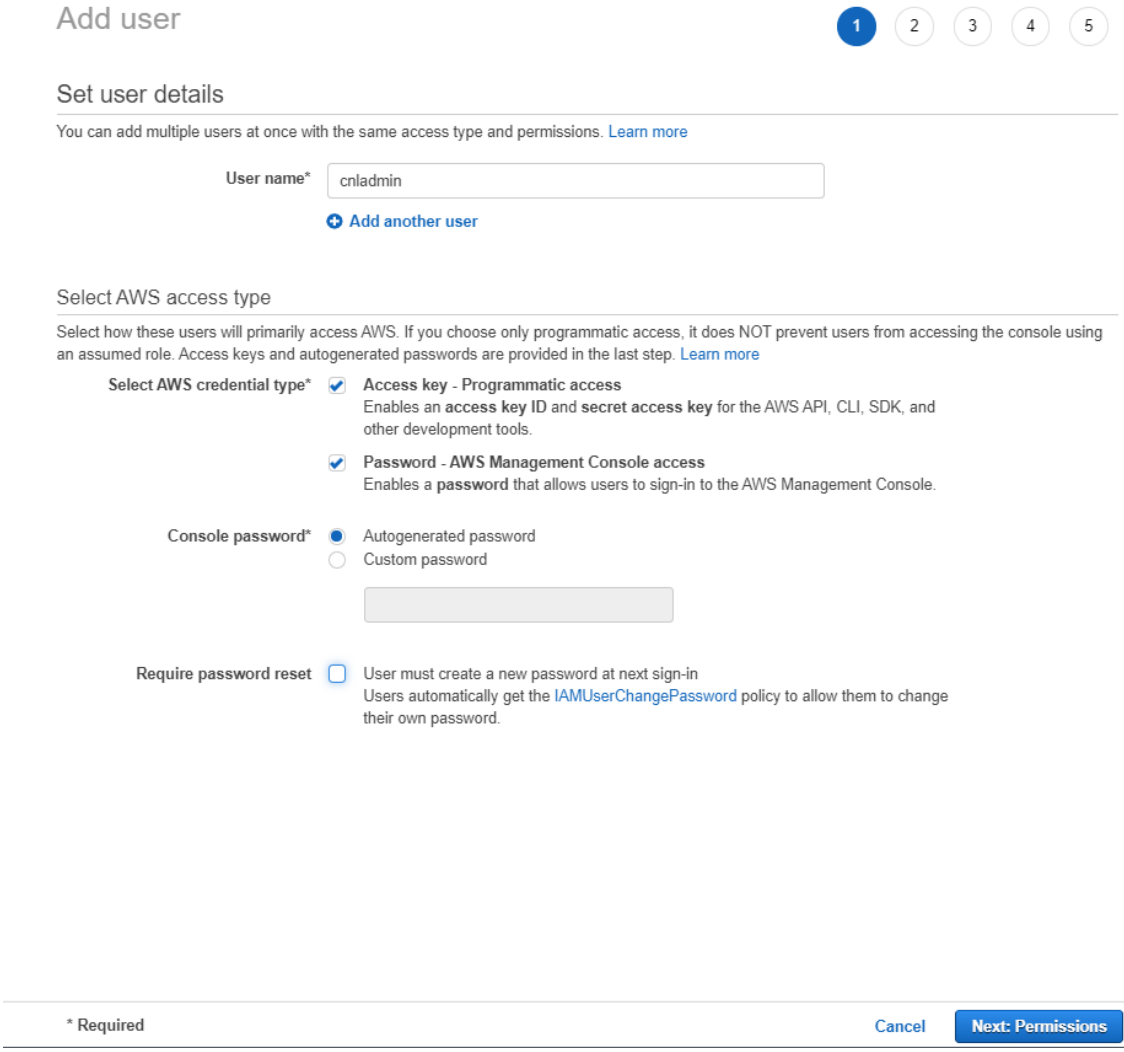
To grant permissions to an end user group

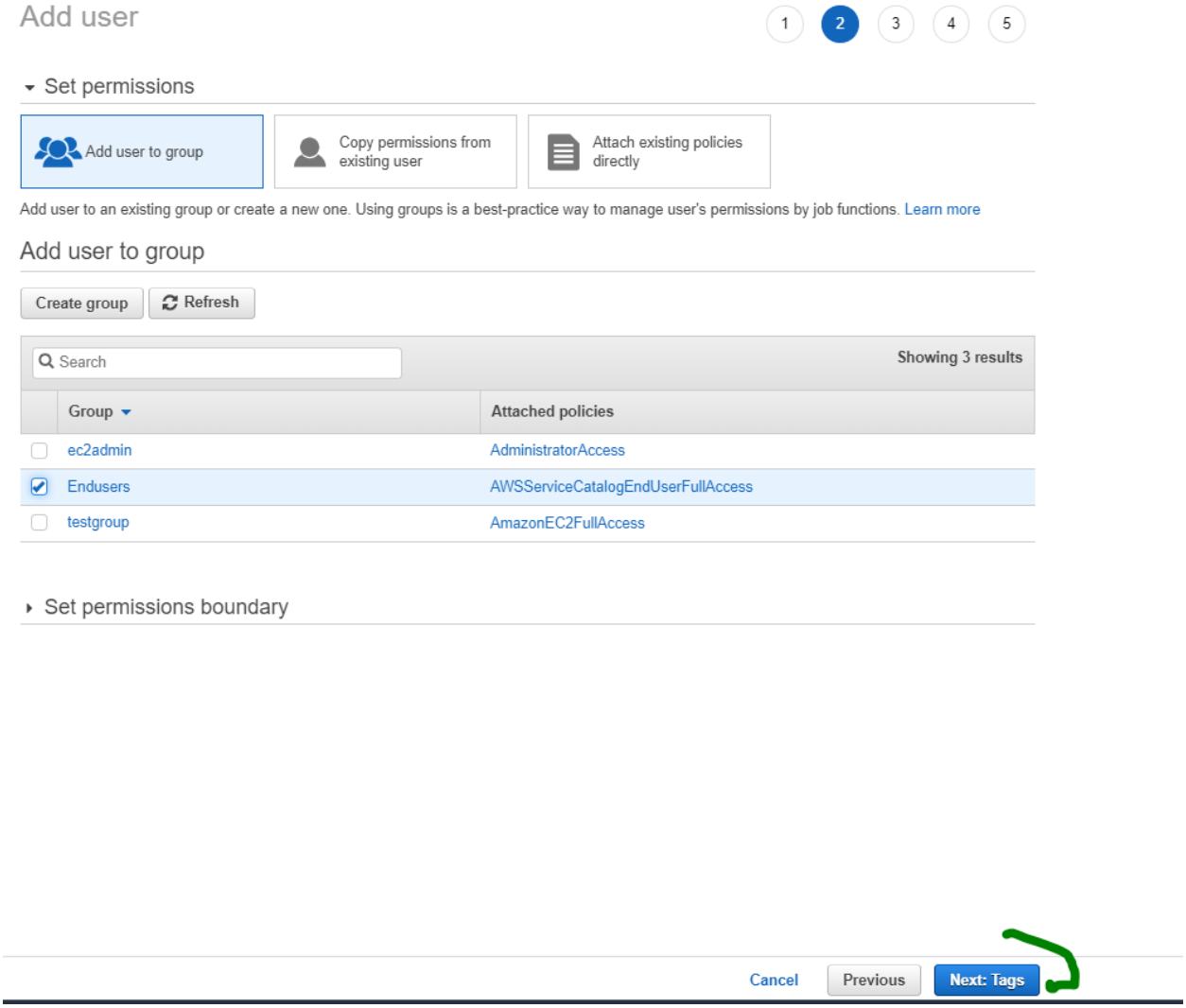
- Open the IAM console at https://console.aws.amazon.com/iam/.
- In the navigation pane, choose **Groups**.
- Choose **Create New Group** and do the following:
    - For **Group Name**, type `Endusers`, and then choose **Next Step**.
    - In the search field, type `AWSServiceCatalog` to filter the policy 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**.

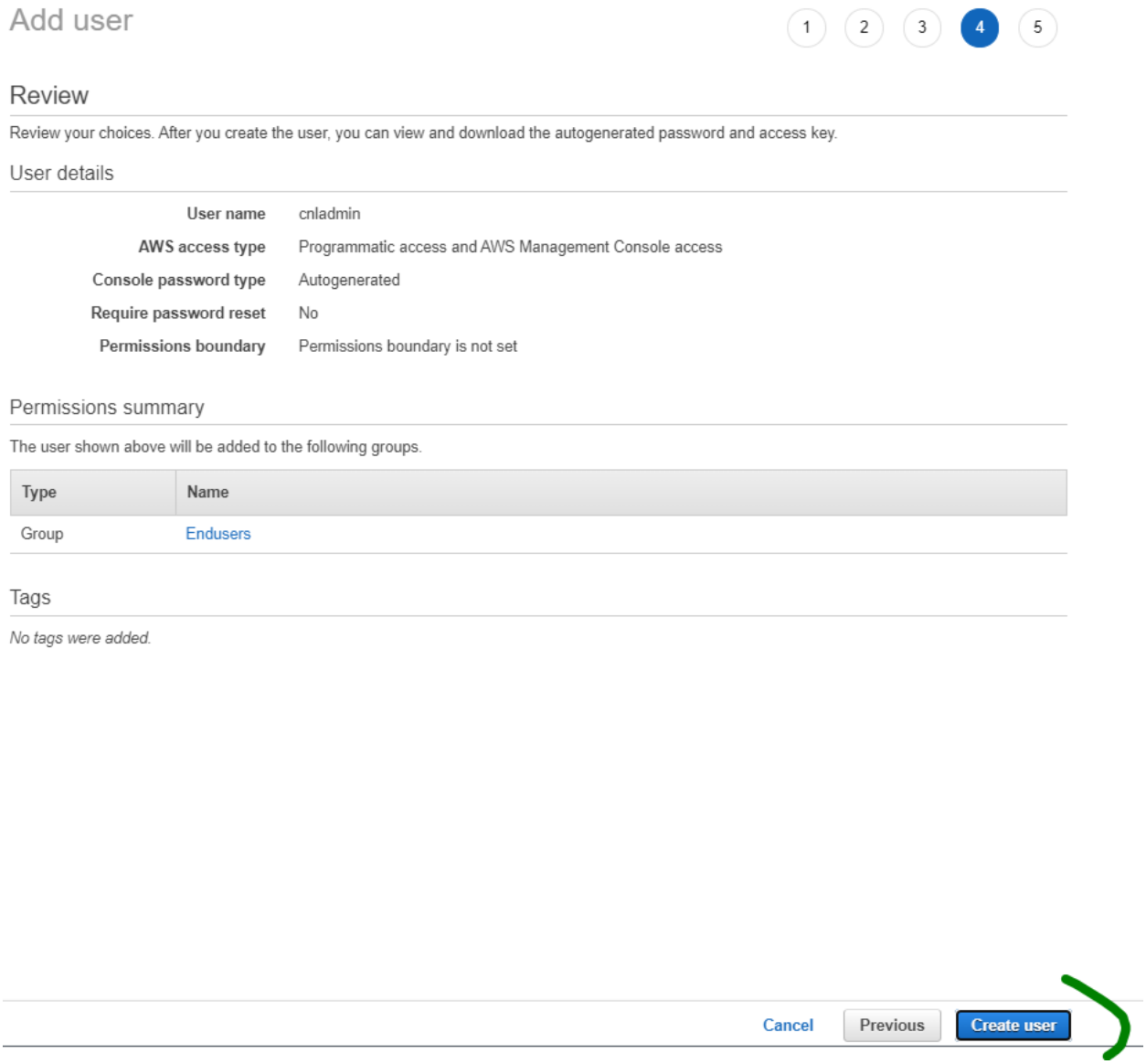

Identity and Access Management (IAM)
Dashboard
Access management
User groups
Users
Roles
Policies
Identity providers
Account settings
Access reports
Access analyzer
Archive rules
Analyzers
Settings
Credential report
Organization activity
Service control policies (SCPs)
IAM > User groups > Create user 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.
Search
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.
Filter policies by property or policy name and press enter
7 matches
"servicecata"
Clear filters
Policy Name
Type
Description
AWSServiceCatalogEndUserFullAccess
AWS managed
Provides full access to

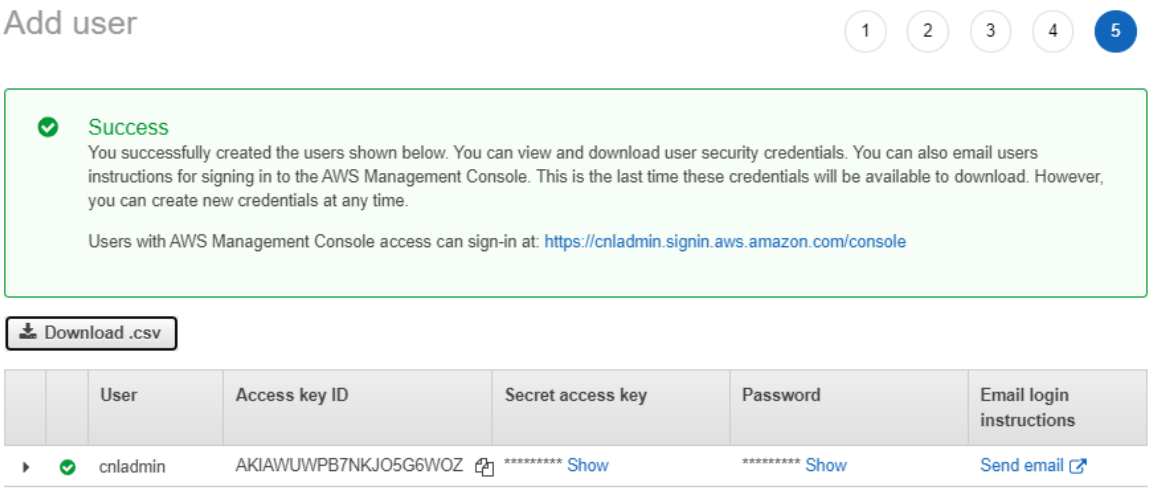


Create new user to test this service catalog functionality


Add user
1
2
3
4
5
Set user details
You can add multiple users at once with the same access type and permissions. Learn more
User name*
cnladmin
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


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
Search
Showing 3 results
Group
Attached policies
ec2admin
AdministratorAccess
Endusers
AWSServiceCatalogEndUserFullAccess
testgroup
AmazonEC2FullAccess
Set permissions boundary
Cancel
Previous
Next: Tags


Add user
1
2
3
4
5
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



8. Grant End Users Access to the Portfolio

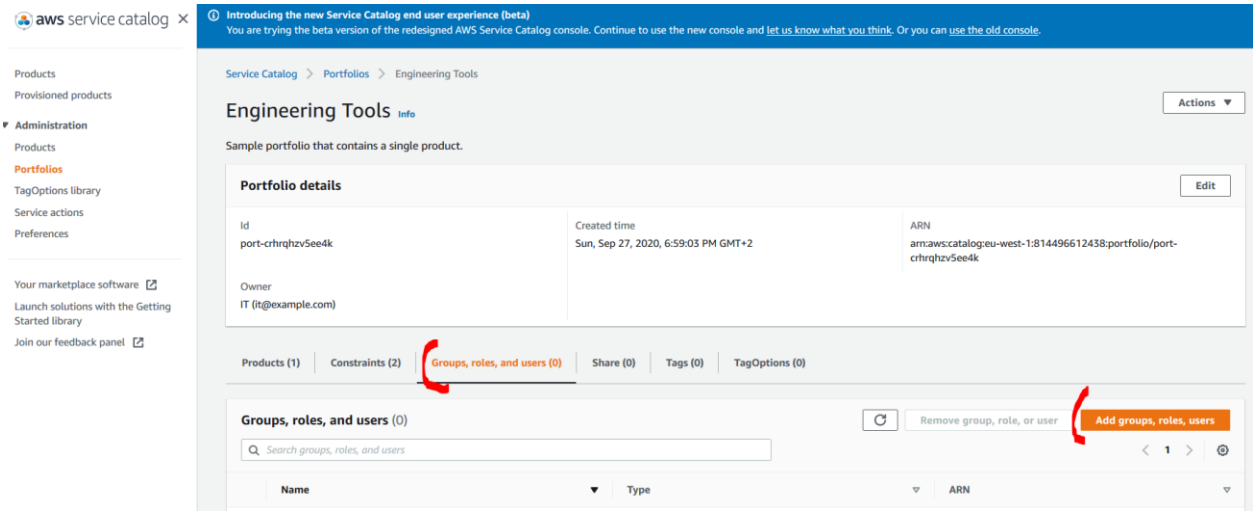
Now that you have created a portfolio and added a product, you are ready to grant access to end users.

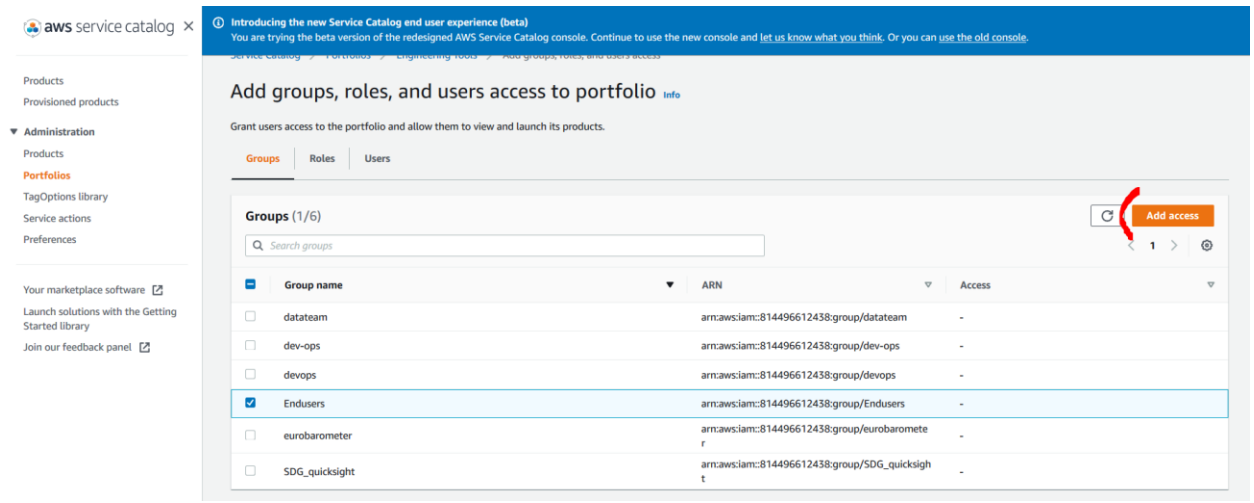
Prerequisites

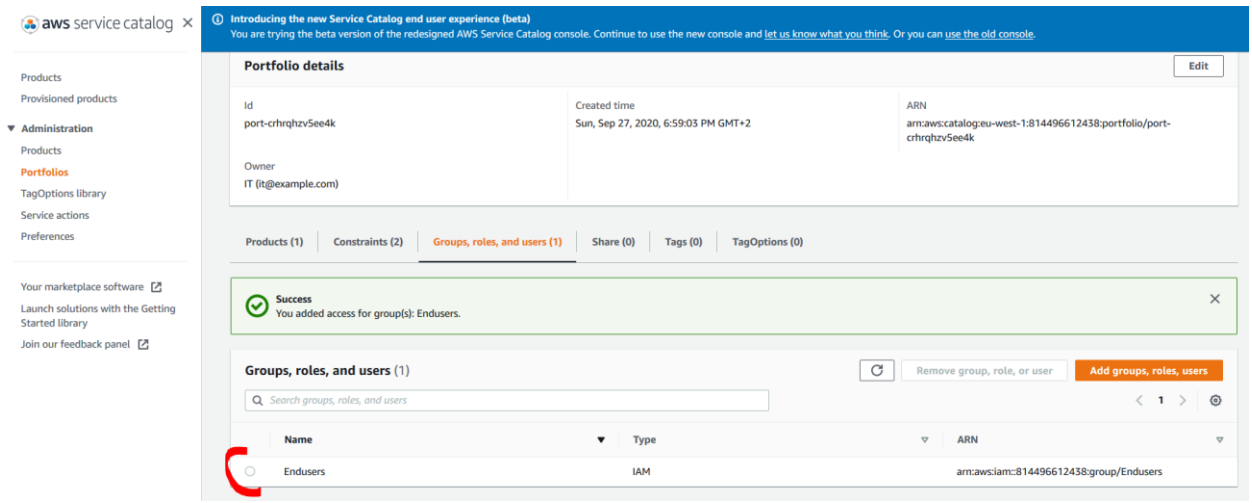
If you haven't created an IAM group for the endusers, see Section 7

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**.


aws service catalog
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.
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
Engineering Tools Info
Actions
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
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.
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
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
Group name
ARN
Access
datateam
arn:aws:iam::814496612438:group/datateam
dev-ops
arn:aws:iam::814496612438:group/dev-ops
devops
arn:aws:iam::814496612438:group/devops
Endusers
arn:aws:iam::814496612438:group/Endusers
eurobarometer
arn:aws:iam::814496612438:group/eurobarometer
SDG_quicksight
arn:aws:iam::814496612438:group/SDG_quicksight



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**.

- **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 ?