Administer Workload Factory

Setup and administration

NetApp
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Administer Workload Factory

Log in to Workload Factory

After you sign up to Workload Factory, you can log in at any time from the web-based console to start managing your workloads and FSx for ONTAP file systems.

About this task

You can log in to the Workload Factory web-based console using one of the following options:

- Your existing NetApp Support Site (NSS) credentials
- A NetApp cloud login using your email address and a password

Steps

1. Open a web browser and go to the Workload Factory console.
2. On the **Log in** page, enter the email address that's associated with your login.
3. Depending on the authentication method associated with your login, you'll be prompted to enter your credentials:
   - NetApp cloud credentials: Enter your password
   - Federated user: Enter your federated identity credentials
   - NetApp Support Site account: Enter your NetApp Support Site credentials
4. Select **Log in**.

   If you have successfully logged in in the past, you'll see the Workload Factory home page and you'll be using the default account.

   If this is the first time that you've logged in, you'll be directed to the **Account** page.

   - If you are a member of a single account, select **Continue**.
   - If you are a member of multiple accounts, select the account and select **Continue**.

Result

You're now logged in and can start using Workload Factory to manage FSx for ONTAP file systems and your workloads.

Automate tasks using Codebox

Learn about codebox automation

Codebox is an Infrastructure as Code (IaC) co-pilot that helps developers and DevOps generate the code needed to execute any operation supported by Workload Factory. Codebox is aligned with the Workload Factory operation modes (Basic, Read, and Automate) and it sets a clear path for execution readiness as well as providing an automation catalog for quick future reuse.

Codebox capabilities

Codebox provides two key IaC capabilities:

- *Codebox Viewer* shows the IaC that is generated by a specific job flow operation by matching entries and selections from the graphical wizard or from the conversational chat interface. While Codebox Viewer supports color coding for easy navigation and analysis, it does not allow editing—only copying or saving code to the Automation Catalog.
- *Codebox Automation Catalog* shows all saved IaC jobs, allowing you to easily reference them for future use. Automation catalog jobs are saved as templates and shown in context of the resources that apply to them.

Additionally, when setting up Workload Factory credentials, Codebox dynamically displays the AWS permissions that are needed to create IAM policies. The permissions are provided for each Workload Factory capability that you plan to use (databases, AI, FSx for ONTAP, and so on), and they are customized based on whether the users of the policy will get read-only permissions or full operate permissions. You just copy the permissions from Codebox and then paste them in the AWS Management Console so that Workload Factory has the correct permissions to manage your workloads.

Supported code formats

The supported code formats include:

- Workload Factory REST APIs
- AWS CLI
- AWS CloudFormation

Learn how to use Codebox.

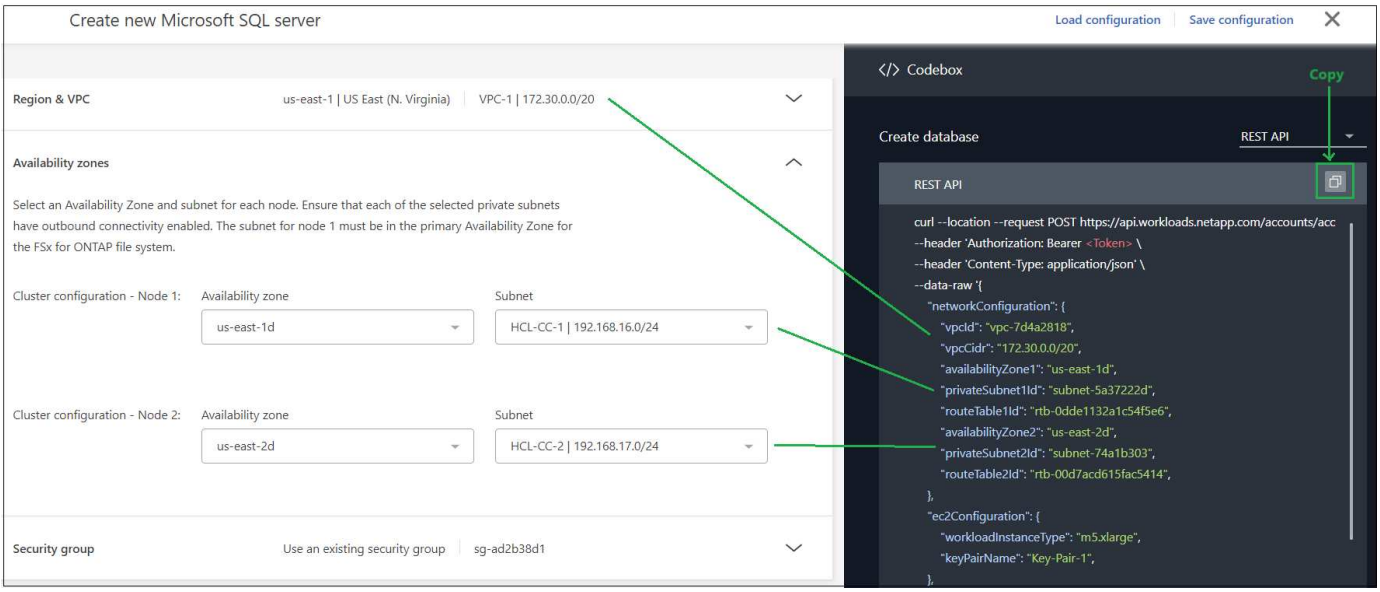
Use Codebox for automation

You can use Codebox to generate the code needed to execute any operation supported by Workload Factory. You can generate code that can be consumed and run using Workload Factory REST APIs, the AWS CLI, and AWS CloudFormation.

Codebox is aligned with the Workload Factory operation modes (Basic, Read, and Automate) by populating the appropriate data in the code based on the AWS permissions provided in the Workload Factory account for each user. The code can be used like a template where you can fill in missing information (for example, credentials) or customize certain data before running the code.

How to use Codebox

As you enter values in the Workload Factory UI wizards, you can see the data update in Codebox as you complete each field. When you complete the wizard, but before you select the **Create** button at the bottom of the page, select to copy in Codebox to capture the code required to build your configuration. For example, this screenshot from creating a new Microsoft SQL Server shows the wizard entries for VPC and availability zones and the equivalent entries in Codebox for a REST API implementation.



With some code formats you can also select the Download button to save the code in a file that you can bring to another system. If required, you can edit the code after it has been downloaded so that you can adapt it to other AWS accounts.

Use CloudFormation code from Codebox

You can copy the CloudFormation code generated from Codebox and then launch the Amazon Web Services CloudFormation stack in your AWS account. CloudFormation will perform the actions that you defined in the Workload Factory UI.

The steps to use the CLoudFormation code might be different depending on whether you are deploying an FSx for ONTAP file system, creating account credentials, or performing other Workload Factory actions.

Note that the code within a CloudFormation-generated YAML file expires after 7 days for security reasons.

Before you begin

- You'll need to have credentials to log in to your AWS account.
- You'll need to have the following user permissions to use a CloudFormation stack:

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": [
                "cloudformation:CreateStack",
                "cloudformation:UpdateStack",
                "cloudformation:DeleteStack",
                "cloudformation:DescribeStacks",
                "cloudformation:DescribeStackEvents",
                "cloudformation:DescribeChangeSet",
                "cloudformation:ExecuteChangeSet",
                "cloudformation:ListStacks",
                "cloudformation:ListStackResources",
                "cloudformation:GetTemplate",
                "cloudformation:ValidateTemplate",
                "lambda:InvokeFunction",
                "iam:PassRole",
                "iam:CreateRole",
                "iam:UpdateAssumeRolePolicy",
                "iam:AttachRolePolicy",
                "iam:CreateServiceLinkedRole"
            ],
            "Resource": "*"
        }
    ]
}
```

Steps

1. After you have used the UI to define the operation that you want to perform, copy the code in the Codebox.
2. Select **Redirect to CloudFormation** and the Redirect to CloudFormation page is displayed.
3. Open another browser window and log in to the AWS Management Console.
4. Select **Continue** from the Redirect to CloudFormation page.
5. Log in to the AWS account where the code should be run.
6. On the Quick create stack page, under Capabilities, select **I acknowledge that AWS CloudFormation might ….**
7. Select **Create stack**.
8. Monitor the progress from AWS or from Workload Factory.

Use REST API code from Codebox

You can use the Workload Factory REST APIs generated from Codebox to deploy and manage your FSx for ONTAP file systems and other AWS resources.

You can run the APIs from any host that supports curl and that has internet connectivity.

Note that the authentication tokens are hidden in Codebox, but they are populated when you copy and paste the API call.

Steps

1. After you have used the UI to define the operation that you want to perform, copy the API code in the Codebox.
2. Paste the code and run it on your host system.

Use AWS CLI code from Codebox

You can use the Amazon Web Services CLI generated from Codebox to deploy and manage your FSx for ONTAP file systems and other AWS resources.

Steps

1. After you have used the UI to define the operation that you want to perform, copy the AWS CLI in the Codebox.
2. Open another browser window and log in to the AWS Management Console.
3. Paste the code and run it.

Use Terraform from Codebox

You can use Terraform to deploy and manage your FSx for ONTAP file systems and other AWS resources.

Before you begin

- You'll need a Terraform server to run the commands from.
- You'll need to have credentials to log in to your AWS account.

Steps

1. After you have used the UI to define the operation that you want to perform, copy or download the Terraform code in the Codebox.
2. Connect to your server.
3. Paste the code and run it.

Remove credentials

If you no longer need a set of credentials, you can delete them from Workload Factory. You can only delete credentials that aren't associated with an FSx for ONTAP file system.

Steps

1. In the Workload Factory console, select the **Account** icon, and select **Credentials**.
2. On the **Credentials** page, select the action menu for a set of credentials and then select **Remove**.
3. Select **Remove** to confirm.

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