

Install jenkins

Jenkins Requirements

1. java
2. docker

Then follow jenkins installation using docker to install Jenkins on the localhost and choose "Install suggested plugins". After successful installation, one should be able to reach the Jenkins Dashboard (8080 is default port).



The screenshot shows the Jenkins Dashboard interface in a web browser. The address bar indicates the URL is localhost:8080. The dashboard header includes the Jenkins logo, a search bar, and links for "Jenkins Admin" and "log out". A sidebar on the left contains navigation links: "New Item", "People", "Build History", "Manage Jenkins", "My Views", "Open Blue Ocean", "Credentials", "Lockable Resources", and "New View". The main content area displays two sections: "Build Queue" and "Build Executor Status". The "Build Queue" section shows "No builds in the queue." The "Build Executor Status" section shows two executors, both in an "Idle" state. At the bottom right, there is a link to "add description". A large "Welcome to Jenkins!" message is displayed at the bottom, followed by a light blue box containing the text "Please **create new jobs** to get started."

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

[add description](#)

Welcome to Jenkins!

Please **create new jobs** to get started.



Note

If one wants to add the gateway deployed in the Private DataCenter and/or NF Client, it must be created prior to running the next steps. Otherwise the options of APPWAN_PRIVATE_GATEWAY and APPWAN_PRIVATE_CLIENT can be left blank and added after the appwan is created using the steps described in the Console UI section above. GATEWAY_NAME and SERVICE_NAME are automatically generated by the scripts in this version. GATEWAY_NAME = "GW TYPE"+x0x+"LOCATION OF AZURE GW", e.g. AZCPEGWx0xWESTUS; SERVICE_NAME = "GW NAME"--"SERVICE IP"--"SERVICE PORT", e.g. AZCPEGWx0xWESTUS--10.20.10.5--22.

Setting Up Jenkins Pipeline

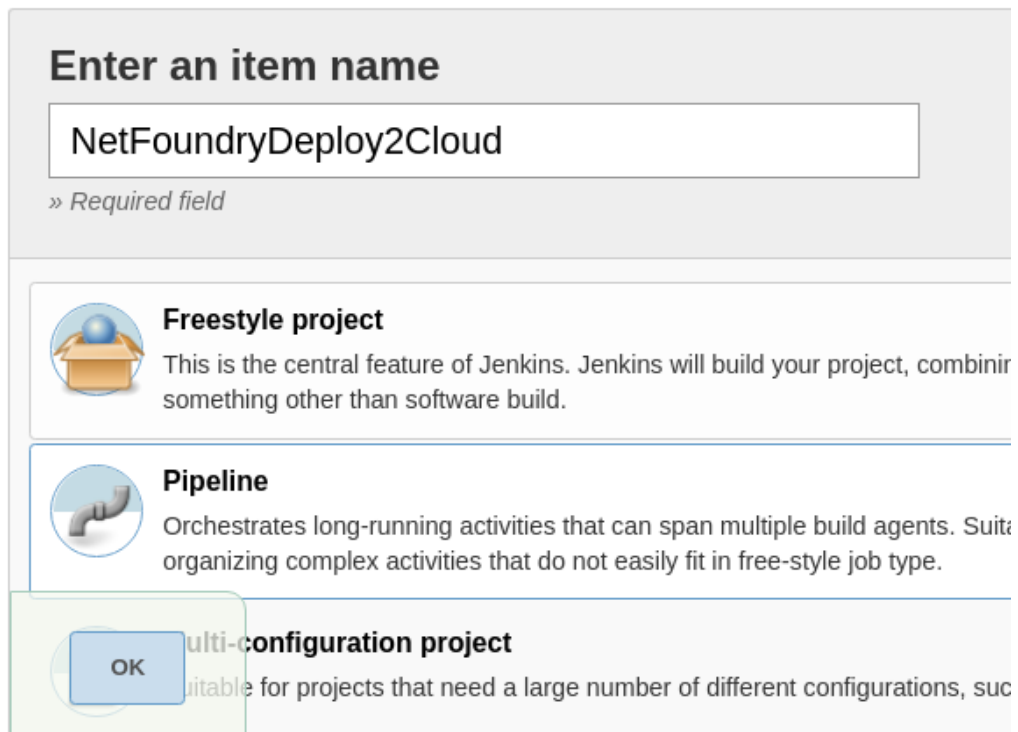
1. Login to Jenkins

2.



Click on "New Item"

3. Name your Project, select pipeline option and click "OK"

A screenshot of the Jenkins "Enter an item name" form. The form has a title "Enter an item name" in bold. Below the title is a text input field containing the text "NetFoundryDeploy2Cloud". Below the input field is a small text label "» Required field". Below the input field are three options, each with an icon and a description. The first option is "Freestyle project" with a box icon and the description "This is the central feature of Jenkins. Jenkins will build your project, combining something other than software build." The second option is "Pipeline" with a pipe icon and the description "Orchestrates long-running activities that can span multiple build agents. Suitable for organizing complex activities that do not easily fit in free-style job type." The third option is "Multi-configuration project" with a box icon and the description "Suitable for projects that need a large number of different configurations, such as...". A green box with the text "OK" is overlaid on the bottom left of the form.

4. In the pipeline details, fill in the scm details as seen in the image below and click "Save".
Everything default apart from:

a. Repository Url: <https://github.com/netfoundry/mop.git>

b. Script Path: pipeline/netfoundrydeploy2cloud.jenkinsfile

Pipeline

Definition: Pipeline script from SCM

SCM: Git

Repositories

Repository URL:

Credentials: [Add](#)

[Advanced...](#)

[Add Repository](#)

Branches to build

Branch Specifier (blank for 'any'):

[Add Branch](#)

Repository browser: (Auto)

Additional Behaviours: [Add](#)


Script Path:

Lightweight checkout: ☒

[Pipeline Syntax](#)

[Save](#) [Apply](#)

5. Set up users for Azure API and NF MOP API access -- More on Credentials setup



Jenkins

Jenkins > Credentials

New Item

People

Build History

Manage Jenkins

My Views

Open Blue Ocean

Lockable Resources

Credentials

System

New View

Credentials

T	P	Store ↓	Domain	ID
		Jenkins	(global)	azure_user_creds 164b
		Jenkins	(global)	sandbox-mop-user QJ9K

Icon: [S](#) [M](#) [L](#)

Stores scoped to [Jenkins](#)

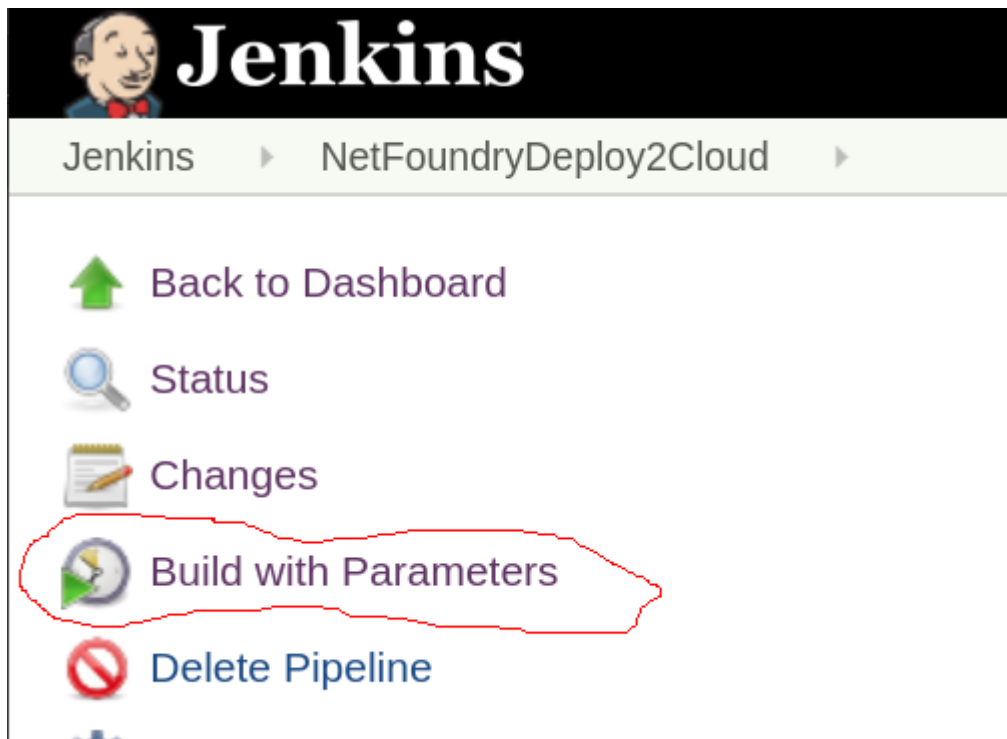
P	Store ↓
	Jenkins (global)

Add credentials

Build Queue

No builds in the queue.

6. Run Jenkinsjob by selecting on the pipeline created in the previous step. Click on "Build with Parameters"





To create the resources

1. Fill in the Azure Details (e.g. RG, Tenant Id, etc) and select the following:
 - a. NF Environment, e.g. production
 - b. NETWORK_ACTION - create
 - c. NETWORK_NAME, e.g. DEMONET
 - d. GATEWAY_ACTION - create
 - e. If Azure RG needs to be preserved, then KEEP_RG option must be left checked.
 - f. LOCATION, e.g. westus - location where the Azure GW will be deployed in
 - g. SUBNET_PREFIX, e.g. 10.20.10.0/24 - the subnet used for the vNet in the location of the Azure GW deployment.

← → ↻ ⓘ localhost:8080/job/NetFoundryDeploy2Cloud/build?delay=0sec

Jenkins » NetFoundryDeploy2Cloud »

Build with Parameters
Delete Pipeline
Configure
Full Stage View
Open Blue Ocean
Rename
Pipeline Syntax

Build History trend
Atom feed for all Atom feed for failures

AZURE_TENANT_ID	<input type="text"/>
AZURE_SUBSCRIPTION_ID	<input type="text"/>
RESOURCE_GROUP_NAME	<input type="text"/>
RESOURCE_GROUP_LOC	<input type="text"/>
ENVIRONMENT	<input type="text"/>
NETWORK_ACTION	<input type="text"/>
NETWORK_NAME	<input type="text"/>
GATEWAY_ACTION	<input type="text"/>
GATEWAY_NAME	<input type="text"/>
SERVICE_ACTION	<input type="text"/>
SERVICE_NAME	<input type="text"/>
SERVICE_IP	<input type="text"/>
SERVICE_PORT	<input type="text"/>
APPWAN_ACTION	<input type="text"/>
APPWAN_NAME	<input type="text"/>
APPWAN_PRIVATE_GATEWAY	<input type="text"/>
APPWAN_PRIVATE_CLIENT	<input type="text"/>
APPWAN_SERVICE	<input type="text"/>
LOCATION	<input type="text"/>
SUBNET_PREFIX	<input type="text"/>

Build

2. Run Jenkins job again by selecting on the pipeline created in the previous step. Click on "Build with Parameters"

3. Fill in service and appwan details by selecting the following:

- a. KEEP_RG - not selected
- b. NF Environment, e.g. production
- c. SERVICE_ACTION - create
- d. APPWAN_ACTION - create
- e. GATEWAY_NAME, e.g. AZCPEGWx0xWESTUS (this is created in the previous step automatically)
- f. SERVICE_NAME, e.g. AZCPEGWx0xWESTUS--10.20.10.5--22 (this is created automatically during this step)
- g. SERVICE_IP, e.g. 10.20.10.5
- h. SERVICE_PORT, e.g. 22
- i. APPWAN_NAME, e.g. appwan-ssh-22
- j. APPWAN_PRIVATE_GATEWAY, e.g. private-gateway-name (this is created outside of the jenkins job, prior to running this step)
- k. APPWAN_PRIVATE_CLIENT, e.g. client-name (this is created outside of the jenkins job, prior to running this step)

I. APPWAN_SERVICE, e.g. AZCPEGWx0xWESTUS--10.20.10.5--22

Jenkins

localhost:8080/job/NetFoundryDeploy2Cloud/build?delay=0sec

Jenkins

NetFoundryDeploy2Cloud

Build with Parameters

Delete Pipeline

Configure

Full Stage View

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Rename

Pipeline Syntax

Build History

trend

Atom feed for all

Atom feed for failures

AZURE_TENANT_ID

AZURE_SUBSCRIPTION_ID

RESOURCE_GROUP_NAME

RESOURCE_GROUP_LOC

ENVIRONMENT

NETWORK_ACTION

NETWORK_NAME

GATEWAY_ACTION

GATEWAY_NAME

SERVICE_ACTION

SERVICE_NAME

SERVICE_IP

SERVICE_PORT

APPWAN_ACTION

APPWAN_NAME

APPWAN_PRIVATE_GATEWAY

APPWAN_PRIVATE_CLIENT

APPWAN_SERVICE

LOCATION

SUBNET_PREFIX

Build

Tenant ID in Azure

Subscription ID in Azure

RG Name in Azure

RG Location in Azure

☐ KEEP_RG

Not to check this if RG can be deleted

sandbox

Select NF Console Environment to spin the network and gateways in

get

Select an action to perform on the network in NF

DEMONET

Name to be used to create a network with

get

Select an action to perform on the gateway in NF Network

AZCPEGWx0xWESTUS

Name of NF Gateway generated in NF Console

create

Select an action to perform on the service in NF Network

AZCPEGWx0xWESTUS--10.20.10.5--22

Name of NF Service generated in NF Console

10.20.10.5

IP of NF Service App

22

IP of NF Service App

create

Select an action to perform on the appwan in NF Network

appwan-ssh-22

Name of NF APPWAN to be used in NF Console

private-gateway-name

Endpoint Name in Private Datacenter Gateway to be included in AppWan

client-name

Endpoint Name for Client to be included in AppWan

AZCPEGWx0xWESTUS--10.20.10.5--22

Service Name to be included in AppWan

westus

Azure Cloud DC Location where to deploy GW


10.20.10.0/24

Subnet CIDR in Azure Cloud DC Location where to deploy GW

To delete the resources

1. Run Jenkins job again by selecting on the pipeline created in the previous step. Click on "Build with Parameters"
2. Fill in the Azure Details (e.g. RG, Tenant Id, etc) and select the following:
 - a. NF Environment, e.g. production
 - b. NETWORK_ACTION - delete
 - c. NETWORK_NAME, e.g. DEMONET
 - d. GATEWAY_ACTION - delete

Pipeline View

 **Jenkins**

Jenkins > NetFoundryDeploy2Cloud >

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Build History [trend](#)
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Pipeline NetFoundryDeploy2Cloud

This build requires parameters:

AZURE_TENANT_ID	<input type="text" value="REDACTED"/>	Tenant ID in Azure
AZURE_SUBSCRIPTION_ID	<input type="text" value="REDACTED"/>	Subscription ID in Azure
RESOURCE_GROUP_NAME	<input type="text" value="REDACTED"/>	RG Name in Azure
RESOURCE_GROUP_LOC	<input type="text" value="centralus"/>	RG Location in Azure
	<input type="checkbox"/> KEEP_RG	Not to check this if RG can be deleted
ENVIRONMENT	<input type="text" value="sandbox"/>	Select NF Console Environment to spin the network and gateways in
NETWORK_ACTION	<input type="text" value="delete"/>	Selection an action to perform on the network in NF
NETWORK_NAME	<input type="text" value="DEMONET"/>	Name to be used to create a network with
GATEWAY_ACTION	<input type="text" value="delete"/>	Selection an action to perform on the gateway in NF Network
GATEWAY_NAME	<input type="text"/>	Name of NF Gateway generated in NF Console
SERVICE_ACTION	<input type="text" value="get"/>	Selection an action to perform on the service in NF Network
SERVICE_NAME	<input type="text"/>	Name of NF Service generated in NF Console
SERVICE_IP	<input type="text"/>	IP of NF Service App
SERVICE_PORT	<input type="text"/>	IP of NF Service App
APPWAN_ACTION	<input type="text" value="get"/>	Selection an action to perform on the appwan in NF Network
APPWAN_NAME	<input type="text"/>	Name of NF APPWAN to be used in NF Console
APPWAN_PRIVATE_GATEWAY	<input type="text"/>	Endpoint Name in Private Datacenter Gateway to be included in AppWan
APPWAN_PRIVATE_CLIENT	<input type="text"/>	Endpoint Name for Client to be included in AppWan
APPWAN_SERVICE	<input type="text"/>	Service Name to be included in AppWan
LOCATION	<input type="text" value="westus"/>	Azure Cloud DC Location where to deploy GW
SUBNET_PREFIX	<input type="text" value="10.20.10.0/24"/>	Subnet CIDR in Azure Cloud DC Location where to deploy GW

Build

3. Done