

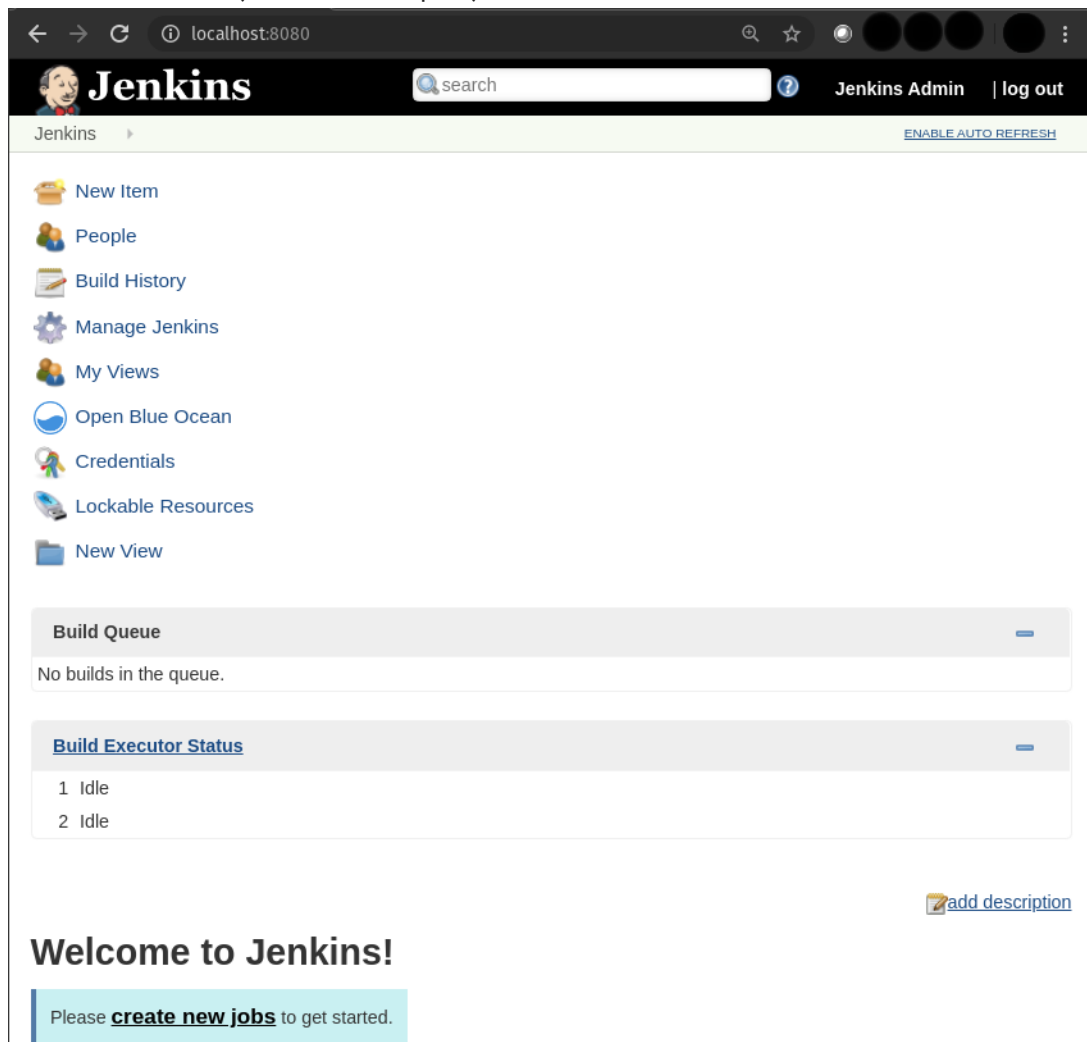
# Install jenkins



## 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 in a web browser at localhost:8080. The interface includes a top navigation bar with the Jenkins logo, a search bar, and links for "Jenkins Admin" and "log out". Below the navigation bar, there is a sidebar with various 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 of the dashboard, there is a "Welcome to Jenkins!" message and a button that says "Please **create new jobs** to get started." A link to "add description" is also visible.



## 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"

### Enter an item name

» Required field

**Freestyle project**

This is the central feature of Jenkins. Jenkins will build your project, combining something other than software build.

**Pipeline**

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.

**Multi-configuration project**

Suitable for projects that need a large number of different configurations, such as...

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

**Build Queue**  
No builds in the queue.

## Credentials

T	P	Store	Domain	ID
		<a href="#">Jenkins</a>	(global)	azure_user_creds <a href="#">164b</a>
		<a href="#">Jenkins</a>	(global)	sandbox-mop-user <a href="#">QJ9K</a>

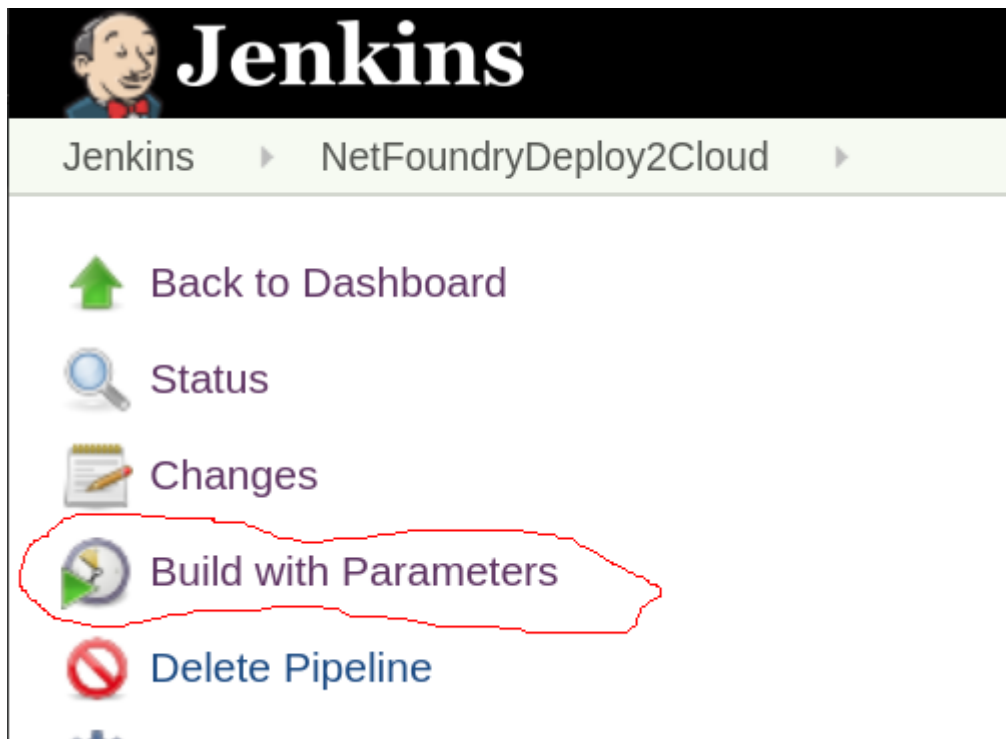
Icon: [S](#) [M](#) [L](#)

### Stores scoped to [Jenkins](#)

P	Store
	<a href="#">Jenkins</a> (global)

[Add credentials](#)

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  
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Build History trend  
Atom feed for all Atom feed for failures

AZURE_TENANT_ID	<input type="text"/>
Tenant ID in Azure	
AZURE_SUBSCRIPTION_ID	<input type="text"/>
Subscription ID in Azure	
RESOURCE_GROUP_NAME	<input type="text"/>
RG Name in Azure	
RESOURCE_GROUP_LOC	centralus
RG Location in Azure	
<input checked="" type="checkbox"/> KEEP_RG	
Not to check this if RG can be deleted	
ENVIRONMENT	sandbox
Select NF Console Environment to spin the network and gateways in	
NETWORK_ACTION	create
Selection an action to perform on the network in NF	
NETWORK_NAME	DEMONET
Name to be used to create a network with	
GATEWAY_ACTION	create
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	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	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	westus
Azure Cloud DC Location where to deploy GW	
SUBNET_PREFIX	10.20.10.0/24
Subnet CIDR in Azure Cloud DC Location where to deploy GW	

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

Build with Parameters

Delete Pipeline

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trend

Atom feed for all

Atom feed for failures

AZURE_TENANT_ID	<input type="text"/>	Tenant ID in Azure
AZURE_SUBSCRIPTION_ID	<input type="text"/>	Subscription ID in Azure
RESOURCE_GROUP_NAME	<input type="text"/>	RG Name in Azure
RESOURCE_GROUP_LOC	<input type="text"/>	RG Location in Azure
	<input type="checkbox"/> KEEP_RG	Not to check this if RG can be deleted
ENVIRONMENT	<div>sandbox</div>	Select NF Console Environment to spin the network and gateways in
NETWORK_ACTION	<div>get</div>	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	<div>get</div>	Selection an action to perform on the gateway in NF Network
GATEWAY_NAME	<input type="text" value="AZCPEGWx0xWESTUS"/>	Name of NF Gateway generated in NF Console
SERVICE_ACTION	<div>create</div>	Selection an action to perform on the service in NF Network
SERVICE_NAME	<input type="text" value="AZCPEGWx0xWESTUS--10.20.10.5--22"/>	Name of NF Service generated in NF Console
SERVICE_IP	<input type="text" value="10.20.10.5"/>	IP of NF Service App
SERVICE_PORT	<input type="text" value="22"/>	IP of NF Service App
APPWAN_ACTION	<div>create</div>	Selection an action to perform on the appwan in NF Network
APPWAN_NAME	<input type="text" value="appwan-ssh-22"/>	Name of NF APPWAN to be used in NF Console
APPWAN_PRIVATE_GATEWAY	<input type="text" value="private-gateway-name"/>	Endpoint Name in Private Datacenter Gateway to be included in AppWan
APPWAN_PRIVATE_CLIENT	<input type="text" value="client-name"/>	Endpoint Name for Client to be included in AppWan
APPWAN_SERVICE	<input type="text" value="AZCPEGWx0xWESTUS--10.20.10.5--22"/>	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






## 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](#)  
[Atom feed for all](#) [Atom feed for failures](#)

### 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