

# Bastion Replacement Removal

## Overview

### What is a Bastion Host?

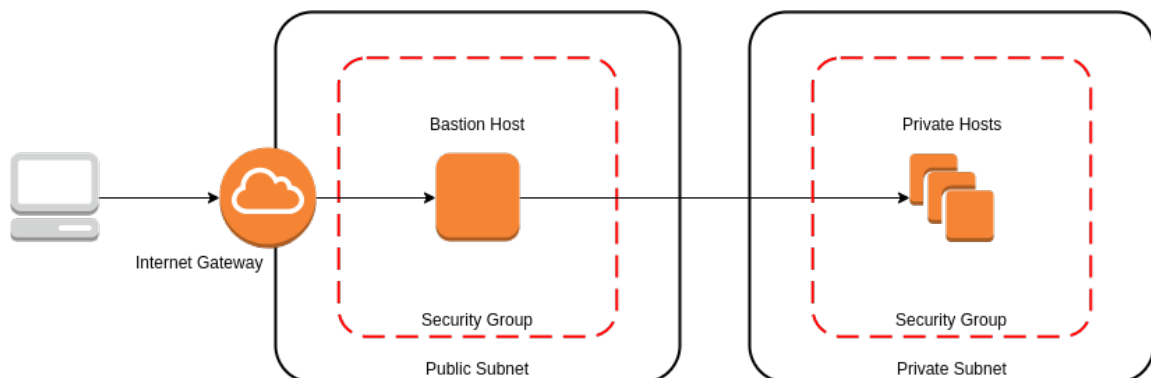
A bastion host is a server whose purpose is to provide access to a private network from an external network, such as the Internet. Because of its exposure to potential attack, it's important to lock this down as tightly as possible.

### How can NetFoundry Help?

Deploying a bastion host setup with NetFoundry is more secure! Why? Because the bastion doesn't need to be directly accessible from outside networks. It only needs outbound access & can reside in either public or private networks.

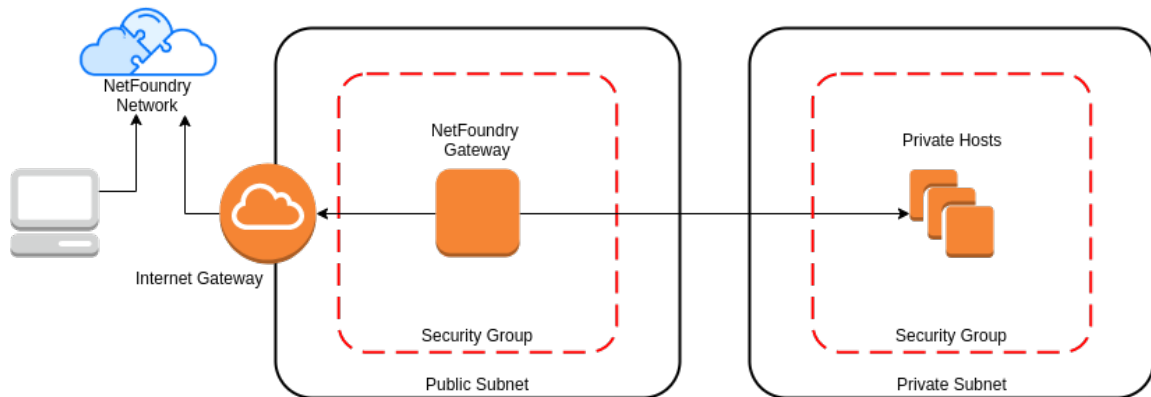
## Solution Architecture

### Standard Bastion Setup

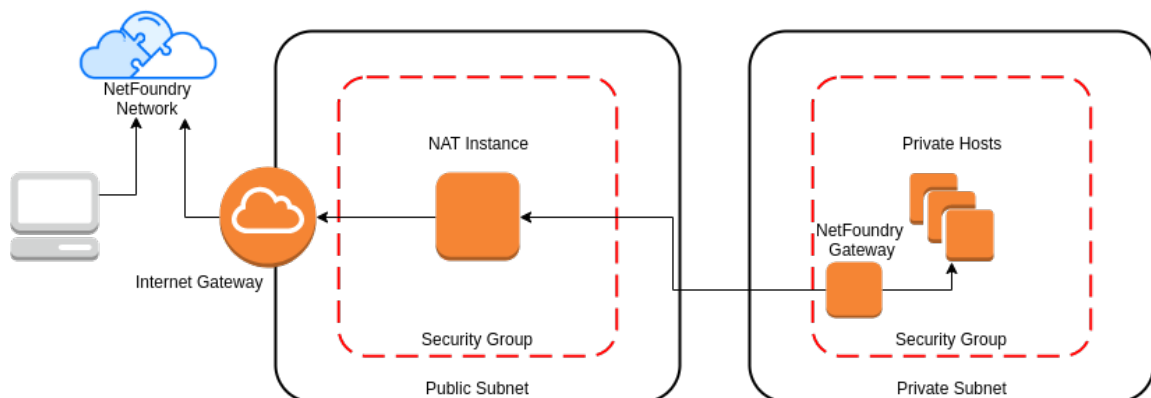


# Netfoundry

## Public



## Private



### Important

Assumption is that the NF Fabric is already up and the NF Client is installed.

## Implement Through NF Web Console UI

### Create and install NF Client

This section will guide a user through the steps on how to create a client in the NF Console UI. Then, it will provide links to Guides on how to install the

NetFoundry Client Software for Windows and MAC Clients, including the registration with the NF Network Fabric.

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Console UI

1. Navigate to Manage Clients Page

DariuszDemo01

+

NETWORK DASHBOARD

NETWORK EVENTS

MANAGE APPWAYS

MANAGE ENDPOINTS

MANAGE CLIENTS

Manage Gateways

Manage Clients

Manage Azure Virtual WAN Sites

Manage Endpoint Groups

Type to Filter

00 of 0

2. Click on + sign in the top right corner.

3. Fill in the required information and click on "Create"

CREATE A NEW CLIENT

Enter your client attributes

CLIENT NAME

REQUIRED

DemoClient01

LOCATION

REQUIRED

US East

CREATE

4. Copy the Client Registration Key

CONGRATULATIONS

Your Client (DemoClient01) has been created

CLIENT REGISTRATION KEY

CLICK TO COPY

97A2357DFE72B6C5EABBE90E99881E472C956E8B

5. Install the NF Client Software by following the directions at the appropriate OS link

a. Window

b. Mac

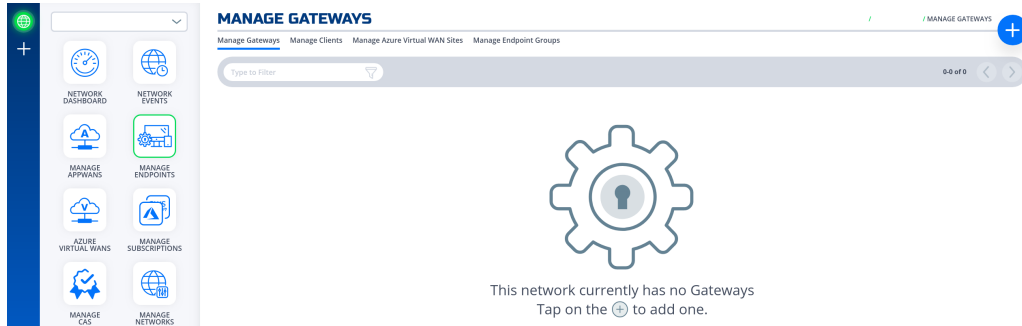
## Create and Install NF AWS Gateway

This section will guide a user through the steps on how to create a NF Manage Gateway in the NF Console UI and install it in an AWS VPC.

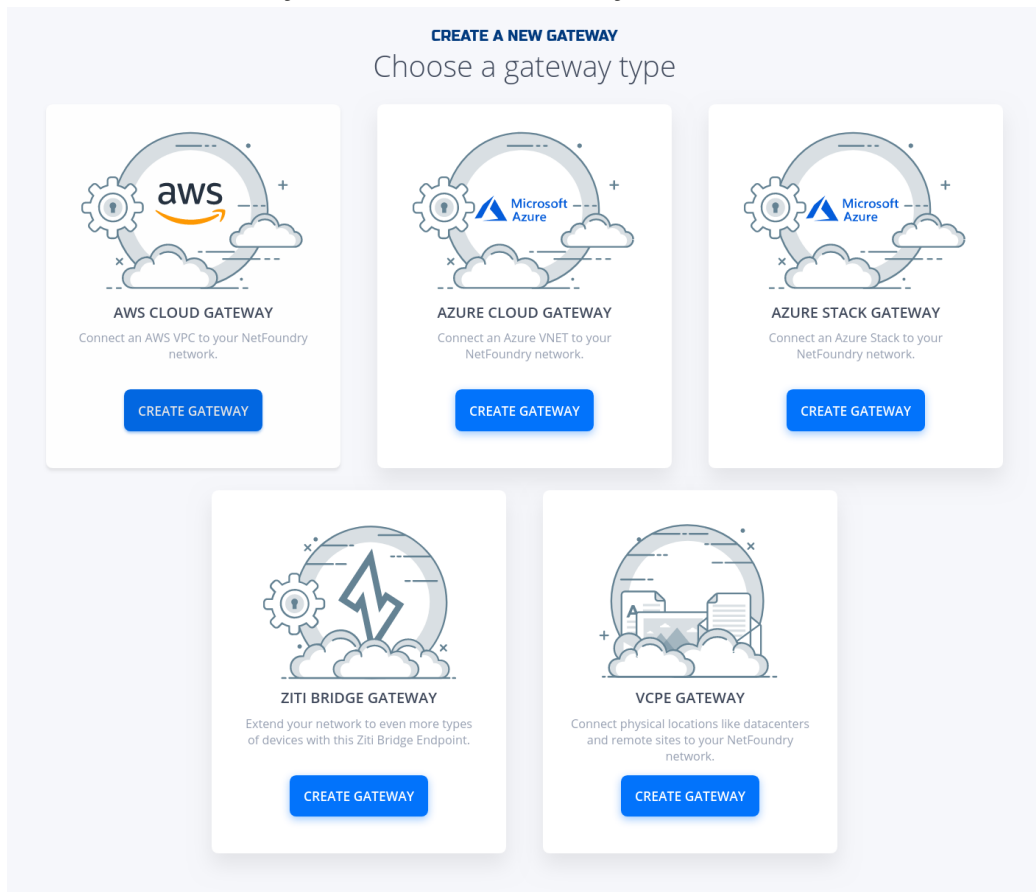


## Console UI

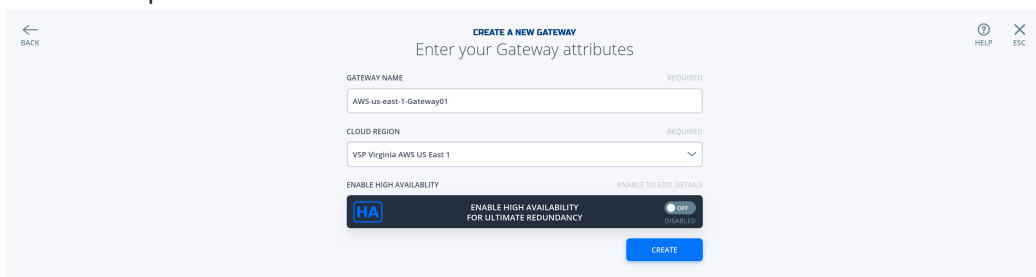
1. Navigate to Manage Gateways Page
2. Click on + sign in the top right corner.



3. Click on "Create Gateway" on the AWS Cloud Gateway Card



4. Fill in the required information and click on "Create"

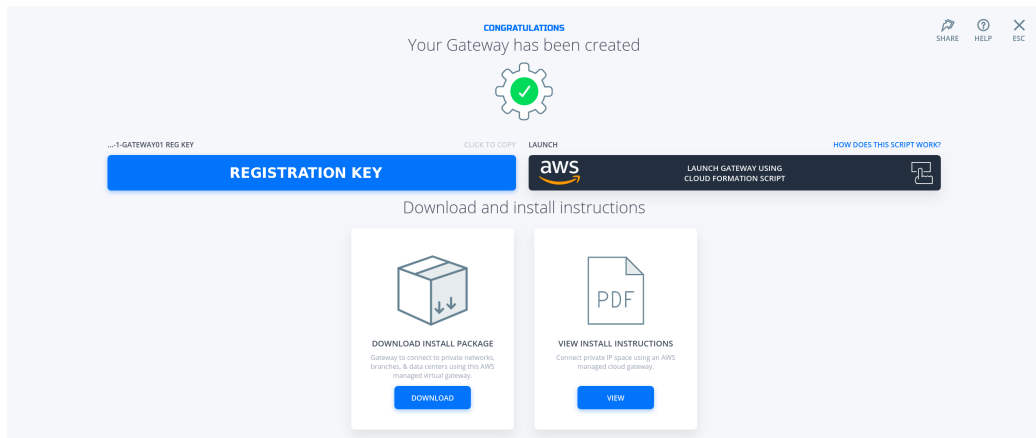




## Note

If this is the first time you've ever launched an AWS NetFoundry Gateway You must accept the AWS license before launching the gateway, please click here: [AWS Marketplace](#)

5. Click on "Launch Gateway Using CloudFormation Script". It will take you to the AWS console, if you're not already logged in it will ask you for your login credentials.



6. You will be presented with the template parameters that needs to be filled.

**CloudFormation** X

Stacks  
StackSets  
Exports  
Designer  
▼ CloudFormation registry  
Resource types  
Previous console  
Feedback

CloudFormation > Stacks > Create stack

### Quick create stack

**Template**

Template URL  
https://netfoundry-aws-quickstart.s3.amazonaws.com/production/nf-gw-standalone.template

Stack description  
This template will automatically deploy a NetFoundry Gateway into your VPC.

**Stack name**

Stack name  
AWS-us-east-1-Gateway01  
Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

**Parameters**

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

**NetFoundry Parameters**  
Enter the NetFoundry Gateway Registration Key

**NetworkVersion**  
V6

**AWS Parameters**  
**VPCID**  
VPC in which the gateway & security group will be created in

**KeyName**  
Keypair to associate with instances

**InstanceType**  
Default is t2.micro  
t2.micro

**Subnetid**  
Choose the subnet

**SSHLocation**  
The IP address range that can be used to SSH to the EC2 instances  
0.0.0.0/0

Cancel Create change set Create stack

7. Fill in the AWS Parameters Section with you're VPC & ssh keyname & Click Create Stack.

8. If the NF Gateway was deployed successfully. Here is the view of the NF Conole UI.

**MANAGE GATEWAYS**

Manage Gateways Manage Clients Manage Azure Virtual WAN Sites Manage Endpoint Groups

Type to Filter 1-1 of 1

Gateway Label	Status	Type	Location	Cloud Provider
AWS-us-east-1-Gateway01	Registering	AWS Private Gateway	N. Virginia	aws

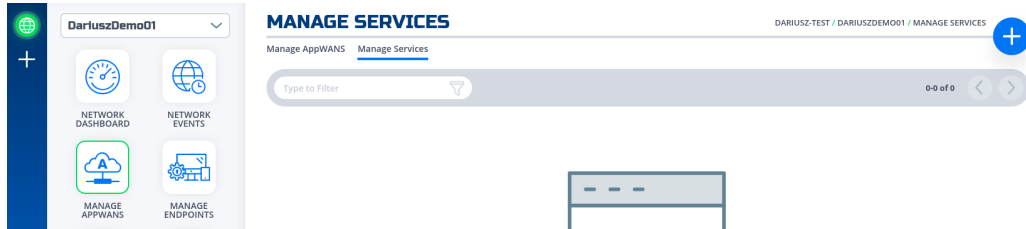
9. Done

## Create IP Network Service

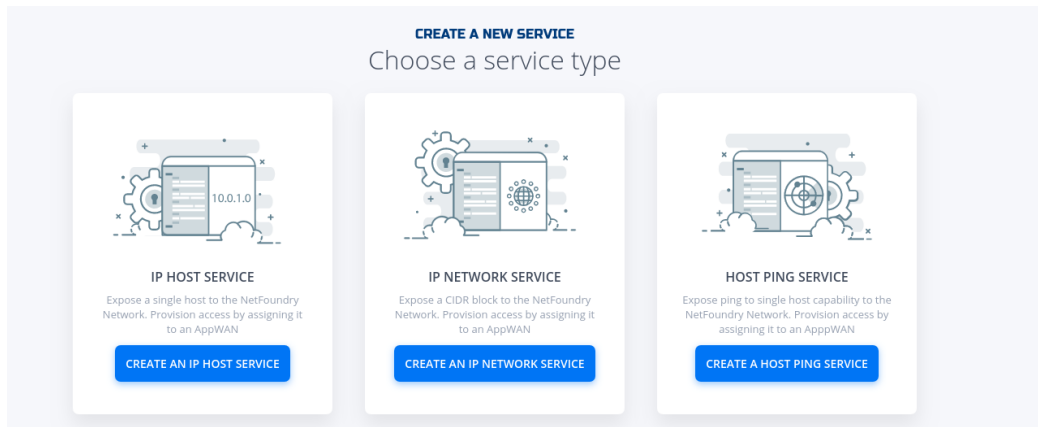
This section will guide a user through the steps on how to create a NF Service.



1. Navigate to Manage Services Page under Manage Appwans
2. Click on + sign in the top right corner.



3. Click on "Create an IP Network Service"



4. Fill in the required information for the Network your wanting to access.

CREATE A NEW IP NETWORK SERVICE

Enter your service attributes

SERVICE NAMEREQUIRED

access-to-10.0.0.0/24

GATEWAYREQUIRED

AWS-us-east-1-Gateway01

NETWORK ADDRESSREQUIRED

10.0.0.0/24

INTERCEPT ADDRESS

10.0.0.0/24

PORT INTERCEPT MODEREQUIRED

Specific Ports

SPECIFY INTERCEPT PORTS AND RANGESREQUIRED

22

SPECIFY EXCLUDED INTERCEPT PORTS AND RANGESREQUIRED

Example: 1271, 1800-1871

ADVANCED OPTIONSOOPEN TO EDIT DETAILS

ADVANCED OPTIONS

CREATE



Important

Please make sure the service you want to access is behind the gateway you specify here.

5. If successfully, the service is green.

+

Network Dashboard

Network Events

Manage AppWans

Manage Endpoints

Demo01

MANAGE SERVICES

Manage AppWANSManage Services

Type to Filter

1-1 of 1

Service Name	Type	Protocol	IP Address	Intercept IP	Port Range
DemoServiceSsh	IP Host	TCP	10.0.8.5	10.0.8.5	22 - 22



## Create AppWan

This section will guide a user through the steps on how to enable service connectivity to users by creating an appwan.



## Console UI

1. Navigate to Manage AppWANS Page under Manage Appwans
2. Click on + sign in the top right corner.



3. Click on "Component Builder Appwan"



4. Move the desired client (e.g. DemoClient01) from "Available" Clients to "Selected" Endpoints. Move the desired service (e.g. DemoServiceSsh) from "Available" to "Selected"

Services.

CREATE A NEW APPWAN

Choose from existing components, or add new ones

1

APPWAN NAME

REQUIRED

DemoAppWan

2

ADD CLIENTS, GATEWAYS, OR ENDPOINT GROUPS

Search for Endpoints

AVAILABLE GROUPS

ADD NEW +

AVAILABLE CLIENTS

ADD NEW +

AVAILABLE GATEWAYS

ADD NEW +

AzureDemo01

SELECTED ENDPOINTS

DemoClient01

3

ADD SERVICES

Search for a Service

AVAILABLE SERVICES

ADD NEW +

SELECTED SERVICES

DemoServiceSsh

CREATE

5. Click on "Create".

### YOUR APPWAN SUMMARY

Your AppWAN has been created! A network summary is below.

What's next? Finish connecting your network by registering new clients and gateways.

HINT

NEW CLIENTS

Share Client Registration Info

HINT

NEW GATEWAYS

Tap to Launch and Register

1

APPWAN NAME

DemoAppWan

2

ENDPOINTS

CLIENTS

SHARE NEW CLIENTS

DemoClient01

GATEWAYS

REGISTER NEW GATEWAYS

3

SERVICES

SERVICE DEFINITIONS

DemoServiceSsh

4

ENDPOINT GROUPS

GROUPS

Want to add another environment with the same services or endpoints?

TAP TO CLONE

6. Done