

# Bastion Replacement Removal

## Overview

### What is a Bastion Host?

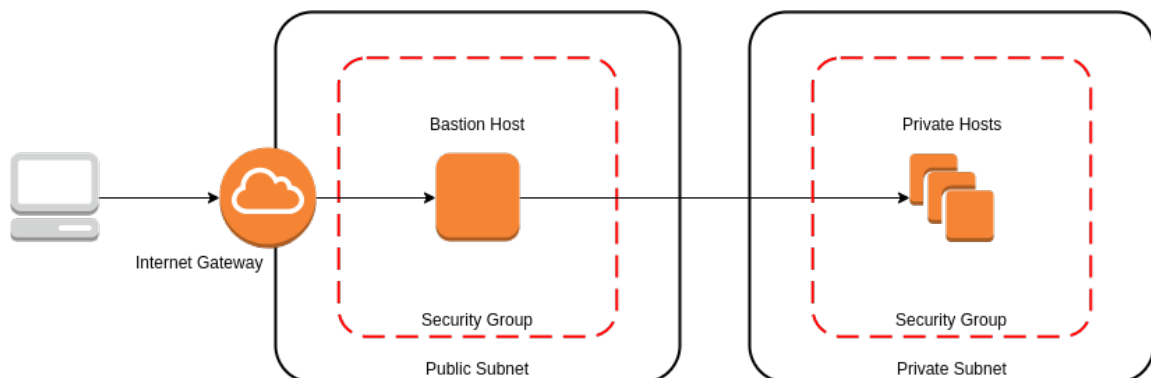
A bastion host is a server whose purpose is to provide access to a private network from an external network, such as the Internet. Because of its exposure to potential attack, it's important to lock this down as tightly as possible.

### 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.

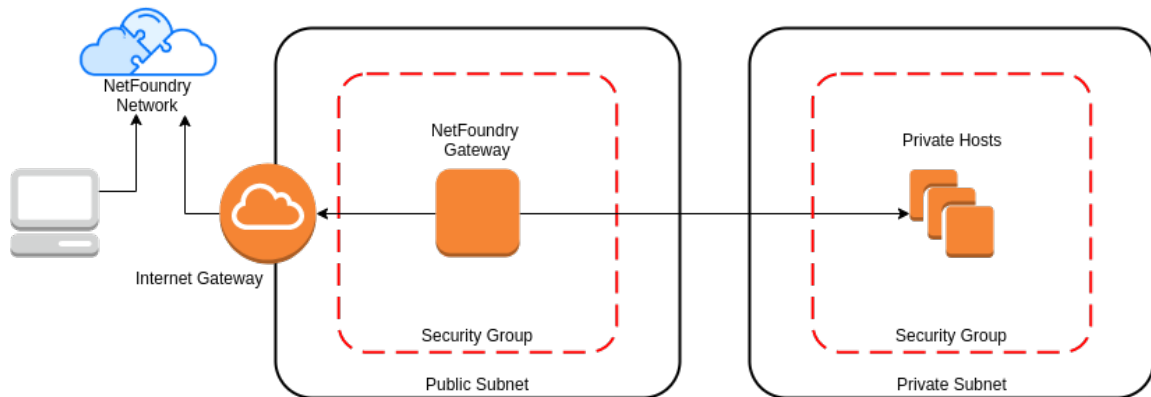
## Solution Architecture

### Standard Bastion Setup

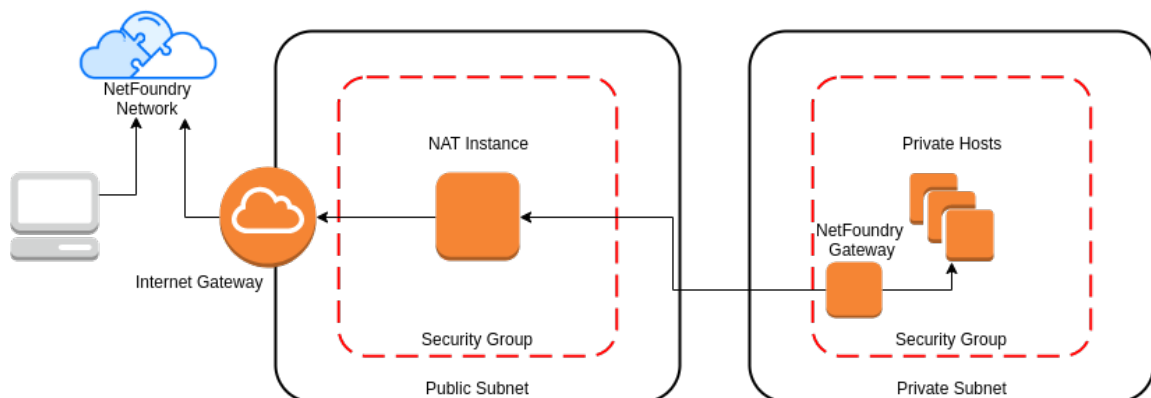


# Netfoundry

## 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.

E242

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 Deploy NF Azure 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 the Azure vNet.

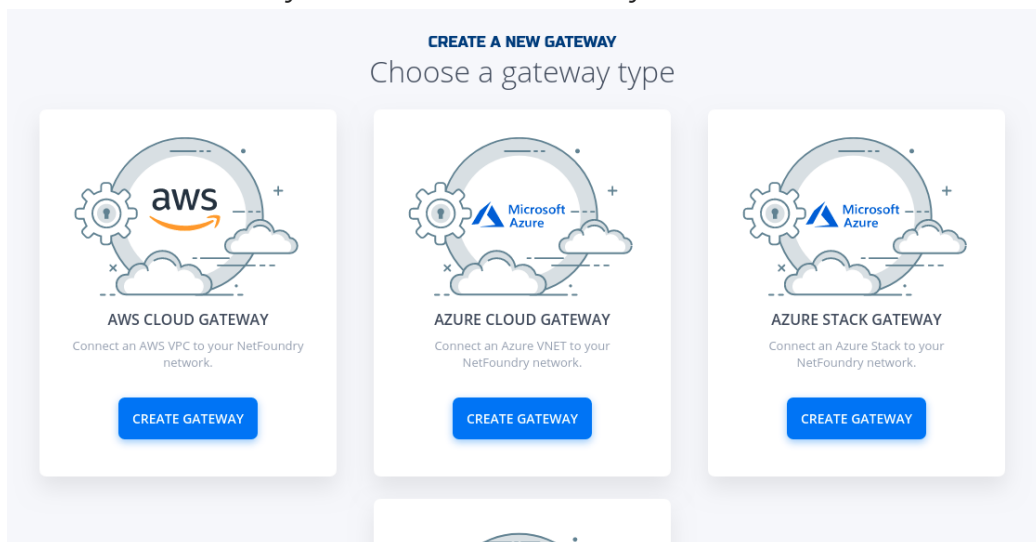


## Console UI

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

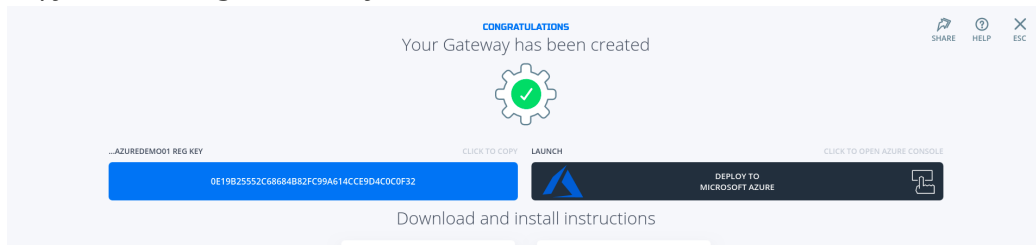


3. Click on "Create Gateway" on the Azure Cloud Gateway Card



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

5. Copy the Client Registration Key



6. Click on "Deploy to Microsoft Azure". It will take you to the Azure Portal and ask you for your login credentials.

7. You will be presented with the template that needs to be filled. The first section is the Basics regarding your Subscription and Resource Group this gateway will be deployed in.

#### BASICS

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| Subscription *   | <input type="text" value="Your Subscription Name"/>                                 |
| Resource group * | <input type="text" value="Your Resource Group Name"/><br><a href="#">Create new</a> |
| Location *       | <input type="text" value="(US) East US"/>                                           |

8. The second section related to resources associated with this gateway. e.g. vm name, ip address space, security groups, etc. you will paste the registration key copied in step 5. You will also need the public ssh key to use for access to this gateway remotely.

#### SETTINGS

|                        |                                                                                                    |
|------------------------|----------------------------------------------------------------------------------------------------|
| Location               | <input type="text" value="Your Region"/>                                                           |
| Network Interface Name | <input type="text" value="azuredemo01-if"/>                                                        |
| Security Group Name    | <input type="text" value="azuredemo01-sg"/>                                                        |
| Virtual Network Name   | <input type="text" value="azuredemo01-vnet"/>                                                      |
| Address Prefix         | <input type="text" value="10.0.8.0/24"/>                                                           |
| Subnet Name            | <input type="text" value="default"/>                                                               |
| Subnet Prefix          | <input type="text" value="10.0.8.0/24"/>                                                           |
| Public Ip Address Name | <input type="text" value="azuredemo01-ip"/>                                                        |
| Public Ip Address Type | <input type="text" value="Dynamic"/>                                                               |
| Public Ip Address Sku  | <input type="text" value="Basic"/>                                                                 |
| Virtual Machine Name   | <input type="text" value="azuredemo01"/> ✓                                                         |
| Virtual Machine RG     | <input type="text" value="nf-sandbox"/>                                                            |
| Os Disk Type           | <input type="text" value="Premium_LRS"/>                                                           |
| Virtual Machine Size   | <input type="text" value="Standard_B1ms"/>                                                         |
| Nfreg Key * ⓘ          | <input type="text" value="....."/> ✓                                                               |
| Admin Username ⓘ       | <input type="text" value="nfadmin"/>                                                               |
| Ssh Key Data * ⓘ       | <input type="text" value="ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQJCjga67wcoISXaD1bswknLrejRYtZ..."/> ✓ |

9. You will need to agree to Azure Marketplace Terms and Conditions and click to "Purchase" to continue.

#### TERMS AND CONDITIONS

[Azure Marketplace Terms](#) | [Azure Marketplace](#)

By clicking "Purchase," I (a) agree to the applicable legal terms associated with the offering; (b) authorize Microsoft to charge or bill my current payment method for the fees associated the offering(s), including applicable taxes, with the same billing frequency as my Azure subscription, until I discontinue use of the offering(s); and (c) agree that, if the deployment involves 3rd party offerings, Microsoft may share my contact information and other details of such deployment with the publisher of that offering.

☒ I agree to the terms and conditions stated above

Purchase

10. If the NF Gateway was deployed successfully. Here is the view of the Resource Group and NF Console UI.

The screenshot displays the Azure portal interface for the 'nf-sandbox' resource group. The left sidebar shows navigation options like Overview, Activity log, Access control (IAM), Tags, Events, Settings, Quickstart, Deployments, Policies, Properties, and Locks. The main area shows the 'nf-sandbox' resource group details, including the subscription 'NefFoundry Non-Prod' and the subscription ID '8699c8d4-4d25-48fa-85ef-c9b299ba64f'. Below this, a table lists resources: 'azuredemo01' (Type: all), 'azuredemo01-if' (Network interface), 'azuredemo01-ip' (Public IP address), 'azuredemo01-sg' (Network security group), and 'azuredemo01-vnet' (Virtual network). A notification on the right states 'Deployment succeeded' for the 'Microsoft.Template' resource group 'nf-sandbox'.

The bottom section shows the 'MANAGE GATEWAYS' interface. It includes a search bar and a table with columns: Gateway Label, Status, Type, Location, and Cloud Provider. The table lists 'AzureDemo01' with a status of 'Online', type of 'Azure Private Gateway', and location of 'Your Region'.

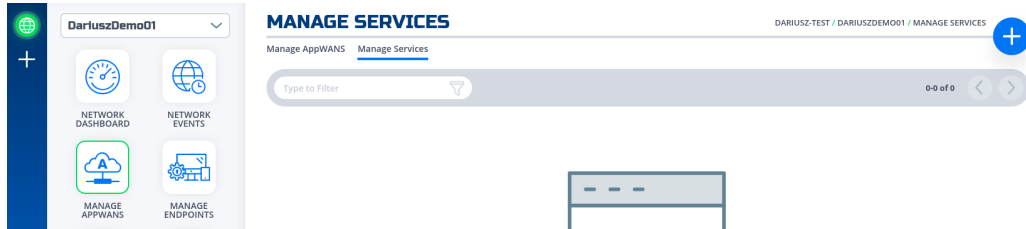
11. Done

## Create IP Network Service

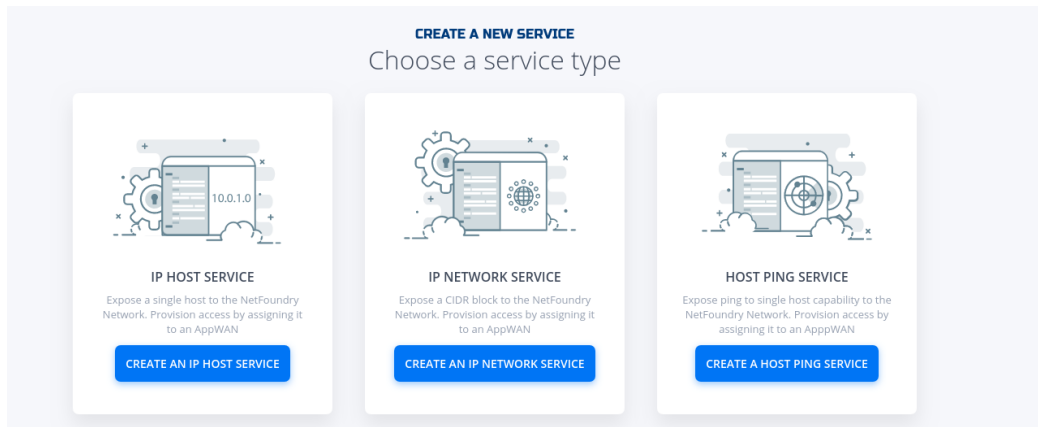
This section will guide a user through the steps on how to create a NF Service.



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

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