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.
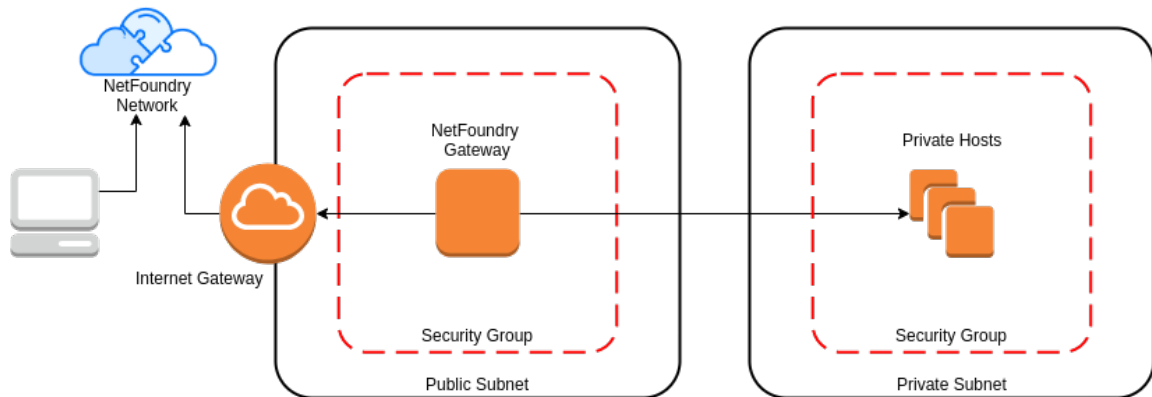
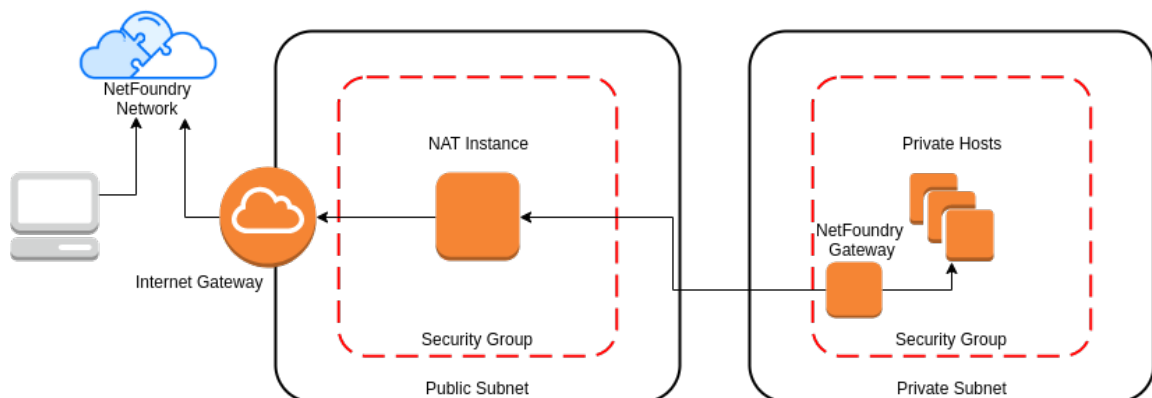## Solution Architecture

Standard Bastion Setup
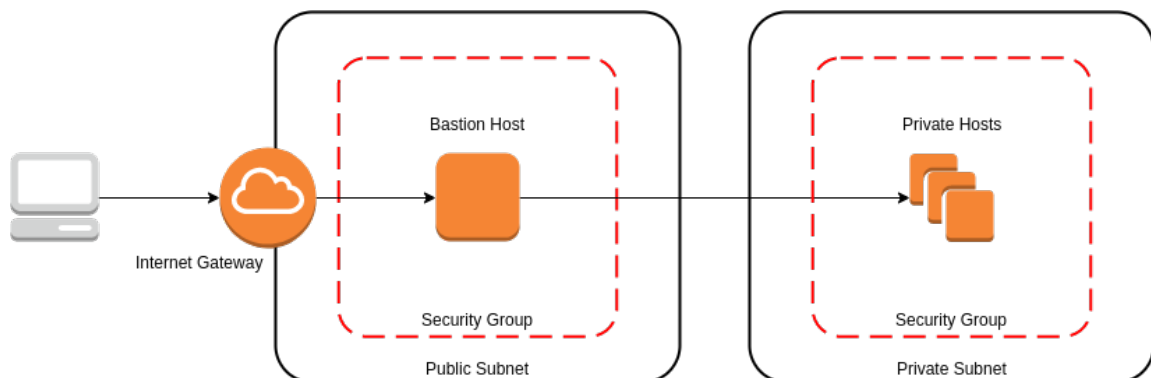
Netfoundry

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

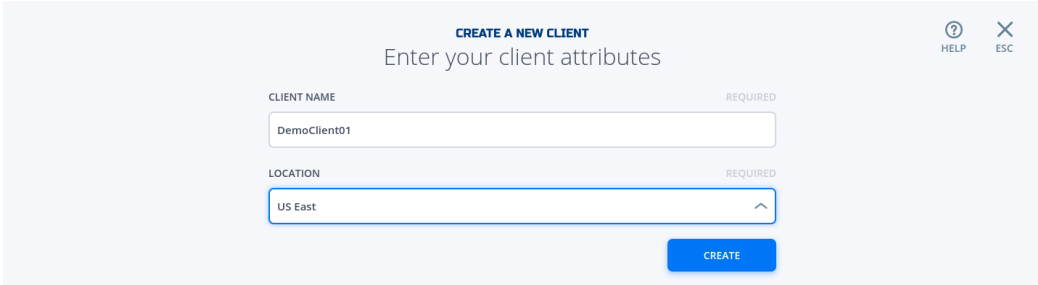NetFoundry Client Software for Windows and MAC Clients, including the registration with the NF Network Fabric.

Console UI

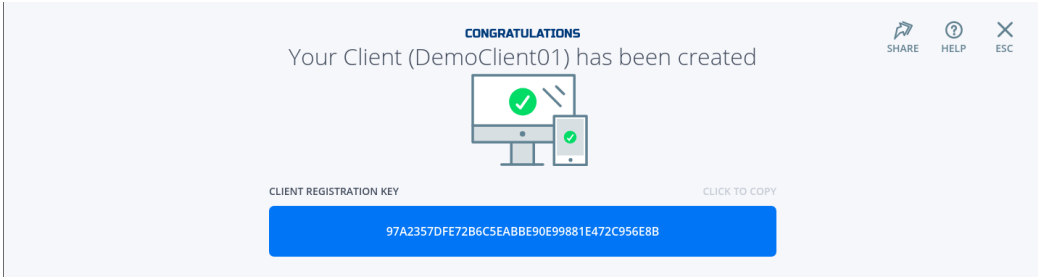1. Navigate to Manage Clients Page

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

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

4. Copy the Client Registration Key

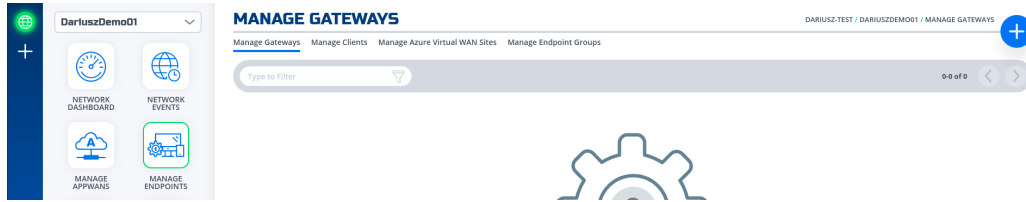5. Install the NF Client Software by following the directions at the appropriate OS link

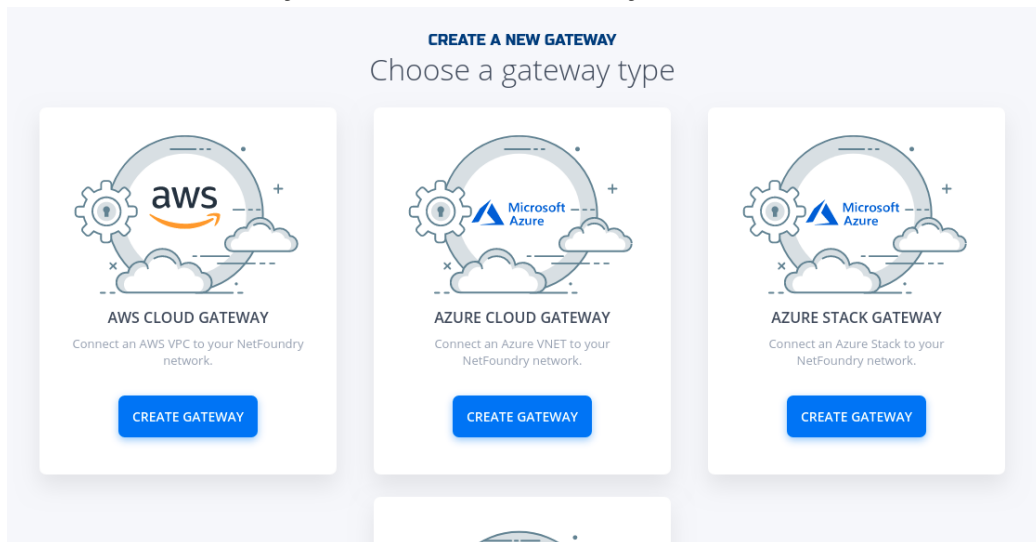   a. Window

   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.
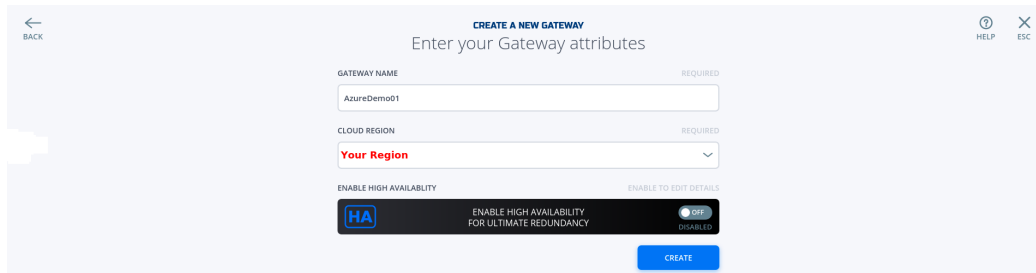
Console UI

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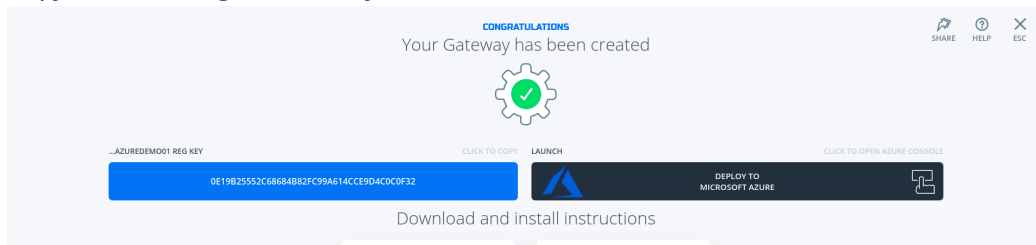
2. Click on + sign in the top right corner.

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 *	Your Subscription Name
Resource group *	Your Resource Group Name
	Create new
Location *	(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	Your Region
Network Interface Name	azuredemo01-if
Security Group Name	azuredemo01-sg
Virtual Network Name	azuredemo01-vnet
Address Prefix	10.0.8.0/24
Subnet Name	default
Subnet Prefix	10.0.8.0/24
Public Ip Address Name	azuredemo01-ip
Public Ip Address Type	Dynamic
Public Ip Address Sku	Basic
Virtual Machine Name	azuredemo01
Virtual Machine RG	nf-sandbox
Os Disk Type	Premium_LRS
Virtual Machine Size	Standard_B1ms
Nfreg Key * ⓘ	....
Admin Username ⓘ	nfadmin
Ssh Key Data * ⓘ	ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQCjga67wcolSXaD1bswknLrejRYtZ...

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

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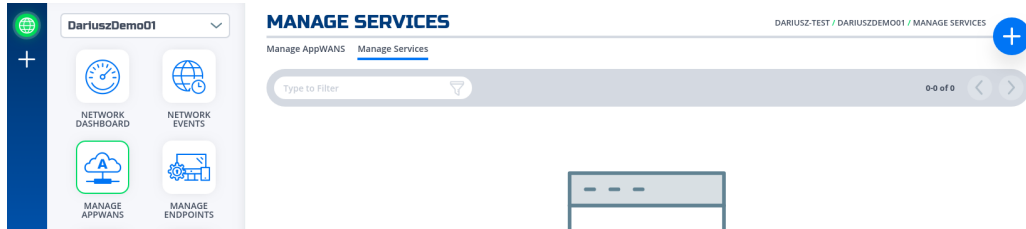

11. Done
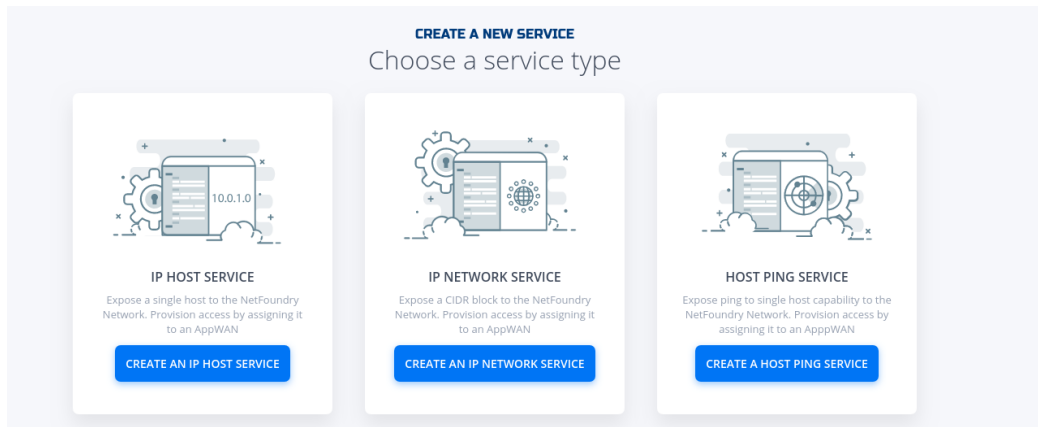
Create IP Network Service

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

Console UI

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 NAME   REQUIRED

access-to-10.0.0.0/24

GATEWAY   REQUIRED

AWS-us-east-1-Gateway01   ⌄

NETWORK ADDRESS   REQUIRED

10.0.0.0/24

INTERCEPT ADDRESS

10.0.0.0/24

PORT INTERCEPT MODE   REQUIRED

Specific Ports   ⌄

SPECIFY INTERCEPT PORTS AND RANGES   REQUIRED

22

SPECIFY EXCLUDED INTERCEPT PORTS AND RANGES   REQUIRED

Example: 1271, 1800-1871

ADVANCED OPTIONS   OPEN TO EDIT DETAILS

ADVANCED OPTIONS   ⌄

CREATE

🗒 **Important**

Please make sure the service you want to access is behind the gateway you specify here.
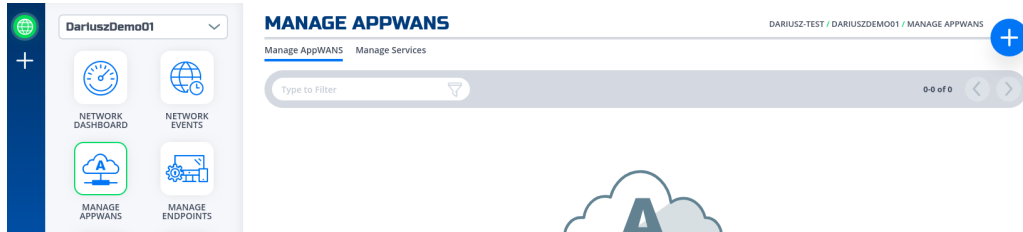
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5. If successfully, the service is green.
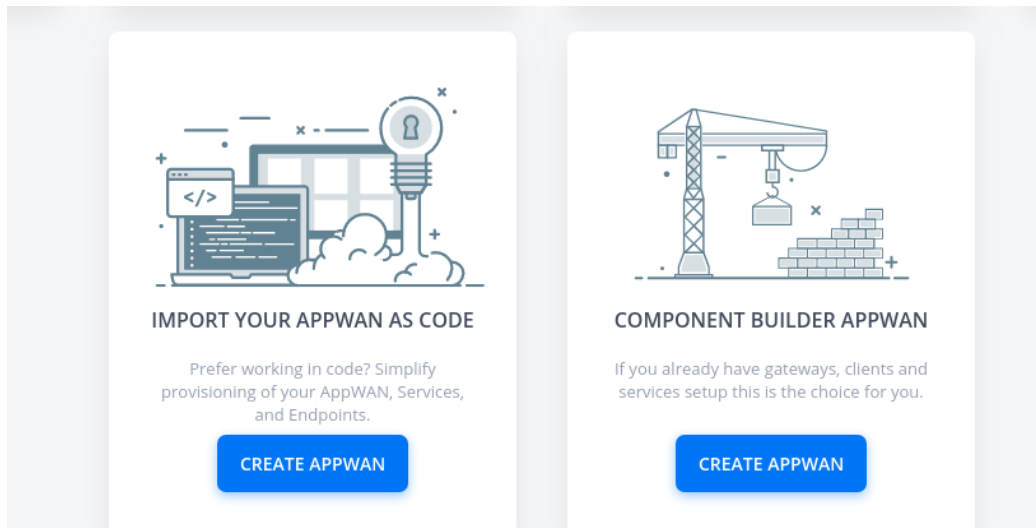
> 6. Done

Create AppWan

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

1. Navigate to Manage AppWANS Page under Manage Appwans

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

3. Click on "Component Builder Appwan"

IMPORT YOUR APPWAN AS CODE

Prefer working in code? Simplify
provisioning of your AppWAN, Services,
and Endpoints.

CREATE APPWAN

COMPONENT BUILDER APPWAN

If you already have gateways, clients and
services setup this is the choice for you.

CREATE 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 ⊕   SELECTED ENDPOINTS

● DemoClient01

AVAILABLE CLIENTS   ADD NEW ⊕

←
→

AVAILABLE GATEWAYS   ADD NEW ⊕

● AzureDemo01

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