Mobile User To Cloud Application Connectivity

Overview

This quickstart guide will provide all the steps to create a secure service between a remote user and an application hosted in Azure Cloud using NetFoundry Overlay Fabric (NFOF).

E Important

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

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		
 Navigate to Manage Clien Image determined Image determine	right corner.	
	CREATE A NEW CLIENT Enter your client attributes moclient01 ATION REQUIRED East CREATE	() HELP ESC
4. Copy the Client Registrati	CONGRATULATIONS Your Client (DemoClient01) has been created NT REGISTRATION KEY CLICK TO COPY	HARE HELP ESC
5. Install the NF Client Softw a. Window b. Mac	vare by following the directions at the appro	priate OS link

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.



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	\sim
	Your Resource Group Name	~
Resource group	Create new	,
Location *	(US) East US	\sim

 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 AAAAB3NzaC1yc2EAAAADAQABAAABAQCiga67wcolSXaD1bswknLreiRY	'tZ 🗸

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

Azure Marke	tplace Terms	Azure Marketpla	ce				Í
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Create IP Host Service

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

E2 Console UI	
1. Navigate to Manage Services Page under Ma	nage Appwans
2. Click on + sign in the top right corner.	
DarluszDemo01 Manage SERVICES Manage AppWANS Manage Services	DARIUSZ-TEST / DARIUSZDEMOOI / MANAGE SERVICES
NETWORK NETWORK	0.0010 🔇 义
DASHBOARD EVENTS	
MANAGE APPWANS ENDPOINTS	
3. Click on "Create an IP Host Service"	
create a new Choose a ser	service vice type
IP HOST SERVICE IP NETWORK S Expose a single host to the NetFoundry Expose a CIDR block to t	ERVICE HOST PING SERVICE he NetFoundry Expose ping to single host capability to the
Network. Provision access by assigning it Network. Provision acces to an AppWAN to an AppWAN to an AppWAN to an AppWA	s by assigning it NetFoundry Network. Provision access by AN assigning it to an ApppWAN
4. Fill in the required information for SSH and c	lick on "Create"
CREATE A NEW	IP HOST SERVICE
Enter your se	rvice attributes
SERVICE NAME	REQUIRED
DemoServiceSsh	
GATEWAY	REQUIRED
AzureDemo01	~
IP ADDRESS REQUIRED	PORT/RANGE REQUIRED
10.0.8.5	22
INTERCEPT IP ADDRESS	INTERCEPT PORT/RANGE
10.0.8.5	22
PROTOCOL TYPE	REQUIRED
ТСР	^
ADVANCED OPTIONS	OPEN TO EDIT DETAILS
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	CREATE

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			Type to Filter	7				1-1 of 1
	NETWORK DASHBOARD	NETWORK EVENTS	Service Name	🗸 Туре	Protocol	IP Address	Intercept IP	Port Range
	MANAGE	MANAGE	DemoService5sh	IP Host	ТСР	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.



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"

	Choose from	m existing co	ogmo	nents, or add new ones	
1	APPWAN NAME			REQUIRED	
	DemoAppWan				
2	ADD CLIENTS, GATEW	AYS, OR ENDPOINT	GROUP	s	
	Search for Endpo	pints			
AVAILABLE GROUPS		ADD NEW 🕂		SELECTED ENDPOINTS	
				DemoClient01	
AVAILABLE CLIENTS		ADD NEW 🕂			
			\leftarrow		
			~		
AVAILABLE GATEWAY	/S	ADD NEW 🛨			
AzureDemo01					
3	ADD SERVICES				
	Search for a Serv	vice			
AVAILABLE SERVICES		ADD NEW 🛨		SELECTED SERVICES	
				DemoServiceSsh	
			←		
			\rightarrow		
					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.
NEW CLIENTS NEW GATEWAYS Share Client Registration Info 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

Test Connectivity to Application Server



Programmatically

via Python and Terraform

B Python Modules

For the code clarity, we have broken down the code into multiple Python modules

- 1. NF REST CRUD (Create,Read, Update and Delete) operations
- 2. Get MOP Session Token
- 3. Create NF Network
- 4. Create NF Gateway(s)
- 5. Create NF Service(s)
- 6. Create NF AppWan(s)
- 7. Wrapper Script to Create NF Resources based on Resource yaml file

Environment Setup Requirements

- ~/.env to store NF Credentials in (e.g. clientId, clientSecret) to obtain a session token for NF API
- 2. Export Azure Credentials (e.g, export ARM_TENANT_ID, ARM_CLIENT_ID, ARM_CLIENT_SECRET, ARM_SUBSCRIPTION_ID) to enable resource gateway creation in Azure Resource Group via Terraform.
- 3. Terraform and Python3 installed in path.

Additional Information:

- 1. The new Resource Group in Azure is created based on then name provided in Resource yml, if one does not exist already in the same region (e.g. centralus). The action delete gateway will delete the RG as well even if it was an existing RG. If one does not want to delete the RG, the command terraform state rm "{tf resource name for RG}" needs to be run before running the gateway delete step. This will ensure that the RG is not deleted.
- 2. A new vNet will be created and NF Gateway will be placed in it.
- 3. Environment means the NF Console Environment used (e.g. production), not Azure.

E2 42 Steps

- 1. Clone this repo (git clone https://github.com/netfoundry/mop.git)
- 2. Update Resource yaml file with the desired options to feed into the wrapper script as described in the following code snippet. All Resource.yml Options
- 3. Run this from the root folder to create GW in NF Console UI and Azure.

python3 quickstarts/docs/api/python/source/netfoundry/nf_resources.py --file quickstarts/docs/api/ python/etc/nf_resources.yml

Required Configuration Parameters for Gateway Creation

```
environment: production
network_action: get
network_name: DemoNet01
gateway_list:
- action: create
 cloud: azure
 count: 1
 names: []
 region: westus
 regionalCidr: [10.20.10.0/24]
 regkeys: []
 resourceGroup:
   name: demoPythonTerraform01
   region: centralus
  tag: TerraformDemo
terraform:
 bin: terraform
  output: 'no'
  source: ./quickstarts/docs/terraform
  work_dir: .
```

4. After the script is run successfully, one can see that the gateway name and registration key were saved in Resource.yml file. The name is created automatically based on region and gateway type joined with x and gateway count (AZCPEGW means an azure type gateway in NF console). One can create more than one gateway in the same region by increasing the count to more than 1.

```
environment: production
gateway_list:
- action: create
cloud: azure
count: 1
names:
- AZCPEGWx0xWESTUS
region: westus
regionalCidr:
- 10.20.10.0/24
regkeys:
- 21DB86724EC3F31C11C1C9D68CE5ECD6A06F057E
resourceGroup:
name: demoPythonTerraform01
```

region: centralus tag: TerraformDemo network_action: get network_name: DemoNet01 terraform: bin: terraform output: 'no' source: ./quickstarts/docs/terraform work_dir: .



5. Create a test server vm on the same vNet if not already present.



6. Update the Resoure.yaml file to include the Service option to create the NF service on the gateway create in the previous step. Don't forget to change the action on the gateway to "get".

environment: production
gateway_list:
- action: get
cloud: azure
count: 1
names:
- AZCPEGWx0xWESTUS
region: westus
regionalCidr:
- 10.20.10.0/24
regkeys:
- 21DB86724EC3F31C11C1C9D68CE5ECD6A06F057E
resourceGroup:
name: demoPythonTerraform01

```
region: centralus
 tag: TerraformDemo
network_action: get
network_name: DemoNet01
terraform:
 bin: terraform
 output: 'no'
 source: ./quickstarts/docs/terraform
 work_dir: .
services:
- action: create
 gateway: AZCPEGWx0xWESTUS
 ip: 10.20.10.5
 port: 22
 name:
 type: host
```

7. After the script run again successfully, the service section should have been populated with the service name as so.

services:						
- action: create						
gateway: AZCPEGWx0	XWESTUS					
ip: 10.20.10.5						
name: AZCPEGWx0xWE	STUS10.20.10.5-	-22				
port: 22						
type: host						
MANAGE SERVICES					/ MANAGE SERVIO	ies
Manage AppWANS Manage Services						•
Type to Filter					1-1 of 1	$\langle \rangle \rangle$
Type to Filter	√ Туре	Protocol	IP Address	Intercept IP	1-1 of 1 Port Range	$\langle \rangle$
Type to Filter Type to Filter Service Name	V Type	Protocol	IP Address 10.20.10.5	Intercept IP 10.20.10.5	1-1 of 1 Port Range 22 - 22	
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	P Host	Protocol TCP ady done so	1P Address 10.20.10.5 D.	Intercept IP	1-1 of 1 Port Range 22 - 22 / / MANAGE CLIENTS	····
Type to Filter Type to Filter	V Type IP Host Dooint if not alree ge Azure Virtual WAN Sites Manage	Protocol TCP ady done so	IP Address 1020.10.5	Intercept IP	1-1 of 1 Port Range 22 - 22 / / MANAGE CLIENTS 1-1 of 1	····

9. Update the Resoure.yaml file to include the AppWan option to create the NF AppWan tying the gateway, client and service created in the previous steps. Don't forget to change the action on the service option to "get".

US East

WIN64

3.6.6.11077

...

Online

```
environment: production
gateway_list:
- action: get
cloud: azure
count: 1
names:
- AZCPEGWX0XWESTUS
region: westus
regionalCidr:
- 10.20.10.0/24
regkeys:
```

8.

DemoClient01

```
- 21DB86724EC3F31C11C1C9D68CE5ECD6A06F057E
  resourceGroup:
   name: demoPythonTerraform01
    region: centralus
 tag: TerraformDemo
network_action: get
network_name: DemoNet01
services:
 - action: get
  gateway: AZCPEGWx0xWESTUS
  ip: 10.20.10.5
  name: AZCPEGWx0xWESTUS--10.20.10.5--22
  port: 22
  type: host
terraform:
  bin: terraform
  output: 'no'
 source: ./quickstarts/docs/terraform
 work_dir: .
appwans:
 - action: create
 endpoints:
  - BranchGatewayName
  - ClientName
  name: appwan-ssh-22
  services:
  - AZCPEGWx0xWESTUS--10.20.10.5--22
```

). After the script ran again successfully, the connectivity should have been up.
YOUR APPWAN SUMMARY Your AppWAN's details are below. Looking to make some changes? Follow the hints below to edit your AppWAN, Endpoints, and or Services.
EDIT YOUR APPWAN Tap the Edit icon to make changes
1 APPWAN NAME appwan-ssh-22 💋
2 ENDPOINTS
 ClientName
GATEWAYS
BRANCHGATEWAYNAME
3 SERVICES SERVICE DEFINITIONS AZCPEGWx0xWESTUS10.20.10.5-22 [↑]
4 ENDPOINT GROUPS GROUPS
Want to add another environment with the same services or endpoints?

11. To test connectivity, log in to the DemoClinet01 and run ssh "username"@"privatelp"

•						-		×
		Status	Services	Proxies	Diagno	ostics		
This computer is protected	There are	currently active	Connect ne	twork sessi	ions.			
NFN enabled ON	Status	De	escription			Туре	IP Addre	ss
	b5cfd82	7-200a-43f1-9c2c	eebed5e55c22		C	/S	10.20.10	.5
Remove tray icon								
This computer is registered as								
≿ dariusz@DemoTestServer01: ~						_		_
S C:/USERS/Dariusz Siiwinski> SSN dari	usz@10.20.10.5							
<pre>S Cf (OSEPS/OBF1012 2.11W15K1) Saft dari elcome to Ubuntu 18.04.3 LTS (GNU/Linu * Documentation: https://help.ubuntu. * Management: https://landscape.ca * Support: https://ubuntu.com/a System information as of Mon Dec 16 1 System load: 0.19 Proce Usage of /: 4.1% of 28.906B Users Memory usage: 17% IP ac Swap usage: 0%</pre>	US2010.20.10.5 x 5.0.0-1027-az com nonical.com dvantage 7:24:59 UTC 201 sses: logged in: dress for eth0:	ure x86_64) 9 107 0 10.20.10.5						
<pre>S C:(OSEPS(VarLUS2 SITMINSKI) San darl slcome to Ubuntu 18.04.3 LTS (GNU/Linu * Documentation: https://help.ubuntu. * Management: https://landscape.ca * Support: https://ubuntu.com/a System information as of Mon Dec 16 1 System load: 0.19 Proce Usage of /: 4.1% of 28.90GB Users Memory usage: 17% IP ad Swap usage: 0% packages can be updated. updates are security updates.</pre>	US2240.20.10.5 x 5.0.0-1027-az com nonical.com dvantage 7:24:59 UTC 201 sses: logged in: dress for eth0:	ure x86_64) 9 107 0 10.20.10.5						
<pre>s cr(users(Uar)us2 slimitsk1> ssh uar) elcome to Ubuntu 18.04.3 LTS (GNU/Linu * Management: https://help.ubuntu. * Management: https://ubuntu.com/a System information as of Mon Dec 16 1 System load: 0.19 Proce Usage of /: 4.1% of 28.906B Users Memory usage: 17% IP ac Swap usage: 0% packages can be updated. updates are security updates. ast login: Mon Dec 16 17:24:31 2019 fr o run a command as administrator (user e "man sudo_root" for details.</pre>	usigua.de.de.lo.3 x 5.0.0-1027-az com nonical.com dvantage 7:24:59 UTC 201 sses: logged in: dress for eth0: om 10.20.10.4 "root"), use "	ure x86_64) 9 107 0.20.10.5 sudo <command?< td=""><td>.".</td><td></td><td></td><td></td><td></td><td></td></command?<>	." .					

12. To delete resources created, just follow the reverse order. Change the action to delete for AppWans first, then other resources as indicated in the code snippets.

appwans:
- action: delete
endpoints:
- BranchGatewayName
- ClientName
name: null
services:
- AZCPEGWx0xWESTUS10.20.10.522

13. Services

```
services:
- action: delete
gateway: AZCPEGWX0xWESTUS
ip: 10.20.10.5
name: null
port: 22
type: host
```

14. Endpoints - will delete all resources in Azure as well.

a. terraform state rm "{tf resource name for RG}" // run this before the python script if Resource Group needs to be preserved 1.



via Jenkins

In this section, we will use Resource yaml along with Jenkinsfile to show how to automate the steps further by creating the Jenkins Job

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).

$\leftarrow \rightarrow \mathbf{C}$ (i) localhost:8080		⊕ ☆		
🛞 Jenkins	🔍 search	(?)	Jenkins Admin	log out
Jenkins 🕨			ENABLE AU	TO REFRESH
🕋 New Item				
Reople				
Build History				
참 Manage Jenkins				
鵗 My Views				
🝚 Open Blue Ocean				
🕋 Credentials				
📎 Lockable Resources				
New View				
Build Queue				-
No builds in the queue.				
Build Executor Status				-
1 Idle				
2 Idle				
			mbe s	description
Welcome to Jenking	el			<u></u>
	5:			
Please create new jobs to get start	ted.			

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.



- 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

efinition	Pipeline script from SCM	N	•	
	SCM	Git	•	0
		Repositories	Repository URL https://github.com/het/oundry/map.git	0
			Credentials • none • • • Add • Advanced Advanced	
		Branches to build	Branch Specifier (blank for 'any) */master Add Branch	•
		Repository browser	(Auto)	
		Additional Behaviours	Add •	
Script Path pipeline/hetfoundrydeploy2doud.jenkinsfile				0
	Lightweight checkout Pipeline Syntax			0

b. Script Path: pipeline/netfoundrydeploy2cloud.jenkinsfile

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

Jenkins > Credentials							
쯜 New Item							
🍓 People			Cre	edential	S		
Build History							
🎂 Manage Jenkins		т	Р	Store ↓	Domain	ID	
My Views				<u>Jenkins</u>	(global)	azure_user_creds	<u>164</u>
🔵 Open Blue Ocean				<u>Jenkins</u>	(global)	sandbox-mop-user	<u>Qj9</u>
📚 Lockable Resources		Icon:	<u>5 M L</u>				
Credentials		Stor	es so	coped to <u>J</u>	<u>lenkins</u>		
New View		Р		Stor	re ↓		
			<u>Jenkir</u>	IS		🔹 <u>(global)</u>	
Build Queue	-					Add crede	entials
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.

	, nearounarybeptoyzetouu/b	
enkins → NetFoundryDeploy2Cloud →		
Build with Parameters	AZURE_TENANT_ID	
Delete Pipeline		Tenant ID in Azure
Configure	AZURE_SUBSCRIPTION_ID	
Full Stage View		Subscription ID in Azure
Open Blue Ocean	RESOURCE_GROUP_NAME	
Rename		RG Name in Azure
Pipeline Syntax	RESOURCE_GROUP_LOC	centralus
		RG Location in Azure
Build History trend 4		Not to check this if RG can be deleted
🔊 Atom feed for all 🔝 Atom feed for failures	ENVIRONMENT	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	Name of NE Gateway generated in NE Console
	SERVICE_ACTION	get Selection an action to perform on the service in NF Network
	SERVICE_NAME	
		Name of NF Service generated in NF Console
	SERVICE_IP	
		IP of NF Service App
	SERVICE_PORT	
		IP of NF Service App
	APPWAN_ACTION	get Selection an action to perform on the appwan in NF Network
	APPWAN_NAME	
		Name of NF APPWAN to be used in NF Console
	APPWAN_PRIVATE_GATEWA	Y
		Endpoint Name in Private Datacenter Gateway to be included in AppWan
	APPWAN_PRIVATE_CLIENT	
		Endpoint Name for Client to be included in AppWan
	APPWAN_SERVICE	
		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)

|--|

Jenkins → NetFoundryDeploy2Cloud →		
Build with Parameters	AZURE_TENANT_ID	
🚫 Delete Pipeline		Tenant ID in Azure
🌺 Configure	AZURE_SUBSCRIPTION_ID	
Q Full Stage View		Subscription ID in Azure
Gen Blue Ocean	RESOURCE_GROUP_NAME	
Rename		RG Name in Azure
Pipeline Syntax	RESOURCE_GROUP_LOC	
		RG Location in Azure
Build History trend +		KEEP_RG Not to check this if RG can be deleted
🔊 Atom feed for all 🔊 Atom feed for failures	ENVIRONMENT	Select NF Console Environment to spin the network and gateways in
	NETWORK_ACTION	get Selection an action to perform on the network in NF
	NETWORK_NAME	DEMONET
	CATEWAY ACTION	Name to be used to create a network with
	GATEWAY_ACTION	Selection an action to perform on the gateway in NF Network
	GATEWAY_NAME	AZCPEGWx0xWESTUS
		Name of NF Gateway generated in NF Console
	SERVICE_ACTION	create Selection an action to perform on the service in NE Network
	SERVICE_NAME	AZCPEGWx0xWESTUS10.20.10.522
		Name of NF Service generated in NF Console
	SERVICE_IP	10.20.10.5
		IP of NF Service App
	SERVICE_PORT	22
		IP of NF Service App
	APPWAN_ACTION	create ▼ Selection an action to perform on the appwan in NF Network
	APPWAN_NAME	appwan-ssh-22
		Name of NF APPWAN to be used in NF Console
	APPWAN_PRIVATE_GATEWA	Y private-gateway-name
		Endpoint Name in Private Datacenter Gateway to be included in AppWan
	APPWAN_PRIVATE_CLIENT	client-name
		Endpoint Name for Client to be included in AppWan
	APPWAN_SERVICE	AZCPEGWx0xWESTUS10.20.10.522
	10017101	Service Name to be included in AppWan
	LOCATION	westus
		Azure Cloud DC Location where to deploy GW
	SUBNEI_PREFIX	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

Back to Dashboard	Pineline NetEo	undryDenloy2Cloud
👢 Status		anarybepioyzeioda
Changes	This build requires parameters:	
Build with Parameters	AZURE_TENANT_ID	
Delete Pipeline		Tenant ID in Azure
Sconfigure	AZURE_SUBSCRIPTION_ID	
👢 Full Stage View		Subscription ID in Azure
🖌 Open Blue Ocean	RESOURCE_GROUP_NAME	
Rename		RG Name in Azure
Pipeline Syntax	RESOURCE_GROUP_LOC	centralus
		RG Location in Azure
Build History trend 💠		Not to check this if RG can be deleted
S Atom feed for all S Atom feed for failure	S ENVIRONMENT	Salect NE Consele Environment to spin the network and gateways in
	NETWORK_ACTION	Gelete ▼ Selection an action to perform on the network in NF
	NETWORK_NAME	DEMONET
		Name to be used to create a network with
	GATEWAY_ACTION	delete Selection on the nateway in NE Network
	GATEWAY NAME	Section an action to perform on the gateway in the Network
	-	Name of NF Gateway generated in NF Console
	SERVICE_ACTION	get V Selection an action to perform on the service in NF Network
	SERVICE_NAME	
		Name of NF Service generated in NF Console
	SERVICE_IP	
		IP of NF Service App
	SERVICE_PORT	
		IP of NF Service App
	APPWAN_ACTION	get Selection an action to perform on the appwan in NF Network
	APPWAN_NAME	
		Name of NF APPWAN to be used in NF Console
	APPWAN_PRIVATE_GATEWA	Y
		Endpoint Name in Private Datacenter Gateway to be included in AppWan
	APPWAN_PRIVATE_CLIENT	
		Endpoint Name for Client to be included in AppWan
	APPWAN_SERVICE	
	10017101	Service Name to be included in AppWan
	LOCATION	westus
	OUDMET DOCEN	Azure Cloud DC Location where to deploy GW
	SUBNET_PREFIX	10.20.10.0/24