



# UPI ARM Sprint Demo

DEMO 3

[gwest@redhat.com](mailto:gwest@redhat.com)

Oct 25, 2019

# WIP

- ~~• Delete the Bootstrap Ignition after successful bootstrap~~
- ~~• Fix wildcard app load balancer - size 2~~
- Add azure cloud provider - size 3 – In Progresss – Pending Blocker
- Dns local or automation - size 2
- Work to support ci of azure arm upi - need help from someone who does ci
- Cleanup of scripts

# Cleanup bootstrap.ign after ignition

```
▼ 2 ■■■■ arm/deploy_azarm.sh ⓘ ...  
@@ -7,4 +7,6 @@ az group deployment create \  
7      7      openshift-install --dir=gw wait-for bootstrap-complete --log-level debug  
8      8      az vm stop --resource-group $1 --name bootstrap-0  
9      9      az vm deallocate --resource-group $1 --name bootstrap-0 --no-wait  
10     10     + ACCOUNT_KEY=$(az storage account keys list --account-name sa${1} --resource-group $1 --query "[0].value" -o tsv)  
11     11     + az storage blob delete --account-key $ACCOUNT_KEY --account-name sa${1} --container-name files --name bootstrap.ign  
10     12     openshift-install --dir=gw wait-for install-complete --log-level debug
```

# Changes to App/InfraLB

- Removed Wildcard Zone Parameter
- Removed references to Wildcard zone parameter
- Changed interface name to resourceGroup()App ie gswx1app
- Changed setup script to precreate the public IP for the InfraLB
- Added name of app loadbalancer to parameters for node creation
- In node template added the ip into the app loadbalancer

# Wildcard IP For Apps

Warning - every name in this file is ABSOLUTE!



\$ORIGIN .

gw.ncc9.com	3600	IN	SOA	ns1.ncc9.com	hostmaster.gw.ncc9.com	1	10800	3600	604800	3600
gw.ncc9.com	3600	IN	NS	ns1.ncc9.com						
_etcd-server-ssl._tcp.gw.ncc9.com	86400	IN	SRV	1	1	2380	bootstrap-0.gw.ncc9.com			
_etcd-server-ssl._tcp.gw.ncc9.com	86400	IN	SRV	1	1	2380	control-plane-0.gw.ncc9.com			
_etcd-server-ssl._tcp.gw.ncc9.com	86400	IN	SRV	1	1	2380	control-plane-1.gw.ncc9.com			
_etcd-server-ssl._tcp.gw.ncc9.com	86400	IN	SRV	1	1	2380	control-plane-2.gw.ncc9.com			
api.gw.ncc9.com	3600	IN	A	40.122.27.3						
api-int.gw.ncc9.com	3600	IN	A	10.0.0.63						
*.apps.gw.ncc9.com	100	IN	A	40.122.34.157						
bootstrap-0.gw.ncc9.com	86400	IN	A	10.0.0.4						
control-plane-0.gw.ncc9.com	86400	IN	A	10.0.0.5						
control-plane-1.gw.ncc9.com	86400	IN	A	10.0.0.6						
control-plane-2.gw.ncc9.com	86400	IN	A	10.0.0.7						
etcd-0.gw.ncc9.com	3600	IN	A	10.0.0.5						
etcd-1.gw.ncc9.com	3600	IN	A	10.0.0.6						
etcd-2.gw.ncc9.com	3600	IN	A	10.0.0.7						
ns1.gw.ncc9.com	3600	IN	A	147.75.111.55						



# AppLoad Balancer

27 items ☐ Show hidden types




<input type="checkbox"/> Name <small>↑↓</small>	Type <small>↑↓</small>	Location <small>↑↓</small>	
<input type="checkbox"/>  AppLbgswx1	Load balancer	Central US	...
<input type="checkbox"/>  bootstrap-0	Virtual machine	Central US	...
<input type="checkbox"/>  bootstrap-0nic	Network interface	Central US	...
<input type="checkbox"/>  bootstrap-0nsg	Network security group	Central US	...
<input type="checkbox"/>  gswx1	Public IP address	Central US	...
<input type="checkbox"/>  gswx1app	Public IP address	Central US	...
<input type="checkbox"/>  gswx1intlb	Load balancer	Central US	...
<input type="checkbox"/>  master1	Virtual machine	Central US	...
<input type="checkbox"/>  master1nic	Network interface	Central US	...
<input type="checkbox"/>  master1nsg	Network security group	Central US	...

# App Load Balancer Hosts

[Home](#) > [gswx1](#) > [AppLbgswx1 - Backend pools](#) > AppLoadBalancerBackEnd

## AppLoadBalancerBackEnd

AppLbgswx1

 Save  Discard  Delete

Backend pool name

AppLoadBalancerBackEnd

IP version




IPv4 IPv6

Associated to

[nodeavailabilityset \(availability set\)](#)

Target network IP configurations

Only VMs within the current availability set can be chosen. Once a VM is chosen, you can select a network IP configuration related to it.

Virtual machine: node03 Network IP configuration: node03nic/ipconfig1 (10.0.1.4)	
Virtual machine: node02 Network IP configuration: node02nic/ipconfig1 (10.0.1.5)	
Virtual machine: node01 Network IP configuration: node01nic/ipconfig1 (10.0.1.6)	
<div>+ Add a target network IP configuration</div>	

Associated load balancing rules

[OpenShiftRouterHTTP](#)

[OpenShiftRouterHTTPS](#)

# Minor Enhancements











- Updated readme.md to point to overview
- Make region a environment variable
- Change default region to Central US
- Change to use rhcos.vhd internally after copy of image
- Switch to use ga 4.2 rhcos image




# Cloud Provider

- Switch to use user-assigned identity
- Change the version for vm api version to 2018-06-01
- Add in to azsetup the creation of the userid
- Added in login in to service principle via osServicePrinciple.json

# Identity Created

Filter by name...			Type == all	Location == all	+ Add filter	No grouping	
Showing 1 to 28 of 28 records. <input type="checkbox"/> Show hidden types							
<input type="checkbox"/>	Name ↑↓		Type ↑↓		Location ↑↓		
<input type="checkbox"/>	 masteravai	Inbox (3,068) - glennswest@neuralcloudcomputing.com - Neuralcloudcomputing.com Mail	Availability set		Central US	...	
<input type="checkbox"/>	 nodeavailabilityset		Availability set		Central US	...	
<input type="checkbox"/>	 AppLbgswx1		Load balancer		Central US	...	
<input type="checkbox"/>	 MasterLbgswx1		Load balancer		Central US	...	
<input type="checkbox"/>	 gswx1intlb		Load balancer		Central US	...	
<input type="checkbox"/>	 gswx1_userid		Managed Identity		Central US	...	
<input type="checkbox"/>	 bootstrap-0nic		Network interface		Central US	...	
<input type="checkbox"/>	 master1nic		Network interface		Central US	...	
<input type="checkbox"/>	 master2nic		Network interface		Central US	...	
<input type="checkbox"/>	 master3nic		Network interface		Central US	...	

# Identity Detail

**gswx1\_userid**  
Managed Identity

Search (Cmd+ /)

Overview

Activity log

Access control (IAM)

Tags

Settings

Properties

Locks

Export template

Delete

Resource group

[gswx1](#)

Location

Central US

Subscription

[OpenShift Team Installer](#)

Subscription ID

433715e6-37fe-4328-af75-3661e13b15fc

Type

User assigned managed identity

Client ID

6629fc78-0609-41cc-a511-caeeb73b8af

Object ID

a8dea85e-c7dd-48ba-a7d3-23dbe0a19979

# Demo

- 4.2 GA Code
- Azure Cloud Provider WIP
  - Identity Created
  - Service Principle Used
  - Manifests manually changed – Resource Group/identity related
  - Fixed Mentioned above

Glenns-MacBook-Pro-2:arm gwest\$ ./run.sh

Using resource group gswx1

INFO Consuming "Install Config" from target directory

Press [Enter] to start after manifests

INFO Consuming "Master Machines" from target directory

INFO Consuming "Worker Machines" from target directory

INFO Consuming "Openshift Manifests" from target directory

INFO Consuming "Common Manifests" from target directory

Delete old resource group

Create new resource group

```
{
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1",
  "location": "centralus",
  "managedBy": null,
  "name": "gswx1",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
{
  "clientId": "628d6dca-2e4e-4238-b507-4ac327b73982",
  "clientSecretUrl": "https://control-centralus.identity.azure.net/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.ManagedIdentity/userAssignedIdentities/gswx1_userid/credentials?tid=6047c7e9-b2ad-488d-a54e-dc3f6be6a7ee&oid=19f71499-ab4e-4c81-9aa0-36847d77300c&aid=628d6dca-2e4e-4238-b507-4ac327b73982",
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.ManagedIdentity/userAssignedIdentities/gswx1_userid",
  "location": "centralus",
  "name": "gswx1_userid",
  "principalId": "19f71499-ab4e-4c81-9aa0-36847d77300c",
  "resourceGroup": "gswx1",
  "tags": {},
  "tenantId": "6047c7e9-b2ad-488d-a54e-dc3f6be6a7ee",
  "type": "Microsoft.ManagedIdentity/userAssignedIdentities"
}
```

Copy RHCOS to resource group

The default kind for created storage account will change to 'StorageV2' from 'Storage' in future

```
{
  "accessTier": null,
  "azureFilesIdentityBasedAuthentication": null,
  "creationTime": "2019-10-25T15:28:47.995754+00:00",
  "customDomain": null,
  "enableHttpsTrafficOnly": true,
```

```
"encryption": {
  "keySource": "Microsoft.Storage",
  "keyVaultProperties": null,
  "services": {
    "blob": {
      "enabled": true,
      "lastEnabledTime": "2019-10-25T15:28:48.058223+00:00"
    },
    "file": {
      "enabled": true,
      "lastEnabledTime": "2019-10-25T15:28:48.058223+00:00"
    },
    "queue": null,
    "table": null
  }
},
"failoverInProgress": null,
"geoReplicationStats": null,
"id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
"identity": null,
"isHnsEnabled": null,
"kind": "Storage",
"lastGeoFailoverTime": null,
"location": "centralus",
"name": "sagswx1",
"networkRuleSet": {
  "bypass": "AzureServices",
  "defaultAction": "Allow",
  "ipRules": [],
  "virtualNetworkRules": []
},
"primaryEndpoints": {
  "blob": "https://sagswx1.blob.core.windows.net/",
  "dfs": null,
  "file": "https://sagswx1.file.core.windows.net/",
  "queue": "https://sagswx1.queue.core.windows.net/",
  "table": "https://sagswx1.table.core.windows.net/",
  "web": null
},
"primaryLocation": "centralus",
"provisioningState": "Succeeded",
"resourceGroup": "gswx1",
"secondaryEndpoints": null,
```

```
"secondaryLocation": null,
"sku": {
  "capabilities": null,
  "kind": null,
  "locations": null,
  "name": "Standard_LRS",
  "resourceType": null,
  "restrictions": null,
  "tier": "Standard"
},
"statusOfPrimary": "available",
"statusOfSecondary": null,
"tags": {},
"type": "Microsoft.Storage/storageAccounts"
}
{
  "created": true
}
{
  "completionTime": null,
  "id": "747e63cd-ccd8-431d-a567-719a4ad09a61",
  "progress": null,
  "source": null,
  "status": "pending",
  "statusDescription": null
}
Waiting on copy of vhd
unknown
Copy of vhd complete
Configure template with ignition files
{
  "created": true
}
Finished[#####] 100.0000%
{
  "etag": "\"0x8D75960AD85D35A\"",
  "lastModified": "2019-10-25T15:33:25+00:00"
}
Url: https://sagswx1.blob.core.windows.net/files/bootstrap.ign
{
  "publicIp": {
    "ddosSettings": null,
    "dnsSettings": null,
    "etag": "W/\"f37a7106-130d-4073-a400-80c3e8c7f660\"",
```



```
"id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/publicIPAddresses/gswx1",
  "idleTimeoutInMinutes": 4,
  "ipAddress": "168.61.212.171",
  "ipConfiguration": null,
  "ipTags": [],
  "location": "centralus",
  "name": "gswx1",
  "provisioningState": "Succeeded",
  "publicIpAddressVersion": "IPv4",
  "publicIpAllocationMethod": "Static",
  "publicIpPrefix": null,
  "resourceGroup": "gswx1",
  "resourceGuid": "3bf4bdec-5bc3-469e-bb4a-b43bb6f932a6",
  "sku": {
    "name": "Basic",
    "tier": "Regional"
  },
  "tags": null,
  "type": "Microsoft.Network/publicIPAddresses",
  "zones": null
}
}
{
  "publicIp": {
    "ddosSettings": null,
    "dnsSettings": null,
    "etag": "W/\"190a0136-3bbc-4d09-8b96-4693ae5384ed\"",
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/publicIPAddresses/gswx1app",
    "idleTimeoutInMinutes": 4,
    "ipAddress": "40.77.70.134",
    "ipConfiguration": null,
    "ipTags": [],
    "location": "centralus",
    "name": "gswx1app",
    "provisioningState": "Succeeded",
    "publicIpAddressVersion": "IPv4",
    "publicIpAllocationMethod": "Static",
    "publicIpPrefix": null,
    "resourceGroup": "gswx1",
    "resourceGuid": "7b178876-eb34-4145-af27-fff1bce50488",
    "sku": {
      "name": "Basic",
```

```

    name : "gw.ncc9.com",
    "tier": "Regional"
  },
  "tags": null,
  "type": "Microsoft.Network/publicIPAddresses",
  "zones": null
}
}
Press [Enter] to start deploy

```

Warning - every name in this file is ABSOLUTE!

```

$ORIGIN .
gw.ncc9.com      3600      IN      SOA      ns1.ncc9.com hostmaster.gw.ncc9.com 1 10800 3600 604800 3600
gw.ncc9.com      3600      IN      NS       ns1.ncc9.com
_etcd-server-ssl._tcp.gw.ncc9.com 86400      IN      SRV      1 1 2380 bootstrap-0.gw.ncc9.com
_etcd-server-ssl._tcp.gw.ncc9.com 86400      IN      SRV      1 1 2380 control-plane-0.gw.ncc9.com
_etcd-server-ssl._tcp.gw.ncc9.com 86400      IN      SRV      1 1 2380 control-plane-1.gw.ncc9.com
_etcd-server-ssl._tcp.gw.ncc9.com 86400      IN      SRV      1 1 2380 control-plane-2.gw.ncc9.com
api.gw.ncc9.com  3600      IN      A        168.61.212.171
api-int.gw.ncc9.com 3600      IN      A        10.0.0.63
*.apps.gw.ncc9.com 100       IN      A        40.77.70.134
bootstrap-0.gw.ncc9.com 86400     IN      A        10.0.0.4
control-plane-0.gw.ncc9.com 86400     IN      A        10.0.0.5
control-plane-1.gw.ncc9.com 86400     IN      A        10.0.0.6
control-plane-2.gw.ncc9.com 86400     IN      A        10.0.0.7
etcd-0.gw.ncc9.com 3600      IN      A        10.0.0.5
etcd-1.gw.ncc9.com 3600      IN      A        10.0.0.6
etcd-2.gw.ncc9.com 3600      IN      A        10.0.0.7
ns1.gw.ncc9.com  3600      IN      A        147.75.111.55
~

```

```

Start Deployment
{
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/gswx1",
  "location": null,
  "name": "gswx1",
  "properties": {
    "correlationId": "2d10ff30-0ae8-4253-b43f-9702d737bcd",
    "debugSetting": null,
    "dependencies": [
      {
        "dependsOn": [
          {
            "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
            "resourceGroup": "gswx1",
            "resourceName": "openshiftVnet",
            "resourceType": "Microsoft.Network/virtualNetworks"
          },
          {
            "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
            "resourceGroup": "gswx1",
            "resourceName": "sagswx1",
            "resourceType": "Microsoft.Storage/storageAccounts"
          }
        ],
        "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/bootstrap",
        "resourceGroup": "gswx1",
        "resourceName": "bootstrap",
        "resourceType": "Microsoft.Resources/deployments"
      },
      {
        "dependsOn": [
          {
            "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
            "resourceGroup": "gswx1",
            "resourceName": "openshiftVnet",
            "resourceType": "Microsoft.Network/virtualNetworks"
          },
          {
            "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/sto

```

```
    "resourceGroup": "gswx1",
    "resourceName": "sagswx1",
    "resourceType": "Microsoft.Storage/storageAccounts"
  },
  ],
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/master1",
  "resourceGroup": "gswx1",
  "resourceName": "master1",
  "resourceType": "Microsoft.Resources/deployments"
},
{
  "dependsOn": [
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
      "resourceGroup": "gswx1",
      "resourceName": "openshiftVnet",
      "resourceType": "Microsoft.Network/virtualNetworks"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
      "resourceGroup": "gswx1",
      "resourceName": "sagswx1",
      "resourceType": "Microsoft.Storage/storageAccounts"
    }
  ],
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/master2",
  "resourceGroup": "gswx1",
  "resourceName": "master2",
  "resourceType": "Microsoft.Resources/deployments"
},
{
  "dependsOn": [
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
      "resourceGroup": "gswx1",
      "resourceName": "openshiftVnet",
      "resourceType": "Microsoft.Network/virtualNetworks"
    }
  ],
}
```

```

    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/sto
rageAccounts/sagswx1",
      "resourceGroup": "gswx1",
      "resourceName": "sagswx1",
      "resourceType": "Microsoft.Storage/storageAccounts"
    }
  ],
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deplo
yments/master3",
  "resourceGroup": "gswx1",
  "resourceName": "master3",
  "resourceType": "Microsoft.Resources/deployments"
},
{
  "dependsOn": [
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/pub
licIPAddresses/gswx1",
      "resourceGroup": "gswx1",
      "resourceName": "gswx1",
      "resourceType": "Microsoft.Network/publicIPAddresses"
    }
  ],
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/loadBal
ancers/MasterLbgswx1",
  "resourceGroup": "gswx1",
  "resourceName": "MasterLbgswx1",
  "resourceType": "Microsoft.Network/loadBalancers"
},
{
  "dependsOn": [
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/pub
licIPAddresses/gswx1app",
      "resourceGroup": "gswx1",
      "resourceName": "gswx1app",
      "resourceType": "Microsoft.Network/publicIPAddresses"
    }
  ],
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/loadBal
ancers/AppLbgswx1",
  "resourceGroup": "gswx1",
  "resourceName": "AppLbgswx1",

```

```
    "resourceType": "Microsoft.Network/loadBalancers"
  },
  {
    "dependsOn": [
      {
        "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
        "resourceGroup": "gswx1",
        "resourceName": "openshiftVnet",
        "resourceType": "Microsoft.Network/virtualNetworks"
      }
    ],
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/loadBalancers/gswx1intlb",
    "resourceGroup": "gswx1",
    "resourceName": "gswx1intlb",
    "resourceType": "Microsoft.Network/loadBalancers"
  },
  {
    "dependsOn": [
      {
        "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
        "resourceGroup": "gswx1",
        "resourceName": "openshiftVnet",
        "resourceType": "Microsoft.Network/virtualNetworks"
      }
    ],
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
    "resourceGroup": "gswx1",
    "resourceName": "sagswx1",
    "resourceType": "Microsoft.Storage/storageAccounts"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/node0",
    "resourceGroup": "gswx1",
    "resourceName": "node0",
    "resourceType": "Microsoft.Resources/deployments"
  },
  {
    "dependsOn": [
      {
```

```
{
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
  "resourceGroup": "gswx1",
  "resourceName": "openshiftVnet",
  "resourceType": "Microsoft.Network/virtualNetworks"
},
{
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
  "resourceGroup": "gswx1",
  "resourceName": "sagswx1",
  "resourceType": "Microsoft.Storage/storageAccounts"
}
],
"dependsOn": [
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/node1",
  "resourceGroup": "gswx1",
  "resourceName": "node1",
  "resourceType": "Microsoft.Resources/deployments"
],
{
  "dependsOn": [
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
      "resourceGroup": "gswx1",
      "resourceName": "openshiftVnet",
      "resourceType": "Microsoft.Network/virtualNetworks"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
      "resourceGroup": "gswx1",
      "resourceName": "sagswx1",
      "resourceType": "Microsoft.Storage/storageAccounts"
    }
  ],
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Resources/deployments/node2",
  "resourceGroup": "gswx1",
  "resourceName": "node2",
  "resourceType": "Microsoft.Resources/deployments"
}
}
```



```
],
  "duration": "PT4M20.4291407S",
  "mode": "Incremental",
  "onErrorDeployment": null,
  "outputResources": [
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/availabilitySets/masteravailabilityset",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/availabilitySets/nodeavailabilityset",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtualMachines/bootstrap-0",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtualMachines/master1",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtualMachines/master2",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtualMachines/master3",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtualMachines/node01",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtualMachines/node02",
      "resourceGroup": "gswx1"
    }
  ]
}
```

```
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Compute/virtual
Machines/node03",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/loadBal
ancers/AplLbgswx1",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/loadBal
ancers/gswx1intlb",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/loadBal
ancers/MasterLbgswx1",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/network
Interfaces/bootstrap-0nic",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/network
Interfaces/master1nic",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/network
Interfaces/master2nic",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/network
Interfaces/master3nic",
      "resourceGroup": "gswx1"
    },
    {
      "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/network
Interfaces/node01nic",
```



















```
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/networkInterfaces/node02nic",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/networkInterfaces/node03nic",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/networkSecurityGroups/bootstrap-0nsg",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/networkSecurityGroups/master1nsg",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/networkSecurityGroups/master2nsg",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/networkSecurityGroups/master3nsg",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/publicIPAddresses/gswx1",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/publicIPAddresses/gswx1app",
    "resourceGroup": "gswx1"
  },
  {
    "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtual
```



















```
{
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Network/virtualNetworks/openshiftVnet",
  "resourceGroup": "gswx1"
},
{
  "id": "/subscriptions/433715e6-37fe-4328-af75-3661e13b15fc/resourceGroups/gswx1/providers/Microsoft.Storage/storageAccounts/sagswx1",
  "resourceGroup": "gswx1"
}
],
"outputs": {
  "openshift Webconsole": {
    "type": "String",
    "value": "https://gswx1.centralus.cloudapp.azure.com:8443/console"
  }
},
"parameters": {
  "bootstrapIgnition": {
    "type": "String",
    "value": "eyJpZ25pdGlvbiI6IHsidmVyc2lubiI6ICJyLjIuMCIsICJjb25maWciOiB7InJlcGxhY2UiOiB7InNvdXJzSI6ICJodHRwczovL3NhZS3N3eDEuYmxvYi5jb3JlLnRpbmRvd3MubmV0L2ZpbGVzL2Jvb3RzdHJhcC5pZ24ifX19fQ=="
  },
  "image": {
    "type": "String",
    "value": "https://sagswx1.blob.core.windows.net/vhd/rhcos.vhd"
  },
  "masterIgnition": {
    "type": "String",
    "value": "eyJwYXNZd2QiOiB7fSwgIm5ldHdvcmRkIjogeyJ0bHM0IiB7ImNlcnRpZmljYXRlQXV0aG9yaXRpZXMiOiBbeyJzb3VyY2UiOiAiZGF0YTp0ZXh0L3BsYWluO2NoYXJzZXQ9dXRmLTg7YmFzZTY0LEtMRMUZFDUUVkSlRqPQRSVkpVU1VaSlEwRlVSUzB0TFMwdENrMUpTVVJGUkVORFFFXWnBaMEYzU1VKQlowbEpVVWQ0ZGxKTlFXczVNmk4zUkZGWlNrdHZXA2xvZG10T1FWRkZURUpSUvhKs2FrVLUVUUpCUjBFfZVVUtRM2hOU21JeLFteGliazV2VWZkYU1FMVNRWGRFWjFsRVZsRlJSRVYzWkhSaU1qa3dURmRPYUUXQ05GaEVWRVUxVFZSQmVNVVVSVEZ0UkdzeFRsWnZXQXBfVkvMrMVRWUkJLVTFxUlRGTLJHC3hUbFp2ZDBwcVJWtk5Ra0ZIUVRGVLJVtJRUVXBpTBKc1ltNU9IMkZYV2pCTlVrRjNSR2RaUkZaUlVVUkZkMLI1Q21JeU9UQk1WMDVvVfVsSlFrbHFRVTVDWjJ0eGFHdHBSEmwzTUvkQLVVVkdRVUZQUTBGuk9FRk5TVWxDUTJKTFEwRLJSVUZ5ZVdjeFFTODVNREpGY0ZVS1LUUKJaRUpyYTFBMVVqVnJVakV6VkVSR1NHMVlTVk12VUH0de1VTktwbTlrY0U4eVJHNutNVGd4YmxGNE9ESkV0elZ5V0hsbGJJVnpXV0pFUxk5dEt3cG5SbXhUYkV4QmRVOW5iSGxSWm10dmRGwnlVRGHtWVhWTGEwYzBTv1ZJYTJkSGF6SnNjVzR3YzISU05FUjBUMFpaY0hGc2NHRlhSbTFGUldaWGJtMHpDa2xpUTNaM05HTlFhMDLSUVRKaE1GZFpMMDlMT1ZKM1FWYZVNBE0ZWjBSSFQwWjNja3d6WkZwME1VRlZlbLpPV1hWRFPgWmtRbTFaT0Vsb1RqZE5TWGtLV1ZaVmIyWnJMMnh3WWtKdFZGb3dSa0pxVlhGM2JHaGlRVTvZTVhaVGfETkZhV2gxTmPWbFUwUlJ0a0pwTXk5TVZGcFdTRWxITVvaQldtNDFlbWxGS3dwNWQxUXh0RVZHwLVwSU9EWm9NblyyVEDkNFptaEZkbFp6YTFKUk4wcHJPWHB0WmtZNWRreFJLM1ZFYTFGVFIZUlBhRVozTTFaS1NrSnNhMEZJUjBaWENTczBiRFUwY2xoQLRYZEPRSZUSUVVKdk1FbdNVVVJCvDBKBlsRsklVVGhDUVdZNFJVSklJUVU5CY1ZGM1JIZFpSRlpTTUZSQlVVZ3ZRaoZWZDBGM1JVSUtMM3BCWkVBKlRsWklVVFJGUmlkUlZYVkJWV296ZEVsu2VfCGFiMWhFSzNFemJETktjRGxVZVdaWFFYZEVVMxLUzISYVNxaDZMZDVCVVWTVFfsRkJSQXBuWjBWQ1FVaDBlWFp6VkdoU04wNUNTamxUTVd0UFNHOTFNbkZWZwxb1dEZEVAvtFRU0U1cllrzbNaV04zZG5WNGRUTklhbKZ6VUhSVLRUZHfhVmt6Q2tGVfdXNURaMWRYVTJW
```

```

    "resourceTypes": [
      {
        "aliases": null,
        "apiVersions": null,
        "capabilities": null,
        "locations": [
          null
        ],
        "properties": null,
        "resourceType": "deployments"
      }
    ]
  },
  {
    "id": null,
    "namespace": "Microsoft.Compute",
    "registrationPolicy": null,
    "registrationState": null,
    "resourceTypes": [
      {
        "aliases": null,
        "apiVersions": null,
        "capabilities": null,
        "locations": [
          "centralus"
        ],
        "properties": null,
        "resourceType": "availabilitySets"
      }
    ]
  }
],
"provisioningState": "Succeeded",
"template": null,
"templateHash": "9274804506782440692",
"templateLink": {
  "contentVersion": "1.0.0.0",
  "uri": "https://raw.githubusercontent.com/glennswest/ocpupi4azure/master/arm/azuredeploy.json"
},
"timestamp": "2019-10-25T15:44:20.259666+00:00"
},
"resourceGroup": "gswx1",
"type": "Microsoft.Resources/deployments"
}

```

<input type="checkbox"/> Name ↑↓	Type ↑↓
<input type="checkbox"/>  openshiftVnet	Virtual network
<input type="checkbox"/>  bootstrap-0	Virtual machine
<input type="checkbox"/>  master1	Virtual machine
<input type="checkbox"/>  <u>master2</u>	Virtual machine
<input type="checkbox"/>  master3	Virtual machine
<input type="checkbox"/>  node01	Virtual machine
<input type="checkbox"/>  node02	Virtual machine
<input type="checkbox"/>  node03	Virtual machine
<input type="checkbox"/>  sagswx1	Storage account
<input type="checkbox"/>  gswx1	Public IP address
<input type="checkbox"/>  gswx1app	Public IP address
<input type="checkbox"/>  bootstrap-0nsg	Network security group
<input type="checkbox"/>  master1nsg	Network security group
<input type="checkbox"/>  master2nsg	Network security group
<input type="checkbox"/>  master3nsg	Network security group
<input type="checkbox"/>  bootstrap-0nic	Network interface
<input type="checkbox"/>  master1nic	Network interface
<input type="checkbox"/>  master2nic	Network interface

<input type="checkbox"/>	 gswx1app	Public IP address
<input type="checkbox"/>	 bootstrap-0nsg	Network security group
<input type="checkbox"/>	 master1nsg	Network security group
<input type="checkbox"/>	 master2nsg	Network security group
<input type="checkbox"/>	 master3nsg	Network security group
<input type="checkbox"/>	 bootstrap-0nic	Network interface
<input type="checkbox"/>	 master1nic	Network interface
<input type="checkbox"/>	 master2nic	Network interface
<input type="checkbox"/>	 master3nic	Network interface
<input type="checkbox"/>	 node01nic	Network interface
<input type="checkbox"/>	 node02nic	Network interface
<input type="checkbox"/>	 node03nic	Network interface
<input type="checkbox"/>	 gswx1_userid	Managed Identity
<input type="checkbox"/>	 AppLbgswx1	Load balancer
<input type="checkbox"/>	 MasterLbgswx1	Load balancer
<input type="checkbox"/>	 gswx1intl	Load balancer
<input type="checkbox"/>	 masteravailabilityset	Availability set
<input type="checkbox"/>	 nodeavailabilityset	Availability set



# Cloud Credential crashed a few times

```
Glenns-MacBook-Pro-2:arm gwest$ oc project openshift-cloud-credential-operator
Now using project "openshift-cloud-credential-operator" on server "https://api.gw.ncc9.com:6443".
Glenns-MacBook-Pro-2:arm gwest$ oc get all
```

NAME	READY	STATUS	RESTARTS	AGE
pod/cloud-credential-operator-6b8db4f844-66h8r	0/1	CrashLoopBackOff	3	6m48s

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/controller-manager-service	ClusterIP	172.30.206.114	<none>	443/TCP	6m50s

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/cloud-credential-operator	1/1	1	1	6m49s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/cloud-credential-operator-6b8db4f844	1	1	1	6m49s

```
Glenns-MacBook-Pro-2:~$ oc logs pod/cloud-credential-operator-6b8db4f844-66h8r
Copying system trust bundle
time="2019-10-25T16:00:05Z" level=debug msg="debug logging enabled"
time="2019-10-25T16:00:05Z" level=info msg="setting up client for manager"
time="2019-10-25T16:00:05Z" level=info msg="setting up manager"
time="2019-10-25T16:00:09Z" level=info msg="registering components"
time="2019-10-25T16:00:09Z" level=info msg="setting up scheme"
time="2019-10-25T16:00:09Z" level=info msg="setting up controller"
time="2019-10-25T16:00:09Z" level=info msg="Setting up secret annotator. Platform Type is Azure"
time="2019-10-25T16:00:10Z" level=info msg="initializing Azure actuator"
time="2019-10-25T16:00:10Z" level=info msg="starting the cmd"
time="2019-10-25T16:00:10Z" level=debug msg="checking for credentials requests targeting namespace" namespace=openshift-kube-controller-manager
time="2019-10-25T16:00:10Z" level=debug msg="parsed annotation" cr=openshift-cloud-credential-operator/openshift-image-registry-azure
time="2019-10-25T16:00:10Z" level=debug msg="parsed annotation" cr=openshift-cloud-credential-operator/openshift-machine-api-azure
time="2019-10-25T16:00:10Z" level=debug msg="parsed annotation" cr=openshift-cloud-credential-operator/openshift-ingress-azure
time="2019-10-25T16:00:10Z" level=debug msg="checking for credentials requests targeting namespace" namespace=openshift-machine-api
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-machine-api/gcp-cloud-credentials namespace=openshift-machine-api
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-machine-api/aws-cloud-credentials namespace=openshift-machine-api
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-machine-api/opentstack-cloud-credentials namespace=openshift-machine-api
time="2019-10-25T16:00:10Z" level=debug msg="checking for credentials requests targeting namespace" namespace=openshift-sdn
time="2019-10-25T16:00:10Z" level=debug msg="checking for credentials requests targeting namespace" namespace=openshift-dns
time="2019-10-25T16:00:10Z" level=debug msg="checking for credentials requests targeting namespace" namespace=openshift-image-registry
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-image-registry/installer-cloud-credentials namespace=openshift-image-registry
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-image-registry/installer-cloud-credentials namespace=openshift-image-registry
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-image-registry/installer-cloud-credentials namespace=openshift-image-registry
time="2019-10-25T16:00:10Z" level=debug msg="checking for credentials requests targeting namespace" namespace=openshift-ingress-operator
time="2019-10-25T16:00:10Z" level=info msg="found credentials request for namespace" cr=openshift-ingress-operator/cloud-credentials namespace=openshift-ingress-operator
```

```
eed to sync" controller=credreq cr=openshift-cloud-credential-operator/openshift-machine-api-azure secret=openshift-machine-api/azu
re-cloud-credentials
time="2019-10-25T16:00:26Z" level=debug msg="syncing cluster operator status"
time="2019-10-25T16:00:26Z" level=debug msg="3 cred requests"
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message="No credentials requests reporting errors." rea
son=NoCredentialsFailing status=False type=Degraded
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message="3 of 3 credentials requests provisioned and re
conciled." reason=ReconcilingComplete status=False type=Progressing
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message= reason= status=True type=Available
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message= reason= status=True type=Upgradeable
time="2019-10-25T16:00:26Z" level=info msg="syncing credentials request" controller=credreq cr=openshift-cloud-credential-operator/
openshift-image-registry
time="2019-10-25T16:00:26Z" level=debug msg="ignoring cr as it is for a different cloud" controller=credreq cr=openshift-cloud-cred
ential-operator/openshift-image-registry secret=openshift-image-registry/installer-cloud-credentials
time="2019-10-25T16:00:26Z" level=debug msg="updating credentials request status" controller=credreq cr=openshift-cloud-credential-
operator/openshift-image-registry secret=openshift-image-registry/installer-cloud-credentials
time="2019-10-25T16:00:26Z" level=debug msg="status unchanged" controller=credreq cr=openshift-cloud-credential-operator/openshift-
image-registry secret=openshift-image-registry/installer-cloud-credentials
time="2019-10-25T16:00:26Z" level=debug msg="syncing cluster operator status"
time="2019-10-25T16:00:26Z" level=debug msg="3 cred requests"
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message="No credentials requests reporting errors." rea
son=NoCredentialsFailing status=False type=Degraded
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message="3 of 3 credentials requests provisioned and re
conciled." reason=ReconcilingComplete status=False type=Progressing
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message= reason= status=True type=Available
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message= reason= status=True type=Upgradeable
time="2019-10-25T16:00:26Z" level=info msg="syncing credentials request" controller=credreq cr=openshift-cloud-credential-operator/
openshift-image-registry-azure
time="2019-10-25T16:00:26Z" level=debug msg="found secret namespace" controller=credreq cr=openshift-cloud-credential-operator/open
shift-image-registry-azure secret=openshift-image-registry/installer-cloud-credentials
time="2019-10-25T16:00:26Z" level=debug msg="lastsyncgeneration is current and lastsynctimestamp was less than an hour ago, so no n
eed to sync" controller=credreq cr=openshift-cloud-credential-operator/openshift-image-registry-azure secret=openshift-image-regist
ry/installer-cloud-credentials
time="2019-10-25T16:00:26Z" level=debug msg="syncing cluster operator status"
time="2019-10-25T16:00:26Z" level=debug msg="3 cred requests"
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message="No credentials requests reporting errors." rea
son=NoCredentialsFailing status=False type=Degraded
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message="3 of 3 credentials requests provisioned and re
conciled." reason=ReconcilingComplete status=False type=Progressing
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message= reason= status=True type=Available
time="2019-10-25T16:00:26Z" level=debug msg="set ClusterOperator condition" message= reason= status=True type=Upgradeable
time="2019-10-25T16:00:51Z" level=error msg="leader election lostunable to run the manager"
Glenns-MacBook-Pro-2:arm gwest$
```

# Current Status

- Completed
  - Initial Overview Presentation Created – Will keep it updated
  - Initial Proof of concept on setup of cloud provider testing in progress
- New Cards
  - Move to 4.3
  - Automate the manifests changes for identity, and resource group name

# Resolved Issues

- Resolved Issues
  - Cluster not booting due to manifests missing
  - Qouta issues resolved.
- Blockers

# Where's it at:

The screenshot shows the GitHub interface for the repository `glennswest / ocpupi4azure`. The browser address bar displays `github.com/glennswest/ocpupi4azure/tree/master/4.1`. The repository page includes a search bar, navigation links for Pull requests, Issues, Marketplace, and Explore, and a header with repository statistics: 1 Unwatch, 0 Stars, and 0 Forks. Below the header, a tabbed interface shows the 'Code' tab selected. The main content area displays the file tree for the `4.1` branch, listing files such as `azuredeploy.json`, `azuredeploy.parameters.json`, `deploy_azarm.sh`, `master.json`, `node.json`, `setup-variables.py`, and `setup_azarm.sh`, each with a brief description and a commit timestamp.

Branch: master ▾ **ocpupi4azure / 4.1 /** Create new file Upload files Find file History

glennswest Cleanup extra files Latest commit d4ae4e8 15 seconds ago

..		
azuredeploy.json	Add a dependency for internallb and change ip address	2 hours ago
azuredeploy.parameters.json	Add sshkeydata for nodes	2 days ago
deploy_azarm.sh	Split into two - one for setup one for deploy	2 hours ago
master.json	Change the way keydata is passed and remove tags from master	2 days ago
node.json	Fix missing parameters	yesterday
setup-variables.py	Make sure parameters have correct format for bootstrap ignition	2 days ago
setup_azarm.sh	Split into two - one for setup one for deploy	2 hours ago

<https://github.com/glennswest/ocpupi4azure/tree/master/4.1>