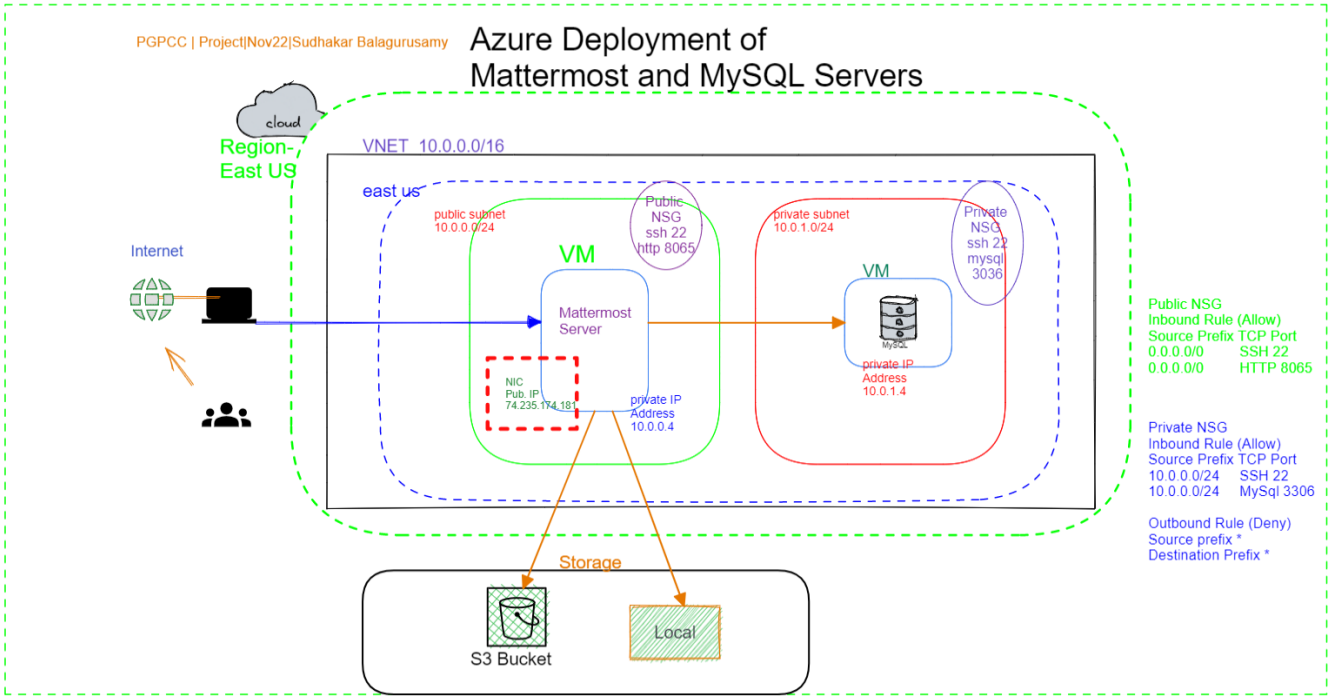
Architecture Diagram



Deployment of Mattermost and MySQL servers

A virtual network of address prefix 10.0.0.0/16 is created with 2 subnets with the address prefixes of 10.0.0.0/24 and 10.0.1.0/24. The public facing Mattermost server is placed in the first subnet and the MySQL server is placed in the second subnet. A public NSG is assigned to the first subnet to allow the inbound connection to ports 22 and 8065 from the internet. A private NSG is assigned to the second subnet to allow the traffic only from the first subnet on ports 22 and 3306. This private NSG has an outbound rule to deny the outbound traffic to internet from this subnet. **This outbound rule is in disabled state till the installation of MySQL server** as the Installation of MySQL server requires internet connection. This is enabled after the installation. The Mattermost and MySQL server are installed based on the instructions from : ***https://docs.mattermost.com/install/installing-ubuntu-2004-LTS.html***. The Mattermost server can be configured to store the data either in AWS S3 buckets or in local file system.

Workflow Steps

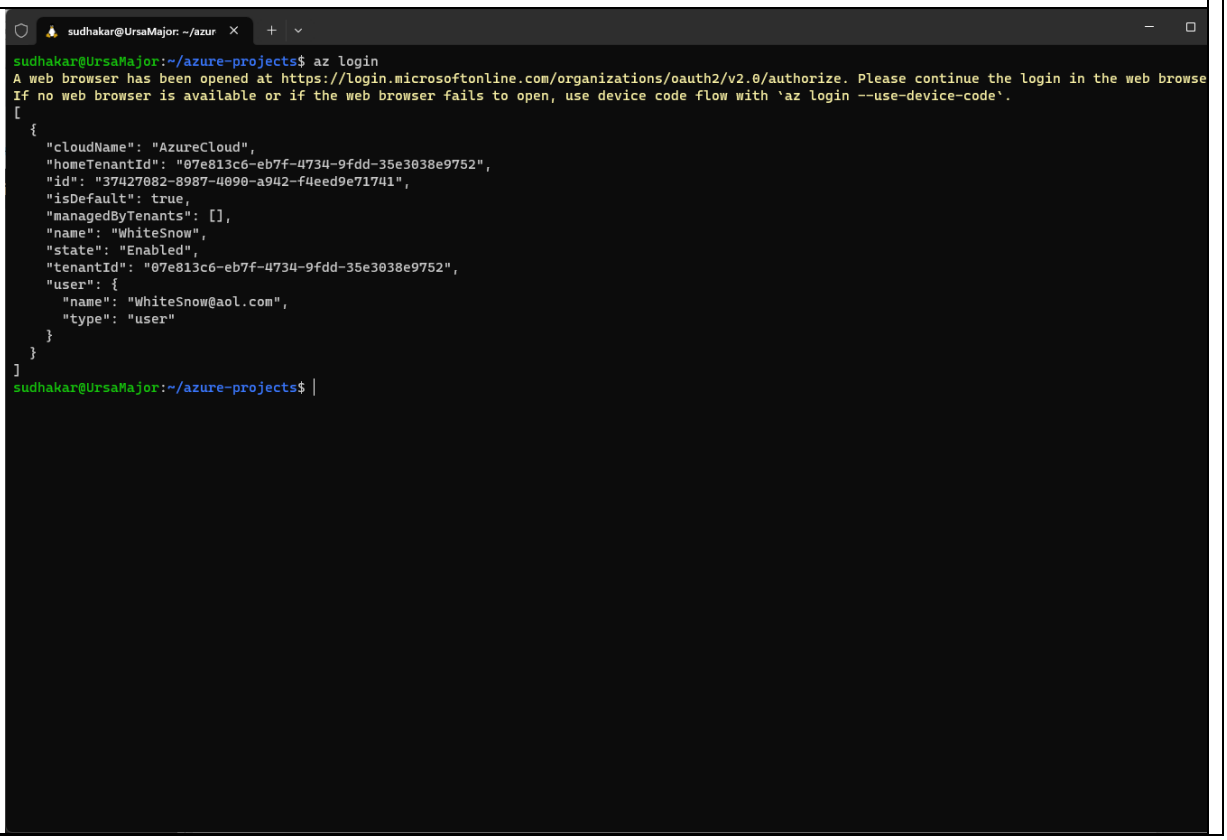
Azure CLI is used for creating all the resources needed for Mattermost server installation.

Step: 1 Login to Azure

Open a bash terminal (WSL Ubuntu terminal is used)

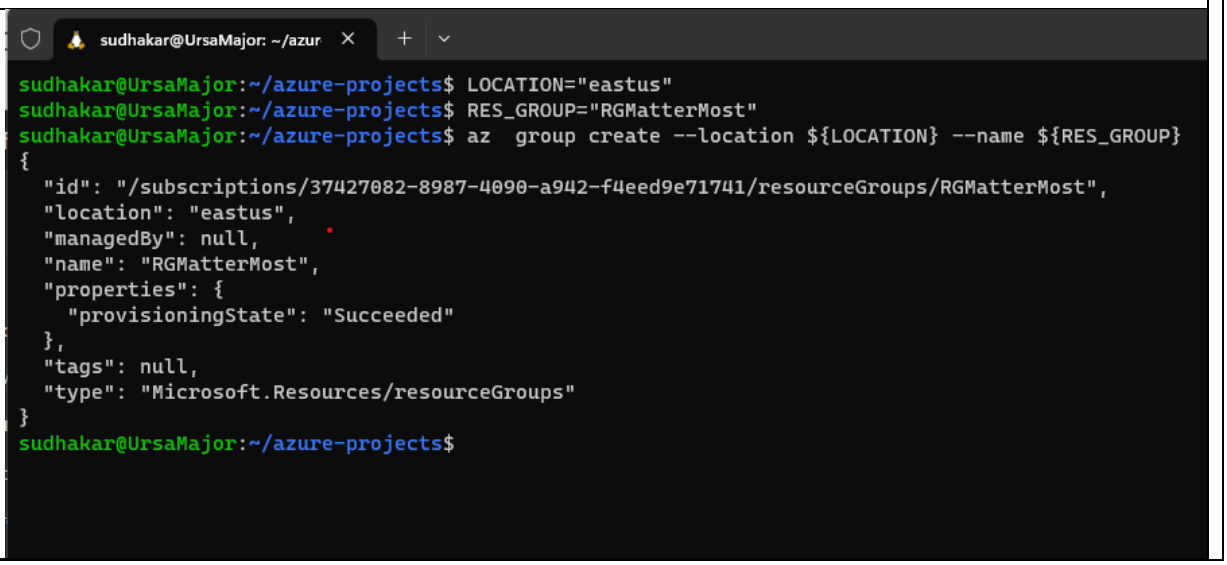
Run the following command to login to Azure

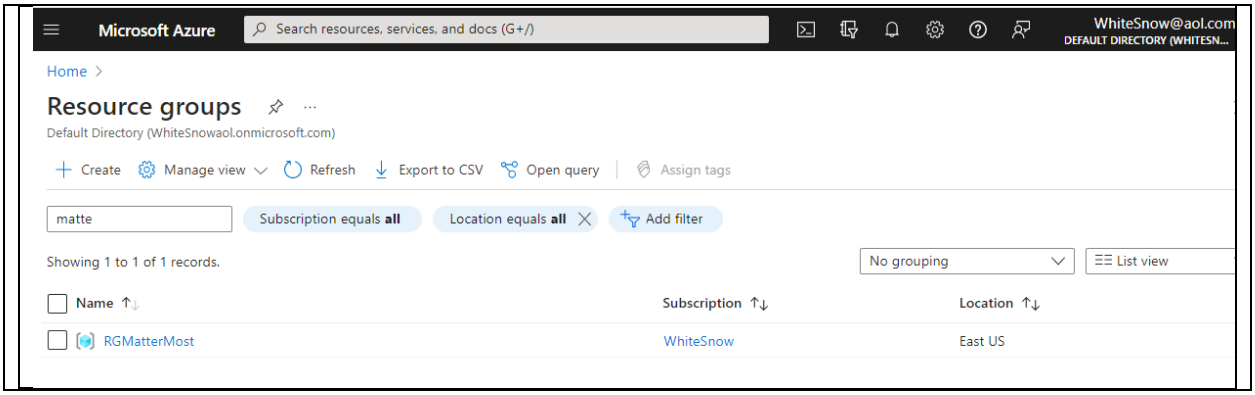
az login



Step: 2 Create a Resource Group 'RGMatterMost'.

```
LOCATION="eastus"
RES_GROUP="RGMatterMost"
az  group create --location ${LOCATION} --name ${RES_GROUP}
```



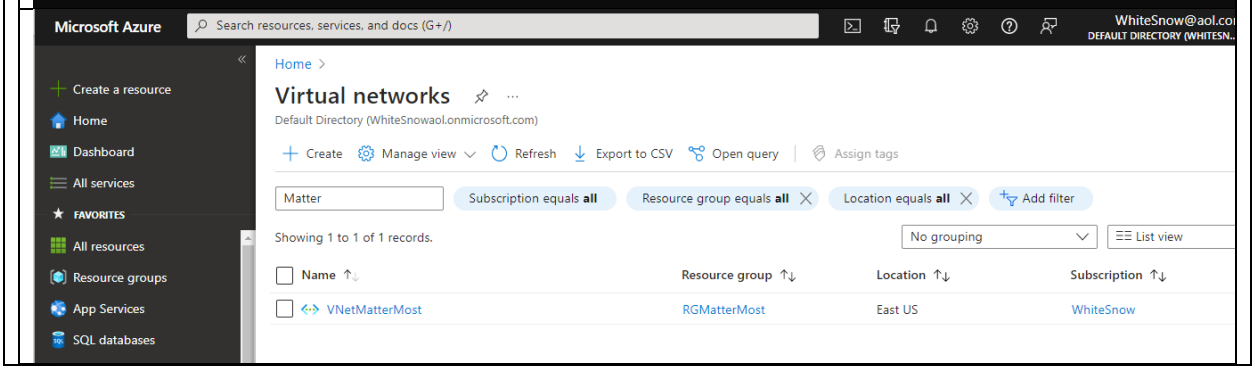


STEP 3: Create a VNET with the address prefix of 10.0.0.0/16

Set the VNET and CIDR_VNET shell variables

```
VNET="VNetMatterMost"
CIDR_VNET="10.0.0.0/16"
az network vnet create --resource-group ${RES_GROUP} --name ${VNET} \
      --address-prefixes ${CIDR_VNET}  --location ${LOCATION} --no-wait false
```

```
sudhakar@UrsaMajor:~/azure-projects$ CIDR_VNET="10.0.0.0/16"
sudhakar@UrsaMajor:~/azure-projects$ VNET="VNetMatterMost"
sudhakar@UrsaMajor:~/azure-projects$ az network vnet create --resource-group ${RES_GROUP} --name ${VNET}
      --address-prefixes ${CIDR_VNET}  --location ${LOCATION} --no-wait false
sudhakar@UrsaMajor:~/azure-projects$
```

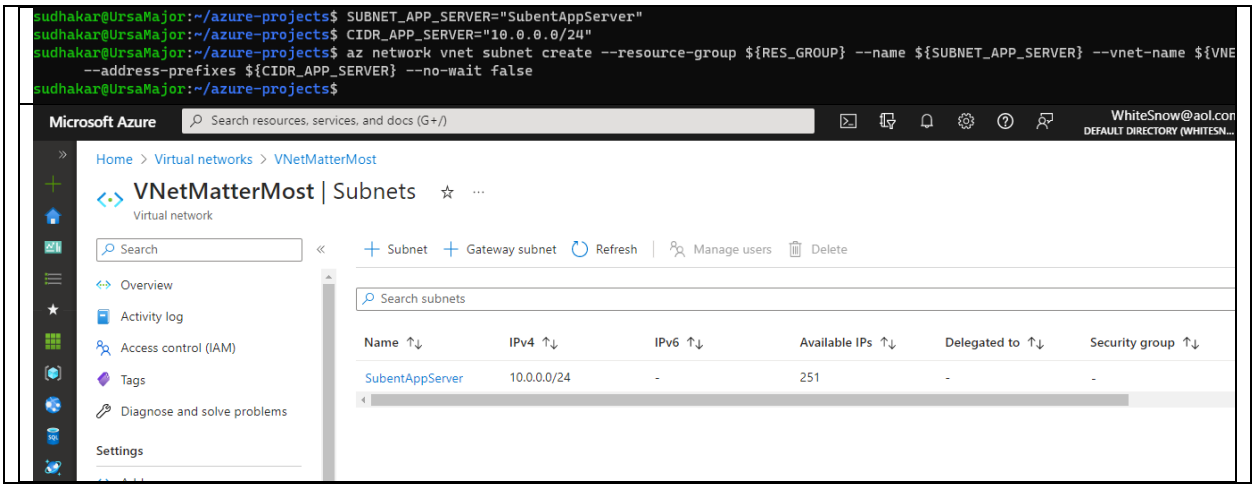


STEP 4: Create a subnet with the address prefix of 10.0.0.0/24 for App Server

Set the SUBNET_APP_SERVER and CIDR_APP_SERVER

run **az network vnet create** command to create a subnet for App Server

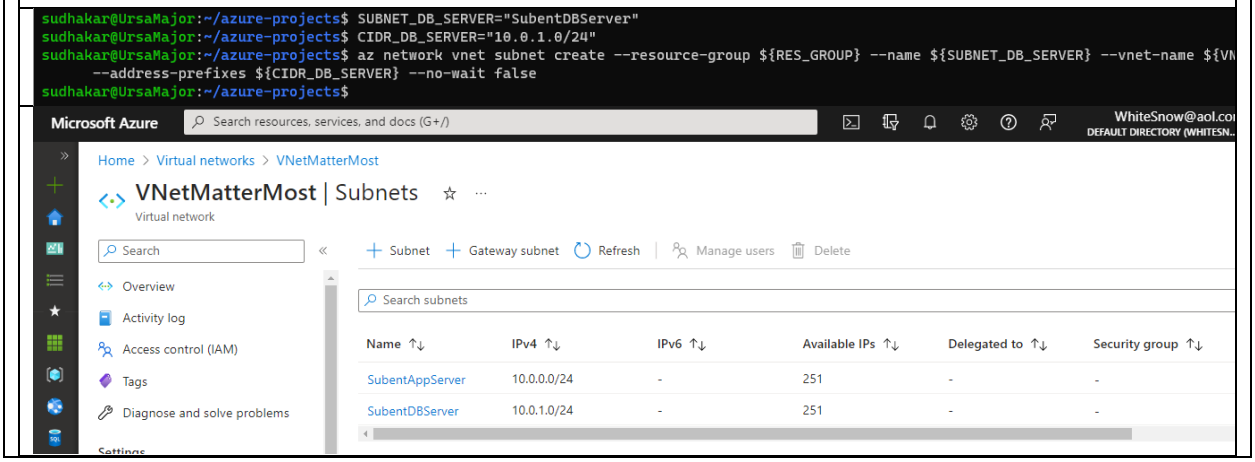
```
SUBNET_APP_SERVER="SubentAppServer"
CIDR_APP_SERVER="10.0.0.0/24"
az network vnet subnet create --resource-group ${RES_GROUP} --name
${SUBNET_APP_SERVER} --vnet-name ${VNET}\
      --address-prefixes ${CIDR_APP_SERVER} --no-wait false
```



STEP 4: Create a subnet with the address prefix of 10.0.1.0/24 for DB Server

Set the shell variables SUBNET_DB_SERVER=SubentDBServer and CIDR_DB_SERVER=10.0.1.0/24 and run **az network vnet create** command to create a subnet for DB Server

```
SUBNET_DB_SERVER="SubentDBServer"
CIDR_DB_SERVER="10.0.1.0/24"
az network vnet subnet create --resource-group ${RES_GROUP} --name
${SUBNET_DB_SERVER} --vnet-name ${VNET}\
      --address-prefixes ${CIDR_DB_SERVER} --no-wait false
```

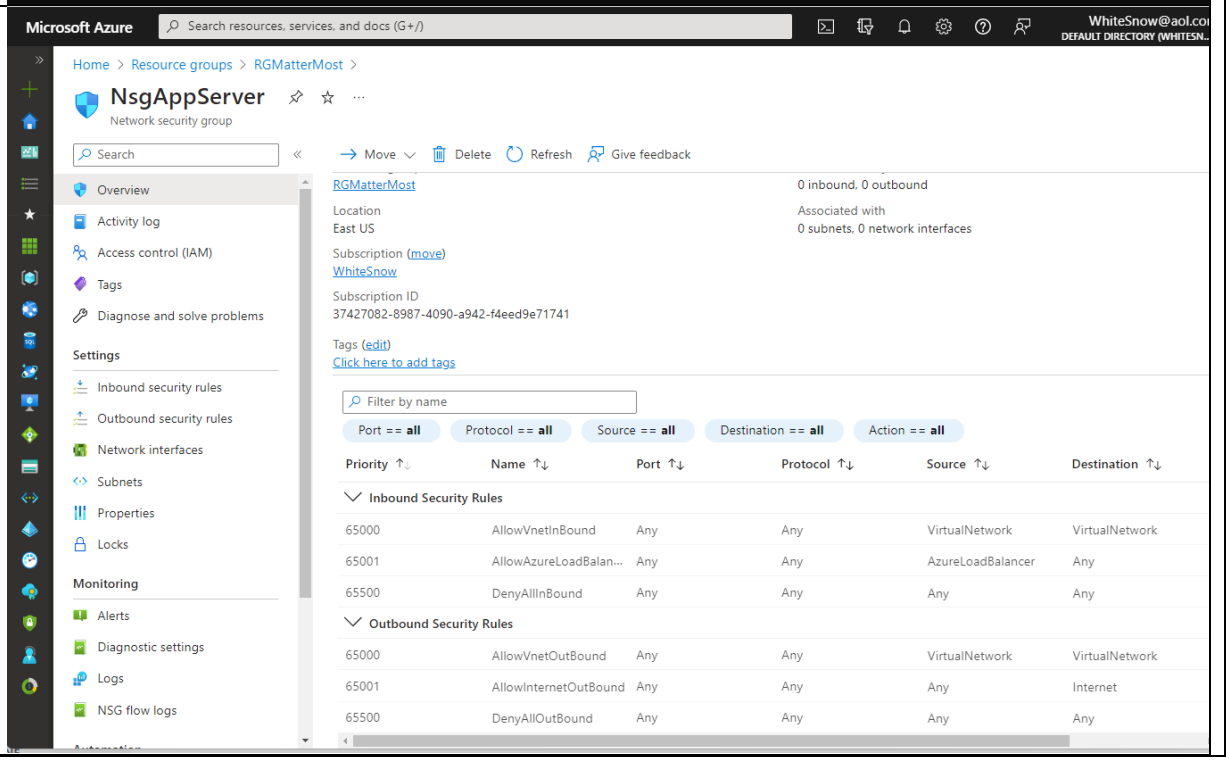


STEP 5: Create an NSG for App Server Subnet

Set the NSG_APP_SERVER=”NsgAppServer” and run ***az network nsg create*** to create a network security group

```
NSG_APP_SERVER="NsgAppServer"
az network nsg create --location ${LOCATION} --name ${NSG_APP_SERVER} \
--resource-group ${RES_GROUP} --no-wait false
```

```
sudhakar@UrsaMajor:~/azure-projects$ NSG_APP_SERVER="NsgAppServer"
sudhakar@UrsaMajor:~/azure-projects$ az network nsg create --location ${LOCATION} --name ${NSG_APP_SERVER}
--resource-group ${RES_GROUP} --no-wait false
sudhakar@UrsaMajor:~/azure-projects$
```

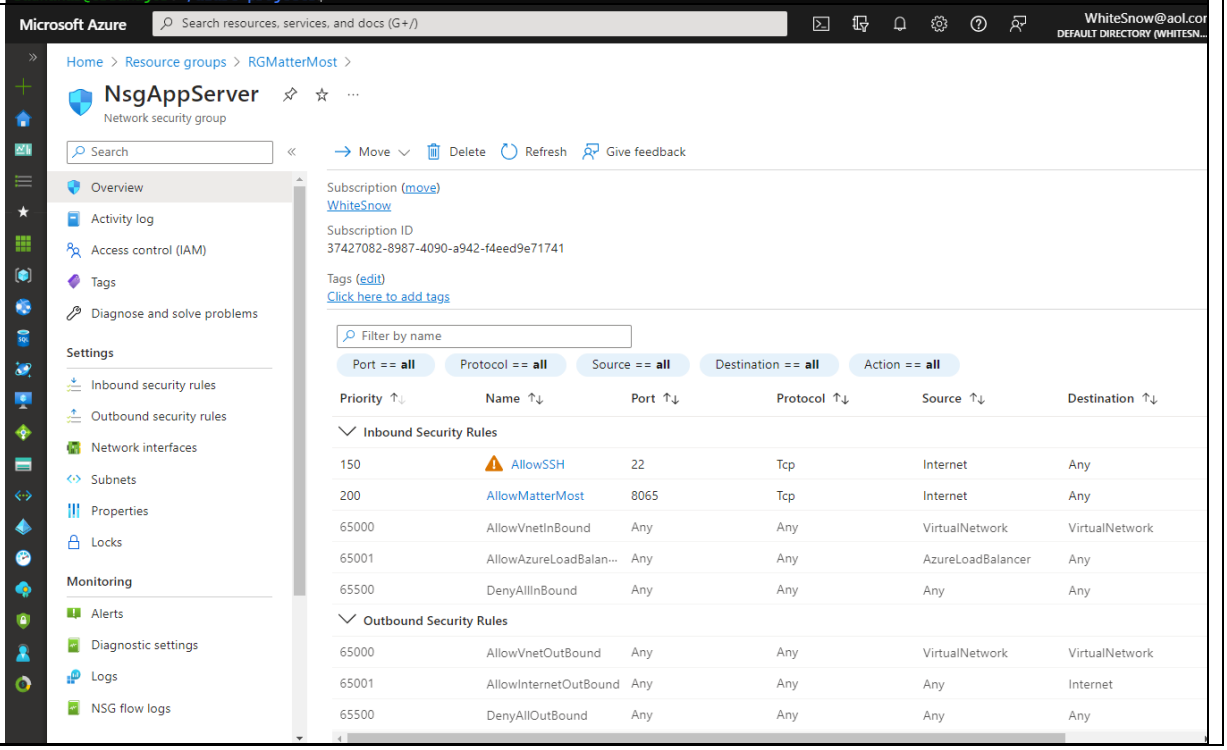


STEP 6: Create inbound NSG rules for NsgAppServer

Create NSG rules to allow internet traffic from SSH (22) and Mattermost ports (8065) using ***az network nsg create*** command

```
az network nsg rule create --name AllowSSH --nsg-name ${NSG_APP_SERVER} \
    --resource-group ${RES_GROUP} \
    --access Allow --priority 150 --source-address-prefix Internet --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-ranges 22 --direction Inbound \
    --protocol Tcp --no-wait false --description "Allow ssh ports"
az network nsg rule create --name AllowMatterMost --nsg-name ${NSG_APP_SERVER} \
    --resource-group ${RES_GROUP} \
    --access Allow --priority 200 --source-address-prefix Internet --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-ranges 8065 --direction Inbound \
    --protocol Tcp --no-wait false --description "Allow MatterMost ports"
```

```
sudhakar@UrsaMajor:~/azure-projects$ az network nsg rule create --name AllowSSH --nsg-name ${NSG_APP_SERVER} --resource-group ${RES_GROUP}
    --access Allow --priority 150 --source-address-prefix Internet --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-ranges 22 --direction Inbound \
    --protocol Tcp --no-wait false --description "Allow ssh ports"
sudhakar@UrsaMajor:~/azure-projects$ az network nsg rule create --name AllowMatterMost --nsg-name ${NSG_APP_SERVER} --resource-group ${RES
P} \
    --access Allow --priority 200 --source-address-prefix Internet --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-ranges 8065 --direction Inbound \
    --protocol Tcp --no-wait false --description "Allow MatterMost ports"
sudhakar@UrsaMajor:~/azure-projects$
```

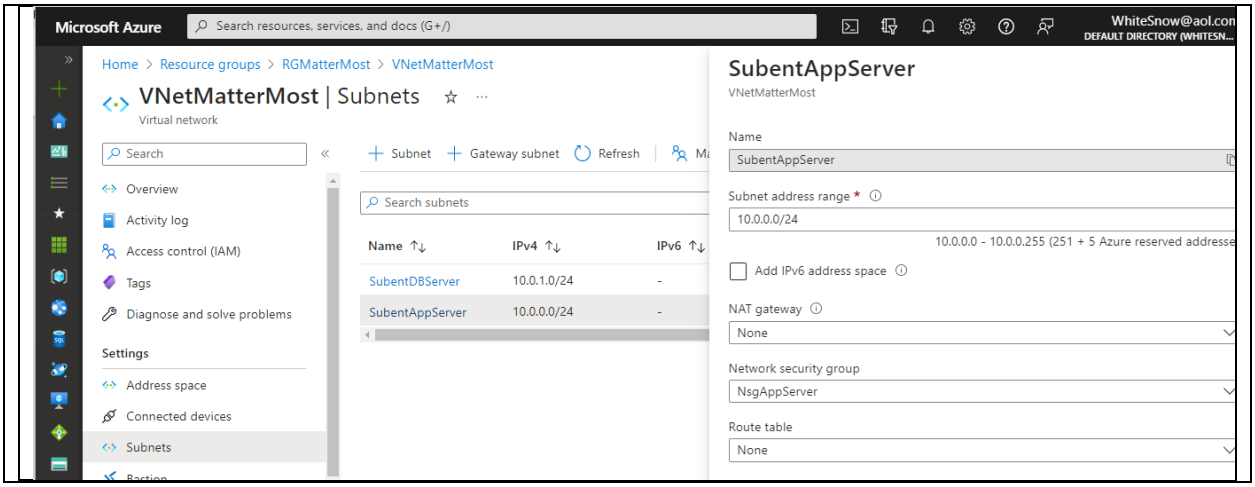


STEP 7: Associate the NsgAppServer to App Server Subnet

Associate the network security group NsgAppServer to App Server subnet using the following command ***az network vnet subnet update***

```
az network vnet subnet update --vnet-name ${VNET} \
  --name ${SUBNET_APP_SERVER} \
 --resource-group ${RES_GROUP} \
--network-security-group ${NSG_APP_SERVER} --no-wait false
```

```
sudhakar@UrsaMajor:~/azure-projects$ az network vnet subnet update --vnet-name ${VNET} --name ${SUBNET_APP_SERVE
 --resource-group ${RES_GROUP} --network-security-group ${NSG_APP_SERVER} --no-wait false
sudhakar@UrsaMajor:~/azure-projects$
```

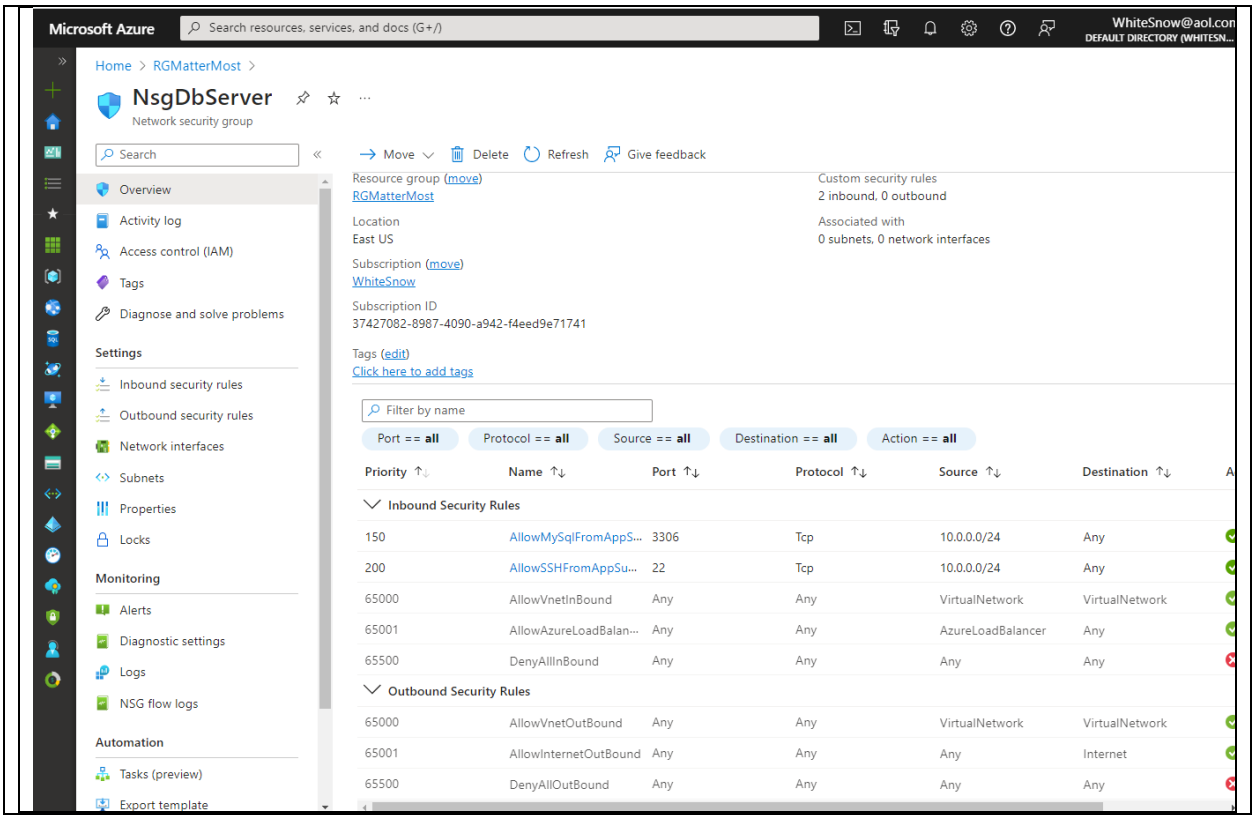


STEP 8: Create an NSG for the DB Server subnet

Set the shell variable NSG_DB_SERVER=NsgDBServer and run the following commands to create an NSG and inbound rules to allow traffic from the App Server Subnet to SSH (22) & MySql ports (3306)

```
NSG_DB_SERVER="NsgDbServer"
az network nsg create --location ${LOCATION} --name ${NSG_DB_SERVER} \
--resource-group ${RES_GROUP} --no-wait false
az network nsg rule create --resource-group ${RES_GROUP} --nsg-name ${NSG_DB_SERVER} \
    --name AllowMySqlFromAppSubnet --no-wait false \
    --access Allow --protocol Tcp --direction Inbound --priority 150 \
    --source-address-prefix ${CIDR_APP_SERVER} --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-range 3306
az network nsg rule create --resource-group ${RES_GROUP} --nsg-name ${NSG_DB_SERVER} \
    --name AllowSSHFromAppSubnet --no-wait false \
    --access Allow --protocol Tcp --direction Inbound --priority 200 \
    --source-address-prefix ${CIDR_APP_SERVER} --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-range 22
```

```
sudhakar@UrsaMajor:~/azure-projects$ NSG_DB_SERVER="NsgDbServer"
sudhakar@UrsaMajor:~/azure-projects$ az network nsg create --location ${LOCATION} --name ${NSG_DB_SERVER} \
--resource-group ${RES_GROUP} --no-wait false
echo "Created a NSG : ${NSG_DB_SERVER}"
Created a NSG : NsgDbServer
sudhakar@UrsaMajor:~/azure-projects$ az network nsg rule create --resource-group ${RES_GROUP} --nsg-name ${NSG_DB_SERVER}
    --name AllowMySqlFromAppSubnet --no-wait false \
    --access Allow --protocol Tcp --direction Inbound --priority 150 \
    --source-address-prefix ${CIDR_APP_SERVER} --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-range 3306
sudhakar@UrsaMajor:~/azure-projects$ az network nsg rule create --resource-group ${RES_GROUP} --nsg-name ${NSG_DB_SERVER}
    --name AllowSSHFromAppSubnet --no-wait false \
    --access Allow --protocol Tcp --direction Inbound --priority 200 \
    --source-address-prefix ${CIDR_APP_SERVER} --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-range 22
sudhakar@UrsaMajor:~/azure-projects$
```



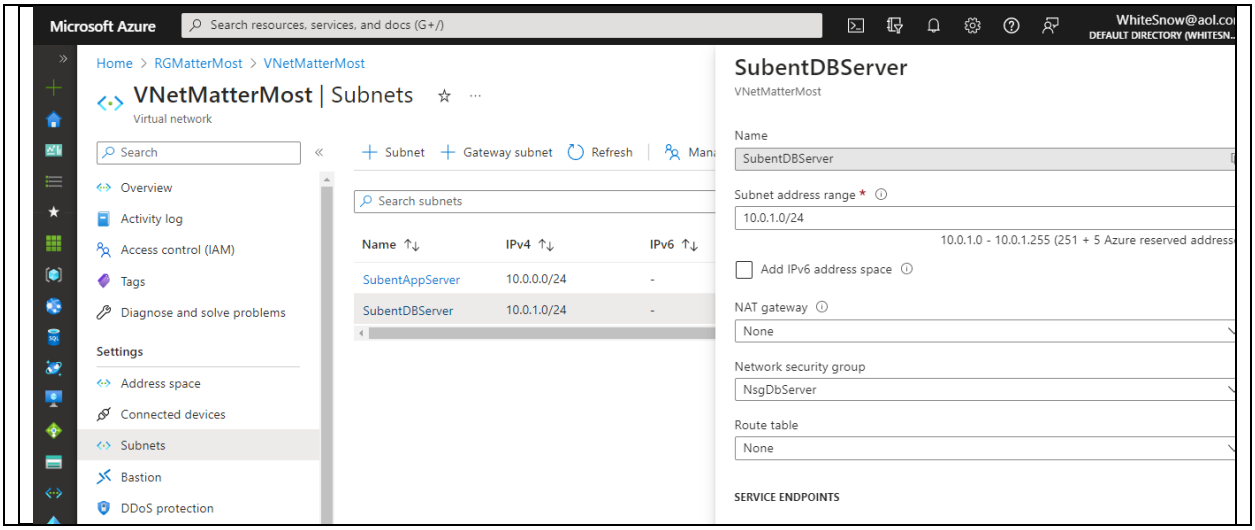
Note: Currently the NsgDbServer allows all the outbound traffic to the Internet. An NSG rule will be added to **deny** all the outbound internet traffic after installing the MySQL server.

STEP 9: Associate the NsgDbServer to the DB Server Subnet

Associate the NsgDbServer with the DB Server subnet using the following command : ***az network vnet subnet update***

```
az network vnet subnet update --vnet-name ${VNET} \
--name ${SUBNET_DB_SERVER} --resource-group ${RES_GROUP} \
 --network-security-group ${NSG_DB_SERVER} --no-wait false
```

```
sudhakar@UrsaMajor:~/azure-projects$ az network vnet subnet update --vnet-name ${VNET} \
--name ${SUBNET_DB_SERVER} --resource-group ${RES_GROUP} \
 --network-security-group ${NSG_DB_SERVER} --no-wait false
sudhakar@UrsaMajor:~/azure-projects$
```

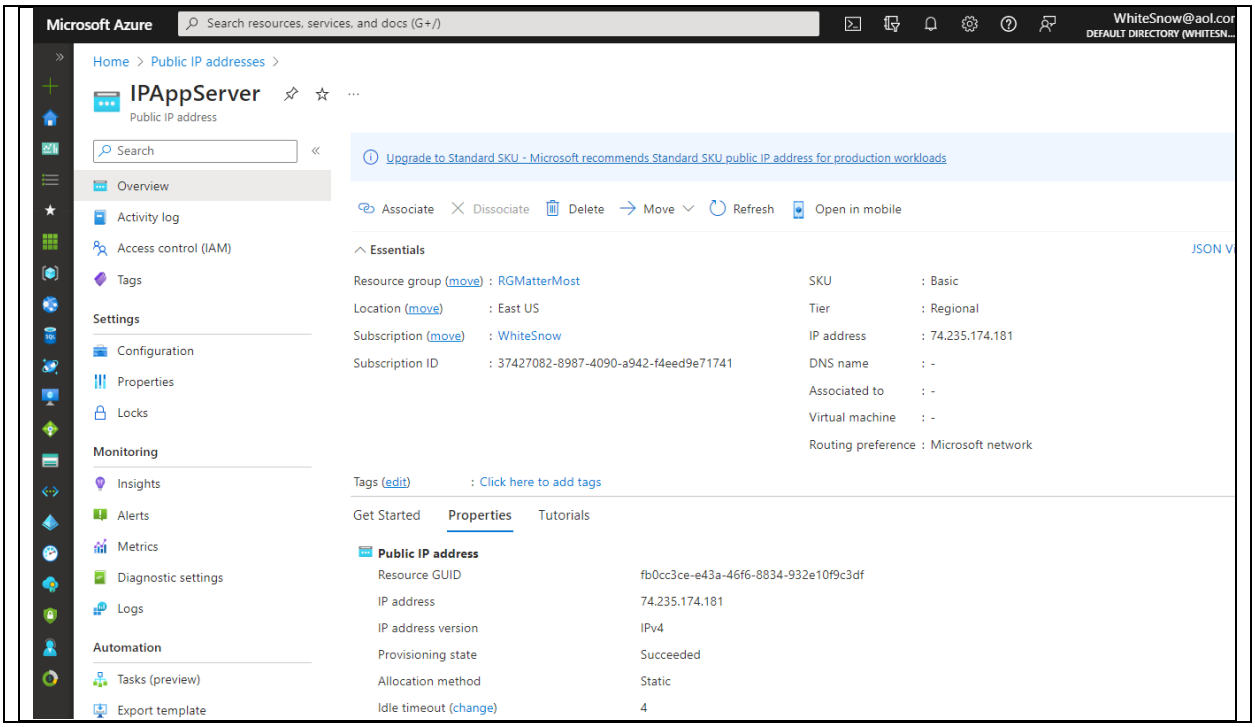


STEP 10: Create a static public IP address for the Mattermost Server

Set the shell variable IP_APP_SERVER="IPAppServer" and run the following command to create the IP address. ***az network public-ip create***

```
IP_APP_SERVER="IPAppServer"
az network public-ip create --resource-group ${RES_GROUP} \
  --name ${IP_APP_SERVER} \
  --allocation-method Static --version IPv4
```

```
sudhakar@UrsaMajor:~/azure-projects$ IP_APP_SERVER="IPAppServer"
sudhakar@UrsaMajor:~/azure-projects$ az network public-ip create --resource-group ${RES_GROUP} --name ${IP_APP_SERVER} --allocation-method S
ic --version IPv4
Please note that the default public IP used for creation will be changed from Basic to Standard in the future.
{
  "publicIp": {
    "etag": "W/\"e5e510c4-e5cd-4621-af25-d1b836ad8a8d\"",
    "id": "/subscriptions/37427082-8987-4090-a942-f4eed9e71741/resourceGroups/RGMatterMost/providers/Microsoft.Network/publicIPAddresses/IPA
erver",
    "idleTimeoutInMinutes": 4,
    "ipAddress": "74.235.174.181",
    "ipTags": [],
    "location": "eastus",
    "name": "IPAppServer",
    "provisioningState": "Succeeded",
    "publicIPAddressVersion": "IPv4",
    "publicIPAllocationMethod": "Static",
    "resourceGroup": "RGMatterMost",
    "resourceGuid": "fb0cc3ce-e43a-46f6-8834-932e10f9c3df",
    "sku": {
      "name": "Basic",
      "tier": "Regional"
    },
    "type": "Microsoft.Network/publicIPAddresses"
  }
}
sudhakar@UrsaMajor:~/azure-projects$
```

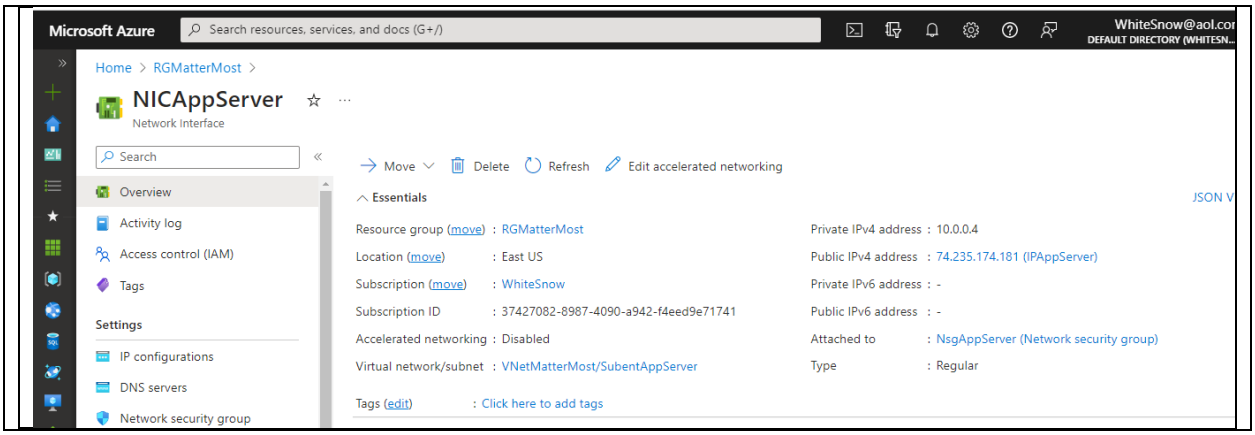


STEP 11: Create an NIC for the Mattermost Server

Set the shell variable NIC_APP_SERVER=”NICAppServer” and run the following command to create an NIC. ***Az network nic create***

```
NSG_APP_SERVER="NsgAppServer"
az network nic create --resource-group ${RES_GROUP} \
--name ${NIC_APP_SERVER} \
--vnet-name ${VNET} --subnet ${SUBNET_APP_SERVER}\
 --network-security-group ${NSG_APP_SERVER} \
 --public-ip-address ${IP_APP_SERVER} \
 --no-wait false
```

```
sudhakar@UrsaMajor:~/azure-projects$ NIC_APP_SERVER="NICAppServer"
sudhakar@UrsaMajor:~/azure-projects$ az network nic create --resource-group ${RES_GROUP} --name ${NIC_APP_SERVER
--vnet-name ${VNET} --subnet ${SUBNET_APP_SERVER}\
 --network-security-group ${NSG_APP_SERVER} --public-ip-address ${IP_APP_SERVER} \
 --no-wait false
sudhakar@UrsaMajor:~/azure-projects$
```



STEP 12: Create an SSH key for the Mattermost and MySQL servers

Use ssh-keygen to generate an ssh key

```
SSH_KEY="SshKeyMatterMost"
ssh-keygen -t rsa -b 4096 -f ${SSH_KEY_FILE}
```

```
sudhakar@UrsaMajor:~/azure-projects$ ssh-keygen -t rsa -b 4096 -f mattermost-vm-k
Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in mattermost-vm-key
Your public key has been saved in mattermost-vm-key.pub
The key fingerprint is:
SHA256:0HfCggJzLoKPtoOIVnnoXBRq/oieFREqdwEvvqK/IlQ sudhakar@UrsaMajor
The key's randomart image is:
+---[RSA 4096]----+
|   +oo.          |
|. .*o..o .       |
|+.++=.o o + .    |
|.*oE=.  . o o    |
|..+* o  S        |
|=.*.*            |
|*=.= .           |
|*.+              |
|o=o.             |
+----[SHA256]-----+
sudhakar@UrsaMajor:~/azure-projects$
```

STEP 13: Copy the SSH public key to Azure Resource group

Set the variable SSH_KEY and Run ***"az sshkey create "*** command

```
SSH_KEY="SshKeyMatterMost"
az sshkey create --name ${SSH_KEY} --public-key "@./mattermost-vm-key.pub" \
--resource-group ${RES_GROUP}
```

```
sudhakar@UrsaMajor:~/azure-projects$ SSH_KEY="SshKeyMatterMost"
sudhakar@UrsaMajor:~/azure-projects$ az sshkey create --name ${SSH_KEY} --public-key "@./mattermost-vm-key.pub" \
--resource-group ${RES_GROUP}
{
  "id": "/subscriptions/37427082-8987-4090-a942-f4eed9e71741/resourceGroups/RGMATTERMOST/providers/Microsoft.Compute/sshPublicKeys/SshKeyMa
Most",
  "location": "eastus",
  "name": "SshKeyMatterMost",
  "publicKey": "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAACAQC1qGQtr1uLP0LzDGakBRVddWLSPOyGdsXtqTsxuTpYdAniTo7Ua9/JI+4sTPFj4K3GV59UNS5nh6zeTsI6+5k
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yx+y0k/fWUFl1bWz1WaktBboVQywrtJWtWmnWeZm33MteWchh4Wx6p6IKxa8I6MMIt9XvJWDZfMIMmE4FEMozYjOMufWNC8RsRmCkMOMkOon/T4gUyXJkHdDnuog3q9topFV+elSHUq
zsa1PGI5GysIF3bwEB7cyGw== sudhakar@UrsaMajor",
  "resourceGroup": "RGMATTERMOST",
  "tags": null,
  "type": null
}
```
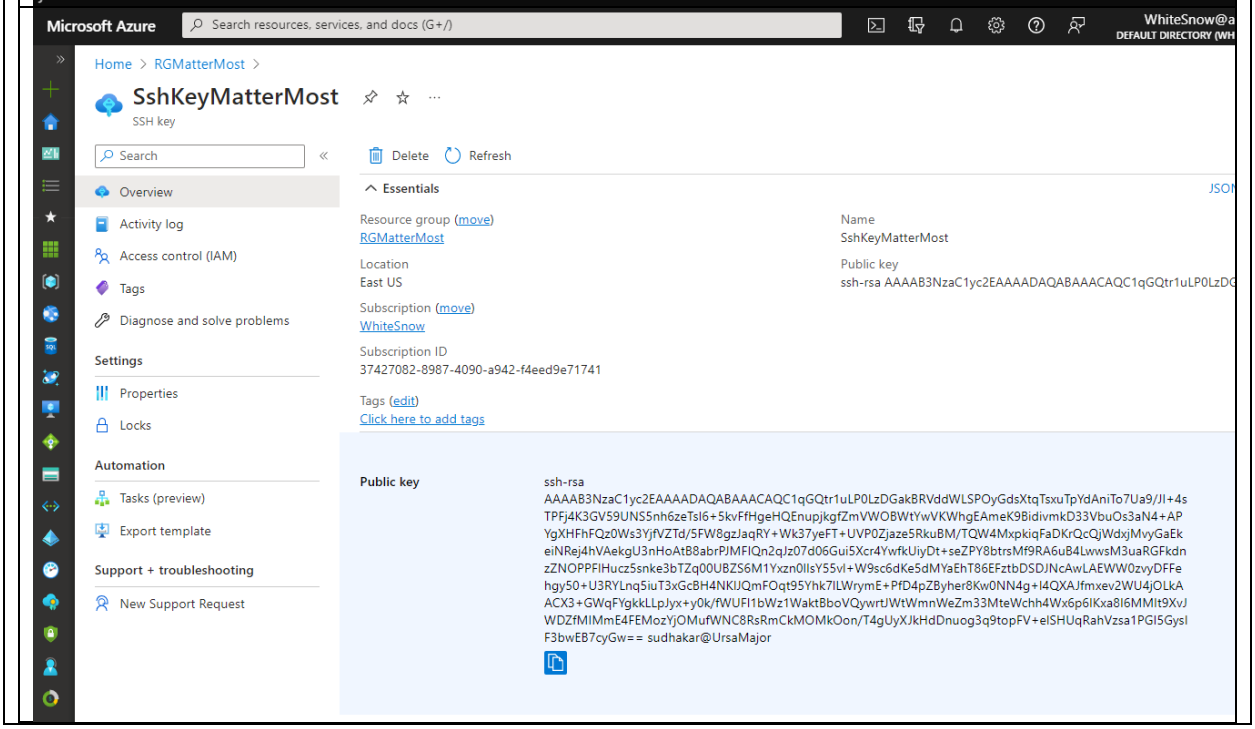



STEP 14: Set the shell variables : VM_SIZE, IMAGE, USER

Set the following shell variables (used by VM create command)

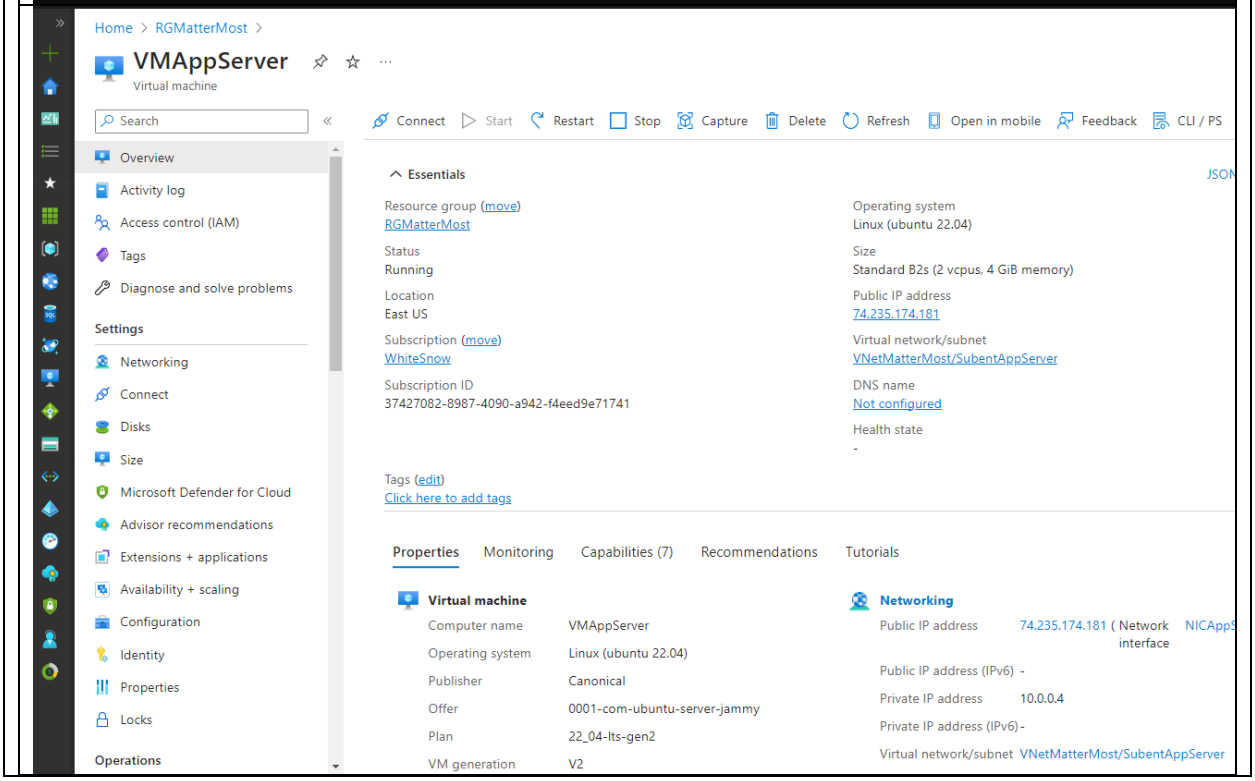
```
sudhakar@UrsaMajor:~/azure-projects$
sudhakar@UrsaMajor:~/azure-projects$ IMAGE_VM="Ubuntu2204"
sudhakar@UrsaMajor:~/azure-projects$ VM_SIZE="Standard_B2s"
sudhakar@UrsaMajor:~/azure-projects$ USER_VM="azureuser"
sudhakar@UrsaMajor:~/azure-projects$ VM_APP_SERVER="VMAppServer"
sudhakar@UrsaMajor:~/azure-projects$ VM_DB_SERVER="VMDbServer"
```

STEP 15: Create a VM for App Server

```
az vm create --resource-group ${RES_GROUP} --name ${VM_APP_SERVER} \
--image ${IMAGE_VM} --size ${VM_SIZE} --nics ${NIC_APP_SERVER}  \
--vnet-name ${VNET} --subnet ${SUBNET_DB_SERVER} \
```

```
--admin-username ${USER_VM} --ssh-key-name ${SSH_KEY}  \
 --public-ip-sku "BASIC"
```

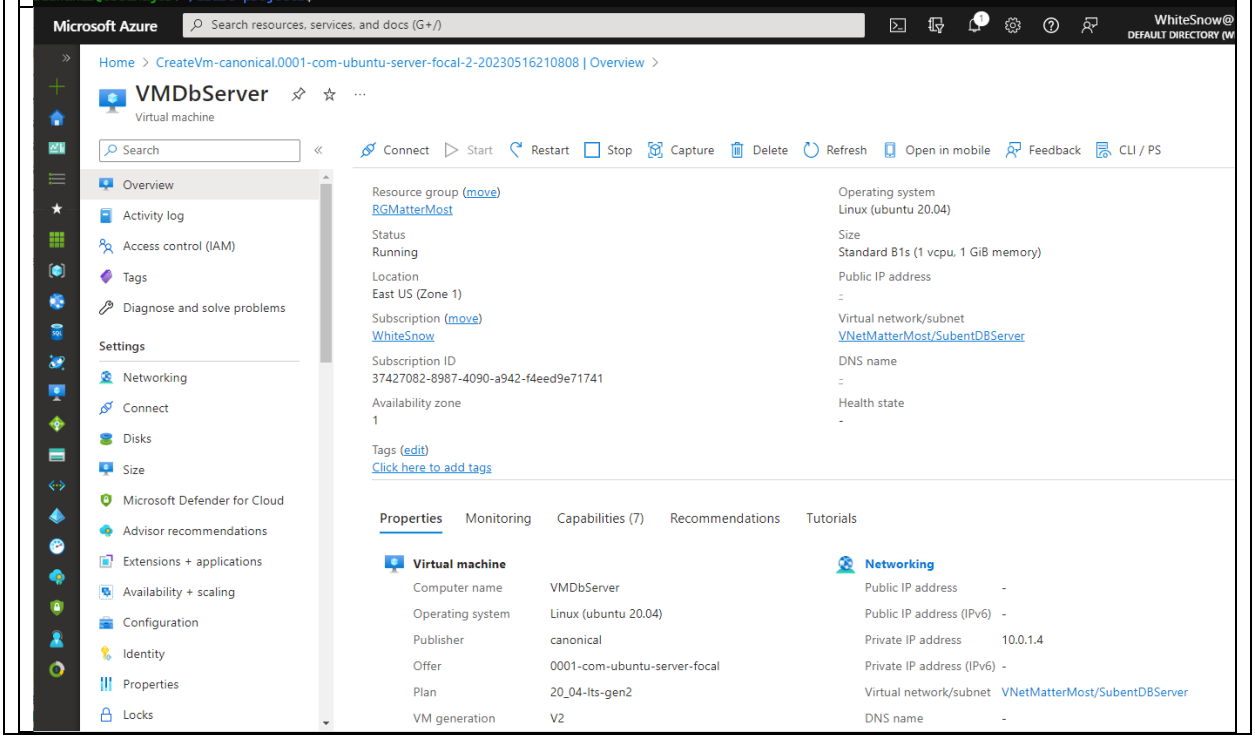
```
sudhakar@UrsaMajor:~/azure-projects$ az vm create --resource-group ${RES_GROUP} --name ${VM_APP_SERVER} \
--image ${IMAGE_VM} --size ${VM_SIZE} --nics ${NIC_APP_SERVER}  \
--admin-username ${USER_VM} --ssh-key-name ${SSH_KEY}  \
 --public-ip-sku "BASIC"
Starting Build 2023 event, "az vm/vmss create" command will deploy Trusted Launch VM by default. To know more about Trusted Launch, please visit https://d
crosoft.com/en-us/azure/virtual-machines/trusted-launch
{
  "fqdns": "",
  "id": "/subscriptions/37427082-8987-4090-a942-f4eed9e71741/resourceGroups/RGMatterMost/providers/Microsoft.Compute/virtualMachines/VMAppServer",
  "location": "eastus",
  "macAddress": "00-22-48-32-DB-B1",
  "powerState": "VM running",
  "privateIpAddress": "10.0.0.4",
  "publicIpAddress": "74.235.174.181",
  "resourceGroup": "RGMatterMost",
  "zones": ""
}
sudhakar@UrsaMajor:~/azure-projects$
```



STEP 16: Create a VM for the Database Server

```
az vm create --resource-group ${RES_GROUP} --name ${VM_DB_SERVER}  \
--public-ip-address '""' \
--image ${IMAGE_VM} --size ${VM_SIZE} \
--admin-username ${USER_VM} --ssh-key-name ${SSH_KEY}  \
--vnet-name ${VNET} --subnet ${SUBNET_DB_SERVER}
```

```
sudhakar@UrsaMajor:~/azure-projects$ az vm create --resource-group ${RES_GROUP} --name ${VM_DB_SERVER}  \
--image ${IMAGE_VM} --size ${VM_SIZE} \
--admin-username ${USER_VM} --ssh-key-name ${SSH_KEY}  \
--vnet-name ${VNET} --subnet ${SUBNET_DB_SERVER}
Starting Build 2023 event, "az vm/vmss create" command will deploy Trusted Launch VM by default. To know more about Trusted Launch, please visit https://dc
crosoft.com/en-us/azure/virtual-machines/trusted-launch
It is recommended to use parameter "--public-ip-sku Standard" to create new VM with Standard public IP. Please note that the default public IP used for VM
ion will be changed from Basic to Standard in the future.
{
  "fqdns": "",
  "id": "/subscriptions/37427082-8987-4090-a942-f4eed9e71741/resourceGroups/RGMatterMost/providers/Microsoft.Compute/virtualMachines/VMDbServer",
  "location": "eastus",
  "macAddress": "00-22-48-1C-6E-39",
  "powerState": "VM running",
  "privateIpAddress": "10.0.1.4",
  "publicIpAddress": "20.25.114.144",
  "resourceGroup": "RGMatterMost",
  "zones": ""
}
sudhakar@UrsaMajor:~/azure-projects$
```



STEP 17: Get the public IP address of the App server

APP_SERVER_IP=$(az network public-ip list --resource-group ${RES_GROUP} --query [].ipAddress --output tsv)

```
sudhakar@UrsaMajor:~/azure-projects$ APP_SERVER_IP=$(az network public-ip list --resource-group ${RES_GROUP} --query [].ipAddress --output ts
sudhakar@UrsaMajor:~/azure-projects$ echo $APP_SERVER_IP
74.235.174.181
sudhakar@UrsaMajor:~/azure-projects$
```

STEP 18: Copy the SSH key to APP server.

Copy the SSH Key to APP server. This will allow us to establish SSH connections to DB server from App Server (Bastion)

```
SSH_KEY_FILE="mattermost-vm-key"
scp -i ${SSH_KEY_FILE}  ${SSH_KEY_FILE}  azureuser@${APP_SERVER_IP}:.ssh
```

```
sudhakar@UrsaMajor:~/azure-projects$ SSH_KEY_FILE="mattermost-vm-key"
sudhakar@UrsaMajor:~/azure-projects$ scp -i ${SSH_KEY_FILE}  ${SSH_KEY_FILE}  azureuser@${APP_SERVER_IP}:.ssh
mattermost-vm-key                                                                    100% 3381   114.1KB/s   00:0
sudhakar@UrsaMajor:~/azure-projects$
```

STEP 19: SSH connect to APP server

ssh -i ${SSH_KEY_FILE} azureuser@${APP_SERVER_IP}

```
sudhakar@UrsaMajor:~/azure-projects$ ssh -i ${SSH_KEY_FILE} azureuser@${APP_SERVER_IP}
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.15.0-1038-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Wed May 17 01:36:35 UTC 2023

  System load:  0.02490234375     Processes:             106
  Usage of /:   5.0% of 28.89GB   Users logged in:       0
  Memory usage: 7%                IPv4 address for eth0: 10.0.0.4
  Swap usage:   0%


Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


Last login: Wed May 17 01:15:50 2023 from 73.159.171.229
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

STEP 20: SSH connect to DB Server from App server

Connect to the DB Server using the SSH key uploaded in the previous step. The Private IP address of the DB server is 10.0.1.4 and can be used for SSH connections.

ssh -i .ssh/mattermost-vm-key azureuser@10.0.1.4

STEP 21: Run the following command to update

```
Sudo -s
Apt update && apt upgrade -y
```

```
azureuser@VMDbServer:~$ sudo -s
root@VMDbServer:/home/azureuser# apt update && apt upgrade -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu focal/universe amd64 Packages [8628 kB]
Get:6 http://azure.archive.ubuntu.com/ubuntu focal/universe Translation-en [5124 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu focal/universe amd64 c-n-f Metadata [26
Get:8 http://azure.archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [144 kB
Get:9 http://azure.archive.ubuntu.com/ubuntu focal/multiverse Translation-en [104 kB
Get:10 http://azure.archive.ubuntu.com/ubuntu focal/multiverse amd64 c-n-f Metadata
Get:11 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [254
Get:12 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 c-n-f Metadat
Get:13 http://azure.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages
Get:14 http://azure.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en
Get:15 http://azure.archive.ubuntu.com/ubuntu focal-updates/universe amd64 c-n-f Met
Get:16 http://azure.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Package
Get:17 http://azure.archive.ubuntu.com/ubuntu focal-updates/multiverse Translation-e
Get:18 http://azure.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f M
Get:19 http://azure.archive.ubuntu.com/ubuntu focal-backports/main amd64 Packages [4
Get:20 http://azure.archive.ubuntu.com/ubuntu focal-backports/main Translation-en [1
Get:21 http://azure.archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metad
Get:22 http://azure.archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f
Get:23 http://azure.archive.ubuntu.com/ubuntu focal-backports/universe amd64 Package
Get:24 http://azure.archive.ubuntu.com/ubuntu focal-backports/universe Translation-e
Get:25 http://azure.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f M
Get:26 http://azure.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f
Get:27 http://azure.archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [21
Get:28 http://azure.archive.ubuntu.com/ubuntu focal-security/main Translation-en [35
Get:29 http://azure.archive.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metada
Get:30 http://azure.archive.ubuntu.com/ubuntu focal-security/restricted amd64 Packag
Get:31 http://azure.archive.ubuntu.com/ubuntu focal-security/restricted Translation-
Get:32 http://azure.archive.ubuntu.com/ubuntu focal-security/universe amd64 Packages
Get:33 http://azure.archive.ubuntu.com/ubuntu focal-security/universe Translation-en
Get:34 http://azure.archive.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Me
Get:35 http://azure.archive.ubuntu.com/ubuntu focal-security/multiverse amd64 Packag
Get:36 http://azure.archive.ubuntu.com/ubuntu focal-security/multiverse Translation-
Get:37 http://azure.archive.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f
Fetched 24.2 MB in 4s (5723 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
All packages are up to date.
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@VMDbServer:/home/azureuser#
```

STEP 22-1: Install the MySQL server

```
apt-get install mysql-server
```

```
root@VMDbServer:/home/azureuser#  apt-get install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libcgi-fast-perl libcgi-pm-perl libencode-locale-perl libevent-core-2.1-7 libevent-pthreads-2.1-7 libfcgi-perl li
  libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl liblwp-mediatypes-perl libmecab2 lib
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server-8.0 mysql-server-c
Suggested packages:
  libdata-dump-perl libipc-sharedcache-perl libwww-perl mailx tinyca
The following NEW packages will be installed:
  libcgi-fast-perl libcgi-pm-perl libencode-locale-perl libevent-core-2.1-7 libevent-pthreads-2.1-7 libfcgi-perl li
  libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl liblwp-mediatypes-perl libmecab2 lib
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common mysql-server mysql-server-8.0 m
0 upgraded, 25 newly installed, 0 to remove and 0 not upgraded.
Need to get 36.8 MB of archives.
After this operation, 319 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 mysql-common all 5.8+1.0.5ubuntu2 [7496 B]
Get:2 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-client-core-8.0 amd64 8.0.33-0ubuntu0.2
Get:3 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-client-8.0 amd64 8.0.33-0ubuntu0.20.04.
Get:4 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 libevent-core-2.1-7 amd64 2.1.11-stable-1 [89.1 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 libevent-pthreads-2.1-7 amd64 2.1.11-stable-1 [7372 B
Get:6 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 libmecab2 amd64 0.996-10build1 [233 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-server-core-8.0 amd64 8.0.33-0ubuntu0.2
Get:8 http://azure.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-server-8.0 amd64 8.0.33-0ubuntu0.20.04.
Get:9 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 libhtml-tagset-perl all 3.20-4 [12.5 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 liburi-perl all 1.76-2 [77.5 kB]
Get:11 http://azure.archive.ubuntu.com/ubuntu focal/main amd64 libhtml-parser-perl amd64 3.72-5 [86.3 kB]
```

STEP 22-2 : Check the status of MySql Server

```
systemctl status mysql
```

```
root@VMDbServer:/home/azureuser# systemctl status mysql
● mysql.service - MySQL Community Server
     Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
     Active: active (running) since Wed 2023-05-17 01:51:29 UTC; 2min 21s ago
   Main PID: 2933 (mysqld)
     Status: "Server is operational"
      Tasks: 37 (limit: 1076)
     Memory: 357.0M
     CGroup: /system.slice/mysql.service
             └─2933 /usr/sbin/mysqld

May 17 01:51:28 VMDbServer systemd[1]: Starting MySQL Community Server...
May 17 01:51:29 VMDbServer systemd[1]: Started MySQL Community Server.
root@VMDbServer:/home/azureuser#
```

STEP 22-3 : Create the user ‘mmuser’

Create the user ‘mmuser’ to be used by Mattermost as follows

```
sudo mysql
```

create user 'mmuser'@'%' identified by 'pi=3.14159';

create database mattermost;

```
grant all privileges on mattermost.* to 'mmuser'@'%';
```

```
root@VMDbServer:/home/azureuser# mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.33-0ubuntu0.20.04.2 (Ubuntu)

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create user 'mmuser'@'%' identified by 'pi=3.14159'
    -> ;
Query OK, 0 rows affected (0.03 sec)

mysql> create database mattermost;
Query OK, 1 row affected (0.01 sec)

mysql> grant all privileges on mattermost.* to 'mmuser'@'%';
Query OK, 0 rows affected (0.02 sec)

mysql> exit
Bye
```

STEP 22-4 : Modify the MySQL configuration

Run the following commands to change the bind address to 0.0.0.0 from 127.0.0.1 and restart the MySQL service.

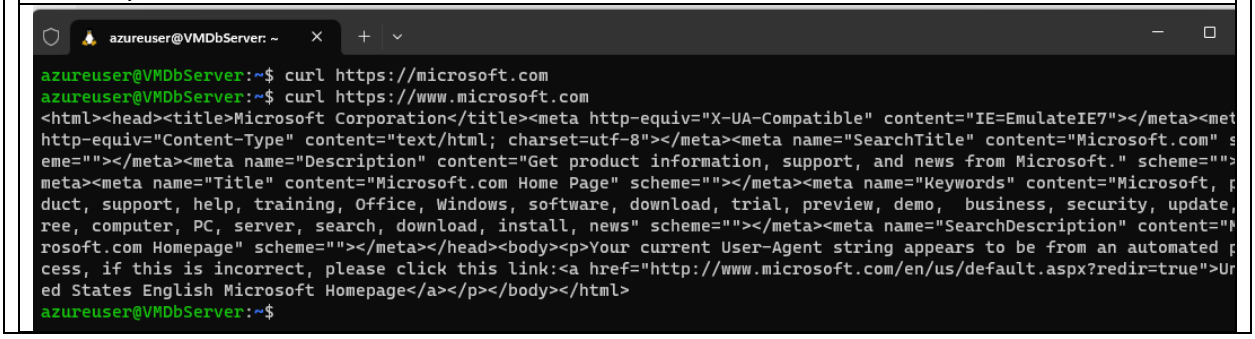
```
sed -i "s/bind-address/#bind-address/" /etc/mysql/mysql.conf.d/mysqld.cnf

sed -i "/\[mysqld\]/abind-address = 0.0.0.0" /etc/mysql/mysql.conf.d/mysqld.cnf

systemctl stop mysql.service

systemctl start mysql.service
```

```
root@VMDbServer:/home/azureuser# sed -i "s/bind-address/#bind-address/" /etc/mysql/mysql.conf.d/mysqld.cnf
root@VMDbServer:/home/azureuser# sed -i "/\[mysqld\]/abind-address = 0.0.0.0" /etc/mysql/mysql.conf.d/mysqld.cn
root@VMDbServer:/home/azureuser# vi /etc/mysql/mysql.conf.d/mysqld.cnf
root@VMDbServer:/home/azureuser# systemctl start mysql.service
root@VMDbServer:/home/azureuser# systemctl stop mysql.service
root@VMDbServer:/home/azureuser# systemctl start mysql.service
```

STEP 23-1: Update the NsgDbServer to disable the Outbound traffic to internet

The DB Server subnet no longer needs to connect to the internet as the MySQL server has been downloaded from the internet and installed. Run “curl https//www.microsoft.com” to verify the internet connection from VMDbServer.

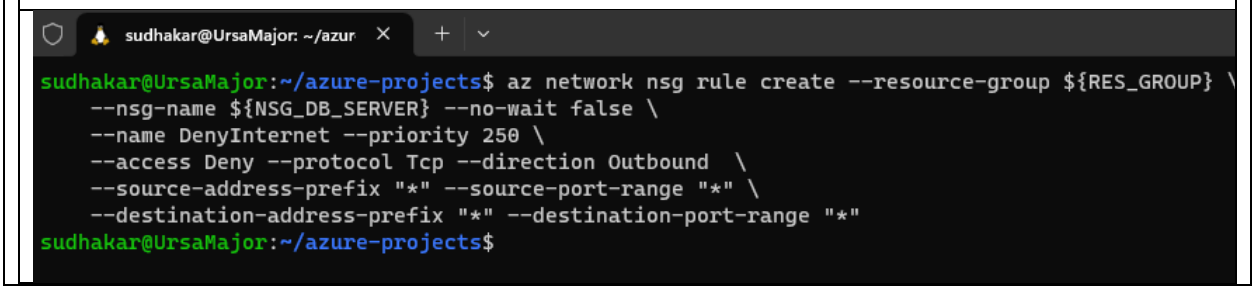
curl https//www.microsoft.com

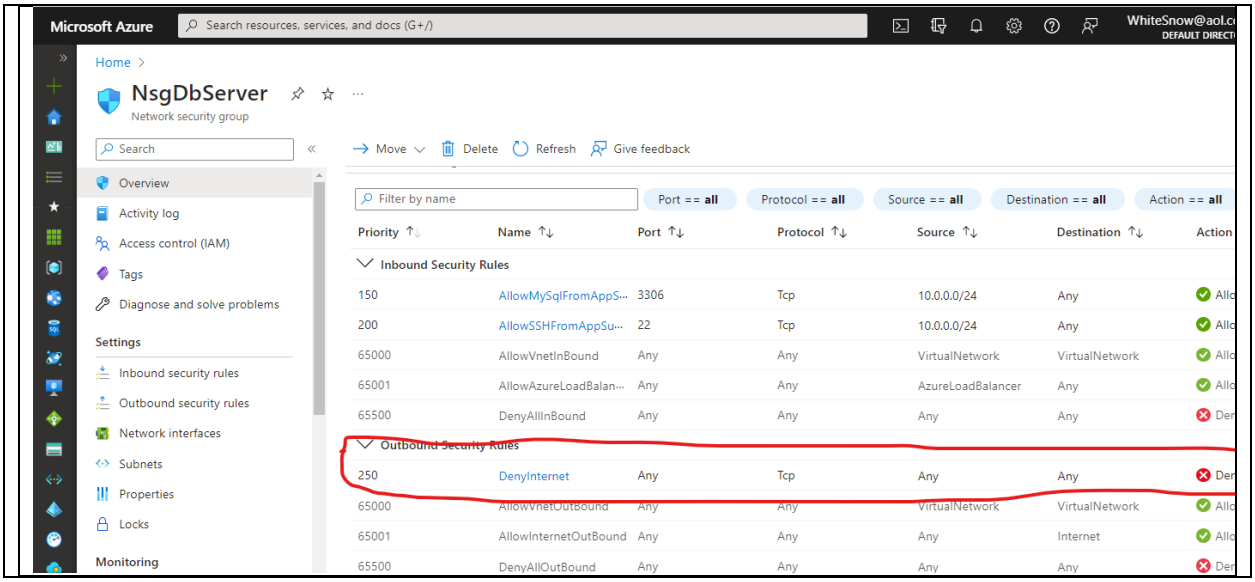


STEP 23-2: Create an outbound rule to deny internet connections for NsgDbServer

Log out from the NsgDbServer and from the Dev Console run the following command.

```
az network nsg rule create --resource-group ${RES_GROUP} \
    --nsg-name ${NSG_DB_SERVER} --no-wait false \
    --name DenyInternet --priority 250 \
    --access Deny --protocol Tcp --direction Outbound  \
    --source-address-prefix "*" --source-port-range "*" \
    --destination-address-prefix "*" --destination-port-range "*"
```

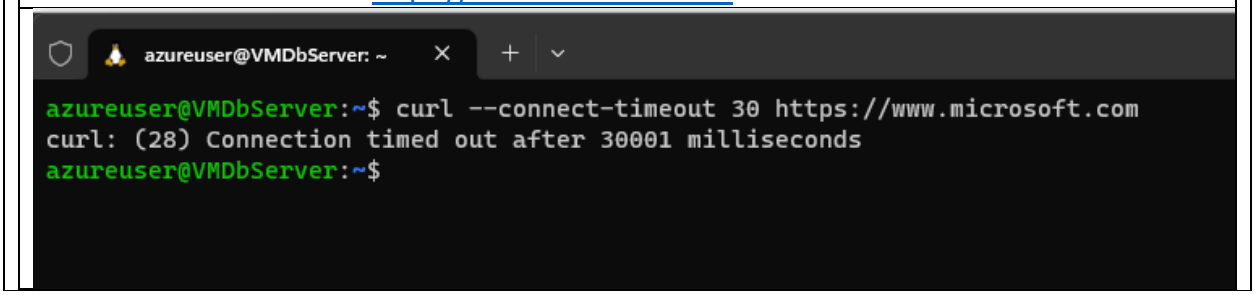




STEP 23-3: Login to VMDbServer and verify the internet connection.

The following command times out as the outbound rule prevents the internet connections

curl --connect-timeout 30 https://www.microsoft.com



.

Step 24: Login to App server and run Update and Upgrade

and do APT upgrade the App Server

Update & Upgrade the APP Server

apt update && apt upgrade -y

```
azureuser@VMAppServer:~$ sudo -s
azureuser@VMAppServer:~$ sudo -s
root@VMAppServer:/home/azureuser# apt update && apt upgrade -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://azure.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [604 kB]
Get:12 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [170 kB]
Get:13 http://azure.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [14.4 kB]
Get:14 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [898 kB]
Get:15 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [184 kB]
Get:16 http://azure.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [18.8
Get:17 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [35.3 kB]
Get:18 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [8452 B]
Get:19 http://azure.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [4(
```

STEP 25: Add the Mattermost Server PPA repository.

The installation instructions are based on: ***https://docs.mattermost.com/install/installing-ubuntu-2004-LTS.html***

curl -o- https://deb.packages.mattermost.com/repo-setup.sh | sudo bash -s mattermost

```
root@VMAppServer:/home/azureuser# curl -o- https://deb.packages.mattermost.com/repo-setup.sh | sudo bash -s mattermost
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100  6078  100  6078    0     0  47728      0 --:--:-- --:--:-- --:--:-- 47858
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Get:5 https://deb.packages.mattermost.com jammy InRelease [3956 B]
Get:6 https://deb.packages.mattermost.com jammy/main amd64 Packages [8711 B]
Fetched 12.7 kB in 1s (24.8 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
root@VMAppServer:/home/azureuser#
```

STEP 26: Install the Mattermost server

sudo apt install mattermost -y

```
root@VMAppServer:/home/azureuser# apt install mattermost -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  mattermost
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 407 MB of archives.
After this operation, 0 B of additional disk space will be used.
Get:1 https://deb.packages.mattermost.com jammy/main amd64 mattermost amd64 7.10.0-0 [407 MB]
Fetched 407 MB in 10s (39.2 MB/s)
Selecting previously unselected package mattermost.
(Reading database ... 60404 files and directories currently installed.)
Preparing to unpack .../mattermost_7.10.0-0_amd64.deb ...
Unpacking mattermost (7.10.0-0) ...
Setting up mattermost (7.10.0-0) ...
Created symlink /etc/systemd/system/multi-user.target.wants/mattermost.service → /lib/systemd/system/mattermost.ser
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@VMAppServer:/home/azureuser#
```

STEP 27: Install a configuration file from the default configuration and assign correct permissions.

install -C -m 600 -o mattermost -g mattermost /opt/mattermost/config/config.defaults.json /opt/mattermost/config/config.json

Location of config file: /opt/mattermost/config/config.json

```
root@VMAppServer:/home/azureuser# ll /opt/mattermost/config/config.json
-rw------- 1 mattermost mattermost 20347 May 17 03:59 /opt/mattermost/config/config.j
root@VMAppServer:/home/azureuser#
```

STEP 28: Modify the config.json using vi or other editor as follows

Set the **SQLSetttings.DriverName to "mysql"**

Set the **SQLSettings.DataSource to "mmuser:pi=3.14159@tcp(10.0.1.4:3306)/mattermost?charset=utf8mb4,utf8\u0026writeTimeout=30s"**

This is the connection string to MySQL installed on the private subnet.
10.0.1.4 is the private IP address of the MySQL server

Set the **ServiceSettings.SiteURL to http://74.235.174.181 (public IP)**

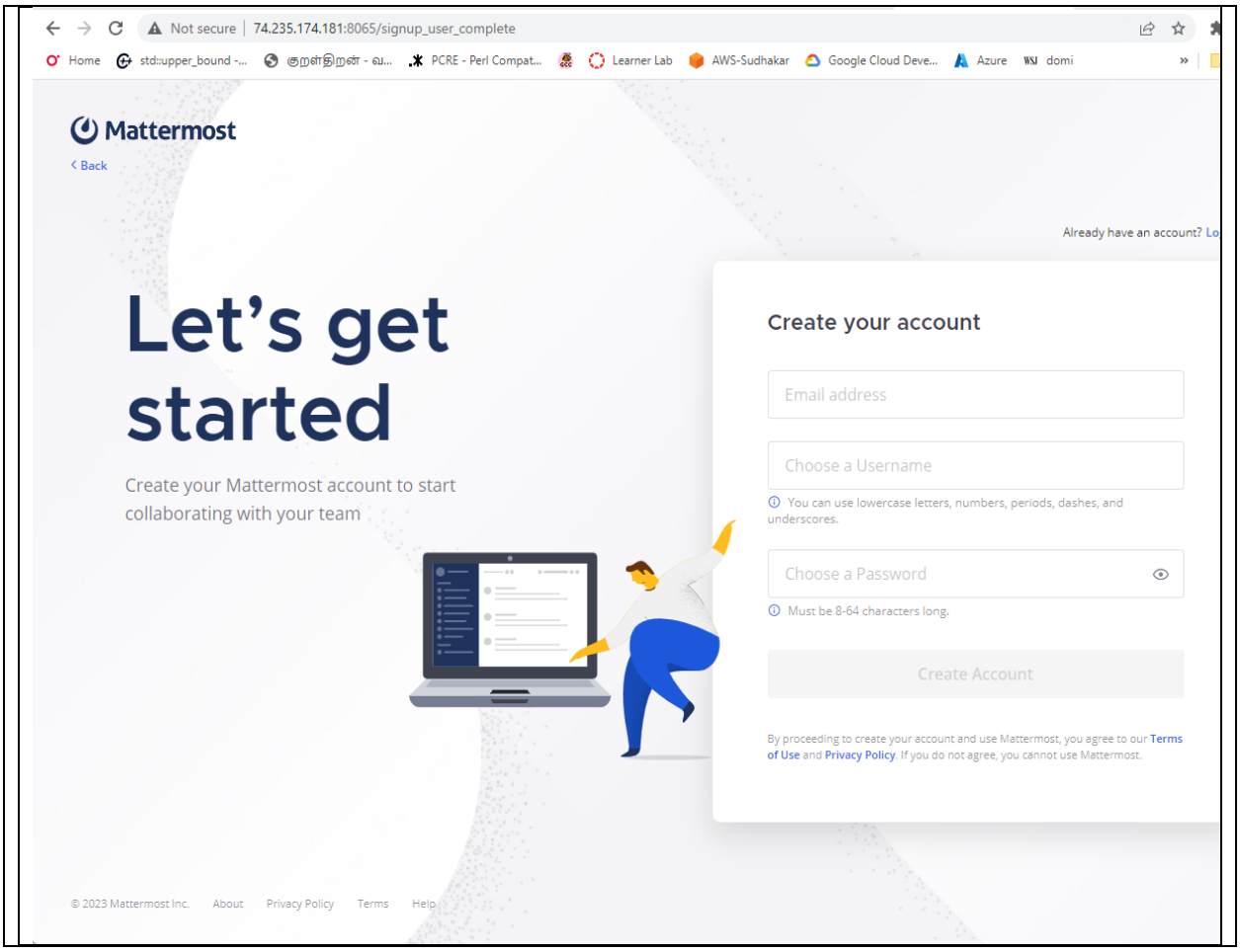
STEP 29: Start the Mattermost server and enable the Mattermost server to start on system boot.

```
sudo systemctl start mattermost
systemctl enable mattermost.service
```

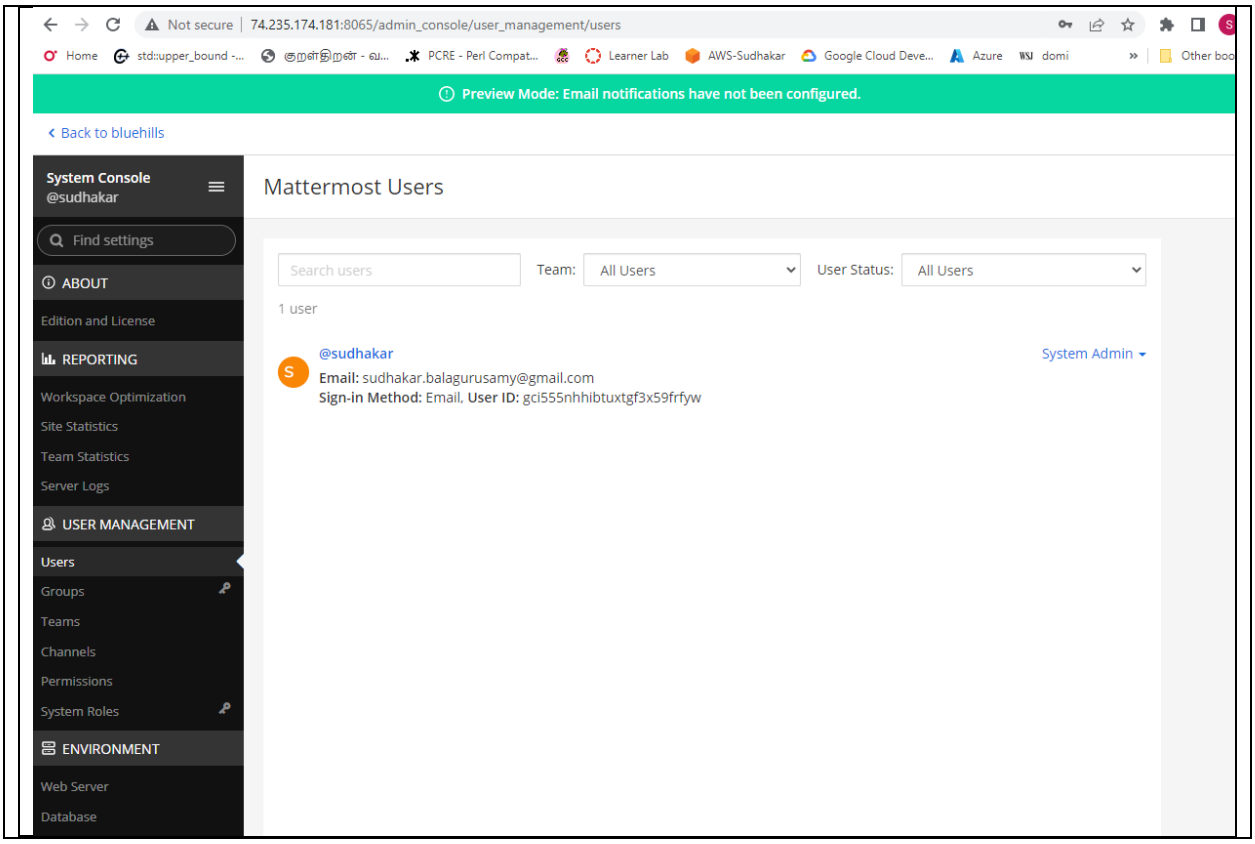
```
root@VMAppServer:/home/azureuser# systemctl start mattermost
Warning: The unit file, source configuration file or drop-ins of mattermost.service changed on disk. Run 'systemctl d
on-reload' to reload units.

root@VMAppServer:/home/azureuser#
root@VMAppServer:/home/azureuser#  curl http://localhost:8065
<!doctype html><html lang="en"><head><meta charset="utf-8"><meta name="viewport" content="width=device-width,initial-
le=1,maximum-scale=1,user-scalable=0"><meta name="robots" content="noindex, nofollow"><meta name="referrer" content="
referrer"><title>Mattermost</title><meta name="mobile-web-app-capable" content="yes"><meta name="application-name" co
nt="Mattermost"><meta name="format-detection" content="telephone=no"><link rel="icon" type="image/png" href="/static/
ges/favicon/favicon-default-16x16.png" sizes="16x16"><link rel="icon" type="image/png" href="/static/images/favicon/f
con-default-24x24.png" sizes="24x24"><link rel="icon" type="image/png" href="/static/images/favicon/favicon-default-3
2.png" sizes="32x32"><link rel="icon" type="image/png" href="/static/images/favicon/favicon-default-64x64.png" sizes=
x64"><link rel="icon" type="image/png" href="/static/images/favicon/favicon-default-96x96.png" sizes="96x96"><link re
stylesheet" class="code_theme"><style>.error-screen{font-family:'Helvetica Neue',Helvetica,Arial,sans-serif;padding-t
50px;max-width:750px;font-size:14px;color:#333;margin:auto;display:none;line-height:1.5}.error-screen h2{font-size:30
font-weight:400;line-height:1.2}.error-screen ul{padding-left:15px;line-height:1.7;margin-top:0;margin-bottom:10px}.e
r-screen hr{color:#ddd;margin-top:20px;margin-bottom:20px;border:0;border-top:1px solid #eee}.error-screen-visible{di
ay:block}</style><meta http-equiv="Content-Security-Policy" content="script-src 'self' cdn.rudderlabs.com/ js.stripe.
/v3"><script defer="defer" src="/static/main.b29dc78a3859ff5e15cf.js"></script><script defer="defer" src="/static/rem
_entry.js?bt=1681402592246"></script><meta name="apple-mobile-web-app-title" content="Mattermost" /><meta name="apple
bile-web-app-capable" content="yes" /><meta name="apple-mobile-web-app-status-bar-style" content="default" /><link re
apple-touch-icon" sizes="76x76" href="/static/icon_76x76.png" /><link rel="apple-touch-icon" sizes="72x72" href="/sta
/icon_72x72.png" /><link rel="apple-touch-icon" sizes="60x60" href="/static/icon_60x60.png" /><link rel="apple-touch-
n" sizes="57x57" href="/static/icon_57x57.png" /><link rel="apple-touch-icon" sizes="152x152" href="/static/icon_152x
.png" /><link rel="apple-touch-icon" sizes="144x144" href="/static/icon_144x144.png" /><link rel="apple-touch-icon" s
s="120x120" href="/static/icon_120x120.png" /><link rel="manifest" href="/static/manifest.json" /></head><body class=
nt--open_sans enable-animations"><div id="root"><div class="error-screen"><h2>Cannot connect to Mattermost</h2><hr/><
e're having trouble connecting to Mattermost. If refreshing this page (Ctrl+R or Command+R) does not work, please ver
 that your computer is connected to the internet.</p><br/></div><div class="loading-screen" style="position:relative"
iv class="loading__content"><div class="round round-1"></div><div class="round round-2"></div><div class="round round
></div></div></div></div><div id="root-portal"></div><noscript>To use Mattermost, please enable JavaScript.</noscript
body></html>root@VMAppServer:/home/azureuser# systemctl enable mattermost.service
root@VMAppServer:/home/azureuser#
```

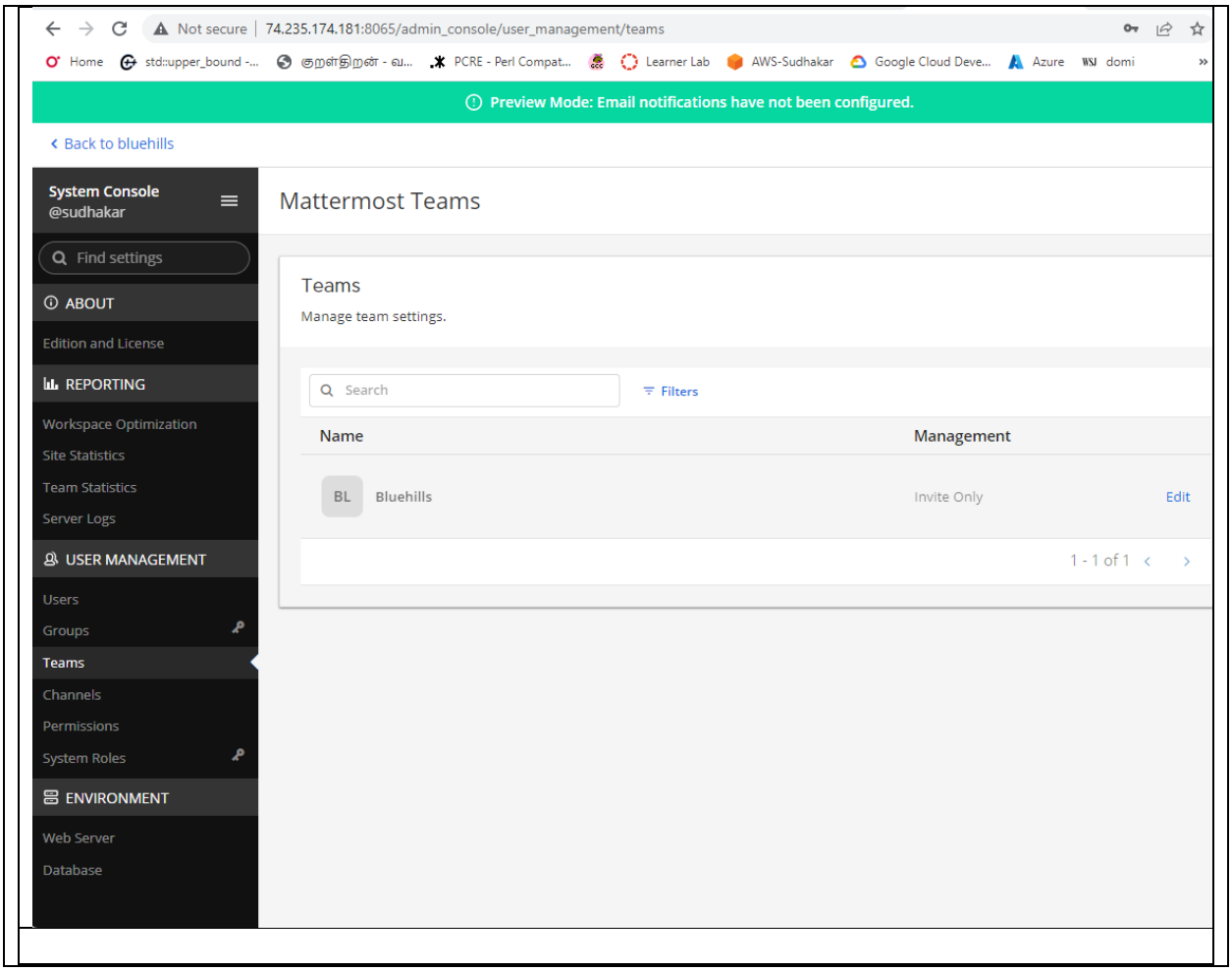
STEP 30: Open the Mattermost URL

http://74.235.174.181:8065/



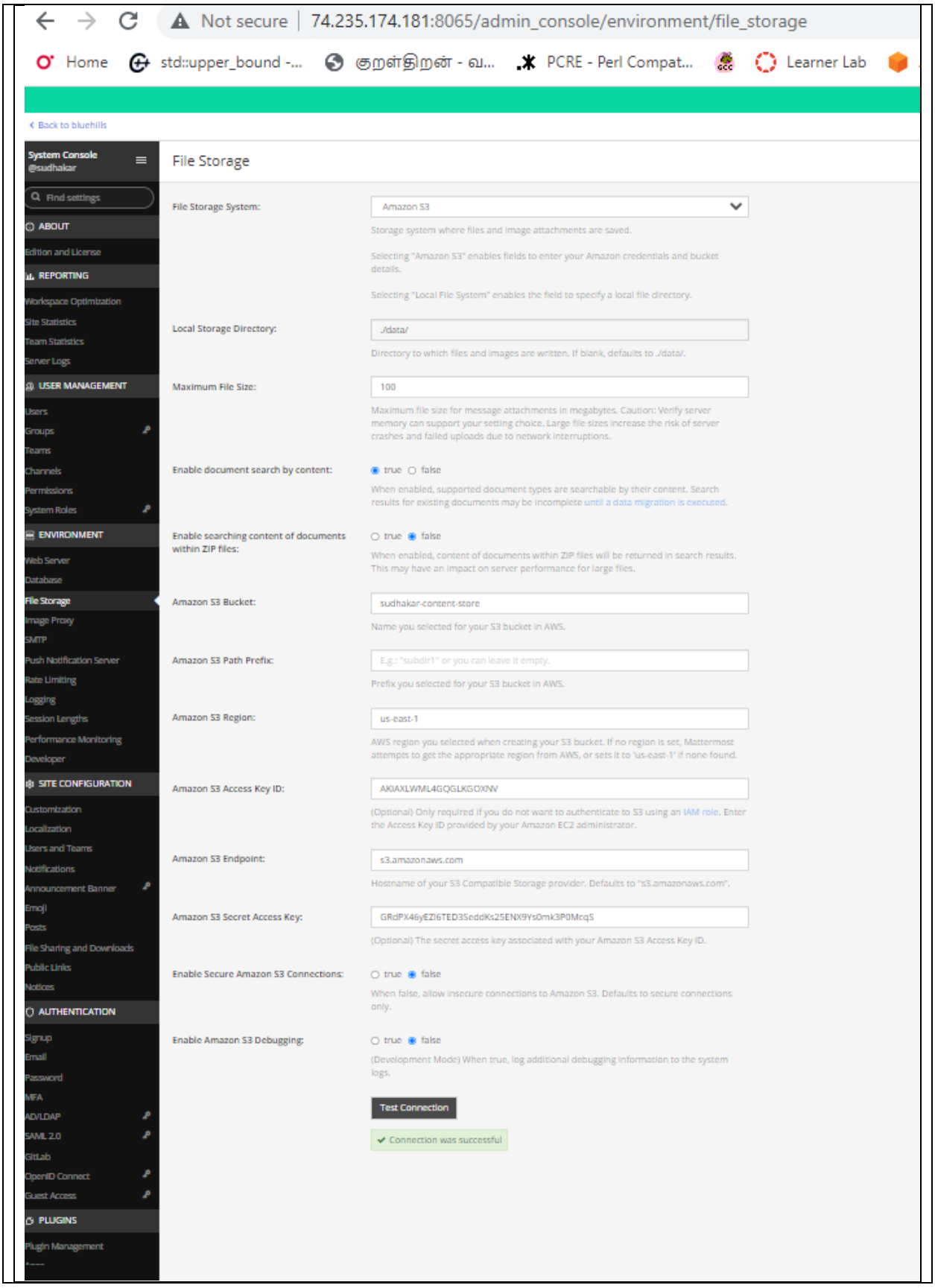
STEP 31: Create the first user and the first user has the admin privileges.


Not secure | 74.235.174.181:8065/admin_console/user_management/users
Home
std::upper_bound -...
குறள்திறன் - வ...
PCRE - Perl Compat...
Learner Lab
AWS-Sudhakar
Google Cloud Deve...
Azure
domi
Other boo
Preview Mode: Email notifications have not been configured.
Back to bluehills
System Console
@sudhakar
Find settings
ABOUT
Edition and License
REPORTING
Workspace Optimization
Site Statistics
Team Statistics
Server Logs
USER MANAGEMENT
Users
Groups
Teams
Channels
Permissions
System Roles
ENVIRONMENT
Web Server
Database
Mattermost Users
Search users
Team:
All Users
User Status:
All Users
1 user
@sudhakar
System Admin
Email: sudhakar.balagurusamy@gmail.com
Sign-in Method: Email, User ID: gci555nhhibtuxtgf3x59frfyw

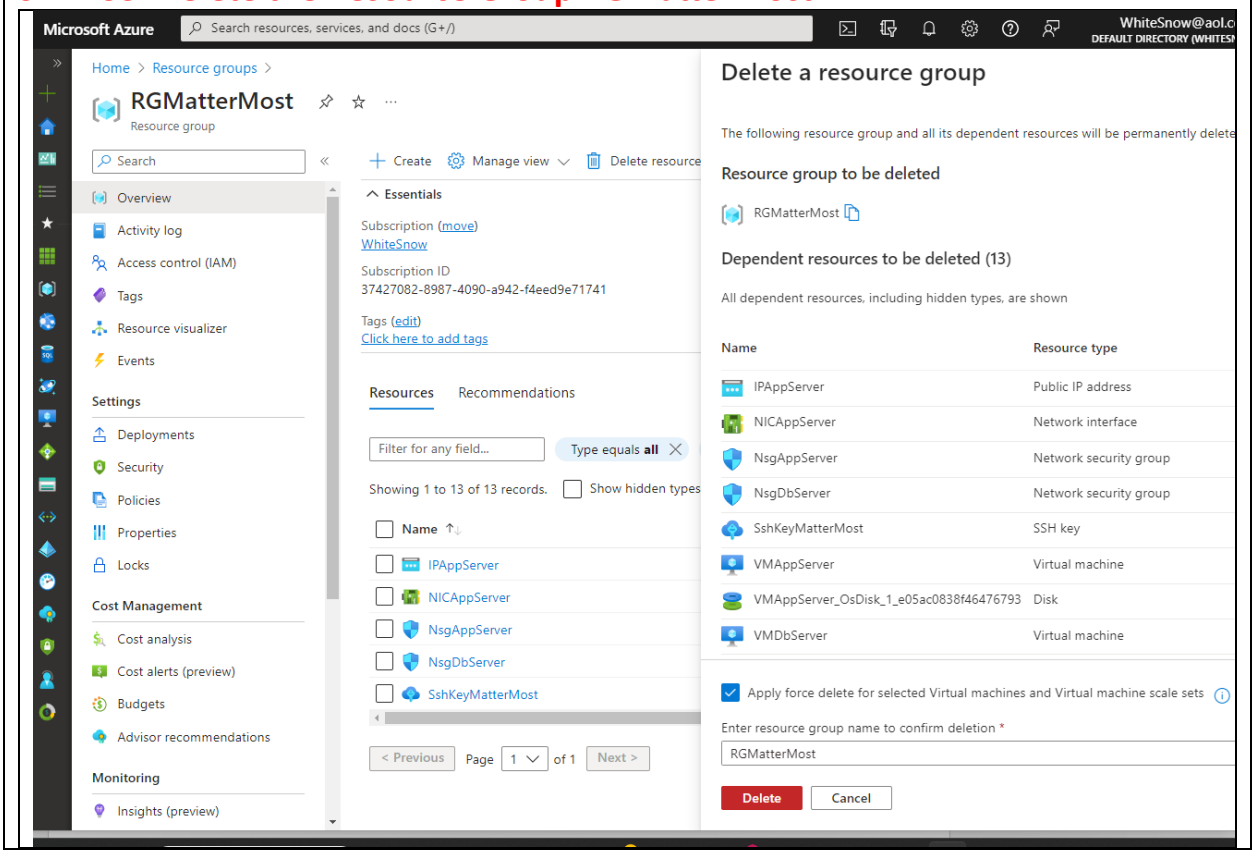


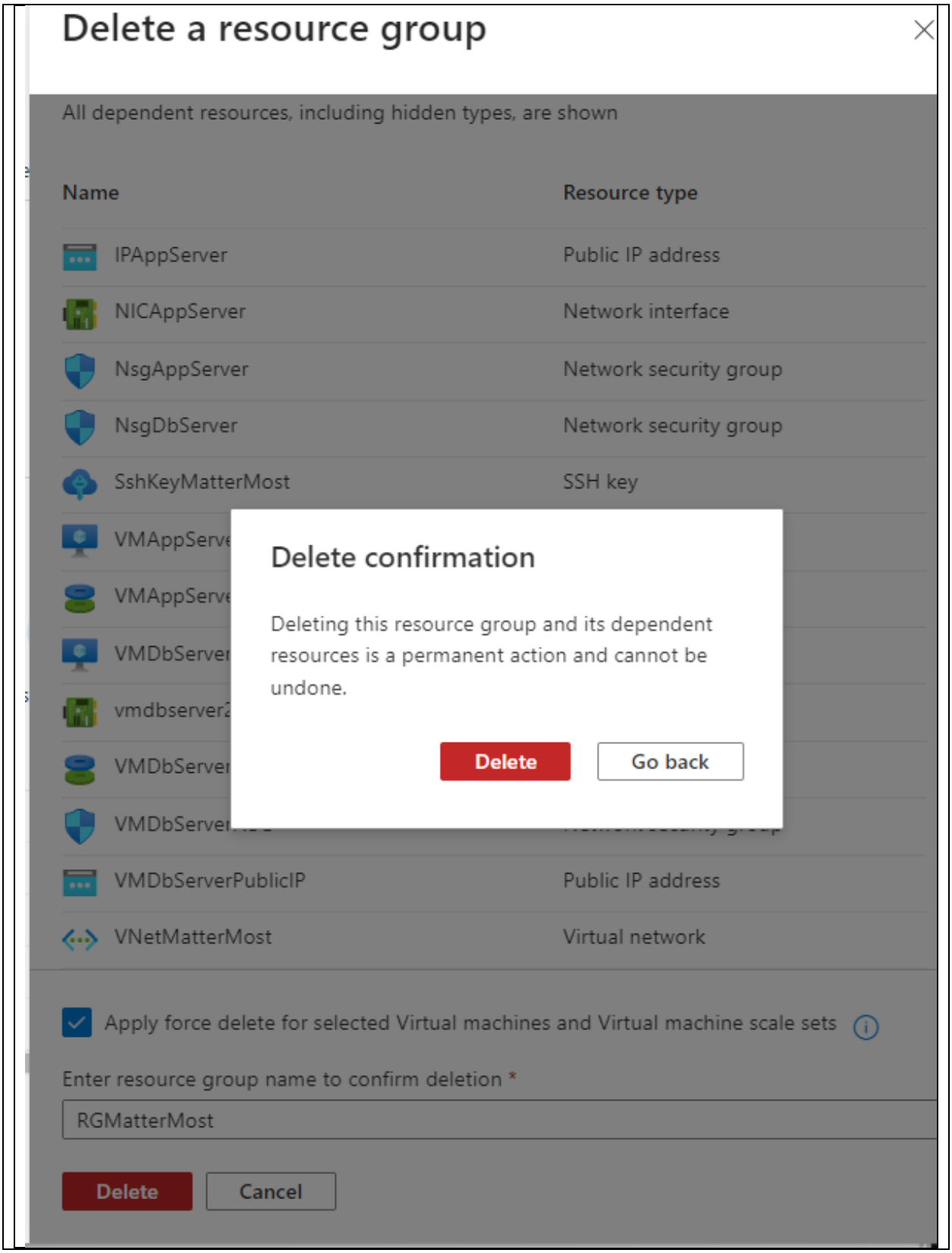
STEP 32: Configure Mattermost server to store the data in an AWS S3 bucket.

The following screen print shows the configuration of storage to use the S3 bucket:
arn:aws:s3:::sudhakar-content-store


Not secure | 74.235.174.181:8065/admin_console/environment/file_storage
Home
std::upper_bound -...
குறள்திறன் - வ...
PCRE - Perl Compat...
Learner Lab
Back to bluehills
System Console
@sudhakar
Find settings
ABOUT
Edition and License
REPORTING
Workspace Optimization
Site Statistics
Team Statistics
Server Logs
USER MANAGEMENT
Users
Groups
Teams
Channels
Permissions
System Roles
ENVIRONMENT
Web Server
Database
File Storage
Image Proxy
SMTP
Push Notification Server
Rate Limiting
Logging
Session Lengths
Performance Monitoring
Developer
SITE CONFIGURATION
Customization
Localization
Users and Teams
Notifications
Announcement Banner
Emoji
Posts
File Sharing and Downloads
Public Links
Notices
AUTHENTICATION
Signup
Email
Password
MFA
AD/LDAP
SAML 2.0
GitLab
OpenID Connect
Guest Access
PLUGINS
Plugin Management
File Storage
File Storage System:
Amazon S3
Storage system where files and image attachments are saved.
Selecting "Amazon S3" enables fields to enter your Amazon credentials and bucket details.
Selecting "Local File System" enables the field to specify a local file directory.
Local Storage Directory:
./data/
Directory to which files and images are written. If blank, defaults to ./data/.
Maximum File Size:
100
Maximum file size for message attachments in megabytes. Caution: Verify server memory can support your setting choice. Large file sizes increase the risk of server crashes and failed uploads due to network interruptions.
Enable document search by content:
true
false
When enabled, supported document types are searchable by their content. Search results for existing documents may be incomplete until a data migration is executed.
Enable searching content of documents within ZIP files:
true
false
When enabled, content of documents within ZIP files will be returned in search results. This may have an impact on server performance for large files.
Amazon S3 Bucket:
sudhakar-content-store
Name you selected for your S3 bucket in AWS.
Amazon S3 Path Prefix:
E.g.: "subdir1" or you can leave it empty.
Prefix you selected for your S3 bucket in AWS.
Amazon S3 Region:
us-east-1
AWS region you selected when creating your S3 bucket. If no region is set, Mattermost attempts to get the appropriate region from AWS, or sets it to 'us-east-1' if none found.
Amazon S3 Access Key ID:
AKIAXLWML4GQGLKGOXNV
(Optional) Only required if you do not want to authenticate to S3 using an IAM role. Enter the Access Key ID provided by your Amazon EC2 administrator.
Amazon S3 Endpoint:
s3.amazonaws.com
Hostname of your S3 Compatible Storage provider. Defaults to "s3.amazonaws.com".
Amazon S3 Secret Access Key:
GRdPX46yEZl6TED3SeddKs25ENX9Ys0mk3P0Mcq5
(Optional) The secret access key associated with your Amazon S3 Access Key ID.
Enable Secure Amazon S3 Connections:
true
false
When false, allow insecure connections to Amazon S3. Defaults to secure connections only.
Enable Amazon S3 Debugging:
true
false
(Development Mode) When true, log additional debugging information to the system logs.
Test Connection
Connection was successful

STEP 33: Delete the Resource Group RGMatterMost




Delete a resource group
All dependent resources, including hidden types, are shown
Name
Resource type
IPAppServer
Public IP address
NICAppServer
Network interface
NsgAppServer
Network security group
NsgDbServer
Network security group
SshKeyMatterMost
SSH key
VMDbServer
VMDbServerPublicIP
Public IP address
VNetMatterMost
Virtual network
Delete confirmation
Deleting this resource group and its dependent resources is a permanent action and cannot be undone.
Delete
Go back
Apply force delete for selected Virtual machines and Virtual machine scale sets
Enter resource group name to confirm deletion *
RGMatterMost
Delete
Cancel