# D D F
# D

G

# Contents

## 4.1

0 0

D   D F         D 1

D                  /    /

  /       1 D   D F     0     G

 D /           D

D     1

    D F     =

- 
- 
-   0   /   / 0
-   /
- D        + /F /  F ,           /

  D F   D /         0

    1           5.3.47  D   D

F      D 1

        0

D   D F      D 1      D  F   F

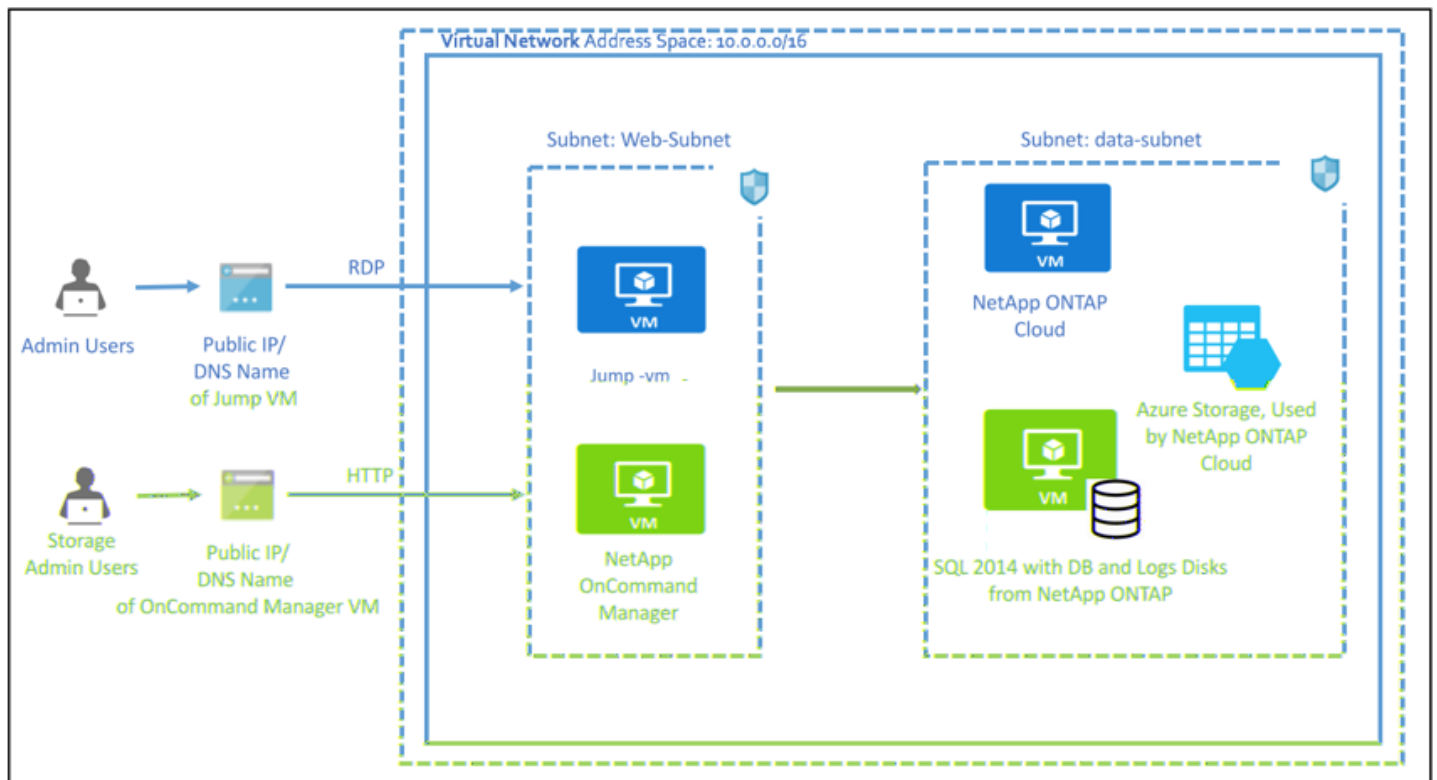      D F 1

## 5.1 F

D   D F    D             /

        1

# 61 D

This template will deploy:

- Six storage accounts
- One Virtual Network with two subnets
- 2 Public IP's, one for OnCommand Manager and one for the Jump VM
- One OnCommand Cloud Manager (BYOL) (for ONTAP Cloud)
- One Windows Server 2012 R2 VM.
- One SQL Server 2014 SP2 Enterprise on Windows Server 2012 R2 VM.
- One NetApp ONTAP Cloud VM



# 71

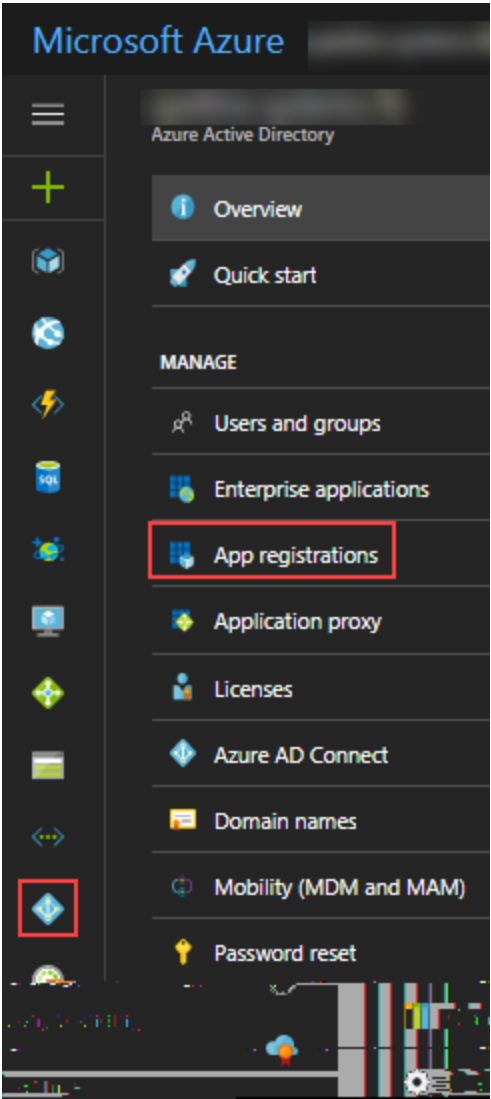D                                     +   D       D

D             ,1

/

1                            G                              1

D                              D                                                          1

G                                    1

# 81  G

## 5.1 Creating an Active Directory Application

41         D              /                    /              **Active Directory**              **App registrations**1



51  F          **+New application registration.**

61                  =

        =**occm-api**

     D             =**Web app/ API**

       0      =**http://sampleurl.com**

71 F       **Create.**

81 1F **Application ID** 1D **occm-api** / **occm-api** 1F **Required permissions.**

91  F      **+Add**                                    1F                  **Select an API**1           **Windows Azure Service Management API**1



: 1 F            **Select permissions**                **Access Azure Service Management as organization users (preview).** F            **Select.**
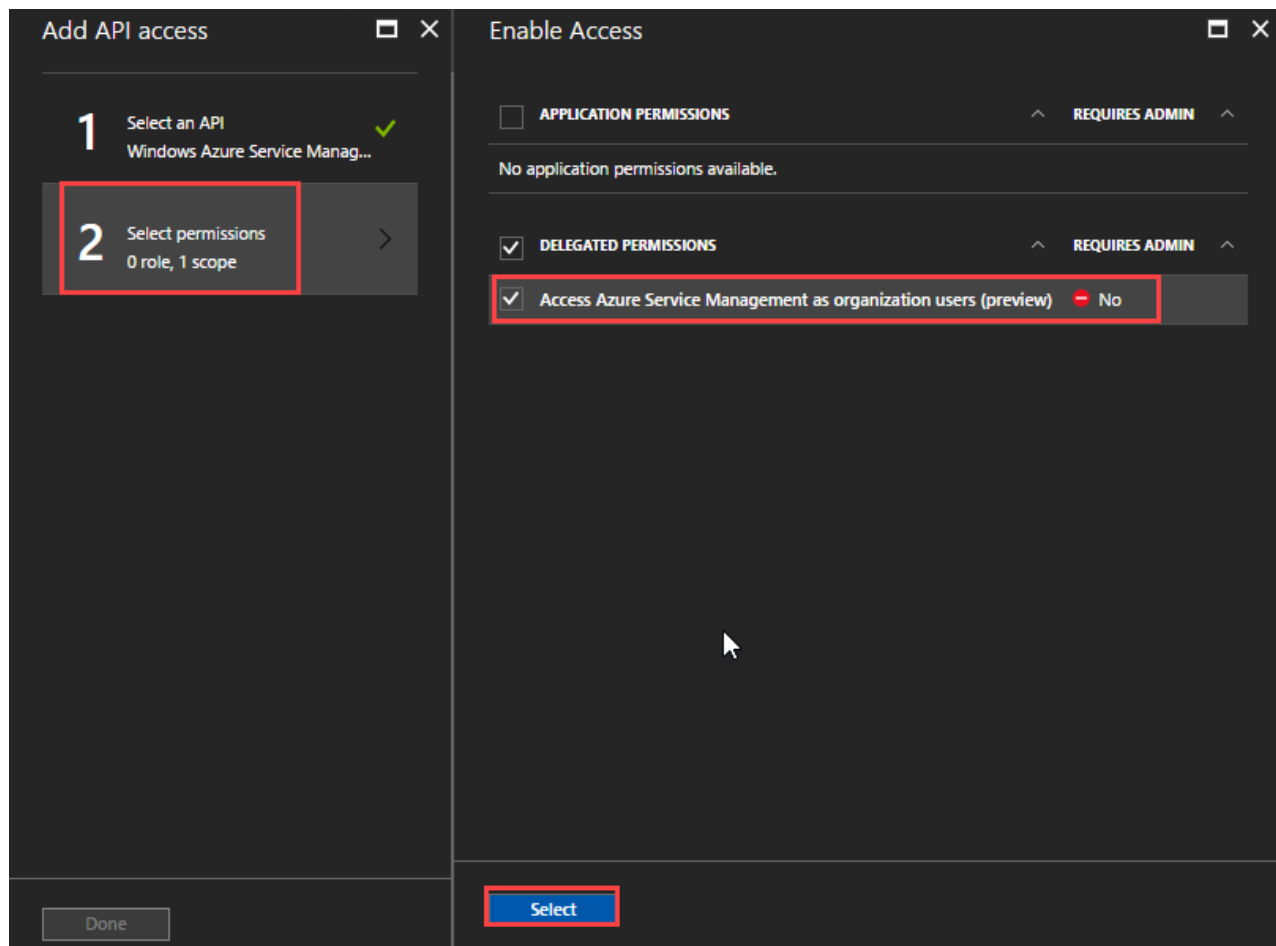
## 5.2 Creating an Application Key.

41  F          **Keys**                    **Settings**                                    1
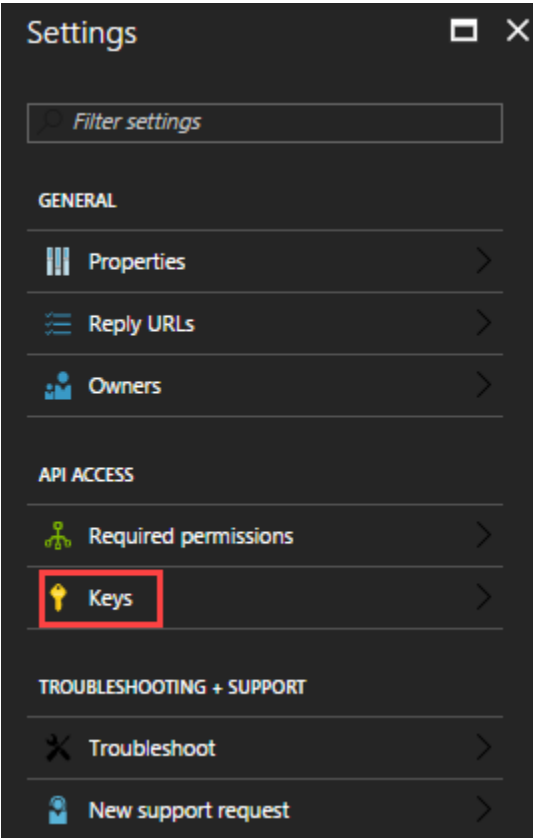
51                **Save.**                                          **Save.**
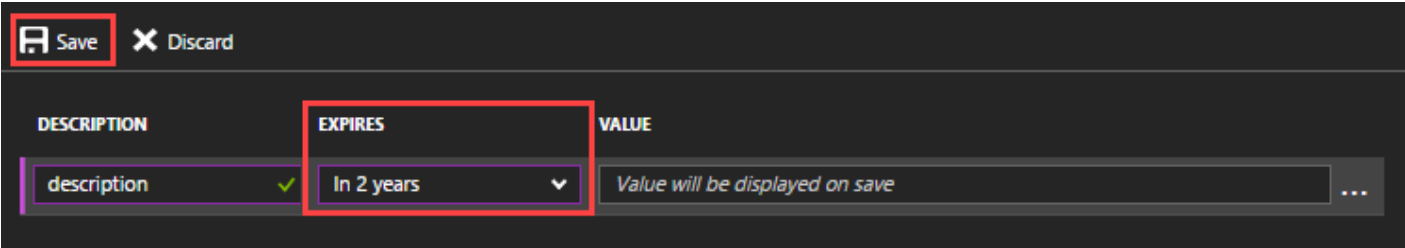


61
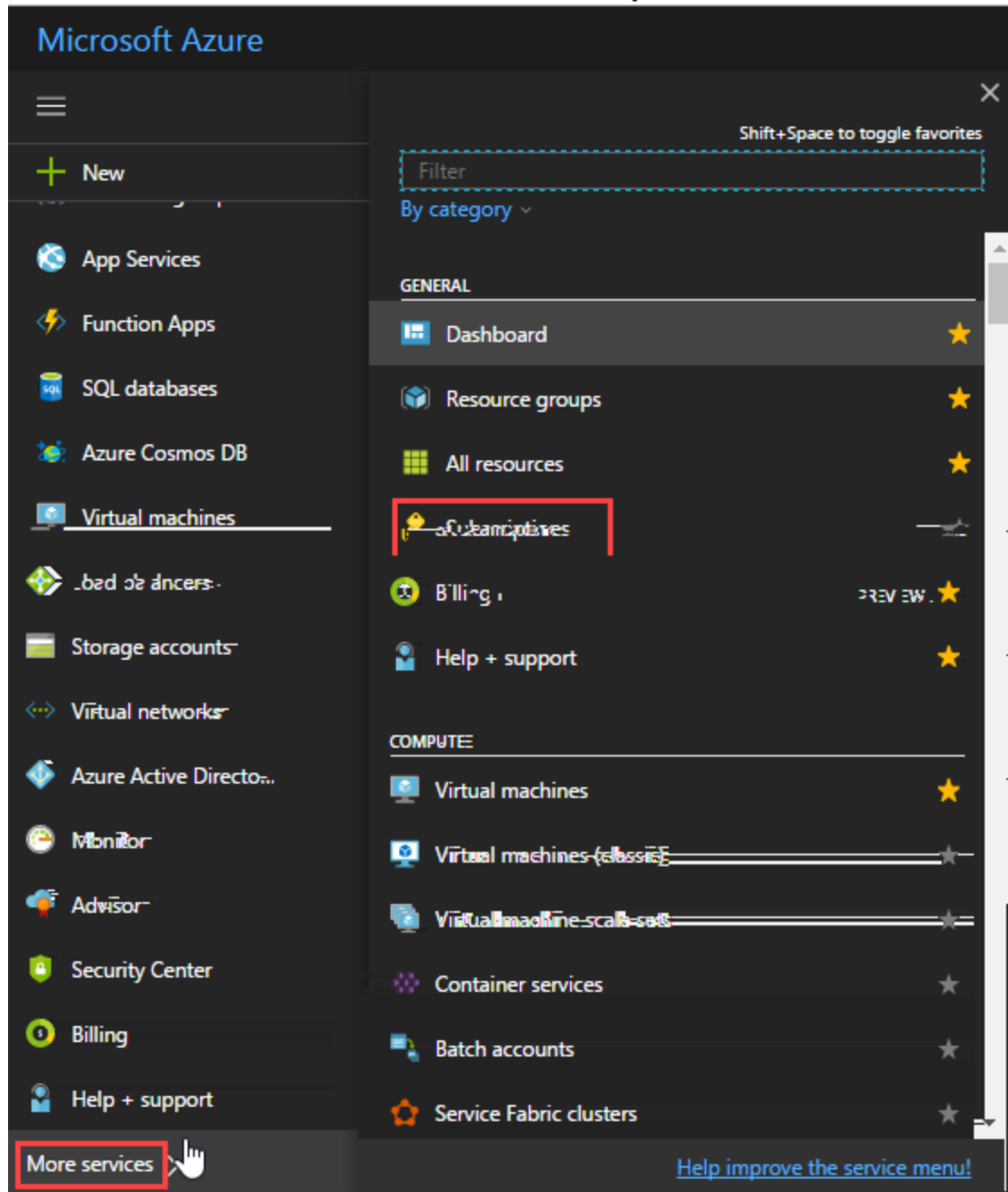
         1                                     F                               1
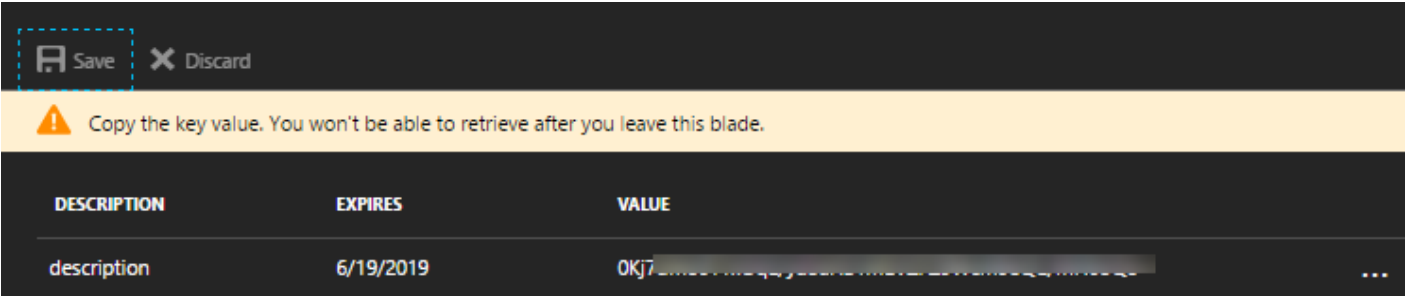
## 5.3 Assigning the Cloud Manager role to AD application
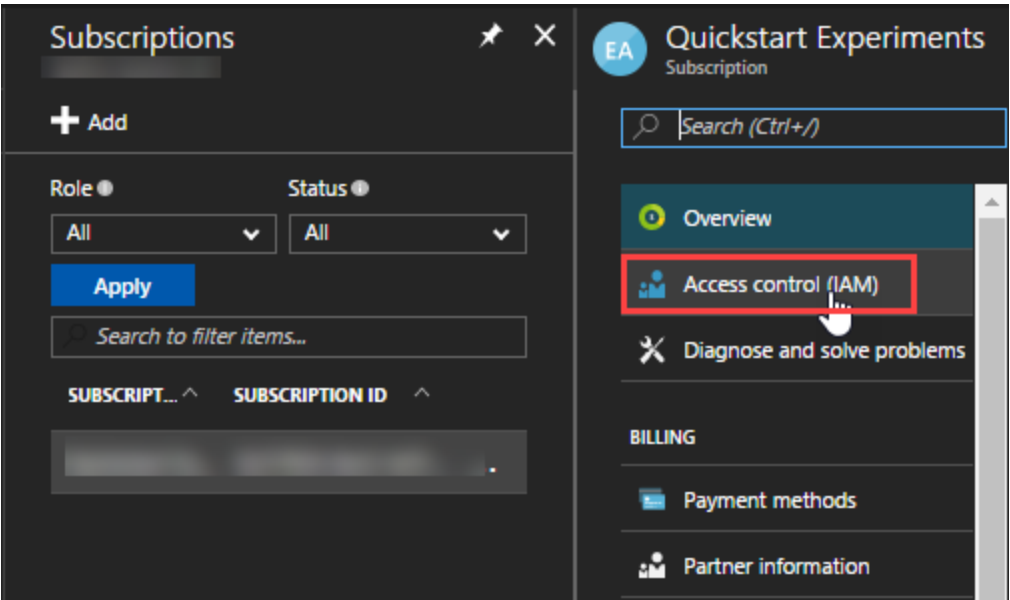
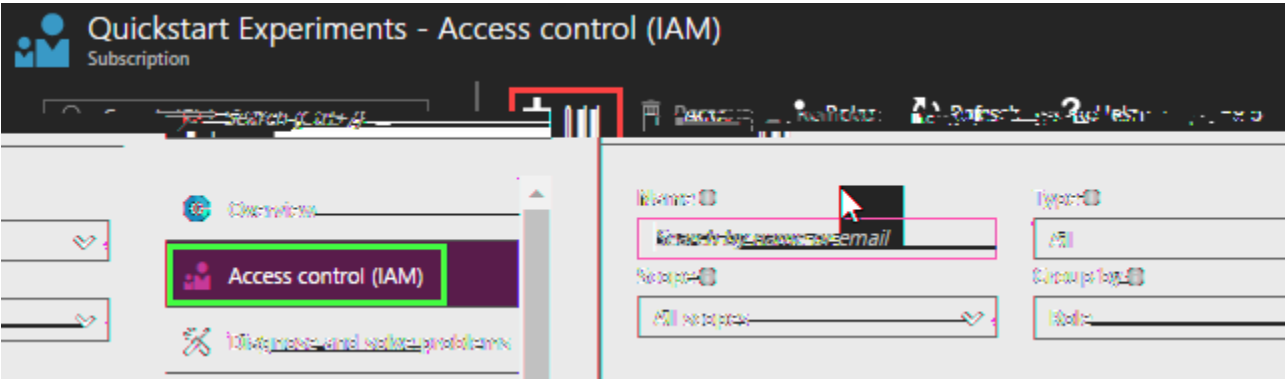41  F          **More services**                    **Subscriptions**1



51  F                  **Subscription**              **Access Control**+D   ,

61 D          **Access Control**+D  , 0A        **Add** +. ,
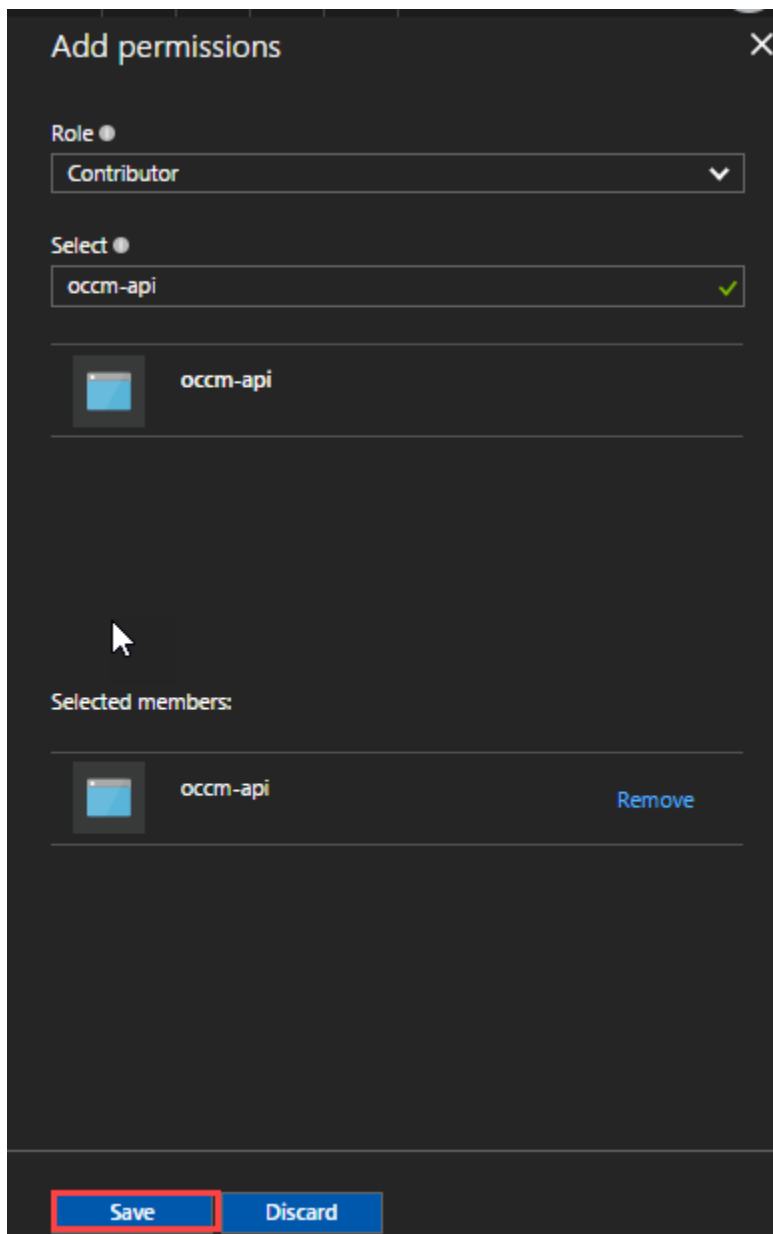


71 D                    **Add,**                              =
                =**Contributor**
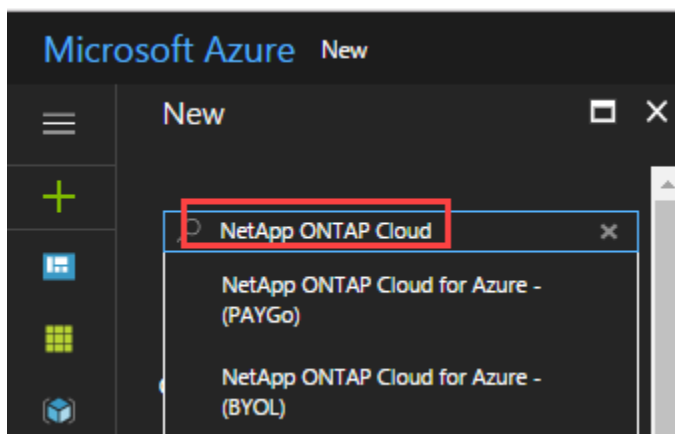                    =**occm-api**
81 F        **Save.**

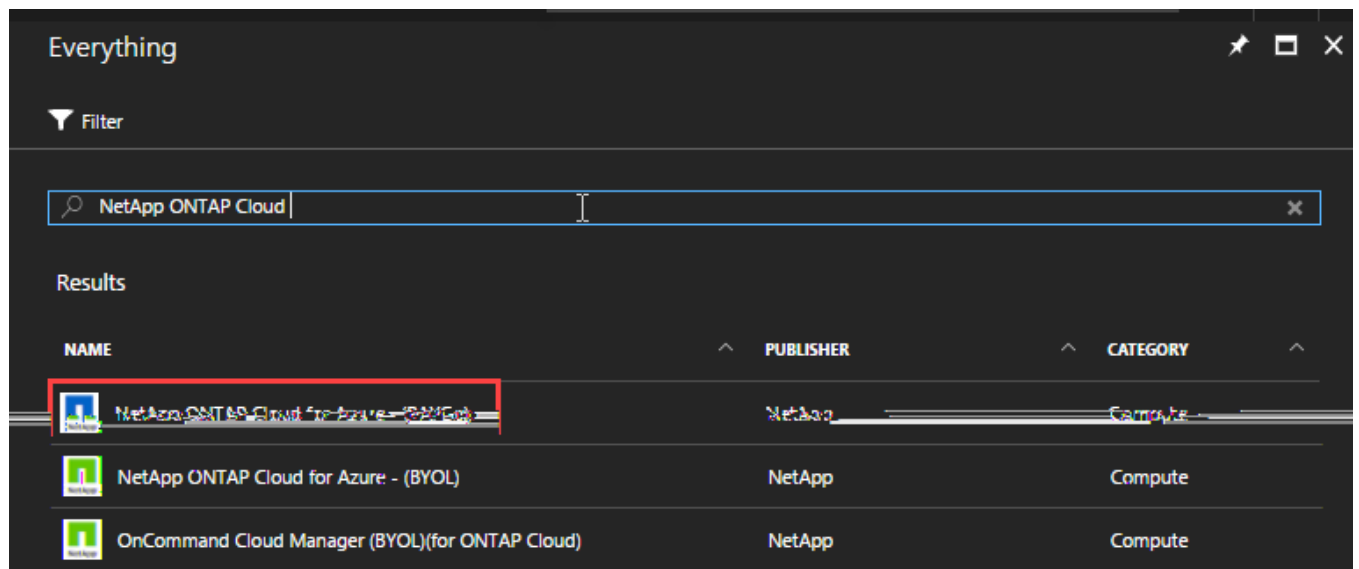## 5.4 Enable Programmatic Deployment

41          D     D   F            1



41   F        **NetApp ONTAP Cloud for Azure – (PAYGo)**

51　F　　　　**Want to deploy programmatically? Get Started**

**NetApp ONTAP Cloud for Azure - (PAYGo)**
NetApp

**Free Trial enabled.**
30 Day Free Trial Available - NetApp ONTAP Cloud, the leading enterprise storage operating system, is deployed using OnCommand Cloud Manager to deliver secure, proven NFS, CIFS and iSCSI data management for Azure cloud storage. A software-only storage service running the ONTAP storage operating system, ONTAP Cloud combines data control with enterprise-class storage features—such as data deduplication and compression—to minimize your Azure storage footprint. Take snapshots of your data without requiring additional storage or impacting your application's

61              G        **Enable**                    **save.**

# Configure Programmatic Deployment

## Offer details

**NetApp ONTAP Cloud for Azure - (PAYGo)**
by NetApp
Terms of use | privacy policy

Pricing does not include Azure infrastructure costs (e.g., virtual machine compute time or storage) and is based on the pricing tier you select at the time of deployment. The pricing above applies only to Azure subscriptions purchased from Microsoft. For Azure subscriptions purchased from a reseller, contact your reseller for pricing. Neither subscription credits nor monetary commitment funds may be used to purchase non-Microsoft offerings. These purchases are billed separately. If any Microsoft products are included in the above offering(s) (e.g., Windows Server or SQL Server), such products are licensed by Microsoft and not by any third party.

## Terms of use

By enabling programmatic purchases for the subscriptions selected below, I (a) agree to the legal terms and privacy statement(s) associated with each offering above, (b) for Azure subscriptions purchased from Microsoft, authorize Microsoft to charge or bill my current payment method for the fees associated with my use of the offering(s), including applicable taxes, with the same billing frequency as my Azure subscription, until I discontinue use of the offering(s), and (c) agree that Microsoft may share my contact information, and transaction details associated with my purchase of the above offering(s), with any third-party vendors, if listed above. Microsoft does not provide rights for third-party products or services. See the Azure Marketplace Terms for additional terms.

## Choose the subscriptions

Select the Azure sub
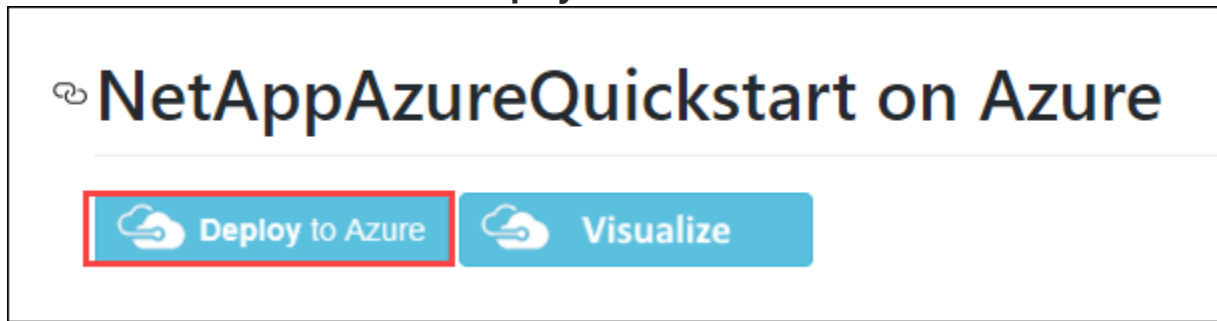
Enable

Save     Discard

## 5.5 Launch the Quick start template.

41                     22      1     2              2     D     D                    2     2            1
51                                    **Deploy to Azure**          1

NetAppAzureQuickstart on Azure

Deploy to Azure    Visualize

61                G          D              /                              D              1
                                                    1
        **Subscription**=F                          1
        **Resource group**=                                                1
        **Location**=                                            1
        **Admin username**=
                    1
        **Admin Email Address:**                        1
        **Admin Email Password:**                        /     F
                    D              1                                    45      83
            1                                                                  1
                                0                        1
        **Netapp ONTAP Cloud License Type:**             2
        **Azure AD Application ID:**                        G        1
        **Azure AD Application Secret:**                  D                1
        **Sql Data Volume Size:**                                          0
                        D
        **_artifacts  Location:**                    1
                    1
            /
                    1
        **_ artifacts  Location Sas Token:**                    /
                    1                                                        /
                        1
        **Remote Allowed CIDR:**            1
            F                    **I agree to the terms and conditions stated above**
71 D                            /          **Purchase.**                          1

## Custom deployment
Deploy from a custom template

### TEMPLATE

| | | | |
|---|---|---|---|
| ▦ | **Customized template**<br>6 resources | ✎ Edit template | ⓘ Learn more |

### BASICS

\* Subscription

\* Resource group ⓘ  ⦿ Create new   ◯ Use existing

\* Location   West US

### SETTINGS

\* Admin Username ⓘ

\* Admin Email Address ⓘ

\* Admin Password ⓘ

4    1

## 7.1 Get the DNS name of ONTAP Cloud Manager

41                                                                          1

51          **Settings**        /          **Deployments**                          **Microsoft.Template**

61　　　　　　　　**Microsoft.Template,**　　　　　　　　　　　　　　　1
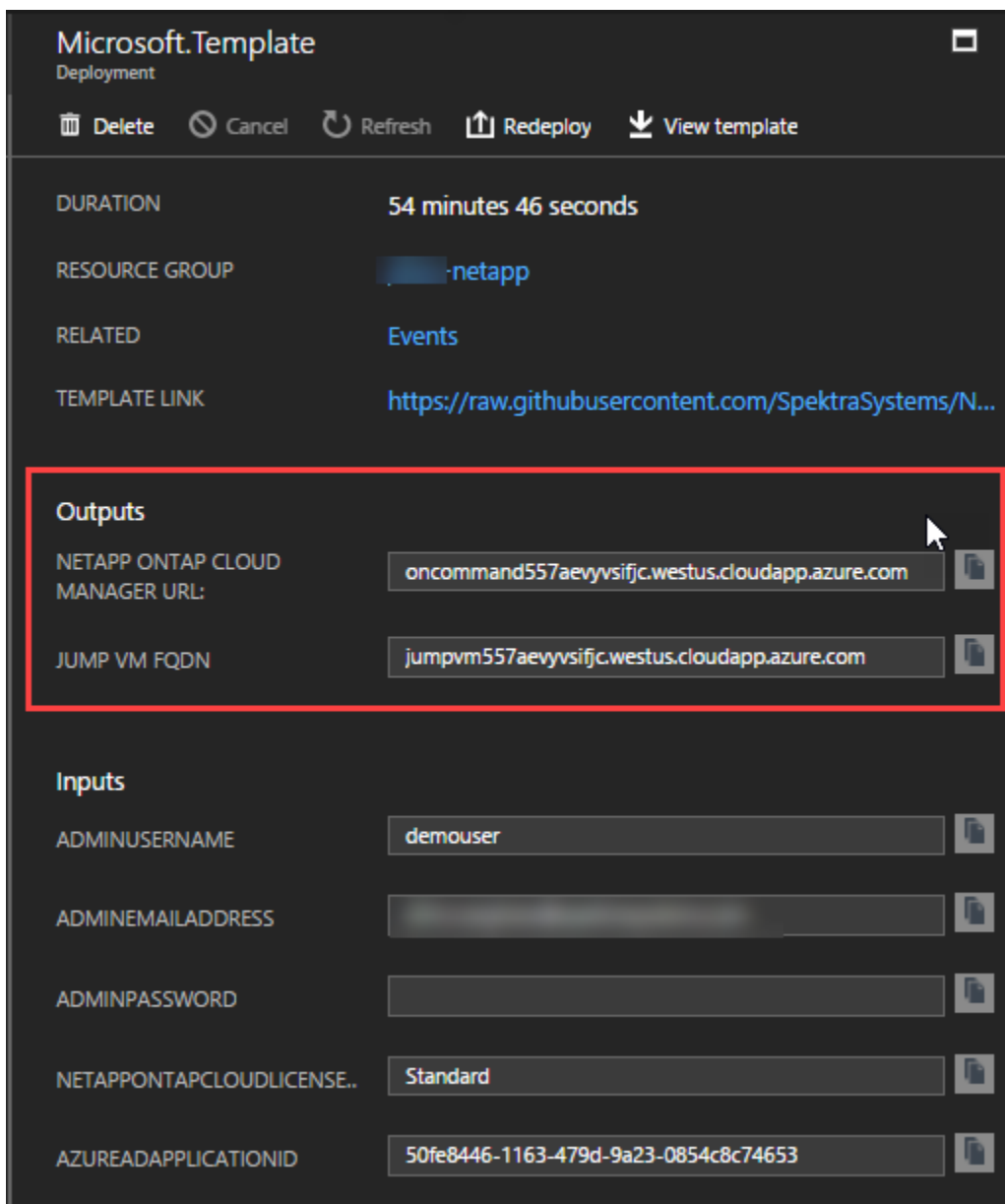
## 7.2 How to Access OnCommand Manager using GUI

41                                                              1

51                      **oncommand⬚cloudmanager⬚pip.**

61  F        G                                            1
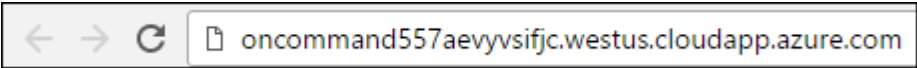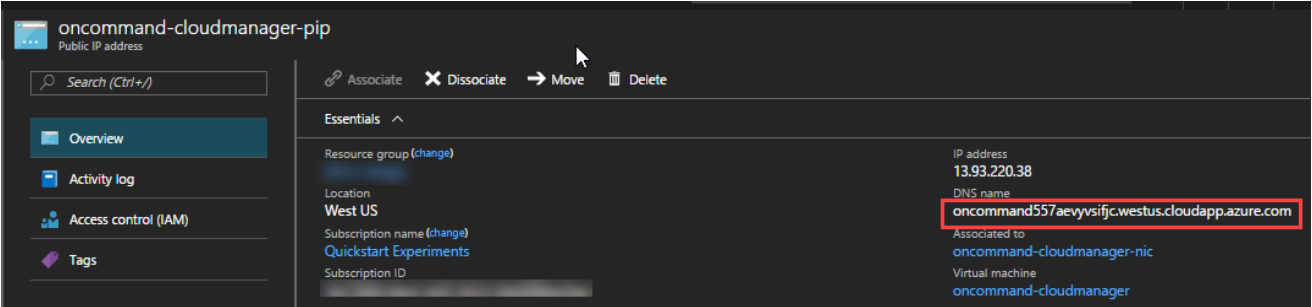




71                    **Email ID**        **Password**              **Log In.**
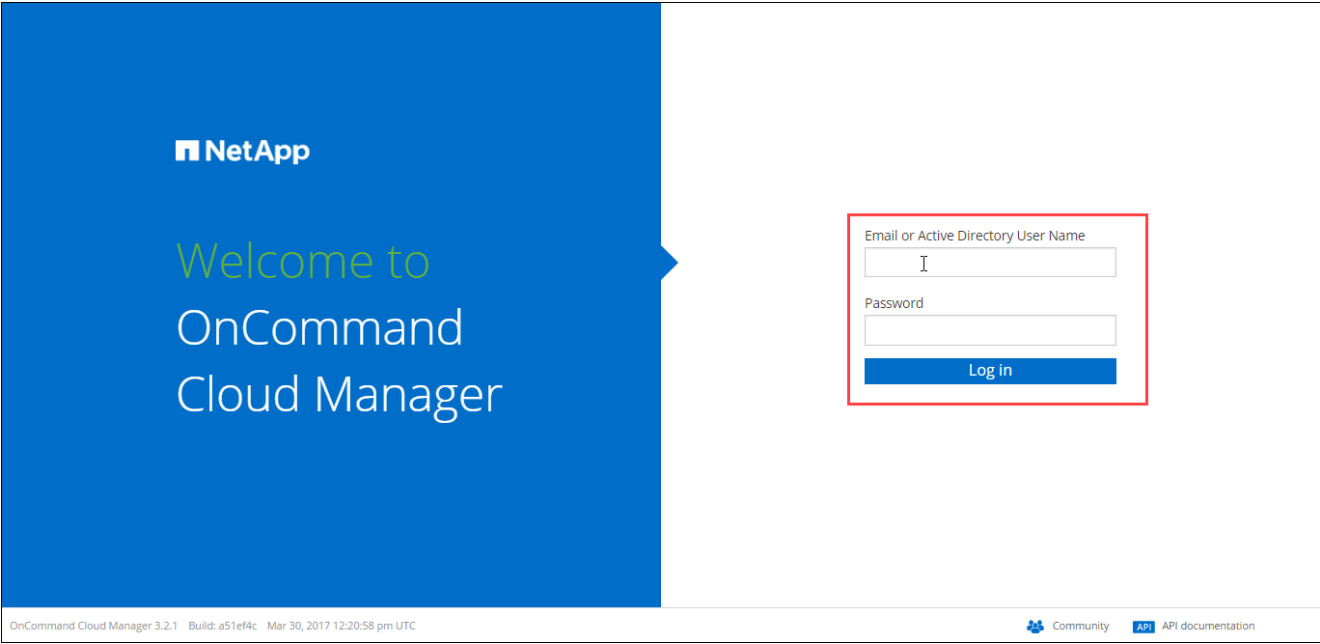


81  D                /                                          1

                                                                1
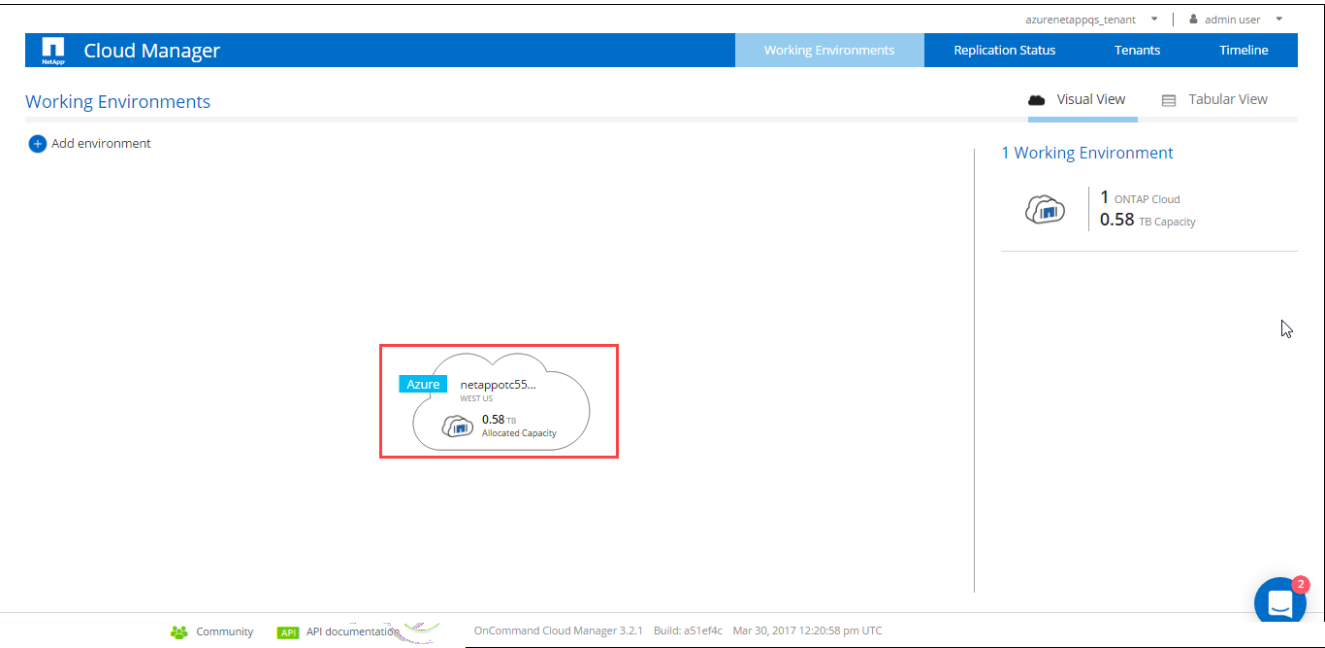
## 7.3 Access SQL VM and Verify NetApp Volumes

41                                                        1F                    **sql-vm.**
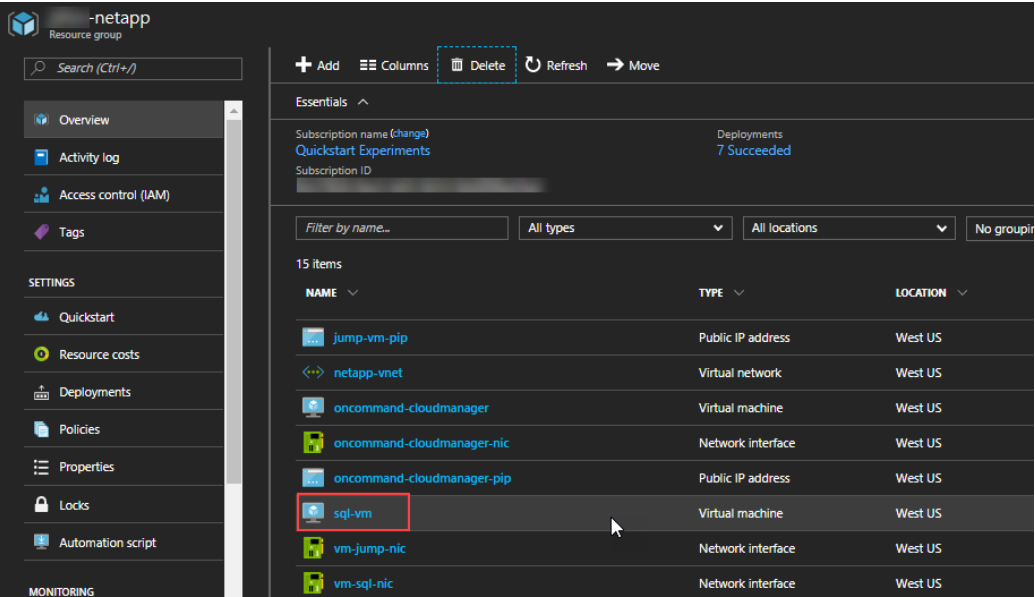


51                        /              **Settings**            /            **Properties.**
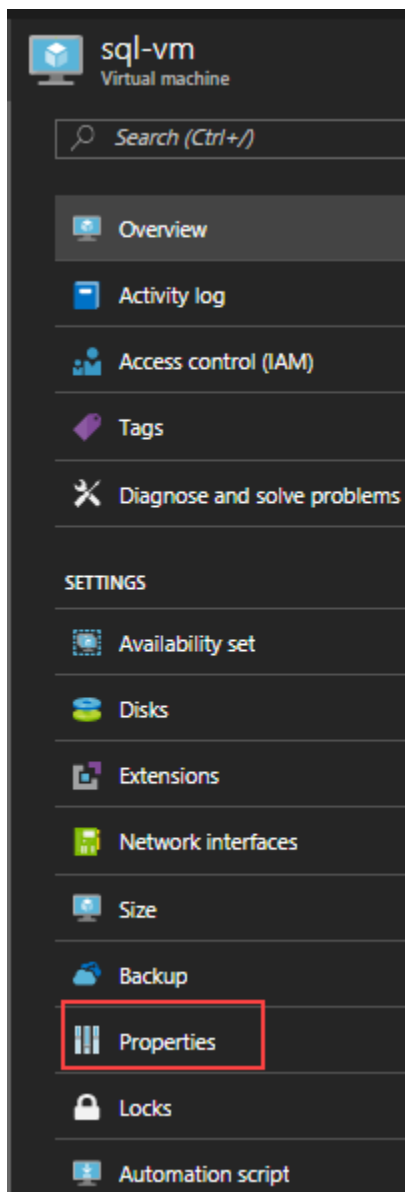
61　　**Properties**　　　/　　　　**Private IP address.**

STATUS
Running

COMPUTER NAME
sql-vm

PUBLIC IP ADDRESS/DNS NAME LABEL
-

PRIVATE IP ADDRESS
10.0.2.4

OPERATING SYSTEM
Windows

AGENT STATUS
Ready

AGENT VERSION
2.7.1198.802

71                                    1F                **jump-vm.**



81  F              **Connect**                    1
          0   1

91  F                                       /          **Connect**
                              1



                                        /            **Yes.**
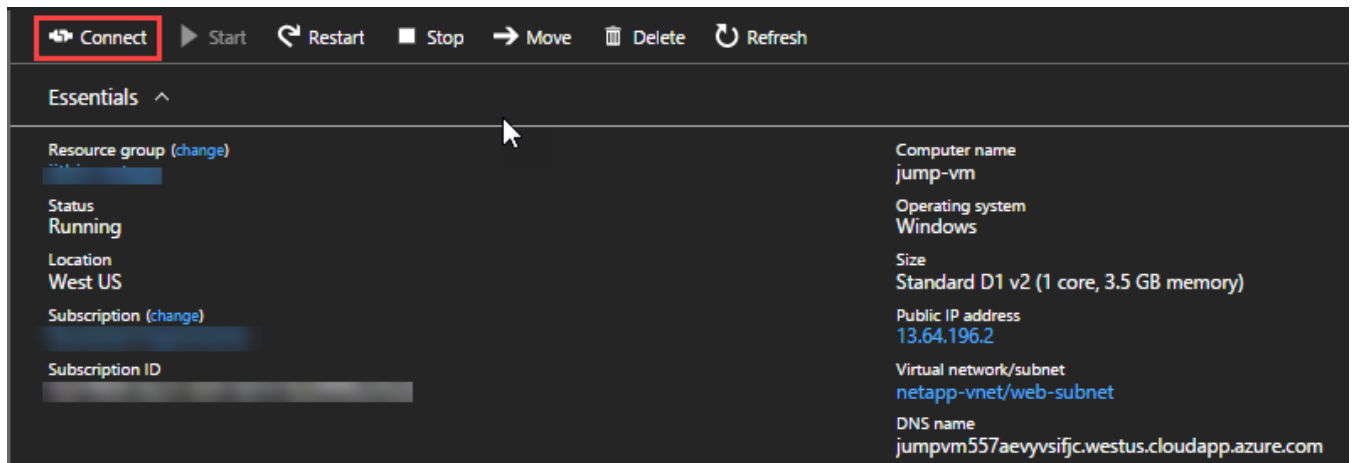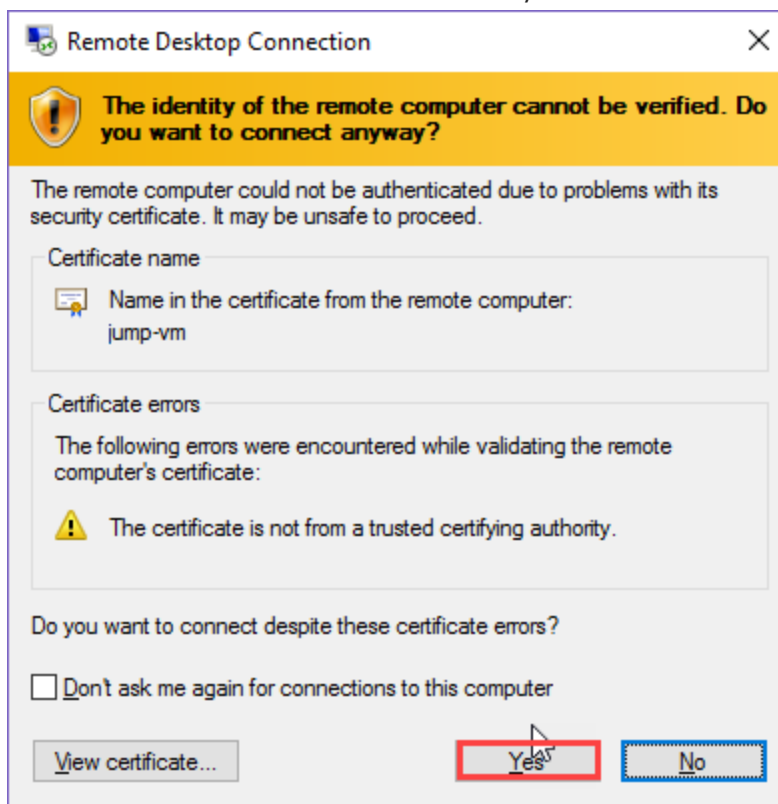


: 1                                    0    1                0              **Remote Desktop Connection.**
      1                                    /              **Private ip address**        **sql-vm**
                  **Step 3**1
      1                  G        F                              /
                                    1
431                                    0              **This PC.**
                  1

51 F **SQL** **NetApp Disk 1**1
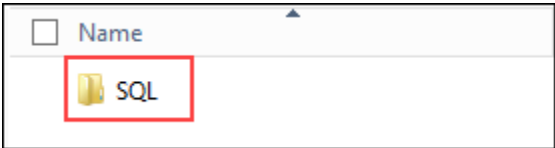


61 **SQL** / 1**Click** **BACKUPS** 1



71 / 1



81 **NetApp Disk 2**1

## 7.5 Viewing the Database architecture.

41 **sql-vm** **jump-vm.**
51 **SQL Server 2014 Management Studio.**
61 F **Databases** **System Databases.**
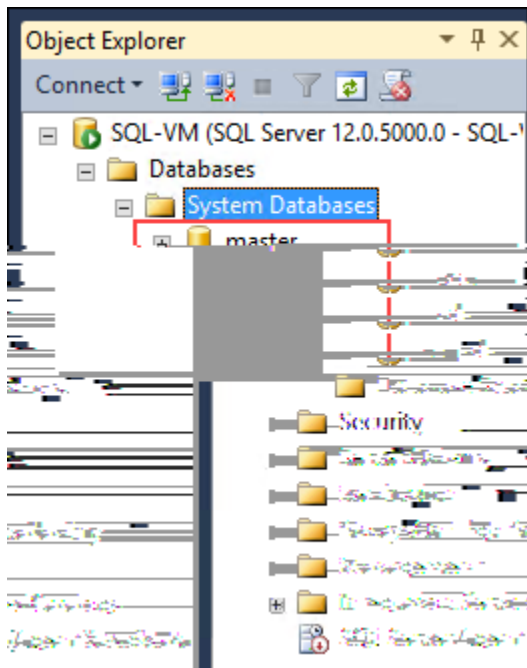
71        G              /          **SQL Server 2014 Management Studio**
            **SQL-VM(SQL Server 12.0.5000.0-SQL-VM\username)**. F      **Properties.**
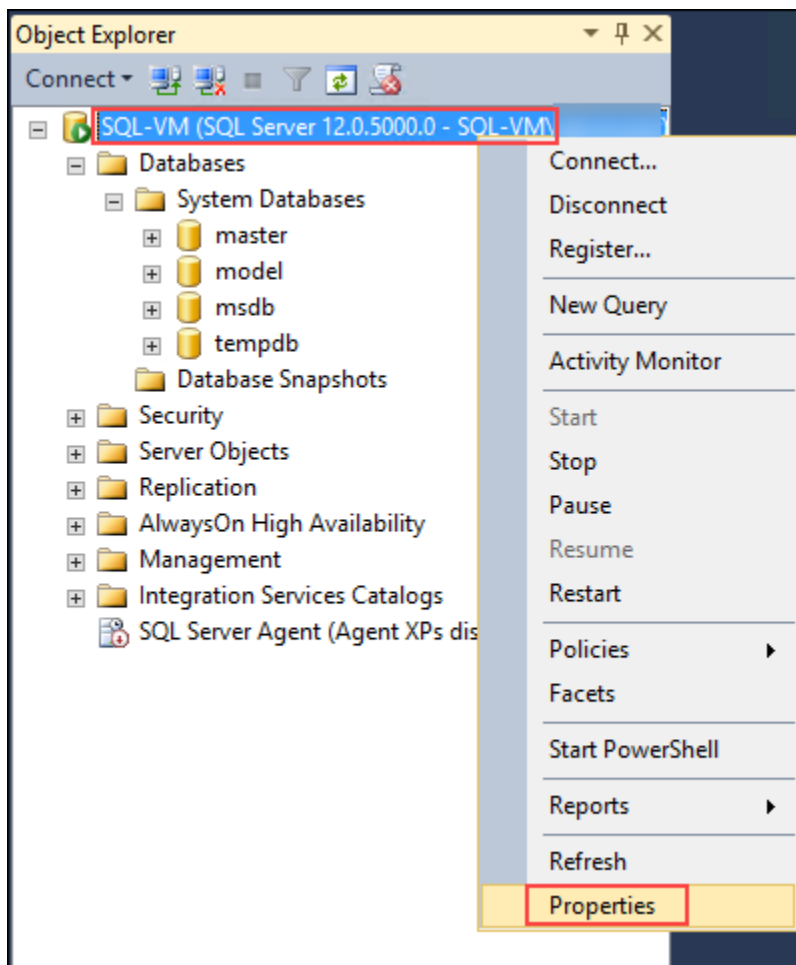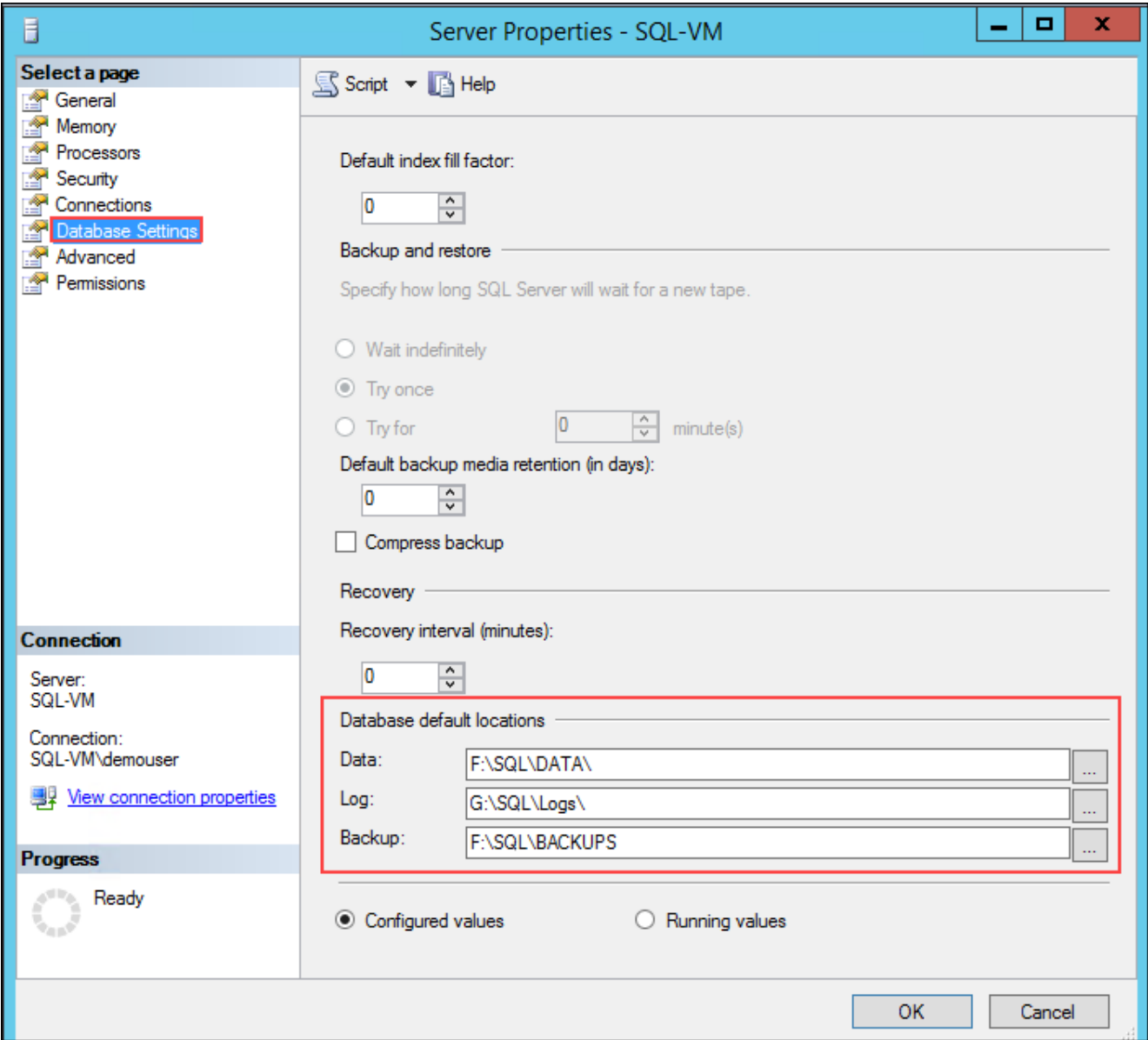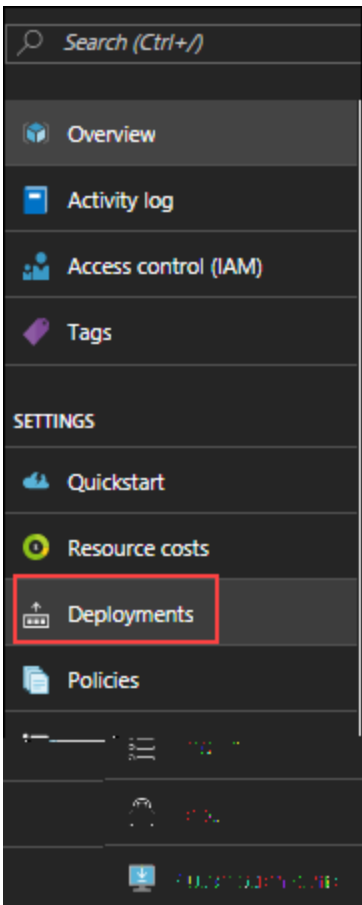
## 7.6   Retrieving NetApp ONTAP Cloud SVM Password.

91                                                                                   1
: 1                                        /                        /**click      Deployments.**

1　　　　　　G　　　　　　/　　　　　　　　　　　　　　　　　　　　　　　1**Click**
**Microsoft.Template**1



| DEPLOYMENT NAME | STATUS | TIMESTAMP | DURATION | |
| --- | --- | --- | --- | --- |
| Microsoft.Template | ✅ Succeeded | 11/8/2017, 1:36:06 AM | 23 minutes 15 seconds | Related events |
| sql-netappotc-connect | ✅ Succeeded | 11/8/2017, 1:35:59 AM | 1 minute 10 seconds | Related events |
| netapp-ontap-cloud | ✅ Succeeded | 11/8/2017, 1:34:39 AM | 18 minutes 50 seconds | Related events |
| sql-vm | ✅ Succeeded | 11/8/2017, 1:19:44 AM | 6 minutes 3 seconds | Related events |
| jump-vm | ✅ Succeeded | 11/8/2017, 1:17:34 AM | 3 minutes 49 seconds | Related events |
| netapp-oncommand-cloud... | ✅ Succeeded | 11/8/2017, 1:15:39 AM | 1 minute 58 seconds | Related events |
| shared-resources | ✅ Succeeded | 11/8/2017, 1:13:33 AM | 33 seconds | Related events |

1　　　　　　　　　　　　**NETAPP OTC SVM PASSWORD**　　　　　　　　　　　　　　　　　1

## 7.7 Restoring databases using the SQL Management Studio

41              **sql-vm**          **jump-vm**1

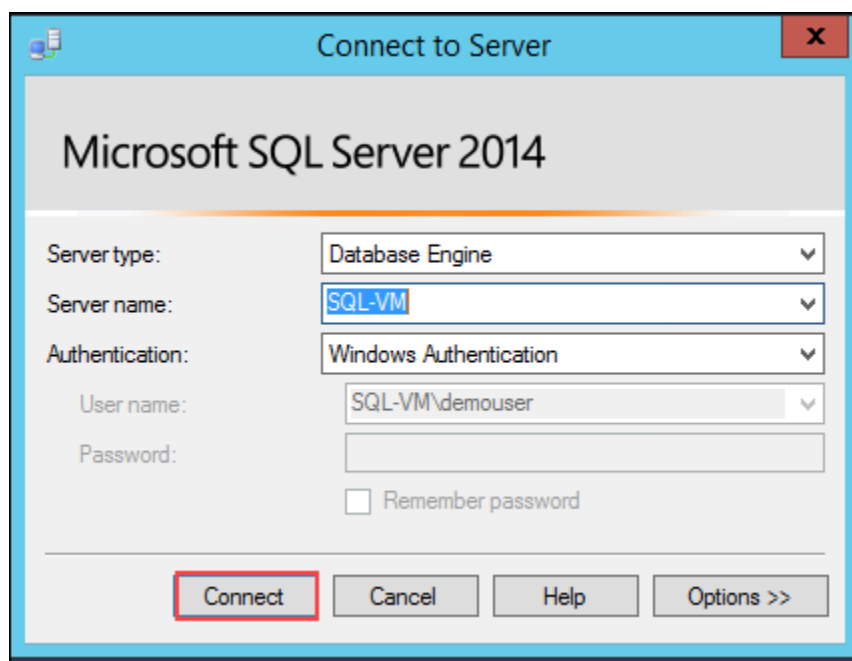51        **sql-vm**          **SQL Server 2014 Management Studio**1              **SQL Server 2014 Management Studio.**
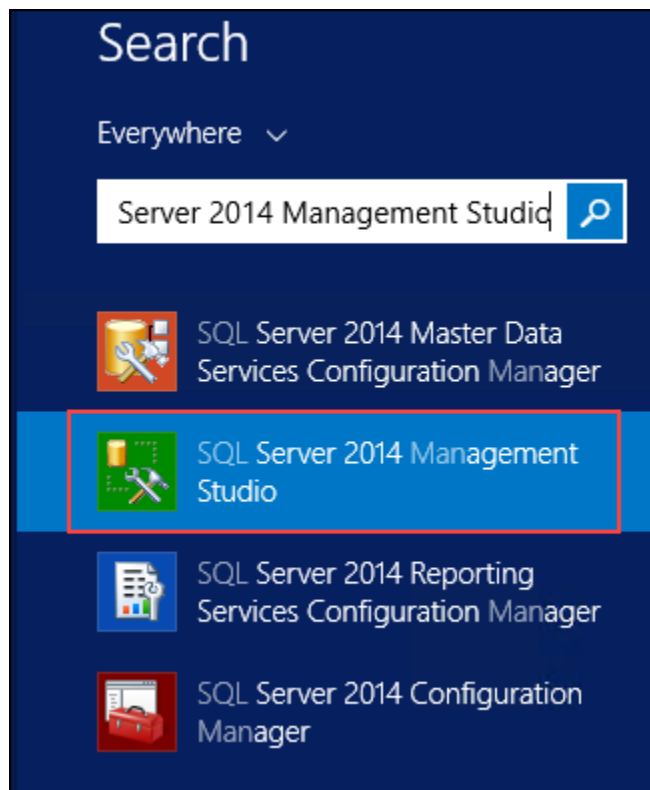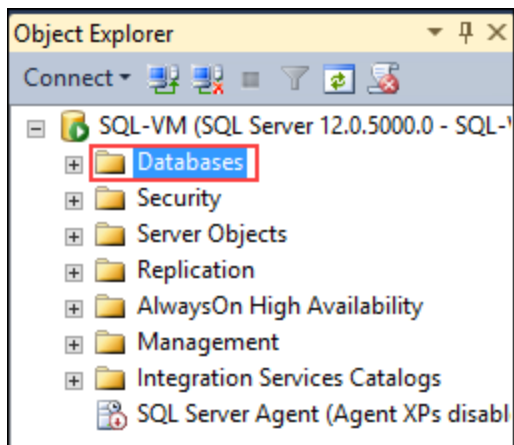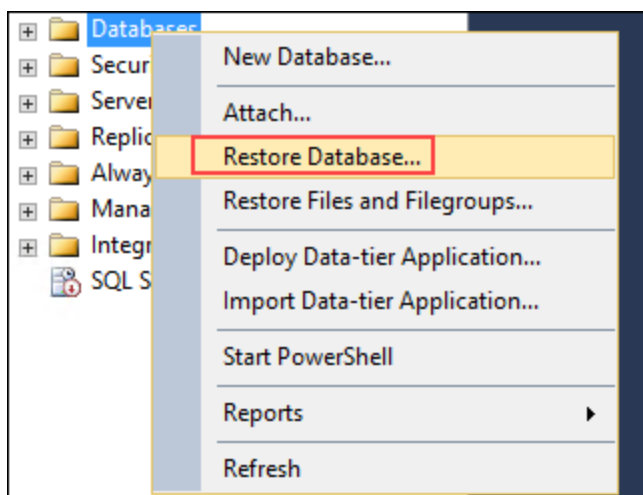
61 D                                        1F        **Connect.**



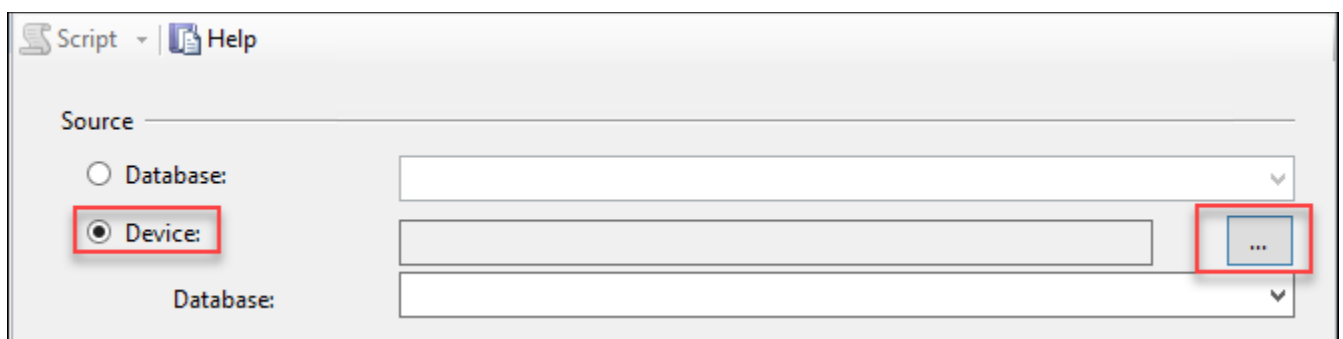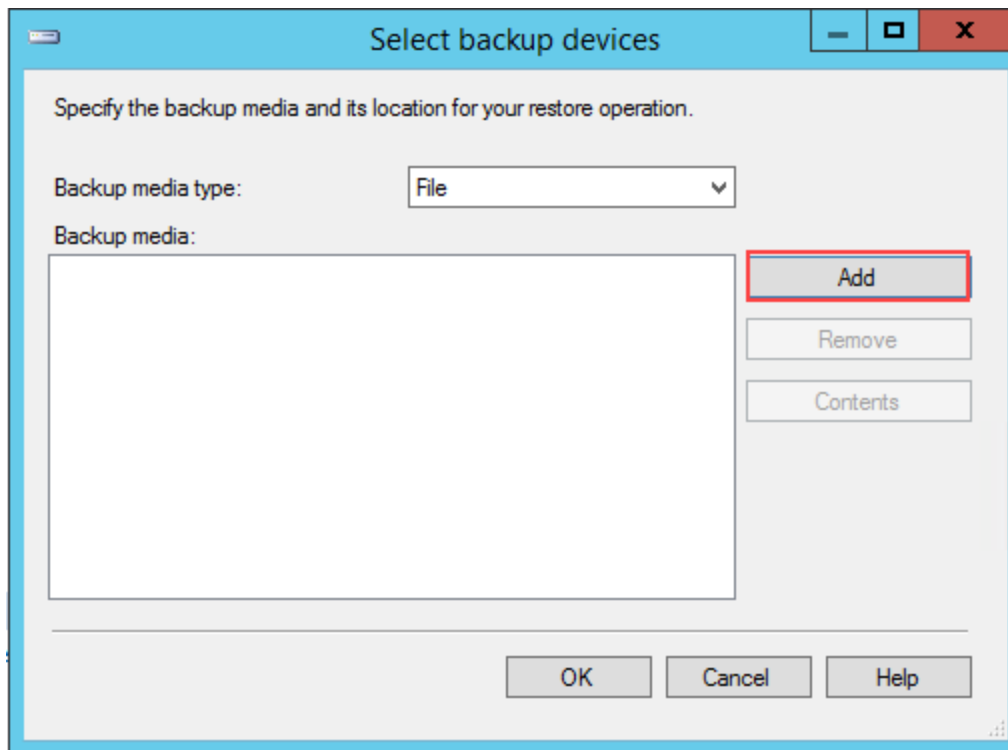71        **SQL Server 2014 Management Studio,**                **Databases**        1
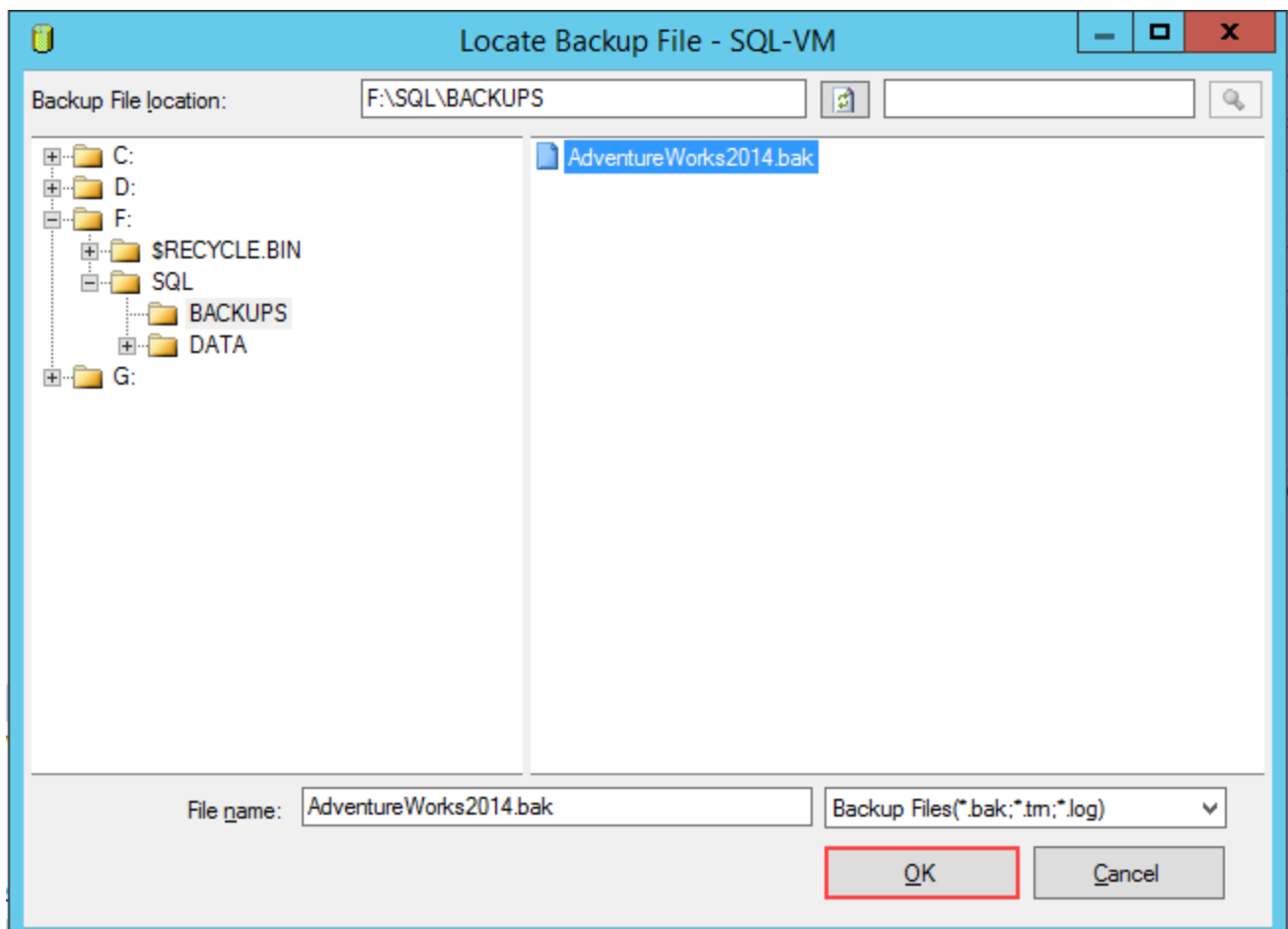
81  F　　　　　　　**Restore Database**1



91　　　　**Device,**　　　　　　**...´**　　　　1



: 1　　　　　　　　　　　　　　　/**click**　　**Add**1

1       **AdventureWorks2014.bak**          **OK.**

1 **Click** **OK.**



431 1

# 1 F D

## 8.1 Creating Additional Volumes

41 1

51 **oncommand0cloudmanager0pip.**

61 F G 1

71. _____ **Email ID** _____ **Password** _____ **Log In.**



81. _____ F _____ / _____ **environment** _____ 1

91  F          **Add New Volume.**



: 1                                              =

    **Volume Name**=                                              1
    **Size**=                                          1
    **Protocol**=      2F
    **Access control:** F
    **Snapshot Policy:**
    **Usage Profile:**                        1

F          **Continue.**

---

1 GO.



1                                              1

# 1F

D   F          D    /                                               1

1

## 9.1 Removing the ONTAP Cloud System using GUI

431                                                                    1

441                                            **oncommand0cloudmanager0pip.**

451F         G                                    1





461              **Email ID**       **Password**                 **Log In.**

471G D 1



481 0 0 /
**Delete** D F 1



491 **Delete.**
G 1

## 9.2 Deleting the Resource Groups from the Azure Portal

41                                    **Resource groups**/

1



51  F         **Delete**                    1

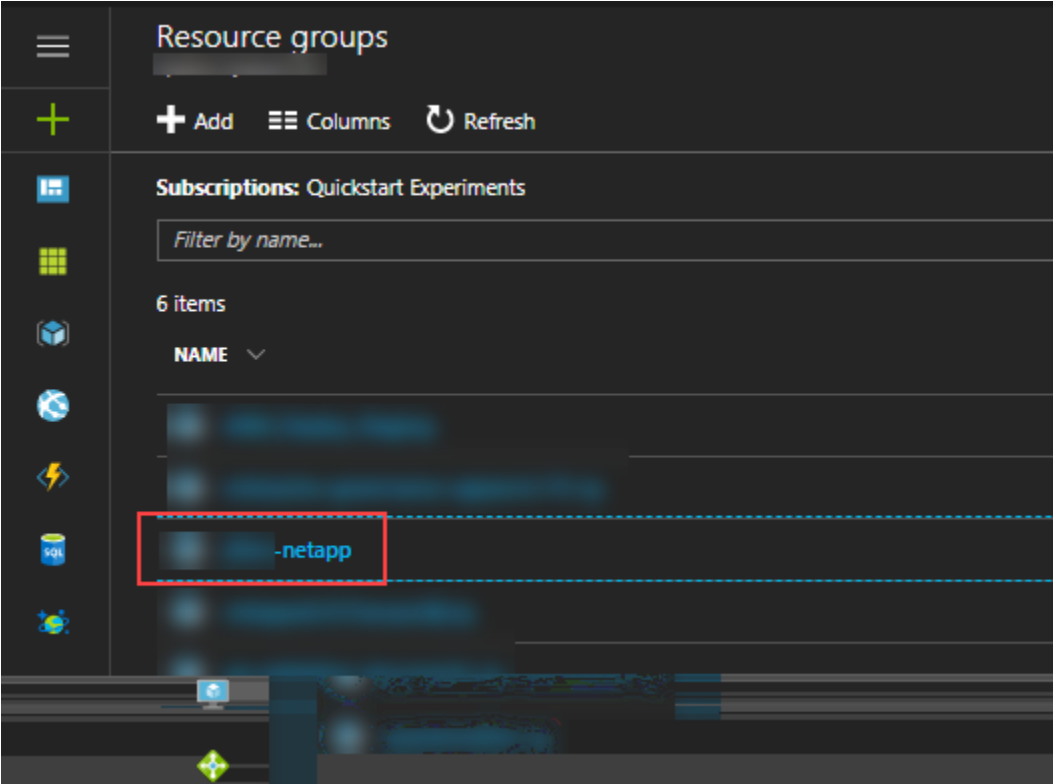61                                                                                                    **Delete.**

## 10.1 Network Security Groups

**Network Security Groups**
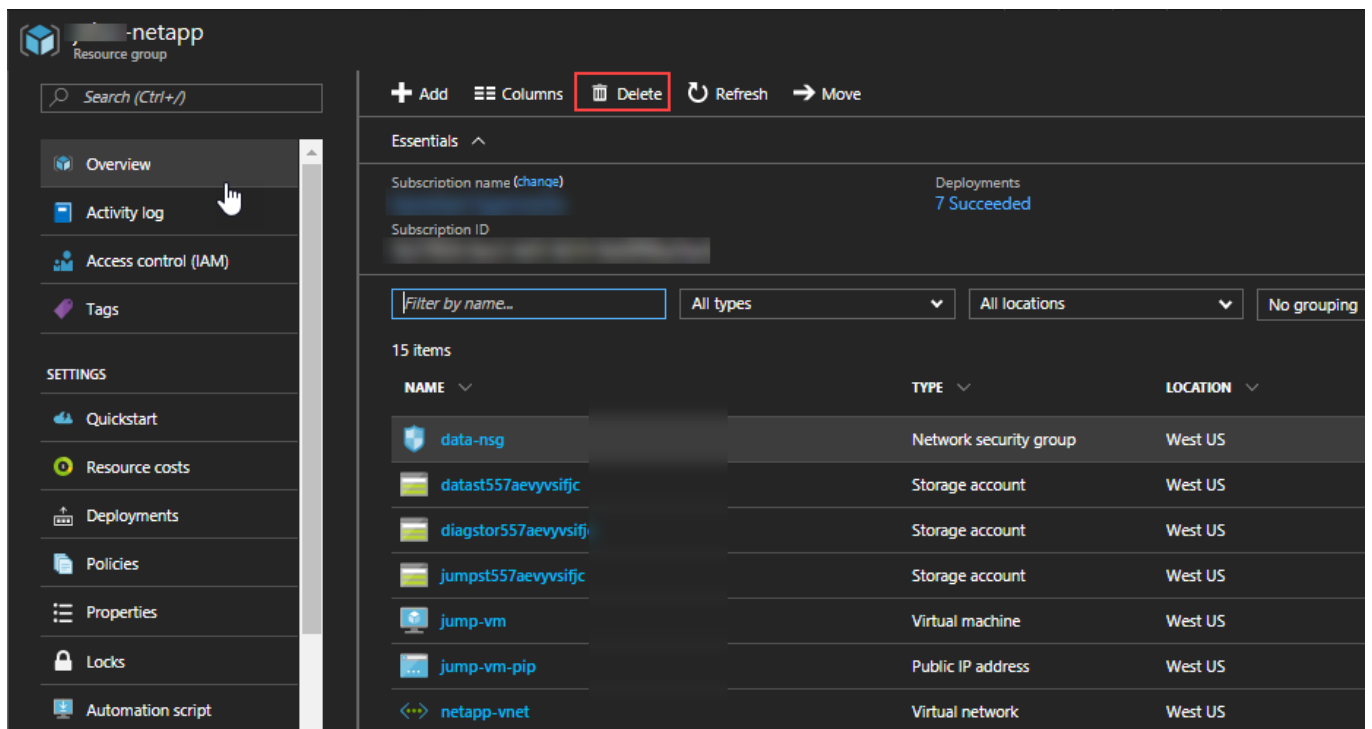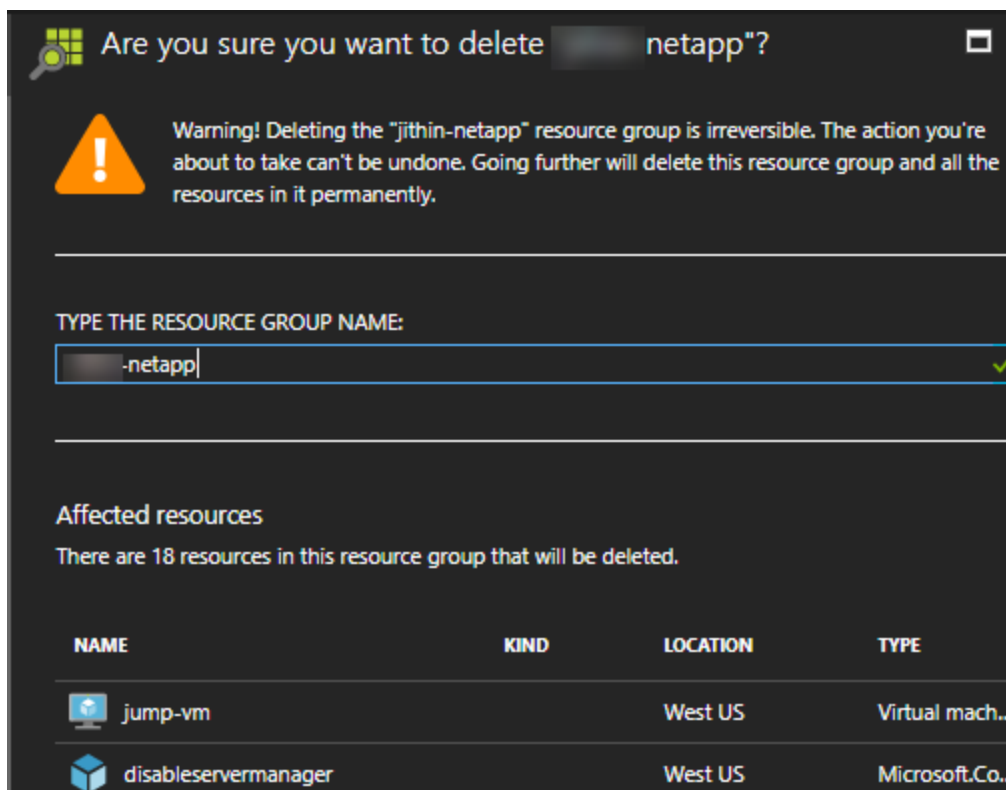
1D                                                                                                    1

=**data-nsg**    **web-nsg.**

0    1

| Direction | Source | Destination | Service | Action |
|---|---|---|---|---|
| | *3 B B B23* | 43 B 14 B 257 | + F  2 3, | D |
| | *3 B B B23* | 43 B 14 B 257 | G  + F  266  , | D |

/

1                    ___                                        1

## 10.2 Operating System Security

D  F            F

1D                                        1

1

/                              D

1

**Q:**

**A:**                        /                                        55        **web**0
**nsg.**

**Q:**                                        0   /                    0        0   1

**A:**                                        0   /                              1        G

0                        0                    0   1                0

F =            D

# 451

/                                                                  /                              0        0

C        1