

Microsoft Azure: RemoteApp Programs Deployment

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This document provides guidance for deploying a Remote Desktop Session Host (RDSH) server and collection to provide RemoteApp programs to a desktop hosting solution based on the [Microsoft Azure Desktop Hosting Reference Architecture Guide](http://msdn.microsoft.com/en-us/library/windowsazure/dn451351.aspx). This document assumes, as a starting point, a basic Remote Desktop Services (RDS) deployment based on the [Microsoft Azure Desktop Hosting Deployment Guide](http://msdn.microsoft.com/en-us/library/windowsazure/dn451351.aspx).

The scope of this document is limited to:

* Deployment guidance for adding an RDSH server and RemoteApp collection to a basic desktop hosting deployment.

After reading this document, the reader should understand:

* How to deploy a second RDSH server and create a RemoteApp collection within a basic desktop hosting deployment in Microsoft Azure.

There are multiple ways to deploy a desktop hosting solution. Throughout the document, specific examples are given that can be used as a starting point for a basic deployment. These examples are identified with the *e.g.* notation.

# Prerequisites

This document assumes that the reader has already performed the following tasks.

1. Create a Microsoft Azure subscription. See [Microsoft Azure Free Trial](http://www.windowsazure.com/en-us/pricing/free-trial/).
2. Launch and sign in to the [Microsoft Azure Management Portal](https://manage.windowsazure.com/).
3. Create a storage account. See [How to Create a Storage Account](http://www.windowsazure.com/en-us/manage/services/storage/how-to-create-a-storage-account/).
4. Create a basic desktop hosting service deployment in Azure Infrastructure Services. See [Microsoft Azure Desktop Hosting Reference Architecture Guide](http://msdn.microsoft.com/en-us/library/windowsazure/dn451351.aspx) and the [Microsoft Azure Desktop Hosting Deployment Guide](http://msdn.microsoft.com/en-us/library/windowsazure/dn451351.aspx).
5. Create a virtual machine image that has the RemoteApp programs installed using one of the following methods.
	1. Install the operating system and programs in a Hyper-V virtual machine and then upload the VHD file into Azure, as described [here](http://www.windowsazure.com/en-us/documentation/articles/virtual-machines-create-upload-vhd-windows-server/).
	2. Create an Azure virtual machine using an image from the Gallery, install the programs, and then capture an image, as described [here](http://azure.microsoft.com/en-us/documentation/articles/virtual-machines-capture-image-windows-server/).

# Create an RDSH virtual machine

1. Create a virtual machine to host the RDSH role service
	1. In the Microsoft Azure Management Portal select **VIRTUAL MACHINES**, **+NEW, COMPUTE, VIRTUAL MACHINE,** and **FROM GALLERY**
	2. Select **My Images** and the image created in the prerequisites with the RemoteApp programs installed**.**
	3. Enter a **VIRTUAL MACHINE NAME**, e.g. Contoso-RDSHr1
	4. Select the **SIZE,** e.g. **Small**
	5. Enter a **NEW USER NAME** and a **NEW PASSWORD** to be added to the local administrators group
	6. Select the **CLOUD SERVICE** created in the prerequisites for the basic deployment
	7. For the **VIRTUAL NETWORK SUBNETS,** select the virtual network subnet created in the prerequisites for the basic deployment
	8. Leave the **AVAILABILITY SET** as **NONE**
	9. Accept the default **ENDPOINTS**, i.e. Remote Desktop and PowerShell.

# Prepare RDSH virtual machine for RDS deployment

1. Connect to the RDSH virtual machine using Remote Desktop Connection (RDC) client
	1. In the Microsoft Azure Management Portal select **VIRTUAL MACHINES**
	2. Select the RDSH virtual machine, e.g. Contoso-RDSHr1
	3. Select **DASHBOARD, CONNECT,** and **OPEN** to open the Remote Desktop Connect client
	4. On the RDC client, select **Connect**, **Use another user account**, and enter the user name and password for the local administrator account.
	5. Select **Yes** when warned about the certificate.
2. Enable Remote Management
	1. Launch **Server Manager** and select **Local Server**
	2. Select the **Remote management** current setting (disabled).
	3. Check the box to **Enable remote management for this server**
	4. Select **OK**
3. Optional: Temporarily set Windows Update to not automatically download and install updates to avoid changes and reboots while deploying the system.
	1. Launch **Server Manager** and select **Local Server**
	2. Select the **Windows Update** current setting
	3. In the **Windows Update** dialog select **Change Settings** and **Check for updates but let me choose whether to download and install them**
4. Add the virtual machine to the domain
	1. Launch **Server Manager** and select **Local Server**
	2. Select the **Workgroup** current setting
	3. In the **System Properties** dialog, select **Change…** , **Domain**, and enter the domain name, e.g. Contoso.com
	4. Enter domain administrator credentials
	5. Restart the virtual machine

# Add the RDSH Server, create a collection, and publish the RemoteApp programs

1. Connect to the RD Connection Broker virtual machine using RDC client
	1. In the Microsoft Azure Management Portal select **VIRTUAL MACHINES**
	2. Select the AD DS virtual machine
	3. Select **DASHBOARD, CONNECT,** and **OPEN** to open the Remote Desktop Connect client
	4. On the RDC client, select **Connect**, **Use another user account**, and enter the user name and password for a domain administrator account
	5. Select **Yes** when warned about the certificate
2. Add the new RDSH server to Server Manager
	1. Launch **Server Manager**
	2. Select **Manage** and **Add Servers**
	3. In the **Add Servers** dialog select **Find Now**
	4. Select the newly created RDSH server and **OK**
3. Add RDSH server to the deployment
	1. Launch **Server Manager**
	2. Select **Remote Desktop Services**, **Overview, DEPLOYMENT SERVERS, TASKS,** and **Add RD Session Host Servers**
	3. In the **Add RD Session Host Servers** wizard, select the newly created server, e.g. Contoso-RDSHr1
	4. Select **Next**
	5. On the **Confirmation** page, check the box **Restart remote computers as needed** andselect **Add**
	6. Wait for the RD Session Host role service to be installed and the RDSH server to be restarted.
4. Create a file share for the RemoteApp collection user provide disks
	1. Launch **File Explorer**
	2. Select **This PC** (or **Computer** on Windows Server 2012) and open the disk that was added for file shares, e.g. Shares (F:)
	3. Select **Home** and **New Folder**
	4. Enter a name for the user disks folder, e.g. UserDisksr
	5. Right click the new folder and select **Properties**, **Sharing**, and **Advanced Sharing…**
	6. Check the **Share this folder** box and select **Permissions**
	7. In the **Permissions** dialog select **Everyone, Remove, Add…, e**nter **administrators,** andselect **OK**
	8. Check the **Allow Full Control** check box and select **OK, OK,** and **Close**
5. Create a collection and publish RemoteApp programs
	1. Launch **Server Manager** on the RD Connection Broker virtual machine
	2. Select **Remote Desktop Services**, **Overview,** and **Create session collections**
	3. In the **Create Collection** wizard, enter a name for the collection, e.g. ContosoApps
	4. Select the newly created RDSH server, (e.g. Contoso-RDSHr1) and **Next**
	5. Accept the default User Groups
	6. Enter the location of the newly created file share for the user profile disks for this collection, e.g. \\Contoso-AdCb1\UserDisksr
	7. Select Next and Create
	8. Wait for the Collection to be successfully created and select **Close**.
	9. In Server Manager, select the newly created collection and **Publish RemoteApp programs**
	10. In the Publish RemoteApp Programs wizard, check the boxes for the programs you want to publish**.**
	11. Select **Next, Publish,** and **Close**

# Connect to deployment from the client computer over the Internet

1. Connect to the deployment through RD Web Access and RD Gateway

Note: There are multiple ways to connect from a client computer to the desktop hosting deployment. These are described in the TechNet Wiki article titled [Distribution of Remote Apps and Desktops in Windows Server 2012](http://social.technet.microsoft.com/wiki/contents/articles/14488.distribution-of-remote-apps-and-desktops-in-windows-server-2012.aspx). The steps in this section connect using the RD Web Access site.

* 1. Launch **Internet Explorer**
	2. In the address field, enter the FQDN of the cloud service, e.g. https://Contoso-CS1.cloudapp.net/RDWeb
	3. Sign in with a domain user account, e.g. Contoso\u1
	4. Under **RemoteApp and Desktops** select one of the collections created for this deployment, e.g. ContosoDesktop
	5. Select **Connect**

# Secure the deployment

1. Delete the endpoints for the new RDSH virtual machine
	1. In the Microsoft Azure Management Portal, select **VIRTUAL MACHINES**, the newly created RDSH virtual machine for this deployment (e.g. Contoso-RDSHr1), **ENDPOINTS**
	2. Select an endpoint and **DELETE**
	3. Wait for the endpoints to delete successfully.
	4. Repeat steps b and c for each endpoint