



Traditional RDS vs Azure WVD

Description

In this article, we'd be doing a head to head comparison of the two virtual environment solutions provided by **Microsoft** i.e. **Remote Desktop Services vs Windows Virtual Desktop**. So, without further a do, let's learn about each of it one by one and afterwards we'll lead us to their comparison.

What is Remote Desktop Services?

Remote Desktop Services (RDS) is the offering of Microsoft for building virtualization solutions for every end customer need, including delivering individual virtualized applications, providing secure mobile and remote desktop access for your users whom infrastructure may rely on physical machines or virtual machines in cloud.

Depending on your environment and preferences, you may set up the **RDS** solution for **Session-Based Virtualization**, as a **Virtual Desktop Infrastructure (VDI)**, or as a combination of the two:

- **Session-based virtualization:** Leverage the compute power of **Windows Server** to provide a cost-effective multi-session environment to drive your users' everyday workloads.
- **VDI:** Leverage **Windows Client** to provide the high performance, app compatibility, and familiarity that your users have come to expect of their **Windows Desktop** experience.

What is Windows Virtual Desktop?

Azure Windows Virtual Desktop is a cloud offering from **Microsoft** that allow its users to virtualize desktop and apps.

Here's what you can do when you run **Windows Virtual Desktop** on **Azure**:

- Set up a multi-session **Windows 10** deployment that delivers a full **Windows 10** with scalability
- **Virtualize Microsoft 365 Apps** for enterprise and optimize it to run in multi-user virtual scenarios
- Provide **Windows 7** virtual desktops with free **Extended Security Updates**

- Bring your existing **Remote Desktop Services (RDS)** and **Windows Server** desktops and apps to any computer
- Virtualize both desktops and apps
- Manage **Windows 10**, **Windows Server**, and **Windows 7** desktops and apps with a unified management experience

Microsoft RDS vs Microsoft Azure WVD

For the comparison of the concerning virtual solutions, we'll be segmenting it into four sections:

- Features comparison of **Remote Desktop Services vs Azure Windows Virtual Desktop**
- Management of **Microsoft Remote Desktop Services vs WVD**
- Cost of **RDS vs WVD**
- Performance of **RDS vs WVD**
- Use case scenarios of **RDS vs WVD**

Features comparison of Remote Desktop Services vs Azure Windows Virtual Desktop

Features RDS (Hosted in Azure using Virtual Machines) Azure WVD Operating System.

Features	RDS (Hosted in Azure)	Azure WVD
Operating System	<ul style="list-style-type: none"> – Windows Server Only for RDS – Windows Client is available for VDI 	Windows Client and Windows Server both are available. (RDS CALS are needed for Server)
Machines Assignment	<ul style="list-style-type: none"> – Shared Session Hosts for RDS – Dedicated VM's may be assigned for VDI 	Both options are available i.e. pooled or dedicated.
Profile management	<ul style="list-style-type: none"> – User Profile Disks (UPD)/Native are used for RDS – User Profile Disks (UPD)/Native are used for VDI 	<ul style="list-style-type: none"> – User Profile Disks (UPD) – FSLogixProfile Containers (recommended)
OneDrive	Not supported	Supported

Features	RDS (Hosted in Azure)	Azure WVD
Windows Indexed Search	Not supported	Supported

Management of Microsoft Remote Desktop Services vs Windows Virtual Desktop

The management of cost and infrastructure includes installing roles, configuring the complete environment, patching of the servers etc. and no doubt, the management of a solution comes with its workload and cost. The below are the given details about the management of the two.

Management	RDS (Hosted in Azure)	Azure WVD
Control and Infrastructure	Managed by end Customer	Managed by MS
Regions	Any	Limited for tenants but Session Hosts may be deployed anywhere
Market Availability	It's been here since more than a decade	• GA started on September 30, 2019

Cost of Remote Desktop Services vs Windows Virtual Desktop

The cost calculations provided below in the table has been made keeping the following considerations in mind:

- Number of users utilizing the environment = round about 16 users
- Having the same set of features and experience excluding the obvious limitations that come with the solution itself

Cost (approx.)	RDS (Hosted in Azure)	Azure WVD
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– Cheapest Option without **Office 365** for **WindowsClient** environment would be **Windows E3** = \$7 user/month

– Cheapest option with **Office 365** for **Windows Client** environment would be **Microsoft 365 F3** = \$10 user/month

– For **Windows Server** environment without **Office 365** = \$0.6 user/month

– No charges for **Windows Client** environment.

– For **Server** environment, license price would be adjusted in **VM's** cost.

– For **Windows Client** environment consisting **Azure VM's** i.e. 1 **DC**, 1 **SH** = \$750 /month using **D16_v4** size **VM** as **Session Host**

– For **Windows Server** environment consisting **Azure VM's** i.e. 1 **DC**, 1 **SH** = \$1350 /month using **D16_v4** size **VM** as **Session Host**

– For **Windows Client** experience without **Office 365** = \$112 + \$750 = \$862 / month

– For **Windows Client** experience with **Office 365** = \$160+ \$750 = \$910 /month

– For **Windows Server** environment without **Office 365** = \$10 + \$1350 = \$1360

User **RDS + Windows Server CAL** = \$6
License user/month

Server **License** price would be adjusted in
License the **VM's** cost.

A single **AzureVM** with nested virtualization
Infrastructure i.e. 1 **DC**, 1 **SH** = \$2,195.84
/month using **D32_v4** size **VM**

Total **Windows Server** experience without **Office 365** = \$96 + \$2196 = \$2292 /month

Performance of RDS vs WVD

Performance is significantly improved for WVD which also comes with the support of over the web experience for remote desktop sessions.

Performance	RDS (Hosted in Azure)	Azure WVD
Over the Web	Not available for desktop connections	Smooth

Performance	RDS (Hosted in Azure)	Azure WVD
User Profile Loading	It's not very optimized as profiles get copied/imported as the sign in session is initiated under UPD solution	Using FSLogix Profile Container , the profiles get mounted reducing the delay times drastically
Scalable	Not a very cost-efficient option and comes with its extra workload.	As a Cloud Service , it's highly scalable with many options providing cost saving and ease of the procedure

Use Case Scenarios of Remote Desktop Services vs Windows Virtual Desktop

The most common use case scenarios that one would come up with and how good they are tackled by the two concerned solution.

Use Case	RDS (Hosted in Azure)	Azure WVD
MS Teams Usage	Highly not recommended	Supported
Microphone Redirection	Supported	Supported
Camera Redirection	Supported	Supported
OneDrive	Not supported	Supported
Intune Enrolment	Not supported	Not supported
Apply GPO	Supported	Supported

Which One Would Work Best for You?

It really depends on one's environment needs. Some of the factors which may affect your decision would be:

- An **RDS** environment is already in place and the license required for them have just been renewed, following the approach "**if it ain't broke, don't fix it**" would seem more appealing to you
- If a new virtual environment to be setup, **WVD** being the latest technology with less workload and high scalability and very minimal downtime would be a more interesting option for you
- If using **Office 365** is a must, bundling it with **WVD** with **Microsoft 365 Subscription**, even switching from already deployed **RDS** environments would be a huge cost saver for you
- If keeping the access of your environment infrastructure only to you isn't a big consideration, **WVD** would prove to be a better choice

Hope the comparison provided and the considerations while choosing between the two would prove to help you deciding your next big step for your virtual environment. [Book a strategy call](#) with us now to get started!

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