Microsoft Remote Desktop Services with Windows Server 2016

THE PLATFORM TO DELIVER VIRTUAL WORKSPACES ON ANY DEVICE

Your users want to access corporate resources from a variety of devices so they can be productive anywhere, anytime.

The workforce is more mobile and technically savvy than it has ever been. With the bring-your-own-device (BYOD) trend, you need to support several platforms while protecting your organization's data and resources and maintaining corporate compliance—rewriting apps for each platform is neither scalable nor cost effective.

Workspace virtualization, whether through apps or full desktops, has been a trusted method to achieve these objectives. The key to your success is investing in a secure platform that will provide the necessary capabilities to serve varied use cases while allowing for flexibility and choice of deployment. Microsoft Remote Desktop Services (RDS) has been your trusted platform
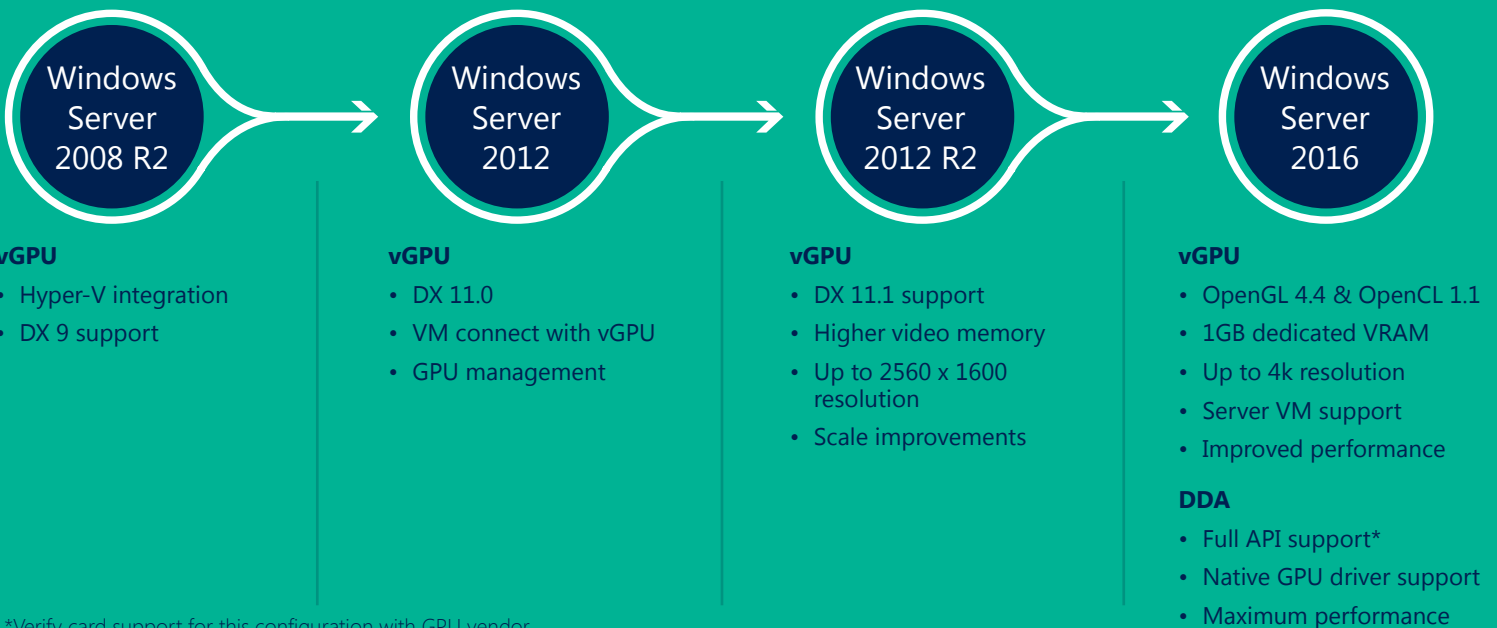
for delivering virtualized workspaces. With the enhancements in the Windows Server 2016 release, Microsoft RDS is now the platform of choice for a secure, scalable, and extensible foundation on which our partners can build customized solutions to:

DELIVER ANY OR ALL OF YOUR WINDOWS APPS VIRTUALLY, INCLUDING GRAPHICS-INTENSIVE APPS

Take advantage of significant performance and application compatibility improvements in user experience through the Discrete Device Assignment (DDA) technology. DDA allows graphic cards (GPUs) to be directly assigned to a virtual machine, unleashing the full power of available graphics processing to virtual desktops that are utilizing the native driver of the GPU. For graphics virtualization scenarios requiring higher user density, RemoteFX vGPU application compatibility is improved with support for OpenGL 4.4 and OpenCL 1.1. In addition, Remote Desktop Protocol 10 (RDP) delivers the higher frame rate generated by these technologies by using the new H.264/MPEG-4 AVC-based AVC444 graphics compression technology. AVC444 is designed to take advantage of the dedicated H.264/MPEG-4 AVC hardware already available in many devices to reduce the CPU load.

Evolution of RDS Graphics Virtualization with Hyper-V

Windows Server 2008 R2 → **Windows Server 2012** → **Windows Server 2012 R2** → **Windows Server 2016**

vGPU
- Hyper-V integration
- DX 9 support

vGPU
- DX 11.0
- VM connect with vGPU
- GPU management

vGPU
- DX 11.1 support
- Higher video memory
- Up to 2560 x 1600 resolution
- Scale improvements

vGPU
- OpenGL 4.4 & OpenCL 1.1
- 1GB dedicated VRAM
- Up to 4k resolution
- Server VM support
- Improved performance

DDA
- Full API support*
- Native GPU driver support
- Maximum performance

*Verify card support for this configuration with GPU vendor

MANAGE SCALE FOR HIGH-DEMAND APPS, WHILE MAKING EVEN SMALL SCALE DEPLOYMENTS COST-EFFECTIVE

In Windows Server 2016, we have improved our connection broker capabilities to handle massive concurrent connection situations, commonly known as the "9 A.M. scenario" or the "logon storm." With a much higher threshold for peak loads, you can dramatically reduce logon failure and user friction. The new release also introduces the ability to configure a high availability RD Connection Broker using a database from a shared SQL server, allowing smaller scale deployments to be cost-effective.

HARNESS THE POWER OF THE HYBRID CLOUD EFFICIENTLY AND SECURELY

Microsoft has made key innovations to help you deliver virtual workspaces without requiring a full commitment to the cloud revolution. Hybrid options give you the advantage of cloud-enabled features and capabilities that can improve the efficiency and security of your desktop virtualization environment. RDS in

Azure IaaS now enables much more efficient virtual machine (VM) architecture than before, essentially cutting in half the number of VMs needed to set up a deployment. Integration with Azure Active Directory App Proxy enhances security for cloud-based RDS deployments by reducing the attack surface, and opens up a large set of Azure Active Directory functionalities like single sign-on and multi-factor authentication. RDS in Windows Server 2016 also integrates with Azure Active Directory Domain Services, enabling "lift and shift" scenarios for our customers who want to leverage the power of the cloud without significant changes to their app configurations.

ADDITIONAL ENHANCEMENTS

Support for Gen 2 VMs

End user experience changes

- Pen remoting support
- Windows client desktop UX improvements
- New zoom functionality in MSTSC

Windows Multipoint Services is now a role

Optimize RDS for the cloud

PUBLIC INTERNET

AZURE SERVICES

| Management Portal | Load Balancer / VPN | AAD AP |

DESKTOP HOSTING SERVICE

Tenant1

Other Tenant Services

AP Connector

VM

RDCB | RDLic | RDGW | RDWeb

Tenant1 Virtual Network

AAD Domain Services | Azure SQL Database

RDSH
VM
Session Desktop Collection

RDSH
VM
RemoteApp Collection (opt)

AZURE FABRIC

Compute | Storage | Network

Microsoft