

Windows Server 2008 R2: Remote Desktop Services Component Architecture

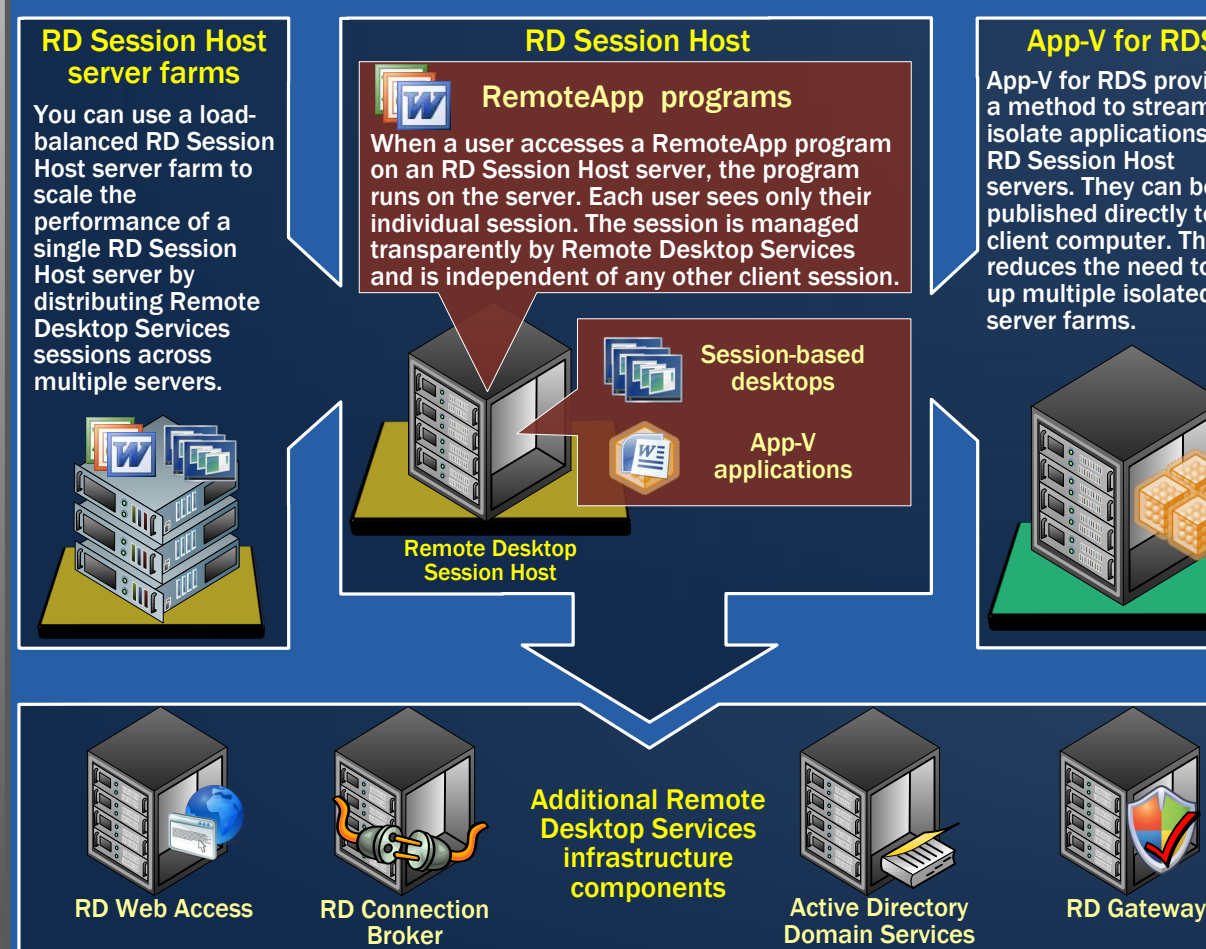
Acronyms

AD DS
Active Directory Domain Services
App-V
Application Virtualization
CAL
client access license
GPU
graphics processing unit
MSI
Microsoft Installer Package
RDC
Remote Desktop Connection
RDS
Remote Desktop Services
RDP
Remote Desktop Protocol
RD Connection Broker
Remote Desktop Connection Broker
RD Gateway
Remote Desktop Gateway
RD Session Host
Remote Desktop Session Host
RD Virtualization Host
Remote Desktop Virtualization Host
RD Web Access
Remote Desktop Web Access
ROI
Return On Investment
SP1
Service Pack 1
SCVMM
System Center Virtual Machine Manager
SSE2
Streaming SIMD Extensions 2
SLAT
Second-Level Address Translation
SSL
Secure Sockets Layer
VDI
Virtual Desktop Infrastructure
V-GPU
virtual graphics processing unit
VMM
Virtual Machine Manager



Remote Desktop Session Host

An RD Session Host server hosts Windows-based programs or the full Windows desktop for Remote Desktop Services clients. Users can connect to an RD Session Host server to run programs, to save files, and to use network resources on that server. Users can access an RD Session Host server by using RD Connection Broker, RD Web Access, or RemoteApp and Desktop Connection.



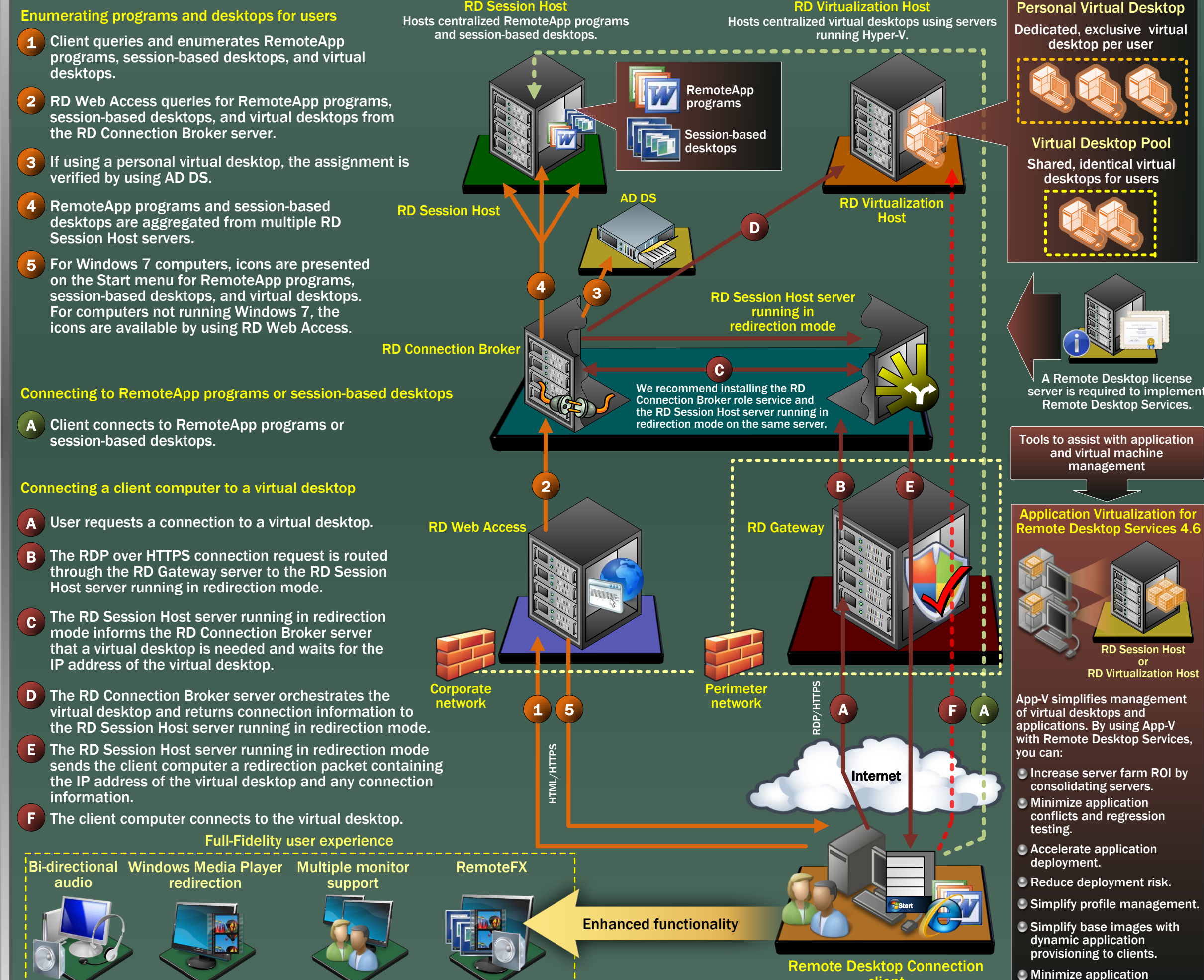
- ### Session-based desktops delivery
- An RD Session Host server can deliver a user desktop session to any designated user in the network.
- ### RemoteApp programs delivery
- RemoteApp enables administrators to make programs that are accessed remotely through an RD Session Host server appear as if they are running on the client computer. Instead of being presented to the user in the desktop of the RD Session Host server, the RemoteApp program is integrated with the client computer.
- ### Accessing RemoteApp programs
- Users access RemoteApp programs in the following ways:
- Remote Desktop Protocol (.rdp) file
 - RD Web Access Web portal
 - RemoteApp and Desktop Connection by using the Windows 7 Start menu

Remote Desktop Connection client



Remote Desktop Services Architecture

Remote Desktop Services provides a virtualization platform for accelerating and extending desktop and application deployments from the data center to any device. It provides an extensible platform for a Virtual Desktop Infrastructure.

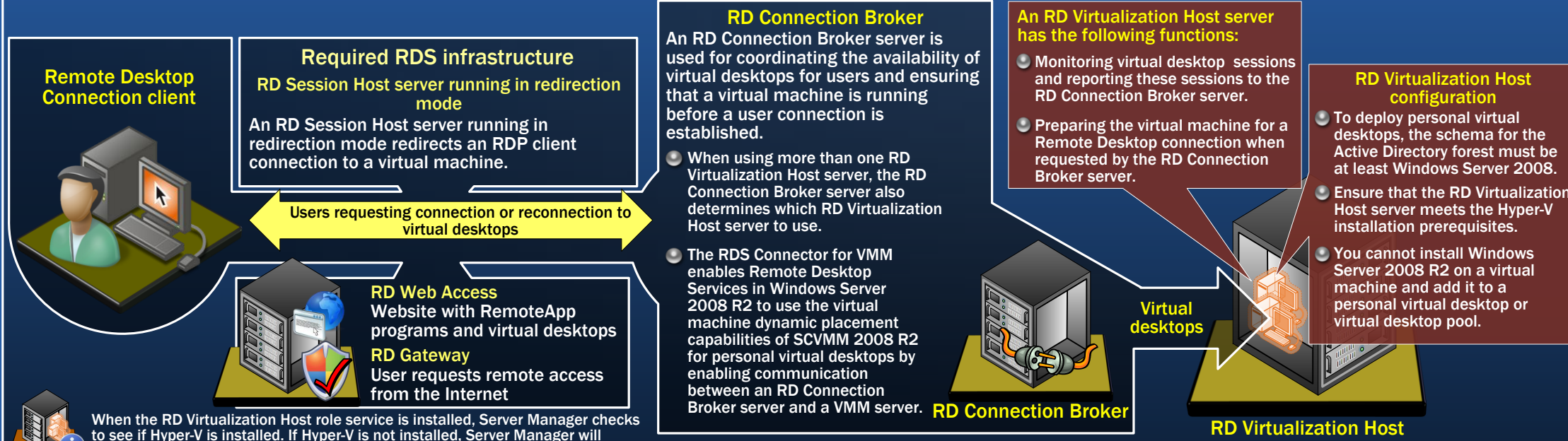


Full-Fidelity user experience
Bi-directional audio, Windows Media Player, Multiple monitor support, RemoteFX
Enhanced functionality

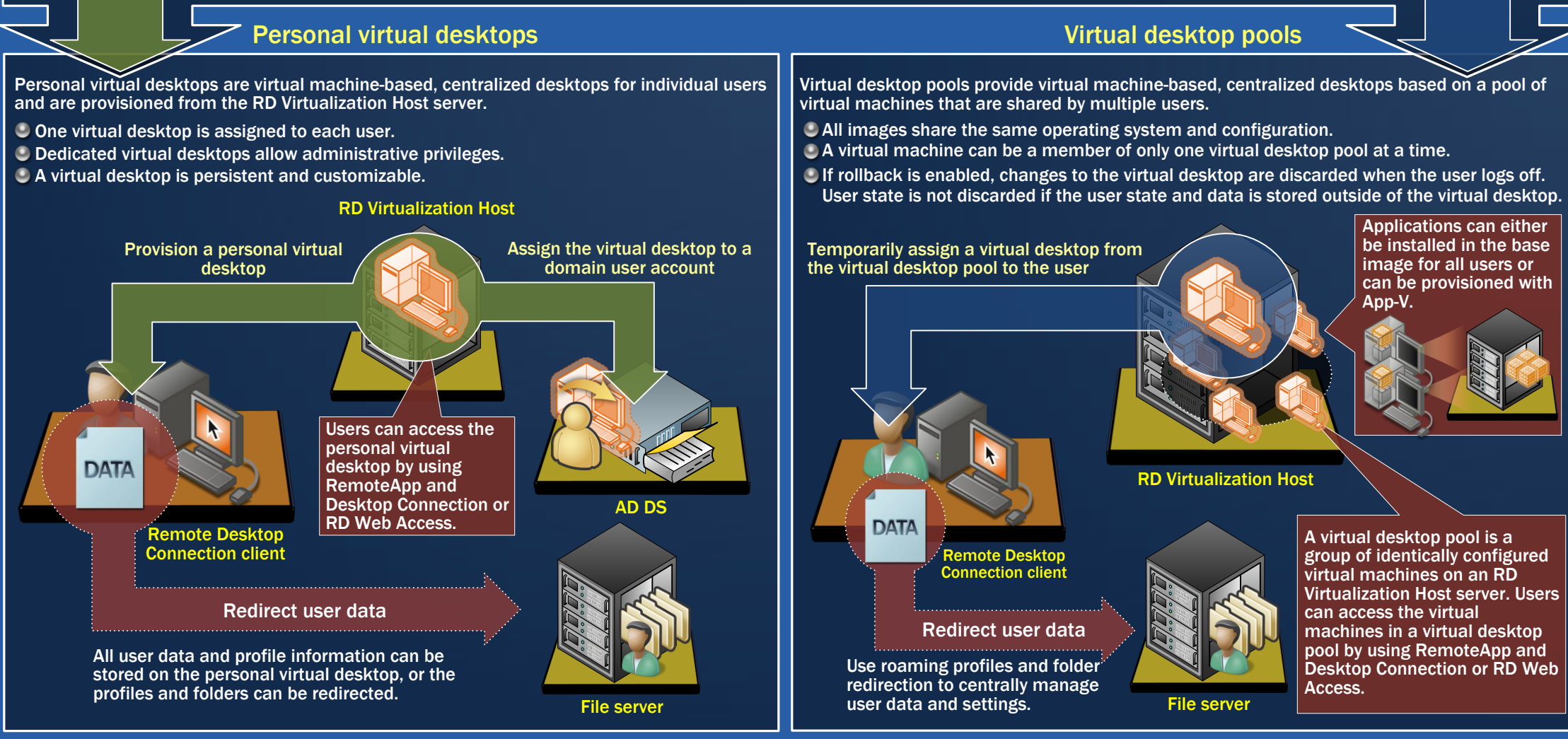


Remote Desktop Virtualization Host

Remote Desktop Virtualization Host is a new Remote Desktop Services role service included with Windows Server 2008 R2. RD Virtualization Host integrates with Hyper-V to provide virtual machines that can be used as personal virtual desktops or virtual desktop pools. User accounts can be assigned a unique personal virtual desktop or be redirected to a virtual desktop pool where a virtual desktop is dynamically assigned. RD Virtualization Host is an essential component to the VDI solution offered by Microsoft.

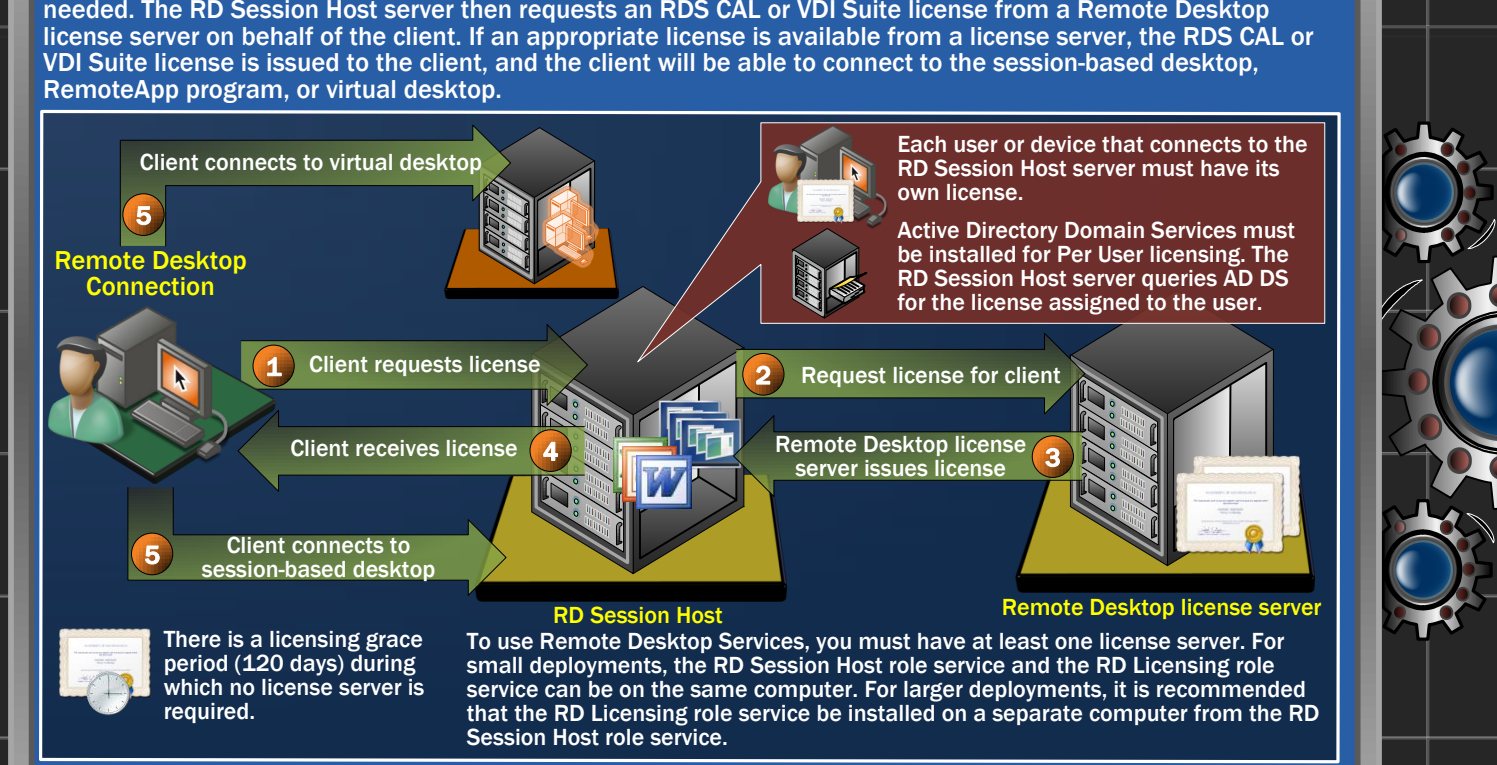


- ### Personal virtual desktops and virtual desktop pools
- Microsoft VDI stores and runs desktop workloads including a Windows client operating system, applications, and data in a virtual machine running on a Hyper-V server. In Windows Server 2008 R2 we support two VDI deployment scenarios: personal virtual desktops and virtual desktop pools. These two scenarios present two different models of assigning virtual machines to end users.
- ### Personal virtual desktops
- Personal virtual desktops are virtual machine-based, centralized desktops for individual users and are provisioned from the RD Virtualization Host server.
- ### Virtual desktop pools
- Virtual desktop pools provide virtual machine-based, centralized desktops based on a pool of virtual machines that are shared by multiple users.



Remote Desktop Licensing

Remote Desktop Licensing manages the Remote Desktop Services client access licenses and VDI Suite licenses that are required for each device or user to connect to session-based desktops, RemoteApp programs, or virtual desktops.



Microsoft Virtual Desktop Infrastructure Licensing

For VDI implementations, the following options are available:

VDI Standard Suite

The VDI Standard Suite is for deploying the basic infrastructure for VDI. Hyper-V Server 2008 R2 provides the virtualization platform; management of the virtual infrastructure is provided by system center components.

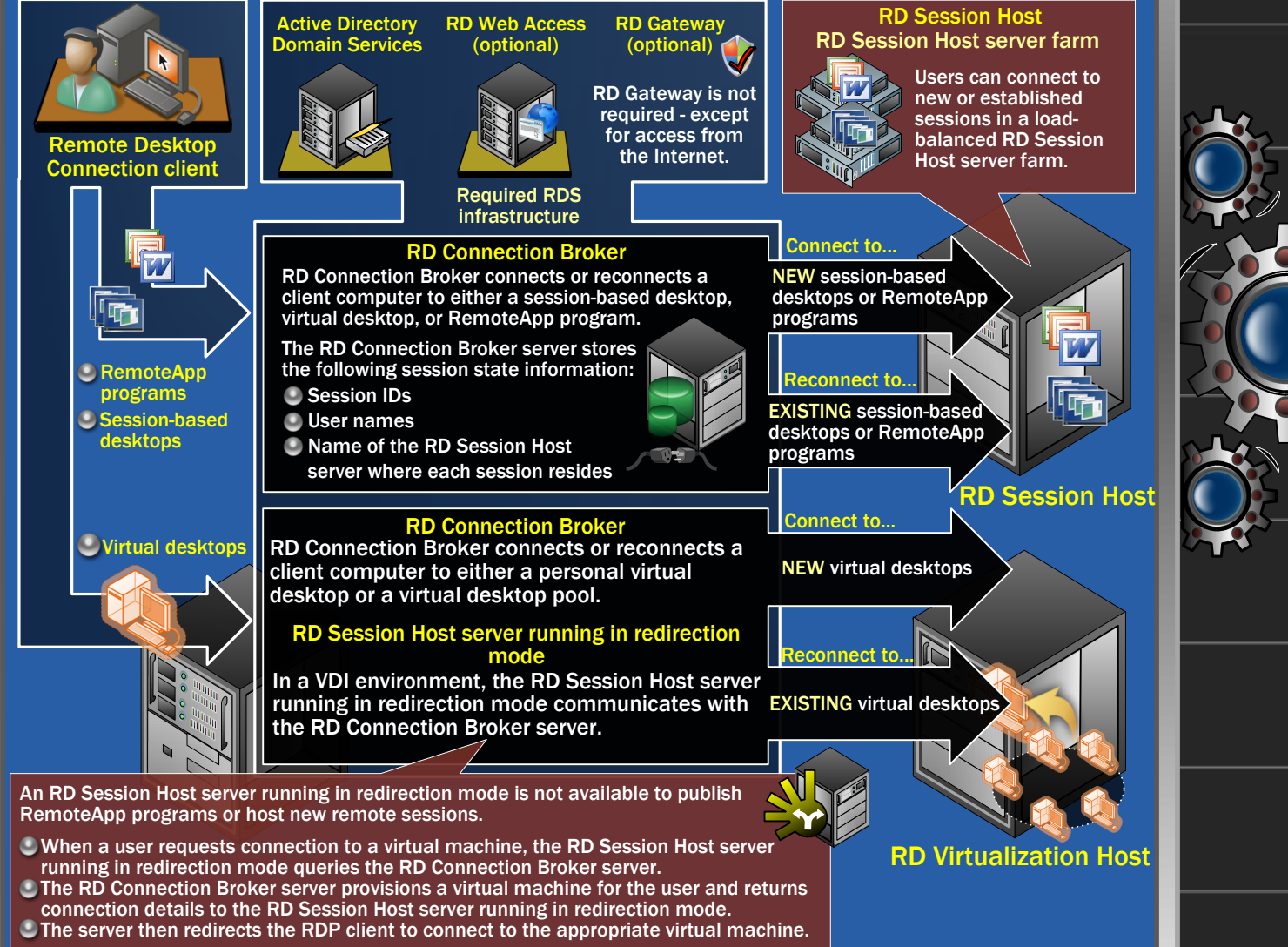
VDI Premium Suite

The VDI Premium Suite is for customers wanting additional flexibility from their VDI environment. It includes all of the VDI Standard Suite options, including unrestricted Remote Desktop Services, enabling customers to deliver both session-based desktops and virtual desktops.



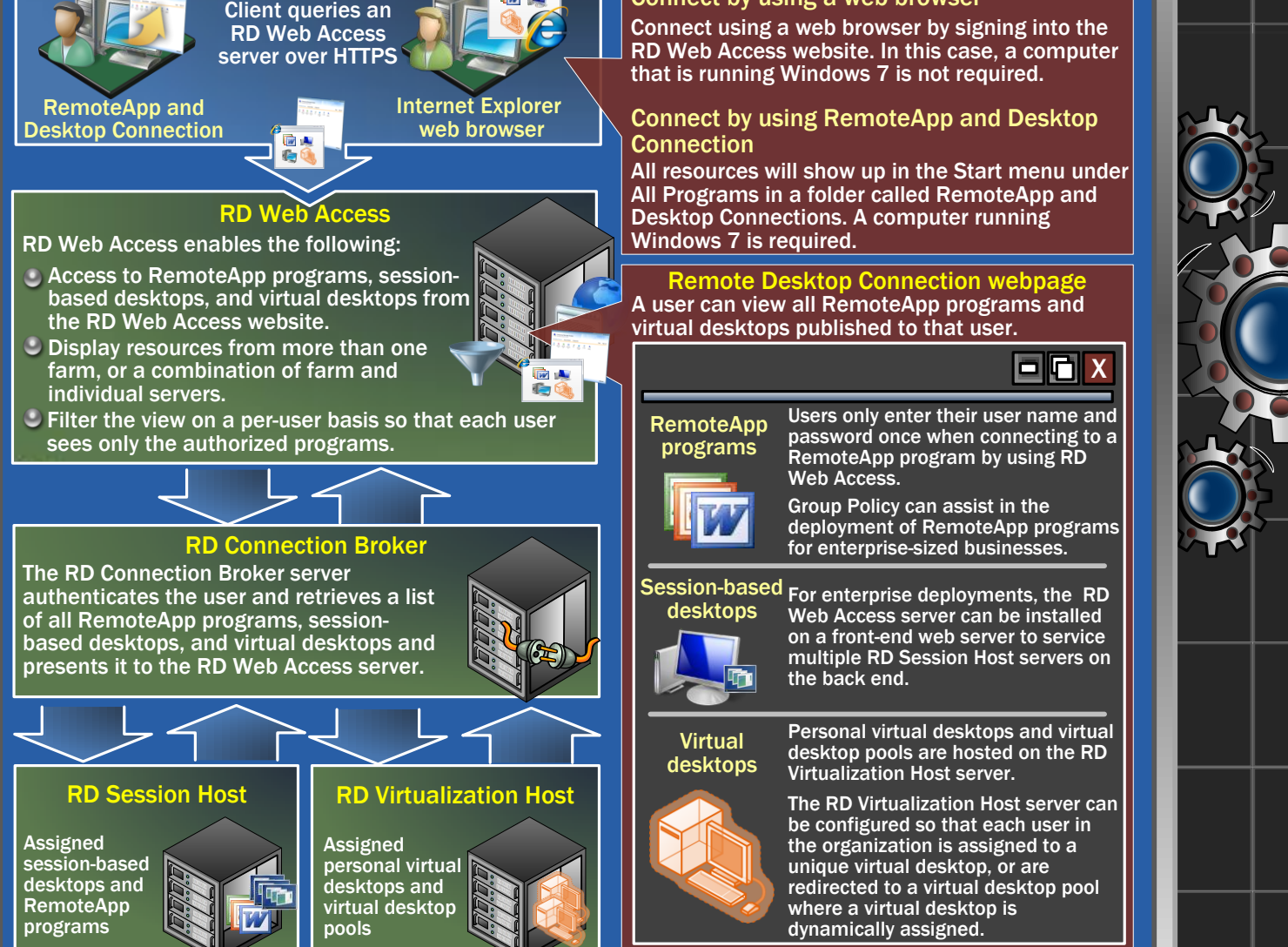
Remote Desktop Connection Broker

Remote Desktop Connection Broker provides a single, personalized, and aggregated view of RemoteApp programs, session-based desktops, and virtual desktops to users. RD Connection Broker supports load balancing and reconnection to existing sessions on virtual desktops, session-based desktops, and RemoteApp programs.



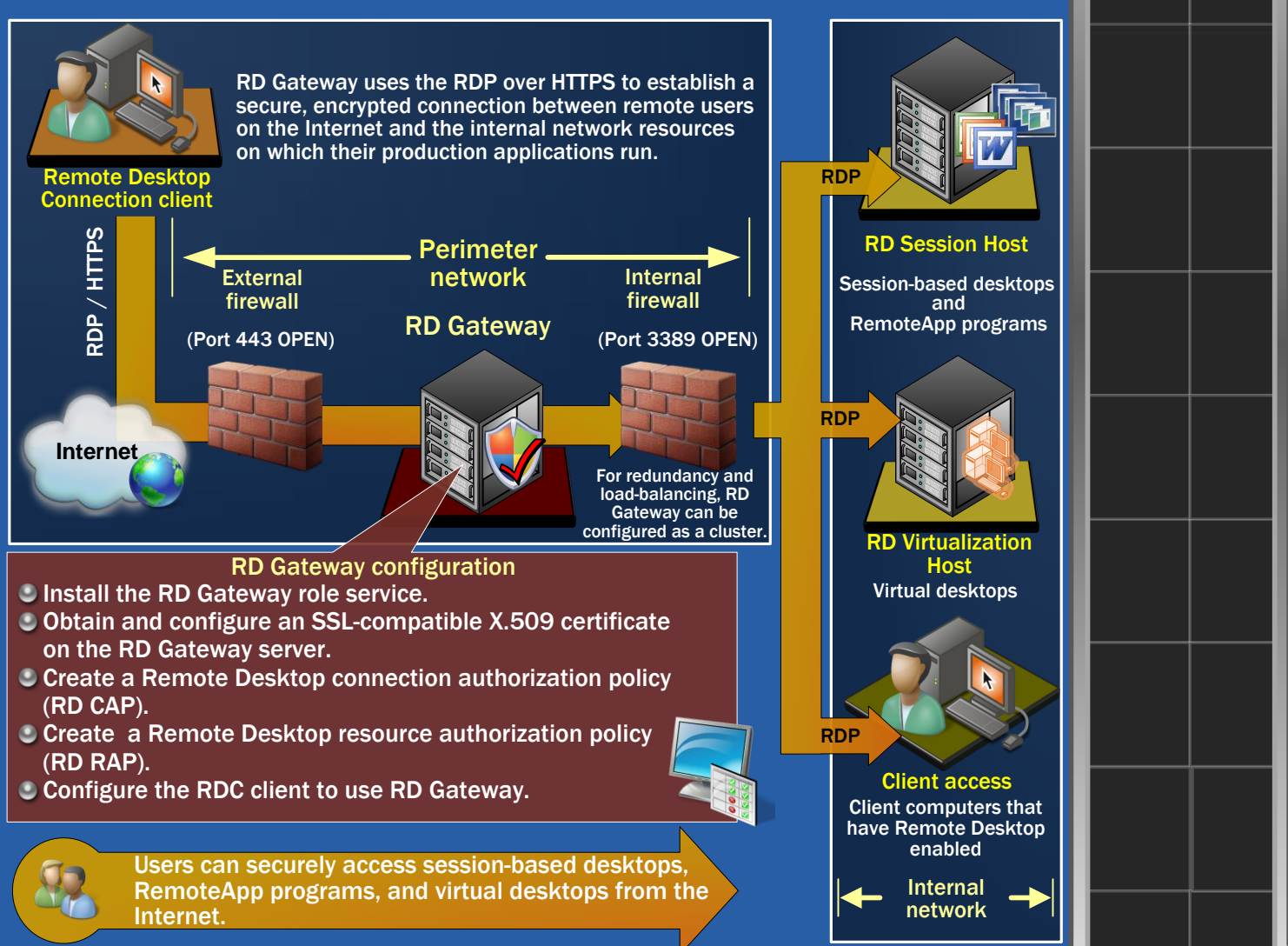
Remote Desktop Web Access

A Remote Desktop Web Access server provides users with a customizable web portal for accessing session-based desktops, virtual desktops, and RemoteApp programs.



Remote Desktop Gateway

The Remote Desktop Gateway role service in Windows Server 2008 R2 enables compatible devices to securely connect over the Internet to RD Session Host servers or RD Virtualization Host servers behind a corporate firewall. Network resources can be any authorized session-based desktops, RemoteApp programs, or virtual desktops.



Microsoft RemoteFX

Microsoft RemoteFX delivers a rich user experience for VDI by using graphics processing units that are present on the server and shared across multiple virtual desktops.

