

# Licensing Microsoft Virtualization Technologies

## Volume Licensing

### VIRTUALIZING WINDOWS SERVER



## Windows Server 2012 R2

#### Virtualization Rights

Windows Server 2012 R2 Standard and Windows Server 2012 R2 Datacenter include Hyper-V to allow server virtualization. The only difference between these two editions of Windows Server 2012 R2 is the virtualization rights:

When licensing a server with Windows Server 2012 R2 **Standard**, 2 virtual machines are allowed per license



When licensing a server with Windows Server 2012 R2 **Datacenter**, unlimited virtualization is allowed



#### Moving to a Heavily Virtualized Infrastructure

**Stacking Standard Edition licenses:**  
Purchasing additional Standard Editions licenses allows organizations to add capacity as needed at a constant price per instance

**Step-Ups:** Organizations with Software Assurance can step-up one Standard Edition license to one Datacenter Edition license for the difference in price of the two licenses and SA

#### License Mobility

License Mobility is not available for Windows Server 2012 R2.

Licenses can be reassigned to servers no more frequently than once every 90 days.

#### Licensing Server Farms

Since there is no license mobility for Windows Server 2012 R2, each server in a Server Farm must be appropriately licensed for Windows Server 2012 R2.



#### Downgrade Rights

- ▶ Windows Server 2012 R2 **Datacenter** may be downgraded to any version of Windows Server Datacenter, Enterprise or Standard
- ▶ Windows Server 2012 R2 **Standard** may be downgraded to any version of Windows Server Enterprise or Standard

Note that the licensing terms of the actual product license purchased apply. If an organization has purchased Windows Standard 2012 R2 and opts to run Standard 2008 R2, they will be allowed to run 2 virtual machines as per the virtualization rights of Windows Server 2012 R2 Standard.

### VIRTUALIZING APPLICATION SERVERS

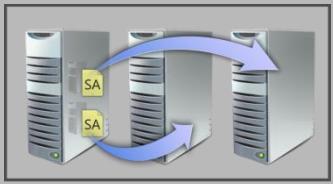
#### Virtualization Instances

- ▶ Servers are licensed by running instance. Each license assigned to a server gives rights to running one instance on that server at a time in either physical or virtual environments
- ▶ A single server license gives rights to create and store any number of instances on servers and storage media. Separate licenses are therefore not required for instances stored in inactive virtual machines

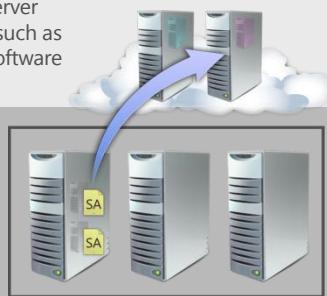
#### License Mobility

Licenses may be reassigned on a short-term basis (ie more frequently than every 90 days) for certain application server products. The Product Use Rights document details the individual product rights, but application server products such as Skype for Business Server 2015, SharePoint Server 2013 and Exchange Server 2013 require licenses covered with Software Assurance for License Mobility rights

License Mobility within Server Farms



License Mobility through Software Assurance allows organizations to move certain on-premise licenses covered by SA to third party shared servers



## Exchange Server 2013 SharePoint 2013 Skype for Business

Note that different rules apply to Microsoft SQL Server 2014 and these are covered on the SQL Server 2014 handout in this series.

## Licensing Microsoft Virtualization Technologies - continued

### DESKTOP VIRTUALIZATION LICENSING

When Software Assurance is added to Windows 8.1 Enterprise, the organization gets more licensing rights, and more purchasing rights:

#### More Licensing Rights

- ▶ VDA Rights
- ▶ Windows RT Companion VDA Rights
- ▶ Windows To Go Use Rights
- ▶ Roaming Use Rights

#### More Purchasing Rights

- ▶ MDOP
- ▶ Windows SA per User Add-on

*Note: Licensing rules for Windows 8.1 changed on 1 March 2014. Prior to this date, organizations could add SA to Windows 8.1 Pro licenses. Customers buying Windows 8.1 Pro through FPP or OEM before 1 July 2014 were able to continue to add SA to those licenses within 90 days of the license purchase and receive rights to Windows 8.1 Enterprise as well as the additional SA rights.*

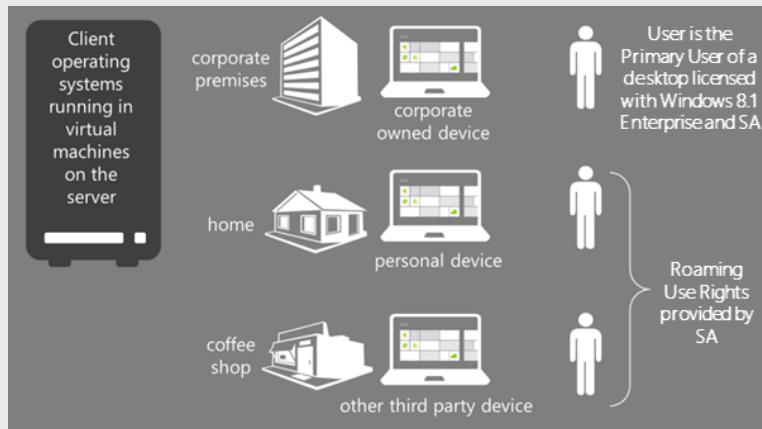
### Windows User Licensing

A Windows SA per User Add-on USL may be purchased for the Primary User of a device licensed with Windows 8.1 Enterprise with SA. This allows the user to access their corporate desktop on any devices in any location.



### Virtual Desktop Infrastructure

In VDI, client operating systems are running in virtual machines on a server that remotely presents each desktop to a client device. Microsoft Hyper-V is the VDI host, and RDS serves out the desktops. Users need to be licensed for all the software they are using as part of the desktop, plus they need a Windows Server CAL and a Remote Desktop Services CAL.



A "Primary User" is the user who uses a licensed device for more than 50% of the time in any 90 day period.

With VDA rights, the Primary user of a desktop licensed with Windows 8.1 Enterprise and SA can access their Windows 8.1 desktop on corporate devices, as well as personal devices and other third party devices when not at work.

### VDA Licenses

A VDA (Virtual Desktop Access) license is a subscription license which provides much of the same rights and functionality of Windows 8.1 Enterprise with SA in scenarios where thin clients or PCs with non-qualifying operating systems are being used.

Win 8.1 Enterprise with SA		VDA
PC	Typical device	Thin client
Yes	Qualifying OS required	No
Yes	Local install rights	No
Enterprise Edition	Flexible Use Rights	Rights to Purchase
Both include	<ul style="list-style-type: none"><li>• VDA Rights</li><li>• Windows RT Companion VDA Rights</li><li>• Roaming Use Rights</li><li>• Windows To Go Use Rights</li></ul>	<ul style="list-style-type: none"><li>• MDOP</li><li>• Windows SA per User Add-on</li></ul>

### Microsoft Desktop Optimization Pack

- ▶ Licensed Per Device on a subscription basis
- ▶ Optional Add-On for customers with SA for Windows
- ▶ Subscription provides access to use all products and updates
- ▶ Usage ends when subscription ends
- ▶ Subscription may be transferred to an alternative machine with a Windows + SA license
- ▶ Applications continue to follow their existing licensing model when virtualized

#### Includes:

1. Microsoft User Experience Virtualization (UE-V)
2. Microsoft Application Virtualization (App-V)
3. Microsoft Enterprise Desktop Virtualization (MED-V)
4. Microsoft BitLocker Administration and Monitoring (MBAM)
5. Microsoft Advanced Group Policy Management (AGPM)
6. Microsoft Diagnostics and Recovery Toolset (DaRT)

Further Microsoft Licensing handouts and exams:  
[GetLicensingReady.com](http://GetLicensingReady.com)