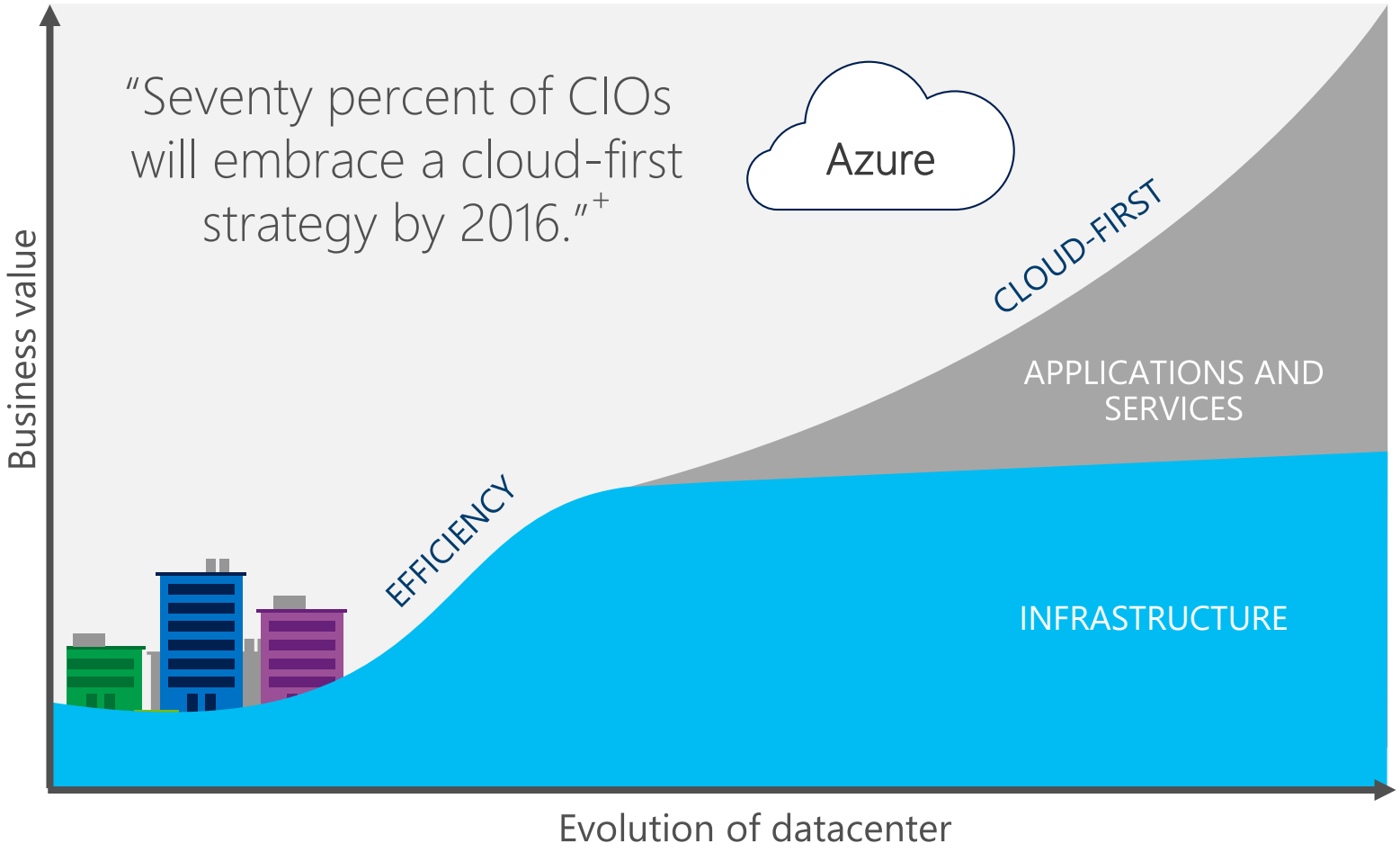
Microsoft

Volume Licensing Readiness

Windows Server 2016

October 2016

Datacenter evolution to support business needs



- Modern app development
- Hybrid cloud
- Flexible infrastructure
- Virtualization and standardization

Windows Server 2016

The cloud-ready server operating system that delivers new layers of security and Azure-inspired innovation for applications and infrastructure

Security at the OS level

- Built-in security capabilities
- Protection to Identity
- Secure the virtualization platform

Software-defined Datacenter

- Built-in SDDC capabilities
- Affordable and enterprise ready
- Azure-inspired infrastructure

Cloud-ready Application Platform

- Built-in containers
- Lightweight Nano Server option
- Bring licenses to Azure

Windows Server 2016 editions

Editions	Description	Licensing model	CAL requirements
Windows Server 2016 Datacenter	For highly virtualized datacenter and cloud environments.	Core based	WS CAL
Windows Server 2016 Standard	For physical or minimally virtualized environments.	Core based	WS CAL
Windows Server 2016 Essentials	For small businesses with up to 25 users and 50 devices. Essentials is a good option for customers using the Foundation edition, which is not available for Windows Server 2016.	Processor based	No CAL required
Windows Server 2016 MultiPoint Premium Server*	Enables multiple users to access one computer; available only for Academic licensing.	Processor based	WS CAL+RDS CAL
Windows Storage Server 2016	For dedicated OEM storage solutions. Available in Standard and Workgroup editions through the OEM channel.	Processor based	No CAL required
Microsoft Hyper-V Server 2016	Free hypervisor download.	NA	NA

*Corporate customers can use the Windows MultiPoint Premium Server role that will be available in Standard and Datacenter editions. Windows Server CALs and RDS CALs are required for Multipoint Server.

Windows Server 2016 feature differentiation

Standard and Datacenter editions

Delivers enhancements to core Windows Server functionality.

Makes modern app development features accessible.

Datacenter Edition

Continues to enable high density virtualization.

Adds advanced software-defined datacenter capabilities, new networking stack and Shielded Virtual Machines.

	Datacenter Edition	Standard Edition
Core Windows Server functionality	•	•
OSEs*/Hyper-V containers	Unlimited	2*
Windows Server containers	Unlimited	Unlimited
Nano Server**	•	•
Host Guardian Service	•	•
Storage features including Storage Spaces Direct and Storage Replica	•	
Shielded Virtual Machines	•	
Networking stack	•	

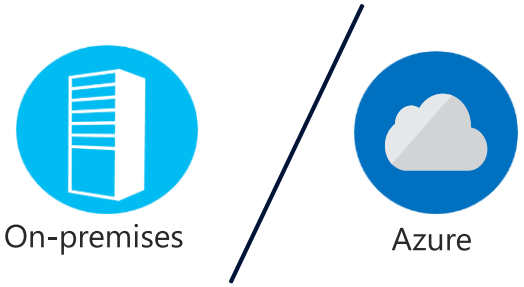
*OSE refers to a server Operating System Environment. Windows Server Standard Edition license permits two OSEs or VMs when all physical cores are licensed.

**Software Assurance is required to deploy and operate Nano Server in production.

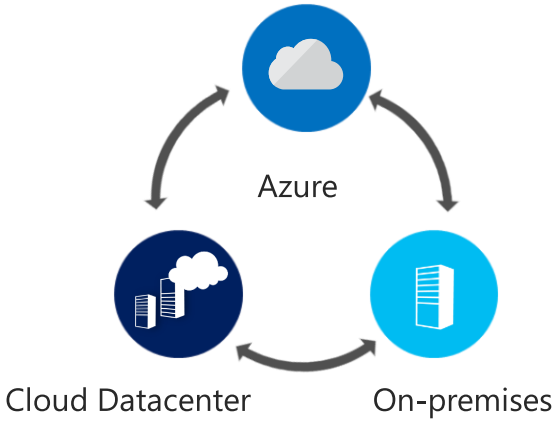
Windows Server business model transformation

Today…

- Customers run workloads on-premises and in the cloud.
- Licensing model is processor-based when on-premises and core-based in the cloud.
- This dual currency creates complexity for our customers.



A new approach is needed to enable consistency across environments



Align to a common currency of cores

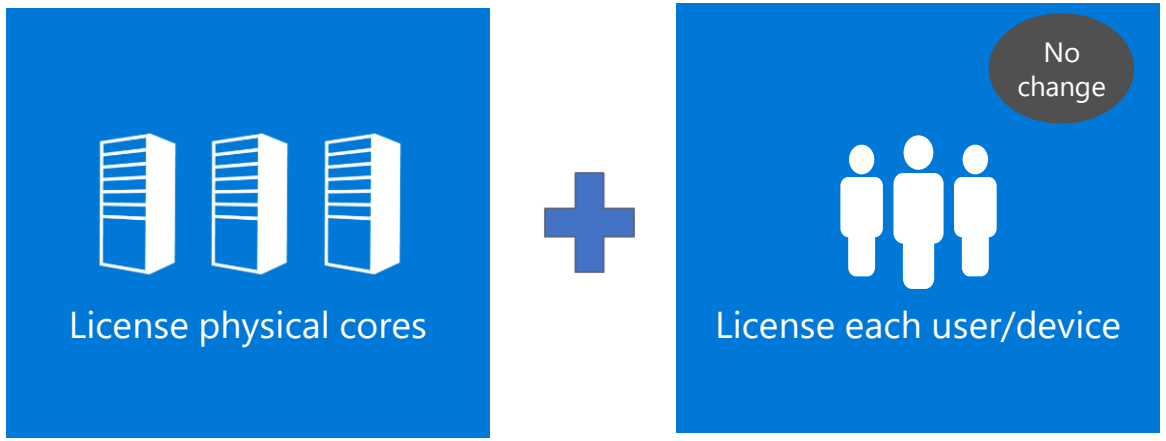
- Offer consistent approach across environments.
- Enable multi-cloud scenarios.
- Improve workload portability for Windows Server though benefits such as Azure Hybrid Use Benefit (AHUB).
- Remove friction from different licensing models.

Licensing and Pricing Overview

Windows Server 2016 licensing

Transitioning from processor- to core-based licensing

Windows Server Standard and Datacenter editions



Server licensing
(Transitions from processor to core)

Users or Devices
(No change in CALs)

- Servers are licensed based on the number of processor cores in the physical server.
- To license a physical server, all physical cores must be covered.
- A minimum of 16 core licenses is required for each server.
- A minimum of 8 core licenses is required for each physical processor.
- The price for 16 core licenses of Windows Server 2016 is the same as the 2-processor license of Windows Server 2012 R2.
- Existing customers' servers under Software Assurance (SA) will be granted additional cores as needed, with documentation.

Processor to core-based licensing

Two processors per server

No price change for servers with <16 cores in comparison to 2-proc 2012R2

Physical Cores Per Processor	2	4	8	10	12	14	16
Number of Cores in the server	4	8	16	20	24	28	32
Number of 2-core packs needed with Windows Server 2016	8	8	8	10	12	14	16

- A minimum of 16 core licenses required for each server.
- Licenses are available in 2-core packs.
- The price for eight 2-core pack licenses of Windows Server 2016 is equivalent to one 2-processor license of Windows Server 2012 R2.

Processors to cores: After Windows Server 2016 GA

Existing EA customers* transition to core licensing at first renewal after Windows Server 2016 GA

General Availability

Before Windows Server 2016 GA

Renewals	True-up
For processor-based licensing: Renewals prior to Windows Server 2016 GA will stay on processor-based model for the life of the agreement.	For processor-based licensing: True-ups before Windows Server 2016 GA will be processor-based until the next renewal.

After Windows Server 2016 GA

Renewals	True-up
On core-based licensing: Customers will transition to core-based licensing. True-ups will be core based.	Before renewal : True-ups will be processor-based and will continue to be processor-based until the next renewal. After renewal: True-ups will be core-based after renewal after Windows Server 2016 GA.

*Additional license grants do not require SA renewal

Processor to core conversion: After Windows Server 2016 GA

For existing customers with Software Assurance at renewal

For customers with ≤ 8 cores per processor and 16 cores per server

- Customers will receive a minimum of 16 cores in a server.
- No impact on price compared to Windows Server 2012 R2 2-processor price.

For customers with > 8 cores per processor and 16 cores per server

- Customers receive core grants for servers with greater than 16 cores.
- No price impact on ‘L’ for incremental cores.
- Customers pay SA on incremental cores.

Benefits of Software Assurance

Benefits of Software Assurance

Current Term Upgrade to Windows Server 2016

- New Layers of Security
- Software defined Datacenter
- Cloud-Ready app platform
- Feature differentiation between Standard and Datacenter

Azure Hybrid Use Benefit (AHUB)

- Use Windows Server licenses in Azure datacenters
- In Azure, customers pay only for the base virtual machine service utilization at Linux rates
- Significantly reduced costs compared to running Windows Server in other public clouds

Core grants with Windows Server 2016

- Customers with Software Assurance receive core grants at the time of expiration after Windows Server 2016 launch
- Additional core grants will be provided for processors with greater than 8 cores per processor
- Customers say only SA on incremental cores*

Windows Server FY17 Offers

Discount on Step-up offer

- 20% discount on Step-up SKU

VMware Migration offer

- 57% discount Datacenter L+SA SKU with L discounted

+ Normal SA Benefits

*Greater than 8 cores per processor and 16 cores per server

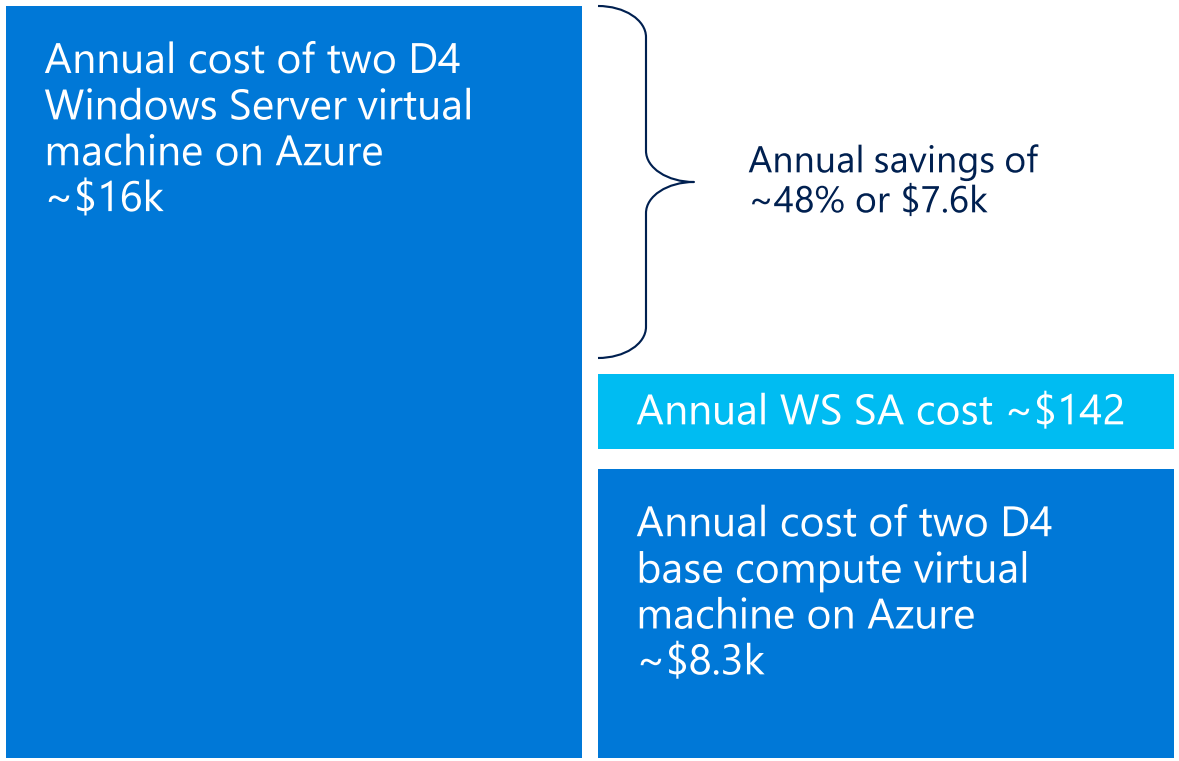
Azure Hybrid Use Benefit

Benefits

- Use Windows Server licenses in Azure datacenters when covered by Software Assurance.
- In Azure, pay only for the base virtual machine service utilization.
- Datacenter edition can be run in Azure and on-premises simultaneously.
- Significantly reduce costs compared to running Windows Server in other public clouds.

Details

- Licenses required to have Software Assurance.
- Each 2-processor Windows Server Datacenter or Standard edition allows up to two Windows Server VMs on Azure at 8 cores each.



Note: D4 Virtual Machine = 8 cores, 28GB RAM, 400GB Disk.
Pricing comparison assumes EA Level D pricing.

Core Grants: Overview

Core Grants on expiration of SA	**Applicable to processor licenses with SA** • At GA of Windows Server 2016 • Obtained under the same agreement via programmatic true-up **Full Core Licenses** • Each eligible license granted 16 core licenses **Additional Core Licenses* (requires documentation)** • For servers with >8 cores per processor and >16 cores per server
Customer renews SA after WS 2016 General Availability	• Can upgrade to Windows Server 2016 at any time, irrespective of the time of renewal • Will receive Full Core License grants • Will be eligible to receive Additional Core License grants* • Will be on core licensing upon renewal of SA
Customer does not renew SA after General Availability	• Can upgrade to Windows Server 2016 at any time • Will receive Full Core License grants • Will be eligible to receive Additional Core License grants* • Will be on core licensing upon upgrade to 2016

*Documentation

- Customer must establish and maintain a record of the physical hardware and the configuration of the licensed server to which its eligible licenses are assigned
- Using either the Microsoft Software Inventory Logging tool or any equivalent software
- As of the earlier of September 30, 2019 or the expiration of the SA term for the eligible licenses

Core Grants: Process

What licenses are eligible for core grants?

- Processor licenses with SA at GA of Windows Server 2016
- Processor licenses with SA obtained under the existing agreement via programmatic true-up

What types of core grants will eligible licenses receive?

- Full Core Licenses: Each eligible license will be granted 16 core licenses
- Additional Core Licenses*: For servers with >8 cores per processor and >16 cores per server

What does the customer actually see when they get their core grant?

- Renewing customers purchase core-based SA SKUs – the CPS reflect their grant as a purchase
- Non-renewing customers do not purchase SA SKUs – the October PT reflects their grant as a right

What does the customer need to do with server documentation?

- Eligibility requires that customer must maintain an inventory of the environment of the server
- In compliance scenarios, customer must provide documentation to prove eligibility

*Documentation required: Customer must establish and maintain an inventory of the environment of the server.

Core Grants: Documentation of Additional Core Licenses

When does the customer need to document their servers?

The conversation on core transition and core grants should start early irrespective of the time of renewal giving customer time to underrated the process and start planning for documentation

- As of the earlier of September 30, 2019 or the expiration of the SA term for the eligible licenses
- Note: Like the SQL 2012 proc-to-core transition, additional core grants are provided for three years

What does the customer need to do to receive Additional Core Licenses?

- Customer must establish and maintain a record of the physical hardware and the configuration of the licensed server to which its eligible licenses are assigned

How does the customer establish and maintain a record of their servers?

- Using either the Microsoft Software Inventory Logging (SIL) tool or any equivalent software
- Output file (time and date stamped): number physical processors, cores, VMs, hosts, software, etc.

Note : Customers can receive core grants only at their first renewal after Windows Server 2016 GA. **Starting the core transition conversation early** will help customers understand and plan the documentation process appropriately

Core Grants: Documentation Example Output (SIL)

Software Inventory Logging (SIL) Dashboard View

Inventory Totals

Windows Server	Monthly Totals CY2016-Feb	Total
1 Simultaneously running Windows Server VMs by host – All Hosts	3	3
WS Datacenter Edition	0	0
WS Standard Edition Hosts (4)	1	1
2 WS Enterprise Edition Hosts	0	0
VMWare Hosts	0	0
Other Hypervisor Hosts	0	0
Total Hypervisor Hosts	0	0
3 Physical Processors	1	1
Processor Cores	4	4
Windows Server Devices (hosting no known VMs)	0	0
Windows Server VMs (unknown hosts)	0	0

System Center	Monthly Totals CY2016-Feb	Total
1 Simultaneously running managed Windows Server VMs by host – All Hosts	3	3
2 Total Physical Hosts (with atleast one Managed WS)	1	1
3 Physical Processors	1	1
Processor Cores	4	4
Managed Windows Server Devices (hosting no known VMs)	0	0
Managed Windows Server VMs (unknown hosts)	0	0

Excel File - Attributes

- Time stamped
- Date stamped
- Maintained in perpetuity
- Provided if required

Dashboard View - Summary

1. Number of Virtual OSEs (VMs)
2. Number of Physical OSEs (Hosts)
3. Number physical processors & cores
4. Windows Server version & edition

Server Specifications

- Windows Server: 1 proc, 4 cores, 3 VMs
- System Center: 1 proc, 4 cores, 3 VMs

Core Grants: Example Output

Software Inventory Logging (SIL) – Windows Server Detail

1 Host Name	Host Type	Hypervisor Type	2 Processor Manufacturer	Processor Model	Is Hyper Threading Enabled?	VM Name	Simultaneously running Windows Server VMs by host	Physical Processor Count	Physical core Count	Virtual Processor Count	3 Poll Date Time	VM Last Seen Date Time	Host Last Seen Date Time
eb							3	1	4	4	2/10/16 1:56 PM	2/10/16 2:04 PM	1/0/00 12:00 AM
Testhost1.contoso.company.com							3	1	4	3	2/10/16 1:56 PM	2/10/16 2:04 PM	1/0/00 12:00 AM
64-bit Microsoft Windows Server 2012 R2 Standard	Window	HyperV	GenuineIntel	Intel(R) Xeo	False	bfh42012DC01.contoso.company.com							
						Microsoft Windows Server 2012 Datacenter	3	1	4	1	2/10/16 1:56 PM	2/10/16 1:20 PM	1/0/00 12:00 AM
						bfh4SQL2014Dev.contoso.company.com							
						Microsoft Windows Server 2012 R2 Datacenter	0			1	2/10/16 1:56 PM	2/10/16 2:04 PM	1/0/00 12:00 AM
						genericsilatest.contoso.company.com- SIL Aggregator							
						Microsoft Windows Server 2012 R2 Datacenter	0			1	2/10/16 1:56 PM	2/10/16 1:05 PM	1/0/00 12:00 AM
						SILATEST02-2014							
						Unknown OS	0			0	2/10/16 1:56 PM	1/0/00 12:00 AM	1/0/00 12:00 AM

Server Specifications

- Processor: Intel Xeon E5440 @ 2.83GHz
- Configuration: 1 proc, 4 cores,
- Software: Windows Server 2012 R2 DC
- Instances: 3 VMs

Complete Detail

In addition to Summary Details in the Dashboard View:

1. Windows Server version & edition
2. Processor manufacturer & model
3. Date and time stamps

Offers : VMware Migration & Discount on Step-Up Offer

Timeline : Offers available from September 2016 through June 2017

VMware Migration Offer

57% discount

For customers willing to commit to migrating workloads from ESX to Hyper-V

- 57% discount Datacenter L&SA SKU with L discounted
- Customer only pays SA on the datacenter L&SA SKU
- Existing VMware customers running workloads on ESX and willing to migrate workloads to Hyper-V
- Offer will be landed via a SKU offer in lead status

Discount on Step-Up Offer

20% discount

For customers with Windows Server Standard SA

- 20% discount on Step-Up SKU
- Offer eligible for customers with current Standard +Software Assurance
- Discounted Step-Up SKU available in the price list

Licensing Scenarios

Licensing scenarios

1. Renewals
2. True-ups
3. Core grants: Customers with Software Assurance
4. Price impact with core-based licensing
5. Stacking with Standard licenses

Scenario# 1a: Renewals

Standard license: Customer has active SA on a 2-proc server with 8 cores per processor

	Before Windows Server 2016 General Availability	After Windows Server 2016 General Availability
Licensing	Processor-based	Core-based
Number of licenses	One 2-processor Standard license	Eight 2-core packs of Standard core licenses
Renewal price*	$180	$180
% Price change from Windows Server 2012 R2		0%

- Renewals before Windows Server 2016 General Availability remain on processor-based licensing for the life of the agreement
- Renewals after Windows Server 2016 General Availability will transition to core-based licensing
- The price for 16 core licenses of Windows Server 2016 is the same as the 2-processor license of Windows Server 2012 R2

*Price indicative only: EA SA annualized price.

Scenario# 1b: Renewals

Standard license: Customer has active SA on a 2-proc server with 10 cores per processor

	Before Windows Server 2016 General Availability	After Windows Server 2016 General Availability
Licensing	Processor-based	Core-based
Number of licenses	One 2-processor Standard license	Ten 2-core packs of Standard core licenses
Renewal price*	$180	$225
% Price change from Windows Server 2012 R2		25%

- Renewals before Windows Server 2016 General Availability remain on processor-based licensing for the life of the agreement.
- Renewals after Windows Server 2016 General Availability will transition to core-based licensing.
- Core grants will be provided for servers with greater than 8 cores per processor and 16 cores per server.
- In this case, customer will receive core grants for 4 cores.
- Customer pays for Software Assurance on incremental cores only, in this case, 4 cores.

*Price indicative only: EA SA annualized price.

Scenario# 2: True-ups

Example: Standard license on 2-processor server with 10 cores per processor with customer renewal after General Availability of Windows Server 2016

	True-up before renewal and Windows Server 2016 General Availability	True-up after renewal and Windows Server 2016 General Availability
Licensing	Processor-based	Core-based
Number of licenses	One 2-processor Standard license	Ten 2-core packs of Standard core licenses
True-up price*	$421	$526
% Price change from Windows Server 2012 R2		25%

- Renewals and True-ups before Windows Server 2016 General Availability remain on processor-based licensing.
- Renewals and True-ups after Windows Server 2016 General Availability will transition to core-based licensing.
- No core grants on true-ups.

*Price indicative only: EA L/SA annualized price.

Scenario #3: Core grants for customers with Software Assurance

Standard license: Customer has active SA on a 2-processor server with 10 cores per processor

	Before Windows Server 2016 General Availability	After Windows Server 2016 General Availability
Licensing	Processor-based	Core-based
Number of licenses	One 2-processor Standard license	Ten 2-core packs of Standard core licenses
Renewal price*	$180	$225
% Price change from Windows Server 2012 R2**		25%

- Core grants will be provided** for servers with greater than 8 cores per processor and 16 cores per server.
- In this case, customer will receive grants for 4 additional cores.
- Customer pays for Software Assurance on incremental cores only, in this case 4 cores.

*Price indicative only: EA L/SA annualized price.
**Core grants will be provided with required documentation.

Scenario #4a: Price impact with core-based licensing

Net new agreement after GA: Windows Server Standard edition* as an example

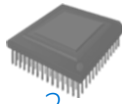
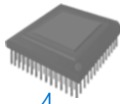
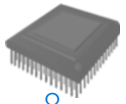
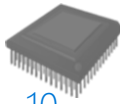
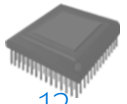
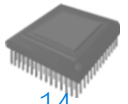
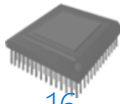
PHYSICAL CORES PER PROCESSOR	2	4	8	10	12	14	16
NUMBER OF 2 CORE PACKS WITH WINDOWS SERVER 2016	8	8	8	10	12	14	16
WINDOWS SERVER 2012 R2 2-PROC PRICE	$421	$421	$421	$421	$421	$421	$421
WINDOWS SERVER 2016 PRICE	$421	$421	$421	$526	$632	$737	$842
% PRICE CHANGE IN COMPARISON TO WINDOWS SERVER 2012 R2	Same as WS 2012 R2 price	0%	0%	0%	25%	50%	75%	100%

The price for 16 core licenses of Windows Server 2016 is the same as the 2-processor license of Windows Server 2012 R2.

*Price indicative only
EA L/SA annualized price

Scenario #4b: Price impact with core-based licensing

Customers with SA: At renewal after Windows Server 2016 GA, Windows Server Standard edition* as an example

PHYSICAL CORES PER PROCESSOR	 2	 4	 8	 10	 12	 14	 16
NUMBER OF 2 CORE PACKS WITH WINDOWS SERVER 2016	8	8	8	10	12	14	16
WINDOWS SERVER 2012 R2 2-PROC L/SA PRICE	$421	$421	$421	$421	$421	$421	$421
WINDOWS SERVER 2012 R2 2-PROC SA PRICE	$180	$180	$180	$180	$180	$180	$180
WINDOWS SERVER 2016 PRICE AT RENEWAL	$180	$180	$180	$225	$270	$315	$360
% PRICE CHANGE IN COMPARISON TO WINDOWS SERVER 2012 R2	Same as WS 2012 R2 price						
	0%	0%	0%	25%	50%	75%	100%

Customer receives core grants for server with greater than 16 cores.
Customer only pays SA on incremental cores.

*Price indicative only
EA L/SA annualized price

Scenario #5: Stacking

Example: Customer wants to add 4 VMs to a 2-processor server with 10 cores per processor

	Before Windows Server 2016 General Availability	After Windows Server 2016 General Availability
Licensing	Processor based	Core based
Number of VMs required	4	4
Number of licenses for additional 2 VMs	Two 2-proc Standard license	Twenty 2-core packs of Standard core licenses
Price	$842	$1053
% Price change from Windows Server 2012 R2		25%

- Windows Server 2012 R2.
- Entitlement to two VMs on a 2-processor Windows Server 2012 R2 license.
- To add two more VMs, customer has to license two 2-processor Standard 2012 R2 licenses.
- Windows Server 2016.
- Entitlement to two VMs on a eight 2-core pack Windows Server 2016 license.
- To add two more VMs, customer has to license all the cores in the server again. In this case, the customer is required to license 40 cores to receive entitlement to 4 VMs.

To add 2 more VMs, customer has to license all the cores in the server again

*Price indicative only
EA L/SA annualized price

Thank you

Resources

Licensing information

- Windows Server 2016 and System Center 2016 licensing FAQ
- Windows Server 2016 licensing datasheet
- System Center 2016 licensing datasheet
- Azure Hybrid Use Benefit (AHUB)

Product information

- Windows Server 2016
- System Center 2016
- Hyper-V and Windows Server containers
- Nano Server
- Shielded Virtual Machines

Microsoft software inventory tools

- Software Inventory Logging (SIL)

Appendix

Core Grants: Documentation Example Output (SIL)

Software Inventory Logging (SIL) Dashboard View

Inventory Totals

Windows Server	Monthly Totals CY2016-Feb	Total
1 Simultaneously running Windows Server VMs by host – All Hosts	3	3
WS Datacenter Edition	0	0
WS Standard Edition Hosts (4)	1	1
2 WS Enterprise Edition Hosts	0	0
VMWare Hosts	0	0
Other Hypervisor Hosts	0	0
Total Hypervisor Hosts	0	0
3 Physical Processors	1	1
Processor Cores	4	4
Windows Server Devices (hosting no known VMs)	0	0
Windows Server VMs (unknown hosts)	0	0

System Center	Monthly Totals CY2016-Feb	Total
1 Simultaneously running managed Windows Server VMs by host – All Hosts	3	3
2 Total Physical Hosts (with atleast one Managed WS)	1	1
3 Physical Processors	1	1
Processor Cores	4	4
Managed Windows Server Devices (hosting no known VMs)	0	0
Managed Windows Server VMs (unknown hosts)	0	0

Excel File - Attributes

- Time stamped
- Date stamped
- Maintained in perpetuity
- Provided if required

Dashboard View - Summary

1. Number of Virtual OSEs (VMs)
2. Number of Physical OSEs (Hosts)
3. Number physical processors & cores
4. Windows Server version & edition

Server Specifications

- Windows Server: 1 proc, 4 cores, 3 VMs
- System Center: 1 proc, 4 cores, 3 VMs

Core Grants: Example Output

Software Inventory Logging (SIL) – Windows Server Detail

1 Host Name	Host Type	Hypervisor Type	2 Processor Manufacturer	Processor Model	Is Hyper Threading Enabled?	VM Name	Simultaneously running Windows Server VMs by host	Physical Processor Count	Physical core Count	Virtual Processor Count	3 Poll Date Time	VM Last Seen Date Time	Host Last Seen Date Time
eb							3	1	4	4	2/10/16 1:56 PM	2/10/16 2:04 PM	1/0/00 12:00 AM
Testhost1.contoso.company.com							3	1	4	3	2/10/16 1:56 PM	2/10/16 2:04 PM	1/0/00 12:00 AM
64-bit Microsoft Windows Server 2012 R2 Standard	Window	HyperV	GenuineIntel	Intel(R) Xeo	False	bfh42012DC01.contoso.company.com							
						Microsoft Windows Server 2012 Datacenter	3	1	4	1	2/10/16 1:56 PM	2/10/16 1:20 PM	1/0/00 12:00 AM
						bfh4SQL2014Dev.contoso.company.com							
						Microsoft Windows Server 2012 R2 Datacenter	0			1	2/10/16 1:56 PM	2/10/16 2:04 PM	1/0/00 12:00 AM
						genericsilatest.contoso.company.com- SIL Aggregator							
						Microsoft Windows Server 2012 R2 Datacenter	0			1	2/10/16 1:56 PM	2/10/16 1:05 PM	1/0/00 12:00 AM
						SILATEST02-2014							
						Unknown OS	0			0	2/10/16 1:56 PM	1/0/00 12:00 AM	1/0/00 12:00 AM

Server Specifications

- Processor: Intel Xeon E5440 @ 2.83GHz
- Configuration: 1 proc, 4 cores,
- Software: Windows Server 2012 R2 DC
- Instances: 3 VMs

Complete Detail

In addition to Summary Details in the Dashboard View:

1. Windows Server version & edition
2. Processor manufacturer & model
3. Date and time stamps

Offers: VMware Migration Offer & Discount on Step-Up Offer

	VMware Migration Offer	Discount on Step-Up Offer
Offer Strategy	Offer Datacenter L&SA SKU with L discounted to customers willing to commit to migrating workloads from ESX to Hyper-V	Incent customers to Step-Up to Datacenter +Software Assurance by offering a discount on the Step-Up SKU
Targeted scenarios	• Existing VMware customers running workloads on ESX and willing to migrate workloads to Hyper-V • Eligibility : Offer applicable to customers migrating from VMware to Microsoft	Current customers with Standard Edition+Software Assurance
Offer Details	• Datacenter L&SA SKU offer with L discounted ca. 57%, effectively customers pays for Datacenter SA only • Available in Enterprise including Government • Offer will be landed via a SKU offer in lead status • Eligible products : Datacenter L&SA migration lead status SKU • Offer available at New, Renewal and for existing agreements • Migration must be completed within the term of the enrollment, customer to show proof • Requires Approval at LSS (Blue) level	• 20% discount on the Step-Up SKU • Available in Enterprise and Open including Government • Discounted Step-Up SKU available in the price list • Offer eligible for customers with current Standard +Software Assurance
Offer Execution	• Engage your account executive to begin the process • Share eligibility for the migration offer • Identify virtualized workloads for migration • Specify the required Windows Server Datacenter cores for migration • Receive Windows Server Datacenter license with Software Assurance and pay only Software Assurance price to kick start your migration • Engage partner to start the migration process	Customer can Step-Up and receive the discounted Datacenter +Software Assurance SKU at Year 1 or Year 2 only

Licensing Scenario: Customer drops Software Assurance at renewal

Scenario#4: Customer drops SA at renewal after Windows Server 2016 GA

Customer with ≤ 8 cores per processor and 16 cores per server	Customer with > 8 cores per processor and 16 cores per server
Customer can upgrade to Windows Server 2016 at any time.	Customer can upgrade to Windows Server 2016 at any time.
Customers will be given default of 16 cores.	Customers will be granted additional cores, customers don't pay incremental SA.

Stacking with WS 2016

Stacking VMs: Windows Server 2016 Standard

Will stacking 2016 on a 2-proc server be more expensive?

Windows Server 2012 R2	# of VMs									
Cores/processor	2	4	6	8	10	12	14	16	18	20
4	421	842	1263	1684	2105	2526	2947	3368	3789	4210
8	421	842	1263	1684	2105	2526	2947	3368	3789	4210
10	421	842	1263	1684	2105	2526	2947	3368	3789	4210
12	421	842	1263	1684	2105	2526	2947	3368	3789	4210
14	421	842	1263	1684	2105	2526	2947	3368	3789	4210
16	421	842	1263	1684	2105	2526	2947	3368	3789	4210

Windows Server 2016	# of VMs									
Cores/processor	2	4	6	8	10	12	14	16	18	20
4	421	842	1263	1684	2105	2526	2947	3368	3789	4210
8	421	842	1263	1684	2105	2526	2947	3368	3789	4210
10	526	1053	1579	2105	2631	3158	3684	4210	4736	5263
12	632	1263	1895	2526	3158	3789	4421	5052	5684	6315
14	737	1474	2210	2947	3684	4421	5157	5894	6631	7368
16	842	1684	2526	3368	4210	5052	5894	6736	7578	8420

	Price Comparison 2016 vs 2012 R2									
Core/processor	# of VMs									
	2	4	6	8	10	12	14	16	18	20
4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
12	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
14	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
16	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Depends on the number of cores in a server*

- **≤16 cores:** No price change in stacking in comparison to WS2012 R2 price
- **>16 cores:** Price increase in proportion to the number of cores in the server
- **Breakeven:** After the 13th VM, it is more economical for customers to buy Datacenter

Green shaded area

- Datacenter license is more economical corresponding to the number of cores/proc and number of VMs

Orange shaded area

- Stacking price increase (%) in WS 2016 in comparison to WS 2012R2

*Price indicative only: Standard Edition Annualized EA L/SA price level A used as an example

Stacking VMs: Windows Server 2016 Standard

Will stacking 2016 on a 4-proc server be more expensive?

Windows Server 2012 R2	# of VMs									
Cores/processor	2	4	6	8	10	12	14	16	18	20
4	842	1684	2526	3368	4210	5052	5894	6736	7578	8420
8	842	1684	2526	3368	4210	5052	5894	6736	7578	8420
10	842	1684	2526	3368	4210	5052	5894	6736	7578	8420
12	842	1684	2526	3368	4210	5052	5894	6736	7578	8420
14	842	1684	2526	3368	4210	5052	5894	6736	7578	8420
16	842	1684	2526	3368	4210	5052	5894	6736	7578	8420

Windows Server 2016	# of VMs									
Cores/processor	2	4	6	8	10	12	14	16	18	20
4	842	1684	2526	3368	4210	5052	5894	6736	7578	8420
8	1684	3368	5052	6736	8420	10104	11788	13472	15156	16840
10	2105	4210	6315	8420	10525	12630	14735	16840	18945	21050
12	2526	5052	7578	10104	12630	15156	17682	20208	22734	25260
14	2947	5894	8841	11788	14735	17682	20629	23576	26523	29470
16	3368	6736	10104	13472	16840	20208	23576	26944	30312	33680

	Price Comparison 2016 vs 2012 R2									
Core/processor	# of VMs									
	2	4	6	8	10	12	14	16	18	20
4	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
10	150%	150%	150%	150%	150%	150%	150%	150%	150%	150%
12	200%	200%	200%	200%	200%	200%	200%	200%	200%	200%
14	250%	250%	250%	250%	250%	250%	250%	250%	250%	250%
16	300%	300%	300%	300%	300%	300%	300%	300%	300%	300%

Depends on the number of cores in a server*

- **Yes:** Minimum price increase is 100%

Green shaded area

- Datacenter license in more economical corresponding to the number of cores/proc and number of VMs

Orange shaded area

- Stacking price increase (%) in WS 2016 in comparison to WS 2012R2

*Price indicative only: Standard Edition Annualized EA L/SA price level A used as an example