



Software Licensing
Advisors

Over-Licensing Strategies

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Why Over-Licensing?

- **Microsoft has begun to tax common IT practices, requiring Software Assurance (SA) to perform them**
 - Easy money on Microsoft's part: no coding or other development required. Just claim that an ordinary IT process is somehow Microsoft's intellectual property or a feature for which it deserves payment
- **Examples**
 - SA required for license mobility
 - SA required for SQL Server passive failover
 - SA required for short-term disaster recovery
- **What alternatives do customers have?**
- **Overlicensing**
 - Still adds costs, but achieves similar ends at lower cost, with permanent assets
 - SA offers temporary rights and requires ongoing payment

How Over-Licensing Reduces Costs

- **Software Assurance costs 25% per year per license**
 - When purchased as a 3-year commitment, it grows to 75% of the license cost
- **What is the “license-equivalent cost” of Software Assurance?**
 - License equivalence equals the number of licenses that could be purchased with funds allocated for SA
 - Example: purchasing SA for four licenses is the same as purchasing three licenses
- **The net value of purchasing licenses may be higher than the value of SA**
 - Purchasing SA on four licenses costs the same as purchasing three additional licenses over three years, but after three years the customer has only four
 - Purchasing three new licenses leaves the customer with seven licenses and achieves many of the same ends as SA

Example: Over-Licensing for Backup and Availability

- **The customer has two hosts, each with two Exchange Server VMs**
 - Two hosts with 2 Exchange VMs each
 - We want to accommodate shutdown of one server, moving VMs to another



- **No licenses have moved**
 - All licenses remain assigned to their original host.
 - The VMs have used one set of licenses on Host 2 and another set of licenses on Backup

Calculating Over-Licensing Costs

- **Adding one additional server to handle the standard 2-VM workload costs 33% less than SA**

- A single backup server could also serve additional hosts (add two more 2-VM hosts, for example) with no increase in backup costs

- **SA upgrade rights are lost**

- But assume this infrastructure remains at Exchange 2016 (or earlier) for five years

- SA in two 3-year agreements: \$19,877.04

- Repurchasing six Exchange licenses 5 years from now: \$19,877.04

- Customer also leaves open the option to shift to the cloud without further purchases

- **Spending \$19,877.04 on SA will deliver only a modest discount on cloud services**

	SA	Overlicensing
Exchange Server Enterprise	\$3,312.84	\$3,312.84
SA/license/year	\$828.21	
Three-year SA cost	\$2,484.63	
Initial Exchange Server Licenses	4	4
Total SA cost, 3 yrs	\$9,938.52	
Two additional licenses		\$6,625.68
Net licenses after 3 yrs	4	6

Is This Legal? Microsoft Says SA Is Required for vMotion

- **License Mobility is about re-assigning *licenses*, not VMs**

- “Customer may reassign a License to another device or user, but **not less than 90 days since the last reassignment** of that same License”

Feb. 2016 Microsoft Product Terms: Universal License Terms

- “Under License Mobility Across Server Farms, Customer may reassign any of its Licenses which are designated as having License Mobility to any of its Licensed Servers located within the same Server Farm **as often as needed.**”

Feb. 2016 Microsoft Product Terms: Software Assurance Benefits

- **Licenses are always assigned to physical devices**

- “Licensed Server means a single Server, dedicated to Customer’s use, to which a License is assigned.”
- “Server means a physical hardware system capable of running server software”

Feb. 2016 Microsoft Product Terms: Definitions

- ***Licenses are NOT assigned to VMs. Moving a VM does not automatically move its license***

How to move VMs without License Mobility: Windows Server

- **Windows Server does not have License Mobility, even if SA is added**
 - Thus, Windows Server licenses cannot be re-assigned less than 90 days from the last reassignment, and frequent movement of Windows VMs is illegal
- **Except...**
 - Windows Server Datacenter licenses an unlimited number of VMs per processor
 - Customers who license Windows hosts with Windows Server Datacenter can move VMs between hosts because every host always has a “spare” license
- **Moving a VM from one server to another without SA does not require that each server have “unlimited” licenses in place**
 - “Enough” licenses will suffice

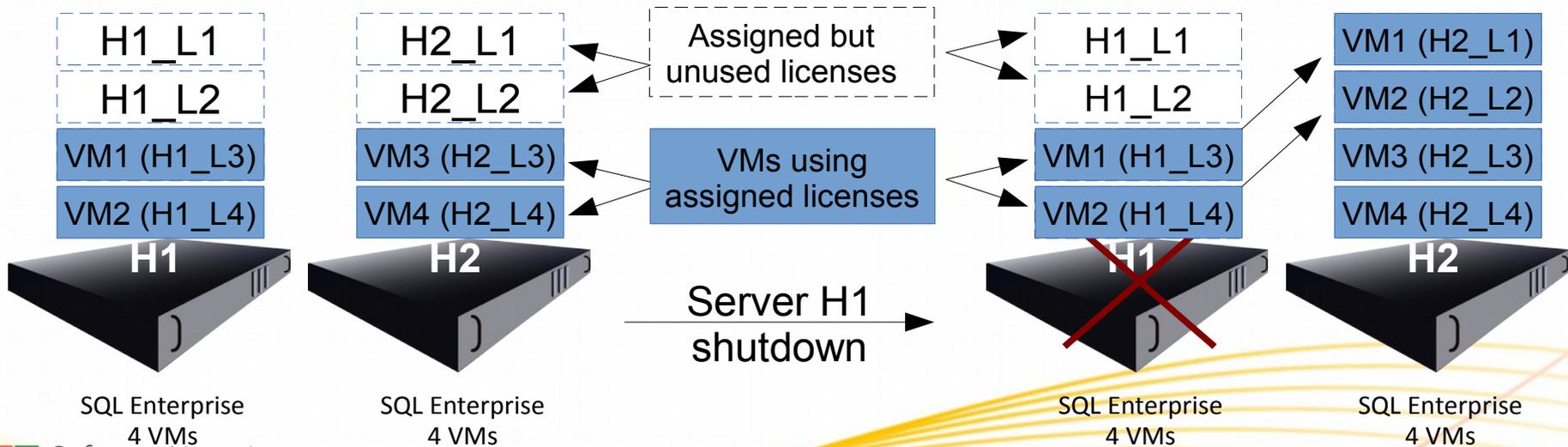
SQL Server licensed per server (requires CALs)

- **Licensing VMs**

- Adding SA to SQL Server Enterprise 2012 or later does not confer rights to more than 4 VMs per server
- A review of many customers' SQL Server requirements finds that they may not run more than an average of four SQL VMs per host
- Consolidation of SQL Server Enterprise on VMs also frees up additional licenses, each of which covers four more VMs and up to 20 virtual CPUs

License Mobility Without SA, for Per-Server Model

- **Spare licenses allow vMotion without SA**
 - License mobility is about reassignment of licenses. If licenses are not reassigned, License mobility requirements are not triggered
- **Example: H1 shuts down. VMs move to H2. No licenses are reassigned**



SA vs. Overlicensing for SQL Ent. 2012/14 Cores

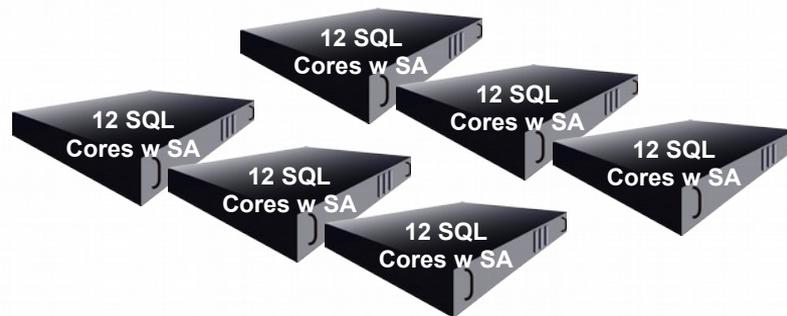
- **Adding SA to SQL Server to get higher VM density and license mobility is costly**
 - Since SA is 75% of the license cost over 3 years, adding SA to a 2x6 server (12 cores in all) is the equivalent of purchasing 9 new core licenses every 3 years.
- **After 3 years, what do you have?**
 - With SA: still only 12 core licenses, and \$45,000 less than at the start
 - Without SA: 21 cores and additional assets worth \$45,000
- **The “1 VM per core” licensing method makes the purchase of additional cores very attractive**
 - Each additional core license permits an additional VM

Comparing Costs

- **SA example:**

- Customer wants to run up to 16 SQL VMs on each of six 2x6 servers, so adds SA

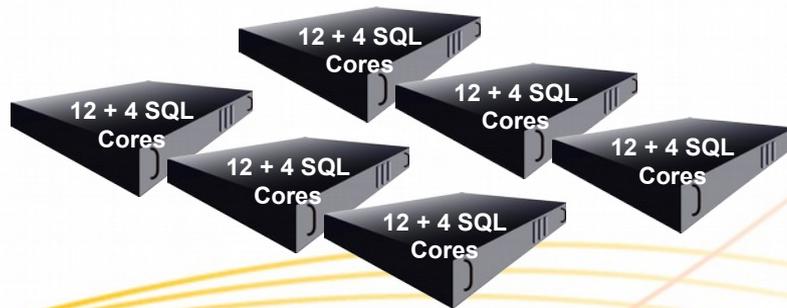
High capacity and vMotion via SA (EA A Net pricing)	
Annual SA per 2 Enterprise cores	\$2,811
Annual SA per server	\$16,865
Annual SA cost for all six servers	\$101,192
Three-year SA cost for all six servers	\$303,575



- **No SA example:**

- Customer wants to run up to 16 SQL VMs on each of six 2x6 servers, so purchases 4 additional cores for each

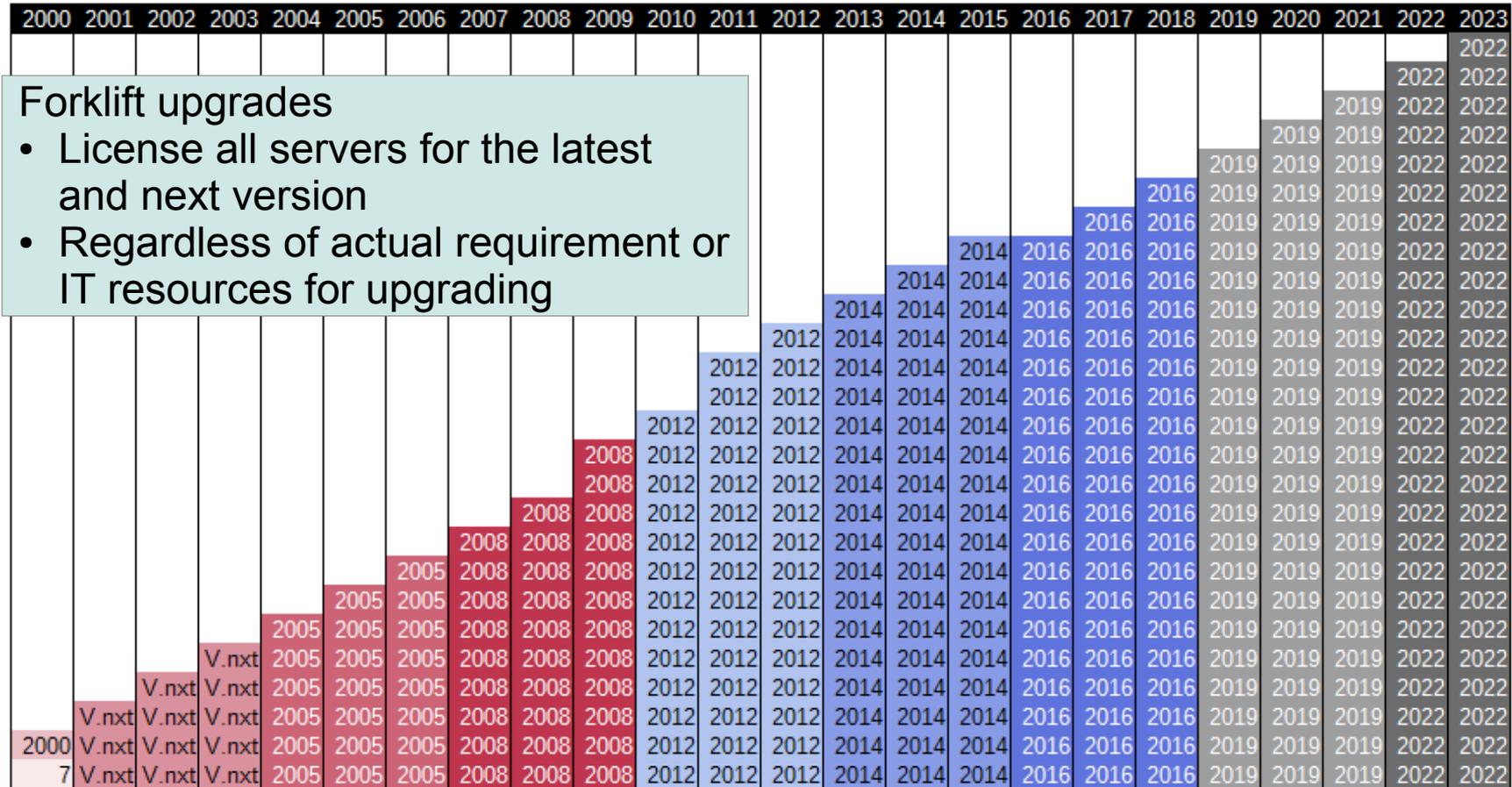
High capacity and vMotion via Overlicensing	
Purchase additional 4 cores	\$25,298
Total for 6 servers	\$151,788
Savings Over SA	\$151,787



- **Can also permit vMotion with SA**

- Purchase surplus licenses so that no license is reassigned when a VM moves between hosts

Typical Enterprise Purchasing Pattern



Aligning Purchasing with Deployment

- **Purchase licenses, as needed, without SA**
 - Unless SA provides compelling benefits *beyond* upgrades
- **SQL upgrades can be budgeted as part of a larger project**
 - An application upgrade that supports a later version
 - Use the latest version of SQL supported by the application to lengthen the upgrade cycle
 - End-of-life upgrades
 - Plan ahead, obtain or train resources for upgrades outside of busy seasons
 - New projects or initiatives
 - Net new licenses purchased. Use the latest version or downgrade

Services from Software Licensing Advisors

- **Microsoft Licensing and Negotiations Workshops**

- The most complete training on how to license Microsoft software and how to negotiate better agreements
 - Portland, OR, March 15-17
 - Austin, TX, April 12-14
 - Details and registration info at <http://www.msftadvisors.com/services/clarify/enterpriselicensingworkshops>

- **Microsoft Licensing Optimization**

- SLA has worked with more than 200 customers, reducing their Microsoft costs by more than \$300 million over the last four years.
- <http://www.msftadvisors.com/services/optimize/microsoftlicensingoptimization/>

- **Audit Protection and Defense**

- Audits are increasingly important to Microsoft's revenue attainment and an increasing burden for Microsoft customers. We help.
- <http://www.msftadvisors.com/services/protect/auditprotectionanddefense/>