

EXPLORE

CMTY1916BCN

Infrastructure Cost-Containment in a Subscription-Based World Plus news on recent licensing changes

Matthew Heldstab
VMUG Vice President
Systems Engineer – Minnesota State Colleges and Universities System
#VMwareExplore #CMTY1916BCN



Infrastructure Cost-Containment in a Subscription-based World



Matt Heldstab

Systems Engineer – Minnesota State Colleges and Universities

Current VMUG Vice President

VMUG Leader in Minneapolis, MN – 10x VMware vExpert

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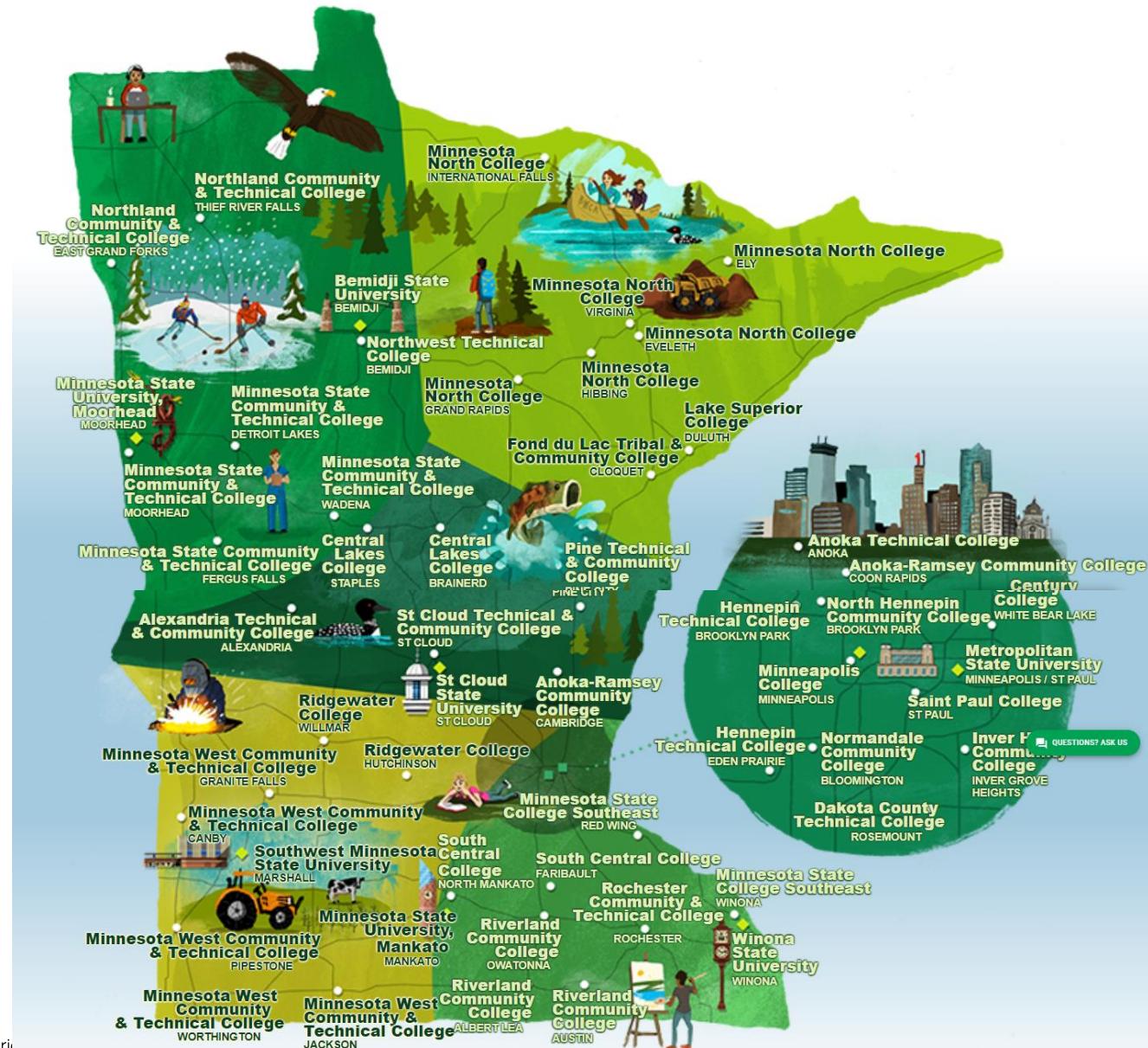
Infrastructure Cost-Containment in a Subscription-based World

A bit about me

VMware Practice Lead

Minnesota State Colleges and Universities
3rd largest system of college and
Universities In the United States

300,000 students on 54 campuses



Infrastructure Cost-Containment in a Subscription-based World

This information is subject to change

Changes are afoot
(or erm ...)



What I have heard

Thanks to my team at Broadcom

Additional thanks to my “THREE LETTER” VAR

Infrastructure Cost-Containment in a Subscription-based World

Let's Chat About

VCF

VVF

VVS

VVEP



I will be using these
Abbreviations quite a
bit during the presentation

Socket vs. Core?

Perpetual vs. Subscription

What about VDI?

vSphere+ vs. New Model

Infrastructure Cost-Containment in a Subscription-based World

Let's Chat About

**Ways to save \$\$\$
on your next agreement**

Infra Planning?

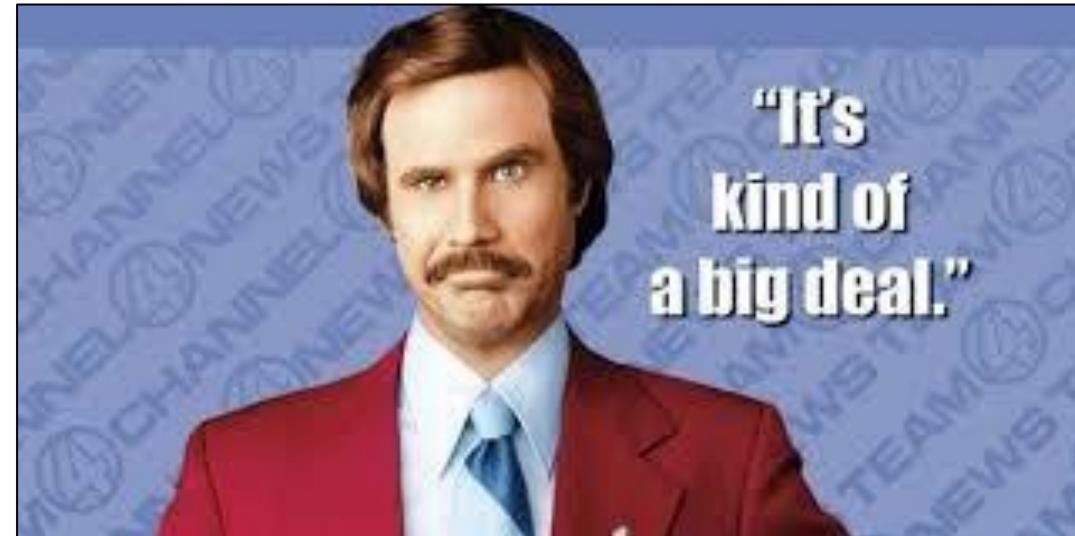
Infrastructure Cost-Containment in a Subscription-based World

Level-set -- VMware Cloud Foundation – YOU GUYS KNOW THE STORY

- VCF is a best-in class suite of products that comprise the Software-Defined Datacenter
- VCF will absolutely transform your datacenter, especially if you need to
 - Streamline the deployment of VMware products
 - Eliminate configuration inconsistencies that come with manual deployments
 - Standardize how infrastructure is deployed
 - Bring cloud methods into your on-premises datacenter
 - Integrate with other VMware Cloud products such as VMC on AWS, AVS, OCVS, GCVE
- If your organization can afford VCF, you won't be sorry. Just understand that the technology is more expensive than other editions of vSphere.
- This presentation will discuss what some of the differences are, and compare it to other products that are available.

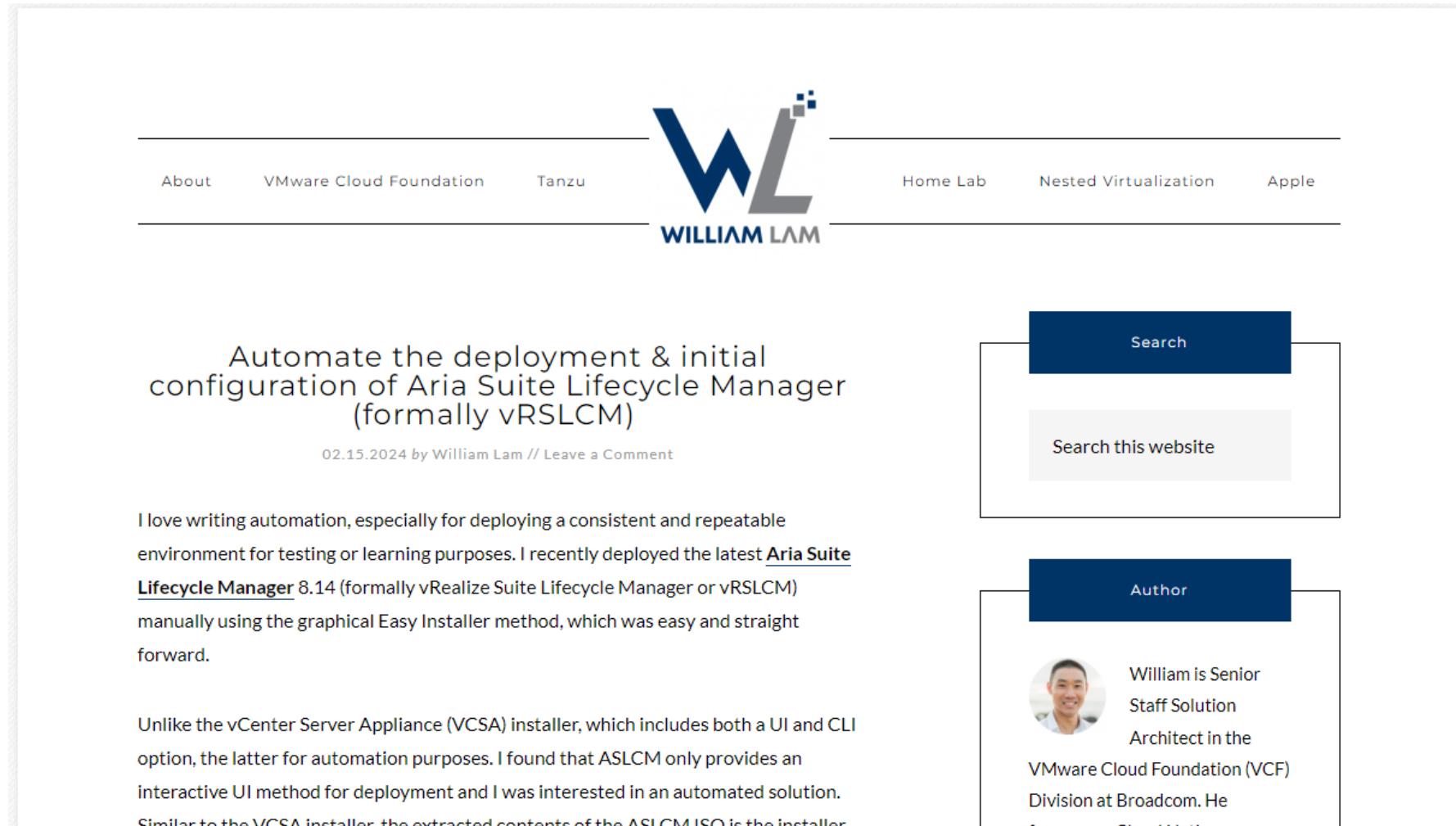
Infrastructure Cost-Containment in a Subscription-based World

VCF you say?



Infrastructure Cost-Containment in a Subscription-based World

William Lam is a fantastic resource – www.williamlam.com



The screenshot shows a portion of William Lam's website. At the top, there is a navigation bar with links for "About", "VMware Cloud Foundation", "Tanzu", "Home Lab", "Nested Virtualization", and "Apple". The central feature is a large "WL" logo with "WILLIAM LAM" below it. Below the logo, a post is displayed with the title "Automate the deployment & initial configuration of Aria Suite Lifecycle Manager (formally vRSLCM)". The post was published on "02.15.2024 by William Lam // Leave a Comment". The content discusses automating the deployment of Aria Suite Lifecycle Manager. To the right of the post, there is a search bar with the placeholder "Search this website". Further down, there is a section titled "Author" featuring a photo of William Lam and text describing his role as a Senior Staff Solution Architect in the VMware Cloud Foundation (VCF) Division at Broadcom.

Automate the deployment & initial configuration of Aria Suite Lifecycle Manager (formally vRSLCM)

02.15.2024 by William Lam // Leave a Comment

I love writing automation, especially for deploying a consistent and repeatable environment for testing or learning purposes. I recently deployed the latest [Aria Suite Lifecycle Manager](#) 8.14 (formally vRealize Suite Lifecycle Manager or vRSLCM) manually using the graphical Easy Installer method, which was easy and straight forward.

Unlike the vCenter Server Appliance (VCSA) installer, which includes both a UI and CLI option, the latter for automation purposes. I found that ASLCM only provides an interactive UI method for deployment and I was interested in an automated solution. Similar to the VCSCA installer the extracted contents of the ASLCM ISO is the installer

Search

Search this website

Author

William is Senior Staff Solution Architect in the VMware Cloud Foundation (VCF) Division at Broadcom. He

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VCF

VMware Cloud Foundation

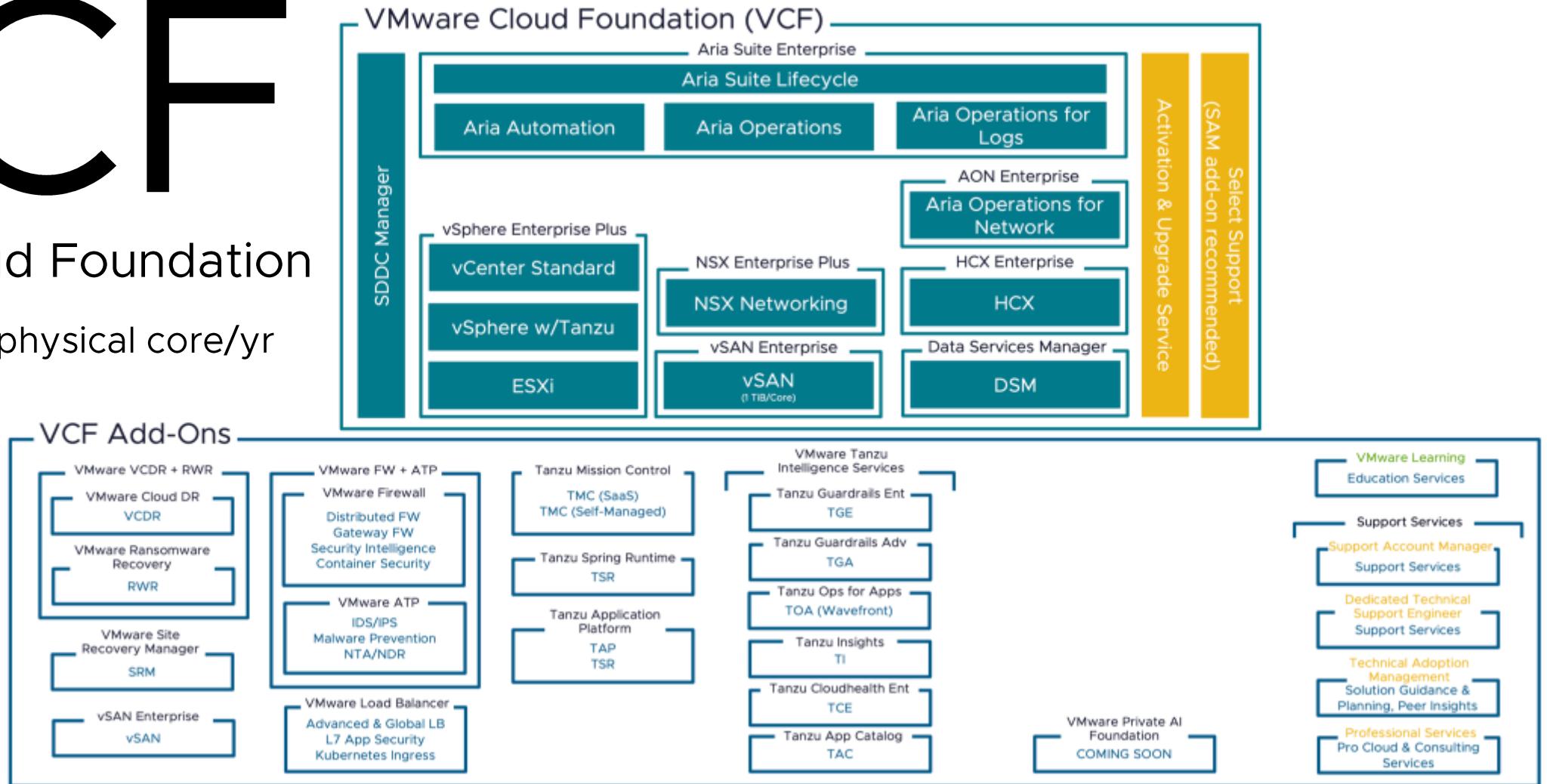
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<https://williamlam.com/2024/01/whats-in-the-new-vmware-vsphere-foundation-vvf-and-vmware-cloud-foundation-vcf-offers.html>

VCF

VMware Cloud Foundation

Retail - \$350/physical core/yr



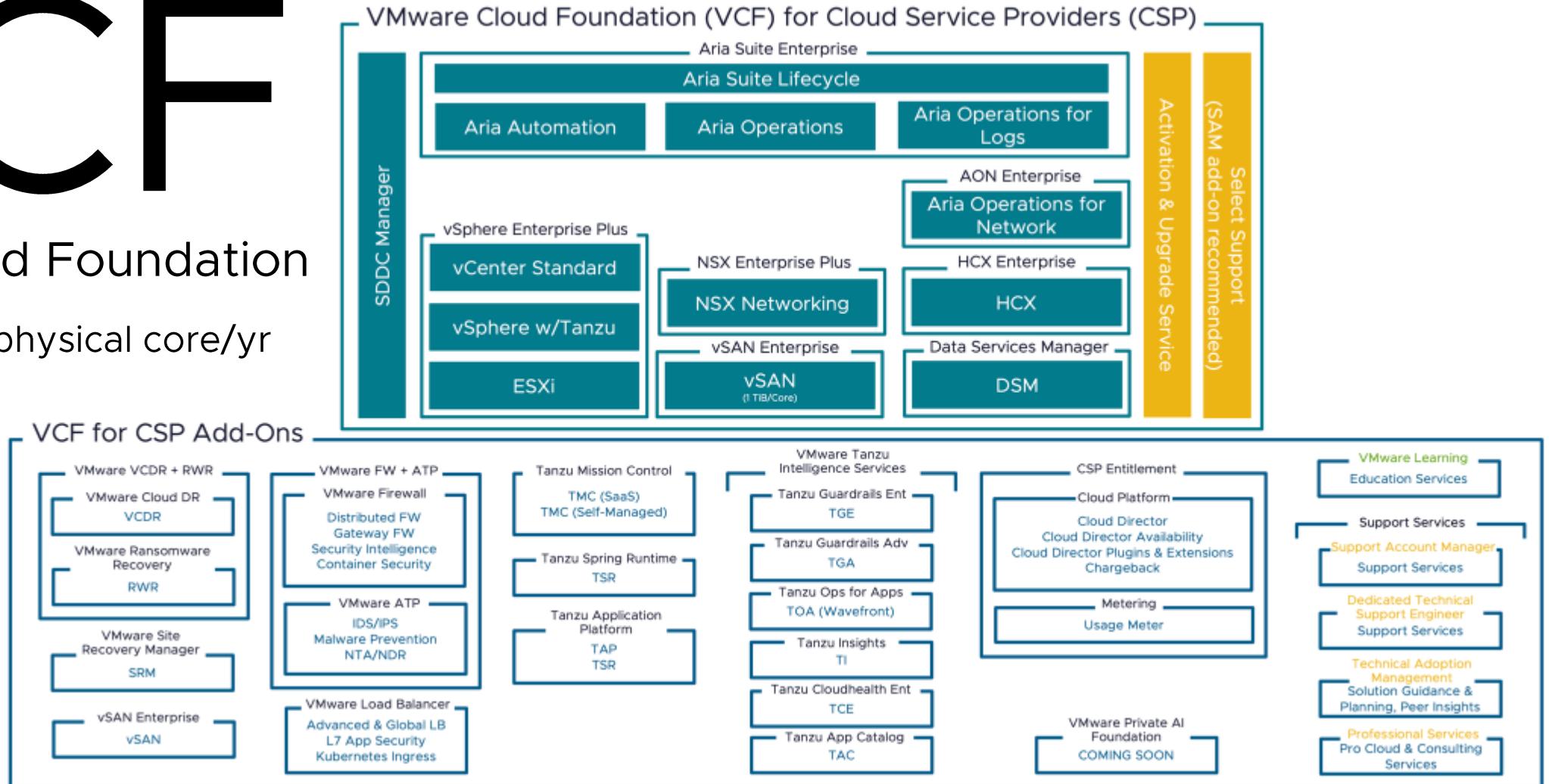
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VMware Cloud Foundation

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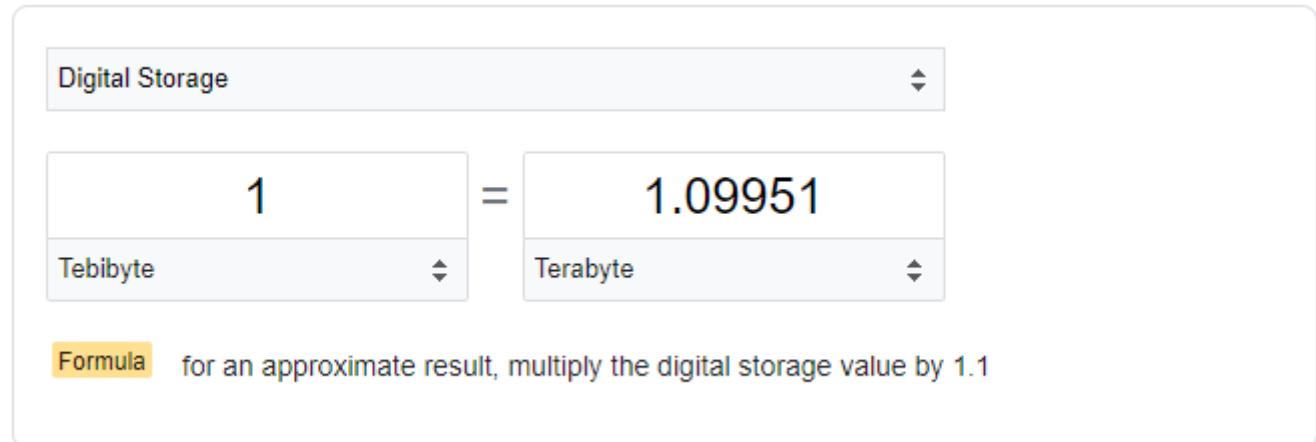
Measuring VSAN Entitlements

Important stuff to know

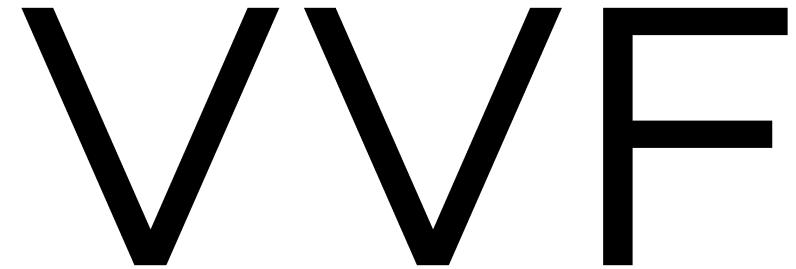
TiB not TB – Tebibytes not Terabytes

RAW not Usable

1000 cores of VCF = 1099.51 TB



Infrastructure Cost-Containment in a Subscription-based World



VMware vSphere Foundation

Infrastructure Cost-Containment in a Subscription-based World

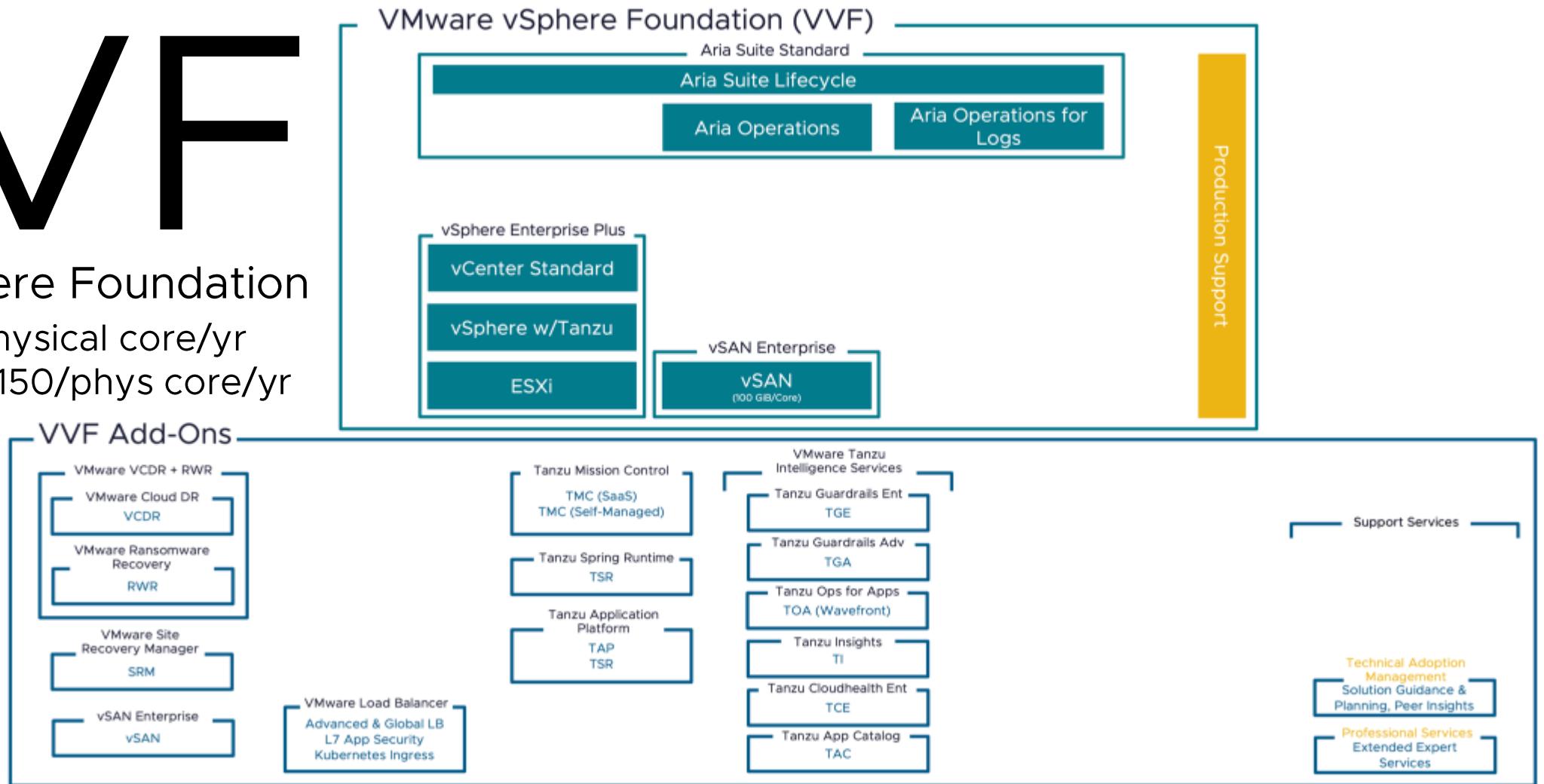
<https://williamlam.com/2024/01/whats-in-the-new-vmware-vsphere-foundation-vvf-and-vmware-cloud-foundation-vcf-offers.html>

VVF

VMware vSphere Foundation

Retail - \$190/physical core/yr

Retail (3 yr) - \$150/phys core/yr



Infrastructure Cost-Containment in a Subscription-based World

Measuring VSAN Entitlements

Important stuff to know

GiB not GB – Gibibytes not Gigabytes

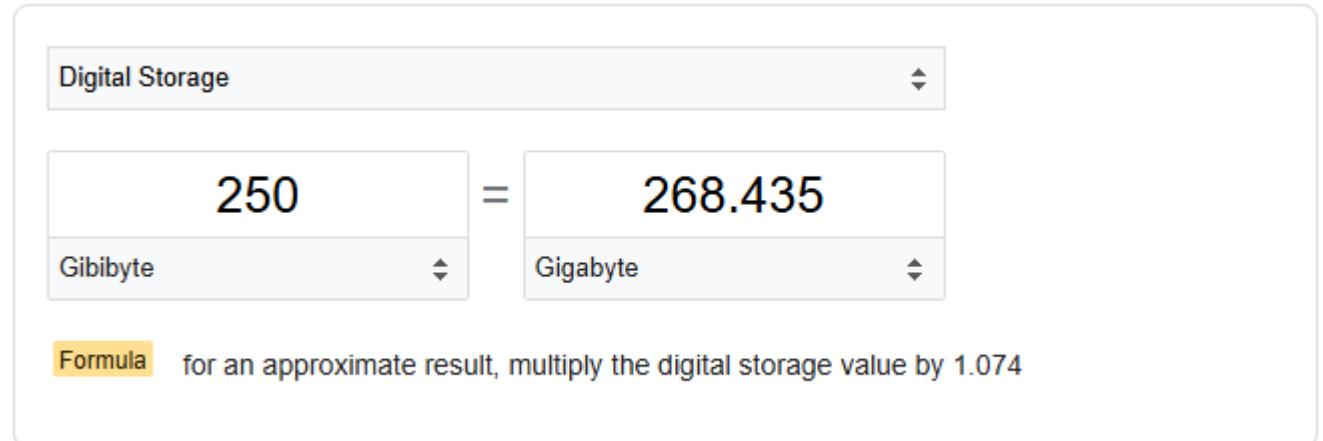
RAW not Usable

1000 cores of VVF = 268.435 TB

Digital Storage

250	=	268.435
Gibibyte		Gigabyte

Formula for an approximate result, multiply the digital storage value by 1.074



Infrastructure Cost-Containment in a Subscription-based World

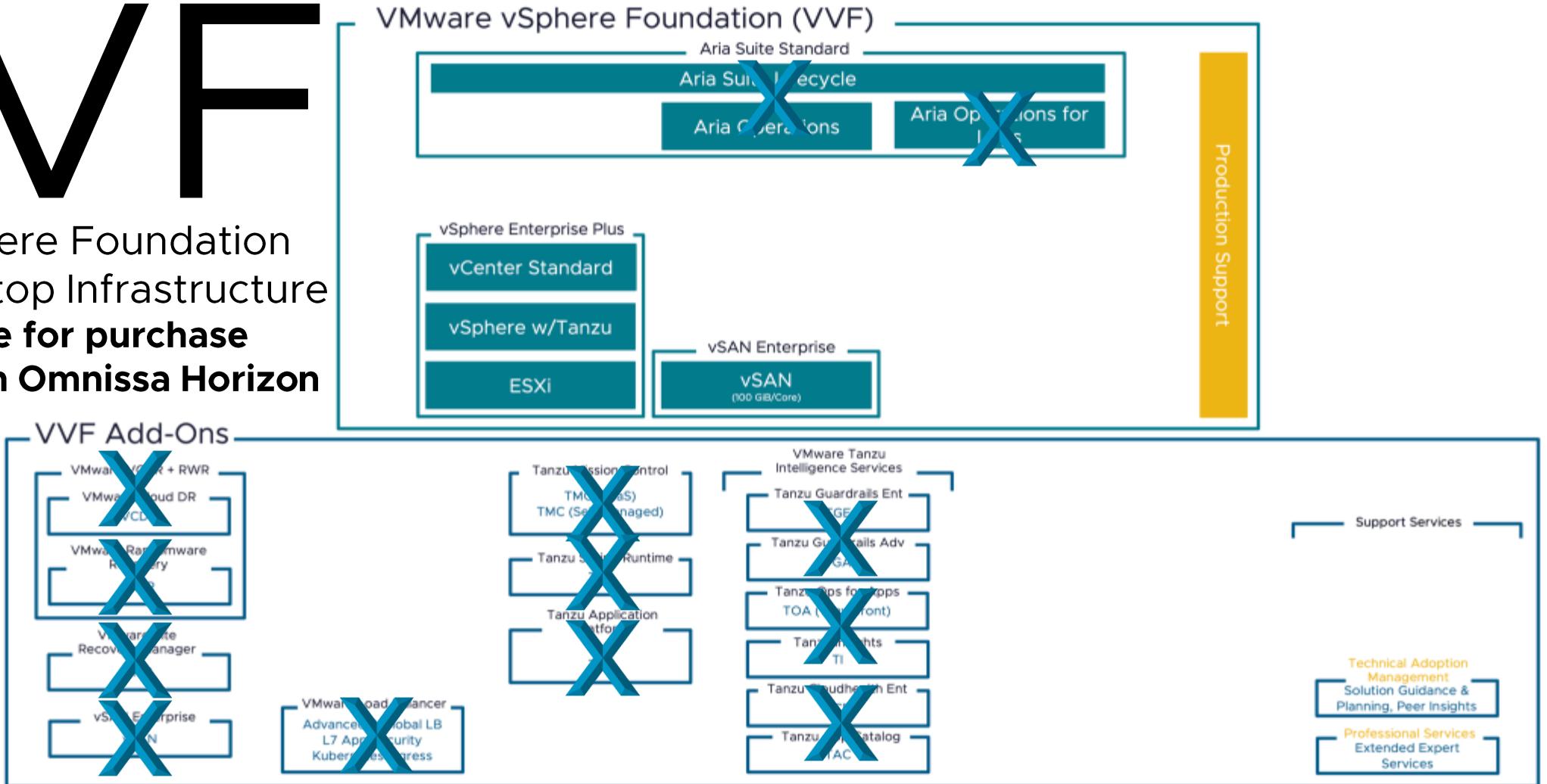
VVF for VDI

VMware vSphere Foundation
for Virtual Desktop Infrastructure

Infrastructure Cost-Containment in a Subscription-based World

VVF

VMware vSphere Foundation
for Virtual Desktop Infrastructure
***not available for purchase**
***only for use with Omnissa Horizon**



<https://www.omnissa.com/setting-the-record-straight-euc-to-continue-to-offer-horizon-with-vsphere-and-vsphere/>
https://ftpdocs.broadcom.com/cadocs/0/contentimages/VVF_VDI_SPD_July2024.pdf

Infrastructure Cost-Containment in a Subscription-based World

2. USE RIGHTS AND LIMITATIONS.

License Metrics

- VMware vSphere Foundation for VDI ("VVF for VDI") is subscription software licensed on a per User license metric.
- Component Specific License Notes.** The following table describes additional component specific license entitlement rights and limitations of VVF for VDI:

#	VVF for VDI Component	Metric Entitlement	Entitlement Details
1	vSphere Foundation License Manager for VDI	User	The vSphere Foundation License Manager for VDI component is included in VVF for VDI with the sole purpose of facilitating license management for the VVF for VDI bundle. It is not meant to provide any intrinsic management features to end customers.
2	vSAN	100 GiB 250GiB on 11/11	The 100 GiB vSAN trial capacity included in VVF for VDI is tied to the VVF for VDI cores that are configured for vSAN and cannot be aggregated. Once customers exceed the trial capacity, they must license the entire raw storage claimed in the vSAN cluster starting from 0.

Once customers exceed the trial capacity, they must license the entire raw storage claimed in the vSAN cluster starting from 0.

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VCF for VDI

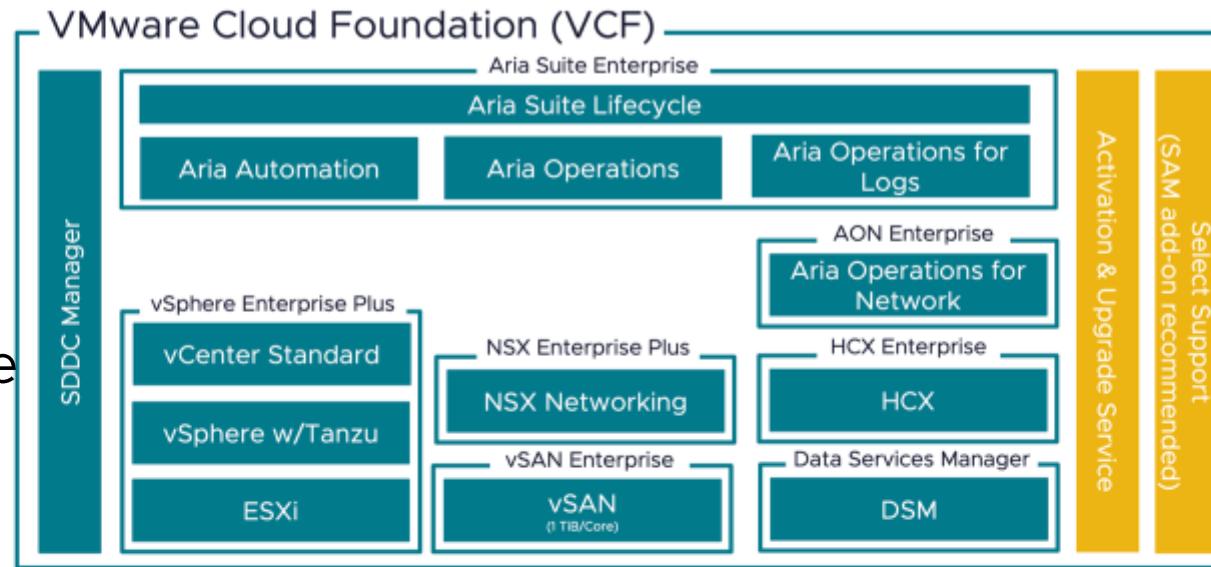
VMware Cloud Foundation
for Virtual Desktop Infrastructure

Infrastructure Cost-Containment in a Subscription-based World

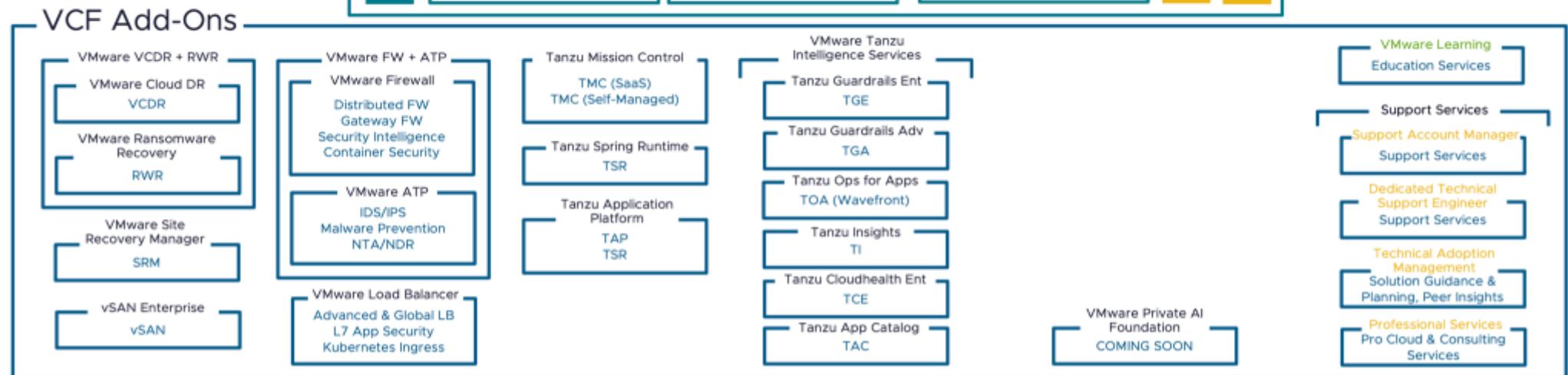
VCF

VMware Cloud Foundation
for Virtual Desktop Infrastructure

Est. Retail - \$225/physical core/yr
***unofficial/subject to change**



Activation & Upgrade Service
(SAM add-on recommended)



Infrastructure Cost-Containment in a Subscription-based World

VCF

VMware Cloud Foundation
for Virtual Desktop Infrastructure

Est. Retail - \$225/physical core/yr
***unofficial/subject to change**

Available to anyone including
Citrix Virtual Desktops and Apps on
(CVAD) customers running
standalone vSphere.

Entitles Omnissa Horizon and CVAD customers running vSphere,
VSAN (1 TiB per core RAW entitlement), NSX, and the Aria Suite.

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VVS

VMware vSphere Standard

Infrastructure Cost-Containment in a Subscription-based World

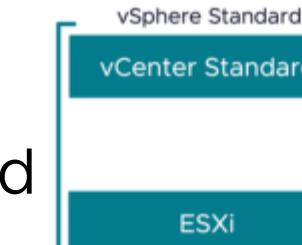
Allows for multiple
vCenter Instances

VVS

VMware vSphere Standard
Retail - \$50/physical core/yr

VVS Add-Ons

VMware vSphere Standard (VVS)



Includes:

- VMware HA
- VMware VMotion
- VMware FT (1-2 vCPU only)
- Storage VMotion
- Hybrid Linked Mode
- Content Libraries
- Virtual Volumes (VVOLs)
- TPM 2.0 and Virtual TPM
- Enhanced vMotion Compatibility (EVC)
- vCenter Native Backup
- vSphere Replication

Production Support

Does not include:

- Distributed Switches
- Distributed Resource Scheduler (DRS)
- VM Encryption
- Storage DRS
- Storage and Network I/O Controls
- Host Profiles
- Distributed Power Management
- Proactive HA
- vSphere Persistent Memory

Support Services

Technical Adoption Management
Solution Guidance & Planning, Peer Insights

Professional Services
Extended Expert Services

Broadcom Licensing Information – View From a Customer

Slide in my deck as of October 2024

VVEP

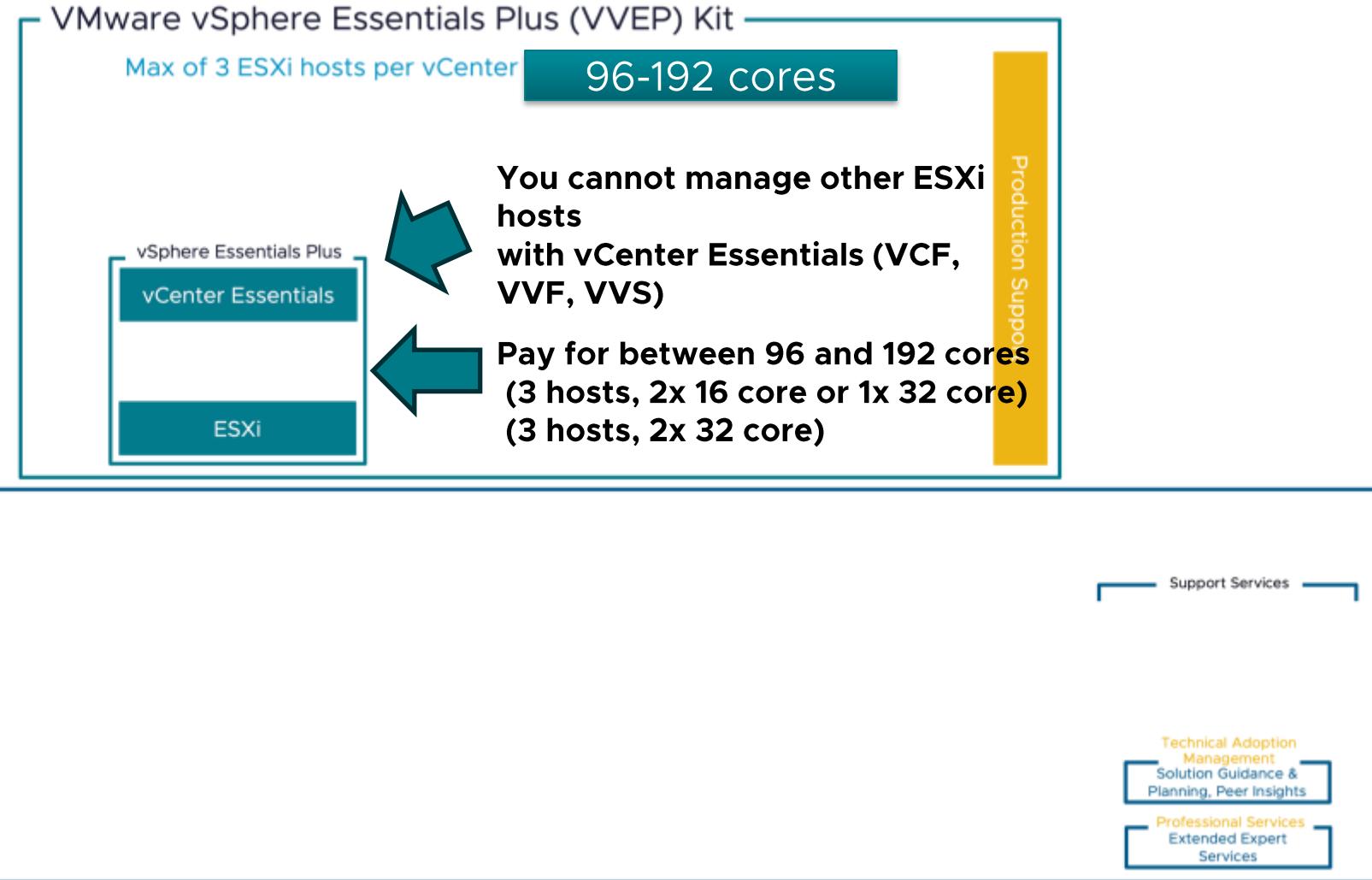
VMware vSphere Essentials Plus

NO, that didn't say Enterprise Plus ☺

Infrastructure Cost-Containment in a Subscription-based World

VVEP

VMware vSphere Essentials Plus
Retail - \$35/physical core/yr
Available Until 11/11/2024



Broadcom Licensing Information – View From a Customer

Starting November 11th 2024

VVEP

VMware vSphere Enterprise Plus

NOW it says Enterprise Plus!

Infrastructure Cost-Containment in a Subscription-based World

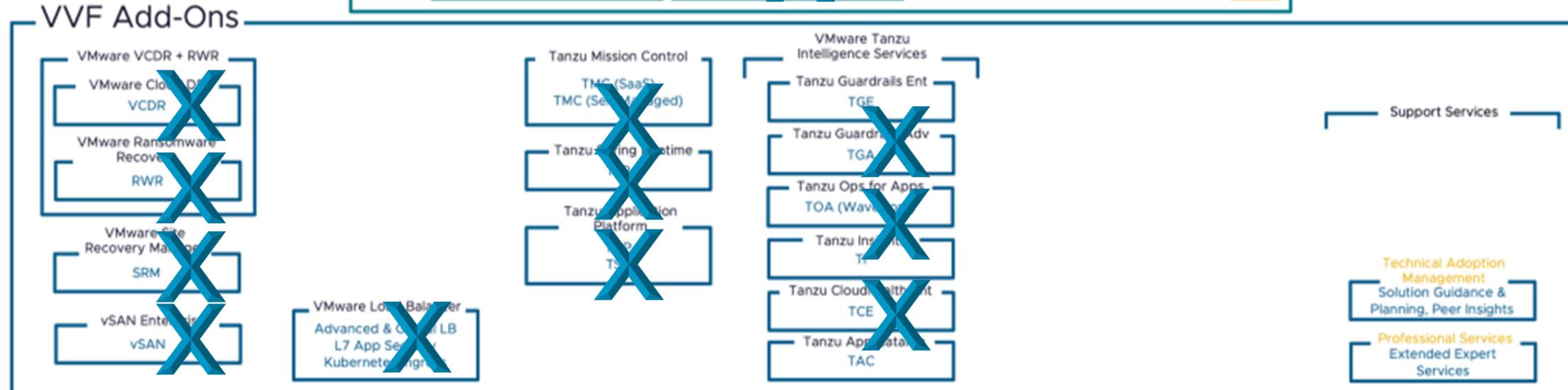
Broadcom's announcement regarding vSphere Enterprise Plus Subscription

<https://news.broadcom.com/cloud/bringing-more-value-and-options-to-the-vmware-cloud-foundation-portfolio>

Infrastructure Cost-Containment in a Subscription-based World

VVEP

VMware vSphere
Enterprise Plus
Retail - \$150/core/year
Retail 3yr - \$120/core/year



Infrastructure Cost-Containment in a Subscription-based World

- **vSphere ROBO Licensing has not returned**

- Formerly sold in 25 VM or 100 VM packs
- Allowed unlimited sockets of vSphere that shared the VM packs
- Used in small-footprint ROBO solutions
- VSAN and vRealize Operations also had ROBO SKU's that are no longer available
- Replacing ROBO Standard with vSphere Standard might be a good strategy for many customers.
- There is a new “Edge Compute Stack” available to cover some remote/edge solutions.
 - Managed differently than traditional vSphere
 - *NEW* VCF Edge allows edge deployments with as few as 2 nodes
<https://www.vmware.com/docs/vmware-cloud-foundation-edge-datasheet> - min. 8 cores per CPU instead of 16 - \$225/core/year -- **not official, as of 11/11

Infrastructure Cost-Containment in a Subscription-based World

- VMware's Enterprise License Agreement Changes
 - Past ELA negotiations usually centered around purchasing new software and not renewing what you have.
 - Subscription plans are all new so the game has changed
 - Historically, an ELA has a stated out year which includes a pro-rated year after your ELA has expired.

EXAMPLE:

Customer has a 4-year ELA -- \$4 Million over 4 years (January 2021 thru January 2025)

Normally, a 5th year “Stated out year” of \$1 million from January 2025 thru January 2026 would be available.

Broadcom has canceled all “Stated out years” so customers cannot use their perpetual licensing for an additional year.

Infrastructure Cost-Containment in a Subscription-based World

Planning for your next agreement

- Get a right-sized quote first. Don't wait for the quote and then reduce your core-count ask
 - Rumor has it the next quote could be the same
- If you don't need VCF, consider asking for a quote for it anyway to give them hope "if the price is right"
- Play that sad trombone. Give hard evidence of hardship.
NOTE: Some account teams and verticals have different requirements / flexibility
- Understand what products are available at each level

Infrastructure Cost-Containment in a Subscription-based World

Planning for your next agreement

- Seriously consider your attitude when you start negotiating
- Broadcom rewards those who view them as a strategic partner
- Broadcom tends to look down on folks who threaten them
 - Should be a no-brainer that a civil conversation can only help the situation?
- If you have presented or volunteered at a VMUG, let them know! Many directors view that level of engagement as a sign that you are a valuable customer.

Infrastructure Cost-Containment in a Subscription-based World

Impacts to VMUG Advantage and EvalExperience

VMUG and Broadcom will continue our partnership. The method subscribers will be entitled to software will be changing.

VMUG Advantage Subscribers will receive 50% off a certification exam.

Subscribers who attain the VMware Certified Professional in VMware Cloud Foundation (VCP-VCF) or VMware Certified Advanced Professional in VMware Cloud Foundation (VCAP-VCF) will receive a 3 year subscription to VMware Cloud Foundation for home use. (More details are forthcoming)

Active VMUG Advantage Subscribers will be able to continue downloading keys using our Kivuto (on the hub) portal until 11/30.

Infrastructure Cost-Containment in a Subscription-based World

Perpetual vs. Subscription

Customers' complaint: "My renewal is tripling!!"

According to the US Inflation Calculator, Inflation from 1/2021-12/2023 was 17.83%

Perpetual Example (static customer)

\$2,000 – Typical maintenance (year 1)
\$2,000 – Typical maintenance (year 2)
\$2,000 – Typical maintenance (year 3)
TOTAL for 3 years - \$6,000

Subscription Example (static customer)

\$6,000 – Year 1 subscription cost
\$6,000 – Year 2 subscription cost
\$6,000 – Year 3 subscription cost
TOTAL for 3 years - \$18,000

300% increase

Perpetual Example

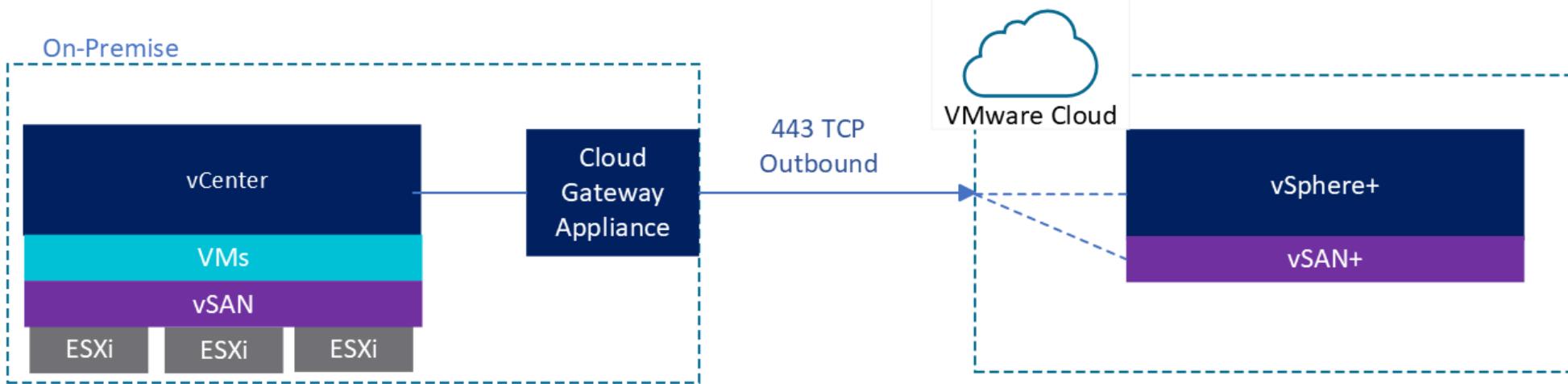
\$10,000 – one-time purchase of software
\$2,000 – Year 1 maintenance
\$2,000 – Year 2 maintenance
\$2,000 – Year 3 maintenance
TOTAL for 3 years - \$16,000

Subscription Example

\$6,000 – Year 1 subscription cost
\$6,000 – Year 2 subscription cost
\$6,000 – Year 3 subscription cost
TOTAL for 3 years - \$18,000

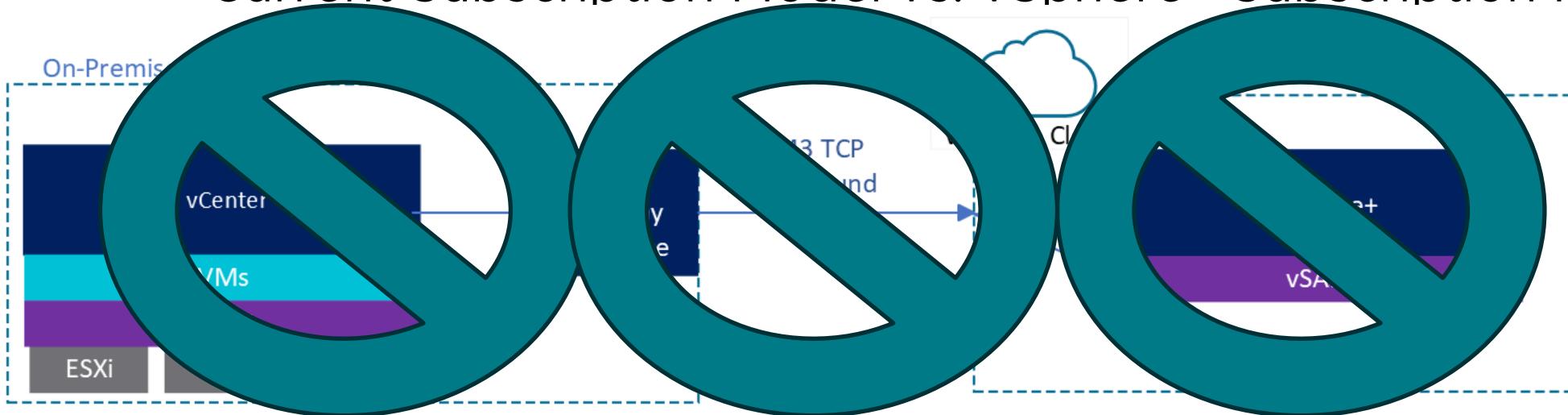
12.5% increase

Current Subscription Model vs. vSphere+ Subscription Model



- vSphere+ was VMware's new subscription-model (pre-Broadcom Acquisition)
- Required the use of a “VMware Cloud Gateway” using your VMware Cloud Services account
- Perpetual and vSphere+ licenses must use separate vCenter Servers (not compatible)
- (I was told) that this eliminated your ability to deploy ESXi, join it to your vCenter, and leverage your 60-day Evaluation window.

Current Subscription Model vs. vSphere+ Subscription Model



- Current Subscription Model eliminates the Cloud Gateway Appliance
- Once you purchase your subscription, you receive keys that function like perpetual
- Subscription and Perpetual keys work with each other on the same vCenter Server
- 60-day Evaluation mode works the same way as it did with perpetual keys

If I purchase VCF, do I need to run the entire Software-Defined Datacenter?

NO. VCF Cloud Builder doesn't even have a license key in SDDC Mgr. Purchasing VCF gives you the software keys for products such as:

- vSphere
- vCenter
- NSX-T
- VSAN (with up to a 1TiB per physical core entitlement)

If I purchase VCF, do I need to run the entire Software-Defined Datacenter?

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1																																																															
2	<p>Instructions: Use the <i>Deployment Parameters</i> tab to input configuration details for physical infrastructure and the components used to implement the Management Domain.</p> <ul style="list-style-type: none"> - Grey cells are for information purposes and cannot be modified. - Red cells mean the input data is either missing and mandatory or some type of validation of the input data has failed. - Yellow cells indicate input data, default values are included to help illustrate the formatting to be used and align to the VMware documentation. If a value is not required enter 'n/a', if it turns red then its mandatory. 																																																														
3	<p>Existing Infrastructure Details</p> <table border="1"> <tr> <td>6 <input checked="" type="checkbox"/> DNS Server and DNS Zone Defined</td> <td>Infrastructure</td> <td>Value</td> <td>DNS Zone</td> <td>Va</td> </tr> <tr> <td>7 <input checked="" type="checkbox"/> NTP Servers</td> <td>DNS Server #1</td> <td>192.168.202.1</td> <td>DNS Zone Name</td> <td>vmuglab.local</td> </tr> <tr> <td></td> <td>DNS Server #2</td> <td>192.168.202.2</td> <td></td> <td></td> </tr> <tr> <td></td> <td>NTP Server #1</td> <td>192.168.202.1</td> <td>Enable Customer Experience Improvement Program ("CEIP")</td> <td></td> </tr> <tr> <td></td> <td>NTP Server #2</td> <td>192.168.202.2</td> <td>Enable FIPS Security Mode on SDDC Manager</td> <td></td> </tr> </table>									6 <input checked="" type="checkbox"/> DNS Server and DNS Zone Defined	Infrastructure	Value	DNS Zone	Va	7 <input checked="" type="checkbox"/> NTP Servers	DNS Server #1	192.168.202.1	DNS Zone Name	vmuglab.local		DNS Server #2	192.168.202.2				NTP Server #1	192.168.202.1	Enable Customer Experience Improvement Program ("CEIP")			NTP Server #2	192.168.202.2	Enable FIPS Security Mode on SDDC Manager																														
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Infrastructure Cost-Containment in a Subscription-based World

Impacts to Licensing Purchases from a Solution like Dell/EMC VxRail or VSAN Ready Nodes

- Scenario: Customer purchased a solution from an OEM that included VSAN licensing but not vSphere licensing
- Customer uses perpetual keys to license vSphere, but has VSAN licensing paid through 2027

My partner contact told me the following:

Any perpetual keys for a solution such as VSAN will work with either VCF, VVF, VVEP or VVS until the solution licenses expire.

Once the VSAN solution licenses expire, VSAN entitlement will need to follow VCF or VVF rules.

Infrastructure Cost-Containment in a Subscription-based World

Ways to save money if cost is a concern

- **Look at your feature set and see if you are actually using those features**
- **Example:**
 - Current vSphere Enterprise Plus Customer
 - Not using Distributed Switches, Network I/O controls, Host Profiles
 - Customer uses the Distributed Resource Scheduler (DRS) but the workloads rarely move
- **Actions:**
 - Reduce licensing to VVS
 - Create PowerCLI scripts for these features made easy by DRS
 - Script host creation of Standard Switches and port groups (for reconfiguring or building hosts)
 - Create scheduled tasks to check whether or not application servers are running on the same ESXi host (replaces DRS Anti-Affinity -- useful after maintenance or HA events)
 - Script the VMotion of VM's for maintenance operations

Infrastructure Cost-Containment in a Subscription-based World

Ways to save money if cost is a concern

- **Change compute purchasing strategy to account for CPU footprint**
- **Example:**
 - Customer is memory-bound and not CPU-bound in most environments
 - Customer has a few appliances where the vendor requires 32-cores on the VM
- **Actions:**
 - Create dedicated 2-3 host clusters for non-conforming workloads
 - Hosts in this cluster would have more CPU and less RAM
 - Production clusters would standardize on dual-16 core CPU's
- **Savings:**
 - Customer will save 50% in vSphere licensing over their current dual 32 core CPU hosts

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