

Navigating VMware by Broadcom renewals and the market options.

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NODE4

Whitepaper

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Introduction

VMware has held a dominant position as the virtualised data centre technology of choice for many organisations over the last 20 years. Following the acquisition of VMware by Broadcom at the end of 2023 there have been significant changes to the organisation, software licensing and partner model. These impactful changes have been rapidly implemented and resolutely enforced.

The recent upheaval in the VMware by Broadcom partner and product licensing arena may be considered complex and confusing, leaving many customers uncertain of how to navigate these changes and how to best protect their business whilst still utilising the skills and investment in VMware by Broadcom technology.


Broadcom has a strategy to simplify the VMware offering, with CEO Hock Tan stating, “I concluded that the previous go-to-market model was too complex and costly for VMware and its customers”. However, the success of their one size fits all model and core focus on the VMware Cloud Foundation (VCF) product stack, is undoubtedly alienating part of the customer base who face uncertainty and price increases. Research firms are predicting up to 30% of VMware’s installed base of more than 400,000 customers will be looking to move to an alternative provider by 2028.

This whitepaper is aimed at technology leaders of organisations currently licensing VMware software for their own IT infrastructure, plus anyone wanting to learn more about the changes, the options and how to navigate the renewal process.


Overview of the changes

Throughout this year (2024) the post-acquisition changes have been rapidly rolled out, the major changes being as follows:


The major changes include:




A major simplification of the product offerings to two core options, namely VMware Cloud Foundation (VCF) and VMware vSphere Foundation (VVF)




End of Sale of perpetual licensing of the VMware products and Software and Subscription (SnS) maintenance, upon renewal all customers must transition to the new subscription model.



Divestment of the VMware End User Computing product (Horizon and Workplace ONE) to Omnisia.



Ending the VMware partner program for both Hosting Providers and Software Resellers which has been replaced by an “invite-only” Broadcom model with a select number of Pinnacle and Premium partners.



Creation of a Primary and secondary tier program for Hosters where secondary tier channel partners (White Label) are required to work with primary tier partners for license provisioning and support.

VMware Licensing Simplification

Fundamentally, the changes are a simplification of the portfolio into four subscription types as follows:

- VMware Cloud Foundation
- VMware vSphere Foundation

Plus, two entry-level options of:

- VMware vSphere Standard
- VMware vSphere Essentials Plus

Table: Feature comparison of new VMware Licensing Options & Legacy Products

Features	Legacy Product	VVF	VCF
Compute	vSphere	■	■
vSphere, ESXi	vSphere	■	■
Distributed Resource scheduler, Distributed Switch	vSphere Enterprise Plus	■	■
Cross-VC vMotion, Long Distance vMotion, Direct Path vMotion, Storage vMotion	vSphere Enterprise Plus	■	■
High Availability, Fault Tolerance, Data Protection, Trust Authority	vSphere Enterprise Plus	■	■
Kubernetes Runtime, Automated Multi-cluster Operations	Tanzu Kubernetes Grid	■	■
vCenter: Backup & Restore, Linked more, HA	vCenter Server Standard	■	■
SDDC Manager: Workload Domain Management, Lifecycle Management, Certificate Management	SDDC Manager		■

Storage	vSAN	VVF	VCF
Data-at-rest and Data-in-Transit Encryption	vSAN Enterprise	250 GiB per core	1Tib per core
Stretched Cluster with Local Failure Protection	vSAN Enterprise	250 GiB per core	1Tib per core
Deduplication & Compression	vSAN Enterprise	250 GiB per core	1Tib per core
Raid 5/6 erasure coding	vSAN Enterprise	250 GiB per core	1Tib per core

Networking	NSX	VVF	VCF
Networking: Distributed Switching & Routing	NSX Enterprise Plus		■
Large Scale Workload Migration	HCX Enterprise		■
Network Ops: Flow Analysis, App Discovery, M-Seg Planning, Network Assurance & Verification	Aria Operations for Networks		■

Networking	NSX	VVF	VCF
Operations: Performance Optimisation, Capacity Management, Compliance, Monitoring & Troubleshooting, Log Analytics	Aria Operations	■	■
Automation: Automated Lifecycle Management, App/Infra Provisioning, Governance	Aria Automation		■
VMware & 3rd Party Database, Middleware & App Management	Aria Ops Enterprise		■
Monitoring & Troubleshooting for Apps with Open-Source Telegraf	Aria Ops Enterprise		■
Native Public Cloud Monitoring	Aria Ops Enterprise		■

VCF and VVF are complemented by a range of other products and add-ons, and you will notice product naming changes along with the repackaging. A good example of this being Site Recovery Manager being changed to VMware Live Recovery (VLR).

vSphere Standard and vSphere Essentials Plus remain largely unchanged. vSphere Standard includes vCentre & vSphere and Essentials Plus is restricted to a deployment size of 96 cores with a 16 core per CPU minimum.

Renewal Process and Broadcom Choices

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Step one: Check the end date of your current SnS maintenance

For many organisations there will be a circa 2x – 5x price increase on the budgeted for SnS renewal price for conversion to the new subscription model. It's therefore important to start understanding the impact of the changes 12 months in advance of your renewal date. This timeframe will provide more breathing room for you to evaluate your options and aligned budgets for the impacted financial year.

If you have staggered renewal dates with parts of the estate due for renewal at different times you do have the ability to move a subscription for part, whilst running down SnS maintenance and them co-termining.

If you currently hold a perpetual licence, your SnS expires and you do not wish to move to a subscription contract. Hock Tan made the following statement April 15 2024 "To ensure that customers whose maintenance and support contracts have expired and choose to not continue on one of our subscription offerings are able to use perpetual licenses in a safe and secure fashion, we are announcing free access to zero-day security patches for supported versions of vSphere, and we'll add other VMware products over time." Please note that this is only for supported versions and may not cover all security versions, so this is not a recommended course of action unless in specific circumstances.



2x-5x

Price increase on the budgeted for SnS renewal price for conversion to the new subscription model.

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Step Two: Evaluate your Environment

All the VMware options start with a base licence derived from CPU cores. There is a minimum of 16 cores per CPU socket. This also needs to include all hosts running VMware software including Management, DR and dis-aggregated vSAN clusters.

Therefore, as an example, if you are running a total of 6 hosts all with dual CPU's containing 12 cores per CPU, each host will need licensing for a minimum of 32 cores giving a total of 192 cores for the environment.

New Package Structures

VMware Cloud Foundation (VCF)

- vSphere Enterprise Plus: 1 core with 16-core per CPU minimum *
- vCenter Standard: 1 instance
- Tanzu Kubernetes Grid: 1 core
- vSAN Enterprise: 1 TiB of vSAN per core
- Aria Suite Enterprise: 1 core
- NSX Networking for VCF: 1 core
- HCX Enterprise: 1 core
- Aria Operations Network Enterprise: 1 core
- Data Services Manager: 1 core
- SDDC Manager: 1 core

* Remember. A 16-core minimum is applied to the CPU socket not the server

vSphere Standard

- vSphere Standard: 1 core with 16-core per CPU minimum
- vCenter Standard: 1 instance

vSphere Foundation (VSF)

- vSphere Enterprise Plus: 1 core with 16-core per CPU minimum
- vCenter Server Standard: 1 instance
- Tanzu Kubernetes Grid: 1 core
- vSAN Enterprise: 250 GiB of vSAN per core
- Aria Suite Standard: 1 core
- i) Aria Operations ADV: 1 core
- ii) Aria Operations for Logs

vSphere Essentials Plus

- vSphere Essentials Plus: 96 cores with 16-core per CPU minimum
- vCenter Essentials: 1 instance. Maximum of 3 hosts with 2 CPUs (32 cores maximum per CPU) per host or 1 CPU (64 core maximum) per host supported.

There are also a range of additional options and add-ons applicable to VCF and VSF:

- Additional VMware vSAN capacity
- VMware Live Recovery (Formerly SRM)
- VMware Avi Load Balancer
- VMware Firewall
- VMware Firewall with Advanced Threat Prevention
- Tanzu Intelligence
- TMC
- TAP/Spring
- VMware Private AI Foundation

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Step Three: Request a renewal quotation for a subscription

The process has improved but it can take a while to get a renewal price for the new subscription model. Broadcom may have to authorise any pricing and depending on where your organisation aligns as a Broadcom account you may have different buying options.

Broadcom account teams are only aligned to the bigger customer accounts, indeed they have publicly announced that their “top” accounts (est. 2,000 organisations) are managed directly. This won't preclude a Pinnacle level partner handling a renewal, but a teaming agreement will need to be put in place by the partner.

Due to the huge changes in the partner channel, your previous partner may no longer be on the Broadcom program. Therefore, it is always encouraged to gain a quote from a Pinnacle partner as a comparison. There are two Pinnacle accreditations which are Cloud Provider and Reseller, Node4 are accredited for both these routes to market. Especially for VCF a partner holding both Pinnacle option provides access to the full range of licensing options including a Pay as you go, “On-Demand” hourly model for certain business requirements.

It is recommended that you review the options and compare a quotation for both VCF and VVF and fully understand the benefits that the full software stack could bring to your business case.



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Pinnacle partner as reseller
and cloud provider

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Step Four: Making the Business Case

The subscription pricing is going to show an increase on the SnS maintenance costs, therefore, it will more than likely require a business case for the exec team to demonstrate the value of the options with a recommendation.

Navigating any change can be challenging, however, the drastic changes that impacted a long-loved brand such as VMware can trigger a range of emotions. However, emotion aside VMware remains one of the most mature and feature rich data centre technologies on the market and for many clients a move away may require compromises. Broadcom's strategy is to focus significant R & D on the simplified portfolio and provide a Private Cloud solution that can rival Public Cloud. The challenge with this strategy is that the large portion of customers only use some of the core features of vSphere, vCentre and SRM with potentially NSX and vSAN. Historically, the Enterprise featured products now all bundled into VCF were price prohibitive add-on licences for many, so let's look at how VCF could potentially elevate your infrastructure strategy, add value and potentially save money on other technologies.

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Portfolio

VCF Automation & Operations

The rebranded Aria suite technologies now include all the enterprise features and is a powerful toolset. This is key to enabling you to transform your internal IT infrastructure into a Private Cloud allowing development teams and departments self-service, consumption-based chargeback, and a range of ancillary technologies providing ESG reporting and Public Cloud management. The software can provide powerful monitoring, logging and automation of a wide range of technologies which could replace third party products and help consolidate existing management platforms.

NSX & Security

A key part of building a Cloud platform is self-service for departments and therefore, having an integrated software defined network is essential. NSX is a mature SDN technology which can rapidly reduce provisioning time and allows organisations to break away from hardware centric network constraints. The security add-ons are worth a look, especially the vDefend firewalling which offers gateway (North/South) and distributed (East/West) firewalling which is key for micro-segmentation.

vSAN

For every core of VCF there is a 1 TiB licence for vSAN, therefore many customers will already have a licence for the technology but how can you use it and save money? Due to this fact many organisations have started to upgrade their compute nodes by adding disks for vSAN to provide a Hyper Converged Infrastructure, this can provide a very cost effective approach vs a traditional SAN and associated networking costs. There is also the option of running a dis-aggregated cluster whereby there are specific nodes dedicated to storage, however, please note these nodes will also require full VCF cores.

Tanzu

If your development team have several applications running in Containers and for compliance, data residency or commercial reasons the Public Cloud does not offer an acceptable solution, Tanzu could be the answer. The Tanzu platform is a software stack that enables companies to build and deploy software, quickly and securely through automated management for Kubernetes clusters and can offer improved developer efficiency.

Step Five: Review your Options

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Hopefully you are armed with the Broadcom subscription pricing and several options for potentially leveraging VMware new features with a supporting business case. Many clients may also be considering a hardware refresh or be in a pivotal point in their cloud strategy. It may make sense to also consider a range of other market options for VMware such as the Azure VMware Solution or Virtual Data Centre (VDC), an alternative technology such as Azure stack HCI or Nutanix AVH or a move to a Public Cloud provider as part of your assessment.



Market Alternatives

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VMware customers that are seeking alternative paths forward have a range of options outlined below. Node4 can support clients to evaluate their market options, and our Cloud Scorecard approach offers an easy to digest comparison based on your unique workload requirements assessing key comparable metrics such as TCO, Ability to Exit, Application Modernisation and Ease of Migration.

Let's take a closer look at some of the options.



Virtual Data Centre (VDC)

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Node4's Virtual Data Centre (VDC) cloud is a VMware Infrastructure as a Service (IaaS), offering providing a cost-effective solution, with a no-contract, pay as you go model allowing organisations the ultimate in agility. The migration service "VDC Slide" uses VCDA, a native VMware tool available exclusively to cloud providers which provides live replication making for easy migrations. The service is operated in two geographic regions in the UK providing a range of easy-to-use DR, Backup and Security services. 100% self-service, with hourly consumption-based billing, VDC has been specifically designed to offer a credible alternative for VMware clients to the Public Cloud and is available as one of only 12 UK platforms listed alongside AWS, GCP & Azure on the Cloud Compute 2 framework (Public Cloud for Public Sector).

Benefits

- VDC offers a no-contract, Pay as you go IaaS platform.
- Pricing outperforms Public Cloud offerings.
- "Slide" offers a low risk and compatible migration.
- Strong Managed Service overlay available.
- ISO27001, ISO27017 & ISO27018.
- VDC Connect extends into customer own networks.
- IT admins can use a familiar VMware interface.

Considerations

- VDC currently only offers regions in the UK.
- VDC is focused on IaaS and does not offer PaaS or SaaS options, although does provide an Azure Hybrid Cloud offering.

Azure Stack HCI

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Azure Stack HCI, a Hyper Converged Infrastructure is a strong alternative focussed on Hybrid Cloud capability. This may appeal to organisations with an Azure modernisation strategy who require a platform to augment and integrate tightly. Azure Stack HCI storage is based on Storage Spaces Direct and has a rich SDN capability that provides features such as firewalling at no extra cost. The software is licensed through an Azure subscription which also includes the ability to run Azure Kubernetes Service. As a first party Azure product, that platform receives several benefits such as free end of life security updates for some Windows and SQL Server versions, plus the ability to use Azure Hybrid Use Benefit (AHUB).

Azure Stack HCI relies heavily on Azure Arc to create the Hybrid Cloud experience allowing management of workloads through the Azure Management plane and operate PaaS services such as Azure SQL and Functions. It is important to note that Azure Arc is available on many other platforms such as on-premises VMware and VDC to create a Hybrid Cloud solution. Azure Stack HCI is also available as a Node4 IaaS service.

Benefits

- The Azure Stack HCI software subscription is cost competitive.
- Azure benefits for free EOL security updates and AHUB.
- It is the only platform able to run Azure Virtual Desktop on-premise.
- Integration with Azure Arc and the ability to run PaaS services outside of Azure.

Considerations

- Azure Stack HCI is difficult to scale as external storage cannot be utilised.
- Migration technologies are limited however, Azure migrate from VMware is on the roadmap.
- There is a limited third-party ecosystem for tools such as DR and backup.
- Building multi-site deployments can be expensive and complex.

Azure VMware Solution

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The Azure VMware Solution (AVS) is a dedicated VMware environment deployed in a Microsoft data centre. AVS reflects the VMware Cloud Foundation stack utilising NSX and vSAN, also including elements of the vDefend add on, with deployments automated using SDDC. Although located in a Microsoft datacentre, AVS includes an ExpressRoute which can be configured to connect to an Azure hub landing zone, allowing for connectivity into native Azure services such as Azure Firewall. As the service is a dedicated VCF environment this allows for the use of HCX which can provide an easy migration path for large volumes of virtual machines.

Implementation of Disaster Recovery and backup require design and services in addition to AVS. Organisations typically use VMware Live Recovery for DR replication, and this will require a minimum footprint of 6 AVS hosts.

Benefits

- AVS offers an easy migration path using HCX to provide vMotion capabilities.
- Storage is extensible using NetApp Files.
- AVS have announced a licence portability option for VCF
- AVS includes a free ExpressRoute to provide connectivity into the Azure cloud.
- Available across Microsoft's global Azure regions

Considerations

- AVS can prove expensive without applying reservations.
- Host sizes are different in UK South vs UK West and can vary across regions.
- VMware Live Recovery is required for DR.
- A third-party backup solution is recommended.
- Networking into Azure Native can be complex.
- There are a limited number of host sizes which can making scaling problematic.

Azure Native (Lift & Shift)

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The Microsoft Azure platform is a market leading Public Cloud solution offering a rich ecosystem of over 200 services, globally from 60+ geographic regions. Node4 typically leverages Azure for application modernisation, allowing organisations to pivot their workloads and operational model to PaaS and Serverless solutions.

Undertaking a “Lift and Shift” migration of virtual machines is well trodden path but requires considerable planning and modelling before a large-scale migration. There are several Microsoft incentives that can support clients and contribute towards migration costs. Azure Migrate does a good job of the heavy lifting of VMware workloads, however, due to the change in the hypervisor and underlying platform, compatibility and workload suitability needs significant testing.

Benefits


- Access to a large ecosystem of Azure services.
- Available across Microsoft’s global Azure regions
- Migrations from VMware supported by Azure Migrate and there is the potential for funding incentives.
- Azure SQL may offer benefits for migrating SQL Server databases.

Considerations

- Pay as you go rates can be expensive for lift and shift workloads.
- Cost control and support quality are regularly raised as issues by clients.
- IT staff will need retraining to Azure and the implications of operating on a Public Cloud.
- Egress costs will apply for any data moving out of Azure.

Other Market options:


Alternative virtualisation solutions are available from the major well known hyperscalers and on-premises solutions exist from vendors such as:




Nutanix: Offering a comprehensive virtualization stack validated for use with a large library of popular operating systems and workloads.




Oracle: Providing KVM-based virtualization built around the company's Linux OS2.



Microsoft Hyper-V which is suitable for small businesses and closely aligned with Microsoft's software ecosystem. This also forms part of the Azure Stack HCI solution.



Proxmox and XCP-ng: Commercial versions of open-source products that offer a like-for-like replacement for VMware.



AWS for VMware: This is a VMware operated service on AWS and there are some market concerns as to the future of this service following the Broadcom acquisition.

Final Thoughts

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The confusion and controversy around Broadcom's changes risks losing focus on the main issues. It's all too easy to stay fixated on the inevitable price increase and emotion caused by the drastic and rapid changes. Node4 would encourage clients to review the simplified VMware portfolio and review the business case to see if these new offerings stack up for your organisation.

If not, there are several credible options, many of which may allow you to retain VMware technology in an IaaS model or if you have the time and the resources there are several alternative technologies.

The Node4 mid-market report in 2023 highlighted that for many organisations, their most important objective is increasing hybrid cloud development. This is reflected in what we see on the ground and clients are taking a pragmatic approach to use a mix of platforms and unified management with tooling such as Azure Arc and VCF.

As a VMware Pinnacle partner and Microsoft Expert MSP, Node4 are the Hybrid cloud experts and well positioned to assist with helping our clients with their strategic objectives and choosing the best technologies.

