VMware Cloud Foundation Edge (VCFE)

Specific Program Documentation ("SPD")

The Broadcom software program(s) ("Broadcom Software") listed below is provided under the following terms and conditions in addition to any terms and conditions referenced on the Broadcom quote, order form, statement of work, or other mutually agreed ordering document (each a "Transaction Document") under the applicable end user agreement or governing contract (collectively, the "Agreement") entered into by Customer and the Broadcom entity ("Broadcom") through which Customer obtained a license for the Broadcom Software. These terms shall be effective from the effective date of such Transaction Document. Capitalized terms have the meanings ascribed to them herein, or, otherwise, in the Agreement.

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Program Name: *VMware Cloud Foundation Edge (VCFE)*

1. DEFINITIONS.

All terms defined in the Broadcom Software Glossary located at legaldocs.broadcom.com apply to this SPD unless specified herein.

"**BIOS**" means the Basic Input Output System, a set of routines that boots the operating system and sets up the hardware of the Processor.

"**Cluster**" is a software grouping of Servers running vSphere and/or vSAN for the purpose of resource sharing.

"**ClusterClass**" means a collection of resources that define a Kubernetes cluster topology and configuration.

"**Cloud Services**" means computing infrastructure and platform services (such as compute resources, storage capabilities, databases or virtual machines and other computing infrastructure and platform services) that a third party makes available for consumption by customers.

"**Core**" means a single physical computational unit of the Processor.

"**Edge Location**" means Customer's remote physical banking or retail branch stores, automated teller machines, fulfillment lines, manufacturing lines, power substations, or federal or state government remote tactical mobile units. Edge Location does not include dedicated facilities whose sole purpose is the hosting and the provision of compute services, such as data centers, and colocation facilities, regardless as to whether such services are for internal or external purposes.

"**Instance**" means a single installation of the Software on a physical server or Virtual Machine.

"**Internally Developed Application**" means a computer application that: i) Customer has created or developed for use by third parties as ancillary to one of Customer's products or services, ii) is deployed on Software but the third party users cannot access the Software or benefit from the Software's features and functionalities directly, iii) is not ancillary to or a part of a product or services that directly or indirectly is related to, or competitive with,

the features or functionalities of the Software (including the management, delivery or hosting thereof), and iv) is unrelated to the internal use of the third party users. Examples of Internally Developed Applications include a financial institution building an application for its retail banking customers to obtain information about their bank accounts, a grocery chain building an application that operates their in-store point of sale machines, an airline company building an application that operates the self-check in kiosks in airports etc.

"**Processor**" means a single, physical chip that houses at least one Core that can execute computer programs.

"**Server**" means a hardware system capable of running the server software. A hardware partition or blade is considered a separate hardware system.

"**Standard Packages**" means optional open source packages available independently for use with a given Tanzu Kubernetes release.

"**TiB**" means a unit of physical storage capacity that is equal to 2^40 bytes.

"**Virtual Desktop Infrastructure**" or "**VDI**" means a technology that utilizes virtual machines to manage and provide virtual desktops.

"**Virtual Machine**" means a software container that can run its own operating system and execute applications like a physical machine.

"**vSphere IaaS Control Plane**" means those components that support or form part of the features and capabilities for running containerized applications in vSphere including but not limited to the Supervisor, the TKG Service, Tanzu Kubernetes releases (Tkr), Standard Packages, and associated CLI Plugins.

2.   USE RIGHTS AND LIMITATIONS.

License Metrics

- VMware Cloud Foundation Edge ("**VCFE**") is subscription software licensed on a per Core license metric with a minimum licensing requirement of 8 Cores per Processor.

- Each Core on the Server must be licensed, including Cores deactivated by the BIOS. The required number of Core licenses equals the number of Cores on the Server, subject to the minimum of 8 Core licenses per Processor.

- Customers may use VCFE on a Server with up to the number of Cores for which Customer has paid the applicable license fees.

- Customer may only use or deploy VCFE either in a Edge Location or in a VDI environment, and each of those possible uses are subject to the restrictions below (which, for clarity, is in addition to any other restrictions defined herein). For clarity, VCFE may not be used for any purpose other than 1) use in an Edge Location, or 2) use in a VDI environment.

    - **Use and Deployment Restrictions: VCF Edge Location**

        ○ Customer may only deploy or use the vSphere component of VCFE in an Edge Location.
        ○ Customer may only deploy or use the vSAN component of VCFE in an Edge Location.
        ○ The integrated components and capabilities of VCFE must be utilized for the same Physical Cores as the vSphere component of VCFE.
        ○ May not have deployed or used less than 25 Edge Locations within the first year of initial VCFE deployment.
        ○ May not have deployed or used more than 256 Cores per Edge Location.

    - **Use and Deployment Restrictions: Virtual Desktop Infrastructure (VDI)**
        ○ May only be deployed or used in a VDI environment.
        ○ Must deploy a separate vCenter to support VDI environment

○ The integrated components and capabilities of VCFE must be utilized for the same Physical Cores as the vSphere component of VCFE.
○ May only use the Software to perform the following hosting uses: hosting of desktop virtual machines, Microsoft terminal services running a valid Microsoft license, remote desktop services hosts for the purpose of hosting sessions based desktops or remote applications, associated desktop management and monitoring tools.
○ Existing VDI environment - VCFE license can be added to the existing vCenter that is in charge of managing the VDI Workload domain in the current VDI scenario at sites deployed with or without SDDC Manager.

● Customer may use its license to VCFE as a Migration License (as defined in the Agreement) by using VCFE's embedded evaluation mode feature for a maximum period of what VCFE's said feature then allows.

● **Component Specific License Notes.** The following table describes additional component specific license entitlement rights and limitations of VCFE:

#	VCF Component	Metric Entitlement	Entitlement Details
1	Aria Suite Enterprise	1 Core	Aria Suite Enterprise entitlement contained in VCFE can only be used to monitor VCFE Cores. Alternatively, it can be used to monitor up to both the total VCFE Cores and up to the same number of Cores used in a VVF for VDI environment at no additional cost. Additional VCFE licensing is required if Customer wants to monitor more Cores than entitled.
2	vSAN	1 TiB	Customer is entitled to 1 TiB of vSAN capacity for each Core licensed for VCFE. vSAN can only be aggregated and deployed across Cores where the vSphere for VCF Edge is deployed.
3	vCenter Server	1 Instance	vCenter Server may be used to provide centralized management capabilities to any licensed VMware by Broadcom infrastructure environments with an active subscription to Support and Subscription Services.
4	vSphere for vSAN Witness	1 Core	vSphere for vSAN Witness core licenses can only be used to support deploying the vSAN Witness appliance Virtual Machine at an Edge Location. Additional VCFE Core licenses are not required in this situation. For clarity, the vSphere for vSAN Witness license cannot be deployed in a data center environment.

● **vSAN Cluster Expansion or Renewal Exception with VCFE.** If the number of total VCFE subscriptions purchased for the hosts added to, or renewed in, the vSAN Cluster using license entitlements from legacy offers are greater than, or equal to, the total number of Processors in the vSAN Cluster, Customer has permission to use any excess entitlements from the included vSAN capacity (1 TiB per 1 Core) in VCFE subscription purchase to apply to the entire vSAN Cluster, consisting of existing and new or renewed hosts, for the sole reason to enable vSAN Cluster expansion or renewal. At the time that the legacy offers expire (either SnS or subscription), Customer must purchase VCFE subscriptions and apply the vSAN license entitlements for the hosts in the vSAN Cluster that were previously using the license entitlements from the legacy offers.

● **iSCSI Support.** Customer may only use the iSCSI Support feature in vSAN with physical, non-virtualized Servers. The iSCSI Support feature supports Microsoft clustering with shared disks. Initiators can be either from virtual machines or physical servers. For guest initiators in virtual machines, those virtual machines can be residing on:
- The same vSAN Cluster that provides this iSCSI Support feature; or
- An external vSAN or vSphere Cluster.
The iSCSI Support is limited to a maximum of 128 sessions per Server, a maximum of 128 targets per Cluster, and a maximum of 1024 logical unit numbers (LUNs) per cluster. The vSAN Stretched Clusters using iSCSI target service are not supported. raw device mapping (RDMs) for Microsoft Windows Server Failover Clustering (WSFC) using iSCSI target service is not officially supported on vSAN.

● **Restrictions on Use with Cloud Services.** Customer must not (and must not allow Customer's Third-Party Agents to) use or deploy the Software on any Cloud Services.

- **Export restrictions and restrictions on use of NSX Software.** VMware NSX Software is of United States Origin and contains some features (including features which support network infrastructure) which result in the application of stricter export control classifications pursuant to the United States Export Administration Regulations (EAR). For some uses of the VMware NSX Software, such as for use by "More Sensitive" Government End Users as defined in Part 772 of the EAR, there may be restrictions or prohibitions applicable to Customer's proposed use of the Software if that use is in or for certain Group D:1 countries (which include China or Russia) where VMware's Bulk Export License may not be used. Customer is responsible for ensuring that Customer's proposed use of the VMware NSX Software is not in violation of applicable United States or local law.

- **Hosting Rights and Restrictions.** Customer may use the Software to deliver its Internally Developed Application(s) to a third party via an internal or external network. Except as expressly provided in this paragraph, the use of the Software for any other types of hosting or for the benefit of any third party in any manner is strictly prohibited.

- **vSphere IaaS Control Plane Lifecycle Policy**
    - vSphere IaaS Control Plane components have a shorter support life cycle period as compared to the lifecycle period generally applicable to the VCF Software.
    - Tanzu Kubernetes releases work with specific versions of the vSphere IaaS Control Plane components (e.g. the TKG Service, Supervisor) and vCenter. Additional interoperability conditions and upgrade path may be specified in Tkr release notes.
    - Broadcom will support clusters that use images created using the vSphere Tanzu Kubernetes Grid Image Builder when the same issue can be reproduced using a supported Tanzu Kubernetes release provided by Broadcom.
    - Each version of TKG Service and each version of each Standard Package is supported as long as a compatible Tanzu Kubernetes release is supported.
    - Support for Standard Packages is limited to the installation and upgrade of the packages. Broadcom does not provide support for any components of the Standard Packages, including but not limited to the debugging of configuration, bug fixes, feature enhancements, performance related issues, or security fixes not available from the upstream project. Broadcom reserves the right to discontinue the release of any of these packages at our discretion.
    - The TKG Service allows users to define their own ClusterClass. Broadcom will support clusters created using a customer-provided ClusterClass when the same issue can be reproduced using a ClusterClass provided by Broadcom.

- **Support Services.** Software includes Support Services that may only be used for the Software, and its components, licensed hereunder and may not be used for any other software, including former offers of components of Software that Customer may have licensed separately.

3.   THIRD PARTY INFORMATION AND TERMS.

Any required third-party software license terms are incorporated by this reference and are set forth in online documentation at techdocs.broadcom.com or legaldocs.broadcom.com.

- **VMware Tools.** VMware Tools is a suite of utilities and drivers that can be installed in a Guest Operating System to enhance the performance and functionality of a Guest Operating System when running in a Virtual Machine in conjunction with a vSphere hypervisor. Customer may not use VMware Tools with any other hypervisor. Customer may distribute the VMware Tools to third parties solely when installed in a Guest Operating System within a Virtual Machine. Customer is liable for compliance by those third parties with the terms and conditions of the Framework Agreement.