VNA-SB-017 | Enterprise ERP, EAM & VMware Modernization | Broadcom VMware Exit & Oracle Licensing Protection | Canyon Ochre

VMware Exit for Oracle Databases: Migrate vSphere to Oracle Linux KVM, ODA & OCVS

Broadcom's 300% to 600% VMware vSphere Cloud Foundation subscription increases represent only half of the financial exposure: running Oracle Databases on VMware vSphere creates severe 'soft-partitioning' audit risk across every ESXi host and vCenter cluster. We migrate your virtualized database and application estates onto Oracle Linux KVM (OLVM), Oracle Database Appliance (ODA), or OCI Compute with recognized hard partitioning.

Search Queries & Scope Covered: Oracle licensing on VMware soft partitioning audit risk | Broadcom VMware exit strategy for Oracle databases | Oracle Linux KVM OLVM hard partitioning CPU pinning | convert VMware VMDK to Oracle Linux KVM virt-v2v | Oracle Cloud VMware Solution OCVS vs AWS VMware

SOURCE LEGACY STACK (STACK X)	MODERNIZED TARGET ARCHITECTURE (STACK Y)
VMware vSphere / ESXi / vSAN / NSX (Broadcom Subscription Lock-In)	**Oracle Linux KVM / OLVM, ODA KVM Hard Partitioning, or OCVS**

HYPERVISOR RENEWAL SAVINGS	ORACLE LMS PARTITIONING	VMDK TO QCOW2 / RAW CUTOVER	LIFT-AND-SHIFT OPTION
70-100% vs. Broadcom	**Certified Hard Partitioning**	**Automated Live/Warm Sync**	**Oracle Cloud VMware (OCVS)**

1. Problem Space & Architectural Bottlenecks

- Following Broadcom's acquisition of VMware, perpetual licenses were terminated and customers were forced into bundled VMware Cloud Foundation (VCF) per-core subscriptions at 3x to 8x their historical renewal cost.
- Oracle does not recognize VMware vSphere / DRS / vMotion CPU affinity as 'Hard Partitioning.' In an audit, running a 4-vCPU Oracle VM inside a 16-node ESXi cluster connected to shared storage can trigger licensing demands for every physical core in the cluster.
- Infrastructure teams need a fast, low-risk path to convert `.vmdk` virtual machines to KVM without breaking enterprise backup, VLAN, and storage workflows.

2. Technical Solution & Reference Architecture

2.1 Three-Lane VMware Exit Strategy Tailored by Workload: Lane A (Database Tier to ODA X11 / Exadata / OCI DB) moves Oracle and SQL Server databases off VMware onto hard-partitioned engineered systems. Lane B (General Linux/Windows VMs to Oracle Linux KVM / OLVM) converts `.vmdk` guests via `virt-v2v` to Oracle Linux Virtualization Manager at zero hypervisor license cost. Lane C (Zero-Refactor OCVS) lifts remaining complex NSX/vSphere estates to Oracle Cloud VMware Solution (OCVS) with full root vCenter control.

2.2 Certified Oracle Linux KVM CPU Pinning (`olvm-vmcontrol`): We configure strict physical core pinning on Oracle Linux KVM and ODA KVM so your Oracle Database licenses are legally capped to the exact vCPUs assigned to the VM.

2.3 Automated VMDK-to-KVM Migration Factory: Using Virt-V2V, RMAN/GoldenGate (for databases), and OCI Rackware/Cloud Migrations, we migrate hundreds of VMs in waves with automated VirtIO driver injection and network

cutover.

3. Artifact-by-Artifact Conversion & Modernization Matrix

Legacy Artifact / Baseline Workload	Modernized Oracle / Cloud Target	Engineering Method & Outcome
Oracle Database VMs on VMware ESXi (Soft Partitioned)	Oracle Linux KVM (CPU Pinned) / ODA X11 / OCI Base DB	Hard-Partitioned Core Capping + GoldenGate/RMAN Sync
Linux & Windows Application VMs (`.vmdk`)	Oracle Linux Virtualization Manager (OLVM / KVM `qcow2`)	Automated `virt-v2v` Pipeline + VirtIO Injection
VMware vCenter & DRS Management Plane	Oracle Linux Virtualization Manager (OLVM) + Terraform	Included with Oracle Linux Premier Support
Complex Legacy VMware Estates Needing Fast DC Exit	Oracle Cloud VMware Solution (OCVS) Bare-Metal DenseIO	HCX Live vMotion to Customer-Managed OCI vSphere

4. Oracle APEX & Ancillary Engineering Toolchain

- Oracle Linux KVM & Oracle Linux Virtualization Manager (OLVM)
- Oracle Database Appliance (ODA X11) KVM Hard Partitioning (`odacli`)
- Oracle Cloud VMware Solution (OCVS) with VMware HCX live migration
- Oracle GoldenGate & RMAN for database-tier decoupling from VMDK snapshots

> ***Anonymized Production Proof:*** *We help enterprise infrastructure teams decouple Oracle Databases from VMware clusters prior to Broadcom renewal deadlines, neutralizing multi-million-dollar soft-partitioning compliance exposure while cutting hypervisor costs by over 75%.*

5. Principal Architect Q&A

Q: Does Oracle officially recognize Oracle Linux KVM CPU pinning as Hard Partitioning?

A: Yes. When configured according to Oracle's Hard Partitioning with Oracle Linux KVM specification (using `olvm-vmcontrol` or ODA KVM to bind vCPUs to dedicated physical cores), you only license the pinned cores, not the entire physical host or cluster.

Q: What if we have legacy VMs that cannot leave VMware before our data center lease expires?

A: We migrate those workloads via VMware HCX into Oracle Cloud VMware Solution (OCVS), where you retain full Layer-2 networking, root ESXi/vCenter access, and dedicated bare-metal nodes adjacent to OCI native databases.

Q: What is included in the downloadable PDF Solution Brief?

A: The PDF Solution Brief includes the Oracle LMS Hard-Partitioning Compliance Checklist for KVM/ODA, the 4-step `virt-v2v` migration factory blueprint, and a 3-year TCO comparison of Broadcom VCF vs. OLVM/ODA/OCI.