

Cloud Propeller builds a self-service multi-tenant cloud with MultiPortal

The Ohio-based cloud service provider replaced VMware Cloud Director with MultiPortal on Proxmox VE, cutting platform licensing by 77.8% and reducing customer provisioning from four hours to under five minutes.

77.8%

Cut in platform licensing cost

Under 5 min

To provision a customer, from three to four hours

6 months

From first VM migrated to last

Primary site: Cologix COL3-S, 585 Scherers Court

COLUMBUS, OHIO

ABOUT CLOUD PROPELLER



Infrastructure You Can Rely On!

Cloud Propeller, Inc. is a United States Infrastructure-as-a-Service provider headquartered in Ohio, serving customers across the Midwest and beyond. The company operates two physical data centres on an evergreen, two-tier compute platform and delivers Dedicated Capacity and Pay As You Go cloud services to small and midsize businesses alongside several large enterprise customers. Its workloads span domain controllers, application servers, file servers, and SQL databases.

Learn more at cloudpropeller.com



Petar Smilajkov

CEO & Chief Architect, Cloud Propeller

When a cloud service provider walks away from VMware, the hypervisor is only half the decision. The layer customers actually log in to has to be replaced as well. Cloud Propeller settled the hypervisor question with Proxmox VE after more than six months of testing. MultiPortal answered the harder half.

Cloud Propeller has operated a VMware-based cloud for a decade. Its platform runs on an evergreen, two-tier design: Mission Critical Compute is refreshed every three to four years, and each retiring generation drops down to become General Purpose Compute. Across two data centres the company runs more than 2,000 virtual machines on over 80 CPU sockets for fewer than 100 tenants.

The challenge: per-core licensing against high-core hardware

Licensing economics were already pushing Cloud Propeller to look elsewhere before Broadcom acquired VMware. The move to per-core licensing made the problem urgent.

The company buys deliberately fast silicon for client performance. Its current Mission Critical Compute generation uses 32-core Intel Xeon 6745P processors running at a 3.6 GHz base clock in Intel SST-PP compute-optimized mode, exactly the kind of dense, high-frequency hardware a per-core model punishes hardest.

"VMware's per-core licensing would have penalised that architecture so heavily that we would have had to raise prices substantially or compromise the platform design."

PETAR SMILAJKOV

More than six months of structured testing settled the hypervisor question. Proxmox VE proved the most mature and capable alternative for Cloud Propeller's requirements and fixed the performance and licensing equation in a single move. It did not fix everything.

The harder problem: replacing VMware Cloud Director

As a cloud service provider, Cloud Propeller still had to replace the secure, multi-tenant layer sitting between the hypervisor and the customer. That meant tenant and reseller hierarchies, granular delegated access, backup visibility, authentication controls, automation, and billing, all wrapped in a client experience the company could put in front of enterprise buyers without apology.

"Selecting the hypervisor was not the hardest part. The greater challenge was replacing VMware Cloud Director's secure, multi-tenant service-delivery layer."

PETAR SMILAJKOV

From first install to a paid licence in four days

MultiPortal reached general availability as Cloud Propeller was searching. Installation took a single command on a Linux VM. Within thirty minutes the team had seen enough.

Nearly everything their clients needed was either already shipping or clearly mapped on the roadmap. The platform also delivered several things Cloud Propeller had wanted from VMware Cloud Director for years:

- Native backup integration
- A VNC console that works properly on a phone or tablet
- Multi-factor authentication
- Enterprise single sign-on

The company bought a licence within four days and began migrating customers that same month, becoming one of the earliest cloud service providers to deploy the platform in production.

“Reports were acknowledged promptly, and fixes often arrived within days or, at the latest, in the next release. We even got a number of our own feature requests baked into the production version very soon after requesting them.”

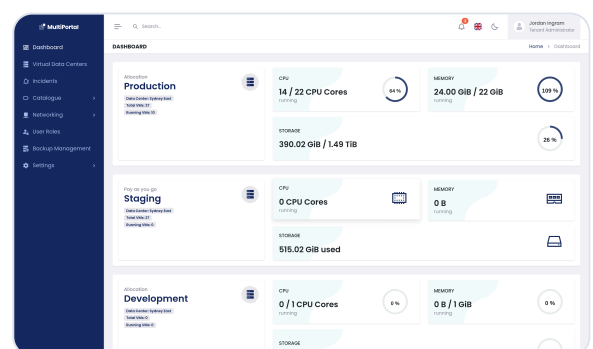
PETAR SMILAJKOV

Migration: a pilot run on live customers

Cloud Propeller started with a practical pilot alongside existing clients rather than a lab exercise. New client Virtual Data Centres were built on Proxmox and MultiPortal, then tested across the full lifecycle: provisioning, VM management, networking, backup visibility, access controls, usage collection, and billing. MultiPortal worked against the existing Proxmox environment out of the box.

The first migrations ran in August and September 2025, before MultiPortal shipped its own ESXi and vCenter migration tooling. The team used Proxmox’s native VMware import tools to move VMs off ESXi, then assigned each imported workload to the right customer environment in MultiPortal in three clicks. Users could sign in and manage their systems immediately. The last workloads moved in February 2026, roughly six months end to end and about a year ahead of Cloud Propeller’s VMware contract expiry.

MultiPortal was a young product in mid-2025 and the migration surfaced a handful of minor, mostly cosmetic defects. What mattered was the turnaround.



The multi-tenant layer Cloud Propeller’s customers log in to.

Multi-tenancy: resellers, tenants, and delegated access

MultiPortal's built-in Reseller and Tenant model lets Cloud Propeller segment environments, responsibilities, and resource ownership cleanly. Several larger customers now run an overarching Reseller account across multiple Tenant environments, one per department, each with its own resource allocation, usage metrics, and billing visibility.

Cloud Propeller presents the platform under its own brand as Cloud Manager, the operations layer clients use for provisioning, VM lifecycle, networking, and backup status, with account and billing visibility alongside it in My Cloud Propeller.

The same model works outside the service provider context. An enterprise can hand a junior or departmental engineer exactly the access their role requires without granting administrative control of the whole Proxmox cluster.

A faster management plane

VMware Cloud Director routed lifecycle operations through an AMQP-based workflow that was dependable but slow. MultiPortal calls the Proxmox APIs directly. Starting, stopping, cloning, and resizing VMs now feels close to instantaneous for the end customer.

Today, Cloud Propeller's platform includes:

- **Distributed footprint:** Two physical data centres, each with three or more clusters covering Management, Mission Critical Compute, and General Purpose Compute.
- **Mission Critical Compute:** Proxmox-native all-flash Ceph, twelve 15 TB Kioxia enterprise NVMe SSDs per host in triple-mirror, four 100 Gbps NICs per host.
- **General Purpose Compute:** HPE Alletra (Nimble) NVMe iSCSI storage arrays.
- **Backup and DR:** Multiple Proxmox Backup Server appliances on ZFS RAIDZ2, built on 864 TB raw 36-bay Supermicro systems, with optional cross-data-centre replication for disaster recovery.
- **Granularity:** Resources provisioned from 1 vCPU and 1 GB of RAM upward, with Pay As You Go usage metered at five-minute intervals.
- **Scale:** More than 2,000 VMs across 80+ CPU sockets, serving fewer than 100 tenants.
- **Platform:** Proxmox VE 9.x on the Enterprise Repository with Proxmox Premium support, and MultiPortal Premium.
- **Network:** Redundant Arista top-of-rack switching with independent data, control, and storage paths.
- **Billing:** A custom CP-API extends MultiPortal's APIs and feeds usage data into WHMCS for Dedicated Capacity and Pay As You Go clients.

From four hours to five minutes

A customer can now register on the Cloud Propeller website and receive a fully provisioned Virtual Data Centre, with MultiPortal access, in under five minutes. The same job previously consumed three to four hours of engineering time.

MultiPortal's APIs let Cloud Propeller sell a fully self-service, multi-tenant cloud online, with usage collection, billing, provisioning, and deprovisioning handled end to end.

"After ten years of operating on VMware, we were never able to automate that complete experience reliably with VMware Cloud Director."

PETAR SMILAJKOV

The numbers: a 77.8% cut in platform licensing

The figures below use Cloud Propeller's smallest Proxmox cluster as a representative example: three hosts, six sockets, and 192 physical cores.

The same per-socket economics apply across the company's broader multi-cluster fleet, so the dollar amounts shown below represent only a fraction of Cloud Propeller's actual aggregate licensing savings.

LICENSING	MONTHLY	ANNUAL	3 YEARS
VMware plus Cloud Director	\$4,174.08	\$50,088.96	\$150,266.88
Proxmox plus MultiPortal	\$926.16	\$11,113.92	\$33,341.76
Savings	\$3,247.92	\$38,975.04	\$116,925.12

VMware at \$21.74 per core per month, Cloud Propeller's actual contracted rate, across 192 cores. Proxmox Premium for six CPU sockets at \$7,513.86 per year. MultiPortal at approximately \$300 per month. Licensing only. All figures in USD.

The structure matters more than the number. Proxmox and MultiPortal both license per CPU socket. VMware charged per core.

Under per-core licensing, controlling cost would have meant specifying lower-core processors and giving up client performance to do it. Cloud Propeller runs 32-core parts across its Mission Critical Compute hosts today because the licence no longer punishes core density.

"Broadcom repriced virtualisation, and most of the market read it as a cost event. Our view is that it is a distribution event. Cutting licensing protects margin for a cycle. Being able to sell self-service, isolate tenants, and bill accurately is what compounds. That is where the value settles, and it is the part almost no one builds in time."

BARDIA KHALILIFAR, CEO, MULTIPORTAL

Beyond the hosted cloud

MultiPortal made Cloud Propeller's long-term Proxmox strategy viable, moving the company to an open Debian and KVM foundation without surrendering multi-tenancy, governance, automation, or client experience. As client VMware contracts renew, Cloud Propeller is now replacing on-premises VMware clusters with Proxmox and intends to bundle MultiPortal with every deployment.

Petar's advice to providers still on VMware

Do not wait. Proxmox and MultiPortal now provide all the pieces needed to move beyond VMware. Design your Proxmox clusters around your workloads: validate compute, storage, networking, backup, and recovery, then pilot Virtual Data Centres with willing clients. MultiPortal already solved the hardest piece: the secure, multi-tenant service-delivery layer clients use to provision and manage their infrastructure. For anyone coming from VMware Cloud Director, it will be a breath of fresh air.



"MultiPortal was the missing piece that transformed Proxmox from a capable hypervisor into a complete cloud platform."

PETAR SMILAJKOV · CEO & CHIEF ARCHITECT, CLOUD PROPELLER

ABOUT MULTIPORTAL



MultiPortal is the multi-tenancy orchestration and management platform for Proxmox. It gives service providers and enterprises a secure, white-label-ready cloud portal on top of Proxmox VE, with reseller and tenant hierarchies, delegated role-based access, self-service provisioning, backup visibility, usage metering, and billing APIs. MultiPortal turns Proxmox from a capable hypervisor into a complete, consumable cloud platform.

To learn more visit multiportal.io