

A Pharmaceutical Major Replaces VMware with XaasIO Virtualization

100+ GxP-compliant VMs migrated with near-zero downtime

A controlled VMware exit using XaasIO Virtualization on KVM, external Dell storage over redundant iSCSI multipath, standards-based VLAN networking, XaasIO CMP for multi-cluster operations, XaasIO Monitoring, Logging and Telemetry, and AWX/Ansible automation.



EXECUTIVE SUMMARY

The customer operated multiple VMware clusters supporting business-critical pharmaceutical workloads, including more than 100 virtual machines governed by GxP controls. The objective was to remove the VMware virtualization dependency without redesigning applications, abandoning validated infrastructure or exposing regulated workloads to extended outages.

XaasIO introduced a KVM-based target platform, retained the existing external Dell storage through redundant iSCSI multipath, used VLANs for network segmentation, and migrated the environment in approved waves with near-zero downtime.

BUSINESS DRIVERS

- Replace the VMware stack used for enterprise virtualization and operations.
- Protect business continuity for regulated and revenue-critical applications.
- Preserve infrastructure investments in Dell external storage and established network design.
- Maintain GxP governance through approved change windows, documented evidence and rollback controls.
- Centralize operations across multiple virtualization clusters.
- Standardize Day-2 work with policy-driven AWX/Ansible automation.

KEY OUTCOMES

- 100+GxP-Compliant VMs - Migrated through controlled and validated waves.
- Near-Zero Downtime - Application interruption minimized during cutovers.
- Multi-Cluster Single-Pane OPS - Centralized visibility and management with XaasIO CMP.
- Retained Dell Storage - Execute approved waves, verify each workload, and maintain change records.

IMPLEMENTED PLATFORM

- XaasIO Virtualization - KVM-based VM lifecycle, availability and live migration.
- XaasIO CMP - Single-pane inventory and management across multiple clusters.
- XaasIO MLT - Advanced monitoring, logging, telemetry, alerting and dashboards.
- AWX + Ansible - Approved automation for provisioning, checks and Day-2 operations.
- Dell external storage - iSCSI with redundant paths and host multipathing.
- VLAN networking - Standards-based segmentation for workload and service networks.

OUTCOME

An open, governed virtualization foundation that removed VMware dependence while preserving the customer's storage, network and compliance operating model.

FROM VMWARE DEPENDENCE TO AN OPEN, GOVERNED PLATFORM

The target architecture replaced proprietary virtualization operations while retaining validated storage and network investments.

Challenge 1 - Regulated Workloads

More than 100 business critical VMs required migration under the customer's established GxP change and validation controls.

Challenge 2 - Infrastructure Continuity

Existing Dell external storage and established VLAN designs had to remain part of the target architecture.

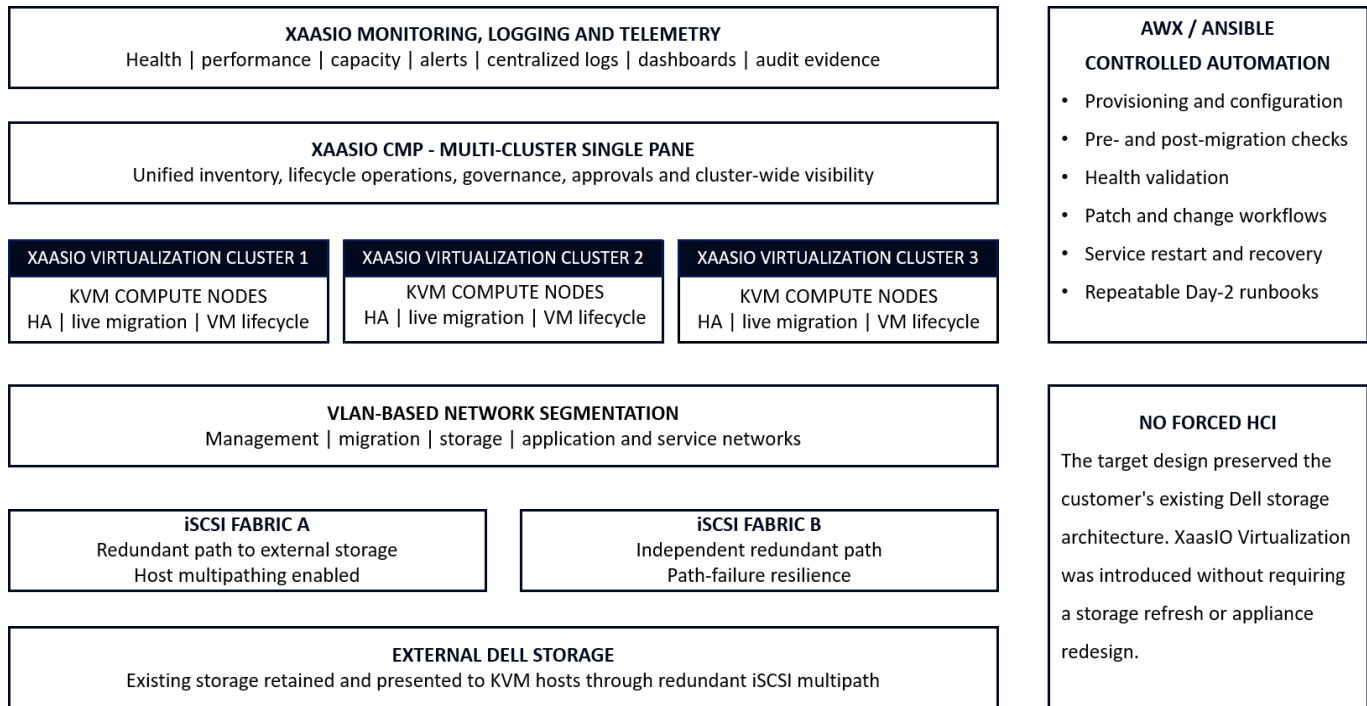
Challenge 3 - Operational Fragmentation

Multiple clusters required centralized inventory, policy, lifecycle control and consistent Day-2 procedures.

Challenge 4 - Migration Risk

Cutovers had to limit application interruption and preserve a tested rollback path for every migration wave.

IMPLEMENTED ARCHITECTURE



A CONTROLLED, VALIDATION-LED MIGRATION

The program combined technical cutover discipline with the customer's GxP governance, documentation and acceptance processes.

- Discover - Inventory VMs, dependencies, storage, VLANs, owners, risk and migration constraints.
- Design - Define clusters, Dell LUN mapping, iSCSI paths, VLANs, access, monitoring and rollback.
- Pilot - Validate representative workloads, cutover steps, performance, evidence and recovery.
- Migrate - Execute approved waves with prechecks, final sync, cutover, verification and sign-off.
- Stabilize - Baseline MLT, complete runbooks, automate Day-2 tasks and transfer operations knowledge.

GXP GOVERNANCE SUPPORT - EVIDENCE AND CONTROL

- Approved change records tied to each migration wave and workload group.
- Migration protocol defining scope, responsibilities, prerequisites, execution steps and acceptance criteria.
- Timestamped evidence from XaasIO CMP, XaasIO MLT and AWX/Ansible execution logs.
- Pre- and post-migration records covering configuration, application health, connectivity and monitoring status.
- Deviation and exception handling for unexpected results, remediation and revalidation.
- Operational traceability through centralized inventory, telemetry, alerts, logs and automation history.

NEAR-ZERO DOWNTIME BY DESIGN

Downtime was minimized through dependency discovery, representative pilots, pre-staging, controlled data synchronization, approved wave windows, rapid cutover procedures and post-cutover validation and a defined rollback path. The exact interruption varied by workload, but the program achieved near-zero downtime across the 100 + VM Migration.

COMPLIANCE NOTE: XaasIO supported the customer's GxP governance, validation and evidence processes. Final system validation and regulatory compliance ownership remained with the customer.

MIGRATION CONTROL - WAVE-BASED EXECUTION

- Workload classification: application criticality, GxP status, dependencies, RTO/RPO and approved outage window.
- Readiness checks: guest health, data consistency, backup status, storage capacity, multipath health, VLAN reachability.
- Repeatable runbook: quiesce, synchronize, cut over, attach storage/network, start, validate and obtain application-owner approval.
- Rollback protection: defined decision point, retained source state and tested return procedure for every migration wave.
- Post-cutover validation: OS, services, application access, storage, network, performance, monitoring, backup checks.
- Stabilization: heightened monitoring, issue triage, configuration correction and controlled handover to operations.

OPERATIONAL IMPROVEMENTS

- Removed dependence on the VMware virtualization platform.
- Centralized inventory and management across multiple clusters with XaasIO CMP.
- Improved health, performance, capacity, alert and log visibility through XaasIO MLT.
- Standardized repeatable Day-2 operations through AWX/Ansible automation.
- Preserved existing Dell storage and VLAN architecture, avoiding a forced infrastructure refresh.
- Established reusable migration, validation, rollback and operating runbooks.

SOLUTION COMPONENTS AND BUSINESS OUTCOMES

VMware platform roles were replaced with open, standards-based XaasIO capabilities and governed automation.

VMware-to-XaasIO Component Mapping

VMWARE	XAASIO REPLACEMENT
ESXi hypervisor	XaasIO Virtualization on KVM
vCenter management	XaasIO Virtualization management plus XaasIO CMP
vMotion and HA	Live migration and high availability
Aria / vRealize Operations	XaasIO Monitoring, Logging and Telemetry
Automation and scripts	XaasIO CMP workflows plus AWX/Ansible
VMware storage integration	Dell external storage over iSCSI multipath used for the migrated workloads
Network segmentation	Standards-based VLAN networking through XaasIO MLT
Separate cluster consoles	XaasIO CMP multi-cluster single pane

MODERNIZATION WITHOUT FORCED ARCHITECTURE CHANGE

This case demonstrates how regulated enterprises can modernize virtualization without forcing an HCI conversion, storage replacement or application redesign. XaasIO combined open KVM virtualization, retained Dell iSCSI storage, VLAN networking, multi-cluster management, advanced telemetry and governed automation into one operational model.

Controlled	Wave-based migration Prechecks, validation evidence, approved cutovers and rollback.
Open	KVM-based virtualization with Standards-based storage and networking integration
Operable	Single-pane cluster management, advanced MLT visibility and AWX/Ansible automation.

THE RESULT

The pharmaceutical major replaced its VMware virtualization and operations stack for the in-scope environment with XaasIO Virtualization, while keeping external Dell storage, retaining standards-based VLAN networking and strengthening centralized operations. More than 100 GxP - Compliant VMs were migrated through approved waves with near-zero downtime.

XAASIO VIRTUALIZATION PLATFORM

Modernize enterprise operations without being forced into a proprietary architecture.

Run Windows and Linux workloads on KVM with centralized management, high availability, live migration, external storage integration, multi-cluster operations, advanced telemetry and automation.

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Book an OpenStack architecture workshop at xaasio.com/contact/

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