



Hyper Converged Infra for VDI

Client Snapshot

Company

Global Transport Signalling
Manufacturer (R&D Unit —
India)

Industry

Rail Transport Signalling —
Passenger trains & High
Speed trains

Company Size

World's leading railtransport
signalling

Location

R&D Centres across India,
France, Italy..

Fragmented infrastructure made enterprise backup impossible

The client's India-based R&D centre, one of the largest globally for Computer Simulation (CAE) and Design (CAD), was being held back by delay due to infra drag.

Collaborating across R&D centres and business units in France, Italy, etc, their engineers needed a unified, enterprise-grade platform. Instead, they were working around

siloes infrastructure, heavy manual scripting, for additional compute infrastructure

Key challenges



Certified applications for specific virtual platform — separate, disparate infrastructure for every workload



Increasing cost of hardware for multiple project development and testing



No common single dash board for management at scale



Manual monitoring and compute deployment required for every simulation and restore operation



Engineers spending excessive time on scripting, testing, and production deployment



No single console — performance monitoring, search, and rebooting all required different platform.

The client required more than modern technology; they needed a long-term partner

capable of building a unified, intelligent backup ecosystem from the ground up.

Towards a unified, intelligent backup ecosystem

Ninth Dimension re-engineered the client's virtual infrastructure backbone across all workload types — Windows, Linux, scalable platform that brought the entire organisation onto a single track. By validating every requirement scenario

without manual scripting, introducing global access deployment, and enabling deployment of new compute resources in minutes, they helped the client move from fragmented systems to a connected, future-ready platform. Ninth Dimension's solution bridged previously disconnected tools, strengthened data management, and introduced a single-console implementation for monitoring, management,

— empowering the IT department to operate with precision, speed, and full visibility.

The implementation journey

Phase 1

Foundation — Server Virtualisation

Studied the current environment up all servers across the environment

Sizing, network design, and stakeholder alignment right here prevents costly rework later.

Tech:
Nutanix – 4 Node cluster



Phase 2

Application Foundation tool

Rack and cable Nutanix nodes; configure IPMI/BIOS
Run Foundation to image and form the cluster
Configure AOS, AHV and Prism Central
Set up storage pools, containers, and data protection policies
Foundation tool automates much of the imaging and cluster formation, so this phase moves quickly when the network is properly prepared. validated end-to-end

Tech:
Lotus Domino Agent, SAP Online Agent, Oracle RMAN, SQL Server Agent



Phase 3

Discipline is migrating in waves

starting with low-risk workloads

Validating performance after each wave

Cutting over production systems once confidence is high

Tech:
Nutanix cluster, Nutanix Move deployed



Phase 4

Single Console — The Unified Enterprise Platform

Optimisation & steady state Tune, automate and build for the future

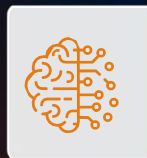
Automate VM lifecycle with Calm blueprints or APIs

Conduct quarterly NCC checks and AOS upgrade planning

Single-console implementation deployed for backup, restore, deduplication, archival, virtual environment for performance monitoring search, and rebooting

Plan scale-out node additions as workloads grow

Tech:
Calm, Prism Pro/central, Leap, NCC checks



Results

- 1 Simplified operations**
Nutanix's Prism management UI consolidates compute, storage, and networking into a single interface, eliminating the need to manage separate silos. Routine tasks like patching, monitoring, and capacity planning are dramatically faster.
- 2 Built-in resilience**
Nutanix uses replication factor (RF2/RF3) to distribute data across multiple nodes. If a node or drive fails, the system self-heals automatically, removing the need for separate SAN/NAS failover setups.
- 3 High performance**
The architecture takes full advantage of NVMe SSDs and intelligent tiering. AHV (Nutanix's built-in hypervisor) further reduces overhead compared to traditional licensed hypervisors.
- 4 Faster deployment**
New VMs and workloads can be provisioned in minutes rather than days or weeks, which reduces the ticket backlog for IT teams and accelerates project delivery.
- 5 Reduced TCO** Consolidating servers, SANs, and networking gear into fewer nodes cuts hardware spend, power consumption, cooling requirements, and rack space.
- 6 Linear scalability** scale out by adding nodes one at a time without downtime or data migration. The cluster automatically rebalances, so there's no complex re-architecture needed as the environment grows.



Ninth Dimension delivered more than a Virtualization solution.

They gave us a single, intelligent platform that our global R&D teams can rely on. The elimination of manual scripting alone transformed how our IT department operates. We now have full visibility, faster recovery, and a foundation we can grow on."

— IT Department Head

A scalable foundation for the future

The client now operates on a unified dashboard with all critical workloads consolidated under a single console. With monitoring performance utilizing the overall infra for better outcomes

optimisation in place, the organisation is positioned to scale operations across its global R&D network in India, France, Italy,— without adding infrastructure complexity.

Ready to Transform Your IT Infrastructure?

Discover how Ninth Dimension can unify your enterprise backup, archival, and recovery operations on a single intelligent platform.



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