Building an adaptable, intelligent, and sovereign future with Cloud Repatriation

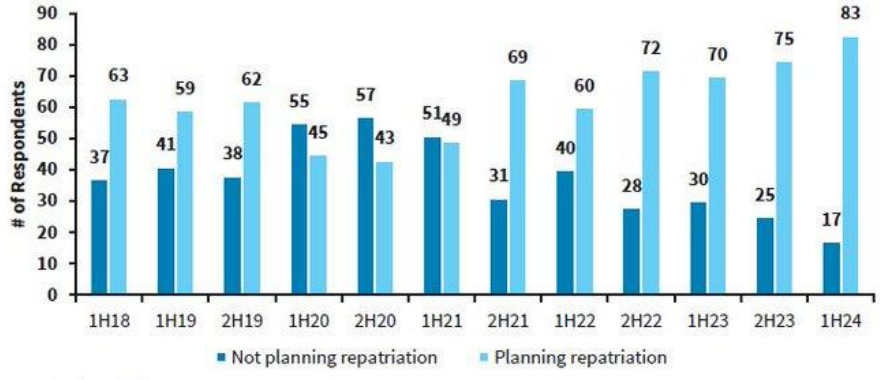
During COVID-19, enterprises across industries accelerated their adoption of hyperscaler public cloud platforms like AWS, Azure, and GCP to enhance agility, scalability, and fast deployment. As many companies had to shut the doors to their physical infrastructures, they had to move to public clouds. As per some studies, more than **99% of organizations** shifted at least some portions of their workloads and development pipelines to public clouds during this period.

However, while hyperscalers offered unmatched speed-to-market, especially during the pandemic, enterprises have gradually realized that not every workload is suited for public cloud environments. The cracks in the public cloud landscape soon started to become clearly visible. Enterprises began facing significant challenges related to **cost optimization**, **regulatory compliance**, and **operational performance**—particularly for mission-critical workloads. These issues have prompted a reassessment of cloud strategies.

The numbers are compelling and so are the signals.

A recent **Barclays survey** revealed that **83% of enterprises** intend to migrate workloads from public to private cloud environments. The global market reflects this shift through over **$10 billion** in new datacenter investments, with India alone projected to add **$4.5 billion** in capacity by 2026. However, much of it remains underutilized due to immature software stacks. Cost pressure is a major catalyst as up to **50%** of cloud expenditures are now deemed unsustainable by enterprises with many of them experiencing **30–50%** cost spikes under hyperscalers. At the same time, the **"hyperscaler-like" experience**—marked by integrated DevOps and agile service layers—remains limited in local datacenters. Finally, the need for data sovereignty and regulatory compliance is intensifying, particularly among government and national institutions. Often, compliance costs **exceed $5 million annually** for mid-sized agencies—underscoring the urgency of developing **sovereign cloud solutions** that hyperscalers cannot fully provide.

FIGURE 20. **Barclays CIO Survey – Percentage of Respondents Planning to Move Workloads Back on to Private Cloud / On-Premise from Public Cloud**



Source: Barclays CIO Survey program.

All of these factors are ensuring that enterprises are looking at a strategic shift in their cloud adoption models. Increasingly, many enterprises are looking to move back from these public clouds to on-premise datacenters, private clouds, or hybrid infrastructures.

In short, enterprises are primed for the next evolution in their cloud journey – that of cloud repatriation.

Key drivers for cloud repatriation.

What are the CIOs, CTOs, and CFOs thinking?

As enterprises look to review and rebalance their cloud strategies, implementing a structured cloud repatriation strategy can help them realise significant business and technical benefits. So, what exactly are the CIOs, CTOs, and CFOs looking for when it comes to implementing and executing cloud repatriation strategies? Here is what we found.

- **The public cloud cost conundrum.** Rising subscription and usage-based consumption models have made public cloud operations unsustainable for certain workloads. Public cloud consumption models often result in unpredictable expenses. Many leaders we talked with think that's where cloud repatriation can help by reigning in unnecessary costs and long-term expenses through infrastructure optimization, ownership and utilization.

- **Privacy, compliance, security.** Stricter data protection regulations and internal governance standards are prompting enterprises to regain control over sensitive data. Data residency, sovereignty, and industry-specific compliance pose risks in public cloud setups. By design, cloud repatriation can strengthen governance and ensure compliance with evolving regulatory frameworks.

- **Support for AI workloads:** As AI workloads become increasingly commonplace in enterprise tech landscapes, there will be a greater push for on-premises or hybrid infrastructures that enable more efficient deployment of AI and ML workloads through customized hardware and resource optimization.

- **Lack of control:** The complexity of multi-cloud environments often results in governance gaps, operational inefficiencies, and increased risk exposure. Cloud repatriation is designed to wrest back this control.

- **Performance requirements:** High-performance or latency-sensitive workloads frequently achieve superior outcomes in private or edge environments, where infrastructure can be optimized for specific operational needs. Additionally, legacy or mission-critical applications may not perform optimally in hyperscaler environments. A properly thought-out cloud repatriation strategy can go a long way in ensuring that these performance standards are met and sustained.

- **Vendor lock-in and skill gaps:** Dependence on proprietary tools and limited in-house expertise restricts flexibility and strategic agility, especially in a cloud landscape fraught with multiple public hyperscalers. Repatriation mitigates these risks by reestablishing control over platforms and skills.

- **Operational Control**: Another factor contributing to the growing demand for cloud repatriation is that enterprises are increasingly seeking greater control over infrastructure and data. Simplified workload deployment and movement between different environments tend to work better in infrastructure tailored to enterprise needs rather than hyperscalers.

However, cloud repatriation can be challenging

Despite its many potential benefits, cloud repatriation can feel like too strong a challenge to implement as well. As enterprises evaluate the move from public cloud environments back to on-premises or private infrastructures, they encounter a range of technical and operational challenges. This transition demands careful consideration of significant infrastructure investments, the loss of public cloud benefits such as integrated ecosystems and rapid innovation, and the complexities of implementation and migration. Here is a quick look.

1. Infrastructure

- **Significant upfront capital investment.** Rebuilding on-premises or private cloud environments requires large upfront expenditures in compute, storage, networking, and facility infrastructure.
- **Scalability and redundancy.** Designing infrastructure that matches the elasticity and high availability of public clouds demands advanced planning and continuous optimization.
- **Operational overhead.** Maintaining, monitoring, and upgrading private infrastructure increases ongoing administrative and energy costs.

2. Public cloud dependencies

- **Loss of Integrated Ecosystems.** Public clouds provide extensive DevOps toolchains, APIs, managed services, and automation capabilities that are sometimes difficult to replicate in private or hybrid setups.
- **Innovation slowdown:** Without equivalent service layers and developer tools, organizations may experience reduced agility and slower product or service innovation.
- **Vendor integration gaps.** Applications deeply integrated with cloud-native services may require costly re-engineering to operate effectively in repatriated environments.

3. Implementation complexity

- **Migration risks.** Moving workloads back to on-premise introduces the risk of downtime, data transfer bottlenecks, and potential data integrity issues.
- **Integration challenges.** Aligning legacy systems with new private or hybrid environments often requires significant customization and testing.
- **Skill shortage.** The scarcity of professionals skilled in both cloud-native and on-premises infrastructure can prolong migration timelines and increase overall project costs.

Cloud native platform and a service-oriented layer to solve the repatriation puzzle

By leveraging our state-of-the-art cloud native platform and a service-oriented layer that helps in implementing the platform, we are poised to help enterprises in the cloud repatriation journey.

Empowering the enterprise cloud through the Nubo Native Platform

Our enterprise cloud native platform enables seamless cloud repatriation by modernizing legacy infrastructure into a high-performance, secure, and scalable cloud-native environment. Built on robust Kubernetes (K8S) foundations, it integrates a comprehensive suite of advanced capabilities.

To enable cloud repatriation for enterprises, we evaluate their specific and dynamic business needs and do customized deployment of our **Nubo Native Platform (NNP).** Our approach focuses on delivering a robust, future-ready cloud foundation tailored to business and operational requirements. Through a combination of advanced technology and service excellence, this platform provides a strong foundation for enterprise modernization, digital sovereignty, and cloud efficiency—enabling organizations to build, migrate, and scale with confidence.

The **NNP** can be deployed on the infrastructure of choice, including private, public, or hybrid options to transform existing legacy IT into a state-of-the-art cloud landscape that supports the present and future technology demands with minimum TCO.

Here is a quick tour of what the **NNP** can do for you.

- **State-of-the-art cloud platform.** We leverage existing data center infrastructure to establish a modern, cloud-native platform that delivers agility, scalability, and enterprise-grade reliability.
- **Enable hybrid flexibility.** The solution utilizes the flexibility of cloud infrastructure to create a hybrid environment that seamlessly integrates on-premises, private, and public cloud resources based on workload needs.
- **Comprehensive service layer.** The platform provides a unified service layer for monitoring, management, modernization, migration, and application development, ensuring operational visibility and simplified governance.
- **Enterprise low-code development** utility for rapid software creation and deployment.
- **Comprehensive DevSecOps framework** for secure, automated, and continuous delivery pipelines.
- **Service mesh and serverless computing** to enhance agility, scalability, and operational efficiency.
- **API Gateway and solution marketplace** for simplified integration and accelerated innovation.
- **Rich open-source and AI components** supporting enterprise-scale application development and hosting

- **Advanced observability tools** providing deep insights into application logs, automation pipelines, API transactions, and performance metrics.
- **High RoI.** Clients typically realize up to 60% ROI through optimized resource utilization, reduced dependency on hyperscalers, and enhanced operational efficiency.

The platform is available both as a Platform-as-a-Service (PaaS) and as a dedicated deployment on virtualized or public cloud environments. It is fully customizable to meet each enterprise's specific operational, compliance, and performance requirements.

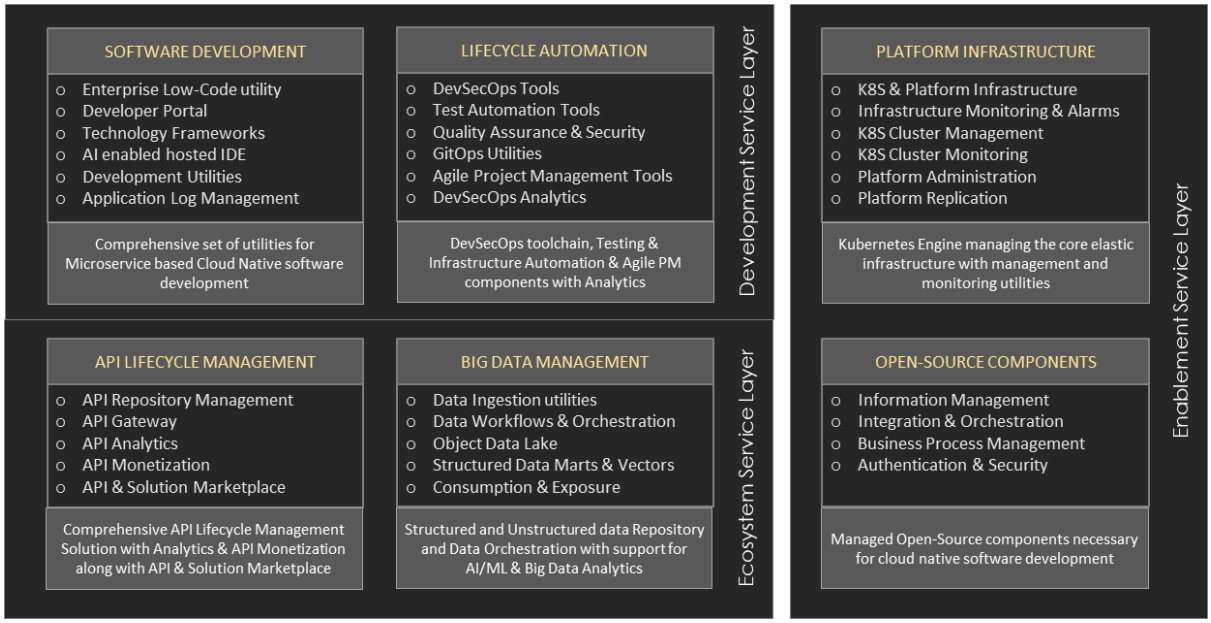


Fig: 2 – NNP components and building blocks

Beyond the platform: A services-oriented layer

We also offer professional services to deploy our Nubo Native Platform to fully customize it to each client's business environment. These services facilitate smooth workload modernization and migration with minimal business risk, protecting existing IT investments while accelerating digital transformation. We also provide ongoing support for application lifecycle management and continuous development, leveraging our platform's advanced capabilities to significantly reduce time-to-market for new products and services. This approach is anchored on four key pillars:

- **Service Layer Enablement.** Establishing API-driven, DevOps-ready platforms that emulate public cloud services, delivering a consistent and familiar operational experience across environments.
- **Automation and orchestration.** Implementing tools that automate workload migration, provisioning, scaling, and lifecycle management, ensuring operational efficiency and reducing manual intervention.

- **Hybrid flexibility.** Enabling seamless integration between public and private infrastructures to support a plug-and-play hybrid model, allowing workloads to move dynamically based on business and technical needs.

- **Expert support.** Providing access to specialized managed services and expert teams that guide, accelerate, and de-risk the transition, ensuring a smooth and sustainable repatriation journey.

This services-oriented layer empowers enterprises to retain the advantages of hyperscale operations—agility, scalability, and automation—while regaining control, compliance, and cost optimization within their own infrastructure.

In a nutshell: Why Nubo?

With us, enterprises can unlock a range of business and technical advantages that strengthen operational efficiency, financial control, and regulatory alignment. Here is a quick summary of your advantages with Nubo Native Solutions.

1. **Cost Optimization.** Achieve predictable and transparent cost structures, avoiding the variable and often escalating expenses associated with hyperscaler consumption models.

2. **Flexibility and customization.** Deploy infrastructure tailored to specific enterprise requirements, rather than conforming to the standardized configurations imposed by public cloud providers.

3. **Plug-and-Play Agility.** Simplify workload deployment and mobility across private, public, and hybrid environments, ensuring operational continuity and scalability.

4. **Speed of execution.** With the right automation tools and migration frameworks, repatriation can be executed **more rapidly and efficiently** than traditional datacenter migrations.

5. **Control and Compliance:** Strengthen governance, reinforce data residency assurance, and enhance security posture through greater ownership of infrastructure and policy enforcement. This approach enables organizations to **balance agility with control**, driving sustainable digital transformation while optimizing both performance and cost efficiency.

6. **Access to Expertise:** Leverage the capabilities of specialized service providers to reduce operational complexity, mitigate risks, and enhance performance throughout the transition.

Cloud repatriation is the beginning of a more balanced, enterprise-first approach to IT infrastructure. By combining the flexibility of private and hybrid structures with a service-rich layer that mimics public cloud experiences, enterprises can achieve **cost efficiency, compliance assurance, and operational control** without sacrificing agility.

The future of enterprise cloud isn't public or private. It's portable, intelligent, and sovereign. And we are helping you build that future. Connect with us today to delve deeper.

About Nubo Native Solution

Nubo Native Solution is working on a mission to democratize cloud by providing a sovereign, adaptable and comprehensive Cloud Platform referred as Nubo Native Platform (NNP) for state-of-the-art Cloud Native Development and Hosting.

Nubo Native Solution with its path-breaking Cloud Platform and associated Consulting and Professional Services enables large-scale Cloud Repatriation, complex Application Modernization, API Lifecycle Management, AI Enablement, Edge Computing and accelerated Software Development ensuring lower TCO and improved TTM, for the Enterprises worldwide.

Compiled by Nubo Native Platform team

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