An Enterprise Guide to a Practical Hybrid Cloud

How to develop a robust cross-cloud architecture with seamless interoperability and consistent performance

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Executive summary

The uncertainty and disruption experienced by enterprises over the last couple of years have fundamentally changed how they perceive digital transformation. With agility, resiliency, and sustainability emerging as the key themes driving decision-making, it is no surprise that enterprise IT environments are rapidly becoming hybrid and multicloud. IDC surveys suggest that over 63% of Asia/Pacific enterprises will move to a hybrid cloud model with full or high data and application interoperability within the next two years.

While hybrid cloud holds enormous potential, enterprises need to carefully navigate their cloud journey to avoid some of the common yet costly drawbacks, to name a few — disconnected technology silos, increased management complexity, and runaway cloud costs. The solution is to develop a robust cross-cloud architecture that enables policy-driven automation, advanced observability, and real-time analytics to deliver desired business, service level, security, and compliance outcomes.

However, executing an integrated hybrid cloud transformation strategy is a complex undertaking that needs a broad set of critical capabilities. Engaging the right transformation partner early can help enterprises optimally plan and execute their hybrid cloud journey to deliver key organisational objectives while minimising execution risks in their transformation journey.

This IDC InfoBrief explores what it takes to achieve seamless interoperability and consistent performance across a distributed cloud environment; and the crucial role of a cloud services partner in helping realise the enormous promise of a hybrid-cloud future.

Agility, resilience, and sustainability key factors for digital transformation

In an environment where uncertainty and disruption are the norms, we are entering a new phase of enterprise digital transformation based on agility, resilience, and sustainability principles.

Kubernetes disrupt traditional DevOps automation and processes, and cloud-native development — by 2025, *30%* of DevOps adopters will embrace more streamlined GitOps automation processes.

Implication: Future-ready enterprise IT estates will seamlessly support DevOps practices for cloud-native technologies to allow developers to access the latest innovation on cloud platforms.

In 2023, over 60% of A2000 enterprises will cite business resiliency to drive verifiable infrastructure supply chain integrity as a mandatory and non-negotiable vendor evaluation criterion.

Implication: Every constituent of the enterprise IT architecture will need to be demonstrably resilient against supply chain disruptions and other shocks.

By 2025, 75% of organisations will use software- and cloud-based infrastructures to create a 35% increase in sustainable efficiencies across workloads and datacentres.

Implication: Infrastructure options and architecture models that support the enterprise's environmental, social, and governance (ESG) goals will displace ones that do not.
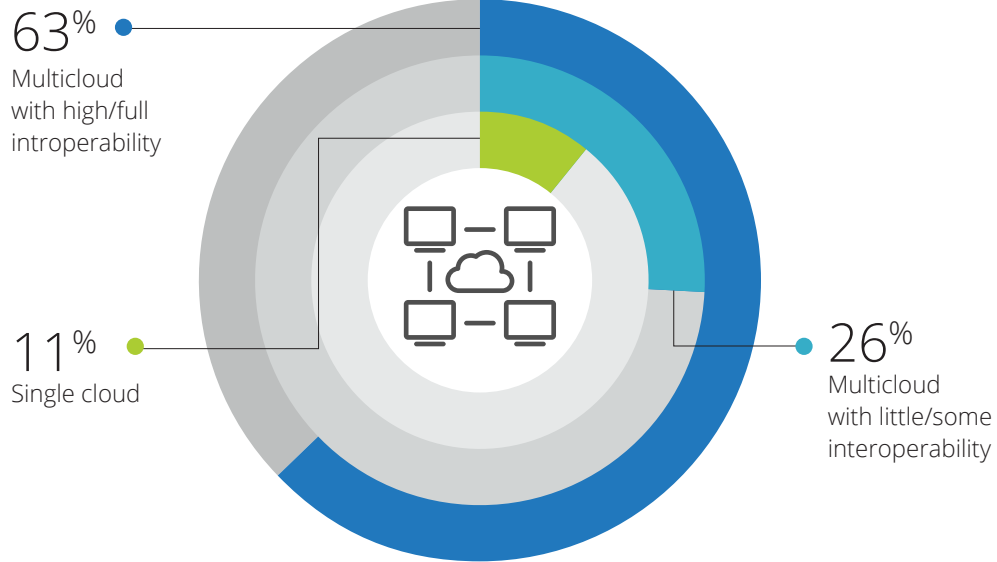
Key takeaway: The hybrid cloud construct addresses all these key considerations.

Source: IDC

Hybrid cloud — a model of choice for the Future Enterprise

Q Over the next two years, how would you describe your use of different on-prem and off-prem cloud environments?

Q Which of the following explains why your organisation has either a single cloud or a multicloud with little/no interoperability strategy?

63%
Multicloud with high/full introperability

11%
Single cloud

26%
Multicloud with little/some interoperability

59%
Creating interoperability in a multicloud environment is too expensive

37%
Creating interoperability in a multicloud environment is too technically complex

❯ Over 63% of enterprises will move to a hybrid cloud model within the next two years with full/high data and application interoperability.

❯ The ability to build modern apps using containers and other cloud-native innovations is a significant part of the appeal of hybrid cloud.

❯ The cost and complexity of multicloud interoperability are key concerns.

Key takeaway: Cost and complexity challenges must be solved for enterprises to realise the power of hybrid cloud fully.

The promises and pitfalls of a hybrid cloud journey

Business innovation
- Shorter development cycles
- Innovative emerging technology
- Improved business processes

Financial performance
- Reduced IT costs
- Increased revenues from scale
- Operating model transformation

Aspirational objectives
- Enhanced customer experience
- Environmentally sustainable operations

PROMISES

PITFALLS

Technology silos
Disconnected estates with a lack of app and data interconnectivity across silos

Management complexity
Keeping apps and infra software up to date and correctly configured in a diverse, siloed estate is complex, time-consuming, and error-prone

Escalating costs
Inadequate attention to cloud usage optimisation can lead to rapidly escalating cloud consumption costs

Key takeaway: The promise of hybrid cloud is appealing, but realising these benefits is contingent on successfully navigating a host of potential pitfalls that can hinder an enterprise's hybrid cloud journey.

Source: IDC

Hybrid IT and the challenge of cloud cost management

Q How concerned is your organisation with the growing technology investments required to remain competitive?

12%
Not particularly concerned

88%
Highly or extremely concerned

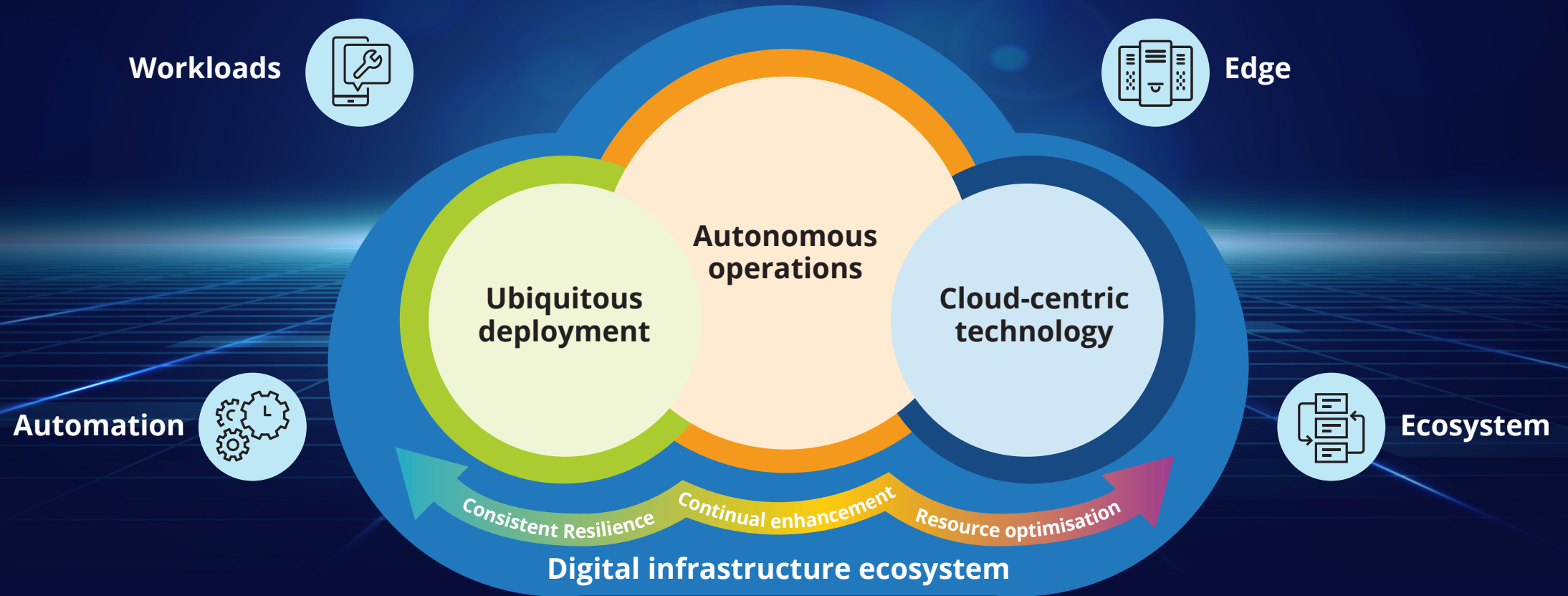## Key challenges in cloud expenditure management that enterprises face:

- Developing accurate spending forecasts
- Understanding cloud pricing models, billing, and reporting
- Cloud cost allocation and chargeback
- Gaining insight into oversizing and wastage
- Cloud governance implementation

➤ As the cloud establishes itself as the foundation of enterprise IT, managing cloud costs effectively is increasingly becoming a key organisational challenge.

Key takeaway: Mechanisms that effectively address cloud cost management challenges are a priority.

Source: IDC Future Enterprise Resiliency and Spending Survey 2022 (Wave 1), n = 370 for Asia/Pacific

Connected cloud architecture for the future of digital infrastructure

Workloads

Edge

Autonomous operations

Ubiquitous deployment

Cloud-centric technology

Automation

Ecosystem

Consistent Resilience

Continual enhancement

Resource optimisation

Digital infrastructure ecosystem

❯ Freedom from technical debt

❯ Rapid adaptability in crisis
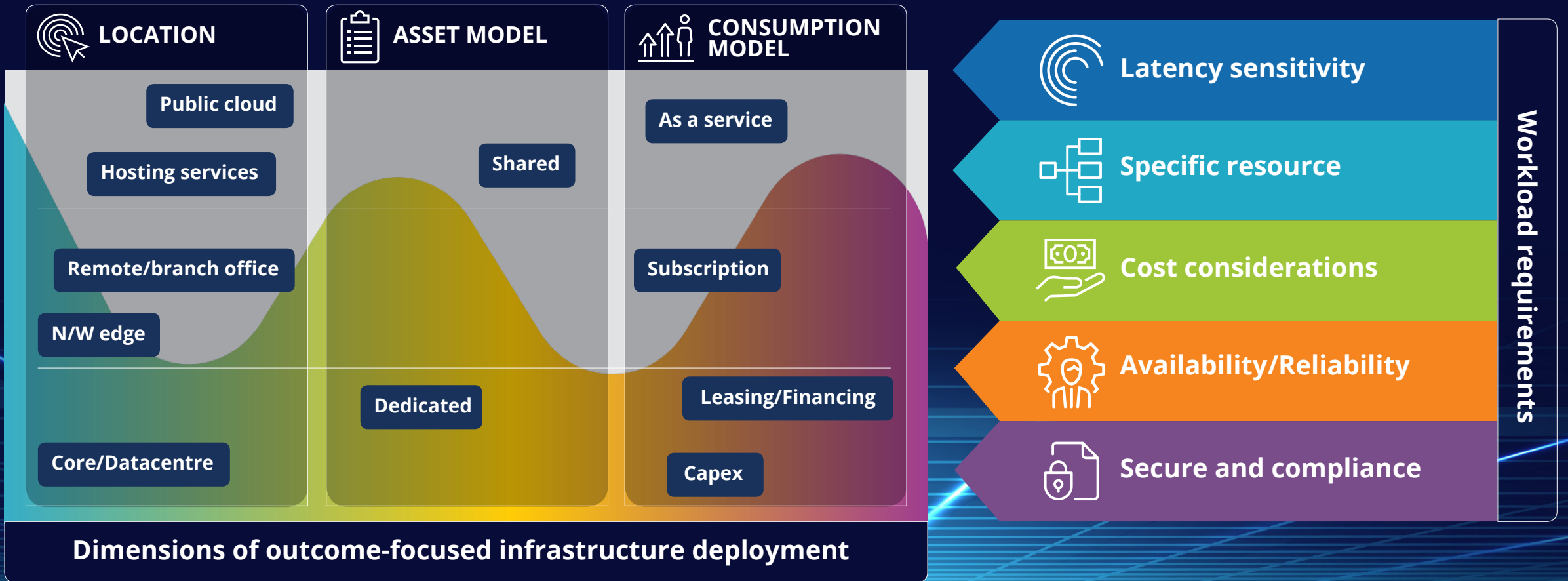
❯ Optimal exploitation of opportunities

❯ Resource visibility and consumption optimisation

❯ Transparent billing and reporting

Key takeaway: A robust cross-cloud control plane will enable policy-driven automation, advanced observability, and real-time analytics and is key to maintaining service levels, security, and compliance.

A deployment decision matrix for enterprise workloads

LOCATION

- Public cloud
- Hosting services
- Remote/branch office
- N/W edge
- Core/Datacentre

ASSET MODEL

- Shared
- Dedicated

CONSUMPTION MODEL

- As a service
- Subscription
- Leasing/Financing
- Capex

Dimensions of outcome-focused infrastructure deployment

Workload requirements

- Latency sensitivity
- Specific resource
- Cost considerations
- Availability/Reliability
- Secure and compliance

Key takeaway: Enterprises need to systematically evaluate digital infrastructure options against the specific requirements of individual enterprise workloads to identify the best-fit deployment model by workload.

The role of a cloud services partner in shaping and enabling the evolution

1. Cloud readiness assessment
2. Platform strategy and architecture
3. Build, integrate, test, and migrate
4. Flexible application and infrastructure management
5. Continuous operational automation and innovation
6. FinOps and governance
7. Training and skilling

Solutions + Services

Key takeaway: Executing an integrated hybrid cloud transformation strategy is a complex undertaking that needs a broad set of critical capabilities. Look for a cloud services partner that ticks all the key boxes on your checklist.

Source: IDC

Essential guidance

Hybrid cloud represents the de facto operating model of the Future Enterprise. IDC has the following recommendations for enterprises that are looking to embark on their hybrid cloud journey:

Advice

Stage	Advice	Outcomes
Engage	Engage the right transformation partner early, as determined by your business and operational context	▪ Transformation partner ▪ Business metrics ▪ Financial metrics
Assess	Work with your transformation partner to identify and prioritise your key drivers and business objectives	▪ Innovation vision ▪ Top objectives ▪ Key constraints
Discover	Identify and leverage the right tools and processes to initiate estate-wide discovery	▪ As-is process maps ▪ App dependency lists ▪ Critical path items
Plan	Create a detailed enterprise transformation plan that spans IT architecture, governance, and security	▪ Transformation plan ▪ Target architecture/operating model ▪ Operational metrics ▪ Platforms/tools/services
Transition	Transition to a modern IT environment with cloud-ready applications and hybrid cloud architecture	▪ Hybrid IT architecture ▪ Cross-cloud platform ▪ Operational metrics
Optimise	Closed-loop continuous innovation and modernisation leveraging intelligence, automation, and the latest tech advances	▪ Benchmarking ▪ Best practices ▪ Performance metrics ▪ Cost optimisation

Outcomes

Choosing the right IT modernisation partner

In the journey to the perfect IT environment, choosing the right partner is essential — one that has the experience and skills to help choose suitable IT platforms and application landscapes to support the business demands. The right partner will help you:

- Unlock the value of their business platforms, new technologies, and new ways of working
- Align IT with the business demands with the right mix of agility to adapt to new business conditions
- Simplify and optimise the IT estate, using automation and continuous optimisation, to deliver savings that fund transformation initiatives
- Modernise the existing environment by adapting legacy applications to the right mix of hybrid cloud, allowing customers to unlock the business value in legacy applications
- Integrate, operate, and secure their legacy and multicloud environments at scale, and transform the IT function to enable the customers' business agenda through a secure, platform-centric modern IT estate

Visit us at:

- https://dxc.com/us/en/cp/cloud-right-cloud-transformation
- https://dxc.com/us/en/services/cloud/hybrid-cloud-and-multicloud

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DXC provides clients with managed private cloud services that leverage the flexibility, native capabilities, and scale of public cloud services.

Best-in-class technology

- Hyper-converged infrastructure, management, and security
- Proven security leveraging native AWS and VMware technologies
- Integrated IaaS, PaaS and SaaS capabilities from VMware and AWS
- SLAs from 99.9%–99.99%

Cost effective

- Access VMware Cloud on AWS on-demand capabilities at highly discounted levels
- No minimum 3-year, 3 node commitments, pay for what you use
- Billing per hour vCPU, vRAM, and GiB allocated storage

Private cloud features & security benefit of public cloud

- Enables service flexibility, agility, and portability
- Heterogeneous (hypervisor, deployment, development, infrastructure)
- Designed to support our client's cloud and datacentre exit strategies

Experience

- 2,000+ private cloud customer engagements
- Common support capabilities and access into DXC's Cloud Management Plane
- Innovative commercial models

Read more - https://dxc.com/au/en/cp/multi-tenant-vmc-aws

DXC TECHNOLOGY

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