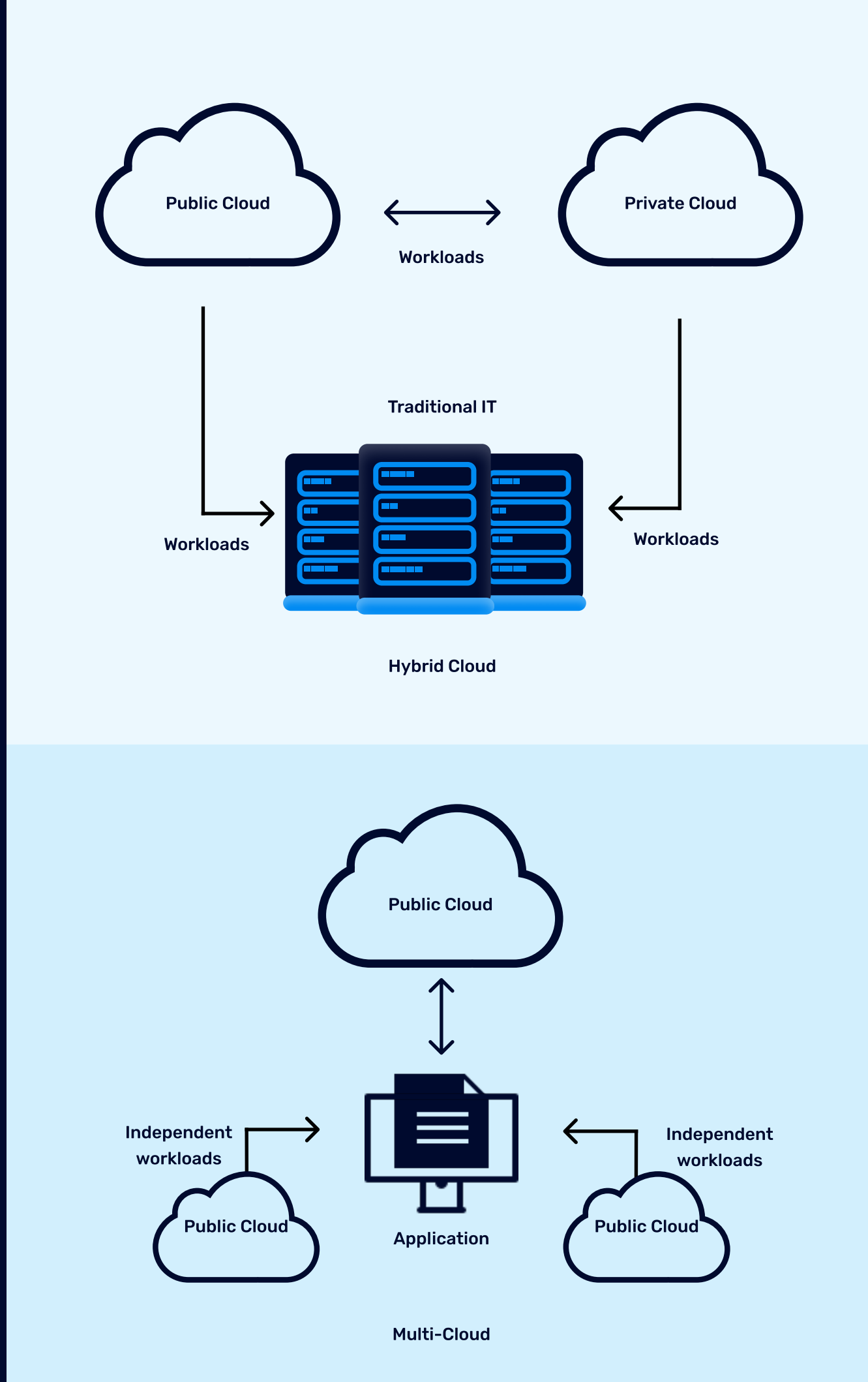


Hybrid vs Multi-Cloud: Different Stacks for Different Tasks

Navigating the ever-evolving cloud landscape and choosing the right cloud architecture can be a daunting task. Two options gaining popularity are hybrid and multi cloud. They offer flexibility and scalability, but their differences are crucial to understand. This infographic explores the key distinctions between hybrid and multi cloud.



Definition

Hybrid Cloud

The Best of Both Worlds

A hybrid cloud combines public and private cloud environments, providing a mix of agility and control. Sensitive data can reside in the private cloud, while public cloud resources offer on-demand scalability for non-critical workloads

Multi-Cloud

Spreading the risk and embracing variety

Multi-cloud involves leveraging multiple public cloud providers, like AWS, Azure, and GCP, each offering specialised strengths.

Environment

Hybrid cloud combines the use of private and public cloud services

Multi-cloud Involves the use of multiple public cloud services from different providers

Workloads

Distributed across multiple cloud and on-premises environments – highly portable and interchangeable environment

Delegated to cloud platforms without interoperability between providers

Uses

Maintain control over sensitive data or workloads

Cost optimisation, avoiding vendor lock-in, or taking advantage of unique features and services provided by different cloud providers

Example

A public cloud AND an on-prem customer-maintained datacenter infrastructure

Multiple public clouds: e.g. GCP + AWS + Azure

Pros

- Enhanced security and data privacy: Sensitive data remains on-premises within the private cloud.
- Tailored control: Organisations can customise their infrastructure to specific needs.
- Continuity for legacy systems: Existing on-premises infrastructure can be integrated seamlessly.
- Vendor neutrality: Avoids lock-in to a single provider, ensuring flexibility and better pricing.
- Access to specialised services: Leverages unique strengths of different cloud providers.
- Improved disaster recovery: Redundancy across multiple clouds enhances fault tolerance.

Cons

- Increased complexity: Managing and integrating multiple environments requires specialised expertise.
- Potential vendor lock-in: Reliance on specific vendors for private cloud solutions can limit flexibility.
- Higher costs: Maintaining both public and private infrastructure can be expensive.
- Integration challenges: Managing and integrating multiple cloud environments can be complex.
- Security concerns: Maintaining consistent security policies across different providers can be difficult.
- Limited cost savings: Managing multiple accounts can negate potential cost advantages.

When to Use

- You have strict data privacy regulations or compliance requirements.
- You rely heavily on legacy systems that are not easily cloud-migrated.
- You require granular control over your infrastructure.
- You prioritise vendor neutrality and want to avoid lock-in.
- You require specialised services offered by different cloud providers.
- You have disaster recovery and high availability requirements.

The Verdict: It's All About Your Needs

Both hybrid and multi-cloud offer distinct advantages, and the optimal choice depends on your specific requirements. Consider factors like security, control, scalability, and cost when making your decision. For organisations with sensitive data or legacy systems, hybrid might be ideal. For those seeking advanced services and vendor neutrality, multi cloud could be the answer. Ultimately, the best approach is the one that best aligns with your software development goals and infrastructure needs.

By understanding the nuances of hybrid and multi-cloud, software engineers and CTOs can make informed decisions that empower their teams to build, innovate, and deliver exceptional software solutions. To learn more about how Deimos can help you with your cloud strategy, click [here](#).