Infographic: How to Make the Right Choice Between Hyperconverged, Traditional and Distributed Cloud Infrastructure

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Initiatives: Data Center Infrastructure; Cloud and Edge Infrastructure

I&O leaders are looking to modernize their infrastructure and introduce new technologies. In this research, we help them distinguish the differences between hyperconverged, traditional three-tier and distributed cloud deployment strategies, and provide selection criteria and adoption guidelines.
How to Make the Right Choice Between Hyperconverged, Traditional and Distributed Cloud Infrastructure

I&O leaders need to distinguish the differences between hyperconverged, traditional three-tier and distributed cloud deployment strategies, and provide selection criteria and adoption guidelines.
What Is It?

**Distributed cloud** refers to the distribution of public cloud services to different physical locations.

**Hyperconvergence** provides a building block software-defined approach to compute, network and storage on standard server hardware under unified management.

**Traditional or three-tier infrastructure** refers to the combination of disaggregated servers, storage arrays and networking infrastructure.

Main Benefits

- **Enabling** of cloud-native infrastructure delivery
- **Alignment and standardization** with public cloud IaaS
- **Simplicity** of deployment and management
- **Consolidation** of infrastructure services
- **Best-of-breed** storage and server selection
- **Lower risk** with tried-and-true technology

Main Limitations

- **Integration** with on-premises infrastructure stack
- **Unknown** total cost of ownership
- **Inefficient scaling** of compute and storage
- **Difficulty** to address scale-up applications
- **Difficult** to manage
- **Designed for** large data centers
What Is the Best Fit for It

- Use distributed cloud deployment platforms when trying to embrace cloud-native applications and stacks at the data center and the edge.
- Use HCI to support well-defined, well-matched workloads, and not as a one-size-fits-all server/storage alternative.
- Use traditional infrastructure for large deployments of consolidated applications with demanding and unpredictable needs.

The Bottom Line

- **Choice:** Distributed cloud solution
  - **Need:** To leverage public cloud infrastructure in several locations

- **Choice:** Hyperconverged Infrastructure
  - **Need:** To support consolidation and hybrid cloud

- **Choice:** Three-tier traditional infrastructure
  - **Need:** For our core database

Deployment Focus

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<th>Public Cloud</th>
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About This Research

This infographic is intended to contrast three different infrastructure deployment technologies: traditional three-tier infrastructure, hyperconverged technologies and distributed cloud platforms. All three options remain relevant, and are being compared and evaluated for infrastructure deployments on-premises and at the edge.

Traditional three-tier infrastructure platforms are evolving and becoming less expensive, more simple to manage, more efficient and designed to accommodate most performance-sensitive applications.

Over the last five years, hyperconverged infrastructures have gained mind share, and are being considered as alternatives for traditional server and storage systems in data center modernization projects to enable a software-defined approach to the data center and edge deployments.

With the recent rise in interest in distributed cloud platforms, the public cloud vendors are bringing their native cloud services into the on-premises data center (see AWS Outposts, Azure Stack and Google Anthos).

Recommended by the Authors

Magic Quadrant for Hyperconverged Infrastructure Software

How to Bring the Public Cloud On-Premises With AWS Outposts, Azure Stack and Google Anthos