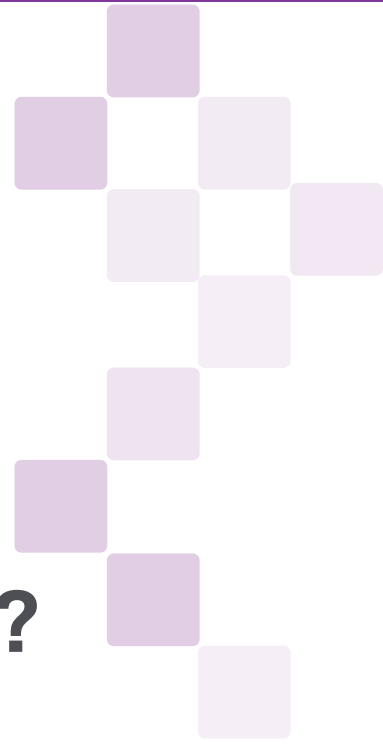# On-Premise vs Colocation vs Cloud vs Hybrid:

What's Best for Your Business?

Sunbird®
DCIM that's easy, fast, and complete

Introduction

With the ever-increasing demand for digital services, organizations face the questions of how will they keep up and where will they store and access their data and applications.

The evolution of hosting options from on-premise infrastructure to colocation, cloud, and hybrid deployments has provided a diverse set of choices for organizations, and it is critical to select the option that best suits their unique needs.

This eBook aims to assist you in making an informed decision by exploring the pros and cons of each hosting option and providing valuable insights for evaluating your needs and options effectively.

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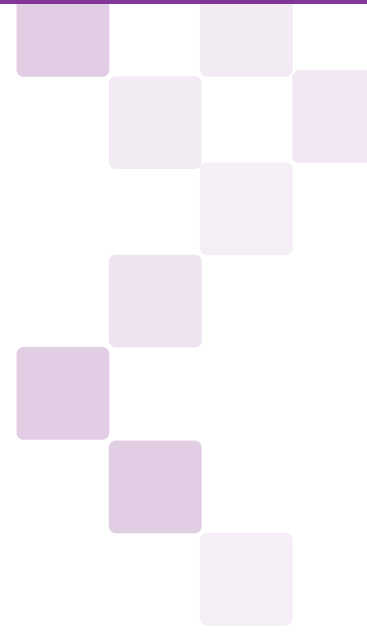
On-Premise Data Centers

An on-premise data center is owned and operated by an organization and located within their own facilities. It can range from one or two servers in a closet to a dedicated server room or multiple data center facilities.

Top 3 Advantages of On-Premise Data Centers

- **Complete control.** Organizations own their buildings and equipment which allows them to customize their IT and facilities to meet their specific needs.

- **Long-term cost-effectiveness.** Although building a data center requires a significant initial investment, the ongoing expenses are typically lower than alternatives and the ability to optimize infrastructure utilization can result in cost savings over time.

- **High visibility.** Direct oversight and access to infrastructure facilitates quicker detection and response to issues and vulnerabilities.

Top 3 Disadvantages of On-Premise Data Centers

- **Large upfront costs.** The investment in facilities, hardware, software, and personnel may not be feasible for all organizations.

- **Facilities management.** Dedicated facilities staff with specialized skills are necessary to maintain the building and troubleshoot issues. Regular investment in new infrastructure and technology is often required.

- **Fixed infrastructure.** Resources are typically provisioned for peak demand, making it impractical and costly to scale down the foot print with significant reconfiguration and decommissioning processes.

An on-premise data center may be the right choice for...

- **Large enterprises** with complex IT environments, high security requirements, and the ability to bear the upfront cost.
- **Government agencies** that handle sensitive data that cannot be stored offsite.
- **Financial institutions** or other organizations processing cardholder data that must comply with PCI-DSS regulations.
- **Healthcare providers** storing patient data that must comply with HIPAA regulations
- **Research institutions** with specialized equipment and high-performance computing needs.

Colocation Data Centers

A colocation data center is a facility where organizations can rent space to house their IT equipment. The colocation provider supplies the building infrastructure, cooling, power, bandwidth, physical security, and managed services.

Top 3 Advantages of Colocation Data Centers

- **World-class facilities.** Organizations without facilities expertise can still rent state-of-the-art facilities with advanced cooling systems, redundant power, and robust security measures.
- **Flexibility.** Resources can easily be expanded or reduced according to changing needs.
- **Low upfront costs.** Direct oversight and access to infrastructure facilitates quicker detection and response to issues and vulnerabilities.

Top 3 Disadvantages of Colocation Data Centers

- **Lack of visibility.** Tenants have little control over their physical infrastructure and must rely on their provider to accurately execute work orders.
- **Migration challenges.** Moving equipment to a colocation data center requires meticulous planning, an accurate inventory, and the ability to track every change.
- **Ongoing costs.** Additional costs for power consumption, network bandwidth, remote hands services, and cross-connects can quickly add up.

A colocation data center may be the right choice for...

- **Small- to medium-sized businesses** that require reliable infrastructure to store and manage large amounts of data.
- **Fast-growing enterprises** that need to quickly scale their data center infrastructure to meet their
- customers' demand.
- **Organizations with compliance requirements** that can be met by a reputable colocation provider.
- **Online services** such as e-commerce and digital media companies that want to reduce latency and improve customer experience by locating equipment near the areas they serve.

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