Blytheco™

# Hosting Comparison
# **Data Center vs On-Premise**



| | Data Center: Cloud | Data Center: Dedicated Hardware | Server: On-Premise |
|---|---|---|---|
| | Virtual machines are hosted on cloud-shared hardware across tenants. There are multiple different flavors of this. This is hosted VMs and not inclusive of cloud-based software models. | Virtual machines that have leased hardware dedicated to the environment and are not shared with other tenants. This may be dedicated standalone servers or blade servers. | Hardware is hosted on premise in any configuration. |
| **Cooling** | Regular testing and always dedicated maintenance personnel on duty. Redundant cooling units that are supported by the power failure generators. | Regular testing and always dedicated maintenance personnel on duty. Redundant cooling units that are supported by the power failure generators. | Usually incorporated into general room air conditioning or a single dedicated unit. |
| **Data Backups** | Backups can be moved to multiple centers in a secure location. | Backups can be moved to multiple centers in a secure location. | Backups should be taken off site nightly and stored in another location. |
| **Expandability** | Servers can be spun up quickly without hardware purchase and set up considerations. | Hardware needs to be appropriated when hardware expansion is necessary. | Hardware needs to be appropriated when hardware expansion is necessary. |
| **Failover Locations** | Many data centers can migrate servers to another physical location in the case of environmental disasters. | Many data centers can migrate servers to another physical location in the case of environmental disasters. | Failover locations possible but may be cost prohibitive. |
| **Failover Server Hardware** | Hardware failure automatically switches virtual machines to working hardware. | Failover hardware options available, including, failover to cloud, dedicated hardware, and shared backup hardware. | Duplicate hardware purchase. Networking and backups needs to be set up to handle this method to be automatic. |
| **Generator** | Data center wide generators with spares. Automatic activation on power disruption. On site mechanical support personnel. | Data center wide generators with spares. Automatic activation on power disruption. On site mechanical support personnel. | May be cost prohibitive, redundancy less common. Requires regular testing. Maintenance likely outsourced and not on site. |
| **Hardware Life Cycle** | Hardware is replaced regularly without service interruption. Usually 2.5—4 years for life cycle of hardware. | Replacement options available depending on contract. Requires failover to backup hardware or downtime. | Equipment changes usually on a slower cycle 5—7 years or upon failure. Changes require failover to backup hardware or downtime. |
| **Internet Connectivity** | Large pipeline infrastructure in place. Failover and load balancing over multiple carriers. | Large pipeline infrastructure in place. Failover and load balancing over multiple carriers. | For one location, large pipelines aren't necessary for server to client. Multiple locations may require more bandwidth. Connectivity loss at the main location will affect all locations. |
| **IT Staffing** | Most processes controlled by data center staff. Staffing costs are lower as staff from each discipline are split across many customers. 24/7/365 staffing. Internal staffing still required for on-premise systems, contact with host, non-OS software upgrades. | Most processes controlled by data center staff. Staffing costs are lower as staff from each discipline are split across many customers. 24/7/365 staffing. Internal staffing still required for on-premise systems, contact with host, non-OS software upgrades. | Staff must cover all disciplines or be supplemented by outsourced resources. Not available 24/7/365 for most small-or medium-sized companies. Training costs for new technologies. |
| **NetWork Security** | Network watched by automated process and physical staff. | Network watched by automated process and physical staff. | Automated and AI security options available. Log watching software is less common. 24/7/365 human staff not as likely. |

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| **Physical Security** | Monitored CCTV, armed security, hardened buildings, multiple criteria for entering (scan card, biometric scans, pin, etc.), man traps, and established security procedures. | Monitored CCTV, armed security, hardened buildings, multiple criteria for entering (scan card, biometric scans, pin, etc.), man traps, and established security procedures. | Usually a locked door and an alarm integrated into building alarm. CCTV with recording only. |
| **Power Backup** | Regular testing and always dedicated maintenance personnel on duty. | Regular testing and always dedicated maintenance personnel on duty. | In-house team is responsible for procurement, set-up, and maintenance. |
| **Server Side Networking** | Networking between servers and data stores is shared but configured by a dedicated 24/7 team. Fail over equipment. | Networking between servers and data stores is shared but configured by a dedicated 24/7 team. Fail over equipment. | Dedicated hardware maintained by IT staff. Possible redundancy. Equipment not necessarily as robust as cloud. |
| **Storage** | Highest grade storage with variable tiers (varying speed , access, and backup frequency) depending on data. Disks swapped and maintained by dedicated 24/7 team. | Highest grade storage with variable tiers (varying speed , access, and backup frequency) depending on data. Disks swapped and maintained by dedicated 24/7 team. | Data center grade storage may be cost prohibitive. Requires storage area configuration skillset. |
| **System Monitoring** | High-end monitoring usually available to the tenant at the VM level. | High-end monitoring usually available to the tenant at the VM and hardware level. | High end monitoring may be cost prohibitive and require additional expertise to configure. |
| **UPS Battery Backup** | Online data center wide. Only a few seconds are needed until generators are switched on. | Online data center wide. Only a few seconds are needed until generators are switched on. | Usually 30 minutes to 1 hour of backup time. |
| **VM Ware Control** | VMs are monitored by automated processes and moved between hardware as deemed necessary. Low visibility and control. Alerts are sent to 24/7 staff. | VMs are controlled by IT staff. Automation is possible. Higher visibility and control. Hardware usage and availability is useful in tuning and incident remediation. | VMs are controlled by IT staff. Automation is possible. Higher visibility and control. Hardware usage and availability is useful in tuning and incident remediation. |

**Cost Comparison**

| | Data Center: Cloud | Data Center: Dedicated Hardware | Server: On-Premise |
|---|---|---|---|
| Hosting | $$ | $$$ | N/A |
| Infrastructure | $ | $ | $$$ |
| IT Staffing | $ | $$ | $$$ |
| Physical Plant | $ | $ | $$$ |

# **bly**Cloud

To learn more about Blytheco's preferred cloud hosting solution, blyCloud, visit us on the web at: **www.blytheco.com/blycloud**

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Call today to explore hosting options with Blytheco. We are ready to help you start your business transformation.