



Hyperconverged Infrastructure – Is it right for your IT environment?

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When considering the replacement of aging IT infrastructure, Hyperconverged Infrastructure (HCI) may be a good option for large-scale implementations. Court IT staff are taking a harder look at cloud infrastructures, further virtualization, and a relatively new architecture known as [Hyperconverged Infrastructure](#) to replace their outdated IT resources. HCI is particularly advantageous for [large court implementations where there are numerous servers and a large network to be managed](#). Like many government entities, courts have operated with limited IT funding, resulting in many outdated data centers and network resources in need of replacement. Throughout the nation, aging IT infrastructure leaves government organizations vulnerable to cybersecurity attacks. Aging infrastructure also cannot meet the requirements for a modern Business Continuity/ Disaster Recovery plan.

HCI has been put into place in the 1st Judicial District in Philadelphia as well as others. “The decision for HCI was through the lens of scalability and maximizing our resources,” says Joshua Reece, CIO for the Philadelphia courts.

HCI provides software orchestration of network, storage, and computing resources with a single management interface that can be accessed remotely. It also tends to have a smaller physical footprint than a standard set of server racks and related equipment.

This architecture can operate on-premises, in multiple or a single cloud, or in a hybrid environment. The flexibility in architecture provides the ability to geographically distant locations, thus providing resiliency to minimize the threats caused by cyberattacks and natural disasters.

The remote capabilities have increasingly become attractive as remote work has increased and can easily be combined with a managed, off-site data center that provides greater physical security and redundancy of power and security systems. A managed data center is **deployed and monitored by a third-party data center service provider through a managed server platform. Thus, it reduces reliance on in-house resources.**

HCI is another step beyond just the virtualization of servers into the virtualization of storage and networking. A single platform for all these resources provides for better coordination and enhanced performance. This also provides for better orchestration of security services.

With all the benefits of HCI, nevertheless, there are times when it is not the best solution. Large databases that require dedicated storage are not well suited to this architecture as HCI is meant to scale horizontally, not vertically. For example, a large Oracle CMS implementation in Philadelphia was recommended to stay on standard server technology. HCI does not preclude the use of other resources that are needed to fully manage and maximize the user experience.

There are many HCI vendors operating in an incredibly competitive environment. Make sure to sufficiently research before committing to such a project. The migration of existing data and applications is often a lengthy process that needs plenty of planning and deliberation, much like any large architectural shift. Various HCI solutions offer partner services and features that can greatly improve the IT environment as a whole.

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