

ANALYSIS OF HYPERCONVERGED INFRASTRUCTURE COMPONENTS

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The report disclosed the problems of hyperconverged infrastructure. Organizations currently use three-tier architectures [1-3]. Which consist of a computing layer, a storage layer, and a network layer. It has been so for many years. These architectures have been effective in the past. But they require large creation costs. They are difficult to operate and scale. They can not respond quickly to the needs of modern applications. Due to the poor adaptability of such architectures, organizations are considering using public clouds. They don't want to wait until the IT infrastructure can support their applications. But they are worried about problems: higher costs and lack of enterprise-class security. Modern equipment has made a three-tier architecture unnecessary. High-performance processors and memory in combination with modern storage technologies make it possible to integrate the entire infrastructure. You can work with it on the basis of servers x86 with internal SSD - disks. This infrastructure is called hyperconverged or HCI. Let's dwell on the advantages HCI- infrastructure. It saves money and improves adaptability. HCI- infrastructure significantly reduces capital expenditures. Because you only need servers x86. Specialized storage arrays, controllers, and fiber optic networks aren't needed. Operation is simplified. So to perform standard tasks does not require a lot of time and special skills. Besides, HCI- infrastructure helps to respond quickly to business needs. The equipment can be ready for use in a few hours. Operational settings can be ready in a few minutes. The configuration is based on policies linked with application. This eliminates the need for complex blocks such as logical volumes. Horizontal and vertical scaling is achieved by adding drives and servers x86. This occurs without interruption, lengthy reconfiguration or additional costs. With HCI, organizations can deploy cloud-like infrastructure in a local environment where costs are lower. But the level of control and security is higher than in a public cloud.

Reference

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