Protecting data in your hyper-converged environment

Keep it safe, keep it simple

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In a nutshell

Hyper-converged infrastructure (HCI) has been gaining popularity as a way of simplifying IT environments. Solutions in this area are already finding their place in the context of scale out storage, desktop virtualisation and the creation of flexible cloud-like platforms to support the 'service provider' IT delivery model.

Whatever the use case, a frequent question is whether the data protection functionality built into HCI systems is adequate to meet business needs. Most often the answer is 'no', so the question then becomes how best to manage data-related risks. Protecting an appliance with another appliance is an option to consider.

Hyper-converged essentials

Hyper-converged infrastructure, 'HCI' for short, is the latest manifestation of a trend that has been unfolding in the IT industry for a while. Over recent years we have seen suppliers pre-integrating collections of hardware and software into appliances aimed at serving a whole range of specific needs. Whether it's security monitoring, relational database management, in-memory databases, or even general-purpose application serving, options are now available to buy everything you need in a single box for a single price supported and maintained under a single contract.

The emergence of convergence

As part of this trend, we have also seen so-called 'converged infrastructure' (CI) offerings emerge. These bring together compute, storage and networking components into self-contained boxes designed for more general purpose use. Entry-level CI systems have effectively provided a 'data centre in a box' for smaller businesses, and the building blocks for conveniently deploying chunks of standard resource in a larger enterprise data centre environment.

Going hyper

Against this background, HCI at first glance appears to meet a similar set of needs, but if you look under the covers you will find some important architectural differences. It is beyond the scope of this paper to go into technical detail, but suffice it to say that convergence is implemented at a lower level. In a hyper-converged system, compute, storage and sometimes even networking resources are 'fused' more tightly, and are generally only accessible through a virtualisation layer. The approach has many benefits in terms of increased abstraction, simplification, and the smooth scaling of systems using a building block approach as demands increase.

About this Inside Track

The insights presented in this document are derived from independent research conducted by Freeform Dynamics. Inputs include in-depth discussions on the latest technology developments with IT vendors and service providers, along with intelligence gathered from mainstream enterprises during broader market studies.

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