

## SOLUTION BRIEF

# SvSAN AND HPE EDGELINE

## Harness the Edge with StorMagic

### THE EDGE IS WHERE THE ACTION IS

The edge is everywhere—a factory floor, a distribution center, a branch or office environment, a retail store—even a cell tower, or an oil rig in the middle of the ocean. All of these environments have similar needs, including simplicity, reliability and affordability. Hyperconverged solutions can be a great fit for the edge, but most of them are missing a critical requirement.

Hewlett Packard Enterprise (HPE) and StorMagic have partnered to deliver a true edge HCI solution that was designed from the ground up to meet the stringent requirements found at the edge. HPE Edgeline Converged Edge Systems are size, weight and power (SWaP) optimized high-performance platforms that are ruggedized and portable to meet the needs of a distributed edge. StorMagic SvSAN is the software layer that enables complete storage virtualization and high availability between only two physical servers per site. It sits on top of the hypervisor as a guest virtual machine and is fully compatible with VMware vSphere, Microsoft Hyper-V, and Linux KVM.

The combination of these two products creates the perfect edge compute/storage solution that is easy to install and manage, delivers high

uptime and is significantly less expensive than other enterprise HCI solutions on the market for edge use cases.

### PROTECTING THE EDGE

SvSAN turns the underlying storage of any HPE Edgeline system into highly-available shared storage within clusters of two servers (nodes) or more. This enables 100% uptime and adds flexibility to internal storage resiliency, utilizing StorMagic's built-in software RAID10 and enabling high availability through synchronized mirroring.

There is plenty of redundancy built into the system to ensure the 100% uptime. RAID keeps the Edgeline system running without downtime if a drive were to fail. SvSAN's synchronous mirroring between servers ensures that there is an exact copy of all data on both servers so that if a server goes down, all applications will migrate to the surviving server. The edge applications keep running, the operations team fixes or replaces the failed server and then the applications migrate back to the original server – all of this without any interruption to business operations.

SvSAN also supports the concept of a “stretch cluster”. The user can place the two servers from the pair in different buildings in the same general area or even different cities. This protects against a local outage (power, flood, accident, etc.) bringing down the whole operation. Even if the two servers are 10 miles away from each other, applications can run just as well as in the same location.

***Protect, and simplify the edge with an easy-to-deploy solution using StorMagic SvSAN and HPE Edgeline Converged Edge Systems.***

## SIMPLIFYING THE EDGE

Providing highly-available shared storage on a minimum of just two nodes in an Edgeline system is a defining feature of SvSAN. This is enabled by the use of a very lightweight witness service virtual machine, which can be deployed locally or remote to the cluster, and can provide quorum for a thousand clusters at a time. Minimal hardware requirements and simple installation can accelerate the deployment of a virtual SAN on the edge.

From a single site to thousands, StorMagic's centralized management can simplify provisioning, protection, and operation while eliminating the need for on-site expertise. StorMagic combined with HPE Integrated Lights Out (iLO) remote server management allows for the deployment, configuration, and upgrade of server clusters without onsite specialists. HPE iLO allows you to easily configure, monitor and update your HPE servers seamlessly from any location, while ensuring highest levels of system security from the silicon upwards.

HPE Edgeline systems are purpose built for the rugged edge and support multiple server blades hosted in a single cluster-ready enclosure while providing unprecedented high-performance compute that is SWaP optimized. The Edgeline EL1000 provides a compact single-server wireless-enabled system suitable for deployment in locations like retail and utilities, while the Edgeline EL4000 has 4 of the same server blades in a single 1U chassis with integrated networking to build a cluster without requiring Top-of- Rack (ToR) switches. The Edgeline EL8000 series delivers flagship levels of edge compute with support for top-tier Intel Xeon SP CPUs, Intel FGAs and NVIDIA GPU accelerators, while still providing benefits of cluster-ready chassis networking and iLO5 level security. All these products are qualified to run SvSAN and provide a highly-available lightweight HCI solution for customers operating in the harsh environment of the edge.

Minimal deployment, configuration, and physical requirements combined with unrestricted remote management makes StorMagic SvSAN and HPE Edgeline Converged Edge Systems a powerful and flexible solution designed specifically for the edge.



*HPE EdgeLine EL1000*



*HPE EdgeLine EL4000*



*HPE EdgeLine EL8000*



## SOLUTION COMPONENTS

### STORMAGIC SvSAN

SvSAN is the virtual SAN that makes the complex world of virtualized storage simple. Perfect for edge computing environments, the technology is based on software-defined storage that eliminates the need for physical SANs. SvSAN is designed to be very simple to install and manage whether deployed as part of a hyperconverged solution or as a storage-only target for any server environment.

### HPE EDGELINE CONVERGED EDGE SYSTEMS

With HPE Edgeline Converged Edge Systems, customers gain uncompromised and identical enterprise-class compute, storage, and management at the edge. The benefits of enterprise compute at the edge include improved system reliability, improved overall security at the edge, and a significantly reduced learning curve by using similar systems-management tools.

At the same time, HPE Edgeline delivers enterprise IT capabilities in a ruggedized system designed for the harsh operating environments found at the edge.



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