SmartX – Hyper-converged Storage solution for Citrix XenServer and XenDesktop

SmartX Halo ZBS is a true scale-out, software-driven, distributed storage system leveraging the latest NAND flash and data protocol technologies.
SmartX Halo ZBS is a modern distributed framework providing block storage, data protection, and network management. It comprises of three components – ZBS, the underlying storage fabric; a virtualization layer leveraging Citrix XenServer; and Fishey, the end-user management portal. The Halo software can be deployed across any x86 servers in a minimum 3-node cluster in either all-flash or hybrid SDD / HDD configuration.

Traditional error-prone storage controllers are abstracted away through the SmartX software that allows for better data distribution and higher availability. The core features include hot caching and auto-tiering of cold data, cluster-wide replication and migration, and continuous checksums and protection.

**Introduction**

Innovation in virtual machine density, CPU core density, and the proliferation of micro-services and containers brought tremendous advantage to processing while creating highly randomized IO problems for the storage side. SmartX aims to bring the same paradigm shift to storage and close the IO gap through careful reconciling of compute, storage, and networking.

SmartX is one of the leading providers of hyper converged solutions in China and has a raft of use cases including the largest HCI deployment of 2000+ nodes for China Unicom Wo Cloud and a sizable deployment for China Unicom VDI Cloud using XenDesktop.

SmartX Halo ZBS provides the underlying storage and the virtualization layer combined with the Citrix XenDesktop. Supported hypervisors include XenServer, KVM, and a home-grown KVM flavor called Elf, as well as OpenStack and Kubernetes. Halo is a vastly distributed, resilient storage-compute architecture built to handle heavy I/O. Leveraging the intelligent auto-tiering and caching features aimed at the heart of VDI boot storms, this solution ensures the deterministic IOPs, throughput, and latency of a local device atop a highly robust network.

**Features**

- End-to-end hyper-converged VDI storage solution leveraging Citrix XenDesktop with GPU virtualization enabled
- High performance 3D Flash for hot caching and auto-tiering
- Smart replication and continuous data protection
- Self-managing storage without RAID and LUNs to configure
- Fully supports OpenStack and integrates with other cloud platforms through Open API and more
- Supports All-flash and hybrid SSD/HDD configurations
Conclusion

SmartX provides cutting-edge hyper-converged infrastructure and storage solutions for datacenters and enterprise cloud. It is built around a flexible, hybrid, solid state and/or spinning disk distributed storage topology that avoids single point of failures, solves storage compute I/O bottleneck, and outperforms traditional SAN / NAS solutions by orders of magnitude. The distributed, self-aware system is built to withstand multiple levels of software and hardware failures with zero impact to vital workloads. Data is smartly scanned and curated through timely replication, snapshotting, caching, and disk balancing. SmartX Halo features a wide array of virtualization platforms including fully integrated solutions with Citrix XenServer and XenDesktop.

To learn more about Halo ZBS, click here.
Visit SmartX on Citrix Ready Marketplace.