

X-POD for VDI with Vmware Horizon View

Validated | Scalable | Flash - Enabled

VMware Horizon View and X-IO

Horizon View is used to deliver virtual desktops as a service in a broad range of enterprise use cases, enabling the best user experience for maximum productivity. IT administrators can easily provision and customize the environment to comply with corporate policy and end-user needs. Desktop virtualization with Horizon View enables organizations to do more with less and adopt a user-centric, flexible approach to computing. By decoupling applications, data, and the operating system from the endpoint—and by moving these components into the datacenter, where they can be centrally managed in your cloud—desktop and application virtualization offers IT a more streamlined, secure way to manage users and provides agile, on-demand desktop services.

X-Pod for VDI

X-Pod is a validated reference architecture for a converged infrastructure solution designed to deliver a repeatable, high-performance virtual desktop infrastructure.

This reference architecture details the extensive testing that X-IO has performed and provides guidance for the performance requirements of various operations based on the X-Pod core components of Cisco UCS server and networking hardware together with the flash-enabled Intelligent Storage Element (ISE) systems. This validated testing demonstrates that this solution is capable of delivering a high-performance desktop experience at up to 97% concurrency.



VMware & X-IO Test Results

About the design. VMware and X-IO tested one ISE 740 hybrid storage array in a 1,500-user VMware Horizon View environment, with 1,500 medium-workload users simulated by Login VSI's industry-standard workload simulator.

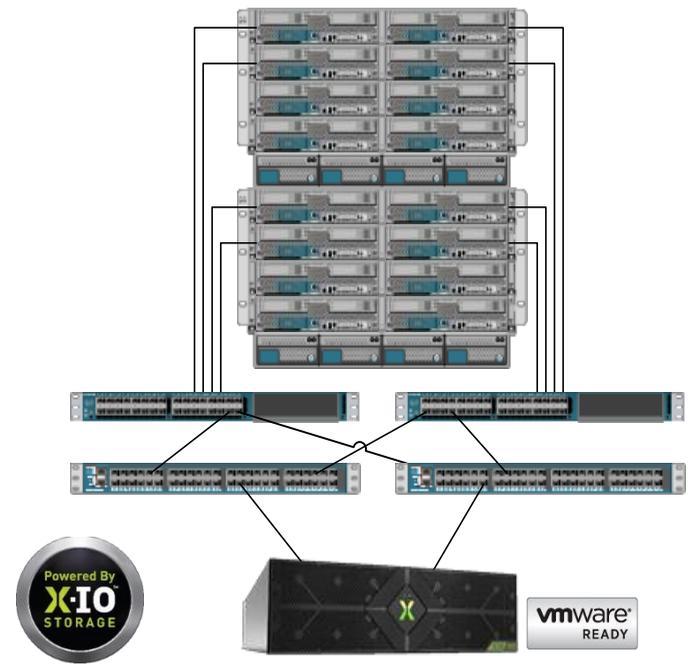
These standard and stringent tests demonstrate, empirically, that an X-IO ISE 740 hybrid storage array is more than sufficient to support 1,500, highly concurrent, Horizon View users.

- ✓ Sustained, 15,000 write-oriented IOPS, during the testing, with latency below 5 milliseconds
- ✓ This reference architecture was capable of achieving 97% concurrency for 1,500 users, at which time the server resources were fully consumed. The low-latency response times indicate that the ISE 740 still had plenty of performance left to offer.
- ✓ 1,500 desktops were booted in less than 16 minutes, resulting in over 40,000 IOPS, with read latency under 4 milliseconds



Key X-IO Benefits

- X-Pod is a validated, converged reference architecture
- Continuous Adaptive Data Placement (CADP) software runs continuously, analyzes host I/O, and automatically places hotspot data onto SSD as frequently as every 5 seconds.
- The ISE Hybrid Storage Array's out-of-box, frame-free scalability future-proofs large-scale VDI investments through a modular design
- Cost effective, with industry leading lowest total cost of ownership (TCO)
- Delivers rated performance at maximum capacity for five years, with little or no service intervention
- ISE Manager takes care of the vAdmin with a simple and intuitive management interface that is highly integrated with the hypervisor and virtual machines



ISE Manager Suite



Knowing that VDI workloads can have a number of performance profiles, X-IO approached this testing knowing that the linked clone model would provide great capacity management. Linked clone architectures however, require a high degree of write IOPS (80%) that need to be serviced very quickly to maintain a great user experience. The ISE 740 delivered over 15,000 IOPS for 1,500 desktops in under 5 milliseconds. 40 to 100 IOPS per user are not uncommon for boot storms and at a maximum read latency of under 4 milliseconds, the ISE 740 based solution, demonstrates predictable high performance.

Boot Storm



X-IO delivers low latency at a low TCO, demonstrating conclusively that in this Horizon View environment the ISE 740 performs as well as flash-based arrays, and a fraction of the cost.

For more details of this test and its associated reference architecture, visit <http://xiostorage.com/applications/desktop-virtualization/>