Virtual desktops are increasingly transforming how today’s end user accesses their applications and work environments, and how IT organizations secure and manage these assets. Virtual desktop infrastructure (VDI) abstracts disparate and distributed end user environments – operating system, applications and data – from endpoint devices and consolidates them in a centralized, virtualized datacenter. This centralization allows end users to access their work environments via a variety of devices from any location, while enabling IT to efficiently secure and manage these critical corporate assets.

Despite the many benefits of VDI, its adoption by many enterprises has been inhibited by the costs and complexity associated with traditional three-tier server-to-SAN implementations. VDI project success depends on achieving positive ROI, delivering consistent seamless use experience, and ensuring predictable and simple scalability to accommodate future growth. Traditional infrastructure approaches can become too costly to deploy and too complex to manage. Often, they are unsuitable to serve the high and random IO nature commonly found in VDI, compromising use experience. And infrastructure sizing and scaling is often a complex, cumbersome and disruptive exercise. A close attention to underlying infrastructure is paramount in order to ensure VDI success.

Smarter Infrastructure for Better VDI

Hyperconverged infrastructure (HCI) can directly address the issues of scalability, cost and performance by collapsing the traditionally siloed tiers of infrastructure to modular building blocks based on industry-standard hardware. By combining compute, storage, networking and virtualization, HCI eliminates infrastructure complexities and simplifies infrastructure management. Pivot3’s HCI solutions optimize virtual desktop deployments by providing a modular policy-based platform that minimizes infrastructure footprint and TCO, delivers seamless user experience, and simplifies the transition from pilot to full-scale.

Simple Scalable VDI with Pivot3 HCI

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Breakthrough End-User Experience

A superior end-user VDI experience is closely tied to the storage IO performance of the underlying infrastructure. Many VDI implementations slow or come to a screeching halt during periods of high IO activities, such as boot or login events. Pivot3’s unique distributed scale-out architecture delivers outstanding IO performance at lower latencies by ensuring all drives in a cluster participate in all IO activities simultaneously. Additionally, Pivot3 Acuity HCI platform provides advanced policy-based Quality of Service (QoS) coupled with PCIe NVMe IO acceleration, ensuring consistently high IO performance. Lastly, performance-enhancing features like global read/write cache and hypervisor pass-through also help deliver superior response times. These capabilities combined, enable blazing fast response times for end-users.

Cost-Effective VDI with Lower Footprint and Higher Density

Cost is often one of the reasons VDI deployments fail to achieve positive ROI. Pivot3 delivers cost-effective VDI by delivering up to 2X to 3X the desktop density per node. Pivot’s HCI operating environment is much more efficient than alternate HCI solutions, enabling higher VM density. Policy-based QoS coupled with an NVMe storage tier further improves density by eliminating IO bottleneck for the most important VDI workloads. Additionally, Pivot3’s patented erasure coding enables up to 94% usable capacity while ensuring market leading resiliency and availability. These capabilities combined with many other performance enhancing features enable as much as 2X to 3X VM density while delivering up to 6X storage performance.

Simple, Predictable Scale from 100s to 1000s of Desktops

Pivot3’s distributed scale-out architecture ensures linear predictable scalability, not only for capacity, but also for storage IO and available bandwidth. As you add more nodes to an existing Pivot3 cluster, the data is automatically and non-disruptively re-balanced on the expanded storage pool. By adding more nodes, effective IO capacity is automatically added because all volumes and data sets are distributed across all available drives and nodes. Each node brings 2 X 10Gbps storage network connections, so the effective throughput scales as you scale the cluster. Linear scalability is critical in VDI environments. As the number of desktops grows, IT organizations can predictably scale their infrastructure to meet their needs.

Flexible Deployments with Multiple Options and Rich Ecosystem

Pivot3 solutions for virtual desktops are available in flexible deployment options that include all-flash and hybrid configurations, rack or blade system nodes, and data or compute only expansions. With these, you can design the architecture that best meets your VDI deployment needs, and scale on your terms. Pivot3 also integrates seamlessly with your existing infrastructure to extend your investments, and Pivot3 solutions validated with leading VDI software platforms that include VMware Horizon View and Citrix XenDesktop, as well as leading VDI technology partners such as NVIDIA, Teradici, Amulet Hotkey, Liquidware Labs, Login VSI, AppSense and Imprivata. Pivot3 rigorously tests its solutions with key VDI platforms using industry standard tools to simplify infrastructure deployment, sizing and scaling.

Transform Your VDI with Pivot3 HCI

VDI has become a key enabling technology for improving workforce productivity, enhancing security and simplifying IT management. Pivot3 key features like distributed scale-out architecture, advanced policy-based QoS and NVMe storage tier, and patented erasure coding improve efficiency and performance, allowing you to build a cost-effective VDI solution that is simple to manage and scale.