

WHITEPAPER

Virtual Desktop Infrastructure and Pillar Axiom

Virtual Desktop Infrastructure (VDI), or Desktop Virtualization, removes the complexity of maintaining workstations. VDI gives the best of both worlds to administrators and end users by combining a familiar PC desktop experience with the centralized control and management common in data centers.

Much has been written on the potential savings in IT maintenance and administrative expense that a VDI solution can realize. Implementing VDI can yield a 5 to 1 savings, depending on the number of seats, type of solution, utilization, and other factors.

Benefits of VDI

The Pillar Axiom storage system from Pillar Data Systems complements the features and benefits that a VDI solution brings to the enterprise environment. The benefits include centralized desktop management and support, desktop backup and recovery, improved flexibility and control, and a lower total cost of ownership.

Centralized Desktop Management, Desktop Consolidation, and Remote Employee Support

With VDI, a high level of centralized management and support of desktops is enabled, making it possible to provision and deploy new desktops in minutes. Organizations can replace traditional PCs with virtual desktops that reside in a centralized data center that is staffed with IT professionals for hands on management. VDI also benefits companies that outsource, who face unique challenges to make frequent equipment changes for their remote workers as they assigned to new projects. With VDI, the remote worker need only be provided with a virtual desktop that connects back to the data center where a virtual machine or group of virtual machines can be used, rebooted, rebuilt and redeployed as duties dictate.

The Pillar AxiomONE Storage Services Manager dramatically simplifies provisioning and management of the storage deployed in a VDI environment. The intuitive interface provides a simple and flexible point of management for the creation and administration of the storage used to deploy the VDI solution. With AxiomONE, the interface and workflow remains consistent whether the solution is SAN or NAS, using FC, iSCSI, CIFS, or NFS.

Desktop Backup and Disaster Recovery

Backing up user's desktops has long been an expensive, time consuming, and clumsy process; often requiring the user to manually copy files to a network resource that is then backed up nightly. As this method is unreliable, important data and documents can go unprotected for long periods of time. By deploying a VDI environment, this chore can be replaced with reliable, cost effective solutions.

VDI solutions depend upon shared storage to provide many of their features and benefits. The Pillar Axiom provides benefits such as reliability, data protection and disaster recovery options that are not available with internal drives or Direct Attached Storage (DAS) solutions. The Pillar AxiomONE Storage Services Manager includes simple and flexible data-protection and retention options including SnapFS, Snap Revert, CloneLUN, CloneFS, and Volume Copy, providing a wide spectrum of protection for the VDI environment.

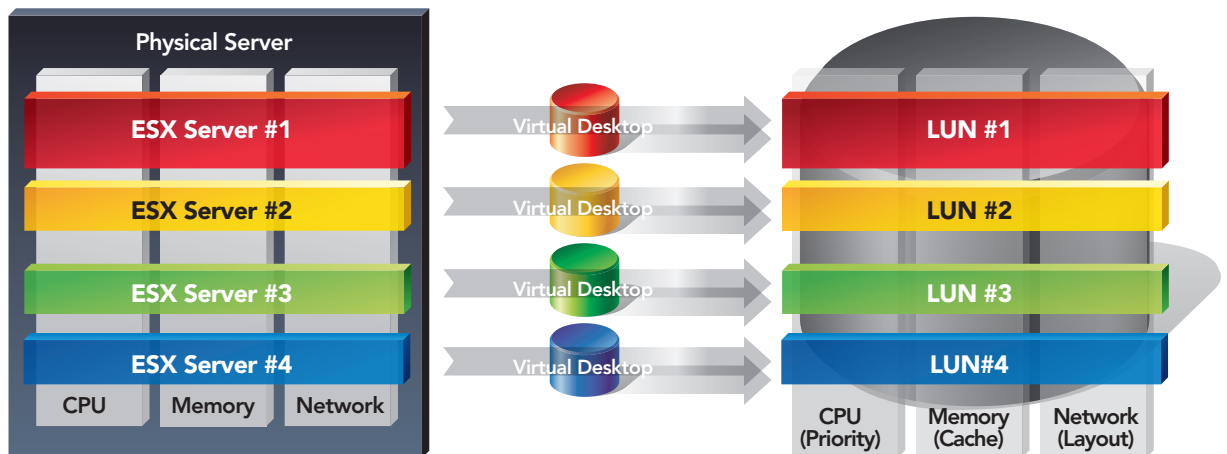
An additional suite of backup and recovery solutions is provided by Pillar's Enhanced Data Protection (EDP) products which combine with the features of VDI to completely centralize backup in the home office and remove the burden from end users. Pillar's EDP solutions can replace or augment conventional, slow tape-based solutions with the industry's fastest, most granular recovery solution for mission-critical databases, messaging data, files, and even entire systems in the event of hardware or software failures and site-level disasters. Pillar's EDP solutions replace or enhance your existing backup solution with continuous journaling and any-point-in-time recovery to protect data between regularly-scheduled backups, minimize data loss, and keep business going during planned or unplanned outages.

Finally, solutions on the Pillar Axiom complement VDI to provide the ability to deploy individual desktops for users or create and maintain persistent and non-persistent desktop pools. These solutions can further range from allowing users to customize their desktops to allowing them to revert back to a known consistent state upon log-off.

Flexibility and Control

VDI solutions allow maximum flexibility by giving administrators the power to assign specific resources to specific virtual machines or guest OS systems. CPU, memory, and network resources are assigned based on the relative importance of the virtual machine or the applications it is hosting on a guest server basis. Specific virtual desktops are assigned in the same way.

Pillar Application Aware Storage allows administrators to provision storage in the same way VDI servers are provisioned, greatly easing management and maintenance tasks and making complex forecasting unnecessary. Further, with dynamic provisioning of resources, when the specific needs of a remote desktop change it can be transparently changed to a different priority.



Total Cost of Ownership

VDI reduces total cost of ownership (TCO) by lowering both capital and operational expenses tied to hardware, energy costs, administration, and other factors.

The Pillar Axiom adds to this savings since it's the most efficient storage system available today – saving data centers as much as 75 percent of the energy required to power and cool most storage infrastructures. It also has the smallest footprint in the industry – saving not only on power and cooling costs, but on valuable physical “real estate” in the data center as well. Pillar’s unprecedented 80% Utilization Guarantee ties in nicely with the goals and advantages of a virtual environment, ensuring the system will maintain a minimum utilization rate of 80% with no performance degradation. Considering how this is at least two times the industry average, it is easy to see how Pillar quickly reduces TCO while providing solid reliability and performance.

Administrative costs are lower too. The Pillar Axiom can be managed without relying on dedicated storage administrators; it was designed with the IT generalist in mind. With features like automatic tuning, six-click deployment, remote “call home” to alert support personnel to issues before they become problems, and guided maintenance; using the Pillar Axiom with a virtual infrastructure can cut administrative costs by as much as 50% while providing the end user with a familiar and robust desktop experience.

Summary

The Pillar Axiom complements the business advantages that a VDI solution brings to an IT environment. The robust architecture inherent in the Pillar Axiom platform allows for rapid deployment, easy management, and modular expansion for easy scalability and flexibility. Combine this with a built-in Utilization Guarantee, dynamic policy-based prioritizing of multi-tiered data in a single array and independent scale of performance and capacity, and you’ll quickly and easily achieve all the promise of a Virtual Desktop Infrastructure.

Pillar Data Systems takes a sensible, customer-centric approach to networked storage. We started with a simple, yet powerful idea: Build a successful storage company by creating value that others had promised, but never produced. At Pillar, we’re on a mission to deliver the most cost-effective, highly available networked storage solutions on the market. We build reliable, flexible solutions that, for the first time, seamlessly unite SAN with NAS and enable multiple tiers of storage on a single platform. In the end, we created an entirely new class of storage.
www.pillardata.com

