

DATERA FOR VMWARE VIRTUALIZED ENVIRONMENT

The massive growth in data in the new economy mandates the need for a flexible and scalable storage infrastructure. Virtualization has become mainstream over the past five years with a majority of business critical applications being virtualized. Storage has always been one of the difficult components to provision and manage in a VMware Virtual infrastructure. Deploying high performance storage in a shared virtual infrastructure is very cumbersome and time consuming. Database and other IO intensive applications require dedicated LUNS and segregation from other applications. Using shared storage infrastructure for these applications can adversely affect their performance.

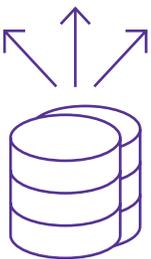
Many of the physical design concepts for databases need to be implemented in the virtual infrastructure as well. Special storage requirements of these high IO applications can make storage management and automation a challenge. Automation is critical for the cloudification of these applications and agility in their operations. There is a need for storage that provides automation capabilities that meet the unique requirements of these applications.

THE DATERA ADVANTAGE

Datera is the Elastic Data Fabric innovator, which is the only choice in the next-generation elastic block storage offering. Datera EDF is deployable within enterprises on industry-standard x86 servers, which offers the organization the flexibility in price, performance, administration, architecture, design and support. Datera EDF takes datacenter automation and efficiency to a whole new level, delivering continuous intelligent infrastructure at transformational speed, agility, and economics. No other software defined storage vendor understands how to develop such an offering.

Datera EDF provides storage that is application aware and scales both linearly and horizontally. EDF runs on heterogeneous x86 servers delivering heterogeneous hyper-scale infrastructure, such as hybrid arrays and all flash—which is up to the designer to choose. EDF is completely self-aware, self-adaptive, and self-optimizing, meaning simply, that EDF has the automatic and algorithmic intelligence to know how to offer more than any legacy or 'next gen' storage vendor can even come close to developing.

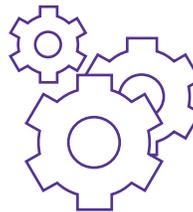
SCALABLE STORAGE



DYNAMIC ADAPTABLE PERFORMANCE



AUTOMATION IN THE CLOUD



TRANSFORMATIONAL SPEED



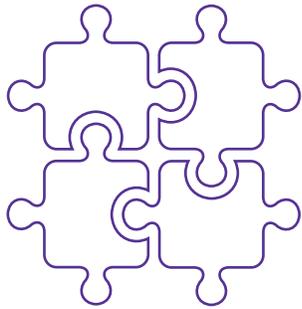
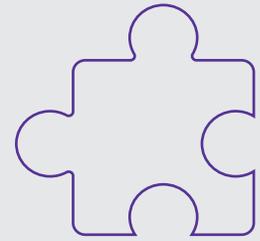
DYNAMICALLY ADAPTABLE PERFORMANCE

Datera EDF is built to provide adaptable performance based on application needs. If the requirements or the performance profile of the application were to change due to usage or peak times, the storage profile can be dynamically adjusted. Datera's Application Intent based storage can dynamically be adapted for performance and capacity needs.



vCENTRE PLUGIN

Traditionally all storage provisioning and management operations happen at the storage array level, with no visibility for the VI admin. The Datera plugin for vCenter provides the ability to manage its storage directly from vCenter. The VI admin can monitor all the recent activity in the Datera array with timestamps and types of activity performed. Adding storage usually involves creating LUNS in the storage array, zoning them to the VMware cluster, and then discovering and formatting them. New volumes can be created end to end using the plugin for use in a cluster with a simple wizard. As part of the process, a pair of dedicated storage targets are setup automatically and the LUNS are zoned to the array, followed by the creation of VMFS datastores seen by all nodes in the array.

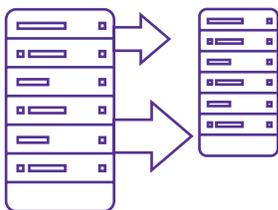
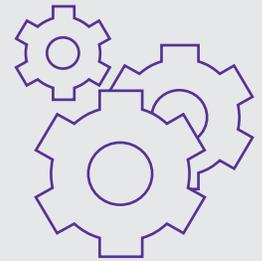


HYBRID AND ALL FLASH STORAGE NODES

Datera provides the capability to mix and match Hybrid and All Flash storage nodes in the same cluster. The cluster is able to mix and match hybrid and All Flash capabilities to intelligently meet the unique requirements of the applications. Hybrid systems are tiered and leverage NVDIMM, NVMe flash, and NL-SAS HDD storage components. All Flash storage nodes leverage NVDIMM and SATA SSDs.

ENABLING SOFTWARE DEFINED STORAGE

VMware has charted out its vision for the software defined data center (SDDC) that allows for compute, network, and storage for virtual infrastructure to be defined through software. The storage platform should be responsive to SDDC and provide the software components and rest APIs to work in this infrastructure. Datera provides Rest APIs and automation capabilities that make software defined storage a reality. Datera is compliant with vStorage APIs for Array Integration (VAAI) and finally bring efficiencies in cloning, copy, and backup operations that have only been empty promises up until now.

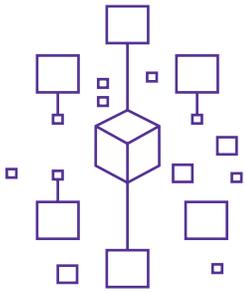
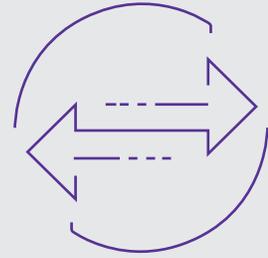


APPLICATION SPECIFIC STORAGE

Datera allows for application related storage provisioning to be decoupled from the physical infrastructure management. Moreover, administrators and developers can seamlessly transition from development to test to IT operations without application configuration changes, but morphing the infrastructure constraints through policy overrides based on application requests.

SCALABLE

Start small, and be able to scale fast. Traditional storage is limited in scale by the proprietary hardware frame size and performance, while Datera delivers “heterogeneous COTS scale-out”. Software-based system will organically evolve-grow with new hardware, and decommission obsolete old hardware without any disruption. Data gets rebalanced and access optimized for the runtime workloads. No data migration. Datera nodes typically are capable of 50K IOPS/node with a 70/30 R/W mix. The platform has near linear scaling of performance when new nodes are added.



ADVANCED DATA SERVICES

The Datera storage platform provides advanced data services such as the auto-rebalancing of data, export and import, data compression, and encryption capabilities. Other important capabilities include the ability to perform volume resizing and replica reconfiguration while the components are online and in use.

PRICE/PERFORMANCE OPTIMIZATION

Given the wide variety of applications hosted in virtual infrastructures, Datera helps match optimize price and performance by truly matching application intent with the right storage. Datera system allows for storage to be placed intelligently maintaining the intended services level objectives for any application workload, even in multi-tenant clouds.

