EMC VIPR SUITE

Multivendor Storage Automation and Self-Service

ESSENTIALS

Storage Automation

- Improve operational efficiency by automating storage provisioning and reclamation tasks
- Offer storage-as-a-service via self-service catalog to empower consumers
- Integrate with VMware, OpenStack, and Microsoft cloud stacks to deliver infrastructure-as-a-service
- Gain all the benefits of open source development via project CoprHD

Reporting Insights

- Increase visibility into capacity utilization and improve planning to reduce storage costs
- Analyze performance for economical storage tier selection
- Monitor and troubleshoot service level issues to reduce mean time to recovery
- Track changes and analyze compliance with design best practices to ensure SLAs

ACCELERATE DELIVERY WHILE MEETING SLAS

Today's enterprise storage environments typically consist of multiple sites using storage systems from different vendors to deliver a wide variety of storage services. Each storage platform is chosen based on its ability to handle specific workloads, each with its' own unique set of APIs, management and monitoring tools. With this diversity, comes the challenge of managing these storage silos efficiently. As the amount of data grows, delivering storage services using business as usual processes is not sustainable.

Businesses of all sizes are trying to accomplish many of the same things they have for years: reduce both capital and operational expenditures; provide flexibility and choice to ensure agility and desired business outcomes; and create new services customers can easily consume. What is different now? They must contend with flat headcount, while faced with staggering data growth (44 Zeta Bytes by 2020 according to IDC) driven by mobile apps, the Internet of Things and increased dependency on business analytics. At the same time, they are being asked to improve the speed and efficiency in which they deliver storage services and empower consumers through self-service access to IT resources.

The EMC® ViPR® Suite delivers storage automation and management insights across multivendor storage. It helps to improve efficiency and optimize storage resources, while meeting service levels. The ViPR Suite empowers consumers with self-service access to speed service delivery, reducing dependencies on IT, and providing an easy to use cloud experience with cost transparency.

SIMPLE. EXTENSIBLE. OPEN.

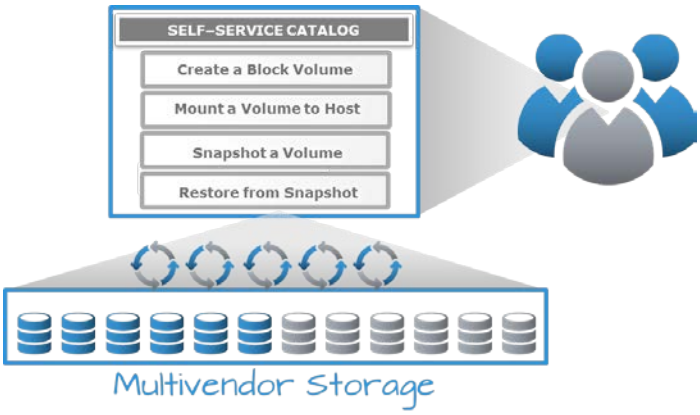
ViPR Controller lets you automate provisioning of storage services, reducing manual tasks up to 63%* to improve operational efficiency. You can deliver storage-as-a-service to consumers, minimizing dependencies on your IT team. ViPR Controller is storage automation software based on the open source development project CoprHD. It centralizes and transforms storage into a simple and extensible platform by abstracting and pooling resources to deliver automated, policy-driven storage services on-demand via a self-service catalog. With vendor neutral centralized storage management, your team can reduce storage provisioning costs by up to 73%**, provide greater choice and deliver a path to the cloud through storage-as-a-service.

SIMPLE CENTRALIZED AUTOMATED MANAGEMENT

ViPR Controller delivers repeatable, built-in best practices and intelligent processes to automate storage provisioning and reclamation tasks. ViPR Controller makes it as easy to consume enterprise storage as it is to consume public cloud storage services. It reduces storage provisioning tasks from weeks/days to mere minutes, freeing administrators from manual tasks and minimizing risk.

ViPR Controller also automates VCE® Vblock System infrastructure services, reducing the cluster provisioning lifecycle to efficiently and rapidly respond to IT requests.

Figure 1. Automate delivery of policy-based storage services.



EXTENSIBLE MULTIVENDOR SUPPORT

ViPR Controller extends beyond EMC with support for third-party storage and cloud stacks, giving you the freedom to make the right choice for your business. ViPR Controller integrates with:

- EMC Storage: Data Domain®, Isilon®, ScaleIO®, VMAX®, VNX®, VNXe3200, XtremIO™
- Converged Infrastructure: VCE Vblock Systems
- Third-party Storage: Dell, HDS, HP, IBM, LeftHand, Oracle, NetApp, Solidfire
- Data Protection: Hitachi snaps, IBM snaps, RecoverPoint®, SRDF®, VPLEX®
- Cloud Stacks: Microsoft, OpenStack, VMware®

ViPR Controller is accessible via an open REST API for integrating with IT service management solutions. It integrates with Microsoft, OpenStack and VMware, making it easy to incorporate ViPR Controller into existing data center operations or to build a software-defined data center.

OPEN SOURCE COMMUNITY DEVELOPMENT

ViPR Controller development is driven by the open source community project CoprHD located at CoprHD.GitHub.io. This type of development model encourages community collaboration for expanding the breadth and depth of features and functionality, including support for non-EMC storage arrays and data protection technologies. It also strengthens ViPR Controller as a single, vendor-neutral control point for software-defined storage automation.

VISUALIZE. ANALYZE. OPTIMIZE.

ViPR SRM complements ViPR Controller by empowering you to make more informed decisions. It is monitoring and reporting software that allows you buy less storage through improved planning and utilization while aligning costs with business requirements through chargeback. It helps you to buy better by providing insights into workloads that can be moved to lower cost storage without impacting SLAs. ViPR SRM lets you visualize, analyze and optimize your storage investments to make more informed purchasing decisions to reduce costs while meeting SLAs.

CAPACITY PLANNING

Automated reports help you understand how much storage you have, how it is being used, and when more will be needed. You can quickly identify orphaned or underutilized capacity that can be reclaimed. You can also communicate the cost of storage services to consumers through chargeback reports. With greater insights, you can buy less capacity by increasing utilization and lower costs by improving planning processes to take advantage of just-in-time purchasing processes.

PERFORMANCE ANALSYS

End to end data path relationship and topology reports help you identify service dependencies. By analyzing historical workloads and response times, you can determine if you have selected the most economical storage tier for the application. Identifying workloads that can be moved to lower cost storage helps you buy better to reduce capital expenditures.

MONITORING AND TROUBLESHOOTING

Receive alerts from across your storage infrastructure to identify when service levels have been impacted or are at risk. End to end data path relationship and topology views help you identify service dependencies, troubleshoot problems and understand business impacts.

CONFIGURATON COMPLIANCE

Track configuration changes and analyze compliance with design best practices and the EMC Support Matrix to eliminate mistakes before they happen. When problems occur, an audit trail of configuration changes helps reduce troubleshooting time by providing insight into changes that may be impacting service levels.

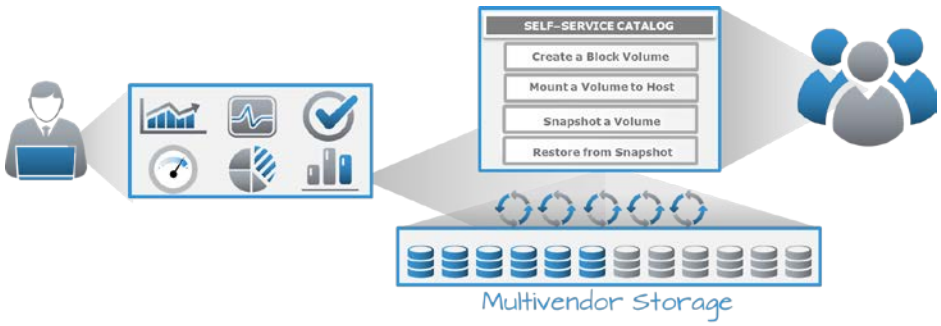
AUTOMATION AND INSIGHT

The ViPR Suite delivers the storage automation and management insights necessary to accelerate service delivery and optimize capacity utilization while meeting service levels. Increase the efficiency of your organization with automated reports that help you make better, quicker decisions. Deliver storage services more efficiently and with less risk through automation.

*Realizing Software-Defined Storage with EMC ViPR, Principled Technologies, 2014

**Reducing OPEX with ViPR Controller and ViPR SRM, Principled Technologies, 2014

Figure 2. Increase agility and management insights.



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