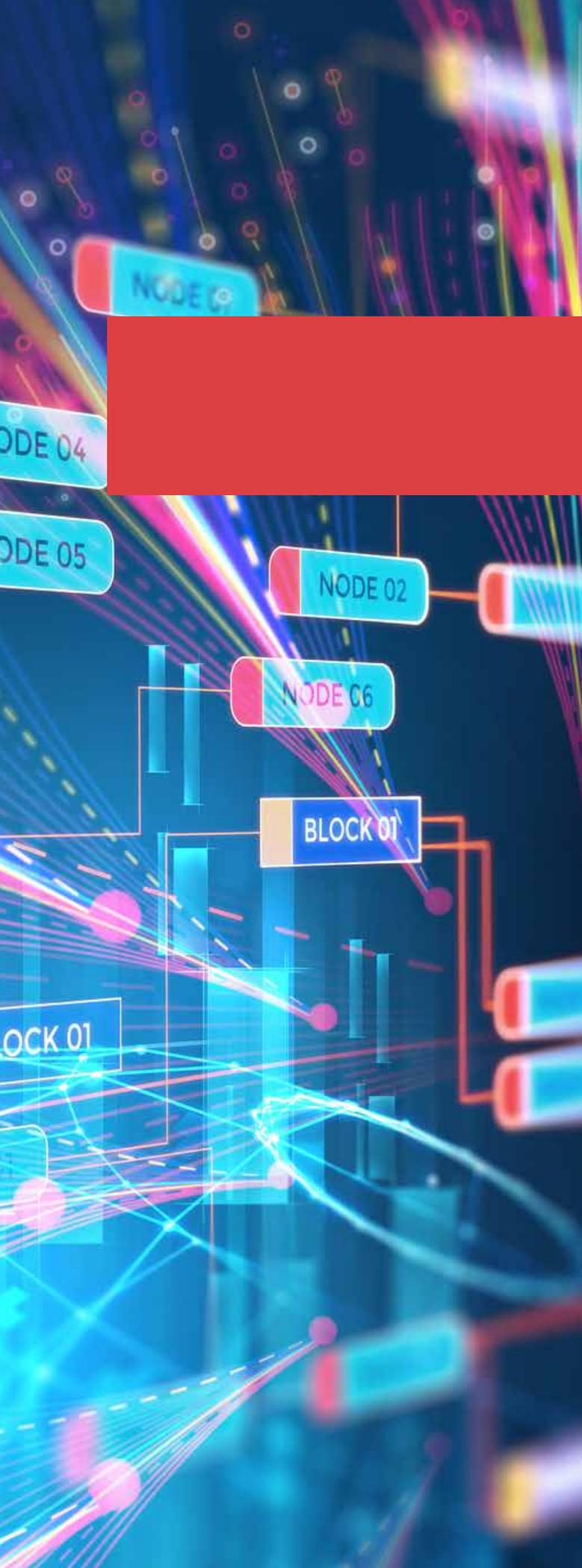


Simplifying the Path to Open-Source Storage





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Software-defined storage (SDS) is growing in popularity as a path to achieving a public cloud-like experience on-premises. Among the key objectives in moving to SDS is cutting the costs and improving the flexibility of the storage infrastructure. Ceph is a platform that stands to do just that; Ceph is an open source SDS platform that is built on object storage. Ceph then provides a unified interface for object, block and file storage on a distributed cluster of industry-standard servers. One of the challenges with SDS is that while the solutions may end hardware vendor-lock in, they do continue to lock the customer in to the vendor's software. Open source SDS also break storage software vendor-locks. The typical concern with open-source software is the solutions, while free of lock-in, are complex to implement and support.

What is SUSE Enterprise Storage?

SUSE delivers a commercial version of Ceph that it calls SUSE Enterprise Storage. SUSE Enterprise Storage is designed to enhance the manageability and interoperability of Ceph. SUSE's goal is to give the customer the best of all worlds, an SDS solution free of hardware and software lock-in that is also easy to use and operate. For example, it builds on technology obtained through its 2016 acquisition of openATTIC to provide a more graphical and user friendly interface for managing and monitoring Ceph. The platform recently added capabilities such as cache tiering and remote replication to enhance the efficiency and availability of Ceph, making the platform more suitable for enterprise deployments. With its most recent updates to the platform, SUSE is focused on adding to these capabilities, and on enhancing support for cloud environments.

SUSE Enterprise Storage 6

SUSE is preparing to release Version 6 of its Enterprise Storage platform in June 2019. From the standpoint of manageability, the updated version will add support for the new Ceph Dashboard, which adds more advanced management capabilities including multi-user and role management, single-sign-on (SSO) and auditing of API requests. The storage administrator may limit tenants to certain levels of input/output operations per second (IOPS) performance, or they may rebalance operations for better data operations, for example. Also, logical pools of storage can be created based on capacity and performance requirements, files may be automatically migrated across tiers based on usage requirements, and files retention and deletion parameters may be set on a policy-specific basis. This helps to streamline storage administration, lower the cost structure of the storage environment while accelerating application performance, and it can help to ensure adherence to data privacy regulations.

Version 6 also adds event notifications via SNMP traps, and it provides trending insights, for example, such as how capacity is growing and how one tenant is using performance compared to the other, to support performance optimization. SUSE is building the opt-in capability to apply analytics on error notifications and system metrics, to provide additional value in the form of deeper and more predictive insights to support system health. In collaboration with hardware partners,

Version 6 also offers closer integration with the storage enclosure to aid in the replacement of failed parts and to more closely gather information on the underlying hardware, such as system temperature.

The reality for most enterprises today is that they are running heterogeneous storage environments that mix the block, file and object protocols. The SUSE Enterprise Storage platform provides common support for these protocols, and Version 6 adds snapshots for the CephFS file system for enhanced data protection. Additionally, it enables multiple active gateways to be configured for higher availability.

To improve hybrid cloud support, SUSE is also adding the ability to automatically sync data to external clouds through the S3 interface in Version 6. It also adds Elasticsearch sync for RADOS Gateway objects. Elasticsearch is an open-source, distributed analytics and search platform that is often used for functions such as log analytics and full text search. RADOS is a scalable, RESTful API-style interface to files that are organized as objects. SUSE's new capability effectively provides an automated mechanism to search metadata across tens of petabytes of storage capacity, which can support business analytics, operational analytics and eDiscovery requests.



StorageSwiss Take

SUSE has a clear vision in terms of the value that it adds to open-source storage implementations – simplicity, ease of management, and support for modern application delivery (version 6 already supports workloads running in container environments).

An ideal initial use case for SUSE Enterprise Storage is backup use cases. It is massively scalable, provides centralized multi-protocol data access, and can run on commodity hardware (data does not even need to be migrated from existing infrastructures). To further cut costs, it intelligently optimizes data placement. Meanwhile, it enables more data to remain online and accessible for a longer period of time (helping to comply with data privacy and eDiscovery requirements). As IT becomes comfortable with the SUSE solution these characteristics also add value for the growing number of traditional primary storage workloads as well as analytics workloads.





The Firm

Storage Switzerland is the leading storage analyst firm focused on the emerging storage categories of memory-based storage (Flash), Big Data, virtualization, and cloud computing. The firm is widely recognized for its blogs, white papers and videos on current approaches such as all-flash arrays, deduplication, SSD's, software-defined storage, backup appliances and storage networking. The name "Storage Switzerland" indicates a pledge to provide neutral analysis of the storage marketplace, rather than focusing on a single vendor approach.



About Our Partner

SUSE, a pioneer in open source software, provides reliable, software-defined infrastructure and application delivery solutions that give enterprises greater control and flexibility. More than 25 years of engineering excellence, exceptional service and an unrivalled partner ecosystem power the products and support that help our customers manage complexity, reduce cost, and confidently deliver mission-critical services. The lasting relationships we build allow us to adapt and deliver the smarter innovation they need to succeed – today and tomorrow. For more information, visit www.suse.com.