

IBM Spectrum Virtualize, Scale, Protect/Protect Plus and ESS announcements

Silverton Consulting, Inc. StorInt™ Briefing

IBM® recently announced Spectrum Virtualize on Microsoft Azure, Spectrum Scale High Performance Object, Spectrum Protect/Protect Plus new replication/cloud deep archive tier options and a new 38TB FlashCore module for ESS.

IBM Spectrum Virtualize on Microsoft Azure

Spectrum Virtualize functionality can be found in IBM SAN Volume Controller, Storwize Storage, FlashSystem Storage as well as running on IBM Cloud, AWS cloud and now on Microsoft Azure.

For Microsoft Azure, as in any of its public cloud deployments, Spectrum Virtualize will be deployed as a Highly Available (HA) storage service using multiple compute nodes (virtual machines) and storage to form a storage cluster. Azure, AWS and IBM Cloud customers can deploy Spectrum Virtualize from their respective marketplaces to provide iSCSI storage services for applications running in those cloud compute instances.

Spectrum Virtualize offers IP replication between storage clusters that works between on prem and any cloud deployment in support of business continuity and disaster recovery (BC/DR).

Spectrum Virtualize for Azure also supports IBM **Safeguarded Copy**, which is specifically designed protected snapshot technology to create a “logical” airgap between data storage and safeguarded copies so that ransomware cannot access or corrupt the data.

Customers can replicate on prem Spectrum Virtualize data to public cloud Virtualize clusters and use safeguarded copies there to provide an even higher degree of protection and physical airgap for their data.

IBM Spectrum Scale enhancements

Spectrum Scale is another of IBM’s software defined storage solutions and is targeted at AI/ML, HPC, big science and other extreme bandwidth, IOPS, and data storage environments.

Spectrum Scale is adding a new High Performance Object storage option which is s3 compatible and can support 50GB/sec of bandwidth per storage node. This is very high performance for any object storage, which potentially means that the S3 interface can provide TB /s of performance throughput adding use cases like analytics and moving beyond the typical backup and archive object storage use cases.

Spectrum Scale is offered as a software only solution but it’s also available in IBM Elastic Storage System (ESS) hardware appliances. IBM is adding a 38TB FlashCore module (IBM’s proprietary designed flash storage) to the ESS. Now a single 2U ESS system can support up to 912TB of raw storage and a rackful of ESS can be up to 18+PB

IBM Spectrum Protect and Protect Plus

IBM Spectrum Protect Plus has been enhanced to support 3-way replication of backup data to take advantage of multiple replication sites to provide better backup data availability and BC/DR.

IBM Spectrum Protect Plus has also added Red Hat OpenShift and Kubernetes container persistent storage backup capabilities. As more stateful container apps start being deployed, Protect Plus can be used to backup container data. Protect Plus is certified to operate with OpenShift and are available from the OpenShift Marketplace. Spectrum Protect Plus also works with OpenShift running on Microsoft Azure public cloud.

Spectrum Protect has also added an Archival tier for longer term archiving of backup data. Currently the Archival tier works with IBM COS Public Archive, AWS Glacier and AWS deep glacier object storage. In addition, Spectrum Protect Plus supports backup directly to S3 storage.

Significance

Many storage vendors are implementing versions of their storage systems to run on public cloud infrastructure as a means of supporting a multi-cloud/hybrid cloud environment. But another reason to do this is to support HA and highly functional storage operating in the cloud environment. Spectrum Virtualize on IBM Cloud, AWS and Azure satisfies both these requirements.

While it's good to see the new denser ESS systems, the 38TB FlashCore module has been available on FlashSystems for a while now. On the other hand, this is the first time we've seen FlashCore modules deployed outside Storwize and FlashSystem storage.

However, Spectrum Scale's high-performance objects seems most significant. Spectrum Scale already supported object storage, but the new high performance object storage indicates that AI-ML-DL workloads are becoming more important to HPC environments. We see evidence of this in recent US supercomputing systems having boatloads of GPUs along with ocean liner loads of compute cores. AI-ML-DL is becoming a mainstream requirement for HPC.

Silverton Consulting, Inc., is a U.S.-based Storage, Strategy & Systems consulting firm offering products and services to the data storage community.