IBM Spectrum Scale Strategy Days 2021

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Dominic Müller-Wicke

STSM | IBM Spectrum Protect Portfolio Architect

IBM Spectrum Protect Plus & IBM Spectrum Scale

Agenda

- Introduce Spectrum Protect Plus ecosystem
- *vSnap on Scale*

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Spectrum Protect and Plus technology - the 20 second elevator pitch

- Spectrum Protect Plus technology is **like** Spectrum Protect in that it provides data protection by creating copies of host data into a managed storage system.
  - Data reduction = incremental forever, native deduplication and native compression
- Spectrum Protect Plus technology is **different** than Spectrum Protect in that Plus retains the native data format of the protected data; this allows Plus to not only provide data protection but also enable data re-use use cases.

Other differences:

- Single interface with role-based access
- “Agentless” workload protection
- Built on REST API

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Protected Workloads (recovery and re-use) – Spectrum Protect Plus

Virtualized Systems	VMware **vSphere**, Microsoft **Hyper-V**, Amazon **EC2**
Databases	IBM DB2, Oracle, Microsoft SQL Server, mongoDB, Exchange
Containers	OPENSHIFT, Kubernetes
Cloud Management	Microsoft 365
File systems	Windows Server

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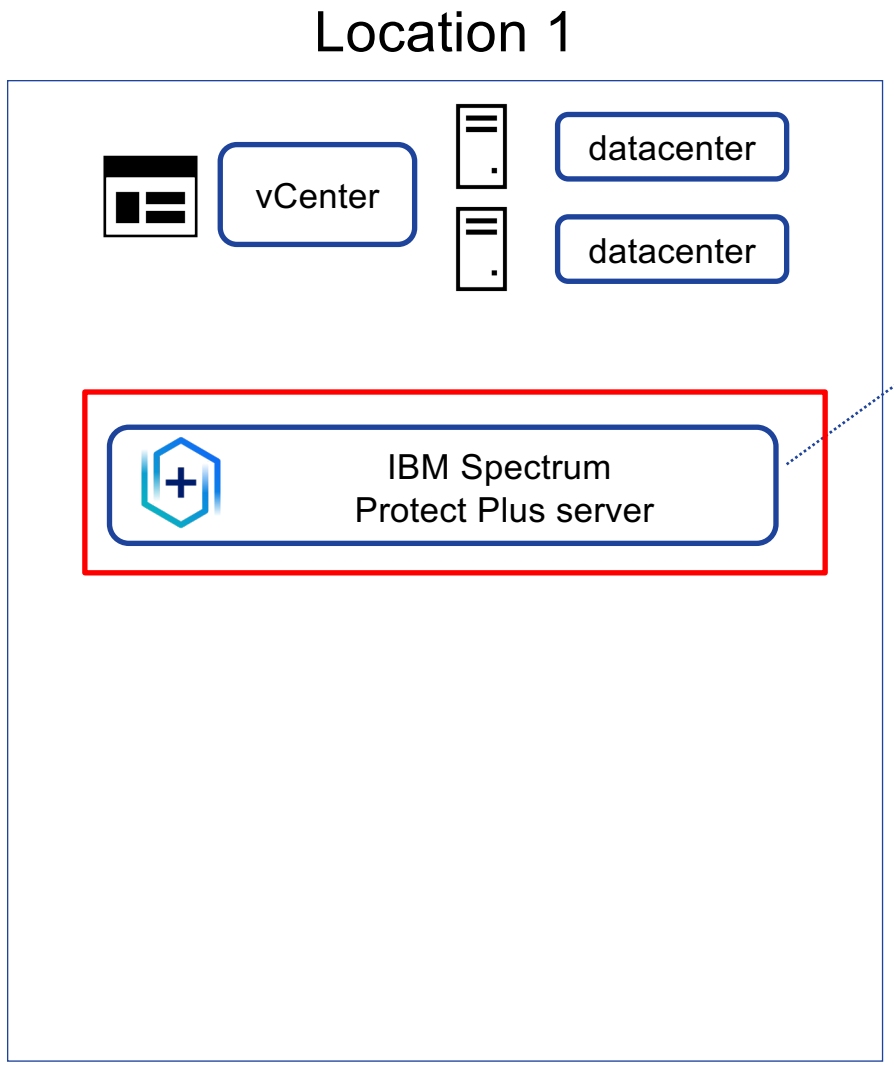
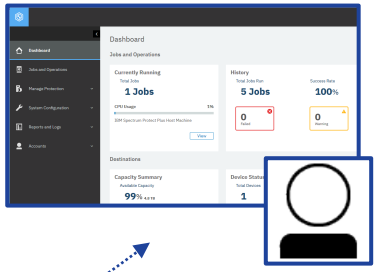
IBM Spectrum Protect Plus Server





- Component of the infrastructure that manages and orchestrates the entire system.
- Consists of several catalogs that track various system aspects such as recovery points, configuration, access, customizations, etc.
- ***Key point:*** Only one IBM Spectrum Protect Plus server in a deployment, even if the deployment is spread across multiple locations.
- ***Key point:*** The IBM Spectrum Protect Plus server is shipped as a virtual machine image or OpenShift operator for easy deployment
- ***Tip***: Place the IBM Spectrum Protect Plus appliance on high performing, solid state disk to optimize catalog performance.

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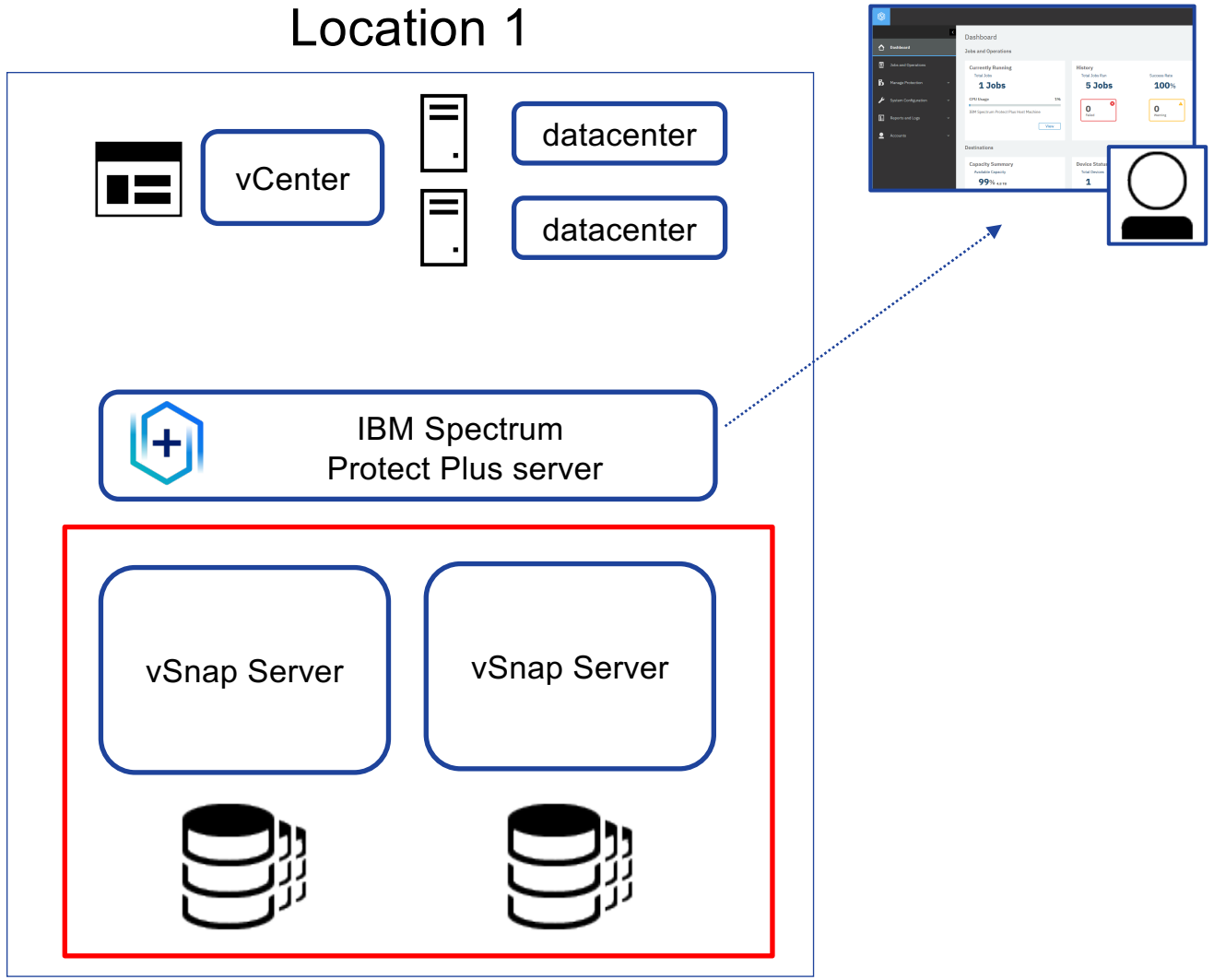
vSnap Server



- Also referred to in the interface as a ***backup storage provider***
- Pool of disk storage that receives data from production systems for the purposes of data protection or re-use.
- Consists of one or more disks and can be scaled up (adding disks to increase capacity) or scaled out (introducing multiple vSnap servers to increase overall performance).
- Always at least one vSnap server based on sizing needs.

Tip: Determining the appropriate number of vSnap servers for a deployment is one of the basic questions addressed by the ***IBM Spectrum Protect Plus Blueprints***

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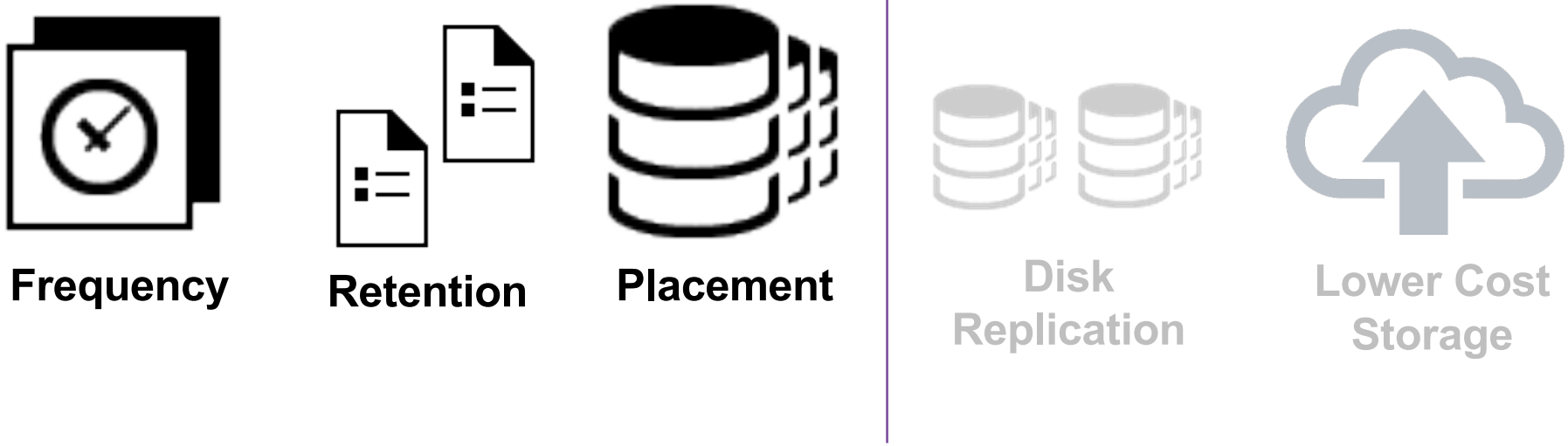
Backup policy basics – Frequency, Retention, and Placement (Plus view)



Key point: SLA Policy in Spectrum Protect Plus controls all aspects of protection: frequency, retention, and placement

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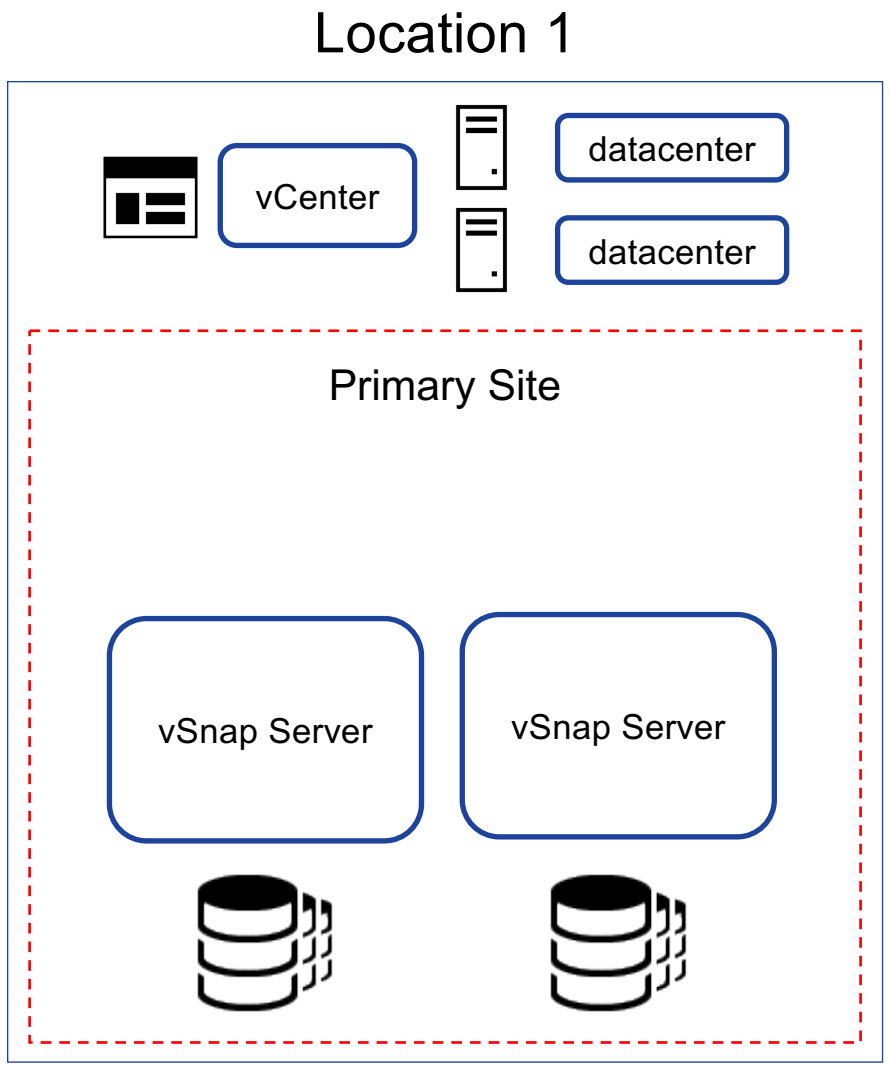
Site



- Spectrum Protect Plus policy construct which is used to manage data placement in the environment.
- Can be physical (a data center location) or logical (a department or organization).
- Spectrum Protect Plus components are assigned to sites to localize and optimize data paths. D
- Deployment always has at least one site per physical location.

Tip: The general philosophy is to localize data movement to the sites by placing vSnap servers *and other components* together in the sites. The placement of backup data to a site will be governed by the SLA policies

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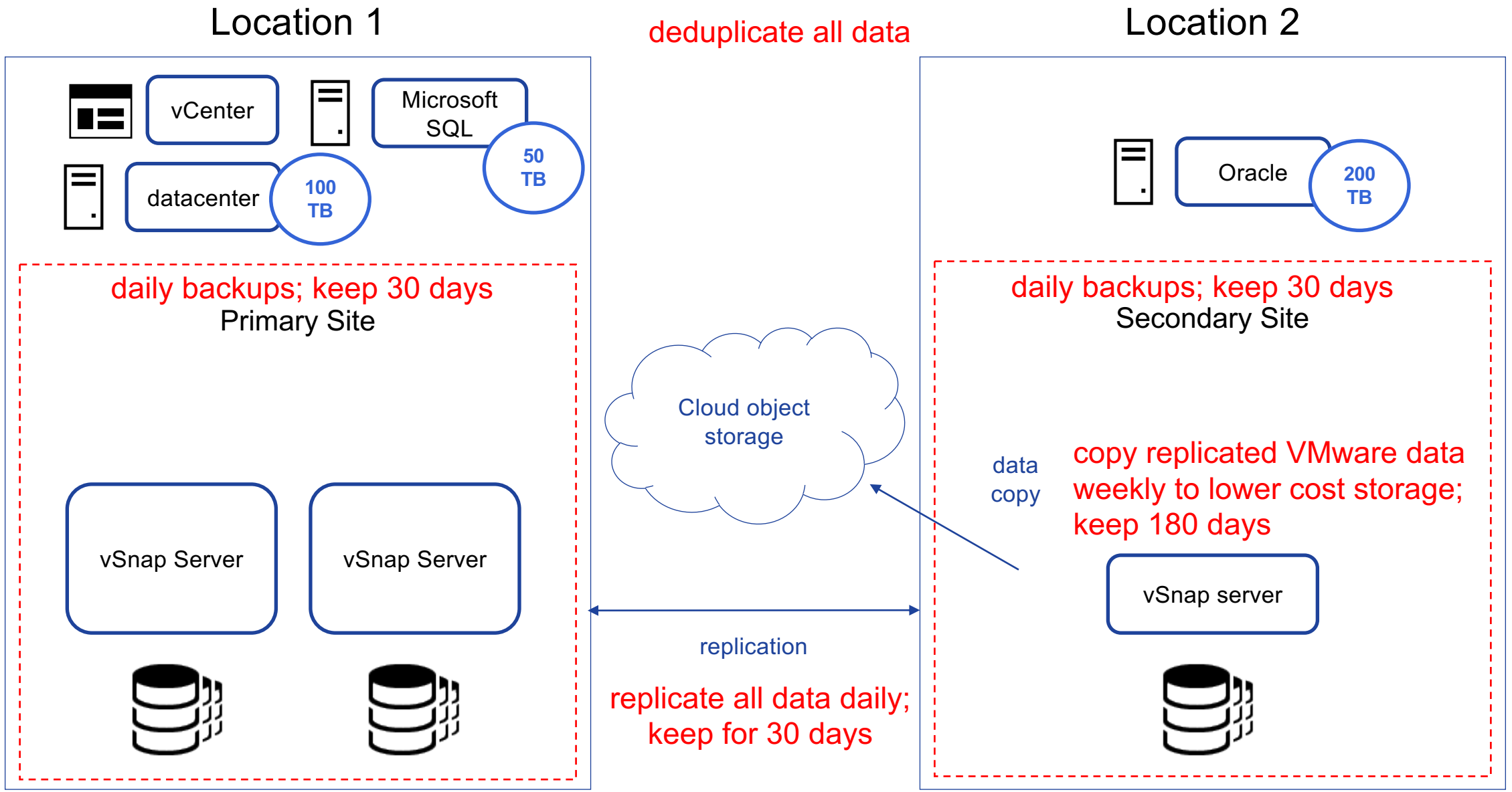
Spectrum Protect Plus Introduction – sample business requirements



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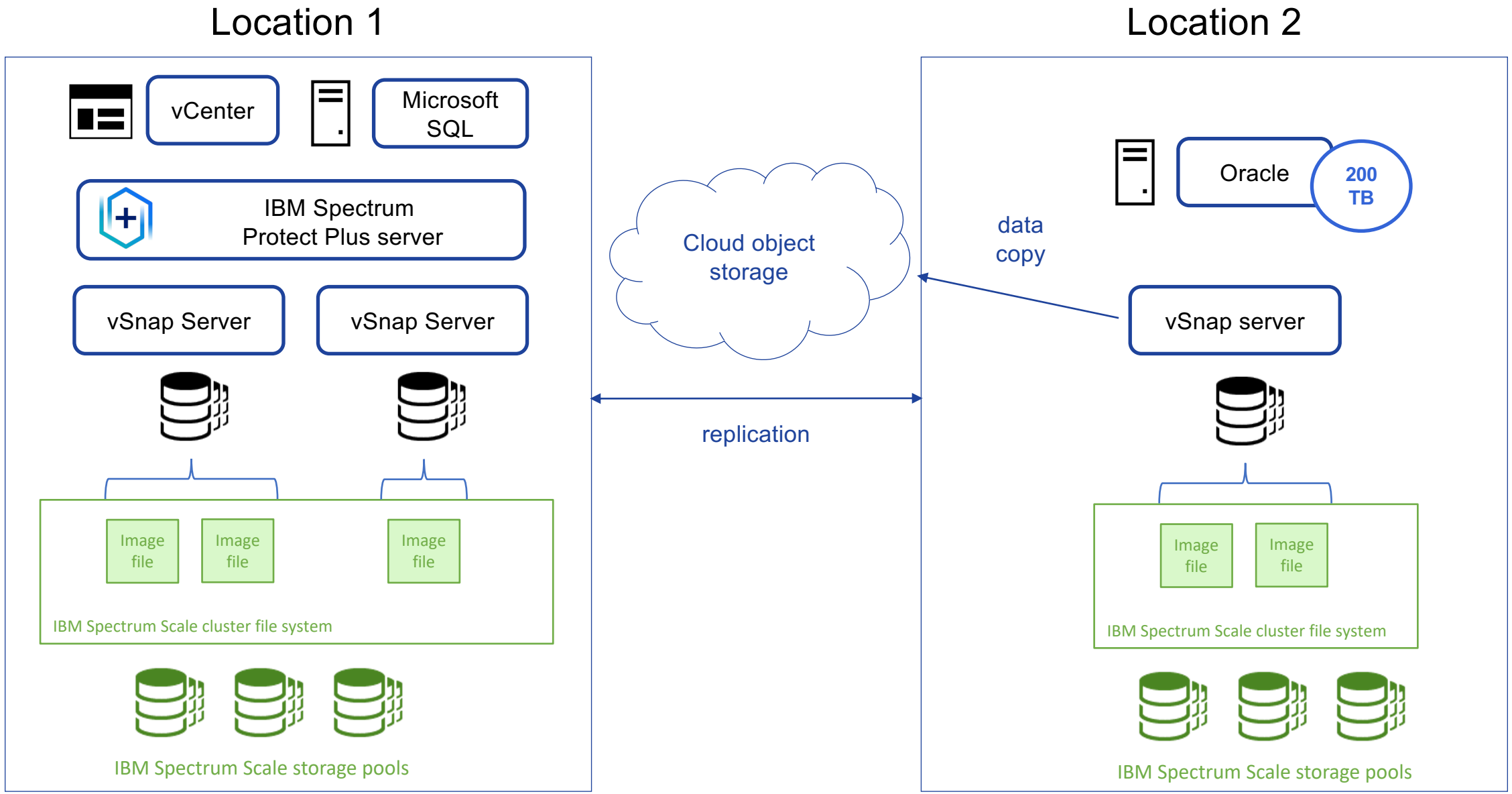
Spectrum Protect Plus Introduction – vSnap on Scale



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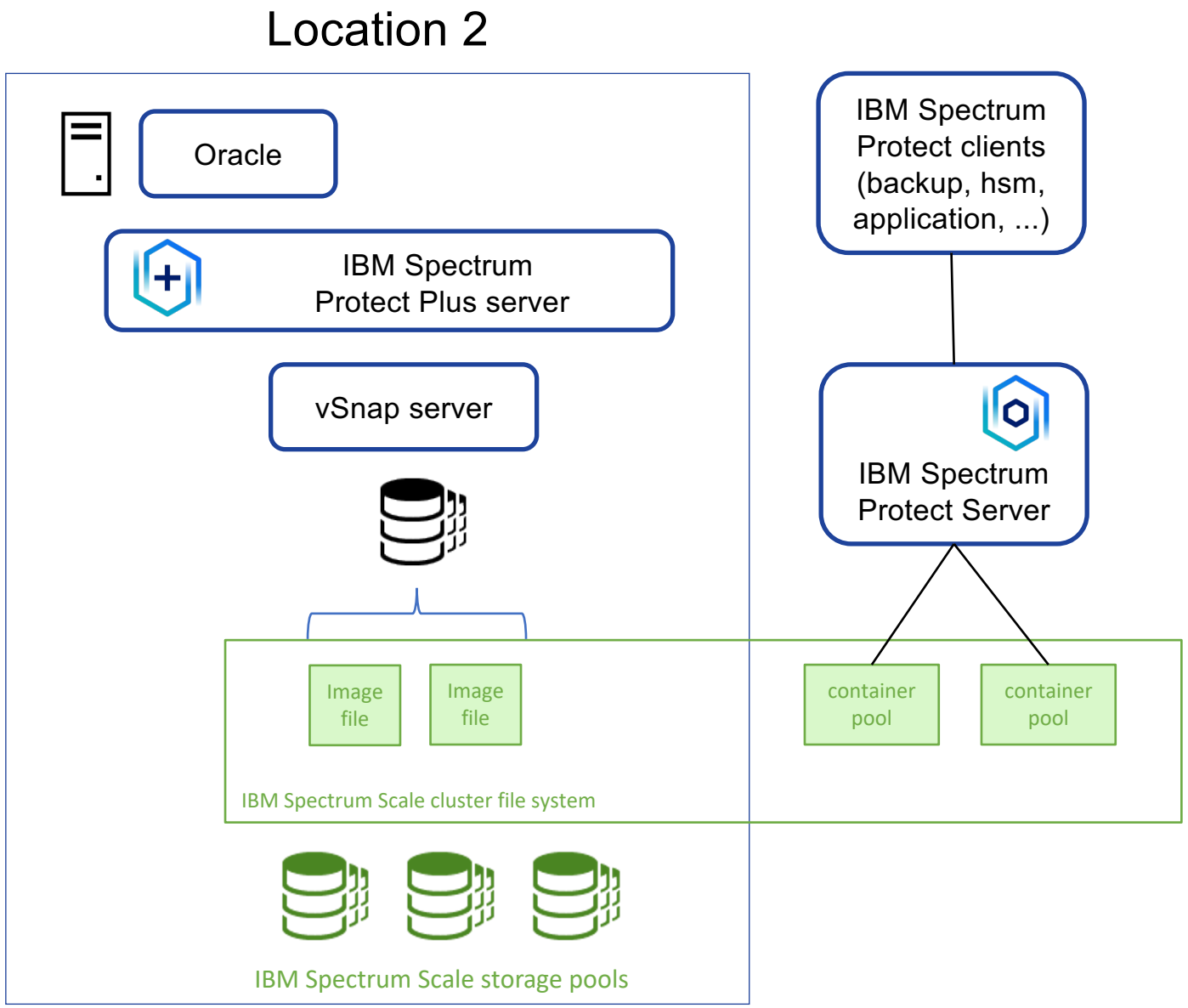
Spectrum Protect Plus Introduction – vSnap on Scale



- IBM Spectrum Protect Plus server deployed as usual
- IBM Spectrum Scale cluster and file system deployed as usual
- File system mounted on Linux compute nodes (NSD client or server) hosting large image files
- IBM Spectrum Protect Plus vSnap installed on NSD client or server using image files as loop back device

- Same file system can be shared with IBM Spectrum Protect server work loads (environment reuse)

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Spectrum Protect Plus Introduction – vSnap on Scale

— Deployment, configuration best practices and performance considerations covered in How-To technote

IBM Support

Search support or find a product

Integrating IBM Spectrum Protect Plus with IBM Spectrum Scale to optimize data protection

How To

Summary

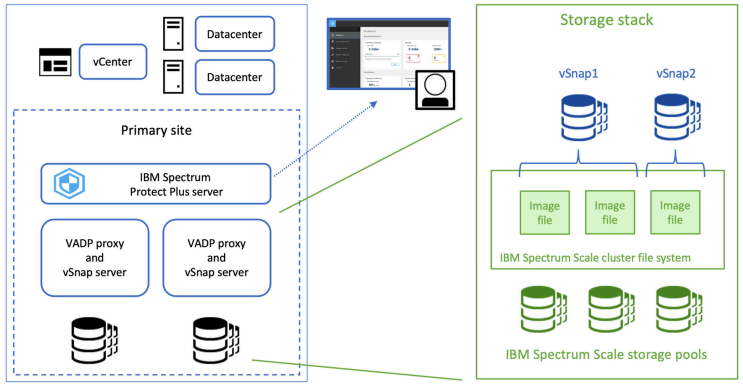
This technote is intended for administrators who plan to implement an IBM Spectrum Protect Plus environment and plan to use new or existing IBM Spectrum Scale resources in this environment. To follow the procedures in this technote, you must be generally familiar with Linux® operating systems, IBM Spectrum Scale, and IBM Spectrum Protect Plus.

Objective

IBM Spectrum Protect Plus includes a backup storage component, the vSnap server, which can be deployed in a fully automated process as a virtual machine template or can be manually deployed on a preconfigured system.

If you plan to use the vSnap server in combination with IBM Spectrum Scale, manual deployment on a preconfigured system is required. The system must be preconfigured with a Red Hat Linux operating system, must be part of an IBM Spectrum Scale cluster, and must have access to an IBM Spectrum Scale file system.

The file system can be an IBM Spectrum Scale Network Shared Disk (NSD) server or client. The same IBM Spectrum Scale file system can be used to provide storage capacity for multiple independent vSnap server instances. The IBM Spectrum Scale file system provides images that are used as storage devices for the vSnap server. Each vSnap server can use multiple storage images to distribute the file input/output (I/O) workload. However, an individual storage image can be assigned to only one vSnap server instance. The following figure is a conceptual overview that depicts the integration of IBM Spectrum Protect Plus with IBM Spectrum Scale:



Document Information

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IBM Spectrum Protect Plus

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Linux

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