Enhanced vCenter Cross Migration with PowerStore Metro Volume

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JG Jason Gates

Introduction

PowerStoreOS 4.0 is the latest major software release on the Dell PowerStore
platform.

PowerStoreOS 4.0, with the Dell PowerStore storage replication adapter
version 2.1.1.388 and VMware Site Recovery support, combine vCenter migration
with PowerStore's Metro Volume stretched storage feature.

Metro Volume is an active-active replication that supports recovery point objectives and recovery time objectives of zero in migration or disaster avoidance use cases. Metro Volume guarantees data commitment to the source and destination volumes, ensuring consistency between volumes.

Enhanced vCenter vMotion between protected and recovery sites can eliminate production downtime and help IT decision makers manage planned migrations without impact to operations. Cross vCenter migration can be used for various use cases, including data center consolidations, replacing legacy hardware and large-scale workload migrations.

Design and high-level architecture

The architecture establishes a foundation for VMware Site Recovery Manager, providing active-active data access to Metro Volumes between PowerStore systems.
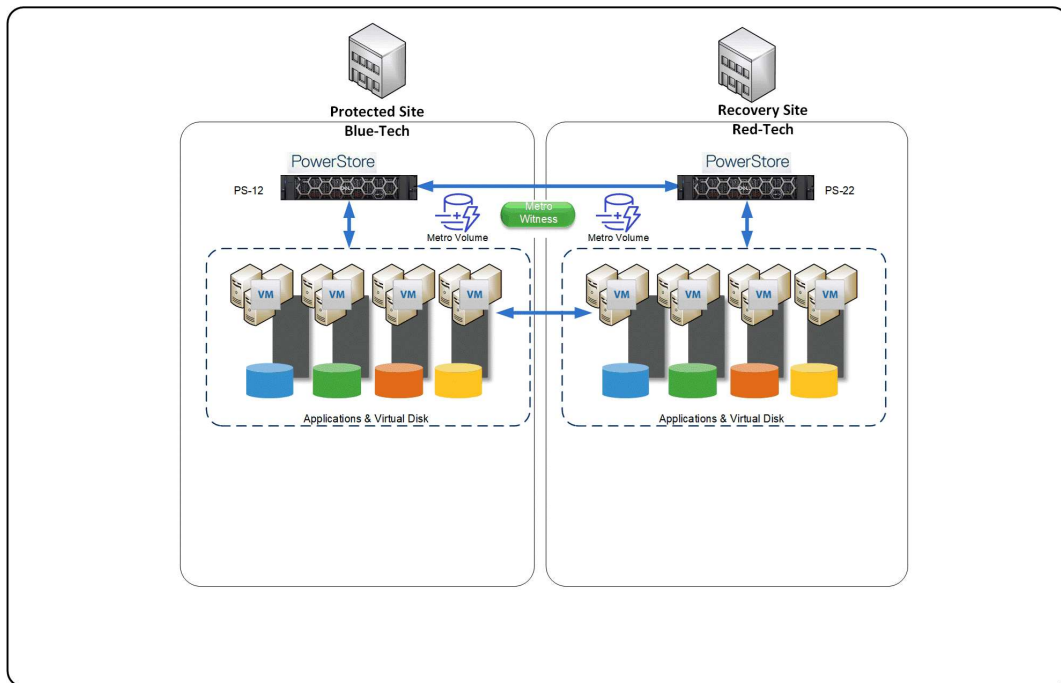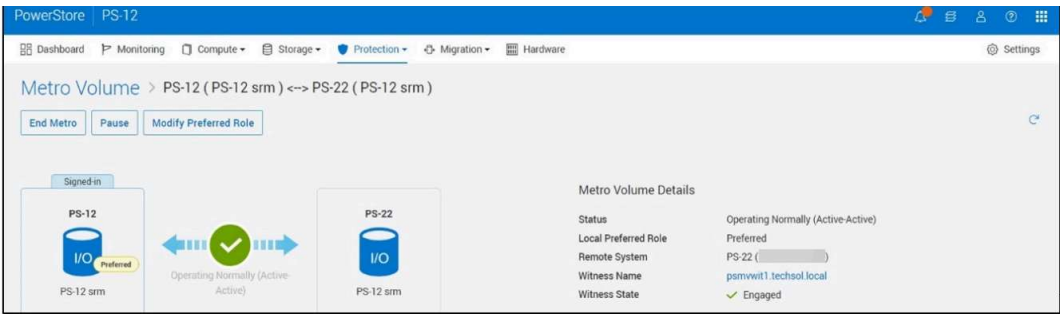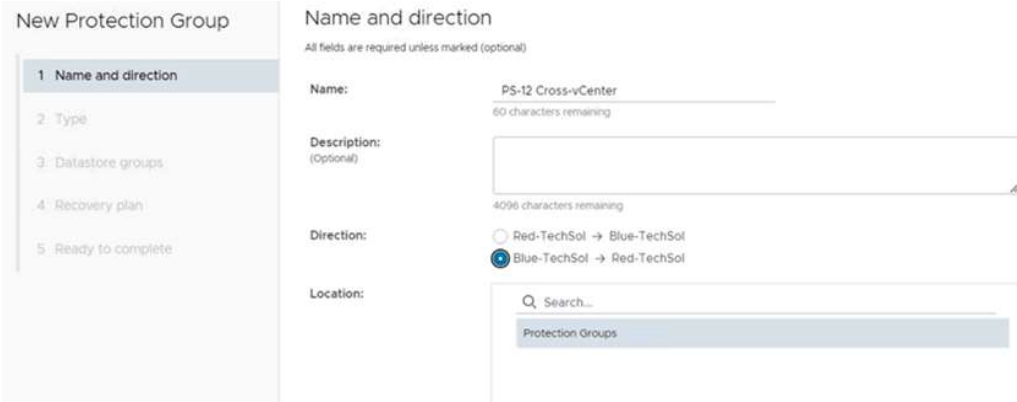

Figure 1. PowerStore: Metro Volume replication

The following steps show how to use VMware Site Recovery Manager to create protection groups and execute a planned migration with Metro Volume protected virtual machines.

1. Using PowerStore Manager, we start by displaying the details about the Metro Volume replication, such as the status between PS-12 and PS-22, as shown here. Go to Protection Tab > Metro.
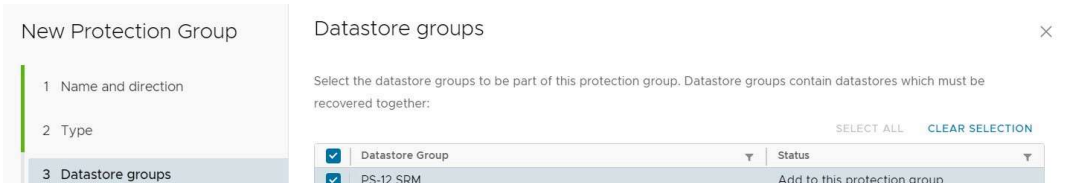
2. From the VMware Site Recovery Manager, we create our Protection Group.
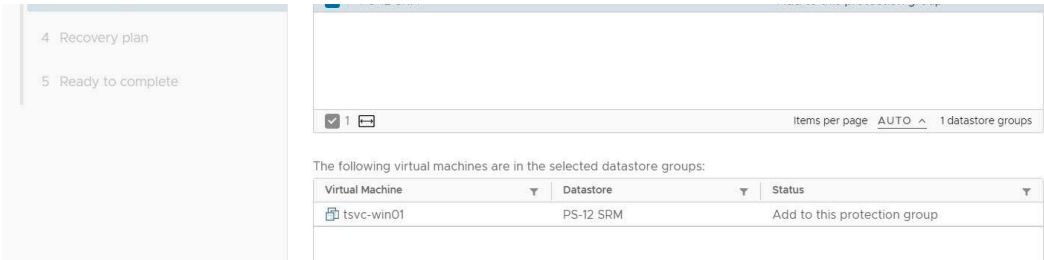

3. Next, select the type of Protection Group based on the replication methodology. Metro Volume uses array-based replication. Select the PowerStore array pair and click NEXT to continue.
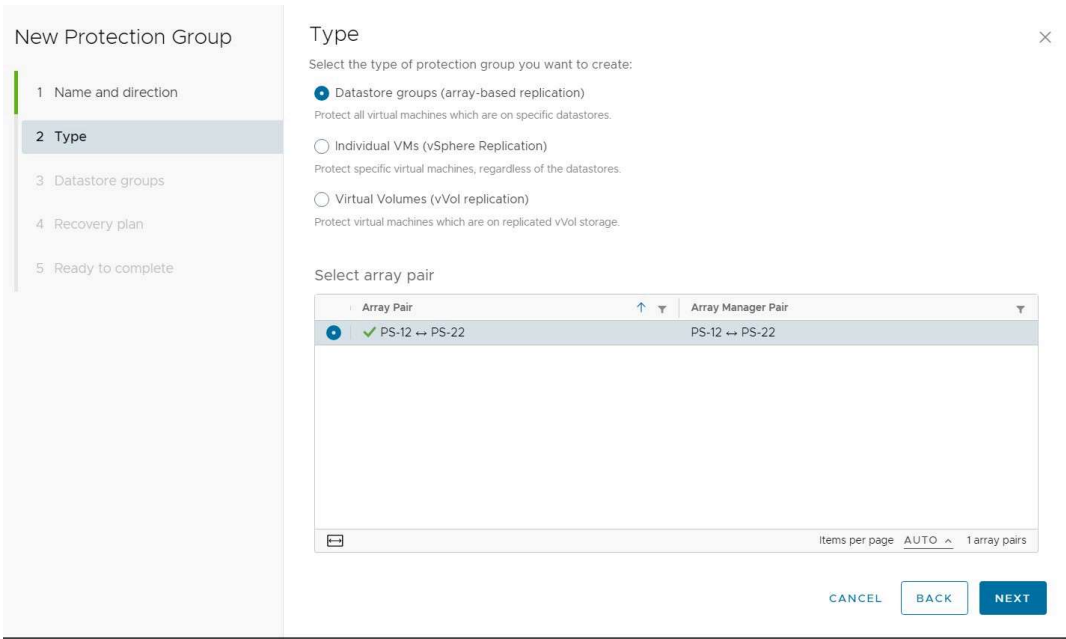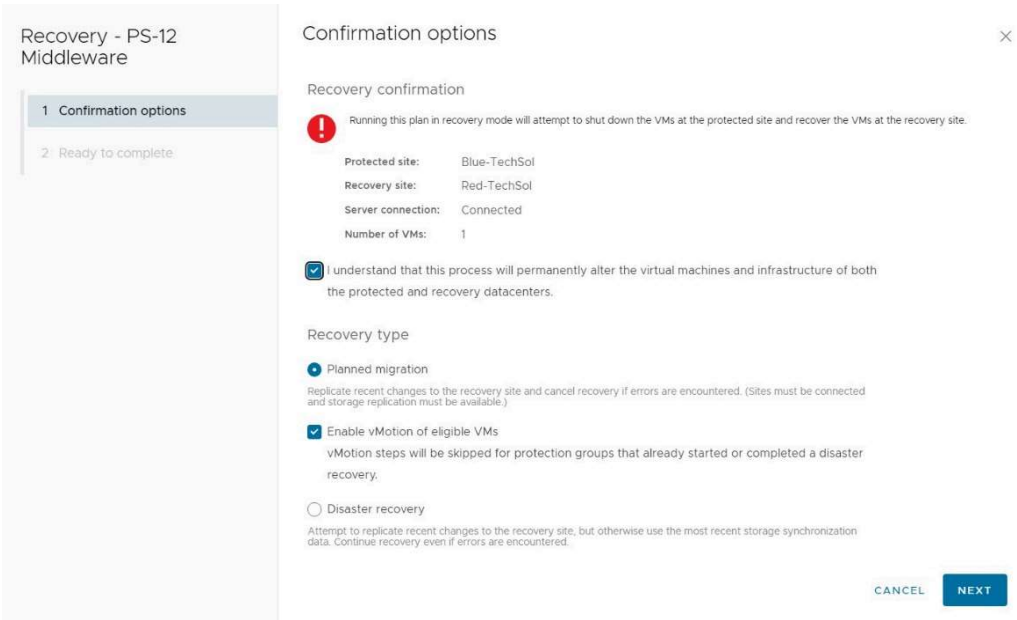

1. Next, select the virtual machines to protect. In the next workflow, we will execute the recovery plan.
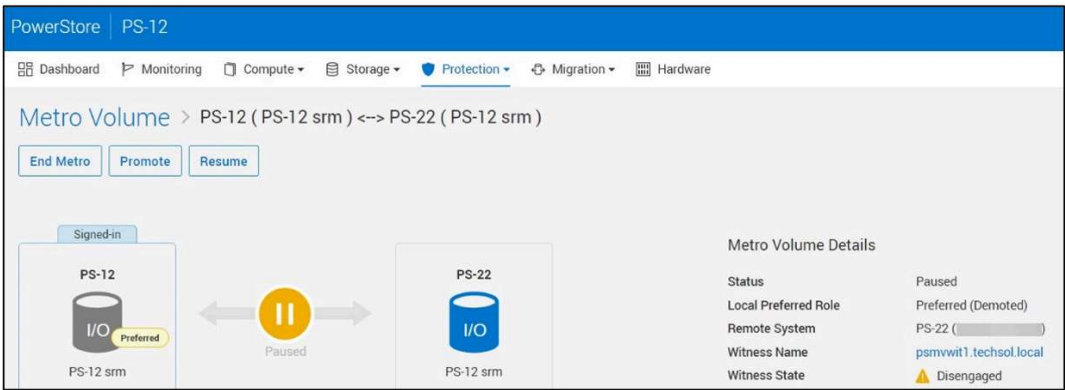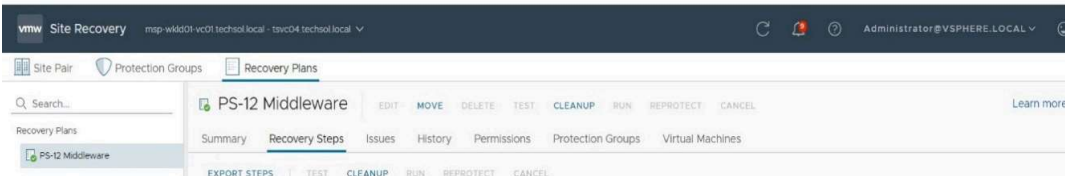
1. Now, we will execute the recovery plan named **PS-12 Middleware**.

1. The status of the Metro Volume on PS-12 changes from **Preferred** to **Preferred (Demoted)** during the test.

1. The test is now completed successfully. SRM lists each step in the process, and users can monitor the progress of each step.

1. Within vCenter, the virtual machines tsvc-win01 and tsvc-win02 are now registered and running on hosts located in the recovery site TechSol-Red.
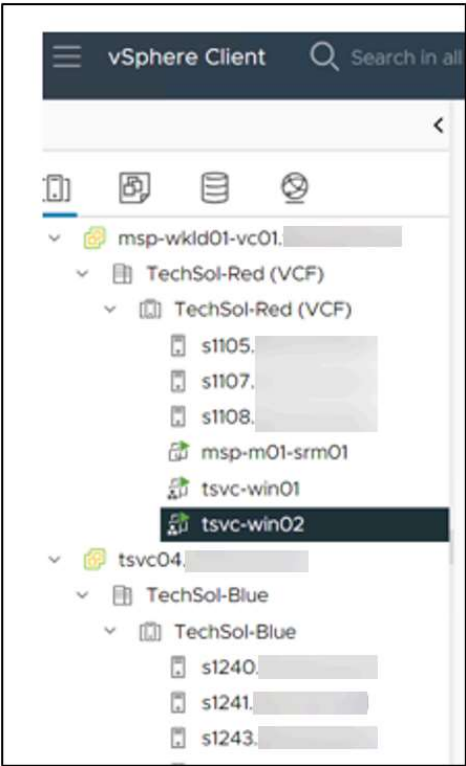
Conclusion

PowerStore 4.0 and Metro Volume replication ensures 100% data integrity for VMware multi-site operations with zero data loss. This allows organizations to provide true high availability and is designed to give VMware environments the ability to operate. ⌷OBJ⌷OBJ⌷.