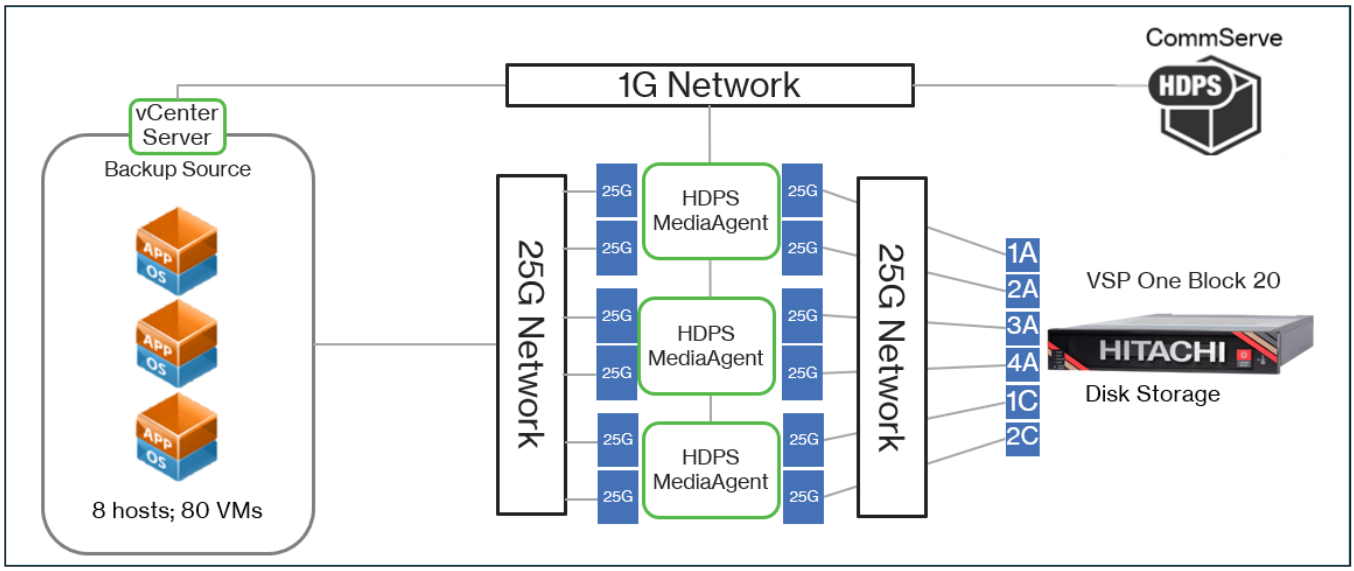
Configure Hitachi Data Protection Suite with VSP One Block 20 Storage

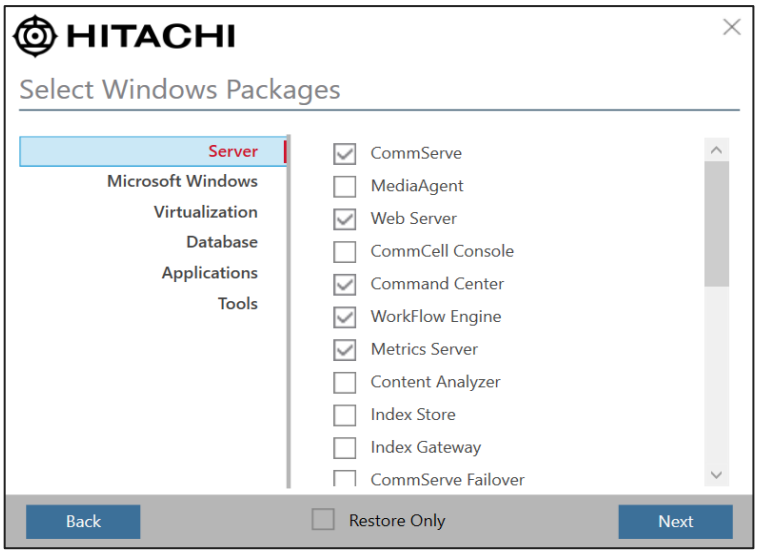
Hitachi Data Protection Suite (HDPS) offers comprehensive data backup and recovery, ensuring business continuity and resilience. Integrating HDPS with Hitachi Virtual Storage Platform One Block 20 (VSP One Block 20) series storage systems strengthens data security and enables efficient backup and restore operations.

Get started with these simple steps to configure and protect your data.



Step 1: Complete the prerequisites

1. Verify the firmware and software versions for VSP One Block 20 and HDPS. Check the Product Compatibility Guide for the specific version requirements.
2. As a registered user, download the HDPS installation package from the Support site: Support | Hitachi Vantara.
3. Install CommServe on a server to configure the central management component of the HDPS environment.



4. Use VSP One Block Administrator to set up the storage system and HDPS for configuring, initiating, and restoring backups. Obtain administrator access for both systems.

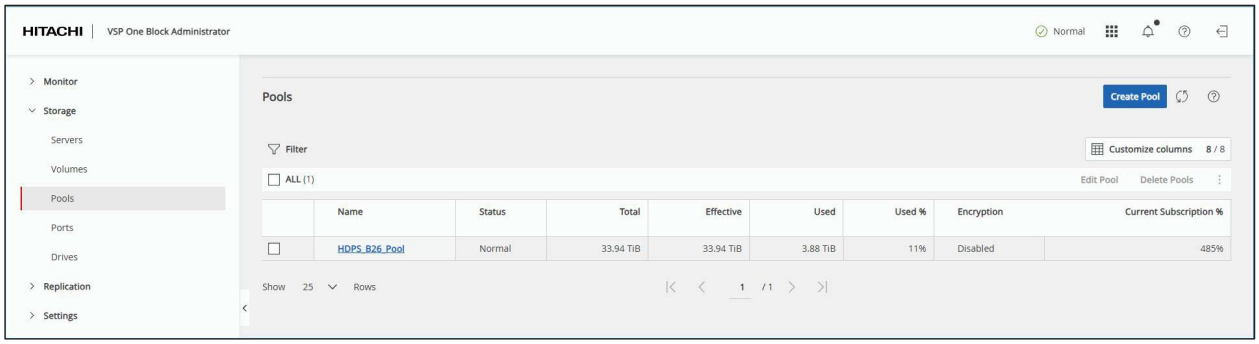
5. Install the Virtual Server Agent (VSA) proxy and MediaAgent (MA) from the HDPS installation package on a separate server, then register the server with CommServe as the virtual machine (VM) backup access node.

   The HDPS access node is necessary for VMware ESXi servers to handle data protection activities, including backups, live browsing, and VM file recovery. It serves as a proxy to manage and improve data transfer.

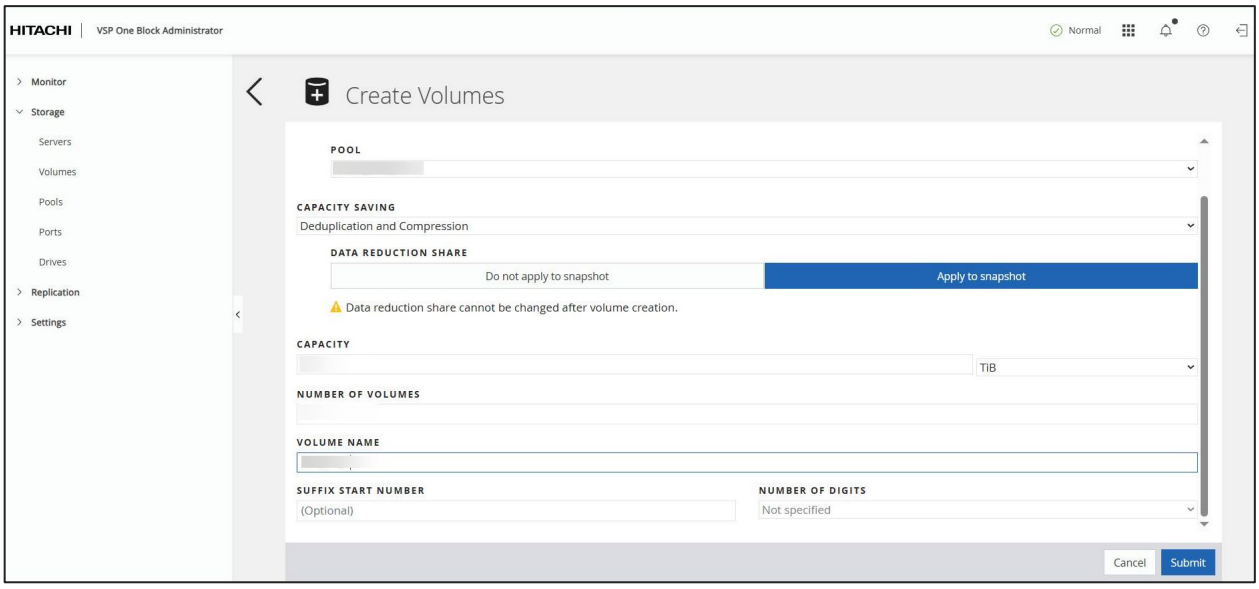
Step 2: Prepare VSP One Block 20

Set up volumes on the VSP One Block 20 storage system as backup storage destinations for HDPS.

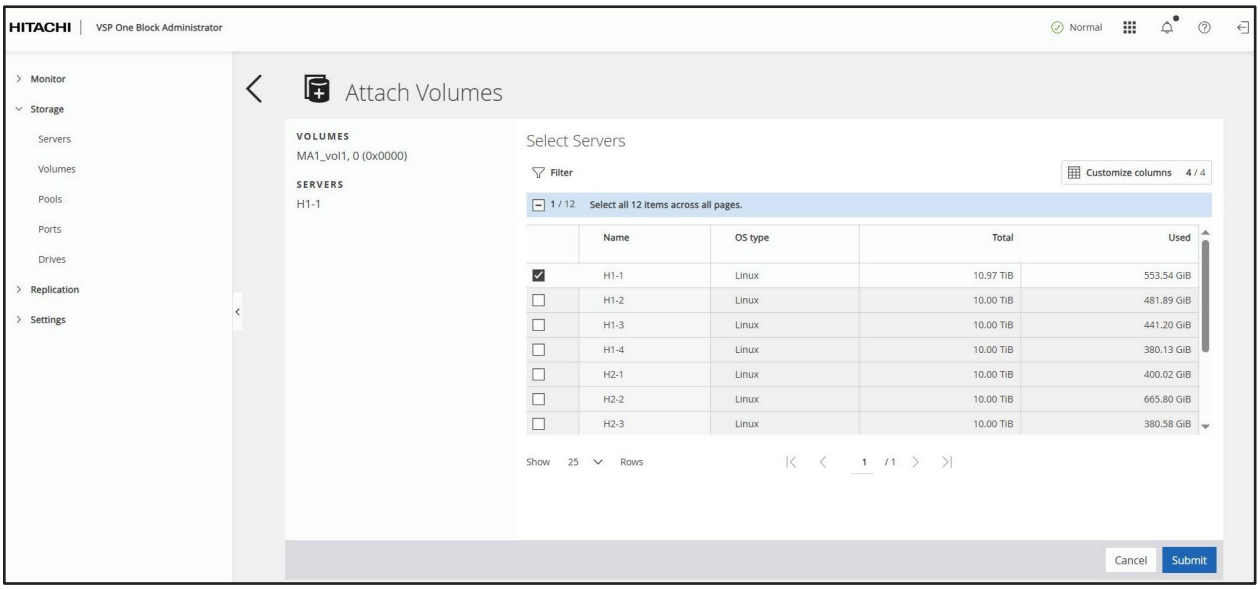
1. In VSP One Block Administrator, set up a dynamic provisioning (DP) pool.



2. Create the required Data Reduction Shared (DRS) volumes in the DP pool. To create a DRS volume that supports data capacity saving with snapshots, select **Apply to snapshot**.



3. Connect the DRS volumes to the MediaAgent installed on the vCenter server.



4. Log in to the MediaAgent as the root user.

5. Create and mount file systems on the MediaAgent using the attached volumes to host the HDPS storage pool, index cache, and Deduplication Database (DDB).

   - For a Linux MediaAgent, configure the DDB volume using Logical Volume Management (LVM).
   - When using LVM for the DDB, make sure there is enough unallocated space in the volume group to accommodate snapshots.
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```
[root@SISHA820G3-46 tmp]# vgdisplay ssd_ddb_vg
  --- Volume group ---
  VG Name               ssd_ddb_vg
  System ID
  Format                lvm2
  Metadata Areas        1
  Metadata Sequence No  14
  VG Access             read/write
  VG Status             resizable
  MAX LV                0
  Cur LV                1
  Open LV               1
  Max PV                0
  Cur PV                1
  Act PV                1
  VG Size               <1.46 TiB
  PE Size               4.00 MiB
  Total PE              381545
  Alloc PE / Size       256000 / 1000.00 GiB
  Free  PE / Size       125545 / 490.41 GiB
  VG UUID               OU9yGt-JAhk-uSC9-O2cX-Losv-yHmf-49zHfN
```

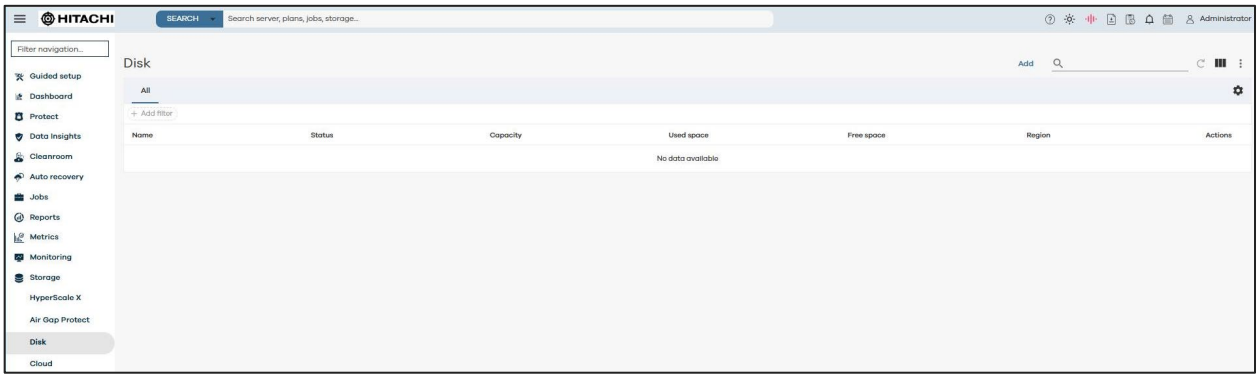
```
[root@SISHA820G3-46 ~]# lvdisplay /dev/ssd_ddb_vg/ddb_lv
  --- Logical volume ---
  LV Path                /dev/ssd_ddb_vg/ddb_lv
  LV Name                ddb_lv
  VG Name                ssd_ddb_vg
  LV UUID                ZedoNf-vhem-HTdz-01AQ-Pbhv-rtxU-WJNO2e
  LV Write Access        read/write
  LV Creation host, time SISHA820G3-46, 2025-03-20 08:13:33 +0000
  LV Status              available
  # open                 1
  LV Size                1000.00 GiB
  Current LE             256000
  Segments               1
  Allocation             inherit
  Read ahead sectors     auto
  - currently set to     256
  Block device           253:4
```

Step 3: Configure backup target

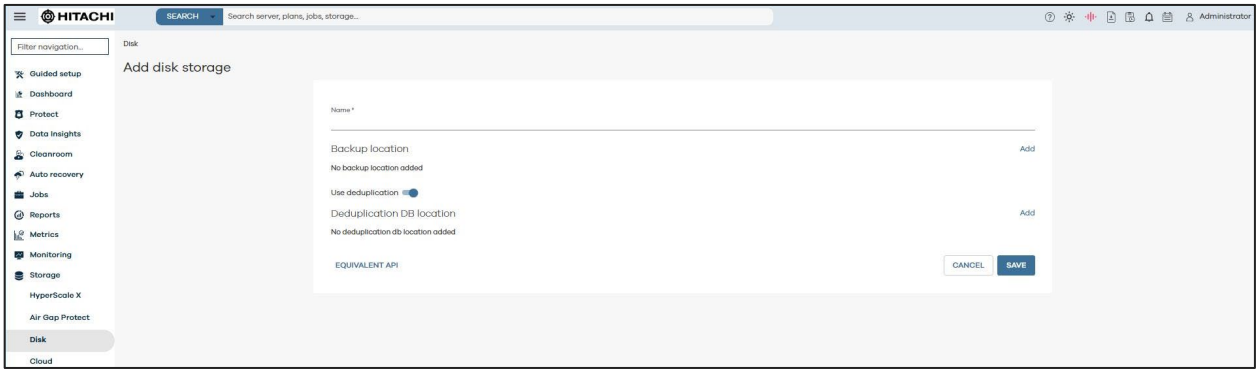
Create a storage pool

Create a storage pool for backup locations.

1. In the Command Center navigation pane, navigate to **Storage** > **Disk**, then click **Add**.



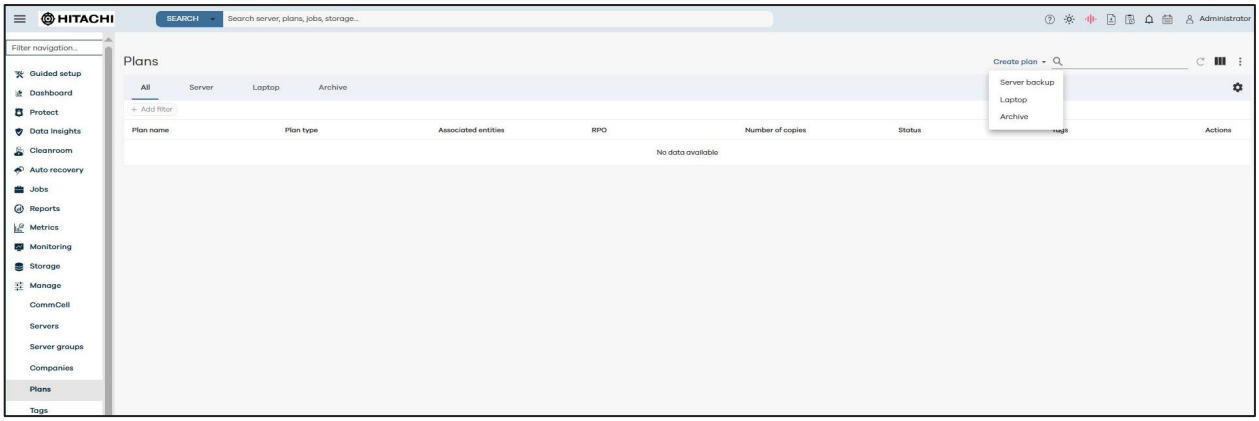
2. In the Add disk storage page, enter the storage pool name, add the backup location and the Deduplication DB location, and then click **SAVE**.



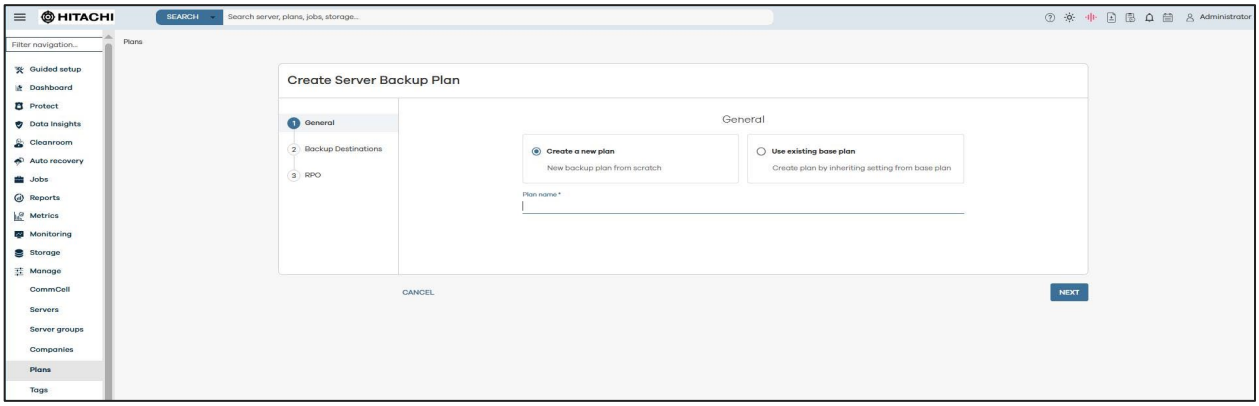
Create a backup plan

After adding a storage pool, create a backup plan to define backup schedules, destination targets, and recovery point objectives.

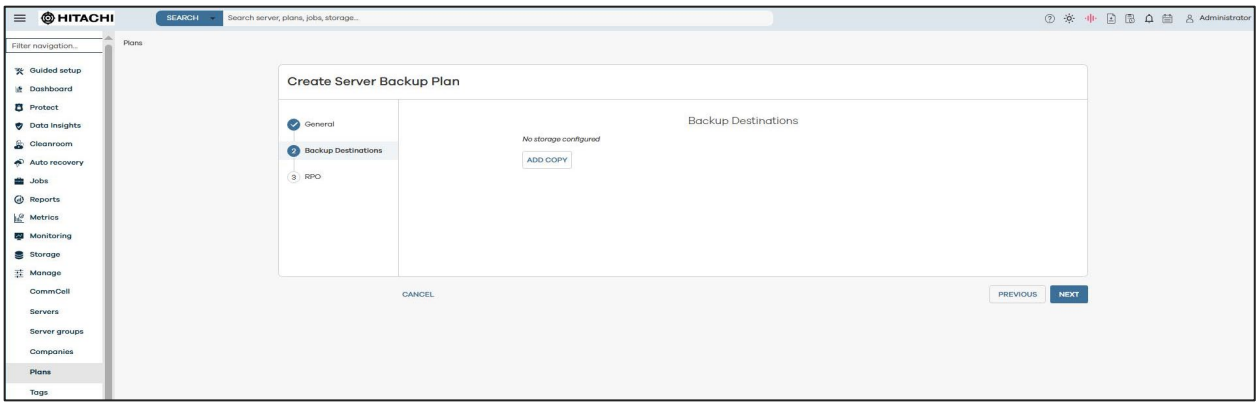
1. Navigate to **Manage** > **Plans** > **Create plan**, then select **Server backup**.



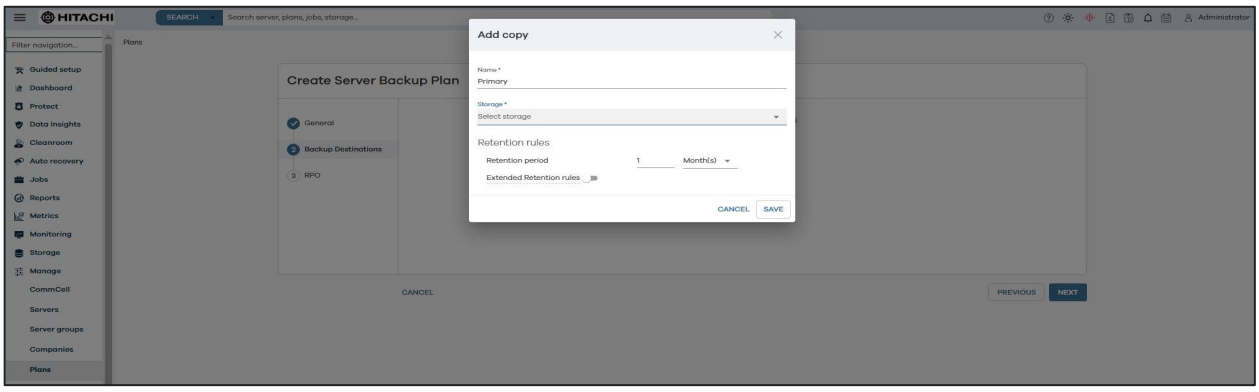
2. In the General section, select either **Create a new plan** or **Use an existing base plan**. Enter a plan name, then click **NEXT**.



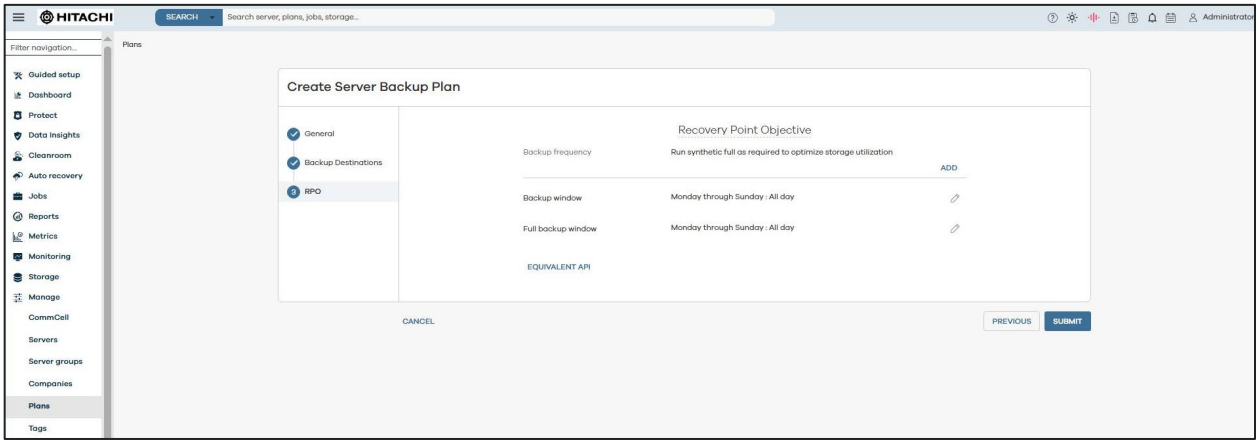
3. In the Backup Destinations section, click **ADD COPY**.



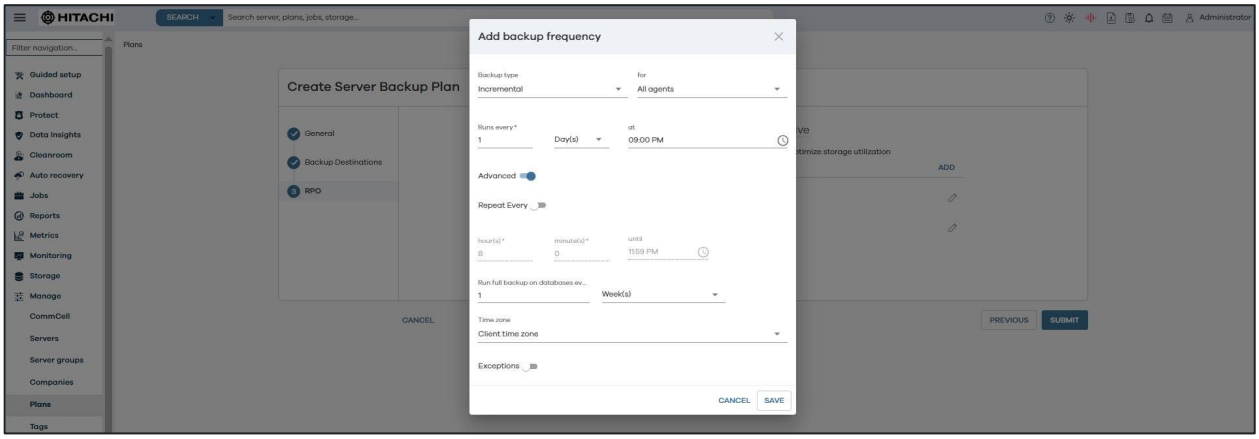
4. Enter the backup destination name, select the backup storage pool, configure the retention rules, and then click **SAVE**.



5. Click **NEXT**.
6. In the Recovery Point Objective section, click **ADD**.



7. Set the backup frequency and click **SAVE**.

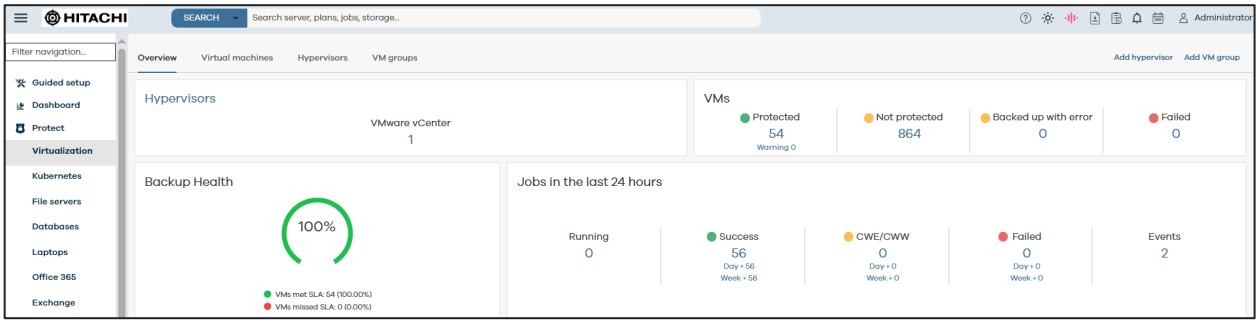


8. Click **SUBMIT**.

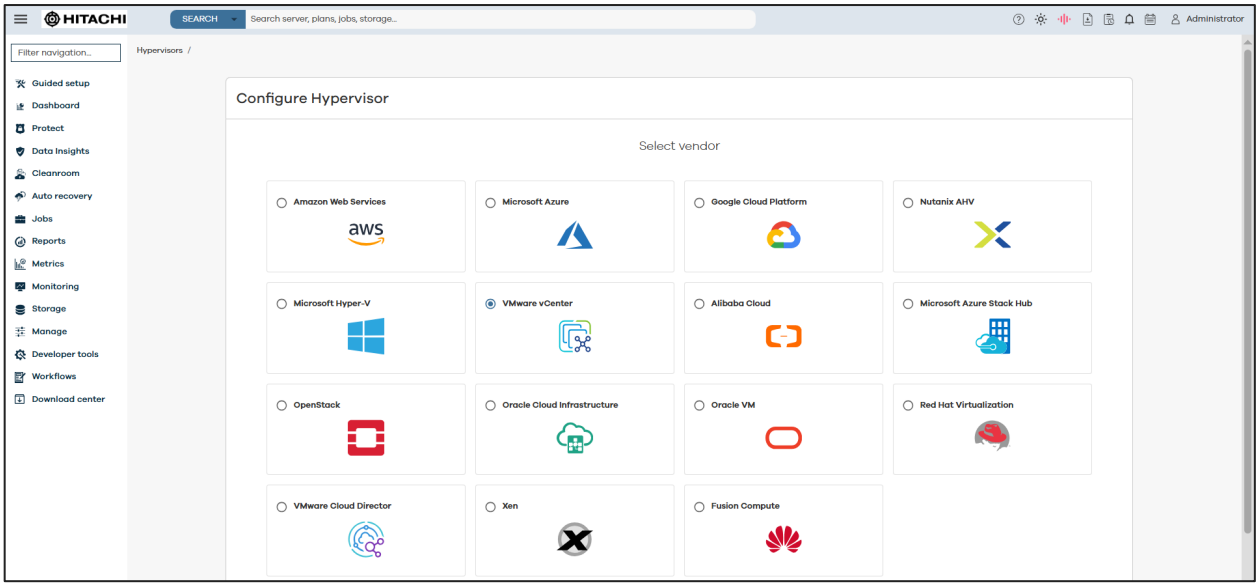
Add a hypervisor

Add a hypervisor to enable HDPS to manage and protect virtualized workloads.

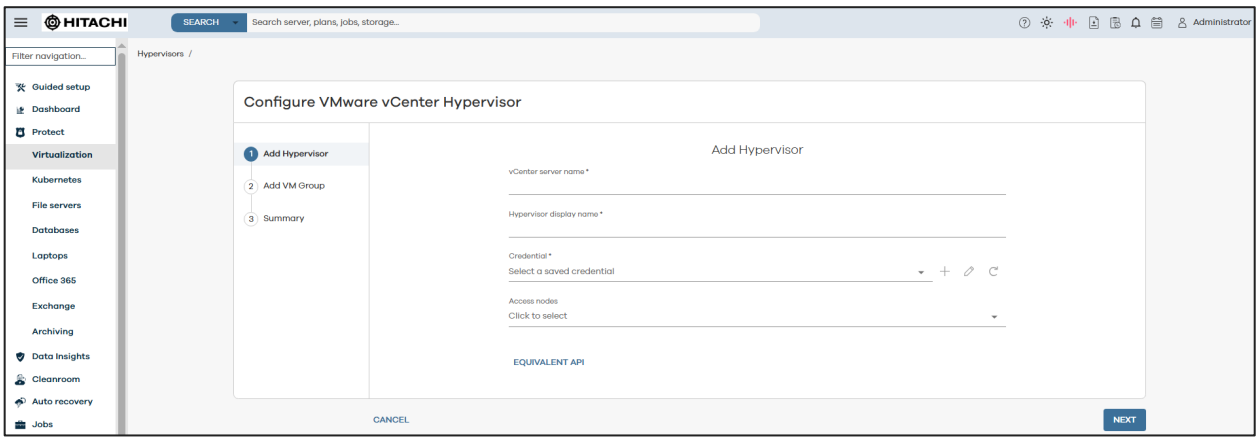
1. Navigate to **Protect** > **Virtualization**, then click **Add hypervisor**.



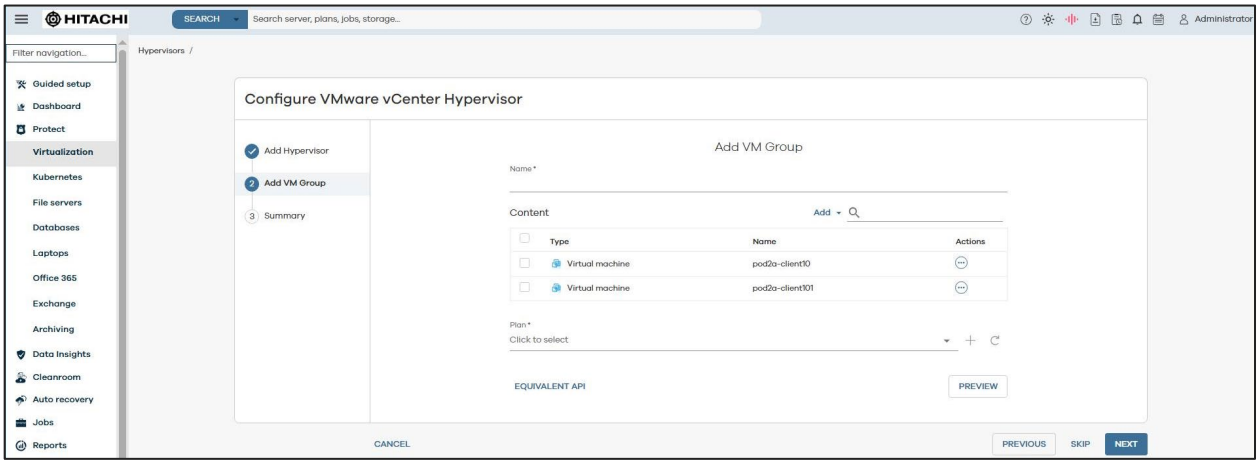
2. Select the hypervisor vendor and click **NEXT**.



3. In the Add Hypervisor section, enter the vCenter server name and hypervisor display name, create or select a credential, select the access node, and then click **NEXT**.



4. In the Add VM Group section, enter the VM group name, select the content and backup plan, and then click **NEXT**.

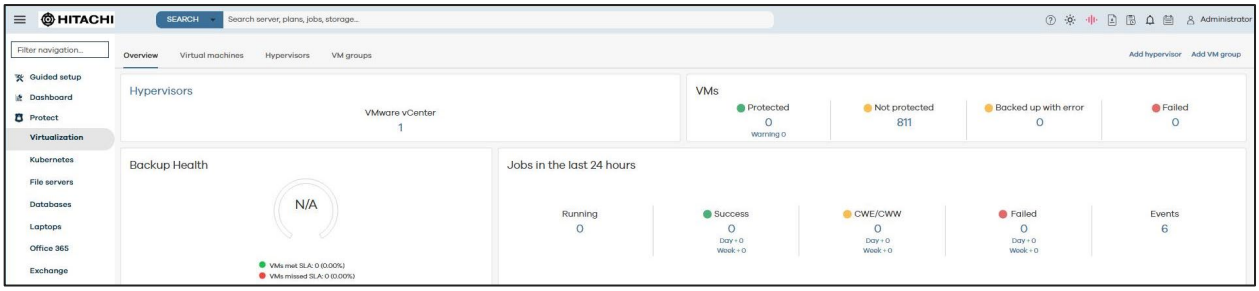


5. In the Summary section, review the configuration, and then click **FINISH**.

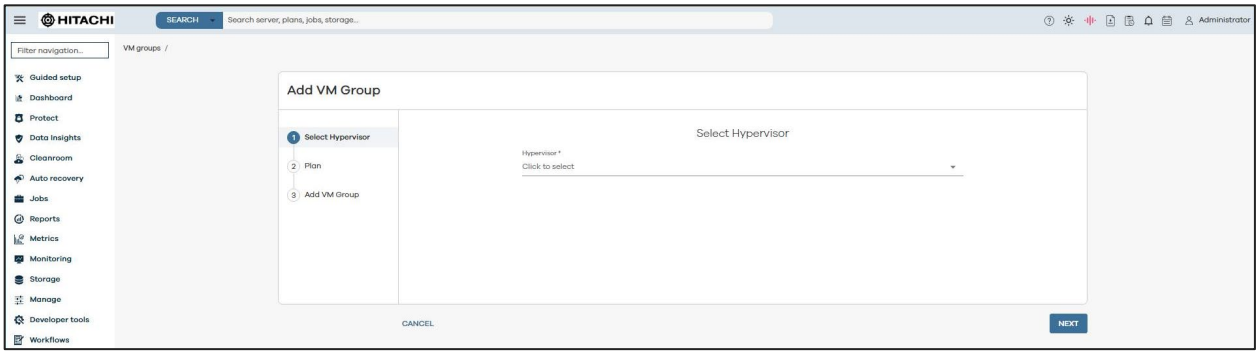
Add a VM group

After adding a hypervisor, create a VM group to manage virtual machines for backup.

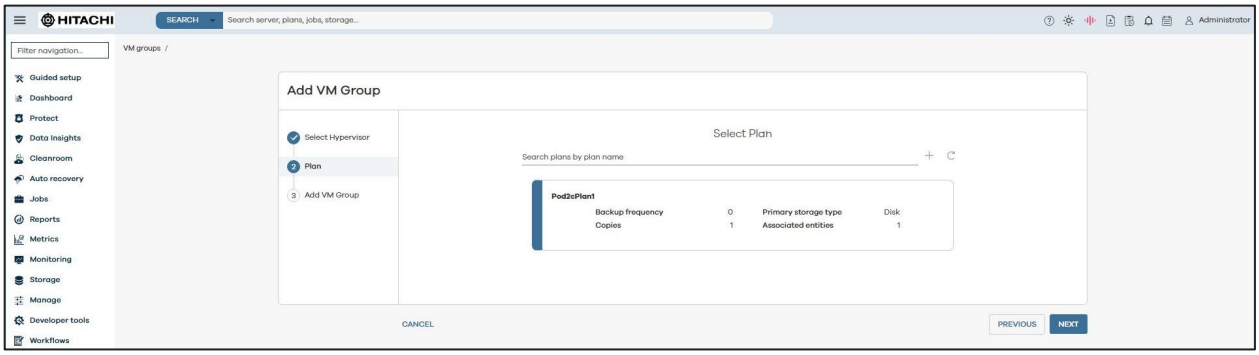
1. Navigate to **Protect** > **Virtualization**, then click **Add VM group**.



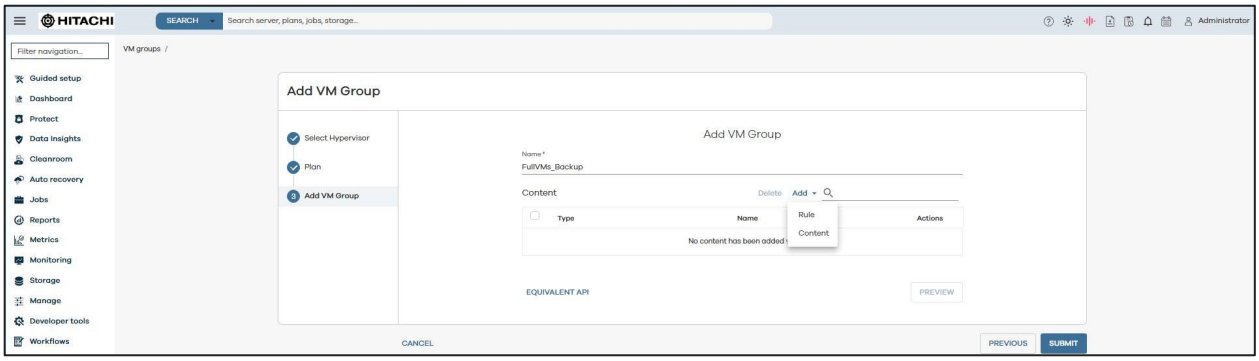
2. Select the hypervisor and click **NEXT**.



3. Select the backup plan and click **NEXT**.



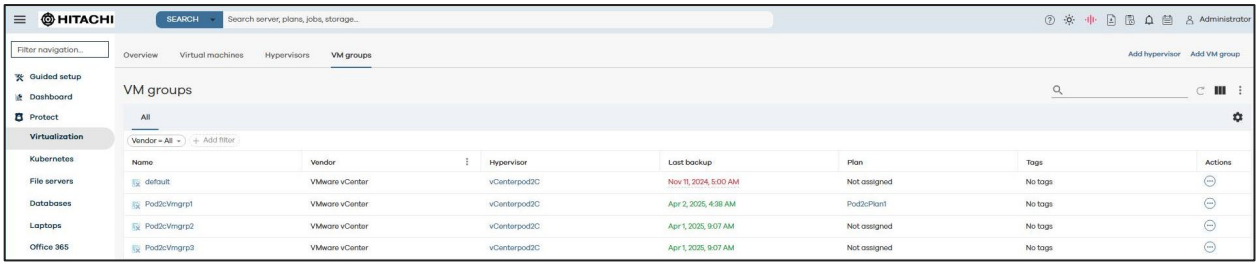
4. Enter a VM group name, click **Add**. Select **Rule** to create rules to autodiscover or select **Content** to select the listed content for backup, and then click **SAVE**.



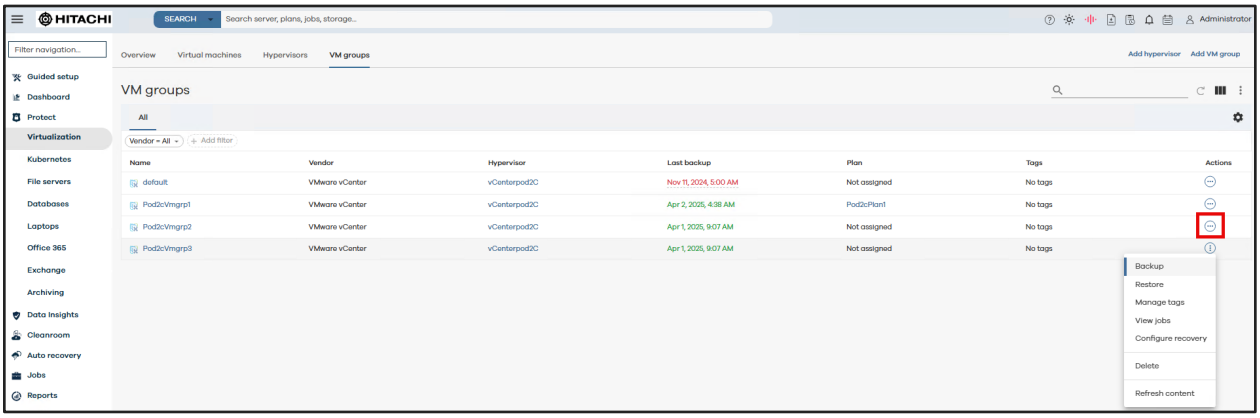
5. Click **SUBMIT**.

Step 4: Initiate backup

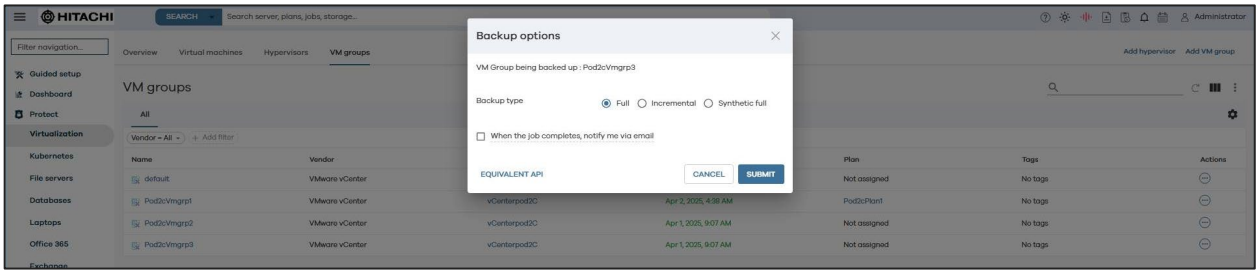
1. Navigate to **Protect** > **Virtualization**, then click **VM groups**.



2. In the Actions column, click the three dots next to the target VM group, and then select **Backup**.



3. Select the backup type: Full, Incremental, or Synthetic full (combined full and incremental backups), then click **SUBMIT**.

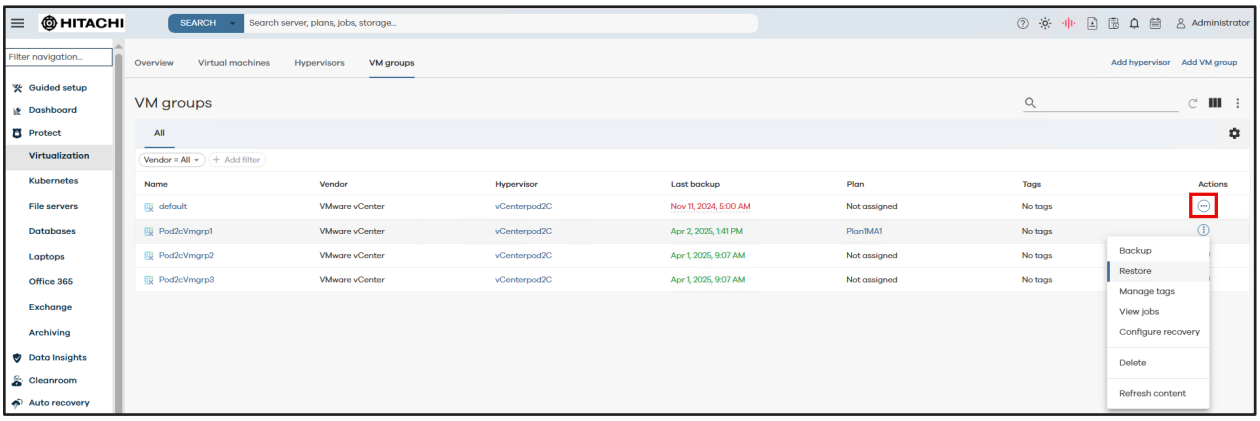


4. Check the backup status under **Jobs** > **Active jobs**.

5. To view completed jobs, navigate to **Reports** > **Backup job summary**.

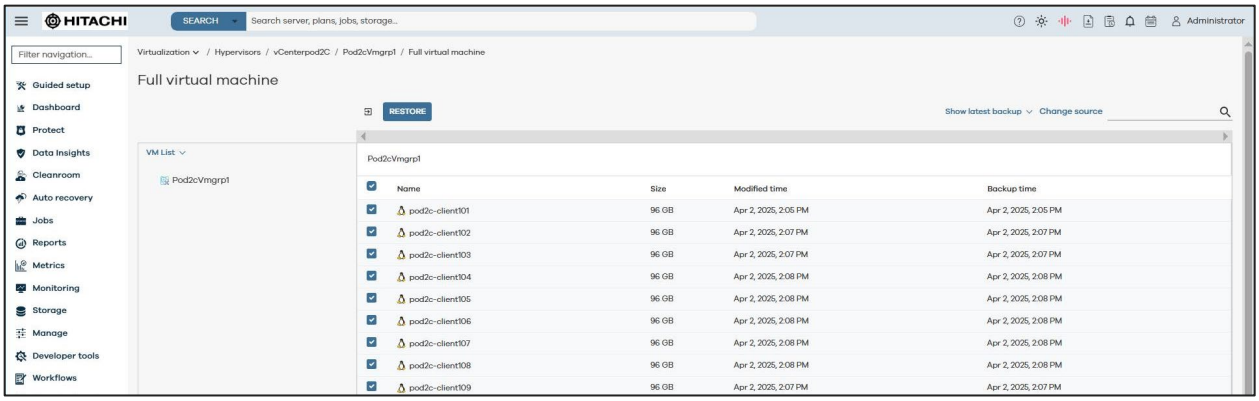
Step 5: Restore data

1. Navigate to **Protect** > **Virtualization**, then click **VM groups**.
2. In the Actions column, click the three dots next to the target VM group, and then select **Restore**.

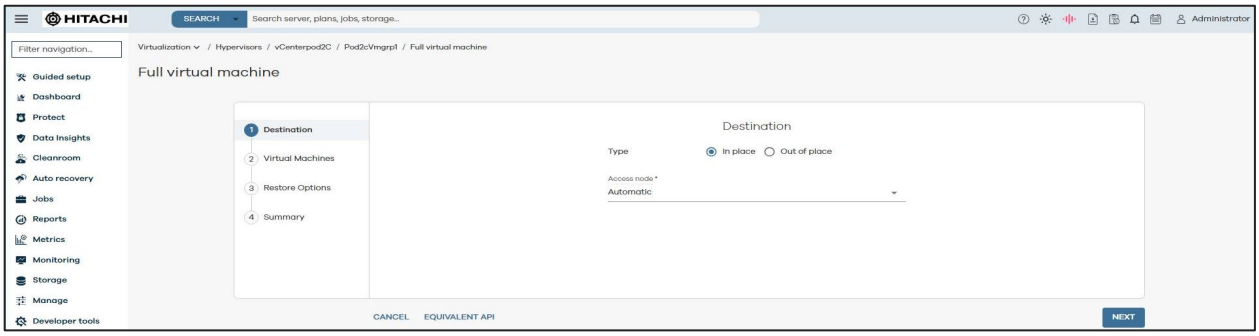


3. Select **Full virtual machine**.

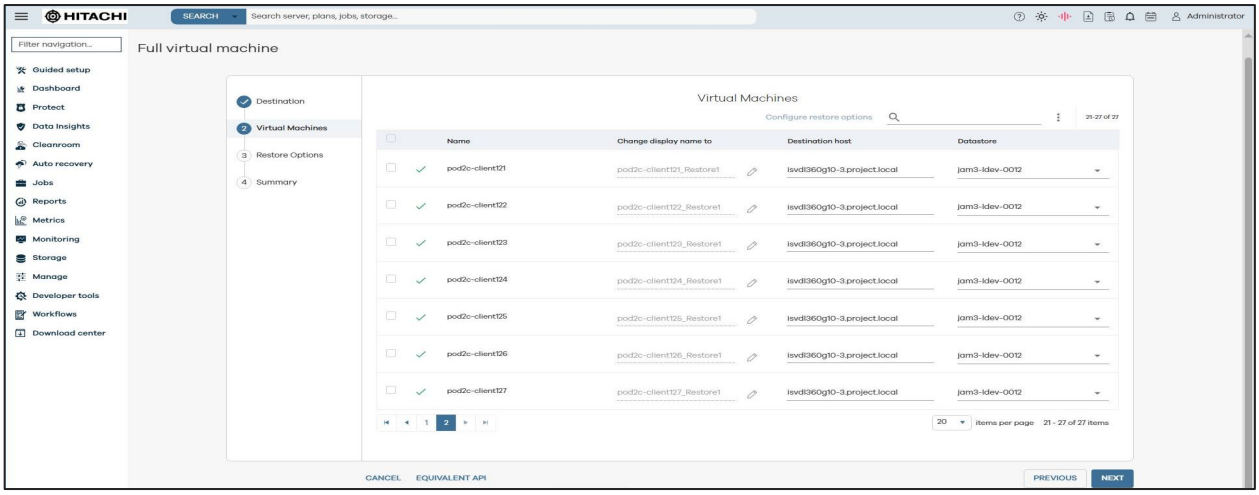
4. Select the VMs to restore and click **RESTORE**.



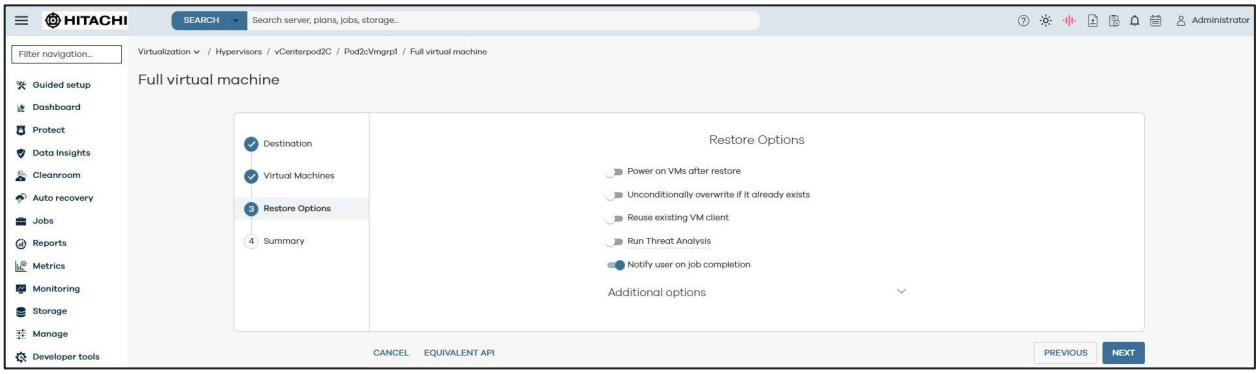
5. In the Destination section, select **In Place** to restore data to either the same location it was backed up from or **Out of Place** to restore data to a different location, select the access node, and then click **NEXT**.



6. In the Virtual Machines section, select the VM, and click **NEXT**.



7. In the Restore Options section, modify the settings if necessary, and then click **NEXT**.



8. Review the settings in the Summary section, then click **SUBMIT**.

HDPS initiates the restore process automatically.

Summary

Integrating HDPS with VSP One Block 20 storage systems ensure scalable capacity and fault tolerance for backup and recovery, maintaining data integrity, and availability during failures.

References

- HALO Lab: VSP One Block Administrator
- Virtual Storage Platform One Block Administrator User Guide
- VSP One Block 20: Configure, Provision, Protect, and Monitor with Ease