

Storage Quality of Service for Hyper-V

8 out of 11 rated this helpful - [Rate this topic](#)

Updated: June 24, 2013

Applies To: Windows Server 2012 R2

Starting in Windows Server® 2012 R2, Hyper-V includes the ability to set certain quality-of-service (QoS) parameters for storage on the virtual machines.

Storage QoS provides storage performance isolation in a multitenant environment and mechanisms to notify you when the storage I/O performance does not meet the defined threshold to efficiently run your virtual machine workloads.

Key benefits

Storage QoS provides the ability to specify a maximum input/output operations per second (IOPS) value for your virtual hard disk. An administrator can throttle the storage I/O to stop a tenant from consuming excessive storage resources that may impact another tenant.

An administrator can also set a minimum IOPS value. They will be notified when the IOPS to a specified virtual hard disk is below a threshold that is needed for its optimal performance.

The virtual machine metrics infrastructure is also updated, with storage related parameters to allow the administrator to monitor the performance and chargeback related parameters.

Maximum and minimum values are specified in terms of normalized IOPS where every 8 K of data is counted as an I/O.

Key features

Storage QoS allows administrators to plan for and gain acceptable performance from their investment in storage resources Administrators can:

- Specify the maximum IOPS allowed for a virtual hard disk that is associated with a virtual machine.
- Receive a notification when the specified minimum IOPS for a virtual hard disk is not met.
- Monitor storage-related metrics through the virtual machine metrics interface.

Requirements

Storage QoS requires that the Hyper-V role is installed. The Storage QoS feature cannot be installed separately. When you install Hyper-V, the infrastructure is enabled for defining QoS parameters associated with your virtual hard disks.

Note

Storage QoS is not available if you are using shared virtual hard disks.

To configure a virtual hard disk for Storage Quality of Service

You can configure the Storage QoS parameters for the bandwidth on the virtual hard disk of your virtual machine using the following procedure.

1. In **Server Manager**, point to **Tools**, and then click **Tools**.
2. Point to **Hyper-V Manager** and then click **Hyper-V Manager**.
3. Click **Start**, point to **Administrative Tools**, and then click **Hyper-V Manager**.
4. In the **Action** pane, click **Settings**.
5. Double click **SCSI Controller**.
6. Point to **SCSI Controller** and then click **SCSI Controller**.
7. Click **Hard Drive**. You will see **Hard Drive** settings displayed in the right pane.
8. To the left of the Hard Drive icon, click "+".
9. Click **Advanced Features**.
10. In the **Advanced Features** pane, click **Enable Quality of Service management**.
11. Enter **Maximum** IOPS values. The default value is 0..
12. Enter your **Minimum** IOPS values. The default value is 0.
13. Click **OK** .

