

# How to configure MPIO with StarWind correctly

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StarWind Documents



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## About StarWind

StarWind is a pioneer in virtualization and a company that participated in the development of this technology from its earliest days. Now the company is among the leading vendors of software and hardware hyper-converged solutions. The company's core product is the years-proven StarWind Virtual SAN, which allows SMB and ROBO to benefit from cost-efficient hyperconverged IT infrastructure. Having earned a reputation of reliability, StarWind created a hardware product line and is actively tapping into hyperconverged and storage appliances market. In 2016, Gartner named StarWind “Cool Vendor for Compute Platforms” following the success and popularity of StarWind HyperConverged Appliance. StarWind partners with world-known companies: Microsoft, VMware, Veeam, Intel, Dell, Mellanox, Citrix, Western Digital, etc.

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**Prerequisites** First of all, you have to make sure MPIO is installed and ready to be configured. Please follow the steps below to preconfigure the MPIO feature. **Installing MPIO:** 1) Open Server Manager. 2) Click on Manage button in the top right corner of Server Manager screen and choose “Add Roles and Features” from the drop box menu. 3) Click Next on the default page of the wizard. 4) In the Installation Type part of the wizard, choose “Role-based or feature-based installation” and click Next. 5) In the Server Selection part of the wizard, select a Server that you want MPIO feature to be installed on and click Next. 6) In the Server Roles part of the wizard, do not choose any option and click Next. 7) In the Features part of the wizard, find “Multipath I/O” feature and tick the checkbox. Then, click next. 8) In the Confirmation part of the wizard, click the Install button. 9) In the Results part of the wizard, make sure “Multipath I/O” feature has been installed successfully and close the wizard. After MPIO has been installed, add support for iSCSI devices since [StarWind](#) uses iSCSI as a data transfer protocol. **Adding support for iSCSI devices In order to configure multipathing for iSCSI devices, perform the following steps:** 1) Open MPIO. 2) Click on “Discover Multi-Paths” tab at the top of MPIO GUI. 3) Add a tick to box which stands next to “Add support for iSCSI devices”. 4) Press Add button on the right side of MPIO GUI. 5) Reboot your host as MPIO asks. After MPIO has been installed and configured to support iSCSI devices, we can move forward to setting the required MPIO policy. **MPIO Policy configuration** For the hyper-converged scenarios, when the iSCSI connections throughput is less than 10 Gbps, it is recommended configuring MPIO policy in Fail Over Only mode or Least Queue Depth. With Fail Over Only MPIO policy, the loopback connection is utilized to provide maximum performance by enabling Loop Back Accelerator. Loop Back Accelerator bypasses the TCP/IP stack, sending data over the shorter path and as a result, increases the data transfer performance and decreases latency. For the hyper-converged scenarios, when the iSCSI connections throughput is equal or higher than 10 Gbps, we do recommend setting the Least Queue Depth MPIO policy as it “distributes proportionately more I/O requests to lightly loaded processing paths”. Round Robin MPIO policy also can be used. **NOTE:** In case the Failover Only MPIO policy is used, make sure to check that the local path (127.0.0.1) is set to Active, while the partner connection is set to Standby. **NOTE:** In case of setting the Round Robin MPIO policy on partner connections with 1 Gbps speed, the performance could be reduced because all the paths are in use equally. **Request a Product Feature** To request a new product feature or to provide feedback on a StarWind product, please email to our support at [support@starwind.com](mailto:support@starwind.com) and put “Request a Product Feature” as the subject.

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