USR 1100-SMB

Unified Storage Router - SMB

10G Windows Server 2012 SMB Direct to SAS / iSCSI/ FibreChannel Router

Benefits

- Provides a cost-effective gateway between servers using SMB 3.0 Direct on Microsoft Windows 2012 Server and existing SAS, iSCSI, and FibreChannel Storage

- Self-contained Microsoft Windows 2012 Server instance. Just configure the shares, connect the storage, and forget it.

- Enables use of existing storage with the new SMB-Direct wire protocol.

Features

- Line rate performance

- Power efficient: Uses < 200W

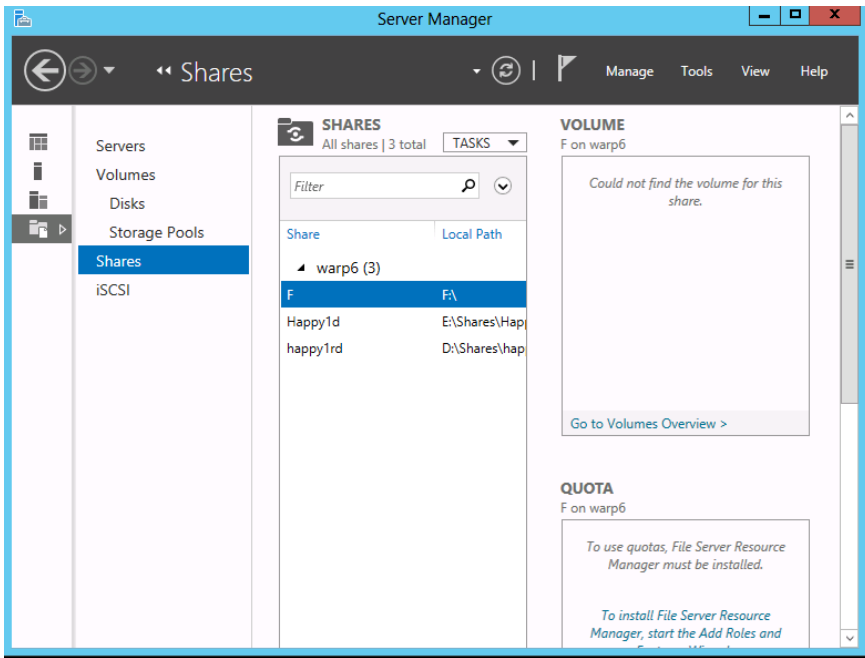- Runs Windows 2012 Server

- Compact 1U, half-width form factor

Cost-effective solution to provide a gateway between Windows 2012 Server shares via SMB Direct to existing SAS, iSCSI, or Fibre Channel storage.

The release of Microsoft Windows 8 and Windows Server 2012 is one of the largest, most feature rich Operating System releases for Microsoft. Besides a new user interface, Windows Server 2012 introduces a comprehensive set of solutions for virtualization, networking, and high availability storage, bringing to mainstream technologies that were to date confined to the High Performance Computing arena.

Remote Direct Memory Access (RDMA) is one of the technologies that are making the transition from specialized HPC use to mainstream networking and storage applications. In Windows Server 2012, RDMA underlies the new SMB Direct protocol, a major enhancement to the SMB 3.0 version shipping with this release. By utilizing RDMA as a transport for SMB, unprecedented levels of performance and efficiency can be achieved. Chelsio worked closely with Microsoft to enable this functionality on its Terminator 4 (T4) powered network adapters, making use of Chelsio's leading implementation of iWARP, the standard for RDMA over Ethernet.

For environments where users want to be able to take advantage of existing storage, whether it be SAS, iSCSI, or FibreChannel and access it via SMB Direct with RDMA, Chelsio Communications provides the USR1100-SMB, Unified Storage Router. This device provides the perfect gateway between their existing Windows 2010 Server SMB infrastructure and existing storage in their datacenter.

This gateway connects to the Windows environment using SMB Direct over iWARP on Chelsio T4 Unified Wire Adapters. There are 3 possible configurations of USR that allow the other side of the gateway to be connected to SAS, FibreChannel, or iSCSI.

Specifications

Ports
USR1100-SMB-E
- 4 1/10GbE

USR1100-SMB-FC
- 2 1/10GbE
- 2 x 8G FibreChannel

USR1100-SMB-SAS
- 2 1/10GbE
- 2 x 6G SAS

USR1100-SMB-SAS-BT
- 2 1/10GbE Base-T
- 2 x 6G SAS

Performance
- 10Gb full-duplex

Physical
- Dimensions 1.75" x 8.25" x 18.5" or 44mm x 210mm x 470mm
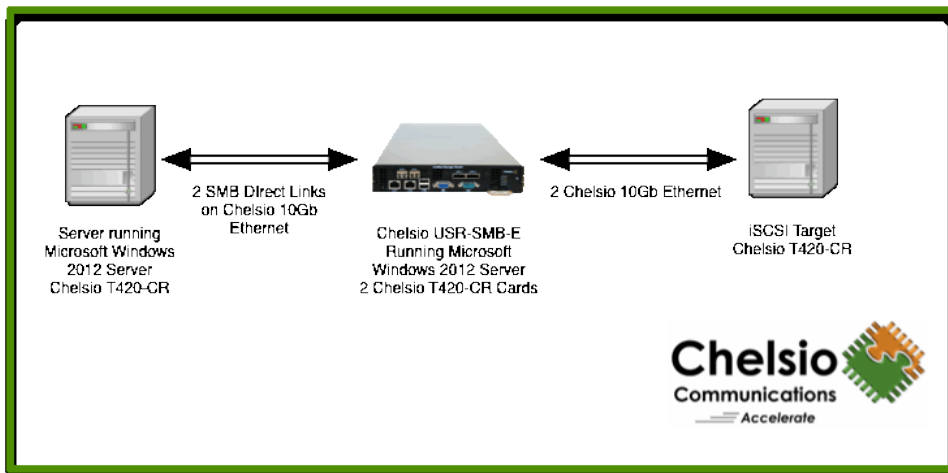- Horizontal or vertical mount

Operating System Environment
- Microsoft Windows 2012 Server

System cooling
- Three 40x28mm fans
- Air flow: front to back
- Smart Fan Capable

Operating Environment
- Operating Temperature range: 10 to 35° C or 50 to 95° F
- Non operating temperature range: -40 to 70° C or -40 to 158° F
- Humidity range: 8 to 90% non-condensing
- Non operating humidity range: 5 to 95% non-condensing
- Power Consumption: < 200W

Example Configuration

Ordering info

USR1100-SMB-E	SMB Direct to iSCSI
USR1100-SMB-FC	SMB Direct to FibreChannel
USR1100-SMB-SAS	SMB Direct to SAS
USR1100-SMB-SAS-BT	SMB Direct to SAS (10G BT Ethernet)