

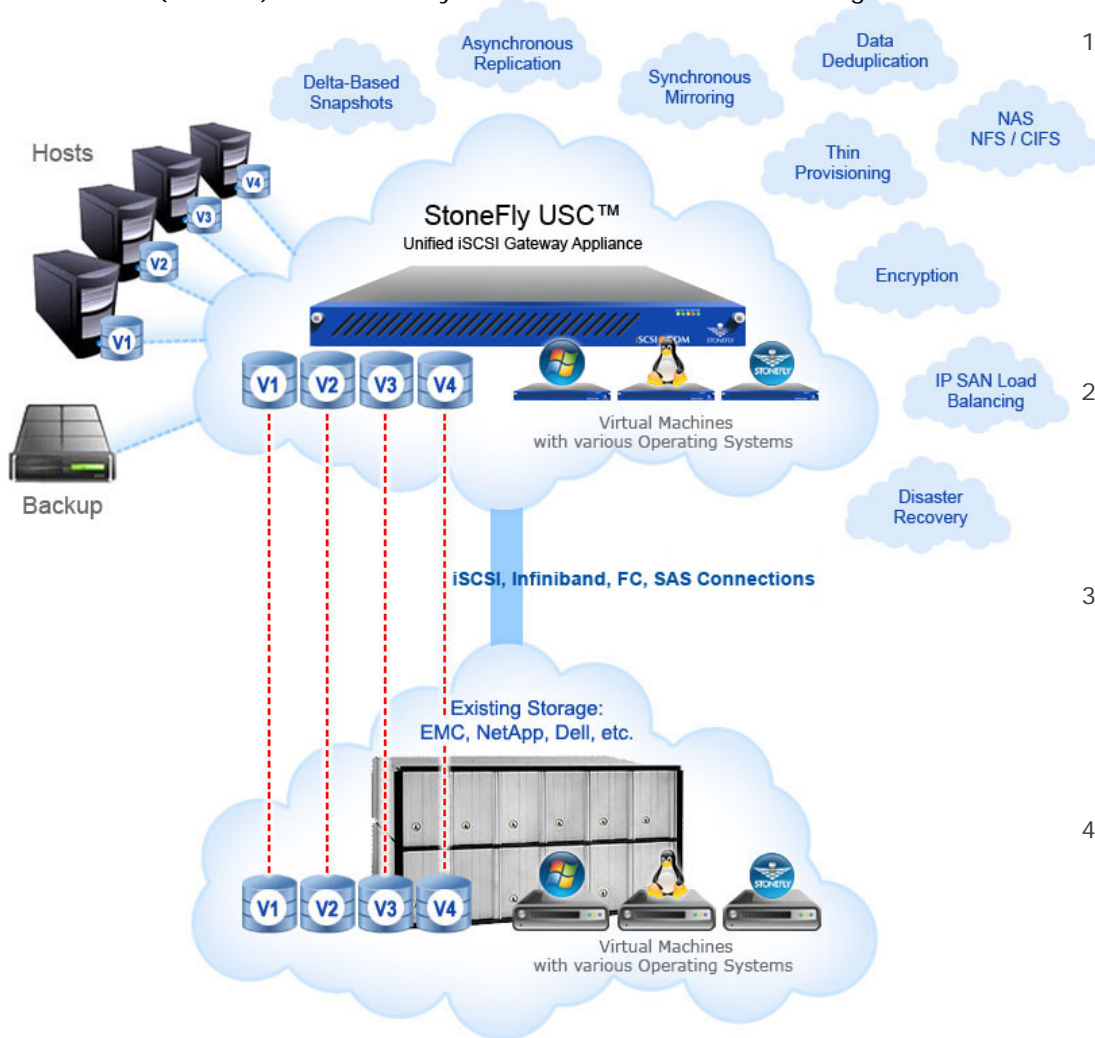
StoneFly USC™ SAN Gateway "Unified Storage Concentrator" Appliance



The **StoneFly USC™ "Unified Storage Concentrator" SAN Gateway Appliance** allows businesses to easily convert their existing Fibre Channel, SAS, Infiniband, or iSCSI storage (EMC, NetApp, Dell, etc.) into unified iSCSI, Fibre Channel SAN or NAS storage. Once storage volumes have been provisioned by the **USC** appliance, they can enjoy StoneFly's numerous advanced data storage management features.

Built-in features of the **USC** include delta-based snapshots with mountable read-write snapshot volumes, thin provisioning, with space reclamation, port teaming with failover and load-balancing and real-time synchronous campus mirroring of SAN volumes and nodes. Optional upgrades include Fibre Channel SAN target, volume encryption, optimized data deduplication, asynchronous replication, NAS volume support for CIFS/SMB and NFS protocols, and VSS support for quiescing databases.

The **USC SAN Gateway** is an ideal hyper-converged solution to consolidate all of your server and storage systems into one easy to manage and redundant appliance. Use of virtualized operating systems allows for complete hardware utilization and considerable reduction in power/cooling costs. **USC** flexibility replaces the "fixed hardware model" of the past with on-demand resource allocation (such as CPU, memory, storage, etc.) based on your application needs. **USC** comes with a Virtual SAN (SCVM™) and the ability to create additional virtual storage or virtual servers as needed.



1. Assign or provision all or part of your existing storage (EMC, NetApp, Dell, etc.) through your existing or preferred available interface (iSCSI, FC, Infiniband, SAS). From this storage pool you can create new volumes for all of your hosts. These new volumes are shown in the diagram as V1, V2, V3 and V4.
2. These new volumes (V1 - V4) are now part of StoneFly storage and can be encrypted, mirrored, thin provisioned, deduplicated, snapshotted, replicated, etc.
3. Hosts can now enjoy volumes V1 - V4 through StoneFly iSCSI (or optional FC SAN) and enjoy all of its features. You have turned a simple volume into a managed volume and saved a lot of money!
4. Additional Virtual Machines (Windows, Linux, StoneFly SCVM, etc.) that are VMware compatible can easily be installed on the USC SAN Gateway Appliance to further reduce hardware costs and datacenter overhead.

USC SAN Gateway Appliance Series Key Features

StoneFly SCVM™ 8.0 Virtual SAN Storage Appliance

- o Logical Volume Creation and Patented Advanced Storage Virtualization Services
- o 200 iSCSI Volumes / 1022 Concurrent Host iSCSI Sessions
- o iSCSI Port Teaming, Failover and Load-Balancing
- o Volume-Level Access Control and Dynamic Volume Management
- o Support for iSCSI, SNMP Traps, UPS, Nagios, RAID Monitoring, Call Home
- o System-Wide Graphical Performance and Utilization Reporting
- o Advanced Report Management
- o Automated Online Volume / Storage Expansion

StoneFly SCVM™ 8.0 Advanced Features Package

- o StoneFly Snapshot Services with 2520 Delta-Based Snapshots
- o Mountable Read-Write Snapshot Volumes
- o Snapshot Schedule Utility, Command Line Interface Utility
- o StoneFly Real-Time Synchronous Mirroring of SAN Volumes and Nodes (Campus Mirroring)
- o Multi-Site/Multi-Appliance Replication and Unified Central Management System
- o Thin Provisioning with Space Reclamation
- o Tiered Storage Architecture with Hardware & Software Support




Available Software Upgrade Options

- o Asynchronous Replication (One-to-Many & Many-to-One)
- o Hardware-Enabled Block Level AES 256 Volume Encryption
- o Data Deduplication for Optimized Storage Efficiency
- o NAS with Support for CIFS/SMB and NFS Protocols
- o Fibre Channel SAN Target (Bundled 4Gb/8Gb/16Gb FC HBA)
- o VSS Agent Support

StoneFly i7000vi 1U, StoneFly i7100vi 2U or StoneFly i7200vi 3U Storage Concentrator

- o Choice of Space-Saving 1U, Low-Profile 2U, or Full-Height 3U
- o Choice of Dual Hexa-Core (12 Cores), Dual Octa-Core (16 Cores), Dual Deca-Core (20 Cores), or Dual Dodeca-Core (24 Cores) Storage Virtualization Engines per Node
- o Up to 1TB Data Packet and Command Queuing Cache for SSPP® (32GB Standard)
- o Two Hot-Swappable OS Drives Mirrored at RAID 1 with Cache Battery Backup
- o Supports 1Gb Copper, 10Gb RJ-45/CX4 Copper, SFP+, SR/LR Optical iSCSI Connections
- o One Gigabit Management Port
- o Supports Infiniband, 3Gb SAS, 6Gb SAS, 4Gb FC and 8Gb FC External Storage Expansion Kits* to Easily Convert Your Existing Storage Appliances into Advanced iSCSI Storage
- o IPMI v2.0 with KVM-Over-LAN
- o Integrated DVD+/-RW Optical Drive
- o Redundant 80-PLUS® Certified Hot-Swappable Power Supplies
- o VMware vSphere Essentials Kit
- o Dynamic Storage Expansion
- o Operating Temperature: 10° to 35°C (50°F to 95°F)
- o Relative Humidity: 8 to 90%, Non-Condensing

USC SAN Gateway Models

Storage Concentrators	Interface	Storage Expansion	Form Factor / Dimensions
 <p>i7000vi 1U SC</p>	<p><u>Standard:</u> 2 Gigabit RJ-45 Copper Ethernet & 2 10Gb SFP+ Connections</p> <p><u>Optional:</u> Up to 10x1Gb or 10x10Gb (RJ45/CX4 Copper, SFP+, SR/LR Optical)*</p>	<p>Up to 3 Infiniband, Dual-Port 3Gb/6Gb SAS or 4Gb/8Gb FC Expansion Kits.*</p>	<p>1U 19" Rackmount Chassis 1.75" x 19" x 27.75" (44.5 x 485 x 705mm)</p>
 <p>i7100vi 2U SC</p>	<p><u>Standard:</u> 2 Gigabit RJ-45 Copper Ethernet Connections</p> <p><u>Optional:</u> Up to 26x1Gb or 24x10Gb (RJ45/CX4 Copper, SFP+, SR/LR Optical)*</p>	<p>Up to 7 Infiniband, Dual-Port 3Gb/6Gb SAS or 4Gb/8Gb FC Expansion Kits.*</p>	<p>2U 19" Rackmount Chassis 3.5" x 19" x 25.5" (89 x 485 x 648mm)</p>
 <p>i7200vi 3U SC</p>	<p><u>Standard:</u> 2 Gigabit RJ-45 Copper Ethernet Connections</p> <p><u>Optional:</u> Up to 26x1Gb or 24x10Gb (RJ45/CX4 Copper, SFP+, SR/LR Optical)*</p>	<p>Up to 7 Infiniband, Dual-Port 3Gb/6Gb SAS or 4Gb/8Gb FC Expansion Kits.*</p>	<p>3U 19" Rackmount Chassis 5.25" x 19" x 25.5" (133.5 x 485 x 648mm)</p>

* The USC 1U supports up to 3 USC SAS/FC/Infiniband External Storage Expansion Kits, 1Gb/10Gb Ethernet Kits, or combination thereof. The USC 2U and 3U supports up to 7 USC SAS/FC/Infiniband External Storage Expansion Kits, 1Gb/10Gb Ethernet Kits, or combination thereof.

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