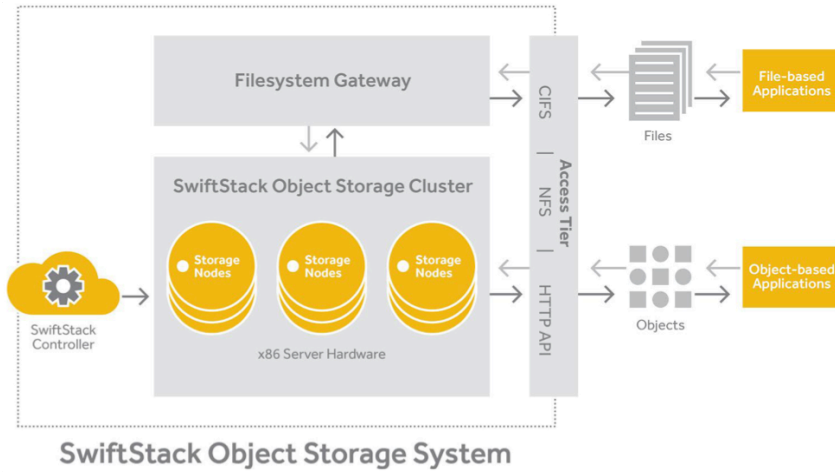


# SwiftStack Object Storage System

SwiftStack is an enterprise-grade object storage solution designed to give you Amazon S3-like cloud storage in your datacenter(s). The SwiftStack Object Storage System software runs on industry-standard x86 hardware and is the best choice compared to complicated, high cost, and proprietary hardware-based storage solutions. Object Storage with SwiftStack truly delivers on the promise of software-defined-storage.



SwiftStack Object Storage System

### Components:

**SwiftStack Controller:** Enables enterprise users to manage, deploy, scale, upgrade, and monitor the storage system similar to traditional storage solutions. Deployment options include: on-premises or As-a-Service by SwiftStack.

**SwiftStack Nodes:** With a single command, industry-standard x86 hardware is configured to provide proxy, account, container, and object services in the object storage cluster. Hardware can be mixed-and-matched from multiple vendors and easily added to scale-out capacity and performance with no downtime.

**Filesystem Gateway (optional):** Provides flexibility to store and retrieve data in the object storage cluster via NFS or CIFS protocols. Unlike most other Filesystem Gateways, files stored via the SwiftStack Filesystem Gateway can also be accessed via RESTful HTTP API as objects and vice versa.

### HIGHLIGHTS

- Runs on any standard server hardware with standard drives
- Unified global namespace
- Active Secondary Controller
- Flexible data protection with Replicas and Erasure Codes
- OpenStack Swift API, AWS S3 API, and CIFS/NFS support
- Enterprise Authentication
- Open source core that powers world's largest public clouds
- 24/7 enterprise support

### USE CASES

- Active Archive / Research
- Content Repository / Distribution
- Backup and Recovery
- Private Cloud / Storage aaS
- File Sync and Share

### Powered by OpenStack Swift

SwiftStack is built-on OpenStack Swift, which is the engine that powers the world's largest storage clouds.

Swift is a multi-tenant, highly scalable, and durable object storage system designed to store large amounts of unstructured data at a low cost.

Hundreds of companies and thousands of developers contribute to the open source community and SwiftStack is a leading contributor to the project.



**Specifications:**

<b>Management</b>	<ul style="list-style-type: none"> <li>• SwiftStack Controller can be deployed on-premises or hosted by SwiftStack</li> <li>• Management of the entire system from a single dashboard or API</li> </ul>
<b>Supported Operating Systems</b>	<ul style="list-style-type: none"> <li>• Ubuntu 12.04 LTS or 14.04 LTS Server 64-bit</li> <li>• RedHat 6.4, 6.5, or 6.6 Server 64-bit</li> <li>• CentOS 6.4, 6.5, or 6.6 Server 64-bit</li> </ul>
<b>Scalability</b>	<ul style="list-style-type: none"> <li>• Scales up to billions of files and hundreds of petabytes</li> <li>• Performance (I/O throughput) and capacity both scale-out independently</li> </ul>
<b>Multi-Region</b>	<ul style="list-style-type: none"> <li>• Single cluster can be distributed over multiple, geographically dispersed sites</li> </ul>
<b>Reliability and Availability</b>	<ul style="list-style-type: none"> <li>• Choice of data protection schemes: Replicas and Erasure Codes</li> <li>• Auditor processes continuously scan disks to ensure data has not suffered filesystem corruption</li> <li>• Replicator processes ensure that enough copies of the most recent version of the data are stored appropriately in the cluster</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>• OpenStack Swift API</li> <li>• AWS S3 API</li> <li>• CIFS/NFS with SwiftStack Filesystem Gateway</li> </ul>
<b>Authentication</b>	<ul style="list-style-type: none"> <li>• Active Directory</li> <li>• LDAP</li> <li>• OpenStack Keystone</li> </ul>
<b>Support</b>	<ul style="list-style-type: none"> <li>• Non-disruptive, rolling upgrades</li> <li>• 24 x 7 enterprise support</li> </ul>

**Example Configuration\*: 500TB Deployment**

<b>Capacity</b>	<ul style="list-style-type: none"> <li>• ~ 500TB (with 6TB drives and 3x Replica storage policy)</li> <li>• Storage policies can segment data across data centers, storage hardware, and data protection scheme (Replicas or Erasure Codes)</li> </ul>	
<b>General Design</b>	<ul style="list-style-type: none"> <li>• 2x proxy nodes</li> <li>• 9x Account/Container/Object (ACO) nodes</li> </ul>	
<b>Node Types</b>	<p>Proxy Nodes</p> <ul style="list-style-type: none"> <li>• 2x ES-2620 (or similar) CPU</li> <li>• 64 - 128GB DRAM</li> <li>• Boot drives</li> <li>• 1x dual-port 10GbE</li> <li>• 1x 1GbE management port</li> </ul>	<p>Storage Nodes</p> <ul style="list-style-type: none"> <li>• 2x ES-2620 (or similar) CPU</li> <li>• 64 - 128GB DRAM</li> <li>• Mirrored boot drives</li> <li>• 1x dual-port 10GbE</li> <li>• 1x 1GbE management port</li> <li>• 1x SAS HBA</li> <li>• JBOD with 28x HDDs + 2x SSD</li> </ul>
<b>Drive &amp; CPU Ratios</b>	<ul style="list-style-type: none"> <li>• Account/Container SSDs to Object HDDs: approximately 1 : 15</li> <li>• Object server CPU cores to Object HDDs: approximately 1 : 2.5</li> </ul>	
<b>Network Switches &amp; Rack Config</b>	<ul style="list-style-type: none"> <li>• 1x Top-of-rack switch with 48x 10GbE ports</li> <li>• 1x Management switch with 48x 1GbE ports</li> <li>• Proxy and ACO nodes</li> </ul>	

**SUPPORTED HARDWARE VENDORS**



For assistance with your deployment, email us at [contact@swiftstack.com](mailto:contact@swiftstack.com)

[swiftstack.com](http://swiftstack.com)

\*SwiftStack can be scaled-out to meet any requirements; this example is for balanced capacity and concurrency. For additional information for selecting hardware, visit <https://swiftstack.com/docs/admin/hardware.html>