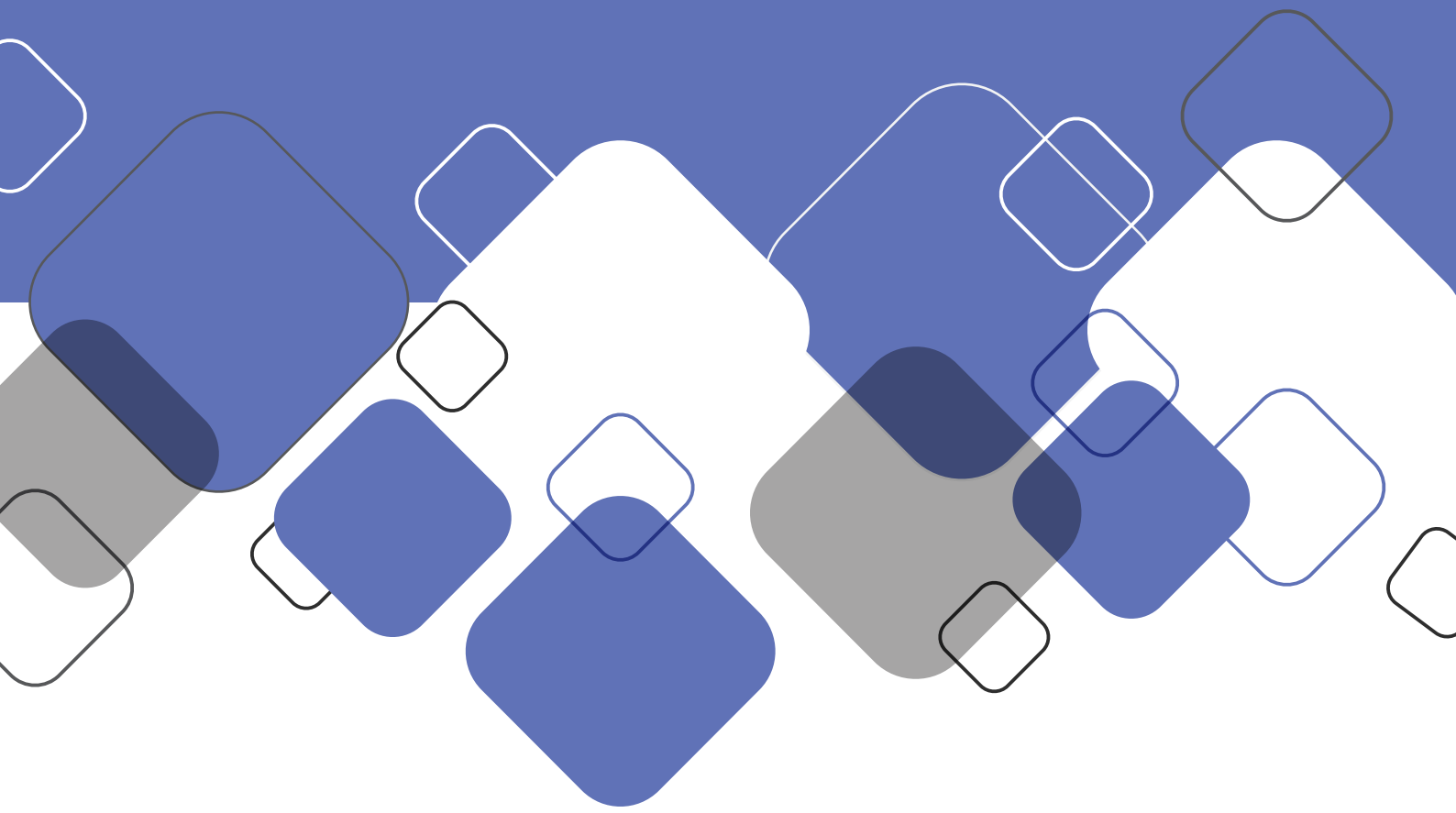
Stacbloc
SOFTWARE DEFINED STORAGE

CLOUD SCALE ENTERPRISE STORAGE



SDS BROCHURE

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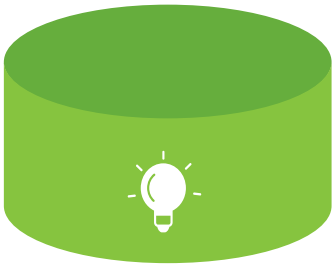
MULTI FACETED VERSATILE STORAGE

Stacbloc SDS enables Enterprises to run a secure multi-faceted storage environment that stores large volume of structured and unstructured data. Using storage as a software coded component enables customers to rightly couple with cloud & virtualized compute managed by DevOps.

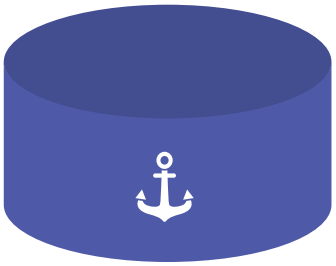
State of art SDS Software Scalable integration

Highly scalable robust storage software built for standard x64 architecture performs agile operations, provides freedom & flexbility.



Automation driven Self healed solution

SDS automatically rebalances data spread across cluster to provide a healthy reliable storage service to compute workloads.

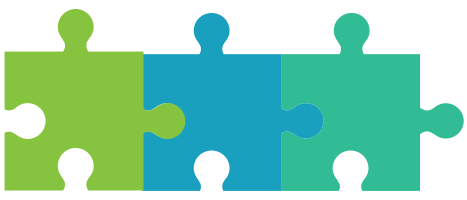


Simplified management Cluster wide GUI

Pre built integrations for Cloud infrastructure, holistic multi component level cluster wide management on a web GUI.

Enterprise Data Centre grade Solid State Drives

Dense virtual environments with VMs and containers perform well with SSD distributed across multiple nodes with parallel access, cache tiering with DRAM and SSD.



FULL SUITE STORAGE

Block, File, Object

RELIABILITY

Data Replication

SDS stripes data across multiple disks, nodes in cluster with configurable multiple copies of data across zones. Data is replicated (RF2 or higher), providing high reliability.

High Availability

SDS is built with multiple node controllers, redundancy at all levels to provide continual service. No single element failure affects storage availability.

Self Healing

In misfortune event of any disk or node failure, SDS automatically rebalances data across cluster. This ensures storage cluster is maintained at healthy state.

PERFORMANCE

Parallel Access

SDS provides storage object location map to clients. Clients make parallel read, write access to cluster without a central lookup, resulting in high performance.

Wide Stripe

SDS spreads data across multiple disks and nodes in a cluster. Data access is spread across cluster simultaneously, provides high storage throughput.

All Flash

All flash SDS systems built with SSD in cluster, provides IOPS multiple orders higher than spinning drives. Suited for high density virtualized systems like Cloud.

EFFICIENCY

Space Consumption

SDS use thin provisioning to write data to cluster. Not all storage capacity requested by compute is provisioned at start, storage grows as writes happen.

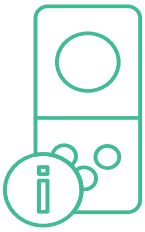
Linked Data

Linked Copy on Write Clones provides reuse data. When provisioned for VMs, parent storage is reused for all cloned VMs, incremental data alone is created.

Service Levels

Class of Service be built for data retention, replica, disk type, location pinning. Allows customers to use storage for various profiles like production, archive, backup.

Stacbloc SDS Features

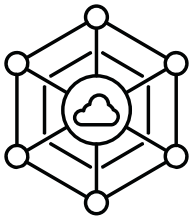


Data objects Compression

Inline compression
Multiple choice of plugins, modes
Minimum ratio assurance
Customize compression for pools of data

Tiered Storage

Multiple tiers - Fast Tier on SSD, slow tier on spinning disks
Frequently used data on Cache tier with DRAM, SSD
Write Ahead Log, Journals



Pooled storage

Aggregate data objects to pools
Thin provision - grow pools on consumption, not provision
Ensure data reliability with Replication, Erasure Coding
Configure custom replica counts across nodes at pool level
Spread data storage across cluster

Efficient Space Usage

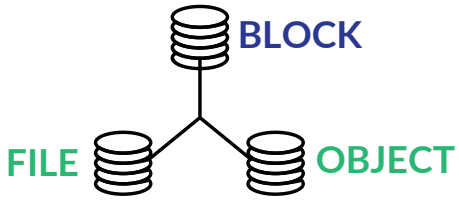
Erasure coded pools use parity codes
Save space with rebuild of data from parity codes
Custom parity chunk to data chunk ratio

Server Side Encryption

Data at rest encryption, Custom Key Management
Supports Self Encrypting Drives

Live workloads

iSCSI, LUN, Volume, layers
Elastic resize, Copy on write clone, Snapshot



Shared workloads on NFS, CIFS, SMB
File services, POSIX ACL compliant, Metadata
Quota limitation, directory structure

Unstructured data workloads
Data objects
REST API calls, security integrated, Parallel

SCALABILITY

Scale Out

SDS supports scale out architecture, grows in capacity from few TB to PB, from few nodes to hundreds of nodes, without needing forklift upgrades or migrations.

Geo Zones

SDS scales across geographies with global clusters. SDS enables Business Continuity Planning policies with multisite replication for disaster recovery or archival.

Multi Size Objects

SDS supports multiple object sizes, unified block, file, object access, provides a scalable storage backend for all data warehousing types like OLTP, OLAP, data lakes.

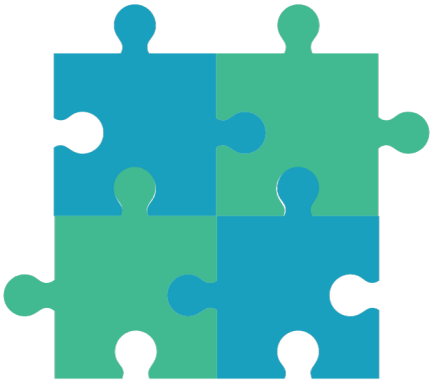
PROGRAMMABLE STORAGE
Paradigm shift Storage Controllers to Codes

Automation Compatible

Being software driven solution, SDS can be automated with DevOps tools like CI CD. Storage provisioning, snapshot, backup, off site movement can be automated.

Integration

RESTful API integration allows Enterprise Software applications to interact with SDS for all CRUD operations and external management with control.



Deploy customized Stacbloc Software Defined Storage appliance to your ever growing business needs.

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