

MOSMB SERVER STACK

Futuristic SMB3 stack for forward thinking companies

MOSMB (SMB WITH MOJO) IS RYUSSI'S ADVANCED SERVER MESSAGE BLOCK (SMB) SERVER COMPONENT LIBRARY OFFERING FOR THE DATA STORAGE MARKET TO ENABLE FILE SHARING IN A HETEROGENEOUS ENVIRONMENT THAT INCLUDES BOTH WINDOWS AND NON-WINDOWS COMPUTERS.

MoSMB is built as an SMB2/SMB3 user mode server stack designed to run crucial enterprise workloads such as Enterprise File Server, Microsoft Hyper-V and SQL Server. It is built to be feature-rich, fully compliant, light-weight, low footprint and proprietary license bearing.

By leveraging MoSMB, storage providers can expand their NAS offering to include SMB protocol with a dramatically decreased Time to Market and increased First Time Right chance.

MoSMB architecture is plugin based and modularized. This facilitates easy integration of MoSMB into storage systems (file, object or block) including clustering infrastructure by using well-defined integration APIs. MoSMB is written in ANSI C 99 for maximum portability and integration with diverse storage stacks. It is available for all popular flavors of Linux and also FreeBSD.

It is also architected such that it is relatively constraint-free and can utilize the underlying platform's capabilities and resources to the utmost for maximum performance and scalability.

MOSMB SUPPORTED USE CASES

- HYPER-V OVER SMB
- ENTERPRISE FILE SERVER FOR SQL SERVER, SHAREPOINT AND EXCHANGE DATA
- HYPER-V BASED VDI INFRASTRUCTURE
- HOME DIRECTORY
- HIGH SPEED MEDIA WORKLOAD
- CLOUD ADJACENT STORAGE
- INTELLIGENT DATA MOVER
- NAS GATEWAY TO OBJECT STORAGE
- HDFS DATA STORAGE FOR HADOOP WORKLOADS
- NAS GATEWAY FOR HPC SYSTEMS
- APPLICATION CONSISTENT HYPER-V BACKUP SOLUTION USING RVSS
- EFFICIENT DATA ARCHIVAL SOLUTIONS
- SECURE SMB 2/3 STACK FOR EMBEDDED DEVICES

Feature	Description	Benefit
MS SMB 2.*, 3.0, 3.1.1 Protocol Compliance	Highest level of compliance with MS-SMB2 protocol	Functions well in Microsoft environment like Hyper-v, SCVMM, MS-SQL tools
Supports VFS filesystems like ext4, xfs, GlusterFS	Default IOS driver is VFS. Proprietary drivers supported.	MoSMB is pluggable into any storage using IOS driver
Supports S3 Object Store interface	IOS-S3 driver for S3 interface	S3 driver can interact with any S3 compatible object store
Active Directory Kerberos support	Enables client authentication	Supports Windows, Mac & Linux clients
Signing & Encryption	AES-128-CCM, AES-128-GCM algorithm	Ensures secure file access over the network. Prevents man-in-the-middle attacks
SMB Multi-Channel	One or more NICs can be used simultaneously by file server	Increased throughput and network fault tolerance, automatic & dynamic discovery
Durable & Persistent handles v1/v2	SMB connections survive a short network outage or node failure	Enables SMB connections transparent failover in active-active cluster solution
Transparent failover & continuous availability using Witness Protocol	Witness protocol informs the SMB client of node failures without TCP timeouts	Witness Protocol works with MoSMB to detect failure and failover transparently so that client applications work seamlessly.
Active-Active Scale-out cluster support	MoSMB can be deployed on 'n' number of cluster nodes with cluster file system as storage	MoSMB exports scale-out file shares, increased bandwidth, zero down-time, load-balancing of smb connections, planned & unplanned migrations.
Windows ACL support + Linux UserID Mapping	Basic DACLS are supported	Authorization rules can be Windows or Proprietary rules since this is a pluggable module.
Dynamic provisioning of shares	Add/Delete/Modify shares dynamically	MoSMB functions as MS-SMB and no downtime required for provisioning of shares
Heterogeneous storage support at share level	An IOS driver can be configured at share-level	Each individual share can be independently connected to local storage using VFS driver or cloud storage using S3 driver
REST API support	Easy integration for configuration & management	Proprietary management applications can be integrated with MoSMB using REST API.