



Distributed Object Storage Solution at your reach

Data Sheet



BURNA About

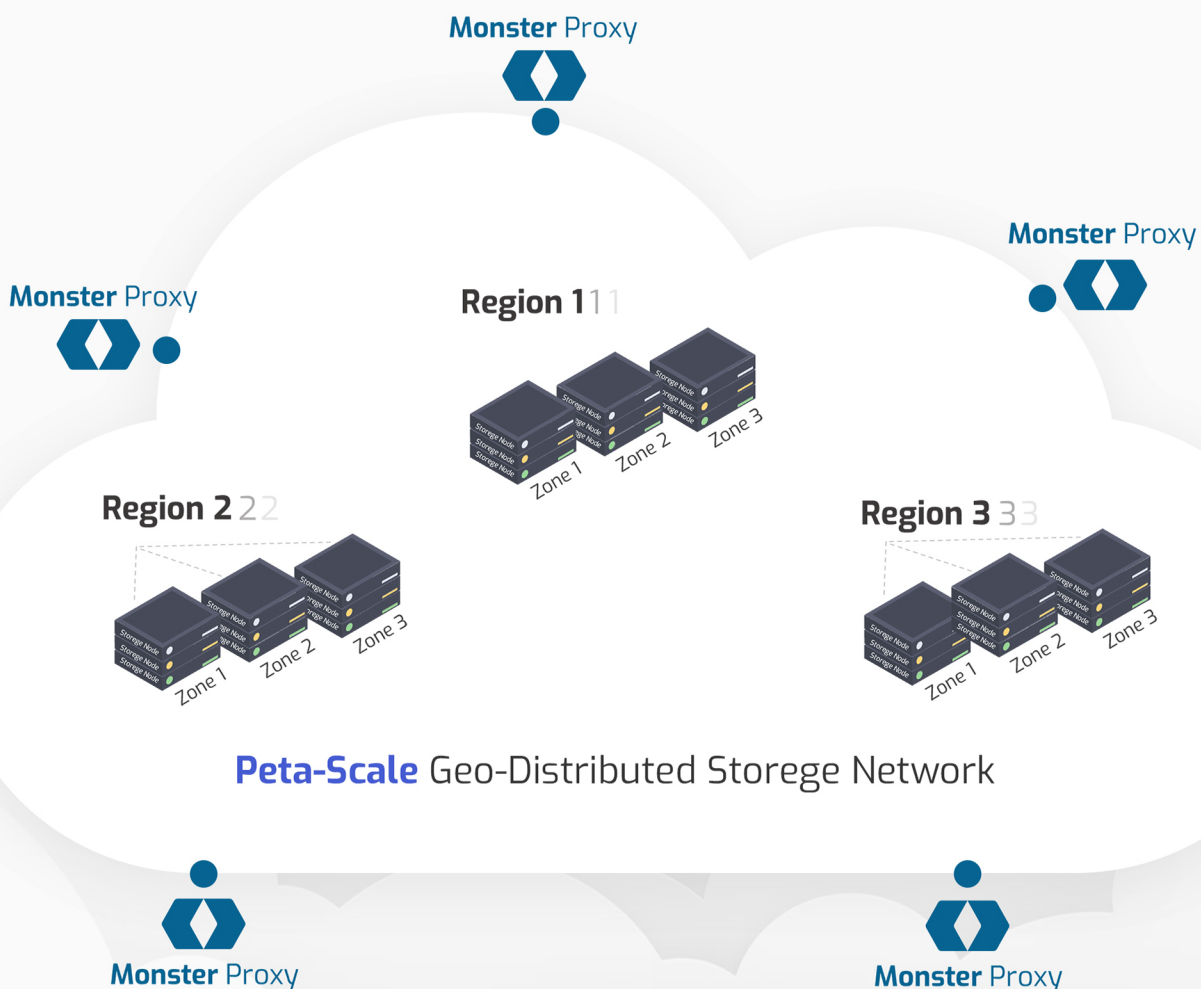
● Burna Monster storage network

is a software-defined storage solution that enables the storage and processing of large volumes of data simultaneously, without creating a bottleneck or single point of failure. Burna Monster serves as a replacement for complex and expensive hardware-based storage systems. By utilizing a distributed and decentralized proxy design pattern, it provides linear scalability for storing and retrieving information. It empowers enterprises and service providers by offering a robust and highly-scalable petabyte-scale data storage for a wide range of applications, including web hosting, video streaming, archival, backups, analytics, and customizable software applications. leverage the latest innovations in server technology and storage media.

The Burna Monster provides processing capabilities in proximity to the data, meaning that data can be processed by user-defined programs. It also supports Serverless Computing, allowing users to develop their applications based on cloud-native architecture.

Burna Monster utilizes a powerful AI-driven 360-degree monitoring system, enabling comprehensive monitoring of various system components such as disks, servers, and clusters with high granularity, including QoS metrics.

Burna Monster can be deployed on any standard x64 servers, allowing you to leverage the latest innovations in server technology and storage media.



Key features



1 Malware detection with more than 50 anti-viruses on files and objects



2 Full-Flash support for higher performance and versatile use cases



3 Software Defined approach transforms standard x64 servers into storage nodes



4 Multi-tenant management interface for secure access control



5 Ensured data availability with no single point of failure



6 Enterprise scalable file and object storage



7 Scalable to hundreds of petabytes and nodes



8 Multi-layer support for consistent service delivery



latest innovations

Distributed Object Storage



- Deployable in WAN scales
- Data balancing across disks and servers
- Zero down time storage service
- Support of static and dynamic large objects
- Ability to define different storage policies such as replication and erasure coding
- Multi-geo distribution for effective disaster recovery and



Security

- Storage and transmission of data in an encrypted format
- Support for various authentication methods tailored to the enterprise's needs
- Multi-layered access control for managing object-level access permissions



Monitoring

- Monitoring system performance with at different levels (disk, server, cluster)
- Alert system for managing critical conditions
- AI-powered monitoring systems



Processing

- Support for edge computing on storage servers
- Support for running customized code (scripts, Python, Java) on objects
- Support for developing custom middleware in different layers of access
- Programmable capability for executing functions on



Accessibility

- S3 compatibility
- Web dashboard and restful API for managing objects

Monster Use Cases

Monster empowers organizations across various industries by offering a comprehensive range of use cases, consolidating multiple workloads into a unified storage environment. By eliminating silos and maximizing resource utilization, Monster enables cloud-like economies of scale.

It caters to diverse industries, including service providers, media and entertainment, public sector, financial services, healthcare, as well as research and development-intensive sectors like manufacturing and research.

● Data archiving and Backup

- Burna Monster is ideal for backup and disaster recovery purposes. It allows organizations to store large volumes of backup data securely and efficiently. With its high durability and built-in redundancy features.
- Single repository for long-term retention and compliance
- Using dynamic storage policies
- Minimizing costs

● Media and content delivery

- For media and streaming, Burna Monster is essential for storing and delivering media assets such as videos, images, and audio files.
- Well-suited for media files such as videos, music, Images
- Handling static and dynamic large files

● Data Analytics

- Burna Monster can be used as a cost-effective and scalable backend for data analytics workloads. Organizations can store and process large datasets required for machine learning, big data analytics, and other data-intensive applications

● Genomic and Healthcare Data

- Burna Monster used in genomics and healthcare industries to store and manage large-scale genomic data, medical images, and other healthcare-related information. It enables secure and efficient data sharing among researchers and healthcare providers

● Web and Mobile Applications

- Burna Monster can serve as a backend storage solution for web and mobile applications, allowing developers to store user-generated content, media files, and application data. It provides scalability, durability, and seamless integration with application programming interfaces (APIs)

● Cloud-Native File Services

- Burna Monster can serve as a backend storage solution for web and mobile applications, allowing developers to store user-generated content, media files, and application data. It provides scalability, durability, and seamless integration with application programming interfaces (APIs)

◆ **Monster guarantees** exceptional performance and seamless scalability, effectively eliminating any data silos. The software's access and storage layers can be independently scaled, ranging from just a few servers to a vast infrastructure comprising thousands of servers.

With Monster, all servers can be accessed simultaneously and directly, **ensuring efficient data retrieval and management.**

BRN-M-PACO-107

- Monster-Core 1.7 Stable (All in One)
- Leverages commodity hardware
- Multi Tenant / Multi User
- ACL Support per Container
- Unlimited Storage
- Easily add capacity (unlike RAID resize)
- Syslog Interface
- StatsD Performance Metrics Interface
- REST API / Python-SDK / Swift-CLI
- Windows/Linux Swift-GUI Client
- RAID not required
- Multi-dimensional Scalability
- Account/container/object structure
- Built-in management utilities
- Zero Down Time Capabilities
- 1Y L3-Web-Support (8*5)

MONSTER



RAW CAPACITY PER NODE

BNR-M-PACO-D20-HDD	100TB HDD Disk Per Node up to 20 Disks
BNR-M-PACO-D10-SSD	100TB SSD Disk Per Node up to 10 Disks

BW PER NODE

BNR-M-PACO-F-1G	1G External Network for Front-End Nodes (i.e. Proxy)
BNR-M-PACO-F-10G	10G External Network for Front-End Nodes (i.e. Proxy)

BACKPLANE PER NODE

BNR-M-PACO-B-1G	1G Backplane for the Replication Network and Proxies
BNR-M-PACO-B-10G	10G Backplane for the Replication Network and Proxies
BNR-M-PACO-B-100G	40G/100G for Backend Replication Network and Proxies

ADDITIONAL SUPPORT

BNR-M-PRO-L3O	L3 Oncall 24/7 Support (Remote)
BNR-M-PRO-KB	Access to Enterprise Knowledge Base (Wiki)
BNR-M-PRO-L2H	Hourly Layer 2 (Insite)
BNR-M-PRO-L2O	Daily L2 Oncall Support (Remote) – 8H
BNR-M-PRO-L2OF	Full L2 Oncall Support (Remote) – 24/7
BNR-M-PRO-L2F	Full L2 Support – 24/7 (Insite + Oncall)
BNR-M-PRO-L1	24/7 Layer 1 Support


DISASTER INSURANCE

BNR-M-INS-DF	Data Insurance up to 1 Extra Disk Failure per Node based on Storage Policy against Data Loss e.g. 3rd Disk for R3
--------------	--

SERVICES

	BNR-M-PACO-SRV-CAS	SSD Software Acceleration (CAS)	Intelligent Storage of objects using cache acceleration software to deliver higher performance
	BNR-M-PACO-SRV-REP	Replicator	The Service responsible for replicating objects in Storage Space
	BNR-M-PACO-SRV-REC	Reconstructor (i.e. EC)	Reconstruct objects using erasure code
	BNR-M-PACO-SRV-AUD	Auditor	Search for Corrupted files in the storage and rebuild them using replicated objects
	BNR-M-PACO-SRV-SHA	Sharder	shard large container databases into a number of smaller shard containers
	BNR-M-PACO-SRV-EXP	Expirer	The Service for setting a lifetime for object and removing it after reaching the end of it's lifetime
	BNR-M-PACO-SRV-MNG	Master Controller (MC)	Creating a Master node in the network to control the object storage
	BNR-M-PACO-SRV-AI	Advanced Monitoring	Using Advanced AI Capabilities for monitoring Performance and SLA
	BNR-M-PACO-SRV-LOG	Log Monitoring	Monitoring the system using ELK stack and Syslog
	BNR-M-PACO-SRV-STAT	Performance Monitoring	Monitoring dashboard for observing the performance of system
	BNR-M-PACO-ADD-SSL	HTTPS	Enabling HTTPS Communication for security
	BNR-M-PACO-ADD-DOA	Direct Object Access	Accessing object directly and bypassing proxies

MIDDLEWARES

S3	BNR-M-PACO-MID-S3	S3	Compatibility with S3 and it's tools
	BNR-M-PACO-MID-KOL	Koloon v1	User Authentication through API instead of tokens, bringing high availability for the end user
	BNR-M-PACO-MID-KEY	Keystone	provides API client authentication, service discovery, and distributed multi-tenant authorization
	BNR-M-PACO-MID-RL	Ratelimit	Setting a limit for the number of object storing at the same time in the storage space
	BNR-M-PACO-MID-LO	SLO/DLO	The Middleware for efficiently operating on Large Static and Dynamic Objects
	BNR-M-PACO-MID-SYM	Symlink	Establishing a reference link to an Object instead of copying the entire object to a new container
	BNR-M-PACO-BLK	Bulk Operation	The Bulk Operations middleware enables uploading and deleting many objects with just one request
	BNR-M-PACO-QTA	Quota	Quotas are operational limits you can set to prevent a single tenant from consuming all available resources
	BNR-M-PACO-SLET	Programmable Capabilities	The capability to run program on objects in the system
	BNR-M-PACO-ENC	Object Encryption	The middleware responsible for encrypting objects in the storage space
	BNR-M-PACO-TURL	Temp URL	Create a temporary URL that gives users temporary access to objects
	BNR-M-PACO-VER	Versioning	This middleware is responsible for versioning objects in the storage

BURNA Innovation Center

In the present era, quick access to and storage of data are among the primary requirements of various organizations. Due to the high volume of data, there is a need for a distributed system at a large scale to integrate and store these resources.

Monster, as a distributed storage system, is designed with the aim of providing data accessibility and persistence. Using this system, one can organize processing resources and storage devices in a cluster. The main objective of this system is to distribute data across physical servers with multiple storage resources and ensure data accessibility even in the event of failures.



www.burna.ir

