Asigra TrueNAS® M-Series

PERFORMANCE & SCALE WITHOUT COMPROMISE

The Asigra TrueNAS M-Series leverages industry-leading cache technology along with the ZFS file-system by merging DRAM, non-volatile memory, and flash (NVDIMM and NVMe/SSD) with high-density spinning disks to deliver low latency flash performance at disk capacity and cost. With up to four 100 Gb/s network ports per controller, the Asigra TrueNAS M-Series is designed to move terabytes of data at maximum speed.

SELF-HEALING DATA PROTECTION

Data integrity is the name of the game, and TrueNAS leaves nothing about your data to chance. In-flight data corruption is automatically detected and repaired before it ever reaches disk, and bit rot and data decay are identified and scrubbed clean. This ensures data is always pristine. Simply put, what you store on a TrueNAS storage solution today will remain intact for as long as it is in service.

INTELLIGENT STORAGE OPTIMIZATION

TrueNAS maximizes storage efficiency by offering compression, deduplication, and thin provisioning at no extra cost. The TrueNAS Adaptive Compression (TAC) algorithm efficiently boosts storage performance while maximizing storage capacity. TAC intelligently adjusts its compression ratio without wasting system resources. Before data is stored, TrueNAS dynamically detects and compresses what it can and skips over any data too inefficient to be worthwhile.

UNLIMITED SNAPSHOTS & REPLICATION

Most storage appliances require additional licenses for advanced features – but not TrueNAS. Unlimited file version retention, restoration, and replication are at your fingertips. Data is automatically protected locally against unintentional alteration, such as ransomware or malware, with minimal storage consumption. Data can be replicated locally, remotely, or to the cloud for backups or disaster recovery. TrueNAS snapshots can also be coordinated with VMware snapshots.

With the power of Asigra Cloud Backup and TrueNAS, any data protection or disaster recovery policy is simple to implement and maintain.

HIGH AVAILABILITY

Each TrueNAS M-Series can be optionally configured with dual controllers for High-Availability. In the event of a controller failure, the system automatically fails over to the second controller. All TrueNAS and Asigra Cloud Backup services are automatically restored using the same IP address. The failed controller can then be hot-swapped and repaired without any disruption of service. HA provides maximum service uptime for clients and avoids the complexity and the high costs of dealing with failed services and disrupted business processes.

POWERED WITH ASIGRA CLOUD BACKUP AND RECOVERY SOFTWARE

Award-winning Asigra Cloud Backup™ is a single, comprehensive, multitenant data protection platform for all sources and types of corporate data including physical and virtual servers, enterprise databases and applications, endpoint devices, SaaS-based office systems like MS Office 365, G Suite, and Salesforce, and PaaS sources like AWS and Azure. Asigra is also the first backup to prevent ransomware from infecting backups that cause attack-loops.

POWERFULLY-SCALABLE ENTERPRISE STORAGE: OPEN SOURCE ECONOMICS

The flagship Asigra TrueNAS M-Series line of unified storage arrays are designed with enterprise features, high-availability, and petabyte-scale in mind. Available in two models, the Asigra TrueNAS M40 and M50 provide unified file, block, and object storage and are available in single or dual-controller, or hybrid, configurations. Featuring multiple high-speed networking options (up to 100 Gb/s), system memory up to 1.5 TB, NVDIMM and NVMe caching, and up to 10 PB capacity, the Asigra TrueNAS M-Series is ideally suited for heavy IT storage workloads, including NFS, SMB, iSCSI, and Asigra backup.

The Asigra TrueNAS M-Series arrays combine the flexibility of unified storage, the performance of solid state flash drives, the capacity of hard disks, the simplified management of a powerful web-based user interface, and white-glove enterprise support. TrueNAS inherits the rich functionality and open source economics of FreeNAS® and adds enterprise-class capabilities.

Every TrueNAS enterprise storage array supports unified block, file, and S3-compliant object storage protocols. Its modular hardware architecture conserves power, space, and cooling while supporting multiple applications with its hybrid flash and disk storage pools. Optional high availability ensures storage services are not disrupted, while intelligent storage optimization maximizes storage efficiency with typical data reduction ratios of greater than 2.5x.

The Asigra TrueNAS M-Series delivers high-performance, scalability, data integrity, reliability, and ease-of-management for companies that never sleep.

SOFTWARE SPECIFICATIONS

ASIGRA CLOUD BACKUP
- DS-System v14 installed in TrueNAS 11.1-U6 version and compatible across entire family of TrueNAS products
- High availability support with dual controller in TrueNAS HA system
- Global Deduplication
- Instant restore of files and directories
- Attack-Loop prevention

FILE-BASED PROTOCOLS
- SMB
- NFSv3, v4
- AFP
- FTP
- WebDAV

BLOCK-BASED PROTOCOLS
- iSCSI

OBJECT PROTOCOLS
- S3-compliant

DIRECTORY SERVICES
- Active Directory (AD)
- Kerberos
- Lightweight Directory Access Protocol (LDAP)
- Network Information Service (NIS)

NETWORKING
- Port Trunking/NIC Teaming and IEEE 802.3ad link aggregation
- IEEE 802.1q VLAN support

VIRTUALIZATION
- Supports VMware and VAAI, ESXi snapshot integration, VM Warn/Stun
- Supports KVM, Citrix XenServer,

Microsoft Hyper-V, bhyve, KVM, and other common hypervisors
- VSS, ODX, and CSV

SUPPORTED PUBLIC CLOUD PROVIDERS
- Amazon Simple Storage Service (S3)
- BackBlaze B2 Cloud
- Google Cloud
- Microsoft Azure

FILE SYSTEM
- Self-healing file system
- Intelligent storage optimization including inline compression and deduplication
- Snapshots and clones
- Thin and thick provisioning
- Online capacity expansion
- Virtual block devices
- ZFS Stripe, ZFS Mirror, RAIDZ (single parity), RAIDZ2 (dual parity), RAIDZ3 (triple parity)
- Compatible with AVID® ISIS® and Nexis®1

BACKUP
- Asigra DS-Replication
- Bidirectional snapshot-based OpenZFS local/remote replication

REMOTE ADMINISTRATION
- Graphical administrative interface over HTTP/HTTPS
- Alert notifications via email, AWS-SNS, HipChat, InfluxDB, Slack, Mattermost, OpsGenie, PagerDuty, and VictorOps
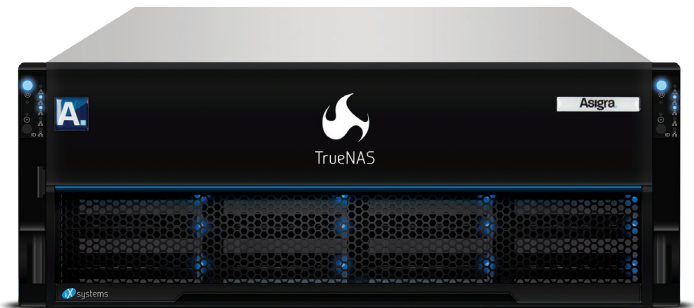- Ability to send logs to a remote syslog server

- Automated backup of system configuration and state
- Graphical reporting
- Signed updates with the ability to return to the prior version of the operating system

- SNMP MIBs
- IPMI remote console and power management
- REST API and WebSockets API

Powerful Enterprise Storage arrays with Simple Management, Intelligent Compression, High Availability, and Flash-based Acceleration.

Asigra TrueNAS unified storage appliances offer storage flexibility, performance, reliability, and management simplicity.

TO ORDER AN APPLIANCE: Contact Asigra at client.services@asigra.com

HARDWARE SPECIFICATIONS

AVAILABLE DRIVES
- Enterprise Nearline SAS HDD: Capacities from 2TB to 14TB
- Enterprise SAS SSD: Capacities from 960GB to 7.68TB
- NVMe: Capacities from 800GB to 3.2TB

POWER MANAGEMENT
- Dual redundant, hot-swappable, high-efficiency (80+) Platinum power supplies
- 100-240V input power supported (Auto-Switching)
- Remote power on/off
- UPS signal response and alerts

DISK MANAGEMENT
- Global hot spares
- Hot-swappable drives
- Corrupted SATA/bad block scan + S.M.A.R.T.
- Hard drive activity/alert LEDs
- Hardware-accelerated disk encryption (AES-NI)

PHYSICAL PARAMETERS
- 4U: 24x 3.5/2.5" hard drive bays (front-loading, hot swap)
- Enclosure monitoring and alerts
- Dimensions (length x width x height): 27 x 19 x 7" | 686 x 483 x 178mm
- Rackmount rails 26" - 36.5" depth
- Operating temperature: 0°C to 35°C
- Non-operating temperature: -10°C to 70°C
- Empty weight: 75 lbs | 52kg
- Fully-Loaded weight: 114 lbs | 34 kg
- Humidity: 5% to 95% non-condensing
- RoHS 6/6 compliant, CE, FCC Class A, UL

ASIGRA TrueNAS M40
- Supports single or redundant storage controllers
  - Second storage controller can be added later to upgrade to HA
- 128 GB RAM per storage controller
- Up to 2.4 TB SSD-based read cache
- 16 GB NVDIMM-based write cache per storage controller
- Networking:
  - 2x 40 GbE (or 4x 10 GbE) + 2x 10 GBase-T interfaces per storage controller
- Maximum storage capacity: Up to 2 PB
  - Number of expansion shelves: up to 2
  - Available expansion shelf models: ES24, ES60
- Maximum power draw**
  - Dual storage controller (HA): 779 Watts
  - Single storage controller: 404 Watts
  - BTU: 1377/2647 BTU/h

ASIGRA TrueNAS M50
- Supports single or redundant storage controllers
  - Second storage controller can be added later to upgrade to HA
- 256GB-1.5TB RAM per storage controller
- Up to 12.5TB of NVMe-based read cache
- 16GB NVDIMM-based write cache per storage controller
- Networking:
  - Standard: 2x 40/ 100 GbE (optical) + 2x 10 GBase-T per controller
  - Maximum: Up to 4x 100 GbE or 10x 10 GbE per controller
- Maximum storage capacity: up to 10.4 PB
  - Number of expansion shelves: up to 12
  - Available expansion shelf models : ES24, ES60
- Maximum power draw*
  - Dual storage controller (HA): 905 Watts
  - Single storage controller: 471 Watts
  - BTU: 1607/3089 BTU/h

> " Combining Asigra's leading edge data protection with iXsystems powerful TrueNAS appliances delivers an unmatched powerful 1–2 knockout punch." ~Dataedge

Asigra.   **iXsystems™**