Tintri VMstore T7000™
NVMe Platform

VMstore

Revolutionizing and Downsizing Storage Management with Intelligent Infrastructure

NVMe is currently the fastest storage media available. But today's IT departments realize that hardware performance is just one of many important factors that drive successful data center operations.

The Tintri VMstore T7000 Series is the latest addition to the storage industry's only true Intelligent Infrastructure portfolio. Yes, the T7000 delivers NVMe-driven performance and efficiencies, supporting up to 7,500 virtualized applications in just two rack units. And yes, it offers the kind of scalability, availability and security that you'd expect from an enterprise-grade system that powers Fortune 100 firms. But it's the outstanding AI-driven efficiency and optimizations that our customers love most and what sets VMstore apart from the rest of the pack. VMstore systems deploy in minutes, self-optimize to accommodate the most dynamic workloads in the data center and maintain quality of service (Auto-QoS) for each VM or application. Businesses can actually enjoy using storage for the first time – with autonomous operations and advanced real-time and predictive analytics that consistently drive down storage management activities and costs – by as much as 95%.

The T7000 is the first NVMe-based VMstore system, leveraging DDN's battle-tested NVMe technology and providing 30% faster performance than previous-generation VMstore systems. VMstore T7000 customers also benefit from using the same storage hardware controller as DDN At-Scale solutions, deployed in the most demanding AI, analytics, deep learning and high IOPS workloads on the planet.
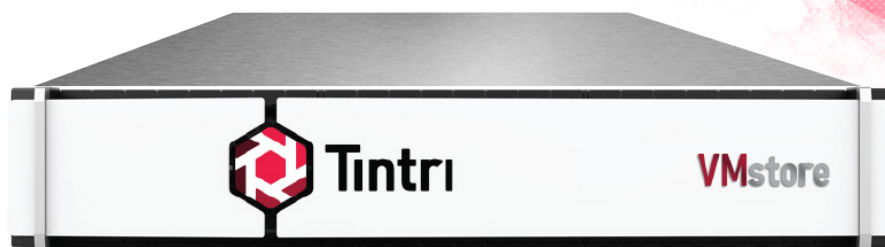
Scale up to 645TB with a single VMstore system and grow beyond 40PB in a scale-out configuration. All your VMstore systems – supporting up to hundreds of thousands of applications – can be managed from a single console. Enterprises that have chosen NVMe as their preferred platform can now gain the advantages of Intelligent Infrastructure to consolidate their enterprise applications, manage storage with generalist IT skills and re-focus on their business.

Features

- Consistent Performance – Isolation for every app, VM, and database all the time
- Data Services – Real-time deduplication and compression, public cloud connector, copy data management, and more
- Real-Time Analytics – Visibility across storage, network, and hosts on a per-application, VM, or database basis
- Actionable Analytics – Get to root cause in one click; fix and see results instantly
- Predictive Analytics – Profile application types, then model and forecast capacity and performance needs over the next 18 months
- Developer Choice – Select Tintri's native REST APIs, PowerShell toolkit, Python SDK, or plugins such as our vRealize Orchestrator that meet your needs
- Per-Application Data Management – Manage snapshots, clones, replication, and QoS policies on a per-app, VM, or database basis
- High Availability – Dual-controller, hot spares, and inline checksum and referential integrity with real-time error detection
- Choice of Application Environments – Supports containers as well as VMs

Benefits

- Guaranteed high performance for every workload without manual intervention
- Concurrent multi-hypervisor support enables you to operate vSphere, Hyper-V, RHEV, XenServer and OpenStack simultaneously on a single system without partitioning
- Remote management of both initial system configuration and power simplifies administration of your distributed environment
- Share analytics data with vRealize Operations, Microsoft System Center Operations Manager, and other platforms to gain valuable holistic insight
- Easy configuration enables you to go from box to production workloads in under an hour in most cases
- Our autonomous operation eliminates the vast majority of manual tasks, saving time and reducing errors
- Our support for open APIs delivers choice while making scripting simple, standardized, and powerful
- Supports vSphere 7 with Kubernetes for containerized applications

Tintri
Intelligent Infrastructure

Tintri VMstore T7000 NVMe Platform

Product Specifications		T7080
64 Systems		
Flash	Effective capacity[bde]	Up to 41.3PB
	Flash raw capacity[e]	11.8PB
	Data protected as DP/DR target[bce]	82.6PB
Application Density	VMs (max)	480,000
Per System		
Flash	Effective capacity[bd]	Up to 645TB
	Flash raw capacity	77 to 184TB
	Data protected as DP/DR target[bc]	Up to 1290TB
Application Density	VMs (max)	7,500
	VDisks (max)	15,000
Onboard Network ports per controller	DATA/REPL ports	2 x 1/10GbE
	ADMIN ports	2 x 1/10GbE
Optional Network ports per controller	DATA ports	2 x 40GbE or 2 x 25GbE or 4 x 10GbE or 2 x 1/10GbE
	REPL ports	2 x 40GbE or 2 x 25GbE or 4 x 10GbE or 2 x 1/10GbE
Physical Specifications	Dimensions (HxWxD)	2RU, 3.5" x 19.0" x 34.5" (89mm x 483mm x 850mm) without bezel
	Weight 13x NVMe drives	85.6 lbs (38.82kg)
	Weight 24x NVMe drives	90.6 lbs (41.09kg)
	Power supplies	Dual redundant hot swappable with a choice of NEMA or IEC plug types
	Watts (avg./max)	870 / 2000
	BTUs (avg./max)	2969 / 6824
	Operating temp.	5°C to 35 °C (41°F to 95°F)
	Non-oper. temp.	-40°C to 60°C (-40°F to 140°F)
	Operating humidity	8% to 85% (non-condensing)
	Non-oper. humidity	8% to 95% (non-condensing)
System	Type	All-flash dual controller
Software	Tintri OS	Requires Tintri OS 5.0 or higher
Virtualization	Supported Hypervisor Integrations	VMware vSphere, Microsoft HyperV, Red Hat Enterprise Virtualization (RHEV), Citrix XenServer, and Microsoft SQL Server
Additional Software	Management	Tintri Global Center™ Standard (included)
	Analytics	Tintri Analytics (included in active VMstore maintenance contract)
	Tintri Software Suite	SQL Integrated Storage Synchronous and Asynchronous Replication: ReplicateVM™ Public Cloud Connector: VMstore Cloud Connector™ VM Scale-out: Tintri Global Center™ Advanced Copy Data Management: SyncVM™ Data-at-rest Encryption: SecureVM™
Product Support	Administration	Revolutionizing and Downsizing Storage Management with Intelligent Infrastructure FIPS Encryption (coming soon)
	Support	Proactive support with automated phone home and case creation
Regulatory		UL/CSA/EN/IEC 60950-1, EMC Emissions Class A, FCC, IC, CE, VCCI, RCM, BSMI, EAC, KC, ROHS, REACH, WEEE

a. VMstore Scale-out enables you to manage storage as a federated pool, heterogeneously accommodating hybrid/all-flash nodes for both existing and future systems. You can start with one 19TB all-flash system and grow up to 40PB capacity supporting up to 480,000 virtual machines.

b. Effective capacity refers to usable space. It is calculated by removing data protection overhead from RAW capacity, and then a space savings multiplier is applied. Data protection overhead includes double parity, hot spare and internal reserves for metadata. Space savings is derived from inline deduplication, compression and clone savings, but does not include thin provisioning. Data reduction typically provides 2.5-5x capacity savings; 5x was used for the value shown.

c. Assumes minimum policy of 8 hourly snapshots, 7 daily snapshots, and 4 weekly snapshots. All snapshots are logically represented as full recoveries.

d. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of SSDs, the operating system, and other factors.

e. Stated capacity assumes a homogeneous pool of 64 nodes equipped at maximum capacity. Scale-out storage pools can be heterogeneous with a mixture of up to 64 all-flash and hybrid system nodes.

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