Tintri VMstore™ T800 Series

Smart storage that Sees, Learns and Adapts

The Tintri VMstore™ T800 series is designed to address the needs of virtualization and cloud environments. Traditional storage is a mismatch for the specialized demands of virtualized workloads, requiring complex configuration, significant over-provisioning and ongoing optimization and management. VMstore addresses the challenges traditional storage platforms pose when virtualizing critical server workloads such as Microsoft® Exchange®, Microsoft® SQL Server®, Microsoft® SharePoint®, Oracle® and SAP® databases, end-user desktops, and cloud architected workloads.

Built using the industry's first and leading application-aware storage architecture, the Tintri VMstore T800 Series sees storage at the VM and vDisk level—learning and adapting to rapidly-changing workloads, eliminating mundane storage management tasks and delivering substantial improvements in performance and density over legacy storage. The Tintri VMstore T800 Series is ideal for virtualized and private cloud environments in midsize and large enterprises that manage hundreds or thousands of virtual machines. Applicable to multiple use cases, this product line satisfies a variety of workloads such as persistent VDI deployments with mixed end users, database and other business critical applications, data protection and disaster recovery, and cloud environments with large numbers of automatically deployed virtual machines and an overall high rate of change.

Whether you are an IT architect, administrator or manager, Tintri VMstore can help you:

Realize the full potential of virtualization with intelligent storage.

- Set-up in minutes with support for multiple VMware vSphere or Red Hat Enterprise Virtualization datacenters. Manage storage at the level of VMs and vDisks, not LUNs and volumes—eliminating complex configuration or ongoing tuning.
- Get 99 percent of IO from flash, for all-flash performance without the all-flash price.
- Serve hundreds of different types of VM workloads from a single VMstore with dedicated IO lanes per vDisk and performance allocation—eradicating the impact from noisy neighbors on other virtual workloads.

Eliminate bottlenecks and troubleshooting overhead with infrastructure insight.

- Get a single view of all VMs stored and identify performance and capacity trends without the complexity associated with low-level storage constructs.
- Instantly identify performance hot spots at the hypervisor, network and storage levels with comprehensive performance visualization.
- Leverage optional Tintri Global Center™ software to monitor and administer multiple VMstore systems and resident VMs from a single control pane.

Stay in control of virtualization environment while VMstore eliminates mundane storage management tasks.

- Protect individual VMs with customizable policies for VM-level instant space-efficient snapshots—eliminating the complexity of LUNs and volumes mapping.
- Deploy WAN-efficient replication at the VM-level using as much as 95 percent less bandwidth with block-level global deduplication and compression over the wire with optional ReplicateVM™ software
- Store up to 100 TB of effective capacity with inline data reduction.
- Create hundreds of high performance zero-space VM clones locally or remotely. Ideal for speeding up VDI deployments and for development/test workloads.
- Protect data with optional SecureVM™ software to encrypt data inline using 256-bit AES algorithms and without impacting performance, with in-built key rotation.

Highlights

Storage that Sees:
- Designed specifically for virtualized applications, VMstore automatically configures itself based on your environment and provides a complete end-to-end view of all virtual workloads.

Storage that Learns:
- VMstore maintains constant communication with your entire virtualized environment. Actively changing VMs are tracked and highlighted so you have status on a moment-by-moment basis.

Storage that Adapts:
- Because of unique per-VM data management and operations, VMstore can make adjustments including a dedicated IO "lane" per VM to maintain the best service for all virtualized applications.

"Compared to our previous storage, Tintri VMstore can run ten times the VMs in less than a tenth of the data center footprint, and reduce latency by 98 percent at the same time. They helped us realize a fundamental goal of virtualization: consolidating workloads and increasing resource utilization, both on hosts and on storage."

—Mike Torgersen
vice president of IT at ParAccel

PARACCEL™

Tintri VMstore™ T800 Series

		VMstore T880	VMstore T850	VMstore T820
		Ideal for highly virtualized enterprise and private cloud environments requiring performance and scalability for thousands of VMs	Ideal for highly virtualized enterprise environments requiring performance and scalability for thousands of VMs	Ideal for midsized and remote/branch environments requiring efficiency to handle hundreds of VMs
Controller	Type	Gen 5 Dual Controller (active-standby) supporting Tintri OS 3.1 and up		
VM Density	VMs (max)	3,500	2,000	750
	vDisks (max)	10,000	6,000	2,250
Flash(a)	Raw^a	8.8 TB	5.3 TB	1.7 TB
Capacity(a)	Raw^a	78 TB	52 TB	20 TB
	Usable^b	45 TB	30 TB	10.5 TB
	Effective Usable^{c,d}	100 TB	66 TB	23 TB
Networking	Management	Included: 2x 1GbE (RJ-45)	Included: 2x 1GbE (RJ-45)	Included: 2x 1GbE (RJ-45)
	Data	Included: 2x 10GbE (SFP+ or 10GBASE-T)	Included: 2x 10GbE (SFP+ or 10GBASE-T)	Included: 2x 1GbE (RJ-45) Optional: 2x 10GbE (SFP+ or 10GBASE-T)
	Replication	Included: 2x 1GbE (RJ-45) Optional: 2x 1GbE (SFP+)	Included: 2x 1GbE (RJ-45) Optional: 2x 1GbE (SFP)	Optional: 2x 1GbE (RJ-45) Optional: 2x 1GbE (SFP)
	Software functionality	Ethernet failover link aggregation, VLAN tagging, IP aliasing, LACP		
Physical specifications	Dimensions (HxWxD)	4 RU, 7" (178 mm) x 19" (483 mm) x 28.5" (724 mm)		
	Weight	108 lbs (49.1 kg)	108 lbs (49.1 kg)	106 lbs (48.2 kg)
Power & environmental	100-140/180-240 VAC @ 50-60 Hz (nom/max)	780 VA / 1,000 VA	714 VA / 861 VA	630 VA / 788 VA
	Watts (nom/max)	740 / 950	680 / 820	600 / 750
	BTU (nom/max)	2,525 / 3,240	2,320 / 2,800	2,000 / 2,560
	Power supplies	Dual redundant hot swappable power supplies with a choice of NEMA or IEC plug types		
	Operating temperature	5° C to 40° C (41° F to 104° F)		
	Non-operating temperature	-40° C to 70° C (-40° F to 158° F)		
	Operating humidity	8% to 90% (non-condensing)		
	Non-operating humidity	5% to 95% (non-condensing)		
Regulatory	Compliance	RoHS, REACH		
	Safety	CSA/EN/IEC 60950-1, GOST		
	Emissions	FCC Class A, ICES-003 Class A, VCCI Class A		
	Agency	CE, CSA, VCCI, CCC		
Product Support	Administration	Tintri Global Center, web interface (https), KVM (console), SMTP and SNMP for alerts		
	Support	Proactive support with automated phone home and case creation		
Virtualization SW support	Hypervisor	VMware vSphere 4.x and 5.x (NFS) Red Hat Enterprise Virtualization 3.3+ (NFS) Technology Preview: Microsoft Hyper-V 2012 (SMB3)		
	Desktop virtualization	VMware Horizon(with View) and Citrix XenDesktop		
Additional software	Multi VMstore management	Tintri Global Center™		
	Replication	Tintri ReplicateVM™		
	Encryption	Tintri SecureVM™		

(a) All capacity values are based on Base 10 (i.e., 1 TB = 1,000,000,000,000 bytes)
(b) After double parity RAID-6, spare, and system overhead
(c) Effective usable capacity is calculated after data reduction, which typically provides 2x-2.5x capacity saving from compression and deduplication from per-VM cloning.
(d) Effective usable capacity assumes a data reduction ratio of 2.2x, but does not include savings from thin provisioning which typically provides an additional 2.3x capacity benefit (based on actual customer results)

Tintri

Global HQ
303 Ravendale Dr.
Mountain View, CA 94043
United States
+1 650-810-8200
info@tintri.com
www.tintri.com

EMEA Headquarters
27-28 Clements Lane
London EC4N 7AE
United Kingdom
+44 (0) 203 053 0853
emea@tintri.com

APAC Headquarters
Level 18
101 Collins Street
Melbourne 3000 Vic
+61 3 9653 9610
apac@tintri.com

Japan Headquarters
Level 15, Tokyo Bankers Club
1-3-1 Marunouchi. Chiyoda-ku
Tokyo 100-0005 Japan
+81 (3) 3216 7345
info.japan@tintri.com