

# Tintri EC6000 All-flash Series

All-Flash storage that maximizes performance for applications and the people who manage them

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The Tintri EC6000™ All-Flash Series delivers powerful and efficient all-flash performance for up to 7,500 virtualized applications in just two rack units. Flexible expansion with FlexDrive gives you the power to balance performance and capacity one drive at a time. The unique Tintri storage file system, built specifically for virtualized and cloud workloads controls each application automatically and helps you match capacity to business needs one drive at a time. With the EC6000, you can start with a 19 TB all-flash system and grow to over 40 PB of all-flash storage supporting over 480,000 applications all managed by a single console. The Tintri EC6000 series delivers completely autonomous operation, real-time and predictive analytics, and powerful automation at the application level of abstraction to build and run virtualized enterprise applications.



## Autonomous Operation

- Guaranteed high performance for every application without manual intervention
- Performance isolation for every application all the time
- Storage best practices always on and built in: inline deduplication, compression, RAID, active-standby controller with hot spares, and more
- Concurrent multi-hypervisor support. Operate vSphere, Hyper-V, RHEV, XenServer and OpenStack on a single array simultaneously without partitioning



## Analytics

- Real-time analytics. See across storage, network and hosts on a per-application 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
- Share analytics data with vRealize Operations, Microsoft System Center Operations Manager, and other platforms



## Automation

- Tintri is easy to configure and manage; most installations take 60 minutes or less from box to production workloads
- Our autonomous operation eliminates many manual steps. Open APIs make scripting simple, standardized and powerful
- Use Tintri's native REST APIs, PowerShell toolkit, Python SDK, or plugins such as our vRealize Orchestrator plugin
- Per-application data management. Manage snapshots, clones, replication and QoS policies on a per-VM level

		Tintri EC6090	Tintri EC6070	Tintri EC6050	Tintri EC6030
<b>SCALE-OUT</b>					
<b>64 nodes</b>		1-64 Tintri Storage Systems			
<b>Flash</b>	Effective capacity up to <sup>bde</sup>	41.3 PB / 36.7 PiB	20.6 PB / 18.3 PiB	20.6 PB / 18.3 PiB	5.2 PB / 4.6 PiB
	Flash raw capacity <sup>e</sup>	11.8 PB / 10.7 PiB	5.9 PB / 5.2 PiB	5.9 PB / 5.2 PiB	1.5 PB / 1.3 PiB
	Data protected as DP/DR target <sup>bc e</sup>	82.6 PB / 73.4 PiB	41.2 PB / 36.6 PiB	41.2 PB / 36.6 PiB	10.4 PB / 9.2 PiB
<b>Application Density</b>	VMs (max)	480,000	320,000	160,000	32,000
<b>PER NODE</b>					
<b>Flash</b>	Effective capacity up to <sup>bd</sup>	77 – 645 TB / 70 – 586 TiB	38 – 322 TB / 35 – 293 TiB	38 – 322 TB / 35 – 293 TiB	19 – 81 TB / 17 – 73 TiB
	Flash raw capacity	25 – 184 TB / 22 – 167 TiB	12 – 92 TB / 11 – 83 TiB	12 – 92 TB / 11 – 83 TiB	6 – 23 TB / 5.6 – 21 TiB
	Data protected as DP/DR target <sup>bc</sup>	154 – 1290 TB / 140 – 1171 TiB	77 – 645 TB / 70 – 586 TiB	77 – 645 TB / 70 – 586 TiB	38 – 161 TB / 34 – 146 TiB
<b>Application Density</b>	VMs (max)	7,500	5,000	2,500	750
	VDisks (max)	22,500	15,000	7,500	2,250
<b>Onboard Network ports per controller</b>	DATA ports	2x 10GbE	2x 10GbE	2x 10GbE	2x 10GbE
	ADMIN ports	2x 1GbE	2x 1GbE	2x 1GbE	2x 1GbE
	REPL ports	2x 1/10GbE	2x 1/10GbE	2x 1/10GbE	2x 1/10GbE
<b>Optional Network ports per controller</b>	DATA ports	2x 40GbE or 4x 10GbE	2x 40GbE or 4x 10GbE	2x 40GbE or 4x 10GbE	2x 40GbE or 4x 10GbE
	REPL ports	2x 40GbE or 4x 10GbE or 2x 1/10GbE	2x 40GbE or 4x 10GbE or 2x 1/10GbE	2x 40GbE or 4x 10GbE or 2x 1/10GbE	2x 40GbE or 4x 10GbE or 2x 1/10GbE
<b>Physical Specifications</b>	Dimensions (HxWxD)	2U, 3.5" x 19.0" x34.63" (89 mm x 483 mm x 880 mm) without bezel			
	Weight 13x SSDs	72.8 lbs (33.0 kg)	72.5 lbs (32.9 kg)	72.1 lbs (32.7 kg)	69.2 lbs (31.4 kg)
	Weight 24x SSDs	74.5 lbs (33.8 kg)	74.2 lbs (33.7 kg)	73.8 lbs (33.5 kg)	70.9 lbs (32.2 kg)
	Power supplies	Dual redundant hot swappable with a choice of NEMA or IEC plug types			
	Watts 24x SSDs (avg./max)	650 / 1100	550 / 1100	464 / 1100	433 / 1100
	Operating temp.	5°C to 40°C (41°F to 104°F)			
	Non-oper. Temp.	-40°C to 70°C (-40°F to 158°F)			
	Operating humidity	8% to 90% (non-condensing)			
	Non-oper. Humidity	5% to 95% (non-condensing)			
	<b>System</b>	Type	All-flash Dual controller (active-standby)		
<b>Software</b>	Tintri OS	Requires Tintri OS 4.3.3.x or higher			
<b>Virtualization</b>	Protocol Support	NFS and SMB3			
	Management	Tintri Global Center™ Standard (included)			
	Analytics	Tintri Analytics (included in active Tintri maintenance contract)			
<b>Additional Software</b>	Tintri Software Suite	Synchronous and Aysnchronous Replication: Tintri ReplicateVM™ Public Cloud Connector: Tintri Cloud Connector™ VM Scale-out: Tintri Global Center™ Advanced Copy Data Management: Tintri SyncVM™ Data-at-rest Encryption: Tintri SecureVM™			
	<b>Product Support</b>	Administration	Tintri Global Center, web interface (https), KVM (console), SMTP and SNMP for alerts		
	Support	Proactive support with automated phone home and case creation			
<b>Regulatory</b>		UL/CSA/EN/IEC 60950-1, EMC Emissions Class A, FCC, IC, CE, VCCI, RCM, BSMI, EAC, KC, ROHS, REACH, WEEE			

a. Tintri Scale-out lets you simply manage storage as a federated pool, heterogeneously accommodating hybrid/all-flash and both existing and future systems. Start with one 19 TB all-flash array, and grow up to 40 PB and 480,000 virtual machines.

b. Effective capacity is calculated after data protection (double parity RAID-6, spare, and metadata overhead) and data reduction including inline deduplication and compression but does not include thin provisioning. Data reduction typically provides 3-5x capacity savings.

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

d. 1 TB = 1,000,000,000,000 bytes. 1 PB = 1,000,000,000,000,000 bytes=1000 TB. 1 TiB equals 240 bytes or 1,099,511,627,776 bytes. 1 PiB = 250 bytes = 1,125,899,906,842,624 bytes = 1,024 TiB.

e. Maximum capacity assumes a homogeneous pool of 64 nodes of each EC6000 series all-flash system at maximum capacity. Scale-out storage pools can be heterogeneous, using a combination of hybrid, all-flash, or a mixture of systems up to 64 nodes.

