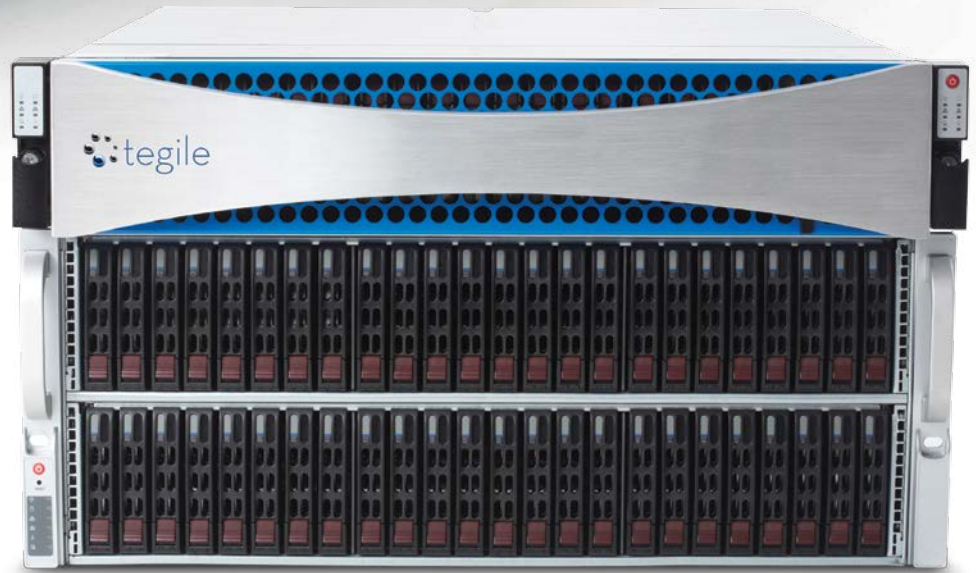


# Intelligent Flash Storage Arrays




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*“Tegile really does perform like you’ve never seen before. They’re more cost effective than anyone in the industry right now. And Tegile does something no one else does. Their dedupe is in-line, which is very impressive. It’s almost too good to be true.”*

– Tony Combs, Solutions Architect  
at Grass Valley

## Architected for Performance and Capacity

As data demands for performance and capacity rapidly increase, IT departments are challenged to deliver increased storage performance, scalability and capacity with the same efficiency and costs. At the same time application workloads such as server virtualization, virtual desktops (VDI), online transaction processing (OLTP) and real-time analytics are further driving demand for storage infrastructure that can keep up. Tegile Intelligent Flash Storage Arrays with IntelliFlash help IT boost storage utilization and efficiency and deliver unmatched storage savings and performance.

## IntelliFlash Architecture

IntelliFlash is the software architecture that makes Tegile arrays deliver game-changing performance and storage economics. It does this by optimizing flash and metadata handling with inline data reduction.

Traditional storage systems store data and metadata together, with metadata being interleaved with data on disks. Over time, with data being modified, deleted, and rewritten, metadata becomes very fragmented on disk. In addition, traditional data de-duplication also can cause metadata to multiply and grow rapidly.

As metadata grows, it causes significant deterioration in a system's behavior over time. With IntelliFlash, Tegile flash storage arrays organize and store metadata, independent of the data, on dedicated high performance DRAM and flash with optimized retrieval paths. Combined with Tegile's advanced flash-driven caching algorithms, Tegile's metadata handling accelerates every storage function within the system, raising the performance of hybrid storage systems to the level of solid state drives (SSDs).

### Up to 10:1 Data Reduction

In-line compression and de-duplication on SSD and hard disk throughout array. This helps significantly reduce storage acquisition and operational cost. Redundant operating system images in a virtual server platform are reduced to a single instance stored in flash. Hundreds or thousands of persistent VDI instances are shrunk down to one single boot image that can launch in seconds.

### Data Security

Keep your data safe and secure. Data security is provided using 256-bit AES encryption of data at rest. IntelliFlash delivers in-line encryption of data on SSDs and hard disk drives with unnoticeable impact on performance. Key management required for encryption is performed natively in the system without user intervention.

### NAS and SAN from the Same Array

Enjoy the flexibility protocol of choice in how your storage is connected to your servers. No more silos of storage in your data center. FC, iSCSI, NFS, CIFS SMB 3.0 are all supported.

### Purpose-built for Virtualization

One-click virtual machine optimized storage creation enables hundreds of virtual machines and desktops to be deployed in minutes, not hours. VM-aware management tools let storage be provisioned, monitored and managed in virtual machine granularity – LUNs, file systems and RAID groups are a thing of the past for virtualization administrators.

### Built-in Business Continuity

Take instantaneous point-in-time snapshots that are both VM-aware and application-consistent. For disaster recovery, replicate snapshots to a remote site. Replication transmits only changed data to reduce traffic over the WAN.

### Storage Simplified

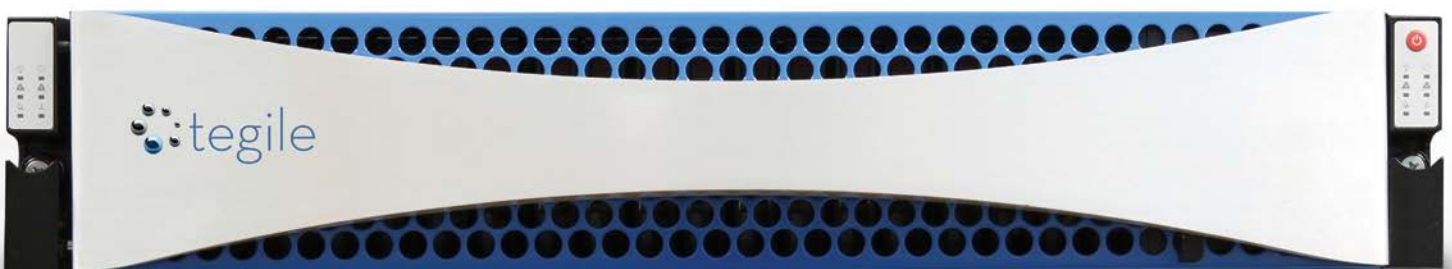
Single-click provisioning through application-optimized aware templates and integrated backup and replication without complex backend software.

### Hybrid and All-Flash in one storage system

Whether you need to balance performance and high capacity with a hybrid array or the sustained high performance with low latency of an all-flash array, the Tegile Intelligent Flash Storage Array portfolio can satisfy any and all of these requirements cost effectively, while providing the same operating software, same feature set and same experience across our entire product line.

### IntelliCare Customer Care Program

Save time on storage administration and maximize the uptime and efficiency of your Tegile storage arrays with IntelliCare. Driven by cloud-based analytics and backed by a team of storage experts, IntelliCare enables you to quickly and easily monitor the health, performance and usage of all your Tegile storage arrays, predict future requirements, and detect problems before they develop into component and system failures.



# Intelligent Flash Storage Arrays

Models	T3100	T3200	T3300	T3400	T3600	T3700	T3800
	Capacity Optimized	Balanced	Performance Optimized	Max Performance & Capacity	Primary Workloads	Business-Critical Workloads	Consolidated Workloads
<b>Platform Configuration</b>							
Type	Hybrid	Hybrid	Hybrid	Hybrid	All-Flash	All-Flash	All-Flash
DRAM Memory	96 GB	192 GB	192 GB	192 GB	192 GB	192 GB	192 GB
Flash Memory	750 GB	2 TB	1.5 TB	28.8 TB	12 TB	24 TB	48 TB
<b>Storage Capacity</b>							
Min: Raw Capacity	26 TB	36 TB	18 TB	26 TB	12 TB	24 TB	48 TB
Max: Raw Capacity	170 TB	180 TB	162 TB	314 TB	300 TB	312 TB	336 TB
<b>Physical</b>							
Form Factor (Rack Units)	3U	3U	2U	2U	2U	2U	2U
Weight (Lbs)	90	90	80	80	80	80	80
Power (W)	535	535	475	475	475	475	475
<b>Network Connections</b>							
1 Gbps Ethernet Ports	12	12	12	12	12	12	12
1 Gbps IP-KVM Lights-out Management Port	2	2	2	2	2	2	2
Optional Connectivity	Dual-port 4/8 Fibre Channel, Dual-port 10GbE Copper/Fiber, Quad-port 1 Gbps Ethernet						
<b>Software Services Included</b>							
Protocols	SAN Protocol Support (iSCSI, Fibre Channel), NAS Protocol Support (NFS, CIFS, SMB 3.0)						
Data Services	De-duplication, Compression, Thin Provisioning, Snapshots, Remote Replication, Application Profiles						
Management	Web browser, SSH, IP-KVM						
Data Security	Inline 256-bit AES Encryption for Data-at-Rest						
Redundancy	No single point of failure, Active-Active High Availability Architecture						
<b>Warranty</b>							
Basic	24x7 support via email and phone, next business day hardware replacement for defective parts and software updates for first 90 days.						
Optional	See <a href="#">IntelliCare Support Program</a> for more information						

# Intelligent Flash Storage Arrays

Model	ESH-20	ESH-25	ESH-35	ESH-65	ESF-10	ESF-25	ESF-50	ESF-145
<b>Platform Configuration</b>								
Flash Memory	1.5 TB	750 GB	2.0 TB	2.0 TB	12 TB	24 TB	48 TB	144 TB
<b>Storage Capacity</b>								
Raw Capacity	18 TB	26 TB	36 TB	64 TB	12 TB	24 TB	48 TB	144 TB
Typical Usable Capacity with Compression	2x	2x	2x	2x	2x	2x	2x	2x
Typical Usable Capacity with Compression and De-Duplication	3-5x	3-5x	3-5x	3-5x	3-5x	3-5x	3-5x	3-5x
<b>Physical</b>								
Form Factor (Rack Units)	2U	3U	3U	4U	2U	2U	2U	4U
Weight (Lbs)	50	70	70	110	50	50	50	105
Power (W)	225	225	225	675	107	107	107	760
<b>Array Compatibility</b>								
T3100/3200/3300	✓	✓	✓	✓				
T3400	✓	✓	✓	✓	✓	✓	✓	✓
T3600/3700/3800	✓	✓	✓	✓	✓	✓	✓	✓

