



ENTERPRISE FAMILY GUIDE



FOR PARTNERS

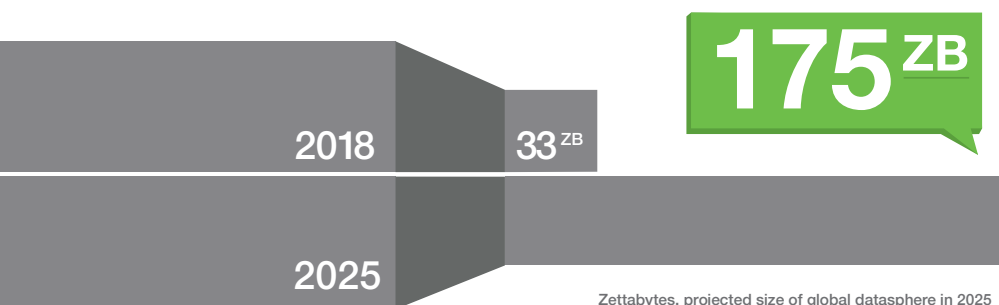
Streaming a World of Data

Our world is saturated with data.

In 2018, humanity created 33 zettabytes (ZB). By 2025, it's estimated that we'll create 175ZB.

But that shouldn't come as a shock if you consider how much of our personal and professional lives depend on the digital world. Almost everything is data-driven. As a civilization, we store entertainment in the cloud and employ smart devices at the edge of the network in places like autonomous vehicles and agricultural environments. All of that data deserves enablement.

At Seagate, our global team is leading the way toward advanced data enablement with unrivaled technology that harnesses the datasphere.



Explore the full story at DataAge2025.com

New Approaches for a New Age

An insatiable desire for greater capacity and performance has kept our innovators busy. The result? Pure brilliance, as showcased in our HAMR and MACH.2 advanced technologies.



These advanced data storage solutions are designed to turbo charge our Exos® enterprise hard drives. Data center architects and IT professionals rely on Exos enterprise hard drives to deliver extreme performance, solid reliability, and ironclad security while lowering TCO in demanding 24x7 operations.

HAMR
(heat-assisted magnetic recording)

delivers the next big leap in areal density by enabling 20TB+ by 2019 and 40TB+ by 2023.

MACH.2
(multi-actuator technology)

doubles IOPS via parallel data flow in each drive, which offsets reduced data availability.

Use Cases

Yesterday's storage solutions can't contain tomorrow's data. IT 4.0 has ignited the need for massive storage capacity that grows easily. Learn about the use cases that drive this data demand.



Life-critical applications

Data is shifting from business background to life critical. 20% of all data will be life critical data by 2025.

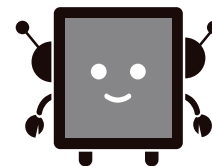
Autonomous cars



Remote monitoring
patient devices



Power grid operation



Smart Manufacturing

Proactive, cognitive systems will demand greater analysis. In 2025 the amount of analyzed data that is 'touched' by cognitive systems will grow by a factor of

100 to 1.4ZB



Actionable communications

Data is evolving from consumer-led to enterprise-driven.

Seagate is changing how Enterprises use data. Unlike IT 3.0, in IT 4.0, data flow is no longer predictable and limited. It is fluid, and the model of endpoints to cloud no longer works. A "cloud plus" model is on the horizon and that is where trillions of endpoints produce zettabytes of data that will change the way we live.



Intelligent mobility

Proliferation of embedded systems and IoT is generating more data. By 2025, a connected person will interact with a connected device nearly 4800 times per day.

The number of embedded system devices feeding the data center per person:

In 2017, less than

In 2025, more than

<1

4>



Video surveillance

Data is a vital business asset that needs to be protected. Data generated by surveillance will increase as much as 20% by 2025.

ENTERPRISE DATA SOLUTIONS

Optimized for the future of data center storage

Enterprise Data Solutions by Seagate are vertically integrated systems that take the complication out of storage and make the power of the latest data management technology available to any organization—now. This means any enterprise can access groundbreaking technology sooner, focus its resources on core business and not on data center management, and leverage the efficiencies of vertical integration.

Cloud Building Blocks RAID / Data Protection



High capacity efficient enclosures that easily grow with enterprises of any size. Now up to 106 16TB drives available.



Next generation data protection to safeguard your company's critical assets. Now up to 84 16TB drives available.

Application Platforms



Servers and storage in ultra compact, dense systems that don't sacrifice capacity for performance. Now up to 96 16TB drives available.

Seagate data storage systems offer:

- Industry-leading capacity for price
- Leadership in data performance
- Efficiency at scale



Seagate® Exos®

From reliability to intelligence, the Exos systems provide unfettered access to data and industry-first economics for lower TCO and highest capacity.



Seagate® Nytro®

From drive to chassis, the Nytro systems solutions provide flawless vertical integration and compelling economics at scale for lower TCO and highest performance.

I NEED TO	CONSIDER		
	CLOUD BUILDING BLOCKS	RAID / DATA PROTECTION	APPLICATION PLATFORMS
Build a zettabyte scale private cloud with high density building blocks	Exos E 4U106	-	-
Deliver high capacity software defined storage	Exos E 5U84	-	-
Build my private data center with ready-to-use, high availability systems	-	Exos X 2U12 Exos X 2U24 Nytro X 2U24	-
Quickly scale high performance applications	-	Exos X 5U84	-
Run cloud scale object storage	-	-	Exos AP 4U100
Integrate compute and storage in a converged system	-	-	Exos AP 5U84

CLOUD BUILDING BLOCKS	RAID / DATA PROTECTION	APPLICATION PLATFORMS
Exos E 2U12 <ul style="list-style-type: none"> • 192 TB* • Small enterprise, surveillance 	Exos X 2U12 <ul style="list-style-type: none"> • 192 TB* • Small enterprise, on-prem data centers, low density/high transactions use cases 	Exos AP 5U84 <ul style="list-style-type: none"> • 1.3 PB* • Private and public cloud, high throughput use cases
Exos E 2U24 <ul style="list-style-type: none"> • 57.6 TB** • Small enterprise, surveillance, edge use cases 	Exos X 2U24 <ul style="list-style-type: none"> • 57.6 TB** • On-prem data center, fast transactional use cases 	Exos AP 4U100 <ul style="list-style-type: none"> • 1.5 PB* • Large enterprise, private and public cloud, high density use cases
Exos E 5U84 <ul style="list-style-type: none"> • 1.3 PB* • Large enterprise, video, HPC cases 	Exos X 5U84 <ul style="list-style-type: none"> • 1.3 PB* • On-prem data center, high throughput use cases 	
Exos E 4U106 <ul style="list-style-type: none"> • 1.7 PB* • Large enterprise archiving, high density cloud use cases 	Nytro X 2U24 <ul style="list-style-type: none"> • 600K max IOPS at 1ms latency • Ultra-fast transactional use cases 	



Exos Enterprise Hard Drives

Exos E



Superior value, data center dependability, and the broadest range of capabilities for mainstream rack and edge applications.

Exos X



The latest technology, greatest efficiencies, and highest storage capacity for intensive hyperscale applications.

Exos E Models		Exos X Models
2.5-inch for Mission Critical	3.5-inch for Nearline	3.5-inch for Hyperscale and Cloud Data Center
Exos 15E900 Exos 10E2400	Exos 7E2 Exos 7E8 Exos 5E8 Exos 7E2000	Exos X16 Exos X12 Exos X10
Capacity up to 8TB		Capacity up to 16TB
Performance Up to 261MB/s sustained data rate		Performance Up to 261MB/s sustained data rate

Exos X

Exos X hard drives are scalable, responsive, and innovative.

These hard drives lower TCO and heighten hyperscale efficiency while delivering consistent performance, lower power consumption and weight, multi-layered security for busy cloud data centers, and random write performance that's 20% faster than 8TB competitors.



EXOS X16 SERIES

- Store up to 12.6PB in a single 42U rack
- Reduce complexity with [FastFormat™](#) between 4Kn and 512e formats
- Lower TCO with low weight of 690g providing 0.36 W/TB



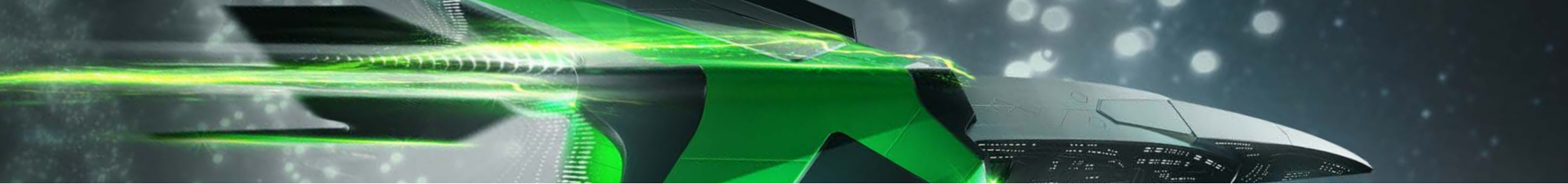
EXOS X12 SERIES

- Store up to 10PB in a single 42U rack with helium-sealed drive technology
- Customize bulk storage requirements with PowerChoice™ and Seagate RAID Rebuild®
- Trust that data at rest is protected with [Seagate Secure™ encryption technology](#)



EXOS X10 SERIES

- Store up to 9PB in a single 42U rack with helium-sealed drive technology
- Get proven enterprise-class reliability backed by 2.5M hours MTBF
- Save up to 6% per rack, per year with the lowest 10TB power consumption



Exos E

Exos E hard drives deliver optimal performance, reliability, security, and user-definable storage management.

For everything enterprise, use drives backed by generations of industry-defining innovation.



EXOS 7E8

- Easily integrate into replicated or RAID bulk storage systems
- Support enterprise-class nearline workloads of up to 550TB/yr
- Get industry-best response times and data transfers with [Advanced Write Cache](#)



EXOS 7E2

- Easily integrate into 512 native legacy systems with SATA 6Gb/s interface
- Experience consistent performance in multi-drive systems with rotational vibration
- Opt for lower power with on-demand [PowerChoice™](#)



EXOS 5E8

- Get highly-affordable cloud storage made for sequential writes and data archiving
- Choose from capacities of up to 8TB with SATA interface
- Rely on 24x7 operation



EXOS 10E2400

- Accelerate OLTP, VDI, web server, and database applications with Enhanced Caching
- Convert between 512e and 4Kn using FastFormat™ to reduce integration complexity
- Trust Seagate Secure™ features like Instant Secure Erase (ISE) for complete data-at-rest protection



EXOS 15E900

- Experience up to 100% faster random write performance with Enhanced Caching
- Simplify data center integration and cost with FastFormat
- Access Seagate Secure features like hardware-based encryption (SED) for complete data-at-rest protection



EXOS 7E2000

- Securely access high-integrity data with 12Gb/s SAS and SATA 6Gb/s interfaces
- Experience up to 50% improvement in watts/TB and up to 18% sequential performance improvement, compared to earlier generations
- [Advanced Write Cache](#) delivers industry-best response times and data transfers

Compare Exos Drives

	Form Factor	Use It For	Interface	Capacity
Exos X				
X16	3.5-inch	Hyperscale and cloud data centers, JBOD, servers, and business NAS storage	12Gb/s SAS SATA 6Gb/s	Up to 16TB
X12				12TB
X10				8TB, 10TB
Exos E				
7E8	3.5-inch	Mainstream bulk data storage	12Gb/s SAS SATA 6Gb/s	Up to 8TB
7E2		Most economical enterprise drive per spindle	SATA 6Gb/s	1TB, 2TB
5E8		Archival data		8TB
7E2000	2.5-inch	Enterprise-class boot drives, blade, & dense servers	12Gb/s SAS SATA 6Gb/s	1TB, 2TB
10E2400		Mission-critical server & storage arrays	12Gb/s SAS	300GB to 2400GB
15E900		Mission-critical server storage		300GB to 900GB

Essential Security	Certified Security	Format(s)	Workload Rating	Limited Warranty
Secure Download & Diagnostics, Instant Secure Erase, Self-Encrypting Drives	FIPS 140-2 Common Criteria tamper-evident hard drives	512e, 4Kn	550TB/yr	5 years
Secure Download & Diagnostics, Self-Encrypting Drives	—			
Secure Download & Diagnostics, Instant Secure Erase, Self-Encrypting Drives	FIPS 140-2 Common Criteria tamper-evident hard drives			
Secure Download & Diagnostics, Instant Secure Erase, Self-Encrypting Drives	FIPS 140-2 tamper-evident hard drives	512n, 512e, 4Kn	550TB/yr	5 years
		512n		
Secure Download & Diagnostics	—	512e	180TB/yr	3 years
Secure Download & Diagnostics, Instant Secure Erase, Self-Encrypting Drives	FIPS 140-2 tamper-evident hard drives	512n, 512e, 4Kn	550TB/yr	5 years
	FIPS 140-2 Common Criteria tamper-evident hard drives		—	
			—	



Encrypt Your Data with Seagate Secure

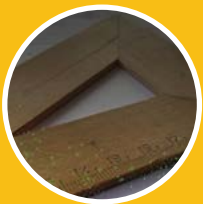
When you have to ensure that every bit is encrypted, software alone is not enough. Seagate Exos hard drives offer two levels of hardware-based encryption—Essential and Certified—to help protect the entire life cycle of data.

	ESSENTIAL	CERTIFIED
LEVEL 2: CERTIFIED		
Self-Encrypting Drive	○	●
Secure Download and Diagnostics	○	●
Instant Secure Erase	○	●
Secure Supply Chain	○	●
Secure Boot	○	●
FIPS 140-2		●
Common Criteria		●
Trade Agreement		●
LEVEL 1: ESSENTIAL		

The life cycle: Data security from product design to retirement

Design

AES 256 encryption ensures authentic compliance and prevents rogue operations.



●
FIPS 140-2 Level 2
Common Criteria

Source

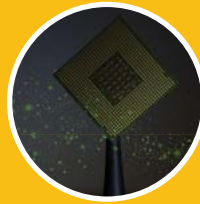
From design to manufacture, every component of every device is sourced from trusted vendors.



○ ●
Secure Supply Chain

Manufacture

Components and firmware are assembled in a secure facility for guaranteed authenticity.



●
Seagate Exclusive:
Trade Agreements Act

Delivery

Trusted vendor delivery, locked ports, and Secure Boot protect against unauthorized access.



○ ●
Secure Boot
Instant Secure Erase

Deploy

Storage rollout is simple and direct, minimizing the risk of security-related errors.



○ ●
Self-Encrypting Drive
Secure Download
and Diagnostics

In Use

The highest level of AES 256 encryption means data cannot be tampered with if lost or stolen.



○ ●
FIPS 140-2 Level 2
Seagate Exclusive:
Common Criteria

Retire

We make it easy, quick, and cost effective to dispose of data when you're ready.



○ ●
Instant Secure Erase

For more information, visit:

seagate.com/enterprise-storage/enterprise-security/



NyTRO Enterprise Solid-State Drives

NyTRO SAS SSDs



Delivers high performance, industry leading security features, broad selection of capacity and endurance offerings optimized for demanding enterprise applications and improved TCO.

NyTRO SATA SSDs



Meet high performance and reliability requirements without disrupting legacy infrastructures or additional software and hardware investments.

NyTRO SAS SSD Models	NyTRO SATA SSD Models
2.5-inch for Mission Critical Enterprise Applications	2.5-inch for Data Centers, Cloud and Web Servers
NyTRO 3330 — Scaled Endurance NyTRO 3530 — Light Endurance NyTRO 3131 — Read Interactive NyTRO 3331 — Scaled Endurance NyTRO 3531 — Mixed Workloads NyTRO 3731 — Write Intensive	NyTRO 1351 SATA SSD — Light Endurance NyTRO 1551 SATA SSD — Mainstream Endurance
Capacity up to 15TB	Capacity up to 3.8TB
Performance Up to 2200MB/s sustained data rate	Performance Up to 564MB/s sustained data rate

NyTRO Drives

NyTRO solid-state drives (SSD) support the datasphere with blazing speed, enabling real-time business responsiveness, instantaneous data availability, and meaningful insights.

Tap the ever-growing potential of your data with the broadest portfolio of ultra high-performance enterprise SSD and flash solutions. NyTRO keeps the datasphere dynamic with maximum performance, low latency, and reduced power consumption.



NYTRO SAS SSD

- Industry-leading, hardware-based data encryption
- Dual-port 12Gb/s SAS interface
- Broad selection of endurance and capacity options including 15TB
- Ultra-fast performance of up to 2200MB/s



NYTRO SATA SSD

- SATA 6Gb/s interface for easy deployment, and power loss data protection
- Seagate DuraWrite™ lossless data reduction technology
- Tunable capacity for performance or capacity-optimized SSD solutions
- Enterprise-class reliability with 2M hours MTBF and a 5-year limited warranty

Compare Nytro Drives

	Form Factor	Use It For	Interface	Capacity
Nytro				
3000 Series	2.5-inch	Server virtualization, OLTP databases, Software-defined storage, All flash arrays, Caching and tiering	12Gb/s SAS	Up to 15TB
3031 Series				
1000 Series		Public and private cloud, Web servers, Tiered storage analytics, Databases (OLTP)	SATA 6Gb/s	Up to 3.8TB

Essential Security	Certified Security	Format(s)	Limited Warranty
Secure Download & Diagnostics, Self-Encrypting Drives	FIPS 140-2 Common Criteria tamper-evident hard drives	Up to 3 per day	5 years
		Up to 10 per day	
		Up to 3 per day	



PARTNER RESOURCES AND BENEFITS

Seagate and LaCie Insider offers resources and benefits to help channel partners secure new opportunities and grow revenue and profitability.

As a program member, you'll receive regular product and industry updates in our monthly newsletter, access to a comprehensive resource portal, and priority access to our support team.

The program offers immediate access to these valuable resources to help you get up to speed on hot new products and technology:

- Marketing kits, product guides, and sales cards
- Online training and brand materials
- Diagnostics and firmware updates
- Priority support and trackers for RMAs

Start reaping the rewards of membership! Register today at **seagate.com/partners**

- Complete the online form
- Click through and accept our standard agreement

SERVICE AND SUPPORT

Presales and tech support, global support telephone numbers and business hours, and authorized

Seagate service centers:

seagate.com/about/contact-us/technical-support

Warranty Support: **seagate.com/support/warranty-and-returns**

Data Recovery Services:

seagate.com/services-software/

Seagate OEM and Distribution

Partner portal:

seagate.com/direct-partners

Seagate Reseller portal:

seagate.com/partners

