IBM Elastic Storage System 3500

Easiest way to start with a global data platform

IBM ESS 3500

Highlights

- A single storage platform for multiple application requirements
- Optimize storage resources and get faster results with high perfromance data access options
- Data Caching Services provide consicency snd data virtualization increasing collaboration
- Automate data lifecyle and application perfoamnce tuning with Data Management Services
- Minimizes data center footprint with up to 1PB effective storage in 2U using LZ4 compression at 2.5x compression rate
- Combine with other IBM and non-IBM storage including the public cloud
- Orestrate data placement and gain detailed insights on PBs of data in seconds by adding IBM Spectrum Discover

- Break performance barriers for AI
- Designed capacity from 46TB to 633YB
- Reduce inefficiencies and connect data silos
- Access data globally from edge to core to cloud
- Secure data assets with multiple security services

IBM® Elastic Storage System® 3500 (ESS 3500) is designed to be the simplest way for users to deploy IBM Spectrum® Scale™ and the Global Data Platform. IBM Spectrum Scale comes installed on a pre-configure system. Installations and updates are delivered by means of containerized software that speeds and simplifies the process. There is no need for a storage specialist or specialized installation if you have an existing IBM ESS and IBM Spectrum Scale system. It is much easier to install, and maintenance can be performed by IT staff.

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The IBM ESS 3500 is targeted at new easy to order, easy to install, easy to upgrade, easy to use, appliance-like, with a lower cost customer experience. To learn more about specific value that customers have obtained with the IBM global data platform, read
Forrester's The Total Economic Impact™Of IBM Spectrum Scale

Application Workloads for the ESS 3500

IBM ESS 3500 provides an extreme high-performance tier of Spectrum Scale file storage with up to 91GB/s of performance, for a broad variety of applications. The ESS 3500 is designed to keep GPUs active to solve AI problems faster and running at peak performance. Like all previous generations, IBM ESS 3500 runs the proven IBM Spectrum Scale RAID erasure coding, which provides superior consistent high-performance, mitigation of storage hardware failures, and intelligent monitoring / management / dynamic tuning ofIBM ESS and IBM Spectrum Scale data.

IBM Spectrum Scale RAID manages the physical NVMe media. IBM Spectrum Scale RAID is a major differentiator in the IBM ESS 3500 versus all of its competitors. Many competitors still need to rely on conventional RAID 1/5/6 in order to provide storage hardware resilience. As a result, RAID 1 devices have much lower usable capacity, and RAID 5/6 storage has much higher impact to the entire IBM Spectrum Scale file system and to the applications in the event of storage hardware.

IBM ESS 3500 is based on proven IBM Storage 2U24 hardware. You can order half-populated 12 or fully-populated 24, 2.5" NVMe drives in capacities of 3.84TB, 7.68TB and 15.36TB. Using the largest capacity 15.36TB NVMe drives, up to 368TB usable capacity, in a 2U form factor, along with associated low weight and low power consumption.

Contact your IBM Sales representative or value added business partner for details about pricing and your specific configuration.

The simplicity of the ESS 3500

To address the challenges of managing today's data, IBM ESS 3500 delivers a new generation of software-defined storage. It builds on years of experience and couples proven IBM Spectrum Scale software with lightning-fast NVM storage technology to offer industry-leadin file management capabilities and low latency data access. These build on and extend a track record of meeting the needs of the smartest, most demanding organizations. The ESS 3500 is up to 12% faster than previous generation of ESS NVMe storage.

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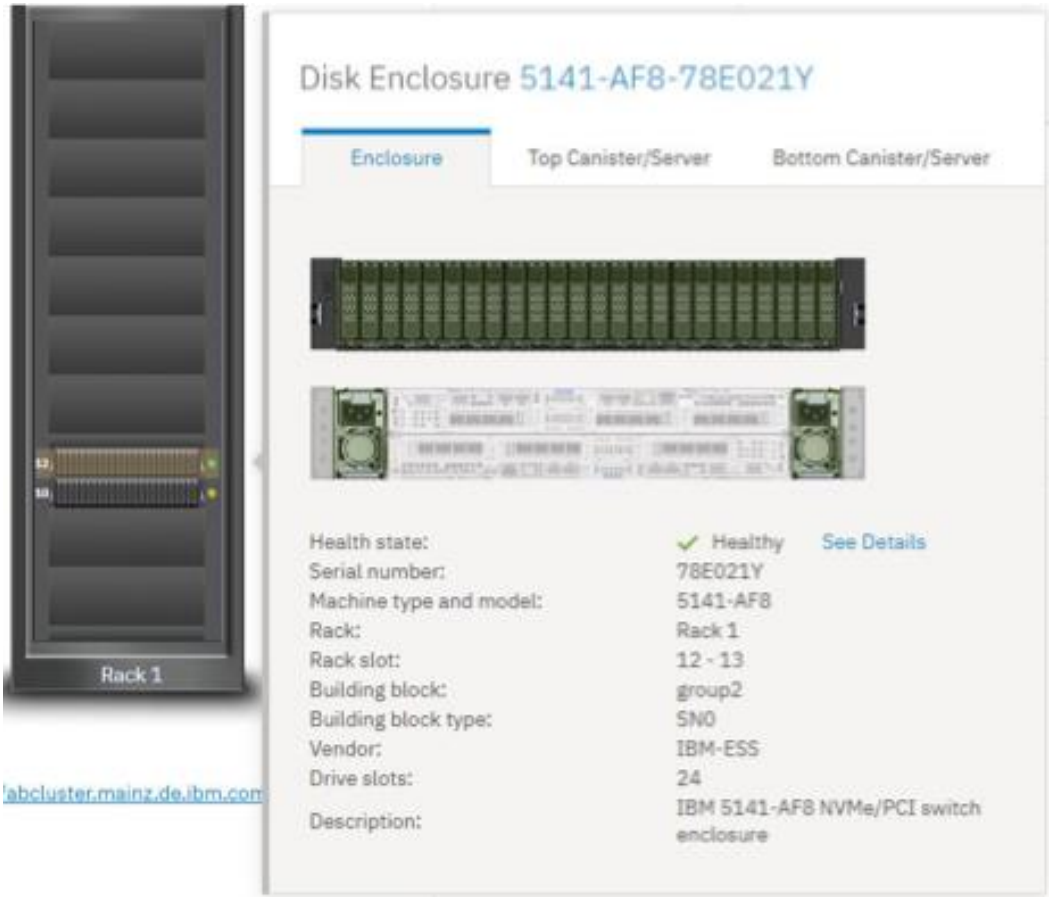

Whatever the current scope of your data management needs, you can start as small or as big as you want and easily scale out by adding more units when needed. IBM ESS 3500 offers:

- Simplicity: Containerized software install and upgrade, plus a powerful management GUI, minimize demands on IT staff time and expertise
- High performance: NVMe flash storage with up to 91GB/second read throughput per 2U building block
- Global data platform: With multiple data services to meet the most demanding requirements

IBM ESS 3500 helps simplify ITOps with an intuitive user interface that provides a picture and graphic view of problems should they arise. Operations can protect data directly to cloud or to a remote IBM Spectrum Scale System and then even archive to tape.

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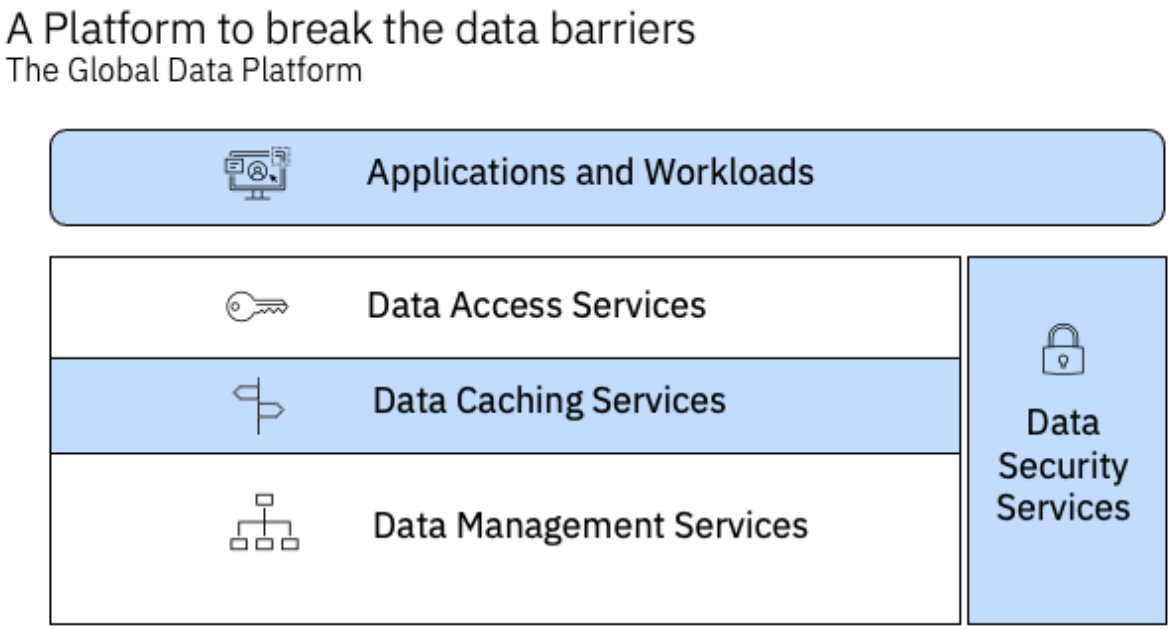

Specifications

Fully compatible with current IBM ESS 5000, ESS 3200, ESS 3000 and previous generation ESS (GLxS, GLxC, GSxS and GHxy). Capable of leveraging the same ESS Management Servers, Protocol Nodes and Spectrum Scale Cluster/Name Space.

Embedded Red Hat Enterprise Linux 8.x operating system simplifies RHEL install, management and upgrade by removing the need to register with Red Hat® to download errata and patches.

Standard three-year warranty, IBM on-site 9x5, next business day support. Optional upgrade for additional on-site.

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System Features	• Dual 1-socket Storage Controllers, Active/Active • 1024 GB memory • De-Clustered RAID supporting erasure coding schemas: 3-way replication, 4-way replication, 4+2P, 4+3P, 8+2P, 8+3P
Software	• ESS software 6.1.3.0 • IBM Spectrum Scale for ESS 5.1.3.1 • Red Hat Enterpise Linux (RHEL) 8.4
Performance	• AMD 7642 48 core processor • Sequential read performance up to 91GB/S
Networking	• HDS 200Gb/s Infiniband®, up to 8 ports • 100Gb/s Ethernet, up to 8 ports • Two integrated networking ports (separation of MGMT and BMC)
Adapters	• Four x16 PCIe Gen4 adapter slots
Drive Support	• 12 or 24 NVMe SSDs (3.84TB, 7.68 TB or 15.36 TB)
Power Cooling	• Input Voltage: 200-240V 50/60 Hz • Nominal Power: 1,350 W (empty); 2000 W (max) • Nominal Heat: 4,606 BTU/hr (empty); 6,825 BTU/hr (max) • Power Supplies: 2 hot swappable, redundant • Acoustical: 8.1 bels (idling or operating) • Environment Operating temperature (optical networking: 5°C to 32°C) ((copper networking: 5°C to 35°C) from 0 to 3048 m (0 to 10,000 ft); Above 900 m, de-rate maximum air temperature 1 degree per 300 m; 8%-80% humidity range
Size / Weight	• 2RU; H:3.5” (88 mm), W: 19” rack (483 mm), D: 33.5” (850 mm) without bezel

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Why IBM?

IBM Spectrum Scale and the IBM Elastic Storage System provide a way to solve diffult problems with more data and faster access to that data. Each storage system from IBM offers a full-featured set of data services which are powered by the Global Data Platform. The core data services include Data Access Services, Data Caching Services, Data Management Services and Data Security Services.

Each core data service offers their own set of Custom data services that create an easy to manage and powerful set of capabilities that differentiate IBM's cloud scale products.

Find out more about our entire product portfolio including our powerful IBM Cloud® Object Storage and IBM Spectrum Discover products.

Next steps

-> IBM Storage Cloud Scale Solutions

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Route 100
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Produced in the United States of America,
05/2022

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