



TOSHIBA Storage Case Study

“Toshiba’s MG03ACA family of enterprise capacity SATA drives gives us a general sense of confidence because they just keep ticking along the way they should. From a time-saving efficiency perspective, we’ve cut our storage administrative time by 50 percent by having Toshiba’s reliability and consistent performance.”

—Ton Luong, IT Director, Computer History Museum..



> INDUSTRY

Technology Education

> CHALLENGES

- Supporting voluminous unstructured data growth demands
- Finding a reliable, cost-effective storage solution
- Improving visibility and online access of content across collections

> SOLUTION

- Toshiba’s MG03ACA Enterprise Capacity SATA hard disk drives (HDD)

> BENEFITS

- Significant reduction in storage administration operating expenses
- Simplified data ingestion processes and implementation of best practice policies
- Ability to digitize, preserve, and retrieve diverse materials
- Greater online access for visitors, researchers, and donors



TOSHIBA’S PROVEN STORAGE TECHNOLOGY ENABLES COMPUTER HISTORY MUSEUM TO STREAMLINE DIGITAL REPOSITORY PROCESS

The Computer History Museum (CHM) brings to life the epic computing revolution in the technology corridor of Silicon Valley, California. For more than 40 years, the museum has been committed to exploring the history of computing and its ongoing impact on society. From the ancient abacus to the smart phone — and the vital progress in between — this 25,000 square-foot multimedia exhibit offers a comprehensive view of computing.

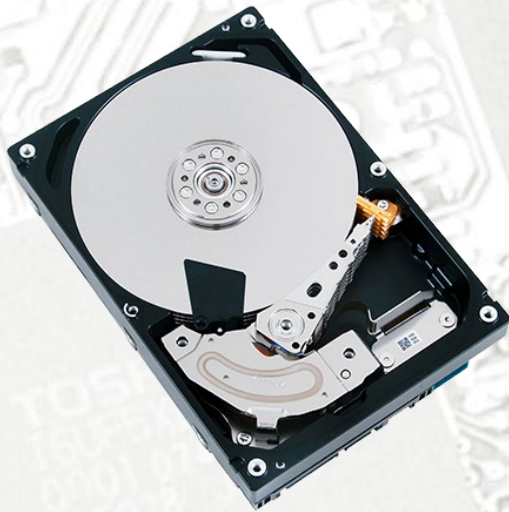
The reliability and performance of Toshiba’s HDD technology helps the museum efficiently manage vast volumes of historical data.

“The best thing about working with Toshiba is trust. The museum is about providing long-term cultural preservation for future generations. Toshiba has the ability to truly understand our data storage requirements and helped us to quickly address our issues with reliable product. Our engineers know that it’ll perform well and give consistent results.” — Ton Luong, IT Director, Computer History Museum

> MANAGING THE DATA GROWTH CHALLENGE

The Computer History Museum was facing the challenge of supporting voluminous, unstructured data growth demands. The museum had been using drives from several storage vendors other than Toshiba, and was experiencing a large number of failures, particularly with the competitor HDDs. These drives would sometimes quit without notice, or at times, cause the system to be unstable. Furthermore, the disks didn’t log what was failing, so it was difficult for CHM’s engineers to even work through problems. With these drives, CHM faced premature performance and reliability issues, causing great concern about the costs and resources needed to replace the faulty drives.

“We needed to be able to expand museum services while effectively preserving and managing a tremendous volume of data. We had software complexity issues and data storage challenges, and we knew we’d need to address data capacity issues sooner rather than later. It was critical to find a way to reliably store and sustain the museum’s assets,” says Ton Luong, IT director for the Computer History Museum.



> TOSHIBA HDDS FOR RELIABILITY AND PERFORMANCE

The Computer History Museum turned to Toshiba as its sole storage vendor. The IT team began replacing the large number of failed drives with Toshiba 4TB¹ Enterprise Capacity SATA HDDs, which could reliably support the museum's digital content stream.

The MG03ACA400 4TB SATA HDDs integrated with ease and provided the ability to scale up and better coordinate the digital data stream. In addition, the drives have proven to be highly reliable and deliver consistent performance even during peak system use.

"Toshiba helped us manage our complexity and frustrations, by offering a solution that worked. We have a 10-year guideline for collecting what's important, and because technology is rapidly changing, we need to be flexible in how we preserve and share what is accumulated. Toshiba's MG03ACA400 Enterprise Capacity 4TB SATA HDDs are well-suited to meet these requirements." Luong continues.

> LOOKING INTO THE FUTURE OF THE COMPUTER HISTORY MUSEUM

The museum is now poised to transform the user experience, curator outreach, and research opportunities. With the storage component under control, CHM is now able to look more systematically at their collection without having to worry about not having enough space to store it. The improved stability and the expansion of storage capacity has made it possible for the museum's IT team to do more long-range planning for preservation. The repository has become more robust and stable, and it takes far less time to manage the storage infrastructure. Researchers and technology enthusiasts can now more efficiently access the museum's vast collection with downloadable access through file share services.

"We are most fortunate to have such an interested base of patrons and donors who wish to see the museum thrive. We wanted to make sure our curators have better visibility across the material, to know what we have and what we might want to pursue. Gaining a better understanding of our own collection means being able to answer questions faster and provide new services," says Berger. "We are making progress ingesting more data more quickly. The donation workflow will also be easier. When something comes in, we will be able to put it into productive, nearline storage, rather than having it stored offline somewhere else."

1. Definition of capacity: Toshiba defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2³⁰ = 1,073,741,824 bytes and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

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