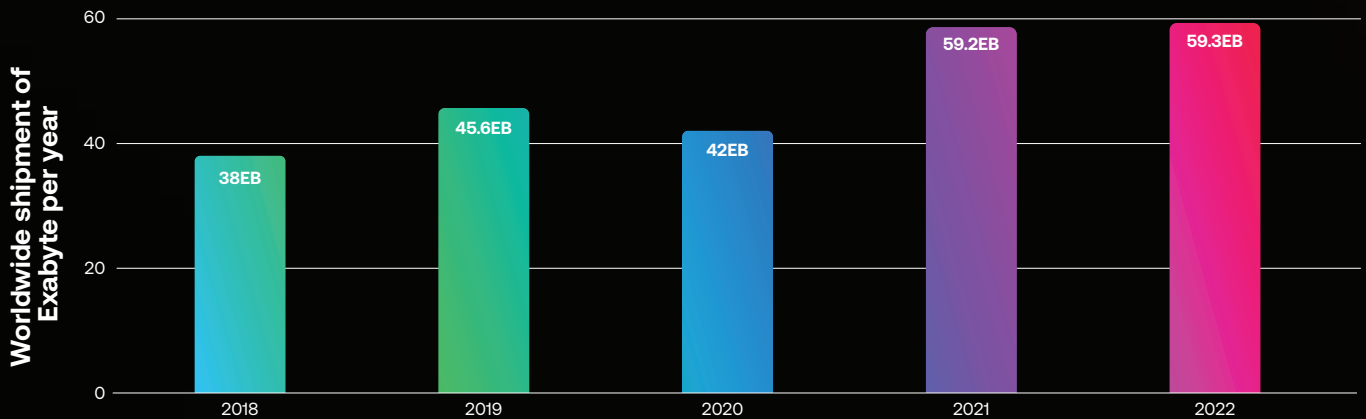


FUJIFILM
Barium Ferrite

ULTRAM 9
18TB/45TB
NATIVE COMPRESSED

LTO Tape Demand Continues to Climb

Record Tape Media Shipment in 2022 of 59.3EB (Exabyte) Native Worldwide



Tape demand is growing like never before and last year tape reached new heights with a record 59.3 Exabyte of capacity delivered on tape globally.

In a post Covid world, data is increasing at an exponential rate and shows no sign of slowing down. It must be stored, often for decades, in a secure, sustainable and cost effective manner. This is where tape comes in with its green credentials, longevity, high security, ease of use and scalability.

As the world's largest manufacturer of data storage tapes, Fujifilm is best placed to provide you with an update on where tape sits today. It is important to note that not all tapes are equal and to ensure your high quality, we recommend the use of Fujifilm branded tape media.

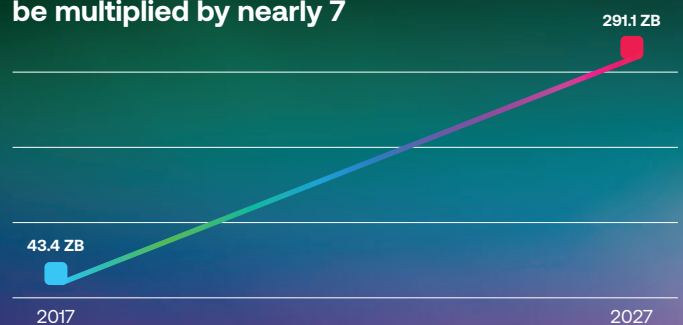
Why is it increasing?

In the 2010s, there was an explosion in the creation of digital data and this is a factor that is still influencing data growth today. In fact, by 2027 it is estimated that the total amount of data generated globally will reach 291.1ZB. This is partly a result of digitisation of files, but is also down to the birth of new industries and applications such as social media, IoT, 8K and 5G.

The most important aspect is that customers are able to access data not just today or tomorrow, but in 5, 10 or 15 years' time. As the most reliable long term storage medium, tape gives users peace of mind by offering an archive life of more than 30 years.

Furthermore, whilst data is growing budgets are not increasing at the same pace. Therefore, organisations must find a cost effective system that meets their requirements and this is where tape is the perfect solution.

The volume of new data created in 10 years will be multiplied by nearly 7





Sustainability

Did you know that 1% of the worldwide electricity consumption comes from data centres?

Furthermore, the energy consumption of major data centres grew by 31% between 2017 and 2021 with around 19% of all electricity costs in a data centre are derived from the use of hard disk and 60% of that data stored on hard disk is never accessed.¹

What makes this fact even more interesting is that recent studies have also shown that energy costs are 4-5 times cheaper on tape than when using a hard disk system. It is imperative for companies across the world, and especially here in Europe, to reduce their CO2 footprint. This is another key reason for an increase in tape demand as by using tape, energy consumption and thus CO2 emissions can be dramatically reduced.

A study by Brad Johns Consulting LLC has stated 'we estimate that by moving 10PB of cold data that is growing 35% annually from disk to tape storage, an 87% reduction in carbon emissions and an 86% reduction in TCO can be achieved over ten years'.²

Many industries have been striving for over a decade to reduce their carbon emissions and operate with a greener strategy. This is an aspect where tape has the ability to play a prominent role, as it is naturally a greener storage solution and when not connected to the network, will not require any energy. In fact, an IDC study recently stated that 'data storage using modern tape systems can accelerate sustainability progress by reducing energy consumption, CO2 emissions, and electronic waste'.³



Security

One of the other major factors driving tape demand is the security that tape offers for your data. Tape is removable from any network, creating an air-gap and reducing the vulnerability from hackers and cyber-attacks.

As well as a need to make sustainable choices, data must also be as secure as possible and tape is the most secure storage medium for the long-term retention of data. Alongside physical security, tape offers a data integrity that is 100,000 times greater than disk with a bit error rate of 1×10^{20} versus a bit error rate on disk enterprise SATA of 1×10^{16} .

There are additional benefits that tape can offer organisations in the storage and archiving of their data. Please contact us for further information.

For more information, please contact:

Richard Alderson
 Head of Recording Media - UK, Ireland & Scandinavia
 Phone: +44 (0) 7500 796708
richard.alderson@fujifilm.com



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1. Science magazine article: Recalibrating global data center energy use estimates. Feb 2020. 2. Brad Johns Consulting LLC: Reducing Data Center Energy Consumption and Carbon Emissions with Modern Tape Storage. November 2020. 3. IDC White Paper: Accelerating Green Datacenter Progress with Sustainable Storage Strategies. Sept 2021.

