



Market Research Report

「Optical Disc Archive 2013」

Fujiwara-Rothchild, Ltd.

Fujiwara-Rothchild, Ltd. published the market research report "Optical Disc Archive 2013" as the 2nd report of the optical disc archive report series.

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1 Background of the publication

Development of the Optical disc archive system has proceeded by utilizing their characteristic advances, and the movement to recognize the handling of archiving data as a big problem has accelerated in IT markets.

This report provides to bring out the success scenario of the optical disc archive system that become essential by the detailed analysis including the viewpoint of storage vendors and the users.

2 Major Index

1. Background of the of this report
2. Important view points of the practical use of optical disc archive
3. The trend of archive storage
4. The archive system positioning in the IT system
6. Future technical trend of various storages
7. A kind and characteristic of the future large-capacity optical storage medium
8. Archive circumstances in the world
9. Possibility of the optical disc archive
10. Summary

3 Overview

Data capacity to be archived will continue to increase and 13 times storage capacity in 2013 will be required in 2018.

The total optical archive system will create over 100 billion yen market in 2018.

Review of the value optical storage from negative to positive will be accelerated.

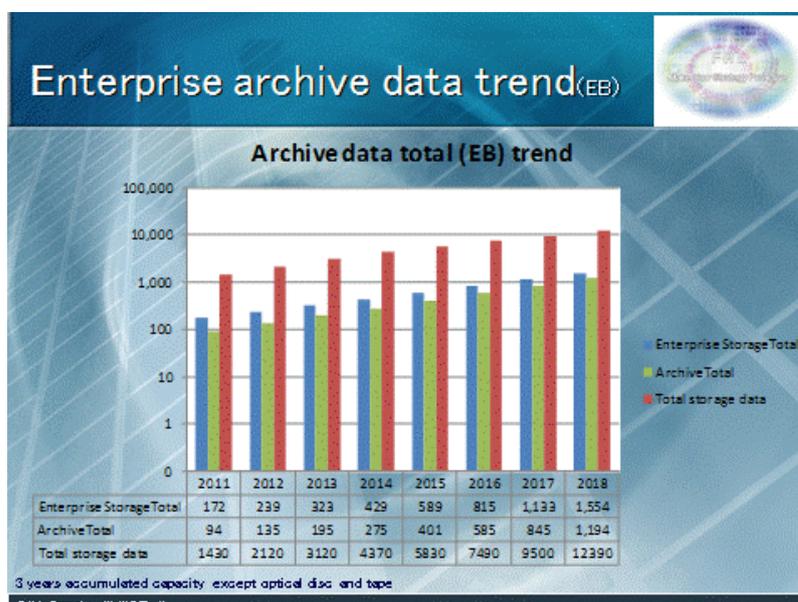


1. Data capacity to be archived will continue to increase and 13 times storage capacity in 2013 will be required in 2018. Current situation that HDD/RAID and LTO are used is facing a lot of challenges and its solution is required. The real valuable method of optical archive was revealed by deeply analyzing the reason why a lot of storage vendors recommended HDD/RAID and LTO, and users agreed to it. Optical storage will become essential as dedicated archive-system.
2. Optical disc storage that achieved sufficient specifications as professional-use is optimal as especially long-term storage over five years for large-scale to small and medium-sized users and the turning point is coming at which that optical archive is inevitable as an archive solution becomes recognized. Reappraisal of optical disc storage after 2013 will create over 100 billion market of total optical archive system
3. Experts who understand the characteristic of optical disc such as large-scale users, who are facing challenge of processing old data and storage vendors suffer from archive data to be stored over five years, are accelerating review negative to positive regarding optical storage.
4. Regarding the contents mentioned in the above, the scenario of optical disc archive success was sorted out and concluded as the flow of the inevitable by detailed analysis including view points of storage vendors and users in this report.

4 Recommendation

Currently, it is required in the optical disc storage industry to remove misunderstanding and confusion of large-scale users and storage vendors due to the negative image in the past regarding the optical disc storage and to promote understanding of availability of dedicated archive storage system in the market. In addition, it is essential to make an industry-wide effort to enlighten organizing of data to be archived, set IT-rule and penetrate the optical disc archive regarding significant effect of dedicated archive-system which would solve a large number of problems of archive. The understanding of the optical disc archive system availability should spread over not only the management layers of companies and users with high optical disc literacy but general IT employees.

5 Examples of text



The amount of data to be archived will continue to increase and 13 times storage capacity in 2013 will be required in 2018.

Problems, optical storage should solve

A management level, large-scale establishment

- Resolving Eco-dilemma**
Reduction of power consumption
Reduction of environment road by non-voltaic memory
- Reduction of TCO in the long-term preservation**
HDD system migration (every 5 years)

ON-site level, large~small-scale establishment

- Reduction of in-house manage cost
- Improvement of basic specification
Capacity, error, transfer-rate, etc.
- With or without or frequency of migration
- Secure feeling for the long-term use
Mid-term roadmap should be shown

Problems should be solved

- Large power consumption
- Exchange cost of volatile memory (HDD)
- HDD system migration cost
= long-term preservation over 5 years
without migration cost

Desirable situation should be clear to start study of archive storage.

Difference of appeal point between for the management layer and for IT manager

The obvious benefit of optical disc archive would lead to large reduction of power consumption if used for a large scale archive system and cost-reduction in long-term perspective which the management layer would be aware of is greatly effective but hard to judge for IT manager. However, it is pointed out that the level of this issue is hard to be understood in the daily business meeting.

Basically, TCO reduction on short-term is required but the effect of TCO reduction on long-term archive is regarded as a determination of the management layer. On the level of IT manager, basic specification that affects business operation, requirements for use on medium- and long-term (roadmap and need of migration) and in-house management cost for off-line preservation should be discussed. (quoted from p.41)

Problems to be solved by optical disc archive. TCO reduction in the long-term preservation, long-term readability, etc.

Problems, optical storage should solve

Improvement of archiving related problems

- TCO in the Long-term preservation
- Reducing the managing cost (migration etc.)
- Readability in the long-term preservation (over 30 years)
- Countermeasures for Disaster (copy)
- On-line archive- accessibility of the file unit
- Keeping space of the primary system

Strategic effect of the improvement

By TCO reduction after Tier-2, the budget shift to primary system for the performance enhancement will be possible.

“Data with reduced access frequency” and “archive data” should not be preserved in the primary storage system in the long term. The advantage to transfer the data to HDD/RAID system with lower cost is speed of access, being able to use the data anytime as whole system and to continuously enjoy effect of software such as De-duplication. However, the reason to use the system with large power consumption and high long-term TCO is to find value in the fast accessibility to even the “data with reduced access frequency”. “Archive data” should be clearly separated and considered from the data with reduced access frequency. (quoted from p.97)

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Optical disc archive 2013

At optical disc in the high-definition DVD, introducing an, the spread of BD/DVD is going on mainly in developed countries, the slight trend of HD-media such as Blu-ray disc (BD) has already begun. Despite the fact that DVD-R is one of the package media, passed just due to the influence of network, downloaded, CD-R for recording such as DVD-R is common to give highly enduring 100million units of annual sales. Although CD-R is in the decline, there is demand for collection units DVD-R. In addition, the growth of the software and recording BD is in the future.

As the application of media increasingly diversifies in many ways, appropriate electronic media such as DVD-R and Blu-ray disc are growing. The storage industry is the place of "Data Optimization Strategy" a variety of storage is becoming a trend.

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