



DataOptimizer

透通的0 6 22儲存設備
檔案分層 . 6 4 0

在大數據時代，每天都會收集大量資料。以越來越高的解析度產生越來越多的機器資料、圖像與視頻，它們佔用了大量存儲空間。但是，大多數資料變得過時且未使用，這會增加成本，因為資料大部分存儲在昂貴的主要儲存設備上。

使用我們的工具 C C PCN GT與客戶進行的測量得出以下年齡分佈：

- % 大約個月積極存取的熱資料 C C
- % 到個月少使用的暖資料9CTO C C
- % 處於非活動狀態的冷資料 NF C C，超過個月，非結構化資料（如圖片或視頻等）的比例約為 %

由於缺少工具，因此通常會擴充儲存設備而不是對其進行優化

儲存設備的速度與高度可用性是必需的，並且 6部門努力滿足用戶與應用程式的需求。成本壓力增加，6意識到從長遠來看，擴充儲存設備不是解決方案，因為這意味著獲得昂貴的儲存設備容量，更長的備份時間，更多的能源與空間消耗，甚至更長的時間來進行災難復原。

這導致了一個難題。6知道大多數資料都是冷資料，但缺乏定期清理儲存設備將資料轉移到更便宜的儲存設備或雲中的工具。此外，用戶希望通過他們熟悉的路徑透通地存取其資料，而不希望在特殊的歸檔中尋找舊資料。因此，短期內將再次購買主要儲存設備 惡性循環。

解決方案：C C IR 0 GT使用檔案分層 NG 6 GT PI，因此具有成本效益的儲存設備空間可用於舊資料與冷資料。

借助 C C IR 0 GT，6擴可同時解決所有已確定挑戰的工具。定期掃描OG RR儲存設備，並識別出很少使用或未使用的資料。然後，根據檔案分層的原理，將識別出的資料自動遷移到便宜的儲存設備中。對於用戶與應用程式，對檔案的存取保持不變。

檔案分層 NG 6 GT P基於以下原理將經常使用的資料保留在快速存儲設備（例如55）上。很少使用的資料保存在基於5 6 硬碟的經濟高效的儲存設備中，也可以將其重新放置到雲中。借助 C C IR 0 GT，可實現成本效益，並加快重要資料的備份 還原。

特點

用戶、機器與 6系統會建立大量資料，其中大多數資料將在 到 個月後不再使用，但仍會佔用昂貴的硬碟空間。

6部門意識到了這個問題，但是在大多數情況下，既沒有時間也沒有合適的工具來定期將活動較少的資料搬移至價格較低的儲存設備中。

該自動化工具有助於節省金錢並以高效率的方式管理儲存設備容量。

C C IR 0 GT利用透通檔案分層來優化OG RR 儲存設備。重要檔案放在快速儲存設備上，其餘檔案放在具成本效益的儲存設備。

通過存根5 WD方法，用戶與應用程式可以繼續在主要儲存設備的原始位置查看其檔案。連結（存根檔5 WD NG）是指二線儲存設備中的位置。

Before using **DataOptimizer**, the basic parameters for optimizing the storage environment can be determined using **DataAnalyzer**, an additional tool provided by ProLion. It gives detailed information about all the relevant performance indicators of a NetApp storage facility such as age structure, file types, unused LUNs and trend analyses.

Individual set of rules: DataOptimizer relies on a policy-based set of rules which can be configured on specific attributes such as file types, free storage capacity, creation or modification date of files, file size and much more. Even the periods of how often DataOptimizer should run can be adjusted individually, for example: daily, weekly or monthly. DataOptimizer automatically works out the specific set of rules which results in a reduced daily workload of the team.

User transparency during tiering with stubbing: Three different methods can be used, each with different consequences:

- **Copying:** A copy of the file is created on the cheaper medium. The file remains on the primary storage and an additional copy is created on the secondary storage.
- **Moving:** The file is moved to the cheaper storage and deleted on the costly primary storage. Although costly storage is reduced, users must access files through a new path.
- **Stubbing/linking:** The file is moved to cost efficient storage and a link (stub file) with the header information is stored on the costly high-performant storage. Advantage: Costly primary storage is reduced and users and applications can access their data in the same way as before, as data access is forwarded to the cheaper secondary storage in the background. This is achieved via the stub file and the desired file is delivered from this storage system directly to the user or application via "path-through". For the user and the application, data access is absolutely transparent!

→ DataOptimizer uses stubbing and, thus, it achieves user transparency for all files.

Architecture: DataOptimizer runs on its own Windows server and connects to the NetApp storage via the FPolicy interface. It is recommended that the Windows server is made highly available so that it is available at any time. Of course, the Windows server can also be virtualized.

Advantages

- Expensive storage is regularly cleared up, reducing storage costs significantly
- Data is managed cost effectively and storage optimized
- Policy-based file tiering considers the widest variety of file attributes, thereby achieving optimal relocation
- An automatic rule-based process lightens the work of the storage team
- Users and applications can access data as usual and continue working without operational interruption

Pricing model

DataOptimizer is licensed per TB based on relocated capacities: Only the volume of data moved by DataOptimizer from the costly storage to the cost efficient storage counts towards the calculation of the licence costs.

About ProLion

Innovation is the basis on which we create our products for you. We believe that a company can only have long-term success through innovation. For our customers, we enjoy regularly going the extra mile. This means that we are there for you and readily available, whenever you need us. A team consisting of experts with long-term experience in storage technologies makes up the pool of knowledge at ProLion. This team develops innovative software and hardware solutions for storage systems.



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