摘要

近年來由於網際網路的普及，資訊成爆炸性的成長，無論是企業 e 化、電子商務的應用服務，或是數位家庭的興起，加上網路應用服務的創新，出現如影音部落格等。這些資訊除透過網路傳遞流通外，不管是個人或企業，是使用者或提供服務的業者，都需面對管理如此龐大的資訊儲存服務。

隨著數位資訊的快速成長，檔案的體積與數量日漸增加，雖然資訊科技的進步讓儲存媒體的種類更加多元化且容量越來越大，例如一顆 SATA 磁碟就有 500GB 的容量、藍光光碟一片容量達 100GB，但根據 IDC 公佈調查指出，2006 年全球資訊量大爆炸，全年的照片、影音檔、電子郵件、網頁、即時通訊與行動電話等數位資料量，高達 1610 億 GB，所以儲存容量的提升似乎永遠趕不上資訊的成長速度。

企業目前分散在各分支機構的 IT 機房，面臨人員設備的重複投資及分散管理不易，隨著寬頻網路的來臨，企業將 IT 基礎設施集中化，建置企業的資料中心已成趨勢，我國政府的資訊改造就規劃機房共構成 13+1 個資料中心，如何建構一個資料中心，應用集中化、虛擬化的趨勢讓儲存系統集中化，同時企業的資訊也集中化，大量的資訊與儲存，更需對資訊做有效的儲存管理。

根據 SNIA 統計，儲存系統上的資訊，30 天內沒有被存取過的大約占 80%不常用、不重要的資訊不只造成儲存空間的浪費，也間接影響資訊存取沒有效率，所以在有限的高階線上儲存空間下，將較少用到的資訊搬到較低階的儲存系統，不用的資訊歸檔保存。資訊也有生命週期的演變，本研究將資訊生命週期分四個階段，分別為資訊建立導入新生期、資訊使用黃金成熟期、資訊參考使用衰老期、資訊處置歸檔終老期，透過資訊價值的分類，區分資訊對企業的重要程度，融合資訊生命週期的演進，制定資訊生命週期管理策略，協助企業從資訊的建立、存取、備份、複製、資安、歸檔保存到刪除，使得資訊的儲存保護與存取效率能達到最佳化，確保資訊服務不中斷，獲得最好的儲存投資效益。

Abstract

Due to the prevalence of Internet in recent years, information grows explosively. No matter it is e-enable, the service that electronic commerce offers, or the spring up of digital family, in addition to the innovation of the application service that the Internet offers, they all enabled the appearance of products such as Vlog. These information not only circulate through the Internet, no matter it is personal or companies, users or dealers who offer service, all of them have to face the problem of managing such huge information storage service.

With the rapid growth of digital information, the volume and the amount of files are getting larger and larger. The advance in information technology makes the type of storage media more various and with larger and larger capacity. For instance, a SATA hard drive has the capacity of 500GB, a Blue-ray disk has the capacity of 100GB, but according to the survey of IDC, the information around the world exploded in year 2006. The total digital information such as pictures, video/audio archive, emails, web sites, messengers, and mobile phones in the year is as much as 161 billion GB. So the storage capacity never seems to catch up with the growth of information.

Companies now scatter over the IT control room of each branch. They face the difficulties of repeatedly investing in manual and facilities, and separate management. With the appearance of broadband network, companies consolidate the infrastructure of IT, building companies' data center has become a current. The information engineering step that our government takes is to draw the control room into 13+1data center. How to build a data center? We use the current of consolidation and virtualization to consolidate storage systems. Mean while, the information of companies should be consolidated. Mass amount of information and storage needs a more efficient way of managing and storing information.

According to statistic that SNIA shows, there are about 80% of information in storage system will not be accessed within 30 days. Information that are not often used or are not important can be a waste of capacity, and it can indirectly affect the inefficiency of storing information. So, in the limited high level online storage capacity, we should move the information that are not so often used to lower level storage systems, and we will not have to archive the information. There is also a life cycle within information. This research classify the life cycle of information into 4 stages, which include the introduction/emergence stage in the establishment of information, the decline stage during the reference

and usage of information, as well as the final stage in the management and filing of information. Through the classify of information value, we classify the importance of the information to the company, integrate the evolution of information life cycle, establish tactics of information life cycle management, assist companies from the establishment of information, to the storage, backup, copy, information security, archiving and then to the delete of the information. This optimizes the storing, accessing efficiency, assures the continuance of information service and acquires most benefit of storage investment.