Flash Research Assignment #2: Servers and Storage Technologies (Data Deduplication)

Making sure our organization's information isn't lost, damaged, or destroyed is crucial. Our current backup solution is wasting precious time and storage space by storing a staggering amount of unnecessary duplicates of files within the data. By removing this redundancy through data deduplication, our company could save thousands of dollars per year in physical storage devices, and overall organization inefficiency from redundancy would be greatly mitigated.

Data deduplication is a process that gets rid of redundant data that is copied in backup operations. This redundancy can increase the amount of required backup storage by as much as 30 times what is actually necessary, meaning more physical disk storage would need to be purchased to maintain this data (Rinnen). Thus, deduplication leaves only the unique data that is essential for the business, saving money in the process. Because of this, and since there is less data to deal with, performance is greatly improved. Factors such as bandwidth speed (data can be copied over the network more frequently) and time needed for data recovery is also improved immensely.

From a business standpoint, we need to invest in data deduplication technology. Depending on the disk media that our company uses, the cost of storage space per terabyte (TB) of data ranges from $32.78 to $181, meaning that, by investing in deduplication solutions, upwards of $5,249 could be saved per year in physical storage alone ("List of Storage Hierarchy Media with Costs."). Costs aside, backup times would be greatly decreased, recovery time would be reduced, the speed of sending data over the network would be reduced, and overall efficiency and reliability when handling data would be heightened. There are a surplus of vendor options available on the market that offer backup solutions that implement data deduplication, such as Acronis, Hitachi, and Symantec, and the cost of investing in the technology can be as low as $1,597.48 for a 3-year server license ("Symantec Backup Exec."). For this reason, there shouldn't be any reason *not* to invest in data deduplication.

Works Cited

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