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### Enterprise Class Data Backup System

Our organization can be saved from losing \$1,277,300 per three years by switching from external hard drives to enterprise class data backup system. Our employees will not be spending way too much time tinkering with hard drives and backups, and they will be doing what we pay time to do. Enterprise class data back system has two parts: Barracuda backup application which focuses on content security, application security and delivery, and storage; and cloud backup service only backs up files that have changed since last backup.

The Barracuda Backup Server sits on our network and connects to servers that we want backed up. It pulls the data from the servers, then compresses, encrypts, and sends the data securely to one of our secure storage location by itself. That storage location then also replicates our data onto a second separate storage server. Therefore, data is backed up three times with our system. Barracuda back up application is completely automatic, so backups are conducted on a schedule as our files change without us doing any work. Cloud backup include file compression and block level reduplication to reduce backup times, size, and storage cost, and it does by only backing up files that have changed since the last backup. The files from our backups reside on cloud files, and cloud files data are transferred via our high capacity network, and it is written to three storage disks. All of them are on separate nodes or locations that have dual power supplies.

Our organization is currently facing expense of \$2,100,000 for external hard drive for three years (Table 1). We can have three years total expense of \$822,700 if we switch to enterprise class data backup system (Table 2). We can save \$1,227,300 by end of next three years (Table 3). Employees won't have to save their individual workstation themselves, and they will be able to do what we pat them to do. We will be able to save money on employees salaries as well.

**Table 1: External Hard Drive Cost for three years**

1 <sup>st</sup> Yr Cost	2 <sup>nd</sup> Yr Cost	3 <sup>rd</sup> Yr Cost	Total Cost
700,000	700,000	700,000	<b>2,100,000</b>

$$\text{Cost} = 140,000 * 5 = 700,000$$

**Table 2: Enterprise Class Data Backup System Cost for three years**

				Total Cost
Back up and Training Cost	1000	3300	900	5,200
Back up Subscription Cost	2500	2500	2500	7,500
Cloud Back up Cost	2,700,000	2,700,000	2,700,000	810,000
			Total Cost	<b>822,700</b>

$$\begin{aligned} \text{Cloud Back up cost} &= \$150 * 150 \text{ Computers} * 12 \text{ Months} \\ &= 270,000 \end{aligned}$$

**Table 3: Net Benefit of three years**

External Hard Drive Cost	Enterprise Class Data Backup System Cost	Net Benefit
2,100,000	822,700	<b>1,277,300</b>

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