Why Google Cloud Storage Nearline is Super Interesting for Data Protection

You can’t have a conversation about IT transformation or data protection modernization that doesn’t include “the cloud” somewhere in it. And today, there are a wide range of cloud services that offer data protection capabilities:

- **Backing up SaaS** offerings like Office365, Google Apps for Work, or Salesforce – see my earlier blog about SaaS backup.
- **Backup-as-a-service (BaaS).**
- **Disaster Recovery-as-a-service (DRaaS).**
- Augmenting an on-premises backup solution with a tertiary **Storage-as-a-service (STaaS)** tier.

I covered **BaaS, DRaaS, and tertiary cloud in late 2013 in an ESG research report** and am in the process of updating some of those research points, but it is interesting to see how diverse the offerings are in even just the STaaS market:

- Cloud-gateway solutions such as NetApp **SteelStore** or EMC’s **Maginatics**.
Every backup hardware vendor's effort to somehow get its appliances in an IaaS scenario or hosted by MSPs, so that its appliances can replicate to a cloud solution.

Last week, Google may have changed everyone’s math.

“Math,” meaning not just the dollars and cents, but the expectations of how cloud storage can be consumed as part of a data protection architecture. Before now, almost every cloud-extended storage offering that was leveraged for data protection utilized the same grade of public-cloud storage that was suitable for either protection or production usage. As such, while you could certainly trade the CapEx requirements of owning and running your own secondary storage at your own secondary site with the OpEx model of storing data in the cloud, you could certainly find economic scenarios where well-managed, self-owned storage beats cloud-based storage and vice versa as well. There wasn’t always an absolute economic winner because your data was on disk – yours, theirs, or otherwise.

Google Cloud Storage Nearline is designed specifically for providing low-cost storage for archiving, backup, and BC/DR. From a solution perspective, this lines up with several key industry trends:

Archiving -- According to ESG’s Backup and Archive Convergence Trends report, most long-term data retention behaviors include multiple times per day ingest and retrieval, assumed access time in seconds to minutes, and the expectation of myriad users accessing the data. Those characteristics don’t scream “tape” as the only solution. Add to that the same report’s finding that one of the most sought after archival features was cloud-storage, and Nearline looks to fit the bill.

Backup – In ESG’s Data Protection Appliances research report, cloud-extensibility was deemed important (26%), very important (35%) or critical (20%) by IT professionals responsible for data protection. With so many different approaches to augmenting one’s data protection solution, the only constant is that almost every organization will have some of its data in the cloud – maybe just for operational reasons such as protecting branches or endpoints, maybe as an alternative for disk/tape at a secondary site, maybe for BC/DR, but the cloud will be in most data protection architectures somewhere.

With Nearline’s performance for retrieval being measured in single-digit seconds (with predictable SLAs) and an economic model that looks closer to tape economics than typical cloud-storage (disk) economics, it should not be a surprise to see early support from names like Symantec (with NetBackup 7.7 support), NetApp (SteelStore), Geminare (DRaaS), etc. Perhaps the only surprises are 1) Why didn’t Google do it sooner? and 2) Why hasn’t anyone else cracked the code to offer “warm” cold storage?

That being said, while most data protection technology modernization conversations have already included cloud considerations, those IT professionals’ managers who are balancing solution benefits/tradeoffs with economics in data protection may now be more interested.
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