



Journey to the Clouds

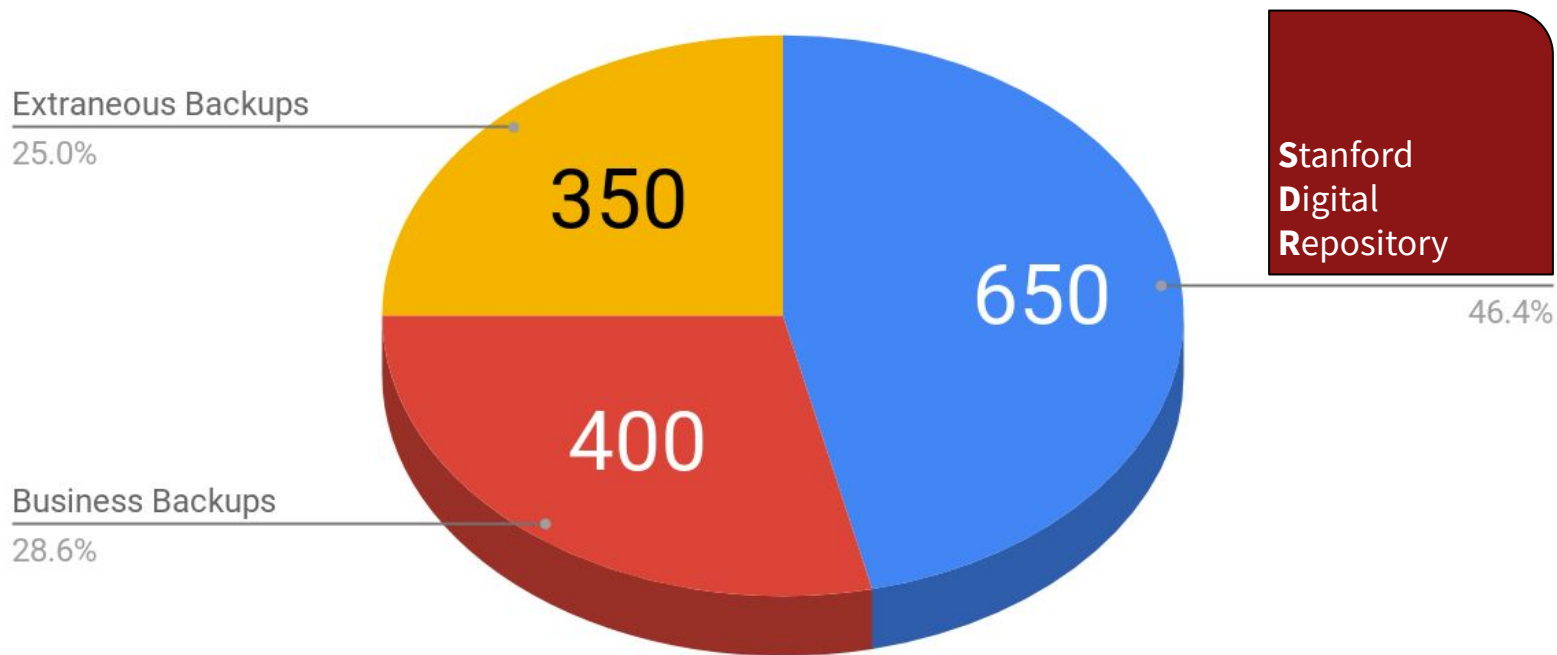
Julian M. Morley

Operations Manager

Digital Library Systems & Services



Total Backup Size (TB)



NOT SURE IF PRESERVATION

OR JUST BACKUP



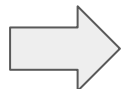


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|------------------------------------|------------------|
| IBM tape warranties | \$46,000 |
| IBM frame/robot warranties | \$8,000 |
| IBM software support | \$10,000 |
| Spectrum Protect servers & storage | \$31,000 |
| LTO-6 tapes | \$30,000 |
| Tape transport & vaulting | \$36,000 |
| Datacenter space | \$50,000 |
| Contract FTE | \$111,000 |
| Spectrum Protect licenses | \$32,000 |
| Annual total | \$354,000 |



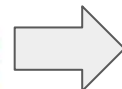
The Plan

Business Backups



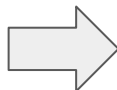
IBM Spectrum Protect

(on virtualized servers)



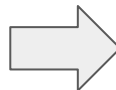
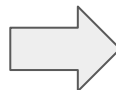
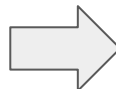
IBM Cloud

Stanford Digital Repository



SDR Preservation Catalog

(new software development)



IBM Cloud



amazon web services



| | |
|---|-------------------------|
| Spectrum Protect licenses | \$32,000 |
| Business backups to IBM Cloud Cold Vault | \$28,800 |
| SDR replica to IBM Cloud Archive us-south | \$14,400 |
| SDR replica to AWS Deep Archive us-west-2 | \$9,000 |
| SDR replica to AWS Deep Archive us-east-1 | \$9,000 |
| Annual total | \$93,200 |
| <i>Annual savings</i> | <i>\$260,800</i> |



Disclaimers

- We had to develop & deploy new software - SDR Preservation Catalog
- We moved some 'extraneous backups' to AWS Deep Archive buckets
- Not accounting for in-house costs of virtualized Spectrum Protect
- We have to run both systems in parallel until December 2019 to migrate
- It costs time & money to dispose of a large tape library and old storage systems

**TAPE LIBRARY HEARS
CLOUD BACKUPS ARE WORKING FINE**



(chuckles)

I'm in danger