**CS Systems Planning Assignment**

**Proposal**

Shifting many company resources to the cloud and providing more cloud oriented software solutions for employees. More specifically the following products, which are part of the Google Enterprise package:

* Gmail
* Google Meet
* Google Drive
* Google Docs

**Potential Reasons for this transition**

Following Covid-19 outbreaks, most employees are now working from home, making access to locally hosted resources difficult and inefficient. This makes it a prime opportunity for the company to transition to cloud services, especially since it is often clunky to access a corporate network off-site through a VPN.

Additionally, many other businesses are considering having employees continue to work from home once the world returns to normal, as this lowers the amount of money that needs to be spent on office rent.

The proposal is for this business to transition from Microsoft Office to Google Docs, which is a web centric solution, and adopt Google Meet as a company wide video conferencing solution. This is all part of the Google Workspace package.

Traditionally, compatibility and updates take up a lot of IT time, with the risk for disasters. With a unified cloud solution, compatibility is a complete non-issue and updates will be handled by the provider, which can usually do a better job of rollouts due to their increased size.

**Foreseen issues**

* Migrating existing data to the cloud could be complicated
* Any automated scripts would need to be reimplemented
* Users of these systems will need to learn to adapt to the new way of doing things
* Use of these systems could raise monthly spending above the currently self hosted solution – analysis specific to this use case is required

**Focus point: Cloud solutions**

* Higher guarantee of uptime (multiple datacenters, 99.9% uptime guarantee etc.)
* Better redundancy
* Lower staff requirement
* Better offsite access
* Improved physical security
* Less hassle regarding updates
* Reliance on internet access – Access to certain cloud service could be restricted in certain areas.

**Company Information / Requirements**

* The company is a law practice
* 200 Employees
* Located in the US
* Located in a major city

**Existing Solution**

The company currently provides employees with the Microsoft Office suite, which they use for creating and editing documents. Online communication is done through Microsoft Teams, although in person meeting used to be the default method of communication. Email was hosted on premise using a Microsoft Exchange mail server.

The company currently also locally hosts 8TB worth of network storage, with RAID 1 redundancy and nightly backups to the cloud, with the past week worth of backups stored.

**Data Migration Process**

The most challenging aspect of the migration to Google cloud tools will be transferring existing email user accounts and past emails. However, I’m sure there is an automated method for conducting this migration.

Migrating the data on the company fileserver should be extremely easy, the only concern would be the length of time required depending on the bandwidth of the company internet plan. It is important to confirm that the cloud solution is working before switching off the local fileserver.

There is not really any data required for the migration to Google Docs (online document editing suite) and Google Meet (Video-conferencing solution), however those two solutions will require user training. User training is usually one of the largest and most complicated aspects of a transition, but as many users will already be used to working with the Google ecosystem, this specific transition shouldn’t be particularly challenging.

**Testing**

In the very early stages, testing can be conducted by members of the IT team, this is a form of internal/developer rollout. This will minimize impact on less tech savvy users, who will be more sensitive to any technical troubles while also helping team members pinpoint any issues early on.

Once any major bugs are sorted out, the IT department could run some automated scripts to send emails and upload/download from the cloud, in order to test if the system is working as expected by simulating a more normal load level and use case.

We can then roll out the new system to one team at a time, dedicating work hours to training and assisting users with any issues they encounter. During this period, the current systems should be disabled for those users, so that they are forced to learn how to use the cloud solution. However, we should still retain the legacy systems in case there is a catastrophic failure and we need to roll back.

Eventually the whole organization will be switched over to the cloud, as we’re a small organization there wouldn’t be much use for the old servers to be used as a local fallback cached copy. Therefore after a month or so the current systems will be ready for retirement.