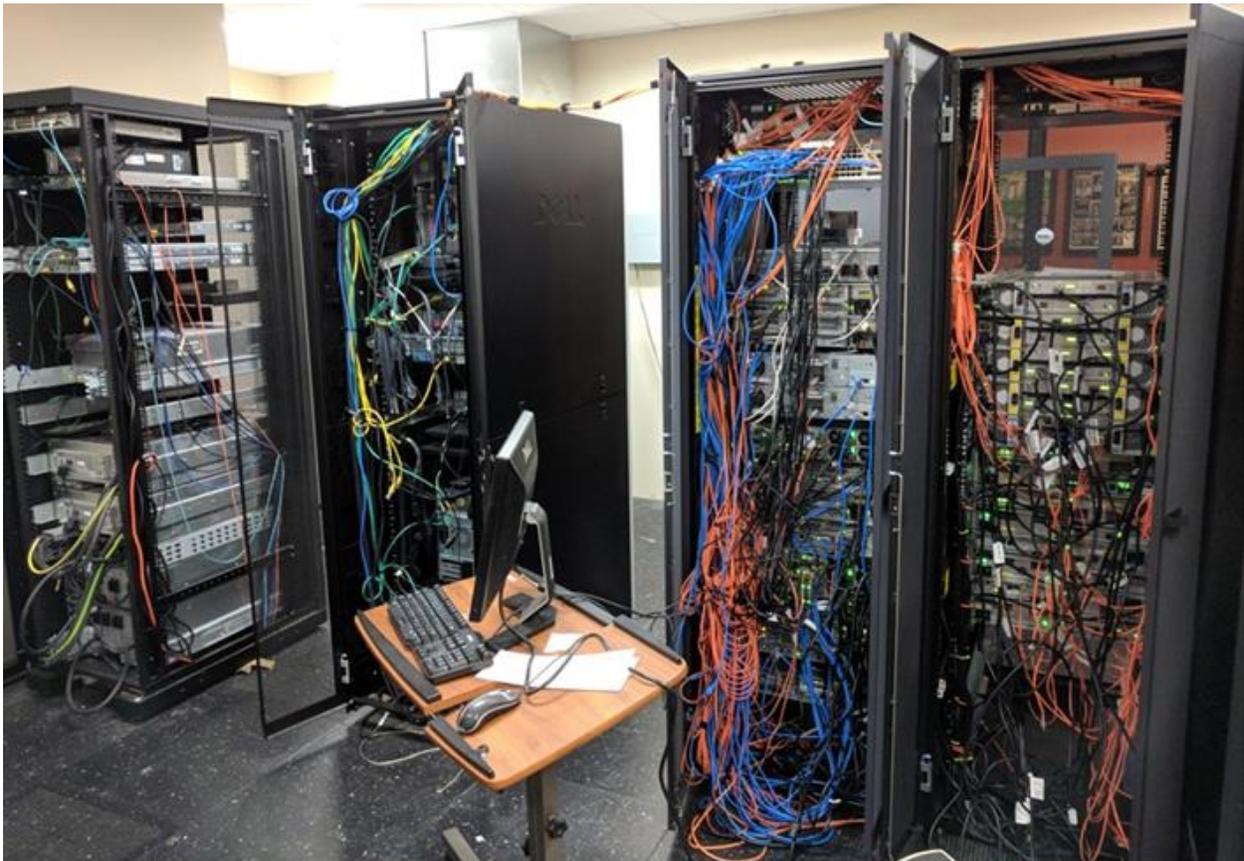




Canyon ISD is a rural but rapidly growing school district in the Texas Panhandle. We have 15 Schools and are currently building a new Intermediate school scheduled to go live in August. With over 10,000 students and over 1500 employees, we have 700 Sq Miles of potential growth as opposed to our larger neighbor (Amarillo ISD) with only 70 Sq Miles of growth potential. The district is extremely forward thinking, with a strong emphasis on extending learning outside the classroom. The Canyon ISD vision statement is "Empowering Life Long Success" and we district employees take that very seriously.

Over the last Year here at Canyon ISD my team and I have been working very hard to update our infrastructure by replacing entire campus networks, Desktop deployments, and now our Data Center.



Much of our equipment has ranged from 5-15 years old so we were very much in need of a solid refresh and a structured refresh cycle in order to prevent this situation in the future. I was hired Jan 1 2017, and that has been my number 1 focus. In fact we have cut hundreds of thousands of dollars out of the OPEX cost for technology by:

- Renegotiating Cisco Contracts / Vendors (We moved to NetSync and they have been incredible Adjusting SmartNet contracts (decreased 28k)
- Re-Negotiating Microsoft Contracts
- Replacing our Traditional Servers / SANS with the new UCS / NetApp (saving 80k / y in IBM maintenance cost)

This isn't to mention the energy savings we will see after the new server is installed. We currently have 4 completely full racks with the IBM stuff. 3 of those racks are server / compute and 1 full rack is storage. The servers will be consolidated to 3 UCS blades which also lowered our VM (per cpu) licensing from 16 to 6 (2 per blade). The rack of 10/15K drives will move to a 2U NetApp and will only fill half that appliance while providing more storage and speed.



With our IBM system, we have been doing incremental backups to tape nightly and full backups weekly. We take those backups off site every

day. With our new system, we are completely doing away with tape and implementing an off site DR (non business continuity, just VEEAM backup) which will run over a 10G connection and be housed at one of our high schools.

I can't stress enough what an outstanding Partner NetSync has been in the process of our conversion. They are handling it from a complete white glove approach and it has been one of the best parts of this decision. The engineers are absolutely top notch!

With our new Vision 2020 push, the district recognizes the need to have modern technology in a consistent refresh cycle. We have also found that for a CAPEX investment we can save tremendous amounts of money over time. For instance, we currently have a Hub and Spoke Leased lit Fiber WAN, but are

researching a resilient dark fiber ring for the next year. This would be a very high CAPEX cost, but would literally save millions over the course of the 20 year lease. The same is true with our server solution. We pay over 80k in maintenance on the existing IBM servers and over 10k per year replacing or adding hardware. By spending the additional money to forklift the entire system and move to a converged NetApp / Cisco UCS solution we will not only save a huge amount of

money of the OPEX, but drastically reduce the energy cost of running the data center. I believe it is critical that we look to 2,3,5, and 10 years down the road and not just keep operations moving because we have budget now. The new technology will ultimately thin our recurring budget while providing a much more robust solution.