CUSP (CU I&E) Submission: Creating A Virtual Desktop Environment [1]

Robert Dixon and his small IT staff are in the department of Housing and Dining Services. 14 Years ago there were two databases and 150 computers. Now there are 177 databases, of which 25 are critical business database systems, plus 500 computers, 200 laptops, and 100 tablets. Over the last 3 years Housing IT (HIT) built and deployed a Virtual Desktop infrastructure. They have now replaced almost all of the computers with a virtual desktop client that consists of a 2? cube that's solid state that uses only 11 watts and runs PCoIP. The experience for the 600 department staff looks and feels identical to the familiar Windows desktop, But this cutting edge change has huge implications for saving energy. By running only one version of the software, we've eliminated the need for support staff running around, fixing and replacing PC's. It also allows department staff to be truly mobile using a tablet or laptop to access powerful large system databases.

HOW DOES THIS IMPACT THE UNIVERSITY?

Deploying a virtualized desktop would have a very significant positive impact for the university. Using Housing & Dining Services department as a successful model the university could save energy, IT administration, initial cost of computers for staff, reduction for funding used in R&R, extension of new and existing equipment, reduction of IT support staff, increased mobility for all faculty and staff, and increased security for computers.

IMPLEMENTATION STATUS

The implementation for the university would be on the same scale or better than HDS department. HDS has reduced the energy of a computer workstation from 200 watts to 32 watts or about 70% savings in energy which translates to about $30,000 savings annually just from computers. A reduction of initial costs of workstations went from $1200 each to $400 each including a 24? monitor. The VM endpoints are 2? cube solid state boxes that don't break and have a much longer useful lifespan. Staff can use a laptop or tablet to access large computer systems anywhere they can get to the internet. They can even use older computers or Apple. They can login from home or when on the road at conferences. The IT support staff doesn't need to replace hard drives or computers because there's nothing to fix anymore. System Admins and Database Admins need to support only one version of the software on the server, which runs the software faster and more efficiently. There's more security because System Admins have greater control over applications that are allowed on the virtual desktop. viruses can be removed instantly by deleting the user's VM and spinning it up again, which takes only 2 minutes. This successful deployment has demonstrated that virtual desktops can now replace standard Windows desktops without sacrifices and with enhanced features and functions. If this were deployed campus-wide, there would be immediate and direct savings and efficiencies. The HIT team made this happen last year and we've been presenting this

model at numerous professional conferences.

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Groups audience:
Controller

Links
[1] https://www.cu.edu/controller/i-e-awards/past-submissions/cusp-cu-ie-submission-creating-virtual-desktop-environment