The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
Rankin County

Organization URL:
www.rankincounty.org

Project Name:
Mobile Virtual Desktops

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

This project was designed to increase the operating and financial efficacy of Rankin County's Sheriff Office patrol car computer-aided dispatch services. The project success was measured on how quickly computing services could be installed and maintained and problems solved in our 911 dispatch center and moving patrol vehicles. The general scope of this project was to fully implement virtual desktop computing in this highly complex and mission-critical public safety environment.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

For this project, we used Citrix XenDesktop in conjunction with Citrix XenServer to fully virtualize the Rankin County Sheriff's Office 911 dispatch and patrol divisions. The problem that we wanted to address was the downtime associated with hardware problems in the patrol vehicles or 911 dispatch stations. When one of those computers is down because the IT staff is working on the computer workstation, people's lives could be in great danger. Virtual desktops have given us an unbelievable turnaround time that we could have never achieved before by using traditional computing. It has also allowed us to start saving a great deal of money on replacing high-powered computer equipment in the cars that is no longer needed. Some of the technical

challenges were related to other service providers and using the correct hardware combinations that provided the best benefits. Also, a challenge to the project's success was user interaction and user training.

Please list the specific humanitarian benefits the project has yielded so far.

The primary benefit is an always available computing infrastructure for the Rankin County Sheriff's Office. In the patrol division, before the virtual desktop project was implemented, when a patrol car's computer was not working, the car had to be parked and not in service until it was completely functional. All the while it was being repaired, the deputy was idle and not in full service. In many cases, the deputy could have been in the middle of writing a long report when the computer crashed and all the work was lost, and it could have been a long while before they could start over again. Now, with virtual desktops, if a deputy is in the middle of a report and the computer dies, the IT department can simply rip and replace with an off-the-shelf thin client. The deputy can then log back into their virtual desktop and continue where they left off. Also, the deputy has the options of switching from car to car or even to other computers inside physical offices and still have their individual desktops without losing valuable time or work. Same goes for the 911 dispatch division. Rankin County Sheriff's Office has 5 dispatch workstations, and in the past when one workstation had computer problems, that workstation was down for the count until the IT department found the necessary parts or in some cases ordered a new system, which could take days to complete. Now, with the success of the virtual desktop project, 911 dispatch workstations are only down for a matter of a few minutes before they are fully functional again, and the dispatchers can pick right back up where they left off without any lost productively or work.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

Below is an email I sent out a couple months ago: Virtual Computing Success Story! Just wanted to share a good story about the virtual computing process the IT department has been implementing throughout the county. A Sheriff's Office 911 dispatch PC computer workstation went down today. IT staff diagnosed the problem as a severe hardware fault, motherboard, etc. Basically the computer was broken and no quick fix. Critical 911 functions were impeded and limited because one of their 4 workstations was completely inoperable! Before virtual computing was put in place in dispatch, it might have taken several days or longer to get this workstation back and functioning because the PC computers in 911 dispatch are high-end workstations with specific and expensive parts and components, and could not be swapped out with just any old spare PC. They also have very unique and specific software that must be configured. We would have had to order the parts and have them shipped (several days) or maybe even purchase a similar replacement PC (around $2,500) with up to two weeks delivery time. Plus, there would be additional time for IT staff configuring, testing, etc. Luckily, the Sheriff's Office 911 dispatch center has been fully virtualized. When this old, expensive computer died, IT staff simply unplugged it and replaced it with a much cheaper ($500) virtual terminal. Within less than five minutes, this dispatch workstation was back 100% functional with no loss of work. The dispatcher's virtual desktop was returned "exactly" where they left off when the older, expensive computer died, even to the comma in the sentence where they were typing a report. Also of note is that the virtual terminal that was replaced is not only considerably cheaper but also much more efficient than the older computer it replaced.