Denton Central Appraisal District

Enabling Mac users to run Windows Application
A Case Study

Background

The mission for Denton Central Appraisal District (Denton CAD), based in Denton Texas, is to appraise property for property taxation purposes and to strive to maintain 100% of market value, allowing local funding for the school districts and ensuring that appraisals are performed in an equal and uniform manner in order that taxpayers pay only their fair share of the property tax burden.

Recently, Denton CAD's IT department was faced with a particular application and desktop challenge. The 3rd party software needed for their employees to do their jobs only supported Windows, while the majority of the organization utilized Mac Minis. The IT team had to find a cost-effective solution that kept end users functioning in an optimal, streamlined way, while maintaining end user satisfaction and minimizing cost.

> Recently, Denton CAD's IT department was faced with a particular application and desktop challenge.

The IT team came up with 3 possible scenarios, gave each one a code name, and performed a decision process analysis:

1. Wonder Woman
Allow the software to run via a local Parallels Desktop installation.

2. The Hulk
Running Windows OS natively on Mac hardware.

3. Black Widow
Running the software via a Virtual Desktop Infrastructure (VDI.)

In order to assess the benefits and challenges of each scenario the team focused on five particular success criteria:

1. Supportability and deployment
2. Short term troubleshooting capabilities
3. Site Upgradability
4. Security & Patching
5. Scalability
6. Speed (End User Happiness)

Benefits & Challenges of Each Scenario

Wonder Woman

For the Wonder Woman scenario, the team looked into using Parallels Desktop to run a virtual instance of Windows on a Mac OS desktop. This solution requires running both Mac OS and Windows OS simultaneously and required hefty resource requirements. Even more so, as the Windows OS would be running an application it would be highly CPU intensive. In order to accomplish this, it was discovered that hardware upgrades would be required. And there was additional staffing cost required as it would be very labor-intensive as each end-user Mac Mini would need to be physically handled and upgraded. This also required additional capital outlay. The performance was ranked as a speed of "55 mph" for the end-user, decent and tolerable. Regarding the **5 point** assessment, all areas were doable, but supportability and deployment was the biggest challenge.

In addition, as an instance of Windows would be used on each Mac, it requires the IT team to need to maintain the windows patches, and antivirus on each of the end user computers.

The Hulk

For the Hulk scenario, the idea was to run windows on the Macs natively. In order to achieve this, the team would convert all employees back to running Windows, upgrading their Windows security patches, and of course replace all end user OS platforms to Windows one-by-one. This plan also represented a very **labor and capital intensive** plan:

- install Windows

- upgrade the memory of each Mac (it was found Windows struggled to run all the required applications with 8GB currently deployed)

- comprehensive anti-virus and security upgrades strongly recommended

Not to mention, running Windows on a Mac is not the best use of a Mac! The performance was ranked as a speed of "40 mph" for the end user. A speed degradation was sure to lead to unhappy end users frustrated with slow equipment and poor performance.

An additional extension project was considered as part of the Hulk project code named Bruce Banner. This idea was to simply replace everyone's Mac Mini machines with the Dell laptops but that was dismissed early on as it was too costly.
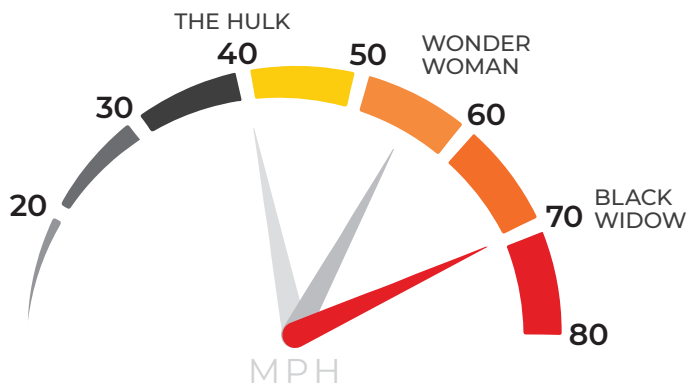
Black Widow

For the Black Widow scenario, the organization considered deploying a Virtual Desktop Infrastructure (VDI) powered by **HivelO's Hive Fabric**. Hive Fabric would run on the servers in the Denton private cloud. Existing servers which had been retired would be repurposed for this use. No Mac hardware upgrade would be required to run VDI so no capital was required for upgrades. The application, once limited by the

power of the end user's computer, was now limited by the server's power, all resulting in performance for the end user to be rated as "70 mph" or a better than desktop experience. The limited IT staff did not have to touch each individual Mac, and only manage a single Windows template, saving considerable time and money in IT staff time. The team also noted the added benefit of being able to run the application from ipads or any other device with a browser, and as well as remotely.

Black Widow for the Win!

Taking into account end user performance metrics, and the cost associated with each scenario, there was one clear winner.

Black Widow was the clear winner - deploying VDI using HiveIO's Hive Fabric technology.

With the least amount of overhead staffing, little time investment, no additional security software, and low IT tickets and support, the winner was clear. The best part was end user satisfaction! The users did not have to give up their Macs, install any new software or hardware and were able to experience the best performance using any device from anywhere, including their personal tablet.

Hive Fabric performed with unmatched speed, bringing the power of data center servers to the end user. Easily configured and deployed, minimal staff training required, future proof with easy scalability, long term ease of upgrades with a centrally managed Windows deployment. Black Widow also allowed for roll out to be 100% remote for each end user, a huge win amid Covid-19 concerns and requirements. The solution not only allowed the end users to remain remote, it allowed them to keep their Macs AND it provided an improvement in speed for the application resulting. Delivering the best performance at the lowest total cost of ownership, it was a clear win-win decision for the IT organization and the end users.

Across the five success metrics, HiveIO's solution checked all the boxes.

See how HiveIO can help your organization drive down IT cost, reduce business risk and IT tickets, all while improving end user productivity with Hive Fabric, the industry's best all-in-one VDI platform. Test it out for free here.