

Consolidate power first, distribute services second.

SEMF is an independent engineering, environmental and management consulting firm. Greenlight was tasked with providing a consolidated, geo-redundant Virtual Desktop Infrastructure deployment for Drafting and 3D modelling applications.

SEMF offers a wide range of professional services spanning engineering, environmental consulting and management. With 85 staff operating 3 branches in NSW, VIC and TAS with many remote sites throughout Australia and New Zealand, they play a critical role in the building and property, manufacturing and processing, and energy and resources industries.

The Situation

SEMF had a need for their users to access AutoCAD, Revit, Inventor, Tekla and other graphics intensive applications from a central location. The system had to be highly-available, high performance while also being cost-effective.

Up to this time they had been utilising high-end desktop and laptop PCs with discrete graphics adapters that were only operable by a single concurrent user without the ability to access remotely (unless they took the laptop with them).

This resulted in average costs of up to \$8,000 per user just for the required hardware to run the equally expensive rendering and algorithmic applications on top. This existing methodology wasn't scalable or sustainable.

Snapshot

Industry: Engineering & Architecture

Cities: Sydney, Melbourne, Hobart + around Australia

Challenge:

- Delivery of a geo-redundant, cost-effective, remotely-accessible graphics platform for up to 40 concurrent users.

Services:

- Managed IT Services
- Network & Server Infrastructure

Benefits:

- Exceptional graphics performance
- Highly-available virtualisation platform
- 50%+ reduction in user hardware costs

“Many employees require access to graphic-intensive CAD applications whilst also remaining mobile and able to work from anywhere. To achieve this Greenlight provided and manages a Citrix nVidia-based VDI deployment across the primary sites for staff to be able to access and render projects on and off site without requiring PCs/Laptops with high-end GPUs for every user to work from or carry around with them.”

Allan Waitzer - Executive Director - SEMF Pty. Ltd.

The Solution

To begin with, a site-wide audit was conducted to understand the topology of the current network and infrastructure.

A review with SEMF management and relevant software vendors was carried out to ascertain software, hardware and user requirements.

Specifications of network and server hardware and software to deliver the required solution was compiled and a project proposal created.

A pre-implementation evaluation with SEMF management was conducted to validate the proposed solution and include any amendments and additional requirements.

The new systems were put in place and the infrastructure built alongside the existing environment to minimise workflow disruption.

A pilot group of trial users were given access to the new environment for user acceptance testing and feedback.

After the testing period was completed, the branches were sequentially cutover several weeks apart to ensure site stability before the consecutive branch was brought in.

Once all branches were stable in production on the new environment for a month, the old environment and systems began being phased out of any production use. These systems were archived and retained solely for referencing purposes.

All redundant systems were tested with their various failover and highly-available configurations before being signed off as operational.

A post-implementation review was carried out including a user questionnaire to identify any persisting issues or anomalies with the new environment.

Once all outstanding issues were rectified, user satisfaction verified, a final review with SEMF management for project completion was conducted.

Ongoing monitoring, management and maintenance is carried out daily on all production systems.

The Benefits

Performance - With best-in-class hardware and software infrastructure designed specifically for SEMF's purposes now in place, users are able to take advantage of remote rendering capabilities regardless of the hardware specifications of the workstation they access from.

This means only minimal desktop and laptop hardware is required to deliver superior graphical processing power that can be accessed from the workplace, home, client sites on virtually any internet-capable device.

Redundancy - SEMF is now geo-redundant for their mission critical systems meaning they can survive a disaster at a single site without impacting the other branches.

The affected users can then log back on to the production environment from anywhere else and the redundant nodes will pick up the load whilst the affected site's systems are brought back online. Downtime for the affected users is minimal.

Cost Savings - Current and future users no longer each require expensive, high-spec hardware for running graphics-intensive applications such as AutoCAD, Revit, 3DS Max, Inventor, Tekla and Raster Design.

Consolidating the graphical processing power in remotely accessible, high-performance virtual clusters saves SEMF upwards of 50% of per user hardware costs over a 3-year period.

For more information about Greenlight ITC Managed IT Services and how it can benefit your business, call (02) 8412 0000 or visit www.greenlight-itc.com