

CASE STUDY

Evolve Energy



Leading by example: Evolve Energy builds a new Green IT Architecture with Apex

Benefits:

Working greener with:

Reduced energy consumption in the data centre and at the desktop by up to 75%

Expanded data storage capacity without increasing office space

Converged voice, video, data services to reduce carbon emissions of business travel

Working smarter with:

Improved security from centralised management

Improved customer service & responsiveness

Reduced administration overhead for desktop upgrades & deployments

Increased productivity and efficiency for telephone interactions

Background

Evolve Energy is a specialist energy management company based in Oxfordshire. Evolve focus on reducing energy costs throughout the business, from procurement through to consumption. They specialise in medium to large organisations that need a total energy solution and currently manage over 30,000 metered utility points throughout the UK.

In 2006, the company moved to a new headquarters in Wantage, Oxfordshire. In addition, the company has recently opened a purpose built contact centre, the "Energy Operations Centre" (EOC) in Manchester to handle all of their customer support requirements. This presented an opportunity to conduct a company-wide review to minimise the impact that Evolve's IT operations have on the environment.

Objective

As a strategic energy partner, helping businesses to address the challenges of managing energy costs, efficiency, carbon footprint and sustainability, Evolve was determined to lead by example.

Evolve's business ethic is to take a holistic approach to reducing carbon emissions. Aware of Gartner's estimates that the ICT Industry accounts for 2% of global CO2 emissions, Evolve wanted to start by optimising it's IT infrastructure.

Key Challenges

Evolve wanted to:

- **Build a new Green IT Architecture**
Evolve wanted to improve the energy efficiency of their entire IT infrastructure from desktop to data centre.
- **Support complex, mission-critical data analysis tools that demand significant computing power**
Evolve needed to build a robust, high-density, enterprise-level solution that would deliver continuous uptime.
- **Improved server and desktop utilisation rates**
Average utilisation rates are considered to be less than 1% for PCs and approximately 7% for servers.
- **Provide full contact centre functionality in a small office environment**
Evolve required the functionality of a traditional PABX based call centre application but without the associated costs.

- **Reduce administration overhead of managing the desktop environment, particularly due to rapid growth.**

Evolve is rapidly growing as a business and needed a desktop infrastructure that would allow the flexibility to provision new desktops quickly and easily, without significantly increasing the company's energy consumption.

The Solution

Whilst Evolve's expertise focuses on providing intelligent solutions that control and manage energy consumption, they turned to Apex for advice on how to optimise their IT infrastructure to make it as energy efficient as possible.

After consulting with Evolve to understand their key business issues and project requirements, Apex proposed that they could reduce their carbon footprint and improve their operating efficiency by building a new Green IT Architecture. This involved optimising their server, desktop, network and storage environments to maximise efficiency and energy saving.

Server & Storage Consolidation

Like most companies, Evolve were experiencing the challenges of meeting demand for both space and power in the data centre. They needed to balance their environmental objectives with the reality that their business involves complex data analysis, demanding significant computing power. Their mission-critical IT systems must deliver continuous uptime with no loss of service.

They already owned a number of tower servers, but to manage future capacity and reduce energy consumption, Apex recommended that they transition to a virtualised server environment. They installed VMware Virtual Infrastructure on the IBM BladeCenter platform providing a robust and efficient platform to support their business.

The installation of the blade servers represents the first stage in the full centralisation of their server and storage infrastructure. In the future, Evolve will incorporate a Storage Area Network that will improve the manageability of their storage environment, whilst maximising the benefits of the virtualised server environment and reducing energy consumption in the data centre.



CASE STUDY

Evolve Energy



After consulting with Apex, we're confident that our new Green IT Architecture represents best industry practice. We now have a powerful message to share with our customers: take our lead and you can reduce your carbon footprint while improving your operating efficiency.



Ben Higgins,
Group IT Operations
Manager
Evolve Energy

Desktop Optimisation

It's widely acknowledged that PC systems run well below capacity most of the time - generally less than 1% - whilst consuming high levels of energy. In its environmental review, Evolve wanted to focus on these issues and challenged Apex to architect a solution.

Apex recommended a "thin client," server-based computing model to replace all PCs throughout the organisation. This allowed Evolve to centralise the management of their desktop environment, whilst reducing processing power and lowering their carbon footprint. Furthermore, because thin client hardware has a longer lifespan and uses fewer components than conventional PC equipment, they now generate less computer waste and produce a far better return on investment.

Network Optimisation

Like many companies, Evolve's network had expanded throughout the company's development. In order to streamline network operations, Apex recommended that the company migrate to a single converged network for data, voice and video.

The solution was based on the Cisco Unified Communications platform and included the following technologies:

- Wireless network access to support mobility users and deliver campus-wide building connectivity
- Single device solution for data, voice, WAN, security and remote access
- Teleworker solution with VPN access, softphone clients and video calls
- Contact centre solution using Microsoft Dynamics CRM connector
- IP / GSM gateway for reduced cost for mobile phones

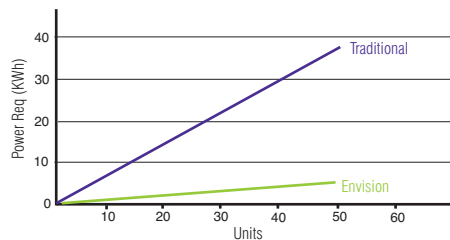
Looking ahead, Evolve are planning to extend their Unified Communications network to support new applications such as inter-site video conferencing, collaboration and application sharing, presence technologies and dual mode IP/GSM mobile phones.

The Benefits

Server and Storage Consolidation

Virtualisation has enabled Evolve to lower power and cooling costs, whilst providing a more space-efficient solution that extends the life of the data centre threatened by over-capacity.

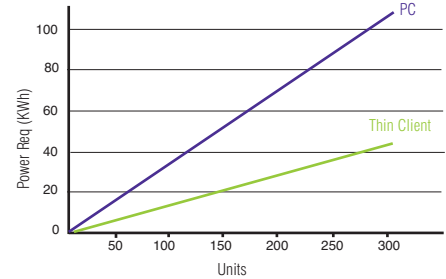
Operationally, they are now able to provision new servers in minutes, and to carry out maintenance and upgrades with little or no downtime.



The new Evolve server infrastructure has enabled them to make significant energy savings. This directly translates into a tangible reduction in operational costs and lessening of the company's impact on the environment.

Desktop Optimisation

Traditional desktop PCs consume in the region of 280 watts of power compared to thin clients which consume approximately 30 watts.



By combining the new thin client solution at the desktop with server optimisation, Evolve estimate that they have reduced their IT energy load by up to 75%. In addition, the company can take advantage of the operational benefits of improved security from centralised administration of data and applications and reduced administration overhead.

Network Optimisation

As Evolve streamline their network operations onto a single platform, they are beginning to apply the principles of industry best practice in green computing. The company is already using the enhanced network to deploy remote diagnostics of customer issues to avoid the need for engineer callout and associated travel costs.

They also aim to widen the deployment of video conferencing to reduce the need for business travel. By supporting remote workers with VPN access, Evolve can accommodate an expanding workforce without provisioning a desk for every employee.

Using Cisco Unified CallConnector for Microsoft Dynamics gave Evolve a complete and easy-to-use CRM solution. This allowed Evolve to significantly improve customer support and responsiveness whilst increasing productivity and efficiency.

In meeting the business challenges of building a new Green IT Architecture for Evolve, Apex has also helped the company to apply new technologies that deliver improved operating efficiencies. Thanks to Apex, Evolve is now working both **greener** and **smarter**.

About Apex

Apex provides proactive technology solutions and services designed to optimise your IT infrastructure. Through our wealth of knowledge and experience we aim to deliver clear business benefits that give you the competitive edge that you need to compete in today's economy.

Apex will work with you to ensure that your IT infrastructure meets your precise business needs and objectives, in the most cost-efficient manner and we pride ourselves on keeping customer satisfaction at the highest levels possible.

