



## Case Study: UKCES



*“The UK Commission for Employment and Skills (the Commission), established by Government in April 2008, is a key recommendation in Lord Leitch’s 2006 review of skills. With such a complex network of websites and hosting platforms, the Commission needed to centralise its hosting platform to one data centre and upgrade the network infrastructure.”*

### Customer: UKCES

**Website:** [www.ukces.org.uk](http://www.ukces.org.uk)

**Number of employees:** 100+

**Country:** UK

**Industry:** Public body

### Customer Profile:

Highly rated for its competence in providing strategic leadership skills and advice on employment issues to businesses operating across the UK.

### Software and services:

- Virtualisation - Installation and configuration of a VMware vSphere solution
- Data Centre Services - Installation and configuration of six servers within the virtual platform
- Cisco Hardware Installation
- Microsoft Software Expertise

### Business Needs

The UK Commission for Employment and Skills (UKCES) is a Non-Departmental Public Body providing strategic leadership on skills and employment issues in the four nations of the UK. Established in 2008 and working from various geographical locations, UKCES comprises a social partnership that includes CEO’s of large and small employers across a wide range of sectors. There are multiple divisions within the Commission and in 2010 UKCES also became champion and guardian of Investors in People (IiP) - another public-body that aims to improve business performance through investment in staff.



After amalgamating with IiP, UKCES inherited the IiP website - a collation of various partner websites that were all being hosted in different locations. Due to continued development of the IiP websites and the increased demands being made on the public facing presentation, UKCES felt the hosting all of the websites needed to be centralised, resilience improved and surplus hardware streamlined and utilised more effectively.

Knowledge I.T were in the unique position of being able to provide all of the Data Centre, Internet connectivity and engineering resources required by the Commission, without having to outsource to third parties. Also benefiting from previous experience of working with public sector organisations, Knowledge I.T was able to provide the Commission with a tailored a business proposal, design and costings to suit their business needs.

### The Solution

The project proposal submitted by Knowledge I.T as part of the tender process suggested shared, multi-tenanted I.T resources that could be accessed over the Internet and would be built, hosted and maintained within Knowledge I.T’s Data Centre. The proposal also allowed the re-utilisation of the Commission’s existing and surplus hardware, with minimal upgrades.

The Virtualised environment was built using HP Servers, EMC storage, VMware vSphere technologies and the latest Microsoft software suites which were secured by a Cisco backbone infrastructure.

The solution was implemented in 4 key phases with full project management to ensure that each phase was realised its objectives successfully.

## Phase 1

### Introduction of hardware at Knowledge Data Centre

This phase saw the installation of the hardware and the commissioning of this hardware into the rackspace within the Data Centre and also the creation of a site-to-site VPN between the Data Centre and UKCES offices. Two Cisco 3750 switches were used to provide connectivity between both the physical and virtual servers, whilst also allowing the creation of several vLAN's to be used for both the VMware infrastructure and the DMZ.

## Phase 2

### Installation & configuration of VMware vSphere ESXi 4.1

VMware vSphere ESXi 4.1 was used as the chosen virtualisation platform for the three HP DL 380- G5 servers. Once they were integrated into the LAN and presented within the Data Centre, these hosts facilitated the creation of a virtual machine to act as a vCentre Server.

## Phase 3

### UKCES Domain integration

This phase saw the UKCES Active Directory domain diversified across the Site-to-Site VPN by introducing a Domain Controller within the virtual environment.

## Phase 4

### liP website environment

Following the successful completion of phases 1 to 3, a series of virtual servers were created and configured within the DMZ, allowing their external connectivity.

### The Benefits:

Knowledge I.T was able to work within UKCES's budget and still provide an entirely bespoke and secure solution. By reconfiguring the Commission's hardware, service levels were enhanced and the I.T administration was simplified without any need for large capital expenditure.

It took Knowledge only three weeks from its initial design concept to completion and subsequent handover to UKCES. Working quickly and efficiently, Knowledge delivered a dynamic infrastructure that would expand with the organisations ever changing and demanding I.T needs.

### Reliability

UKCES requires all of its websites to be highly available to the public to ensure services are accessible. As a result of building the central and virtualised environment, Knowledge I.T has guaranteed 24x7 uptime for the Commission staff and clients.

## Increased Resilience

Knowledge I.T's Data Centres are one of only a few in the UK to hold the ISO 27001 (Information Security Management System) accreditation. This means that UKCES now has one of the most robust and secure infrastructures and back-up systems available - giving it complete peace of mind for business continuity.

## Environmental credentials

UKCES no longer needs to house multiple servers in multiple locations. Having one virtualised server infrastructure within highly available energy efficient Data Centres means that energy usage has lowered and UKCES's carbon footprint reduced.

## Ease of use

One of the additional key benefits of a virtualised environment is that if UKCES has a requirement to further expand its operations in the future, they can do this easily and quickly with the new infrastructure implemented by Knowledge I.T.

**KNOWLEDGE I.T**

 **vmware** | authorized  
CONSULTANT

**EMC<sup>2</sup>**  
  
**VELOCITY**  
AFFILIATE  
PARTNER

  
**CISCO**  
PARTNER  
Premier  
Certified

2011  
Preferred Partner  
GOLD  
  
Computing Systems  
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