



Case Study: Public Health England & NDTMS

1000+ users across UK

Technology

- VMware VCenter, ThinApp, VSphere Enterprise
- HP Blade Servers, HP Fibre SAN, NetApp Filer SAN
- Microsoft Windows Server 2003, 2008r2, 2012
- IIS 6.0/7.0 Web Servers
- ASP.NET, Microsoft SQL Server 2005, 2012 Clusters
- Multiple Segmented and Secure VLANs using Cisco Layer 3 Switches
- Cisco Load Balancers with SSL Certificate Termination

Background

Public Health England (PHE) is an executive agency of the Department of Health that began operation on the 1st April 2013. Its formation came as a result of reorganization of the NHS. It took on the role of the Health Protection Agency and the National Treatment Agency for Substance Misuse and a number of other health bodies.

JADE have been working with the National Treatment Agency for Substance Misuse (NTA) since 2001 and initially responsible for a major refresh of their internal IT infrastructure, including a major migration of over 300 internal users and 8 remote offices. Consequently since the successful delivery of numerous internal NTA infrastructure projects we were given ownership of the support of the NDTMS environment. This set of systems is responsible for a whole host of data collections and reporting around Alcohol and Drug Usage across the UK. This system was developed internally by an in-house .NET / SQL server team. JADE's responsibility was the implementation, management and support of the infrastructure which underpins this system. This encompasses the hosting of the production environment within a secure data centre and design, setup and management of the hardware and a large number of hosted servers.

Solution

JADE has provided a few key solutions to PHE, formerly NTA, to date as follows:-

- Design of the overall system architecture within which the NDTMS systems operates.
- Setup of original vSphere environment into a fully managed blade environment.
- Setup of HP Fibre SAN and NetApp Filers with full SAN to SAN replication.
- Setup of Data Warehouse for Reporting Purposes.
- Setup of fully redundant and clustered SQL Server Farm.



- Configuration and deployment of fully resilient load balancers to share HTTPS requests across a 10 server Windows 2008 frontend IIS farm.
- Internal IT Systems Rationalisation and Support: as part of the successful tender award, JADe has been responsible for the rationalisation of the PHE's originally dated and poorly performing IT infrastructure. This resulted in the replacement of 20 physical servers with 4 servers' setup in a virtual server environment. In addition, the implementation of the support service replaced 2 full-time on-site staff with a JADe first line consultant and an escalation point to the JADe service desk team.

Implementation

- Physical servers greatly reduced saving power and cost
- Virtualization technology runs multiple Server 2008, 2012 virtual servers, including a Windows server 'farm' which can be expanded or reduced in capacity depending on demand
- VMware vCenter load balances performance, manages resources and alerts any issues
- High performance, highly redundant HP and NetApp storage array provides storage (SAN)
- Migration carried out in a phased approach minimizing disruption
- Full helpdesk support via JADe Service Desk, plus a dedicated effective full-time resource provided on-site

Key benefits

- Highly scalable architecture which has supported very significant growth in data capacity and processing.
- The ability to "turn up" available resources using a turn-key approach on delivering new servers when needed during high volume data processing periods during the month.
- Highly resilient architecture with full SAN to SAN data replication for the SQL Server Infrastructure.
- High-end reporting platform which is delivering key benefits in management information and trends.
- Due to highly sensitive nature of the data being stored, JADe have been responsible for delivering a highly secure managed data environment.
- 99.9% proven uptime on the core architecture which we have managed for the last 10 years.

Testimonial

"JADe have been indispensable to us in setting up and maintaining our corporate information systems. From the initial specification and configuration of our network and e-mail, to expert support for large complex national patient information systems, their advice and technical support has been both professional and effective"

Malcolm Roxburgh, NDTMS Programme Manager.