



Pygmalion implements resilient messaging system for The Highways Agency with Microsoft-Powered Solution

Overview:

Country: United Kingdom

Industry: Public Sector

Customer Profile

The Highways Agency is responsible for operating, maintaining and improving the strategic road network in England on behalf of the Secretary of State for Transport.

Business Situation

The Highways Agency requires a highly available and resilient messaging system to keep over 3000 staff, spread across 12 offices and the field, in constant and reliable communication.

Solution

Migration from Windows 2000 and Exchange 5.5 to Windows 2003 Active Directory and Exchange 2003 Enterprise Version, including upgrading clustered Exchange servers.

HP servers and HP StorageWorks SAN solution

Benefits

- Faster restore times for mail databases and individual mailboxes
- Larger mailbox storage capacity
- Faster user access and performance
- Easier administration and lower costs
- Highly configurable to the organisation's needs
- Powerful and easy to use remote and mobile e-mail access
- More powerful security

“Upgrading to Windows 2003 and Exchange 2003 has brought us significant benefits. Our infrastructure is less complex and time consuming to maintain and our end users experience faster access and greater reliability, enabling them to work more effectively.”

Penny Dean, Project Manager, Highways Agency

The Highways Agency is an Executive Agency of the Department for Transport and is responsible for operating, maintaining and improving the strategic road network in England on behalf of the Secretary of State of Transport. This is a crucial public service relied on by millions of individuals and businesses throughout the country.

Supporting this operation requires a highly available and resilient messaging system. Over 3000 staff, spread across 12 offices and in the field, are required to be in constant and reliable communication. Personnel in the field require easy-to-use mobile access and the business requires large amounts of e-mail to be stored. In the event of a loss of data or system availability, restore times must be swift to ensure business continuity.

In order to cope with a dramatic increase in the use of e-mail and to better meet the requirements of its mobile users, the Highways Agency upgraded its messaging infrastructure to Windows 2003 Active Directory and Exchange 2003.





“The principal objective was to design a highly available and resilient infrastructure. This was achieved through the utilisation of clustered HP servers and HP

StorageWorks SAN (Storage Area Network) technology. It was also vital to ensure that there was no disruption to the work activities of the end-users.”

Alwyn Williams, Technical Director, Pygmalion

Situation

The Highways Agency was running Windows 2000 Active Directory and Exchange 5.5. The messaging infrastructure was likely to come under considerable stress as the requirements of the Highways Agency increased.

A dramatic increase in the use of e-mail would result in a very large single database on each mail server which would exceed the design limits. As a result, restore times could be expected to increase and cause significant disruption to end users.

Database de-fragmentation was not possible which led to slower access. The increasing need for remote and mobile e-mail access was not being adequately provided.

It was necessary to run two directories for Exchange 5.5 and Active Directory and administration was time consuming and complex.

Finally, security demands were increasing and challenging the current installed technology.

Solution

The Highways Agency enlisted Pygmalion, their technology partner, to help them with the project. Pygmalion is a triple Microsoft Gold Partner and has a long running history of working with the Highways Agency. In 1998 Pygmalion undertook a strategic review of the Highways Agency's operating system platform resulting in a recommendation to migrate the network from Novell Netware and GroupWise to Windows NT and Exchange, including integration with Open/VMS. In 2002 Pygmalion

assisted in an architectural review of Windows 2000 Active Directory.

Pygmalion's IT Solutions division worked with the Highways Agency and their in house contract partner (Amey IT Services) to conduct a detailed analysis of the business requirements and technology options available to overcome the current problem with the messaging infrastructure. It was agreed that the Highways Agency should upgrade the messaging infrastructure to Windows 2003 Active Directory and Exchange 2003. Clustered Exchange servers were already in use and these were also to be upgraded.

“The principal objective was to design a highly available and resilient infrastructure. This was achieved through the utilisation of clustered HP servers and HP StorageWorks SAN (Storage Area Network) technology. It was also vital to ensure that there was no disruption to the work activities of the end-users.”

Alwyn Williams, Technical Director, Pygmalion

Pygmalion developed a detailed implementation plan and worked with the Highways Agency to complete the following key activities:

- A comprehensive pilot system was built to test the new infrastructure.
- A gradual migration of the existing infrastructure, ensuring no system downtime and end-use disruption.
- Complete removal of Exchange 5.5 server infrastructure.
- Optimising and streamlining of Windows 2003 Active Directory.





“Previously, it could take us days to restore a single mail box. The Recovery Storage Group and Shadow Copy features of Exchange 2003 enable us to perform this task in a matter of minutes with no disruption to our end-users.”

Penny Dean, Project Manager,
Highways Agency.

Benefits

The project was completed successfully and the Highways Agency's 3000 users are now profiting from a highly available and resilient infrastructure. The business benefits are felt throughout the organisation.

Faster restore times for mail databases and individual mailboxes

Exchange 2003 enables multiple small Group and Volume Shadow Copy features, it is possible to restore mail databases and individual mailboxes quickly and easily.

“Previously, it could take us days to restore a single mail box. Exchange 2003 enables us to perform this task in a matter of minutes with no disruption to our end-users.”

Penney Dean, Project Manager,
Highways Agency

Larger mailbox storage capacity

Business requirements necessitated the need for large mail stores. Exchange 2003 Enterprise Version provides unlimited capacity and less time is now required for day-to-day mailbox management and archiving.

Faster user access and performance

Exchange 2003's multiple smaller stores mean database defragmentation can be achieved efficiently. This increases speed and overall performance for end-users.

Easier administration and lower costs

A single integrated directory is available for Windows 2003 with Exchange 2003, making administration simpler and more efficient.

Highly configurable to organisation's infrastructure needs

Using Windows 2003 Active Directory it was possible to create a highly customised design to meet the needs of the Highways Agency's infrastructure such as customised replication paths.

Powerful and easy to use remote and mobile email access

Exchange 2003 provides outlook web access that almost mirrors the full outlook client functionality. Also, mobile email access is easily and cheaply implemented utilizing built-in services.

Powerful and easily managed Security

Windows 2003 and Exchange 2003 together provide powerful, integrated and easily managed security, using security standards such as Kerberos authentication and IPSEC.

Contact Information:

For more information or to arrange a consultation with a Pygmalion consultant contact us on:

Telephone: +44 (0) 207 680 9499 | Email: consulting@pygmalion.com | www.pygmalion.com

For more information about The Highways Agency contact:

Telephone: +44 (0) 8457 50 40 30 | www.highways.gov.uk

