

PROFILE

**Industry**

Environmental

Corporate Headquarters

Stirling

Employees

1,400

Websitewww.sepa.org.uk

ENVIRONMENT

VMware Products

- vSphere
- vCenter
- VMware Site Recovery Manager

Applications

- Oracle Database servers
- SQL
- Agresso Finance System
- Qpulse Quality management
- Support-works Helpdesk
- Facilities Management
- Serengeti Document management
- Canon Uniflow
- Platform
- Hitachi AMS
- HP Blade Servers

Scottish Environmental Protection Agency relies on VMware to keep public information systems up and running

"We simply can't afford to have an IT system that could go down and leave the public exposed to natural disasters without warning. Virtualizing with VMware was the best way for us to ensure all our systems were kept up and running at all times. Since virtualizing, we've had 100% uptime across all our applications"

— Alastair Rennie, Head of Information Services, SEPA

The Scottish Environment Protection Agency (SEPA) is Scotland's environmental regulator accountable through Scottish Ministers to the Scottish Parliament. Its main role is to protect and improve the environment by helping business and industry to understand their environmental responsibilities, and enabling customers to comply with legislation and good practice and to realise the many economic benefits of good environmental practice. SEPA is also responsible for running Scotland's flood warning systems and reporting on the state of the Scottish environment. It employs 1,300 people across 26 offices within Scotland.

With so much information to manage and critical services to deliver, SEPA's server estate grew to over 140 physical servers. Its data centre had run out of space and cooling, data storage was becoming an issue and its demands for additional power could not be met. With concerns over resilience and the spiralling costs of maintaining such a large infrastructure the IT team chose to virtualize with VMware.

"Our IT systems are fundamental to what we do, whether it is regulating pollution and waste or keeping the public informed about natural disasters and environmental impacts, it is imperative that all of our systems perform without fault," comments Alastair Rennie, Head of Information Services at SEPA. "For instance, we have to deliver 24/7 flood warning services, so many people rely on us to keep them updated. We therefore can't risk our systems going down just when a flood is about to hit."

With the aim of delivering a highly available, fully resilient infrastructure at the heart of its requirements, SEPA initially decided to virtualize part of its infrastructure. "We initially planned to virtualize 60% of our estate, however it became clear that providing support for a resilient, fully virtualised infrastructure was far easier and lower cost than for a partially virtualised infrastructure," continues Rennie. "We therefore decided to virtualize all our infrastructure, with VMware's SRM also deployed to ensure 100% uptime."

SEPA has now virtualized all core business systems, including its Finance, Licence Management, Helpdesk and document management systems, with 30 terabytes of data now virtualized on vSphere and protected by SRM. Around 400 other smaller applications are being virtualized progressively, to deliver a fully virtualized application set by the end of 2012.

Included in SEPA's fully virtualised IT estate are its many Oracle based applications. Used by SEPA's 1,300 staff on a daily basis, of the Oracle architecture supports all its critical business tools. Although SEPA's initial perception was that the Oracle architecture would be difficult to virtualise, the technical deployment for the whole

“From some people we had an ‘if it isn’t broken don’t fix it’ attitude to IT. We had to show them the prospective benefits of enhanced availability, faster speed of new application deployment and the major cost savings on offer in order to get their agreement. The virtualization program has delivered on the promise and the business owners are very happy”

- Alastair Rennie, Head of Information Services, SEPA

of the Oracle database and applications ran smoothly. “In spite of our initial concerns, virtualizing a complete Oracle instance is not complex, as long as you approach the technical design carefully and apply good principles for architecture and sizing. Since we virtualized Oracle over a year ago there has been zero downtime and no performance issues,” notes Rennie. “Protecting Oracle and all the other applications with SRM was also straightforward.” He added.

As a result of the virtual environment, SEPA has achieved the business resilience that is so critical to the organisation. Automated failover with SRM provides the fast and reliable recovery needed to help SEPA ensure all their applications have a two hour recovery point objective and a 24 hour system recovery time. Before virtualization, it would take the IT team at least two weeks to recover critical applications and up to three months for others.

As well as the business resiliency, SEPA has managed to save significant data centre space, while also saving an estimated £100,000 of hardware costs. With the company focused on monitoring environmental issues, it has also managed to reduce its own energy consumption by 30%. “Virtualization is a significant enabler for energy consumption savings. In the business we’re in, we need to be encouraging people to look out for the environment and virtualization has helped us to lead by example.”

