About the Atos Origin Alliance

The Atos Origin Alliance is a unique alliance, created between Atos Origin, BT, IBM and Sopra Group, to provide NHSScotland with the ultimate team, to support the Scottish Health Service of the future. Our aim is to use our extensive capability, capacity and experience to support all NHSScotland organisations in improving patient care for the people of Scotland.

The partners within the Atos Origin Alliance have over 7,500 staff in 45 offices throughout Scotland, delivering IT services solutions to customers across the country. The Atos Origin Alliance has the capability to fulfil the widest spectrum of requirements, the capacity to resource the largest projects, and the experience, gained through working with customers across the globe, to meet all of NHSScotland's eHealth needs now and in the future.

To find out more about the Atos Origin Alliance, please visit: www.aoalliance.co.uk (accessible only from NHSScotland and AOA networks).

ATOS ORIGIN
Alliance

ABOUT THE ENTERPRISE ARCHITECTURE PLATFORM

The Enterprise Architecture Platform (EAP) is a shared environment created to support the applications operated by NHSScotland. Virtualised server technology makes it possible to deploy a new server much faster than a comparable physical server without investing in new physical hardware. The process can simplify server provisioning by building a virtual machine once and reusing it multiple times. It is an extremely resilient, secure and highly available platform which is scalable to support the organic growth of existing services as well as future applications.

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Capacity to perform live migrations with minimised downtime, undetectable to the user.

Scope and scale
The EAP provides the core platform onto which the majority of new NHSScotland services will be deployed, as well as existing services being considered for transferral as part of the Technology Refresh Programme. This platform is more flexible than physical servers and allows resources to be scaled up or down as required. Additional performance, memory or storage can be allocated to a virtual server more easily thus minimising the downtime associated with a physical server.

The EAP supports the technology used by the Atos Origin Alliance (AOA) in delivering services to NHSScotland. These are largely platforms served through Wintel and UNIX technology stacks.

The EAP is located at our sites in Livingston and Edinburgh, providing a fully resilient architecture to support NHSScotland users.

Technology Refresh Programme
The EAP infrastructure is the underpinning architecture which supports the Atos Origin Alliance's Technology Refresh Programme. This programme makes considerable efficiency gains by taking advantage of emerging technology innovations in order to replace older technology which has come to the end of its life. In the context of NHSScotland, this equates to the hardware and non-application software used by the AOA, being replaced on a rolling basis, dependent on the age of the assets and their operational requirements. This is the largest programme to be run by the AOA providing NHSScotland with state-of-the-art technology, every 4 years.

The EAP model allows the AOA to work more efficiently to deliver cost effective, robust and technically sound solutions by exploiting shared servers which optimise server utilisation.

Design
The design of the EAP is based on a shared service model which uses a shared chassis of blades and servers, allowing more than one logical service to be placed onto a physical server. Benefits are realised both through the use of virtualisation techniques for web and application services, and through co-hosting of multiple database services on shared servers.

These actions are aimed at making more efficient use of server resources, ultimately reducing the total cost of ownership for end users.

The design protocols employed are constantly being reviewed to ensure we make best use of the server resources available in the high specification employed within the EAP set up.

Virtualisation
A base concept of the EAP is that use of virtualisation using the VMware toolset to allow the optimal operational utilisation of the servers. VMware gives the AOA a great deal of flexibility in being able to deliver the solutions that match customer requirements, rather than being constrained by servers and floor space limitations.

The EAP can be adapted to be used to deliver true utility computing to users. This involves specifying a service for a short period of time and then turning the service off without the user having to incur prohibitive hardware and service charges. The progression of services from final route to production testing is made much easier as, once the service is accepted as fit for production, the technical services teams simply copy the final configuration and software onto the production servers, thereby ensuring that the final testing conforms exactly to the production infrastructure.

The green debate
The EAP gives the AOA the capability and capacity to deliver green IT solutions to NHSScotland. This is achieved through the use of less physical servers to deliver services, which in turn leads to a reduction in the amount of power required to run these servers. The cost of operating air conditioning units to cool the servers is decreased; there is better use of floor space since less physical servers are being deployed.

Infrastructure
The EAP infrastructure is used widely in large industries. It is made up of standard hardware supporting many applications. The main difference is the use of virtualisation to deliver the processing capability across all applications. The EAP infrastructure is represented in the diagram on the right.

FIGURE 1: EAP INFRASTRUCTURE
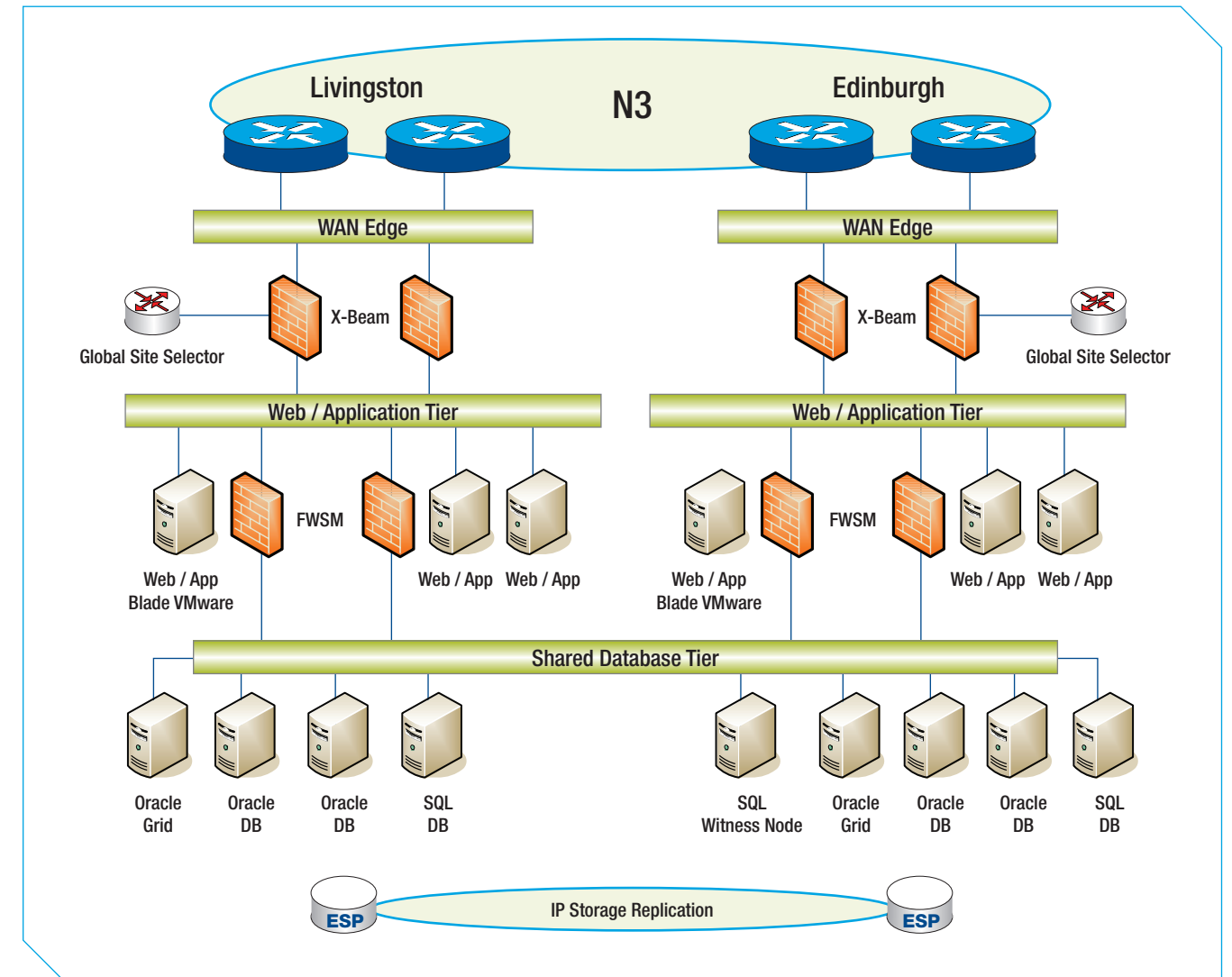
Benefits of the EAP
There are many benefits of using the EAP as a means of delivering services to NHSScotland.

Some key benefits are outlined below:

- Cost effective delivery mechanism for large scale services
- Highly available platform supporting contracted service level availability targets
- Ability to perform hardware maintenance without scheduling downtime and disrupting business operations
- Extremely resilient platform with full data replication carried out on a transaction commit basis
- Faster deployment times
- Capacity to perform live migrations with minimised downtime, undetectable to the user
- Reduction in utility charges due to less physical space being utilised to house servers
- Supports the majority of application designs – circa 95% of solutions
- Scalable solution to support future growth of services.

Next steps
If you would like to find out more about the EAP please visit the website www.aoalliance.co.uk