Oregon Enterprise Technology Services
Architecture Request for Proposals (RFP) Guidelines

Oregon Enterprise Technology Services (ETS) Customer Requests
ETS customers issuing RFPs to support application development initiatives often have hardware requirements. Standards and guidelines for equipment housed at the ETS are outlined below.

ETS Responsibility
The ETS is charged with providing hardware and software solutions that can be efficiently managed and supported. New agency or statewide projects should integrate into the environment and support mechanisms that the ETS provides so the highest possible savings is realized. Solutions that are outside the State’s consolidation efforts (e.g., third-party, vendor supported hardware and software) are not within ETS scope. With regard to hardware and licensed software (for new projects), the ETS will:

- Obtain the hardware needed to support the vendor proposed solution. This requires ETS to work with the agency to obtain the correct specifications as to appropriately scale the needed hardware. Likewise, the ETS acquires and installs licensed software platforms (i.e. WebSphere, .NET, etc.). The ETS and agency coordinates on the correct configuration(s) of these licensed software platforms.

- Work through its contracted hardware and software providers to obtain (and pay for) the needed software and licenses required to support the vendor proposed solution.

- Establish agreements, in conjunction with the ETS contracted hardware and software providers, addressing State required warranties and warranty periods. This agreement is between the State and State contracted hardware and software provider.

Vendor Responsibility
Vendors are encouraged to propose solutions which are compatible with the Oregon Enterprise Technology Services (ETS) IT infrastructure standards.

Assumptions
Vendors are expected to consider general ETS standards and conditions below:

1. **Software Solutions**: The solution architecture software:
   A. The software environment (language) should be “open” or built upon “industry standards” (e.g. WebSphere, Java, .NET, PHP, etc.)
   B. The software solution should run on open or “industry standard” operating systems (e.g. AIX, Windows, Z/OS, Linux)

2. **Hardware/OS Solutions**: ETS uses the hardware/OS Platform Standards below:
   A. pSeries: The ETS runs UNIX applications on IBM pSeries AIX
B. zSeries: State zSeries mainframes run applications under Z/OS v1.9

C. iSeries: State iSeries mainframes run applications under i5/OS

D. Linux solutions runs on Intel based hardware or on zSeries mainframe; ETS standard O/S for Linux solutions is SuSE.

3. Intel-Based Hardware/OS Solutions: The ETS uses the solutions listed below:

   A. Standard for deployment into Intel-based environments is to use virtualization technologies (VMware ESX) whenever possible. The platform selection is structured as follows:

      1. Explore deploying a virtual server first; if not viable, then

      2. Explore deploying a blade server second; if not viable then

      3. Deploy a standalone server

   B. Standardized on HP DL Series hardware. Any hardware brought into the ETS through this RFP process is configured to the ETS’s standard or, at minimum has the configuration quality assurance reviewed by the ETS.


4. Backup Solutions: ETS uses the Backup Solutions Standards below:

   A. Backups are made for all open systems platforms using Commvault Simpana 9.x.

   B. Backups are performed by the ETS and incorporate the Virtual Tape Library Architecture

   C. Database backups will utilize the Commvault Data Protection agent

5. Database Management Solutions: ETS supports the following database software:

   A. DB2 on Z/OS mainframe, iSeries mainframe and pSeries AIX

   B. Microsoft 2008 SQL Server

   C. ORACLE v11 on pSeries AIX

   D. MySQL on Linux and MS Windows

6. Storage Solutions: All platforms at the ETS use Hitachi SAN and ATL for data storage. The ETS provides a tiered storage environment to its customers with the
ability to use and allocate the appropriate storage type based on predetermined business classification and requirements. Storage tiers are created to support different I/O workloads. The tiers and their purposes:

A. Tier 1 (Disk): Highest availability with fastest performance (mainframe and databases). Suitable for high availability applications with high I/O.

B. Tier 2 (Disk): High availability with fast performance. Suitable for databases, file servers, etc.

C. Tier 3 (Disk): high availability with average performance (file servers, images and backup / archive). Not suited for high random I/O.


E. Tier 5 (Offsite Tape Storage): Available within hours or days. Suitable for archival, disaster recovery, etc.

7. Network Solutions:

A. ETS generally uses a frame relay (1.024Mbps) network, Ethernet (2Mbps – 10Mbps) and a direct digital (1.544Mbps) network. Some sites may have bandwidth as low as 56Kb. ETS uses MPLS VPN services to isolate agency networks on a shared infrastructure.

B. Standard protocols for ETS networks include:
   1. IPv4/IPv6 (in development)
   2. Ethernet (10/100 Mbps) is available for LANs
   3. Ethernet (1000 Mbps) is available for servers


8. Security Solutions:

A. The ETS is currently not PCI compliant nor does it have plans to become compliant.

B. The ETS is not currently configured for co-location standards.

C. The ETS will manage internal firewall configurations.
9. General Comments:

A. If business requirements include data encryption, The ETS prefers the encryption to be at the application level to cause the least disruption to infrastructure support.

B. Prior to implementation in the ETS’s production environment, new products should be installed in the ETS test environment and reviewed for system performance and consistency with ETS environments. Products found to be incompatible with the ETS environment will be modified as needed.

C. Software and applications shall use system standard protocols for security authentication (i.e., active directory for Windows, RACF for z/OS, eDirectory for Novell Servers, LDAP) rather than internal security methods.

D. The ETS will provide and support all services using a set of service management standards and processes based on the activities identified in the IT Infrastructure Library (ITIL) v3 Service Lifecycle. ETS staff, management, and contractors will adhere to the ETS”s documented standards and processes.

E. Implementation planning should include ETS Solutions Architecture involvement to discuss areas of concern; e.g.:

• Business criticality for this application

• Processes to engage agency resources for production issues during business hours

• Normal business hours for this application

• Any specific agency contacts that should be notified in case of an after-hours emergency

• Any special “seasons” of increased activity for this application where uptime is critical to the business
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Rates/charges
http://www.oregon.gov/DAS/ETS/Pages/rates.aspx

ETS Service Catalog
http://www.oregon.gov/DAS/ETS/Pages/services.aspx

ETS Facility Information
In 2005, Oregon state government finished building a new data center to serve the majority of the State’s computing needs. The design of the facility and its infrastructure meets the Uptime Institute’s standards for Tier III certification 99.9% uptime. The institute’s classification system creates a benchmark for reliable infrastructure design in data centers. Achieving Tier III standards means the State Data Center’s facility is a vast improvement over the state’s previous data centers. For more information: Contact: servicedesk@das.state.or.us (request to be logged and tracked; questions will be directly coordinated with appropriate subject matter expert).

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