

Enterprise Systems: LAN Server Operating System / Network Operating System

Definition(s):

The LAN server operating/network operating system (NOS) is the master control software that monitors/administers/controls all internal operations for the network server. This includes communications with other networked servers and clients via network interface cards and modems, managing security, authentication, authorization, reading and writing memory and storage devices, transfer of information to attached printers (file and print sharing), accepting management commands from both keyboard and mouse input and support for communication protocols, including TCP/IP.

Rationale:

A standard NOS for the enterprise must:

- provide a multi-purpose operating platform for all the significant infrastructure and business functions of a network including: file and print sharing, authentication services, applications, e-mail, database, communications, and Internet (Web) serving.
- integrate seamlessly with the standard desktop operating system and a wide range of business applications.
- provide a fully-integrated directory that handles user authentication, resource access control and resource management.
- be robust enough to support a hierarchical file and security structure that mirrors the structure of the enterprise that it serves.
- support users located in remote areas of the state connected in a variety of wide area network configurations.
- run industry-standard applications built using industry-accepted programming languages.
- provide a rich set of system management tools.
- have a large installed user base and local training opportunities.
- have a large base of ISV's, OEM's, and a large industry of companies to provide third-party utilities.
- have widespread certified technical support options.
- be the product of a strong, financially secure company dedicated to ongoing research and development in network operating systems.
- support a wide variety of industry-standard printers.

Approved Standards:

A 32-bit scalable, multitasking NOS with graphical user interface for Intel compatible platforms that supports the TCP/IP network protocol.

Supports Internet standards such as Dynamic HTML (DHTML), HTTP, and XML to publish and exchange information via the Web.

Supports connectivity-related technologies, including Asynchronous Transfer Mode (ATM), Dynamic Domain Name Server (DNS), end-to-end encrypted communications across a network with the IPsec standard, Fibre Channel, IP telephony (TAPI 3.0), Network Address Translator (NAT), routing and remote access service, virtual private networking.

Secure Sockets Layer/Transport Layer Security (SSL/TLS), Kerberos, PKI, encryption.

Approved Products:

Microsoft Windows 2003 Server

Linux distributions as described in IT Bulletin-05-04

Guidelines/Technical Considerations:

Careful consideration should be given to the hardware platform when running Windows 2003 Server. The average life span of a server operating system is four years (or more). Although the NOS will run within the minimum configuration suggested by the vendor, it is rarely sufficient to support the current and planned disk and memory requirements of *all* applications that will be supported by the server, including backup and server anti-virus protection.

Linux may only be used for specific functions as described in IT Bulletin-05-04.

Review Cycle:

As needed.

Timeline:

Issued: August, 2002; Revised: April, 2005.

Transition:

The transition period will be dictated by Department/Agency transition plans and should begin upon publication of standards and acceptance of the department/agency transition plan.

Procurement:

Microsoft Windows 2003 Server

Agencies should assess their requirements for the various server versions, with regard to multiple processors, maximum memory, and clustering, as well as client access licenses.

All Executive Branch agencies may purchase Microsoft software products via the State's Enterprise Agreement (EA) or Select Agreement. These agreements assure the most competitive pricing and provide purchasing statistics that the State can use to negotiate optimal software discounts in the future.

Numerous vendors are certified by Microsoft to provide EA and Select pricing, but only vendors who have also enrolled with the State can do so. When making a software purchase, OIT recommends that agencies contact these vendors to obtain price quotes, and compare prices before ordering.

For the latest information about enrolled vendors and the State's Microsoft contracts, refer to the Office of State Purchasing web page under the heading "[Volume Pricing Agreements](#)".

Linux

Agencies are responsible for applicable license compliance.

Date: _____

Approved by: _____