

The software industry has been intensively developed. The software applications are developed to satisfy all aspects' requirements of the living, from daily works to entertainment. In order to use those applications we need the computer. The servers are required in the operation environments which request the complicated applications to operate continuously, to be highly available and to have high performance with tremendous concurrent users. Based on the requirements of hardware performance, reliability, availability,... the servers are required suitable configuration (hardware architecture, speed, number of CPUs, amount of RAM and hard disk,...).



The operating system (OS) is normally mentioned together with computer and server. OS is defined as a middle component which manages hardware resources to support the user and software to successfully interface with the computer's hardware. In other view, OS is the system software which helps the user and application to operate the computer and server. OS provides the operation environment for the applications and a very important requirement is the high availability (HA). The cluster and HA solution are developed to meet the mentioned requirement. The cluster method may be in the OS itself or a separated system application. It supports many servers to run parallel in Active/Active or Active/Standby modes in the same or different sites.

Beside of normal multi - functions server, appliances (a server for one or some particular functions) have been developed and used popularly. The appliance has full optimized components for the designate functions including hardware, OS and functional software. Famous appliances in this trend are database and data warehouse server such as IBM Netezza or Oracle Exadata.

To enhance the efficiency of server hardware management, the virtualization solutions are developed and they're considered as an inevitable technology trend. Now a day blade server and blade server used together with virtualization solution is very popular because they can provide the flexibility in hardware resource management and the ease of administration.

In summary, the following main components need to be considered on sever solutions:

Server system
Technology and solution for the servers
Operating system
Virtualization solution
High availability solution(HA - Cluster)
Administration/Monitor solution

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Server is an indispensable device in an IT system. With nearly 15 year business, INFONET cooperates and provides to the customers many products and solutions from the top manufacturers and vendors:

- o **Server:** HP, IBM, Oracle/SUN, Dell, Cisco ...
- o **Operating system:** Microsoft Windows , HP UNIX, IBM AIX, Oracle/SUN Solaris, Redhat Linux
- o **Virtualization solution:** VMWare, Citrix, HP, IBM, Microsoft, Oracle/SUN, Redhat

- o **HA – Clustersolution**:Microsoft, HP, IBM, Oracle/SUN, Redhat, Symantec,...
- o **Appliance**:OracleExadata

The server system of many big enterprises were advised, designed, provided and implemented by INFONET, including:

- o Bank for Foreign Trade of Vietnam – Vietcombank
- o Bank for Investment and Development of Vietnam – BIDV
- o Vietnam Development Bank - VDB
- o Military Commercial Joint Stock Bank - MBBank
- o Northern Power Corporation – NPC
- o Vietnam Ministry of Public Security – MPS
- o ...