Linux implementation proposal essay

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Hardware requirements for Linux Implementation

The implementation of Linux will not require any change of hardware components of the computer. The current processor (CPU) specification is, in fact, more than enough as far as the requirements of Linux are concerned. The Linux supports processor types as from 80386 up to all Pentiums. Therefore, the current Intel Core 2 CPU used by Windows XP can be retained. As a result, LSDG will use the same hardware equipment that is currently used by Windows XP. The current memory used by Windows XP is 2GB RAM. . But Linux operating system requires a very small capacity of memory to execute in comparison with the remaining advanced operating systems. It supports memory as low as 8MB of RAM. I, therefore, propose that the current memory is retained for better performance (Eckert, 2015).

The current hard drive of 80GB is also sufficient for better performance of the Linux system. It should be noted that a hard drive is not even required to ensure the success of performance by Linux. However, using hard drive is the standard approach of running programs. Linux requires a small amount of space in the hard drive. The already existing 80GB can be used to install both Linux and other operating system. The current network card of 10/100/1000 Mbps is also ideal for use by the Linux since the specification needed for Linux plat form are lower as compared to the existing Windows XP. The operating system supports the use of multiple drives in one machine hence space can be allocated to it across many drives (Eckert, 2015).

The fact that the current computer hardware is to be retained implies that the same existing ports will be used for the USB, that is 4USB 2. 0. Linux supports every kind of monitor VGA, CGA, EGA, among others including Super VGA cards plus monitors for the normal interface that is based on the text. This means that a monitor and video card that works well under a different operating system like Windows also ought to work well with Linux. This means that as the hardware in our case is retained, the 15inch monitor will remain for use in Linux implementation (Eckert, 2015).

Plan for migration from Windows XP to Linux

The plan for migration involved making sure that the relevant tools needed for transition are available for the painless change. This is significant as an opening checklist because abrupt change without such consideration may bring about damage even to the extent of losing what is already available with no fresh implementation at all. The second plan is to ensure that there is a back-up for data as well as data imaging. It involves having a separate copy of crucial files stored in a different location that is reliable. The imaging for Windows XP may also be taken into consideration at this point. This is where you make sure that you do not proceed with anything else before confirming that copies of individual materials are backed up accordingly. The third plan is to understand the fundamental concepts of Linux and the necessary tools which comprise of appreciating disk notation together with disk partitioning. The inspection of older guides for twin –boot, counting XP and the specific Linux version to be implemented, their tutorial may also be necessary for extra information (Abdulrahman, 2016, Nimmerrichter, 2014).

The next plan is to consider partitioning of the existing hard disk as away of altering the layout of the disk. The different partitions created can be helpful for the installation of different software operating systems and applications where Windows XP can be installed in the first partition. The specific version of Linux to be implemented can now be boot from the ISO image, USB or other media in to live session. The setup of the system will determine procedures used on the system. The adjustment of the disk partition is carried out without messing up with the C: drive but changing E:, F: drives and so on depending on the number of partitions to be created. You can then have an overview of Linux by getting informed with the fresh user interface, phrases, fresh terminologies including other features and then start by altering the disk layout through partitioning. Here, the partitions are resized by creating new partitions. Up to this point, you can then start the wizard for installation of the new operating system, the Linux (Abdulrahman, 2016, Nimmerrichter, 2014).

Benefits of Linux: Justification of Linux to be implemented

The Linux Mint Qiana is the version to be implemented during the transition. This is because this version is readily available at nearly no cost since it is an open source. It is also robust, efficient and secure or bug-free as compared to Ubuntu, Slackware, Salix, and others. No further configuration may be required after installation of Mint. It also has an excellent manager for software since the outcome of any search within the software manager is arranged in an excellent manner, following the ranks, unlike Ubuntu. Linux Mint, especially version 17 does come with the already updated software. It

also comes with refinements along with several fresh features. This makes the desktop even extra comfortable to use (Ratajczak, 2015).

Hardware to be used and the Linux installation options

The minimum hardware requirements consist of x86 64 bit processor, 512 MB RAM, hard disk space of 5GB, 800xxx600 resolution capacity of graphics card with the USB port or DVD drive. All these requirements are already available within the existing hardware equipment being used by the XP platform. Therefore, no additional changes will be made as far as hardware installation is concerned. However, if the fresh installation is to be affected in the system, then some of the options include the advanced options which include booting by means of non-PAE CPUs, for Pentium M CPUs, Watching Flash DRM content, DVD playback with VLC, Issues with KDE apps among other options (Eckert, 2015).

Manpower requirements for migration from Windows XP to Linux

The manpower required for the transition will comprise of a network administrator, computer technicians, users of the system and the database administrator. The network administrator will ensure that there is smooth communication for all the connected clients and servers plus other desktops in the network after the change to Linux platform. The network administrator does these with the help of computer network technician who is responsible for the actual hands on experience on repair and maintenance of computer networks. The database administrator will ensure that the existing database is compatible and works well with the new Linux Mint platform. Users, on the other hand, will have to be present at every stage of transition as part of their training to ensure that they are well acquainted with Linux platform

regarding interaction as a way from ensuring that the day to day operations of the system about user confidence is intact.

How users will log into the Linux system

The users will log in to the system with the help of their user ID and passwords depending on the level of use. The passwords will be the unique secret codes assigned to every user to allow only the legal access to the system. It is thus away of blocking unauthorized users who may gain illegal access thereby corrupting sensitive files. The level of use defines the type of information that each user is to access. This means that not every portion of information is made visible to every user. As an example, a database administrator will be treated as a high-level user while secretaries are low-level users each of which requires accessing completely different information.

How systems will receive IP address

The network administrator will have the task of configuring the Linux system so that computers can communicate with each other in the network. The use of ifconfi command will allow the database administrator to configure the interface of the system. The ifconfig permits initialization of the interface and assign the IP address to it. This permits the enabling and disabling of the system interface when needed. Once each system receives the IP address through ifconfig command, the administrator can then test the connectivity of any two nodes by use of ping command, followed by IP address of the system (Zanella et al., 2014).

How DNS will be accessed by the LSDG systems

The LSDG system will access the domain name system (DNS) by matching the website being searched with its IP address. The IP addresses in most cases are long figures which are hard to recall. Therefore computers within the network will make use of IP address which gives them the protocol for accessing the domain name systems (Zanella et al., 2014).

How files on the network may be accessed by LSDG

The LSDG will use file transfer protocol (FTP) to access the files in the network. The file transfer protocol is the service of the internet that permits files to travel across the network through the World Wide Web. The FTP comprises of rules and regulations that govern the process of accessing files from the Internet and the World Wide Web. These are the rules that will be used by LSDG for successful access of any file. The desktop computers linked within the network can be used to share a folder on Linux environment by configuring the settings associated with sharing. This allows the shared folder to be visible for access to every desktop computer connected.

How LSDG can securely share files within their group and other selected groups/users in the company

The safe sharing of files within groups can be ensured by creating a directory of files that belongs to a group of users. This directory is then shared among users who are members of this group. The use of chmod command is required to make it possible for the addition of users(s) to the suitable group. This means that users of the group will have equal access to the directory using log in credentials. Any user not listed in the group will not be authorized by the system to gain access to the system. This implies that files

belonging to a group are secured from access by illegal users (Rittinghouse & Ransome, 2016).

How will printing be handled?

Printers will be connected directly without installing their drivers. This is because Linux distributions include within themselves the capacity to detect the printer connected and configure them automatically. A database of printers can also be created such that during printing, it is only a matter of choosing the type of printer to be used in printing a document. The printer can also be shared in a network of Linux environment to permit printing process to be carried out at any node or client. However, the installation is carried out at the printer server of LSDG Company (Rittinghouse & Ransome, 2016).

Possibility of data encryption

The most sensitive data will be encrypted as a way of securing them from illegal access as they are transmitted via the network. Information such as those used by the strategic management for decision making will have to be protected via encryption when sending them from one office to the other. Financial information is a good example of sensitive information that will need to be encrypted before transmission. The symmetric encryption, for example, can be employed in this case owing to the fact that it is more efficient and more secure when compared with asymmetric encryption Tripathi & Agrawal, 2014).

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