

NETWORKS AND SYSTEM ADMINISTRATOR

Project Proposal:
Migration to the Cloud

ABSTRACT

Virtualisation in computing is the creation of a virtual version of something, such as a hardware platform, operating system, a storage device or network resources. Virtualization is software technology which uses a physical resource such as a server and divides it up into virtual resources called virtual machines (VM's). Virtualization allows users to consolidate physical resources, simplify deployment and administration, and reduce power and cooling requirements. A virtual machine (VM) is a software implementation of a computing environment in which an operating system (OS) or program can be installed and run. Virtual machines can provide numerous advantages over the installation of OS's and software directly on physical hardware. VMs can also be easily moved, copied, and reassigned between host servers to optimize hardware resource utilization. Working as a Consultant Network Administrator during our dissertation will lead you to how company can migrate their data to the Cloud and how they can benefit to the advantages of Windows Server.

RATIONALE

Virtualization in its simplest form is the abstraction of hardware from the software. This can take many forms. It can be in the form of operating system virtualization such as Hyper-V; presentation virtualization with terminal services; or application virtualization with App-V; and companies like Cisco and Hewlett Packard have network and storage virtualization. Operating system virtualization is the most popular virtualization today. It is not only used on servers but is installed on workstations for doing development and conducting demonstrations. Virtualization can help companies maximize the value of IT investments, decreasing the server hardware footprint, energy consumption, and cost and complexity of managing IT systems while increasing the flexibility of the overall environment. Virtualization also helps IT professionals and developers build systems with the flexibility and intelligence to automatically adjust to changing business conditions by aligning computing resources with strategic objectives.



RESEARCH AND DESIGN METHOD

During our dissertation these queries bellow will be take in consideration in according to the infrastructure of our Network.

- 1 /what is a Network Administrator
- 2/Main role of the Admin Network
- 3 / Windows Server and Virtualisation
- 4/ What Is A Cloud and Cloud Storage
- 5 / Server Security and Integrity
- 6/ Migration to the Cloud
- 7/ Models of Cloud
- 8/ Advantages we will gain

KEY BENEFITS

DISASTER RECOVERY

No need to worry about lost files in the event of hardware or software malfunction as everything is backed up in the cloud

CENTRALIZED DATA MANAGEMENT

Storing data is made infinitely easier with a cloud system as all your files can be found in just one location

COST SAVINGS

Buying cloud space is relatively inexpensive compared to investing in physical drives and storage spaces



GROWING BIGGER

Into the 21st century, the concept of the cloud is the same, but more than ever before, cloud computing is bigger. It's now becoming possible to use bigger applications that will leverage our business goals and functions easily in the cloud.

TIMETABLE DISSERTATION

DATE

SECTION

ACTIVITY

MAY

- Brainstorm potential research questions.
- Create your dissertation plan.

- Discuss the feasibility of the research
- Using a timeline, calendar or mind map to highlight the key stages, specific milestones and deadlines for my dissertation.

JUNE

- Start breaking down the research - what do I have to do? Literature .
- search,fieldwork/placement, survey(s), interviews, desk research, lab work?

- Keep track of my notes, sources and data. Find a system that works.

JULY

- Create a rough outline of sections and the main points and findings.
- Start to fill in your outline

- Use these to plan my content.
- create initial drafts. These can be reviewed and amended as my thinking and knowledge progresses

AUGUST

- Conclusion

- Check with my program handbook all referencing are correct and proof read

AREA OF STUDY

Development of a System to Visualize Computer Network Behavior for Learning to Associate LAN Construction Skills with TCP/IP Theory, Based on Virtual Environment Software," IPSJ Journal, Vol. 48, No. 4, pp. 1684-1694 (2007).

Development of a LAN Configuration Support System for Study Using Vmware, Transactions of Information and Systems , Vol. 24, No. 2, pp. 126

Utility Computing on Global Grids" in Handbook of Computer Networks, Hoboken, NJ, USA:Wiley Press, 2008.

Virtual Computing Lab", VCL, 2010, [online] Available:
<https://cwiki.apache.org/VCL/>

B. Sotomayor, R. S. Montero, I. M. Llorente and J. L. Rodriguez "Virtual Management in Clouds", IEEE Internet Comp