

EXECUTIVE SUMMARY

Virtualization of Server Infrastructure

PROBLEM SUMMARY

Organization is attempting to see if the virtualization of their current server infrastructure is viable and beneficial for the organization. The organization wants to evaluate and assess whether it will improve efficiency, save money and allow for more flexibility in their current infrastructure and future growth and scaling.

SOLUTION SUMMARY

There are a number of benefits of moving current server infrastructure to a virtualized environment. One main advantage is with an increased amount of flexibility and an easy way to upscale. When servers are virtualized it is very easy to add and remove them whenever needed and to customize them to the needs of the organization. Costs will also be reduced as less hardware is needed which will lead to savings due to needing less energy, maintenance and hardware. Another important benefit is the ease of establishing a test and development environment. Many test environments can be created to test before deploying to any production environment. A realistic server consolidation ratio for virtualization would be 15 virtual servers to 1 physical server depending on the demand of the virtual environment.

POTENTIAL DISADVANTAGES

A disadvantage for server virtualization is that there is a single point of failure. If the hardware fails then all virtual servers running on that server will also fail and could be prone to data loss. Another disadvantage is that there may be performance issues if there are incompatibility issues with the hardware and the software that you are using even if there are enough resources allocated to the virtual machine.

Works Cited

Antonopoulos, Andreas M. "Server Virtualization: Low-Hanging Fruit and Sour Grapes."

Network World, Network World, 20 June 2006,

<https://www.networkworld.com/article/2304028/server-virtualization--low-hanging-fruit-and-sour-grapes.html>.

Castagna, Rich. "Top 10 Disadvantages of Server Virtualization: TechTarget." *IT*

Operations, TechTarget, 8 Mar. 2021,

<https://www.techtarget.com/searchitoperations/feature/Top-10-disadvantages-of-server-virtualization>.

"Server Virtualization Benefits and Features." *UTSA*, 21 Oct. 2022,

<https://www.utsa.edu/techsolutions/FacAndStaff/Storage/benefits-features.html#:~:text=The%20benefits%20of%20server%20virtualization%20are%3A&text=Lower%20total%20operational%20cost,disk%20space%20and%20supported%20OS>.

"What Is Server Virtualization?: VMware Glossary." *VMware*, 22 Jan. 2023,

<https://www.vmware.com/topics/glossary/content/server-virtualization.html#:~:text=Server%20virtualization%20is%20the%20process,its%20own%20operating%20systems%20independently>.