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IT-365

Professor Hardikar

Milestone Three

* What would you first need to consider if this server application were moved to a different system that is also running your chosen OS?

When moving this server application to a new system you need to make sure that the new system is also able to be contacted by the client. Also, different ports are made available for use by certain systems and it needs to be verified that the new system will be able to listen to the same port. Although this is easily fixed on the command line, it still needs to be taken into consideration. Another consideration would be updating the client with the new address of the server application. Lastly hardware requirements also need to be considered when making the switch. Ensuring that the new system is capable of handling the server application before switching it over, can help prevent headaches down the road due to insufficient hardware.

* What would be the considerations if this different system is on the local area network (LAN)? Use your textbook readings to help you here.

An important consideration to keep in mind would be whether or not the system was needed to be accessed outside of the LAN then. If this was not intended to be a private system upon creation, then this would not be an issue and could benefit the system because of higher communication rates and lower error rates when only among LAN’s (Silberschatz et al, 2009). We would also have to consider the location of the client server in this scenario and make sure that it was also located on the LAN.

* What would be the considerations if this different system was in the cloud? You will need to research this question outside of your textbook readings.

Linux has many advantages available for data migration through the Cloud. With programs like Docker, containers can be created for these types of migrations using blue-green deployment (Heddings, 2020). Considerations that need to be kept in mind with cloud are always security related, which is why Linux should be preferred for systems. It’s open-source nature is constantly being updated to keep up with changing threats and vulnerabilities, instead of waiting for a new patch to be released (Edwards, 2018). According to Bruno Diegues, a writer for IBM.com, there are 5 considerations that should be kept in mind when migrating to the cloud (Diegues, 2019). They are as follows:

1. Will the cloud be public, private, or hybrid?
2. Current Infrastructure utilization
3. Compatible operating system
4. Infrastructure Availability
5. Backup Policies and Disaster Recovery tactics

These considerations combine to address the needs of most systems when considering switching the system over to the cloud.

* What are the advantages of distributing the server application in this way? Research this topic as necessary.

Using Distributed Operating Systems allows users to access remote resources in the same way they would access local resources, which is controlled by the distributed system (Silberschatz et al, 2009). Distributing any process or task allows for higher computational rates, among a network of computers, at the business level and benefits the server application in the same manner. By dividing up the workload for the server application, it allows for better performance without needing to spend a lot of money on an expensive server to operate off of. The main advantages of the server application being distributed in this way are centralization of control, scalability, and easy maintenance (ESDS…, 2021). With centralization of control, a dedicated server controls processes like access, resources, and data integrity (ESDS…, 2021). Scalability refers to easily being able to increase or decrease the capacity of the clients or servers or elements of the server, as traffic demands (ESDS…, 2021). Lastly, maintenance can easily be performed on the server by using encapsulation to perform updates with zero to minimal effect on the customer experience (ESDS…, 2021). Taking these three advantages, in combination with what was learned this week in the readings, seem to offer more advantage to a server application than running one on an LAN, in my opinion. The distributed server application has much more of a safety net available for operating, because of its access to multiple devices, than the LAN server application.

References:

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