**MCW – Migrate and modernize case for Linux and OSS DB to Azure**

**Customer situation**

Terra Firm Laboratories is a global bioengineering company that’s the leading researcher and innovator in genetic and biological science technology. The company was founded in 1975 with its corporate headquarters in Palo Alto, CA. Their mission-critical workloads are currently hosted in an on-premises datacenter and are beginning a journey to modernize and migrate into the cloud using Microsoft Azure.

The CTO, Dennis Nedry, has kicked off an initiative for the organization to begin adopting the Microsoft Azure cloud, and modernize its infrastructure. He has already had his team begin assessing their current environment and what it will take to migrate to the cloud. They are looking to optimize their technology investments by reducing technical debt and streamlining operations using Platform as a Service (PaaS) cloud services.

Terra Firm Laboratories has already completed the first round of analysis to identify the applications and workloads to begin migrating first. Out of the total of over 250 workloads they currently have running on-premises, they have identified one workload that exemplifies multiple components that are common across many of their other workloads. The workload is also not their most complicated, so it should prove well to prove out the migration plan as it’s developed. This workload includes CentOS Linux servers hosting a PHP application that uses a MySQL backend database.

They need to start with creating a migration plan around this workload to prove the larger overall strategy that will be implemented. According to Nedry, “It’s really important we have a solid migration plan, as we will be sunsetting our on-premises datacenter in the next 2 to 3 years.”

**Items to work through Whiteboard Design Session**

1. Determine the appropriate application hosting in Azure using PaaS services, identify the maintenance and cost benefits compared to IaaS, and configure multi-region resiliency
2. Determine the appropriate database hosting in Azure for the MySQL database, identify the maintenance and cost benefits compared to IaaS, and configure multi-region resiliency
3. Determine migration process to minimize downtime and potential data loss
4. Determine security recommendations for integrating with on-premises networks

**Items to work through in the Lab**

1. Migrate PHP application to Azure App Service with multi-region
2. Migrate MySQL database to Azure Database for MySQL
3. Configure Network connection between on-premises network and Azure VNet