



Apps4Rent Redesigns Career Planning App Infrastructure on Azure for High Availability

Background:

A U.S.-based data-driven services company empowering individuals to make informed decisions about their future careers required cloud solutions for hosting and running its complex applications with advanced algorithms. While they already had an Azure subscription that was supported by an established cloud-solutions provider, the company's CIO rightly identified that the service was sub-optimized and under-utilized.

This subscription came with a company that they had recently acquired but lacked many capabilities that the organization required. This resulted in a scenario in which the stakeholders had little idea of the setup and the original CSP was unable to assist. The customer approached Apps4Rent engineers who implemented novel solutions to help the customer make the best use of Azure at a significantly lower cost.



Company

Future Planning

Company Type

Coaching Centre

Industry

Education

Apps4Rent Azure Solution

Apps4Rent engineers worked in close collaboration with the customer's internal and external stakeholders to identify the customer's pain-points and implemented an optimal solution to derive maximum benefits from their cloud subscription. Apps4Rent implemented a scalable solution for the customer's Learning Management Systems (LMS) that guaranteed high availability, is fault-tolerant, and included load balancing. From planning the architecture of the high-availability Azure environment to supporting the tenancy post-implementation, Apps4Rent became the trusted end-to-end Azure solutions provider for the customer.



Result

Apps4Rent was able to onboard the customer with a complex cloud environment in the span of a few weeks. The migration project was successfully completed within the stipulated budget while fulfilling the customer's goal of moving their workloads to high availability, fault-tolerant environment, and with built-in load balancing capabilities that is highly scalable. Despite the complexity of the project, Apps4Rent ensured that the customer's change requests were accommodated without budget overruns.

“Being a data-driven company, we wanted to operate our services from a public cloud platform. We realized that we were having Azure subscription, and wanted to manage it without draining a lot of money. We got great help in managing Azure from Apps4Rent in terms of turnaround, price, and efficiency.”

Jeet, Cloud Associate, Future Planning, Ohio

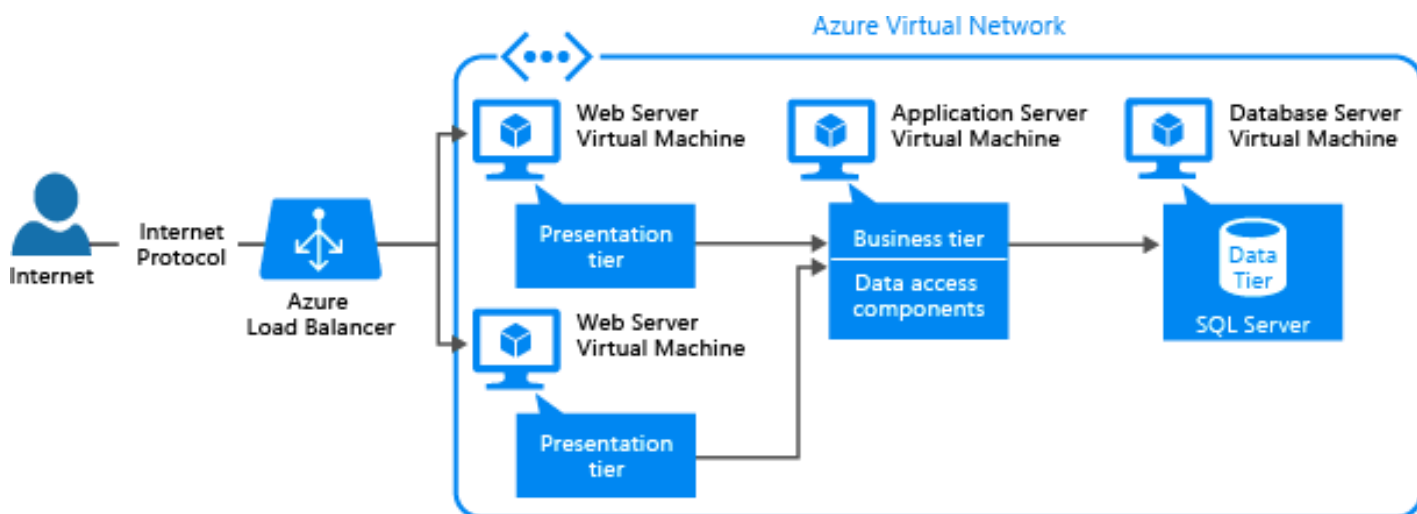
What the Customer Had?

An Ohio-based software company using technology to help its customers with their careers was using Azure infrastructure for delivering content. They had a web server with 3 web apps, an SQL server, and a file server apart from a VPN gateway. The file server was being used for storing files, videos, and documents. The existing architecture was such that the front end (web app) communicates with the SQL server. The SQL server communicates with the file server, and certain things from the file server directly go to the web app. This architecture was realized using 2 A series VMs for managed services, and the remaining components were hosted on 4 D series VMs. With this configuration with their existing service provider, the customer realized that their services were difficult to scale and lacked fault tolerance and load balancing.

What Apps4Rent Implemented?

Apps4Rent gave the plan for the architecture and proposed a new environment. As per the proposed plan, the web apps and SQL server could be hosted on high availability/ Network Load Balancing VMs, and the file server on a separate VM. Such an implementation would require 6 VMs, 2 for web servers, 2 for SQL servers, 1 file server, all of which would be D series virtual machines, and 1 witness server that would be hosted on a B series machine. It was also recommended for the customer to use separate resource groups for development, staging, and production.

While Apps4Rent offered to proceed with the existing network configuration along with Address Spaces, subnets, and gateway, the customer agreed that it would be better to create a new network configuration to implement the solution effectively. It was also deduced that the default backup that creates full data backups every week, differential backups every 12 hours, and transaction log backups every 5-10 minutes on RA-GRS storage blobs would suffice for the customer's Azure SQL Database requirements.



Accommodating Client Requests

The customer wanted to try the solution on an Azure test environment before replicating on production. Apart from this request, the customer needed standalone environments for development and staging in addition to a DB in the production environment for OLAP. The implementation had to be such that the DB would be able to push/ pull data into development or staging environments when needed. Once the solution was accepted, Apps4Rent worked on a customized agreement with the customer for proceeding with the migration from their earlier solutions provider.

Overcoming Budget Constraints

Budget was one of the most important constraints for the customer. There are several components involved in billing Azure plans. This customer was keen on optimizing costs on admin hours, configuration fees, and management fees. Based on these constraints, the customer was interested in the S1 App Service for staging and development services, a DS1v2 File Server (1 vCore for staging and development), and an SQL Server for development on 100 DTU Model.

For safety, the customer required the production blobs to be configured for geo-redundant storage. They chose West US as their preferred Azure Region for 1 production app services on an S1 instance that can eventually be scaled to 10, along with a DS1v2 instance for their file server. However, after further consultation, the customer was convinced that Azure VM replication was the better option than a dedicated passive production environment for their file server to cut costs. Additionally, the use of Azure Front Door that acts as a load balancer and web firewall while providing multi-geo redundancy eliminated the requirement of a standalone application gateway.

Conclusion

With a thorough understanding of the Azure environment and close collaboration with the customer and their partners, Apps4Rent engineers were able to comprehensively map the requirements with the customer's business objectives to develop and implement an optimal cloud solution on Azure at the best prices within a few weeks. The primary objective of providing a scalable environment that guaranteed high-availability and had built-in load balancing for the customer's workloads was met by implementing a better architecture as compared to the existing solution's provider. In addition to Apps4Rent's hand-on approach in implementing the solution, the customer is covered by a favorable AUP that is further backed by Microsoft's comprehensive SLAs to ensure that the 100% online-based business does not face setbacks resulting from downtimes.

In less than a year of completion with Apps4Rent as their Azure partners, the company enjoys a high benefits realization maturity in a relatively short span after migrating from their CSP provider.