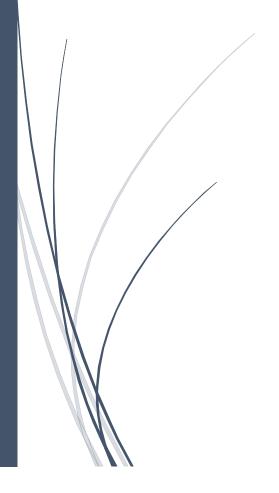# Kobra Kai Cloud Migration

Executive Summary Report

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Introduction

The purpose of this report is to provide an outline of how the migration process from on-prem server to a cloud will look like. It will cover all the necessary details that are required for the migration specially focusing on security point of view and the various benefits that are going to come with it.

Products and Services

Following are the recommendations that are suggested as part of the migration process:

1. The cloud infrastructure will help in making the services of the company available for a long duration even when a couple of servers are out for maintenance
2. Manual effort of dealing with physical storage goes away as cloud server is managed by a third-party client who we will sign a binding contract. The contract will make sure that the respective third-party takes care of the physical storage location and maintain it to the best of their ability
3. An asynchronous backup operation can be setup which will make sure that if there is a loss of data on the primary servers, there is always a backup to restore from. This backup can happen multiple times a day/week depending on the size of data and configuration that we prefer
4. A lot of third-party cloud services allow Identity and Access Management (IAM). This assists in making sure that the users on the cloud have correct access permissions to add/update the data on the cloud based on the authenticity that is established
   a. Authentication to cloud account is recommended to use Multi-Factor Authentication (MFA) which comes baked in. Leveraging it will make sure that only the employees of Kobra Kai have access to the cloud
   b. Authorization based on access levels will make sure that privilege access is attached to a certain roles like admin or top-level management of Kobra Kai
5. The third-party cloud service provider will support Load Balancing options which will help in vertical scaling of requests coming to our servers. This is dependent on which kind of load balancing product we opt for based on our use-cases
6. Cloud provides rapid horizontal scaling on-demand option which can assist us in mitigating DoS based attacks or have a better response time of the website in general
7. Cloud service providers aid in log storage and management tools integration, thus, helping us in keeping the track of any suspicious activity like multiple invalid login attempts, Denial of Service, etc.
8. Ensuring overall customer's PII data integrity and security is much faster than on-prem as cloud service providers have their own tools that we can leverage or allow integrations with our choice of tool
9. Cloud service providers allow the integration of firewalls which will assist us in securing the application by filtering out malicious requests as per the rules that we define

Market analysis

The market analysis has indicated that the following pointers that we should consider while we migrate to cloud:

1. Cost of managing the application over the cloud goes down significantly (Approx. 35%)
2. Scaling to different locations outside USA is possible and easy to manage with the load distribution, data distribution, etc. over the cloud. Thus, generating more business internationally
3. A lot of viewers facing difficulties in accessing the website for their orders is going to go down exponentially because of highly available cloud infrastructure and we get to retain our loyal customers
4. Cost of maintenance is reduced, and we can hire more employees to manage the cloud which in-turn will make sure that the application is up and running in a secure environment

Competitive analysis
1. Daniel LaRusso's – our competitor – will be beaten in terms of loyal users and organic user growth
2. Exponential growth (Approx. 30-35%) is expected over the next five years in terms of business profits and active users
3. The quality of our product is going to improve post this migration to cloud

Conclusion
To conclude, our current situation that we are dealing with on-prem servers, and its management can be improved by a lot when we migrate to cloud. This is not only going to help us focus on improving our product but also turn in profits for Kobra Kai. Additionally, we get better security for our infrastructure and customers with this.

References
- Report template taken from: https://www.getguru.com/templates/executive-summary