**Mo Vid Cloud Proposal**

**Summary**

This solution was created to meet Mo Vid’s needs in a reliable, convenient, cost-effective, and secure manner.

We recommend using Microsoft Azure’s cloud services due to its industry standard (roughly 95% of fortune 500 companies use Azure over AWS), and the cost comparison between the two services (AWS is nearly 4x more expensive than Azure for Windows/SQL). Azure SQL also has the added benefit of BYOL (bring your own license); allowing for added flexibility. Azure also offers more security than competitors, and better flexibility for migration.

Azure guarantees to encrypt sensitive data. Mo Vid customer account information, customer behavior and their preference related recommendation data of videos will be encrypted and well protected.

With the highest level of server security, Azure guarantees to protect Mo Vid from bootkits, rootkits, and kernel-level malware with trusted launch. Azure will monitor Mo Vid workloads and find and fix system vulnerabilities with Azure Security Center. Azure also offers add-on protection for events like DDoS attacks.

Azure secures network traffic and meets regulatory and compliance requirements with enterprise-grade security and governance, including General Data Protection Regulation (GDPR), ISO 27001, HIPAA, FedRAMP, and SOC 2.

Azure Virtual Machines are easily scaled to customize for any size client. With the development of the scale of Mo Vid, expanding Mo Vid will not be difficult.

**Proposed Solution**

For each Mo Vid client, we recommend the following system architecture.

*Application & Streaming Servers*

Containerize the Application and Streaming servers and run both containers on a single Azure VM.

Mo Vid will benefit from streamlined server maintenance and responsive, easily scaled services as their customer’s needs change.   
Azure guarantees uptime of at least 99.5% for Single Instance VMs using Standard SSD Managed Disks.

*Transcodiing*

Transcoding will be done by Azure Media Services.

The Media Service billing structure allows clients to be appropriately charged for their transcoding usage. Clients are only billed for transcoding jobs that are completed – if a job is started then cancelled before it is finished, the client will not be charged.   
Azure Media Services guarantees 99.9% uptime.

*SQL Server*

Mo Vid will use an Azure SQL Database instance and create a database in the Elastic Pool for each client.

Azure’s SQL service is simple to manage compared to maintaining an SQL server, and it is scalable for adding databases and processing resources for new companies. Mo-Vid can use their existing SQL Server licenses on the Azure SQL Database, which makes it extremely cost-effective.   
Azure SQL Database guarantees 99.995% uptime.

**System Specifications**

*Application & Streaming Servers*

Each client will require one virtual machine running Docker. Two containers for the Application and Streaming servers will be created.

VM Instance: B16ms – 16 cores, 64 GB RAM  
Storage: Standard HDD – 1024 GB

*Transcoding*

Client’s transcoding jobs will be completed by Azure’s Media Service.

*SQL Server*

Azure SQL Database Type: Elastic Pool  
Instance: 8vCore

**Backup & Disaster Recovery**

Movid will use the long-term retention feature of Azure backup to store the data, which has a retention period of 120 days. This functions on a point system, that will backup data once a month (keeping the cost under $1,000).

**Costs**

***Azure***

The costs listed below are Azure’s monthly cost estimates for providing service to 10 Mo Vid clients using the system specifications listed above, unless otherwise noted.

*VM Instances:* $2750

*Transcoding:* $38   
Estimate includes encoding of 600 minutes of UHD video with audio.

*Azure SQL Database:* $500

*Azure Professional Direct Support:* $1000

***Backup***   
The cost of backup will range from $120-900 for 100 gigabytes (full backup) of data

***Mo Vid***

The costs listed below are cost estimates to move the Mo Vid platform to Azure, and create and maintain client services.  
Cost of staff hours is estimated at $50 per hour (salary + 25% fringe benefits).

*Architectural Changes:* $12,000   
This is a one-time cost.

*Add Client:* $5000  
This is a one-time cost to add 10 clients.

*Client Maintenance & Support:* $3500  
Recurring monthly cost for 10 clients.

***Total Cost of Ownership***

One-time costs: $17,000  
Monthly costs: $7,800

Over three years, these services for 10 clients will cost $300,000 – or about $830 per client, per month.