

# Migrating Vital Records Data from Physical Servers to the Cloud

A Comprehensive Guide to Cloud Migration for Vital Records

By Viji Vadiv and Seth Austin

# Introduction

- Answer the Question: Why Migrate Vital Records to the Cloud?
  - Ensuring data security, scalability, and compliance are critical.
- Agenda
  - Defining Vital Records Data
  - Cloud migration process
  - Challenges and mitigation strategies
  - Benefits of cloud migration

# Cloud Migration Considerations

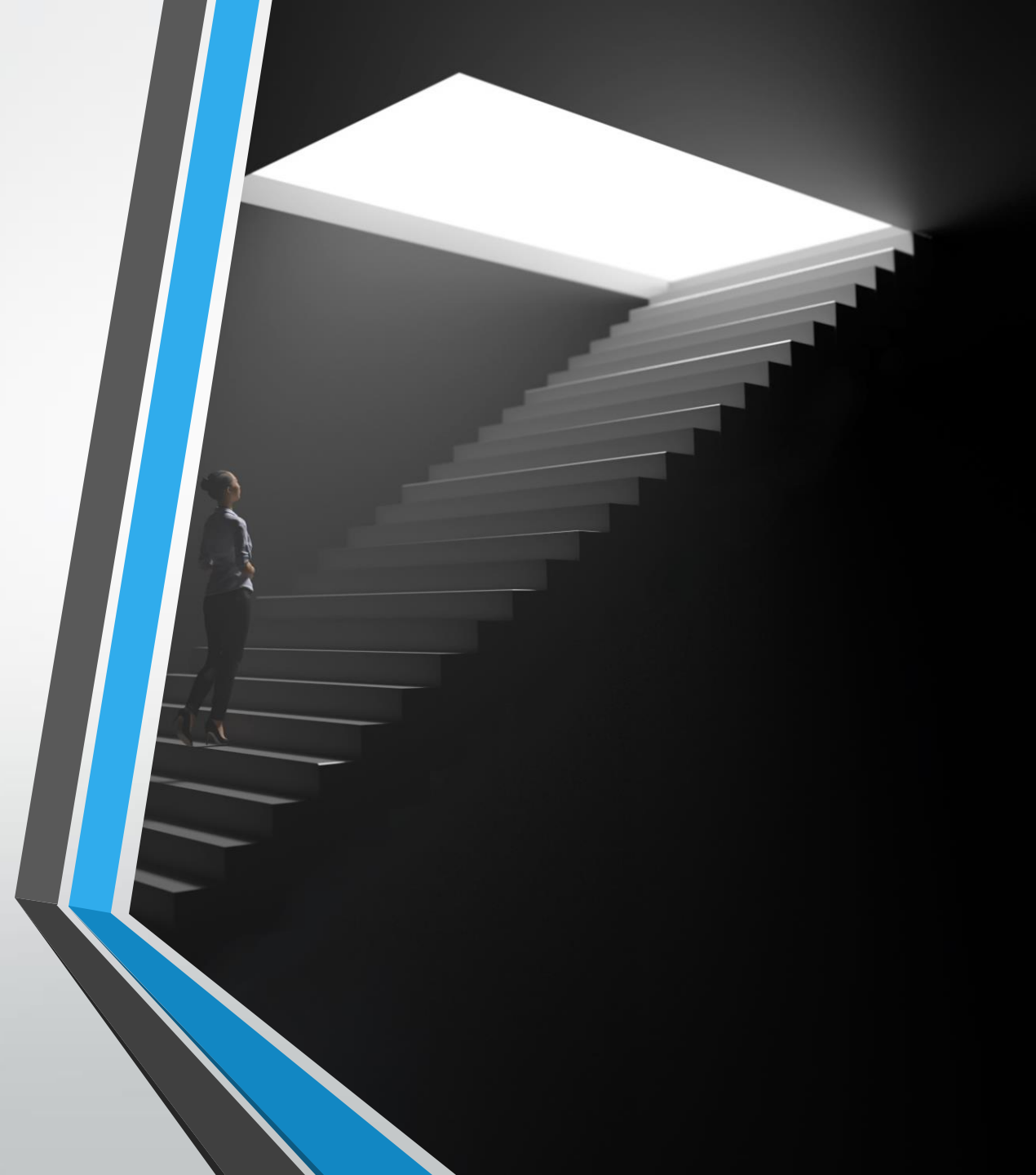
Sensitive data

Personal information

Financial records

Health records

Other legal documentation



# Cloud Migration Planning



**Assessment and Planning:-** Understand the Data and Regulations, Data Classifications, Risk Assessment, Cloud Environment Choice and Establish a migration window.



**Security & Compliance Planning:-** Data Encryption, Access Control, Compliance Audits and Logging and Data Residency.



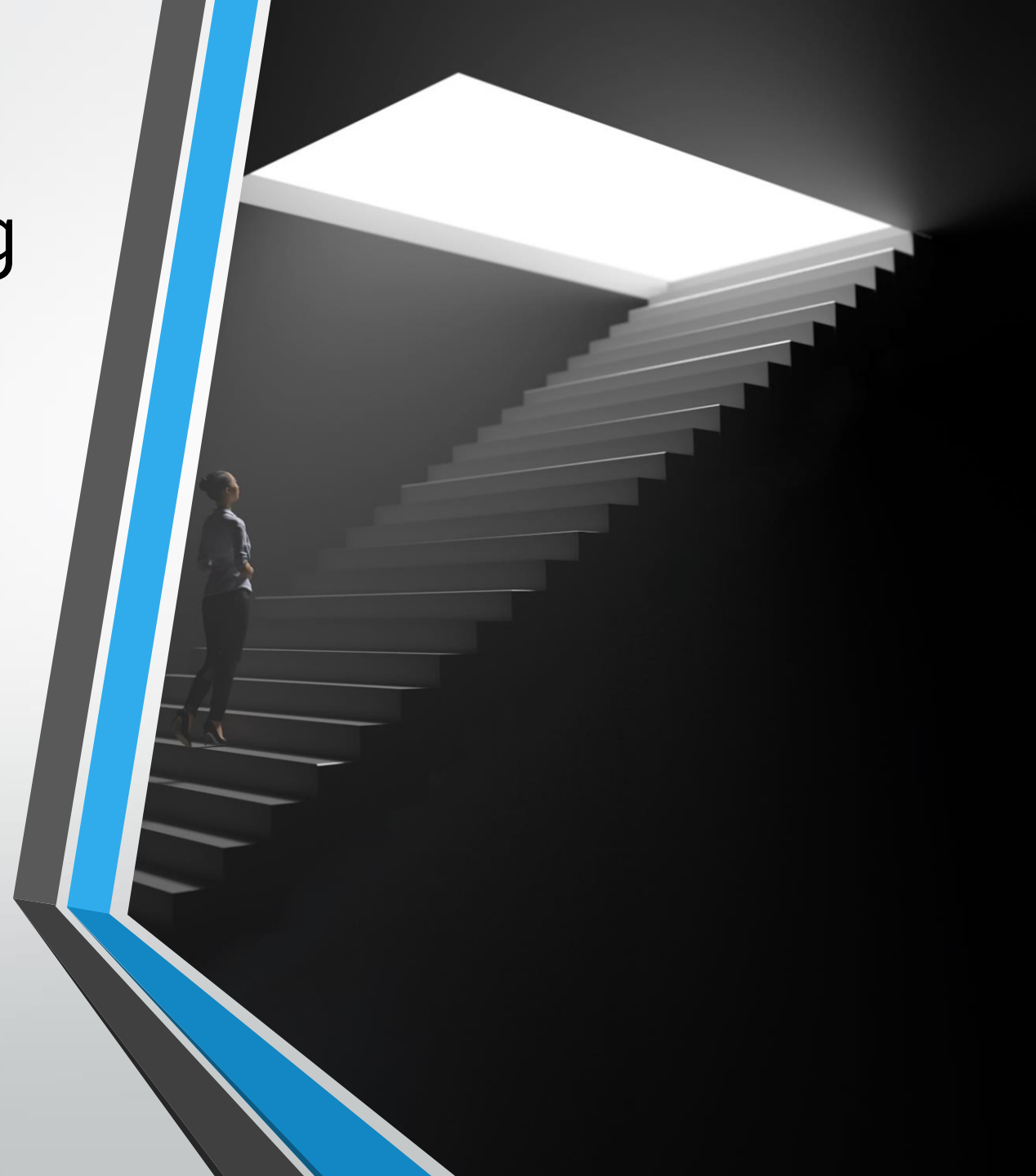
**Backup and Data Integrity:-** Full Backup of Oracle Database, Data Validation and Integrity.



**Select the Migration Strategy and Tools:-** Migration strategies and Tools to use.



**Prepare the Cloud Environment:-** Set up Networking, Provision Target Cloud Database and IAM roles and Permissions.



# Cloud Migration Steps



## Data Migration

**Execution:-** Initial Data Migration, Continuous Replication and Monitor the Migration.



## Post-Migration

**Validation:-** Data Integrity Checks, Performance Testing, Application Testing and Security Testing.



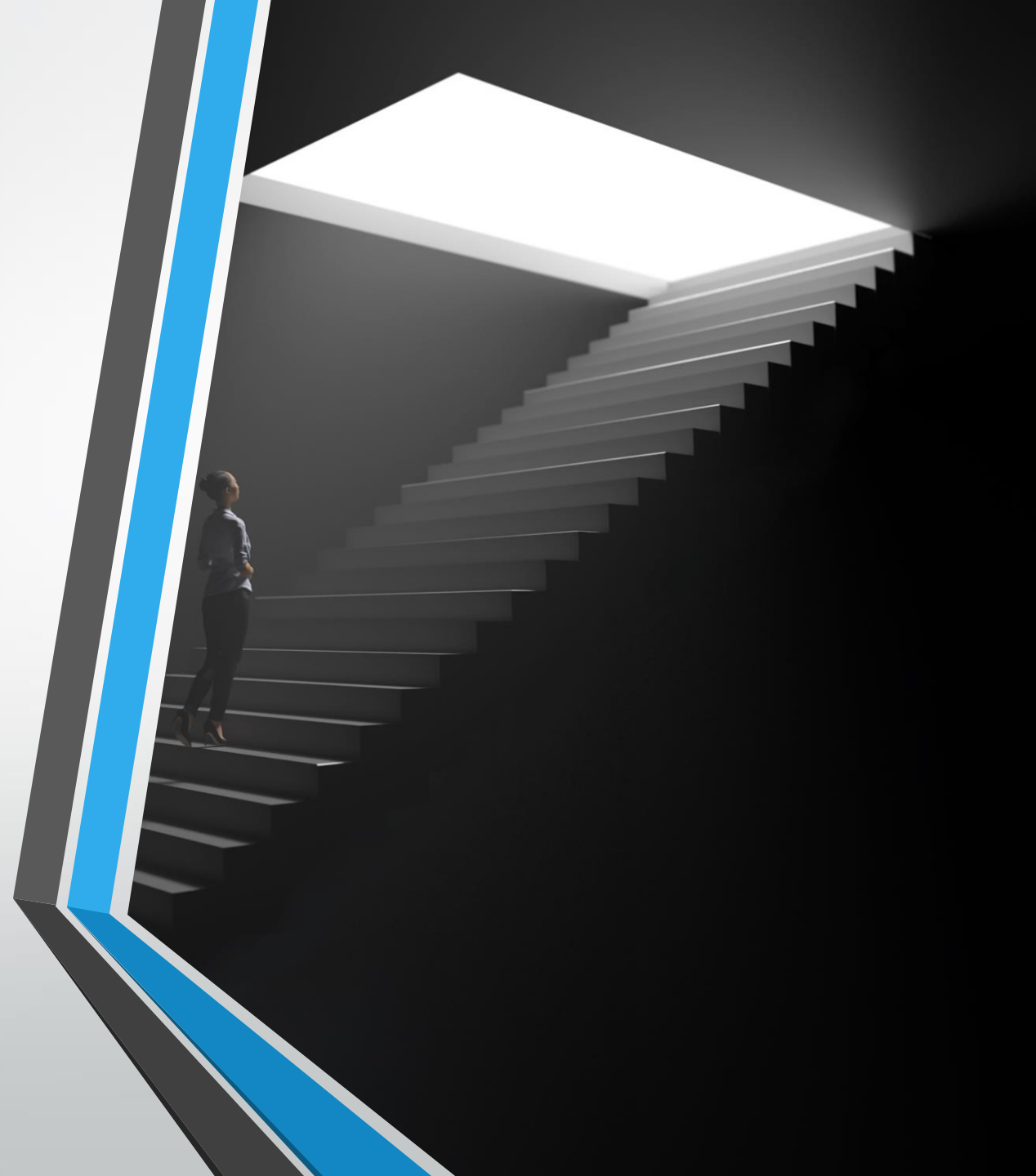
## Cutover and Go-Live:-

Final Incremental Migration, Monitor after Go-Live, Switch Applications and Users to Cloud.



## Ongoing Monitoring and

**Optimization:-** Monitor Database Performance, Cost Optimization, Cost Management and Compliance Audits.



# Challenges in Migration

- Large Volumes of Data: data from 1960 onwards
- Data Integrity and Consistency
- Initial Migration cost – Cloud infrastructure can be more cost-effective in the long term, the initial migration cost can be significant.(including planning, tools, expertise)
- Learning and adapting to the new environment.



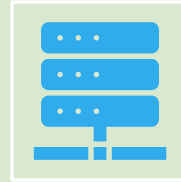
## Benefits of Migrating Vital Records to the Cloud



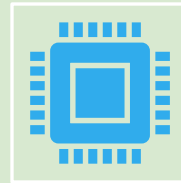
# Improved Data Security

- The right data, available to the right person at the right time

# Cost Efficiency



**Reduced Operating Costs:** Decommissioned 1 Oracle server (so far), saving ~ \$2500 / month; additional servers will be decommissioned by the end of 2025, creating an estimated savings of ~\$14,000/month.



**Reduced Maintenance Costs:** Eliminates need for ongoing software licensing. Cost savings estimates are still being developed, but are potentially significant.

## Enhanced Accessibility and Collaboration

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Data can now be accessed using the preferred “tool of choice;” all access to data is being centralized and is defined within the cloud environment, not as part of the data tool being used.



# Compliance and Legal Considerations



Environment that complies with industry standards and regulations (e.g., HIPAA, GDPR, and CCPA)



Virginia Consumer Data Protection Act (VCDPA) provides broad framework for protecting consumer data, the specifics of handling vital records including disclosure of information are primarily governed by Virginia code § 32.1-271(Vital Records Chapter)

# Future-Proofing

Downtime for  
monthly/quarterly  
patch is  
eliminated.

Laborious upgrade  
processes is no  
longer an issue.


Emergency  
patches for  
security flaws are  
handled by cloud  
provider behind  
the scenes.

Sudden spikes in  
data usage,  
storage are  
handled in stride.



# Conclusion

- Migrating vital records data to the cloud offers significant advantages, including enhanced security, reduced costs, improved compliance, and increased operational efficiency.
- Embracing cloud adoption is a strategic imperative for organizations seeking to be competitive, resilient, and agile in meeting evolving business needs.

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# We are happy to discuss our migration journey with you in more detail

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