Azure Migration Workshop

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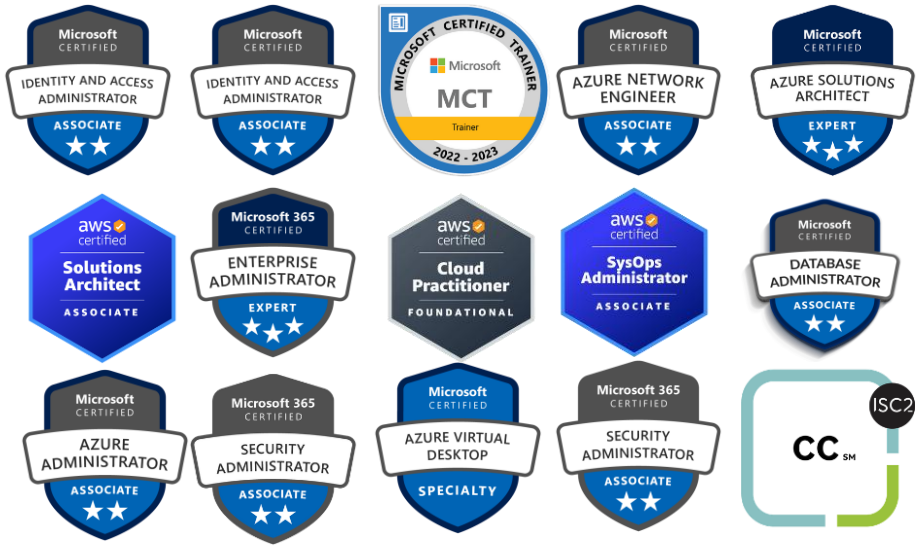
Emad Adel

Multi-Cloud Solutions Architect

Microsoft Certified Trainer



About Me

With over 16 years of experience in IT, I am a seasoned cloud solution architect and a Microsoft Certified Trainer. I currently work at KlayyTech, a leading IT company that provides cloud services and solutions to clients across various industries.

LinkedIn

GitHub

Website

YouTube

EL-WARSHA

WORKSHOP

Microsoft Security
Azure Migration
Microsoft 365

Practical important.

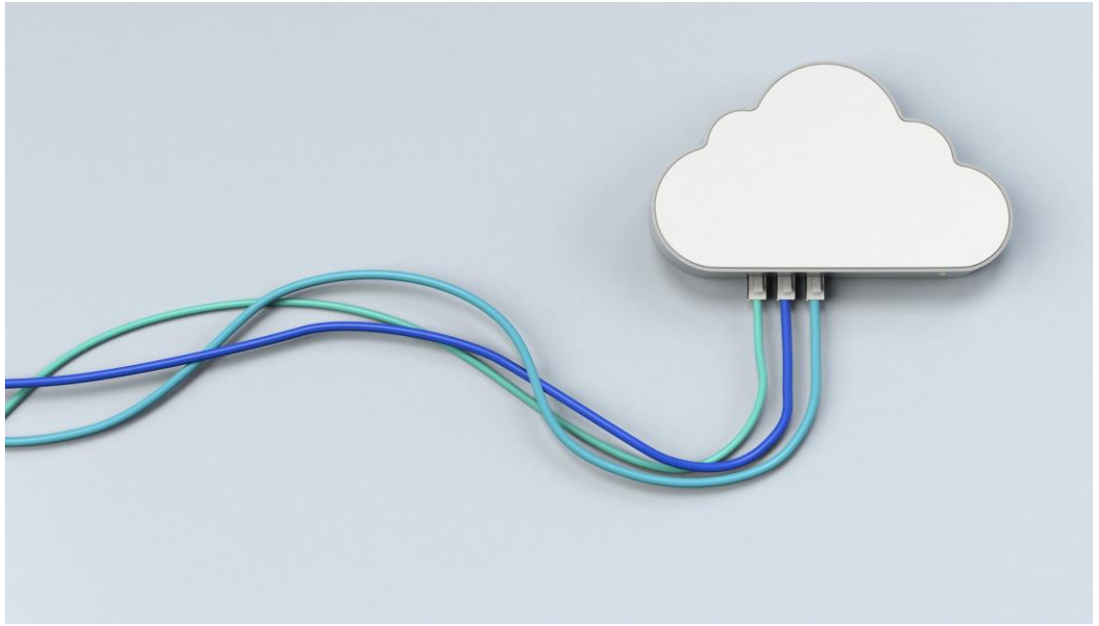
The workshop is an interactive

Agend

- **Introduction and Planning**
  - Planning Your Migration
  - Migration Planning and Best Practices
  - Introduction to Azure Migration
- **Discovery and Assessment**
  - Discovery Tools and Techniques
  - Assessing Workloads
  - Hands-on Lab: Discovery and Assessment
- **Migration Execution**
  - Migration Strategies
  - Migrating Applications and Data
  - Hands-on Lab: Migration Execution
- **Post-Migration and Optimization**
  - Post-Migration Activities
  - Optimization and Cost Management
  - Hands-on Lab: Post-Migration and Optimization


Planning and Preparation

Introduction to Azure Migration



- Session 1: Introduction to Azure Migration
  - Overview of Azure Migration
  - Benefits of migrating to Azure
  - Key concepts and terminology
  - Lab: Setting up your Azure environment

Planning Your Migration

Day 1

Introduction to Azure Migrate

- Overview of Azure Migrate
- Tools available in Azure Migrate

Lab: Using Azure Migrate

- Practical session on assessing your environment

Planning Your Migration

- Steps to plan your migration

Assessing Your Current Environment

- Evaluating existing infrastructure

Defining Migration Goals and Strategy

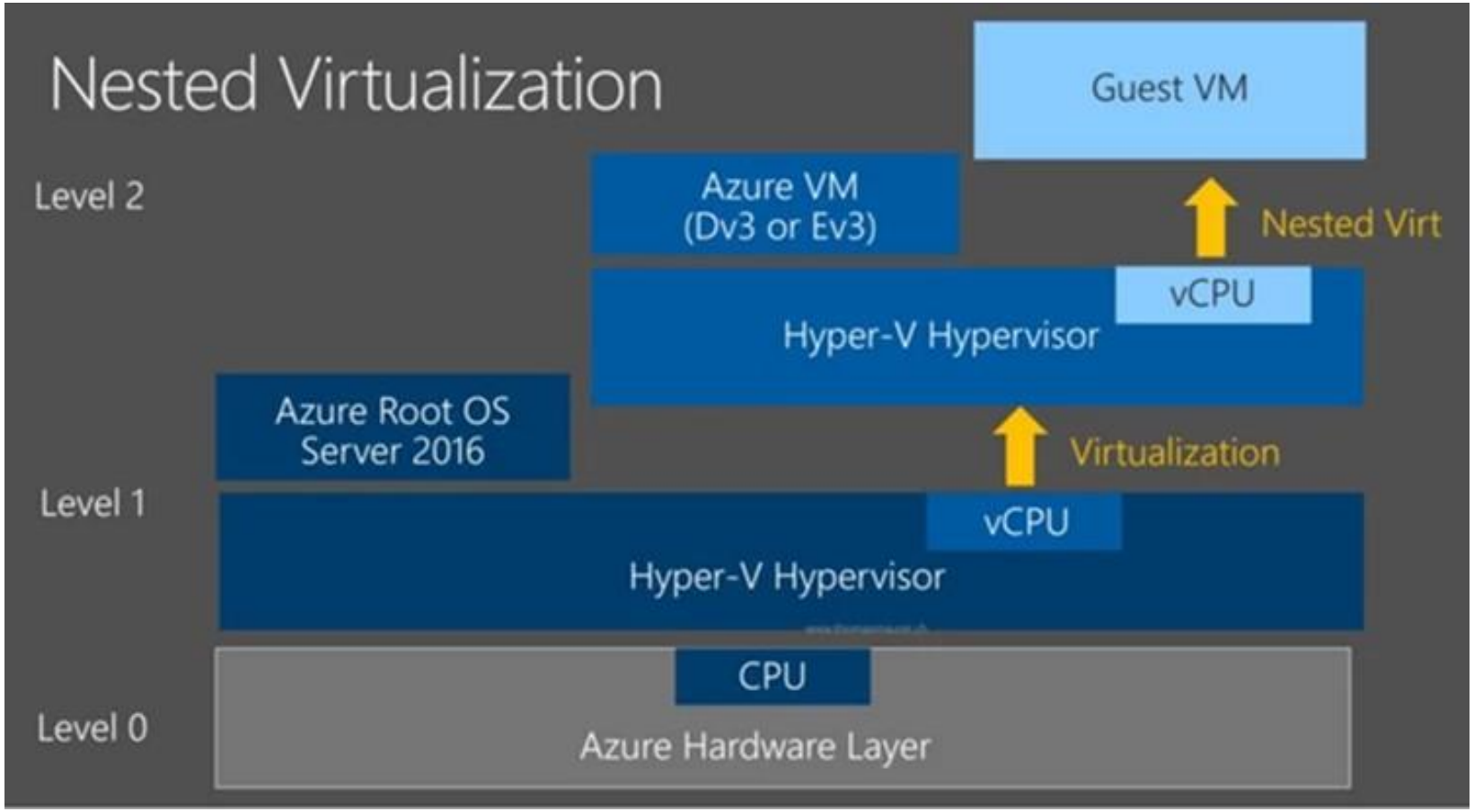
- Setting clear migration objectives
- Formulating a migration strategy

Lab Requirements

- On-premises environment (or Azure Nested VM)
- Azure account with subscription
- Time

LAP 1

Nested Virtualization on Azure



Azure VM supports size

Size	vCPU's	Memory: GiB
Standard_D2_v3	2	8
Standard_D4_v3	4	16
Standard_D8_v3	8	32
Standard_D16_v3	16	64
Standard_E2_v3	2	16
Standard_E4_v3	4	32
Standard_E8_v3	8	64
Standard_E16_v3	16	128
Standard_E32_v3	32	256
Standard_E64_v3	64	432

Migration Planning and Best Practices

LAP 1

Creating a Migration Plan

Steps to develop a comprehensive migration strategy

Key elements to include in the plan

Identifying Dependencies and Prioritizing Workloads

Methods to identify critical dependencies

Strategies to prioritize workloads for migration

Best Practices for a Successful Migration

Tips and techniques for ensuring a smooth migration

Common pitfalls to avoid

Lab: Creating a Detailed Migration Plan

Hands-on exercise to apply learned concepts

Developing a detailed migration plan in a lab environment

Homework Day 1

- Create an Azure account.
- Create an Azure VM with nested virtualization.
- Install and configure Hyper-V on the VM.
- Create 3 Hyper-V VMs (SQL, IIS, Ubuntu).
- Create an Azure migration project on Azure.
- Download and configure the Azure Migrate appliance VM.

Q&A

https://www.linkedin.com/in/emadadel
https://www.emadadel.com
https://www.youtube.com/EmadAdel2008

Emad Adel

Thank you

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Discovery and Assessment

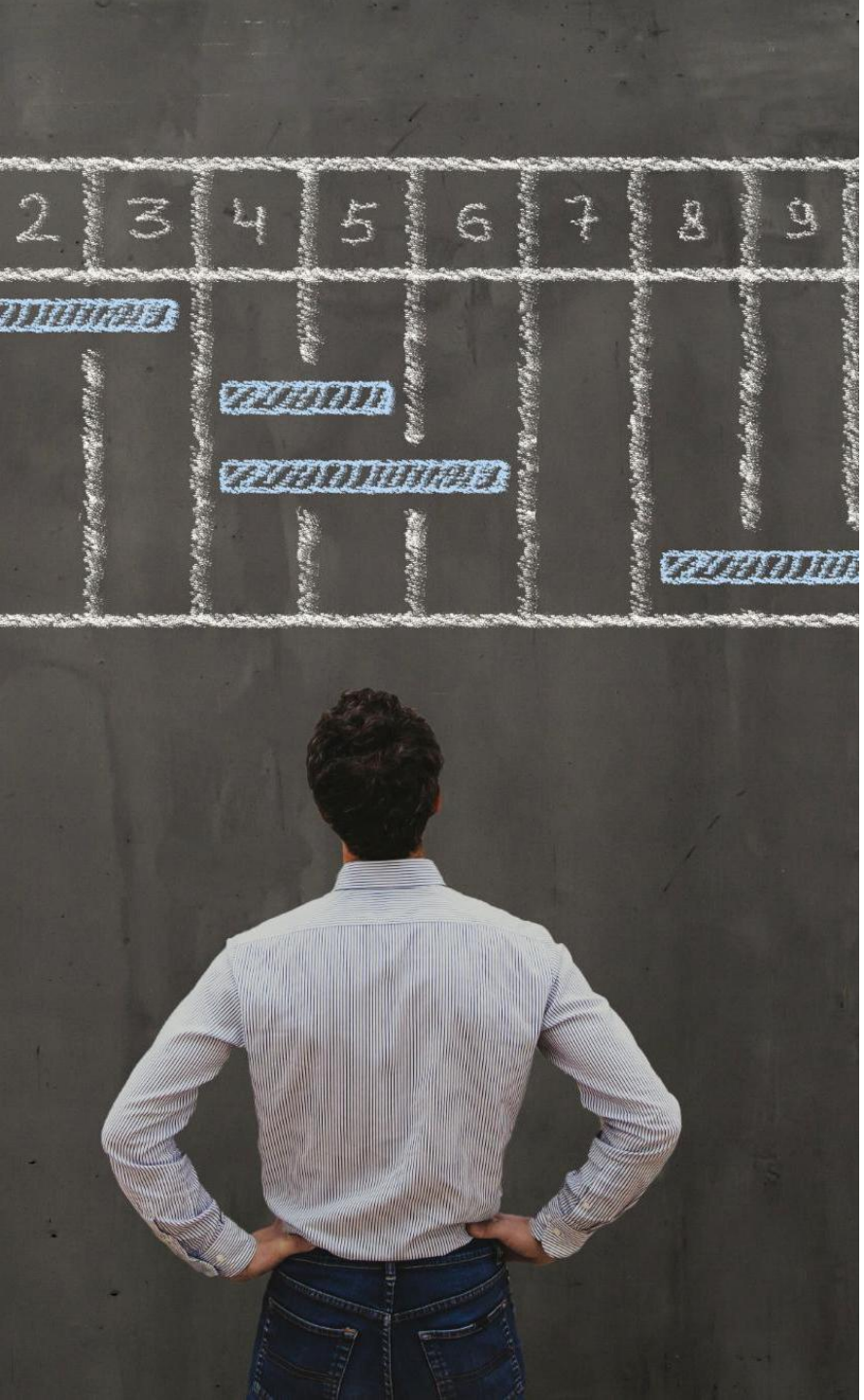
Discovery Tools and Techniques

Day 2

- Session 1: Discovery Tools and Techniques
  - Using Azure Migrate for discovery
  - ~~Agent-based~~ vs. agentless discovery
  - Collecting and analyzing data
  - Lab: Performing discovery with Azure Migrate

Assessing Workloads

- Assessing on-premises workloads
  - Evaluating current infrastructure
  - Identifying performance bottlenecks
- Understanding compatibility and readiness
  - Checking software and hardware compatibility
  - Ensuring readiness for migration
- Cost estimation and optimization
  - Calculating potential costs
  - Finding ways to optimize expenses
- Lab: Assessing workloads and estimating costs
  - Hands-on practice
  - Applying theoretical knowledge



Migration Strategies

- Migration Strategies
  - Lift and shift vs. re-architecting
  - Choosing the right migration approach
- Tools and Services for Migration
  - Various tools available
  - Services to facilitate migration
- Lab: Planning a Migration Strategy
  - Hands-on planning session
  - Applying learned strategies

Migrating Applications and Data

- Migrating virtual machines and servers
  - Understanding the process of moving virtual machines
  - Steps involved in server migration
- Database migration strategies
  - Planning and executing database migrations
  - Choosing the right strategy for different databases
- Data migration tools and techniques
  - Overview of various data migration tools
  - Techniques for efficient data migration
- Lab: Migrating a sample application and database
  - Hands-on experience with application migration
  - Practical exercise on database migration

Hands-on Lab: Migration Execution

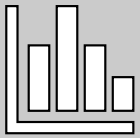
- Practical Exercise on Migrating Workloads
  - Hands-on experience with migration tools
  - Step-by-step guidance on workload migration
- Troubleshooting Common Issues
  - Identifying and resolving migration errors
  - Best practices for troubleshooting
- Validating Migration Success
  - Ensuring data integrity post-migration
  - Verification techniques for successful migration

Hands-on Lab: Discovery and Assessment

LAP 2

Practical Exercise Using Azure Migrate

Hands-on experience with Azure Migrate



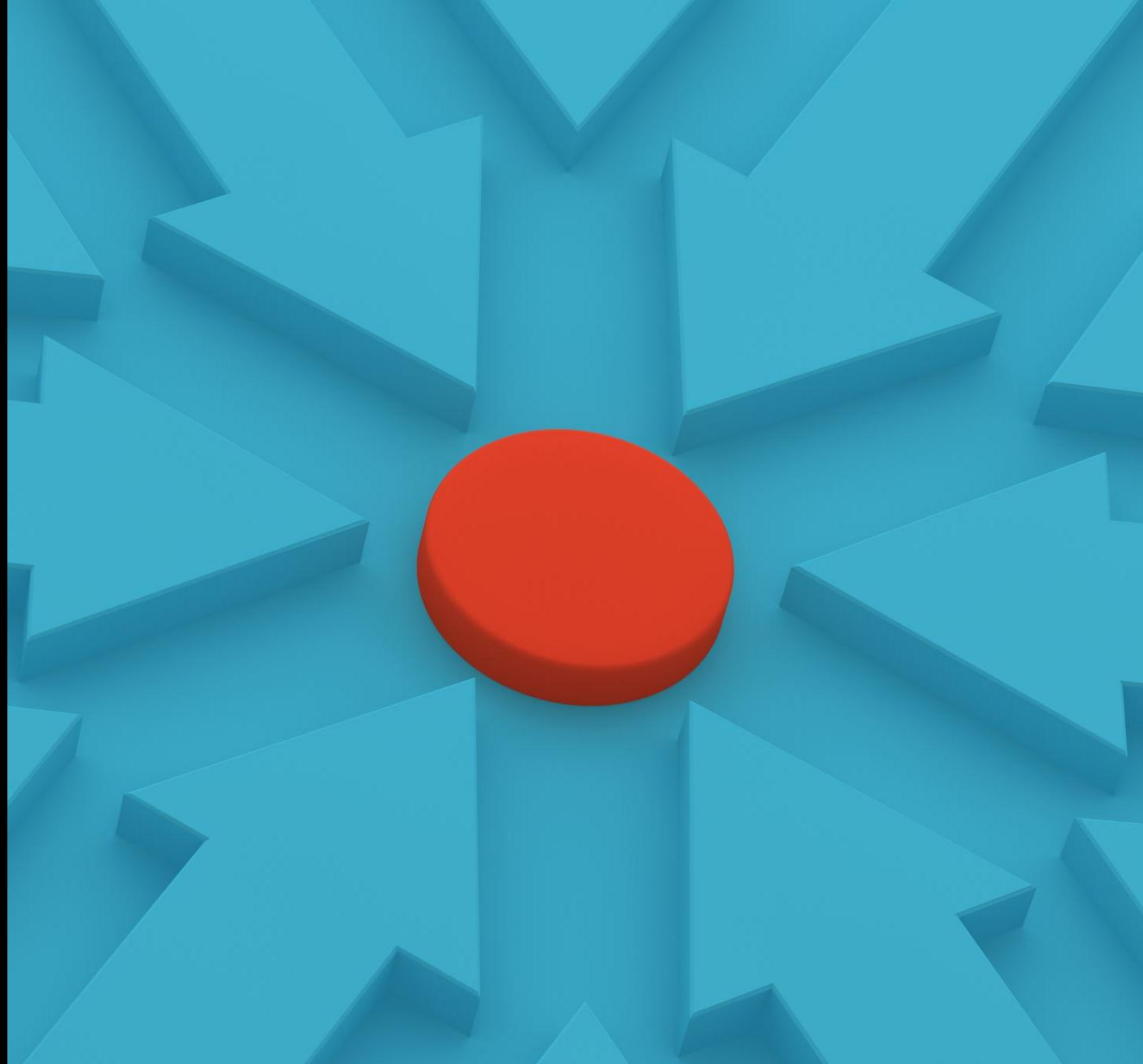
Analyzing Assessment Results

Understanding the outcomes of the assessment

Creating a Migration Report

Documenting the migration process and results

Post-Migration and Optimization



Post-Migration Activities

- Session 1: Post-Migration Activities
  - Post-migration validation and testing
  - Monitoring and managing migrated workloads
  - Ensuring security and compliance
  - Lab: Post-migration validation and monitoring

Optimization and Cost Management

- Optimizing performance and cost
  - Strategies to enhance efficiency
  - Balancing cost with performance
- Using Azure Cost Management tools
  - Overview of available tools
  - How to utilize these tools effectively
- Best practices for ongoing management
  - Continuous monitoring
  - Regular updates and adjustments
- Lab: Implementing cost management and optimization strategies
  - Hands-on experience
  - Practical application of learned concepts

Hands-on Lab: Post-Migration and Optimization

- Practical Exercise on Post-Migration Tasks
  - Hands-on activities to solidify understanding
  - Real-world scenarios for practice
- Implementing Optimization Strategies
  - Techniques to enhance system performance
  - Best practices for efficiency
- Final Q&A and Wrap-Up
  - Addressing remaining questions
  - Summarizing key takeaways