# Azure Immersion Workshop: Infrastructure Migration **Trainer Guide** Session 3: Defining your Migration Approach

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# Introduction

This is a group activity which you will lead.

At a high level the flow is:

* Analyze your customer needs.
* Identify the drivers for cloud.
* Understand the customer environment

This activity is planned to take approximately 30 minutes.

#### Sources:

* [Customer Needs](https://github.com/microsoft/MCW-Line-of-business-application-migration/blob/master/Whiteboard%20design%20session/WDS%20student%20guide%20-%20Line-of-business%20application%20migration.md) (only Step 1)
* [Customer PoC App Environment for Migration](https://github.com/microsoft/MCW-Line-of-business-application-migration/blob/master/Hands-on%20lab/HOL%20step-by%20step%20-%20Line-of-business%20application%20migration.md)

# Step1: Review the Customer Case Study

Timeframe: 10 minutes

Customer Background

* Smart Hotel Corp is a major hospitality e-commerce company owning series of hotel chains across the world.
* Smart Hotel Corp wants to consolidate their websites, IT environment and streamline their operation by moving to the cloud.
* Founded in 1972 and based in Columbus, Ohio
* Turnover in 2018 exceeded 350 million USD

Customer Situation

* Sprawling IT estate, including a substantial legacy server footprint
  + Windows servers including both x32 and x64 hardware running Windows Server 2003 through to 2016
  + Linux servers running a mix of Red Hat Enterprise Linux 5.8 and 7 series (7.2 through 7.6), Suse Linux Enterprise Server 12, and Ubuntu 16.04
  + The above servers comprise both physical machines as well as VMs hosted on VMware infrastructure managed by vCenter 6.5
  + Multiple database engines, including Microsoft SQL Server, PostGreSQL, and Cassandra
* 448 servers identified
* No clear view of entire estate
* The CTO, James Lynch, was hired 6 months ago from outside the company
* Mandate to address ever-increasing IT costs
* Board has approved strategy to migrate as much existing IT infrastructure as possible to Azure
* Goals:
  + Eliminate IT infrastructure overheads
  + Clean house
  + Create a modern, fit-for-purpose IT environment
  + Save costs

Customer needs

* Identify which servers (physical and virtual) can be migrated to Azure, and what modifications (if any) are required.
* Create a road map of prioritized migrations, accounting for ease of migration and dependencies.
* Where suitable, migrate existing servers and databases to Azure as efficiently as possible.
* Where existing servers cannot be migrated, identify alternative migration strategies (refactor, re-architect, etc.) and their pros/cons.
* Prior to migration, accurately forecast the costs associated with each migrated workload, including any third-party licensing costs.
* Post-migration, be able to track costs, control usage, cross-charge business owners, and identify cost-saving opportunities.

Customer objections

* Owners of each business application will require evidence that migration will be successful before granting approval.
* Smart Hotel have negotiated an Enterprise Agreement (EA) with Microsoft for their Azure consumption. Any cost estimates need to reflect their EA discount.
* Many applications comprise multiple components or tiers. How can you ensure that these migrations are appropriately orchestrated?
* To reduce business impact, each migration should be designed to minimize application downtime. In addition, to risk, there must be an option to fail-back should the migration experience an unexpected problem.
* We are expecting to move all our existing infrastructure to Azure. Reducing our on-premises server costs should provide substantial cost savings. Can you confirm what savings we can expect?

# Step 2: Design a proof of concept solution

##### Outcome

Design a solution and prepare to present the solution to the target customer audience in a 15-minute chalk-talk format.

Timeframe: 10 minutes

##### Business needs

Directions: With all participants at your table, answer the following questions and list the answers on a flip chart:

1. Who should you present this solution to? Who is your target customer audience? Who are the decision makers?
2. What customer business needs do you need to address with your solution?

##### Design

Directions: With all participants at your table, respond to the following questions on a flip chart:

*Migration Assessment*

1. How can SmartHotels assess their existing infrastructure for migration to Azure? Provide options for VMware VMs, physical servers, and databases.
2. How can SmartHotels identify dependencies between their existing servers? How can they use this information in their migration planning?
3. What criteria should SmartHotels use to prioritize their migrations when building a migration road map?
4. What options can you suggest to migrate workloads whose current infrastructure is not suitable for a lift-and-shift migration to Azure?

*Migration Execution*

1. What Azure components or configurations should be deployed prior to migration?
2. What tools are available for migration execution? Provide options for VMware VMs, physical servers, and databases.
3. What post-migration steps should be carried out for business-critical applications migrated to Azure?

*Cost management and optimization*

1. How can SmartHotels estimate the future cost before a workload is migrated to Azure?
2. How can SmartHotels optimize their cost estimate, prior to migration?
3. How can SmartHotels analyze and optimize their costs, post-migration? Include details of mechanisms for internal charge-back.

##### Prepare

Directions: With all participants at your table:

1. Identify any customer needs that are not addressed with the proposed solution.
2. Identify the benefits of your solution.
3. Determine how you will respond to the customer's objections.

Prepare a 15-minute chalk-talk style presentation to the customer.

# Step 3: Present the solution

##### Outcome

Present a solution to the target customer audience in a 10-minute chalk-talk format.

##### Presentation

Directions:

1. Pair with another table.
2. One table is the Microsoft team and the other table is the customer.
3. The Microsoft team presents their proposed solution to the customer.
4. The customer makes one of the objections from the list of objections.
5. The Microsoft team responds to the objection.
6. The customer team gives feedback to the Microsoft team.
7. Tables switch roles and repeat Steps 2-6.

##### Wrap-up

Directions: Tables reconvene with the larger group to hear the facilitator/SME share the preferred solution for the case study.