

# **App Modernization**

3-Day Workshop





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Let's get familiar with different migration strategies and see it on a demo project. We show you the benefits and challenges it has and how to get started with your own project migration journey.

Even the most effective software solution passes its zenith after a few years of use and is then technically and professionally obsolete. Nevertheless, it is indispensable for the company, because it is still ready for service, its functions have proven themselves and will also be needed in the future. In this case, many companies are faced with the difficult decision of either replacing the outdated system with a newly developed application at high cost and time, attempting to make at least minor technological adjustments, or simply coming to terms with the existing weaknesses.

Software modernization is an alternative, solution-oriented option that aims to maintain the existing software solution and its indispensable functions. Step by step, the previous solution is upgraded to the latest technology. Including a modern architecture, necessary extensions and ready for future application scenarios.

Indicators to modernize your existing applications include:

- The previous solution is essential, or its removal causes great difficulties.
- Maintenance costs are already very high and continue to rise.
- The development cycles for new functionalities take (too) long.
- It is technically and/or professionally outdated.
- Additional requirements can no longer be implemented with the existing software architecture.
- Interfaces to other applications and/or the Cloud are missing.

A complete cloud modernization or a re-implementation on cloud technology seems time-consuming and risky at first glance. However, the transformation succeeds with the right strategy and concepts. After migrating to the Cloud, you will benefit from agility, scalability, higher reliability, faster performance and reduced operational costs.

In our workshop we will give you an essential guide into the app modernization topic and the

different migration strategies with the help of a demo project. We analyze your application and its infrastructure and check for the general cloud capability. With this result, we discuss and coordinate possible cloud concepts for modernization. At the end of the workshop, you will receive a high-level migration plan that serves as the basis for further app modernization steps.

#### Outcome:

- Get familiar with different migration strategies & tools
- Migration of a demo project
- Assessment of your app
- A migration strategy is defined
- High-level migration plan

#### Goal:

- Understanding the possible migration strategies
- Get familiar with migration tools like Azure Migrate and Data Migration Assistant
- Understanding the concepts, benefits, and challenges of an app modernization
- Understand your existing application and find the optimal migration strategy
- Creation of a migration plan

#### Content

- 1<sup>st</sup> day: Briefing An essential guide (optional)
  - Understand the different migration strategies
    - Lift & Shift
    - Refactor
    - Rearchitect
    - Rebuild
    - Replace
  - Get an overview of tools like Azure Migrate and Azure Data Migration Assistant
  - Lift & Shift a demo project to the Azure Cloud
  - Microservice architectures (Strangler pattern, backend for frontend)
  - Docker container & Kubernetes
  - Rearchitect the demo project and create a micro service architecture with the help of docker container and Kubernetes
  - Demonstration of a DevOps process
- 2<sup>nd</sup> day: Assessment of your app
  - Get business understanding and definition of goal
  - Gain understanding of the current application, its history and main business usage
  - Collaboratively collect and analyze the existing application and infrastructure architecture
  - Check for the general cloud capability
  - Define the migration strategy
- 3<sup>rd</sup> day: Migration plan
  - Agree on a high-level migration plan
  - Preparation for the proof of concept

## **Technologies**

- Azure Migrate
- Azure Data Migration Assistant
- Docker Containers
- Azure Services
  - Azure Container Registry (ACR)
  - Azure Container Instances (ACI)
  - Azure Kubernetes Services (AKS)
- Tooling
  - Azure DevOps, Visual Studio / Visual Studio Code, GIT

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