**Migration Strategy**

**Lift and Shift (Rehosting):**

**Definition:** This strategy entails migrating applications to Azure without having to make any kind of alterations to them. It preserves the original architecture of the code so that transition to the cloud is not a problem.

**Benefits:** Aimed to deploy as fast as possible, introduce minimum risk, and get direct access to the Azure resources.

**Considerations**: Although offering immediate access to the cloud, it may not give the best solution in terms of price and efficiency.

**Refactoring (Replatforming):**

**Definition:** This strategy requires getting some optimization for the application due to the environments that are provided in the cloud and other activities which do not change the basics of the application.

**Benefits:** Better efficiency and possibly cheaper than lift and shift if the company will attempt to take advantage of cloud-native capabilities.

**Considerations:** Somewhat more complex than simple lift and shift, though it does require specific development effort and time.

**Rebuilding:**

**Definition:** This includes rewriting of the apps from the ground up and deploying-cloud-only architectures and services.

**Benefits:** Has the procedures to realize the best opportunities the cloud has to offer regarding feature utilization, size, and structure.

**Considerations:** High risk/start-up cost requires a considerable amount of time and money; ideal for designing over the long-haul vision of cloud.

**Replacing (SaaS):**

**Definition:** Here, existing applications are retired and replaced with SaaSetup\_4 Saeed & Krishna that fulfills organizational requirements.

**Benefits:** Frequently results in the accrual of less cost of maintenance and operation.

**Considerations:** Lack of flexibility and the risk to outsource all services.

**Retaining (Hybrid Approach):**

**Definition:** Some application portfolios remain in the enterprise premises as others are moved to the cloud which makes them a hybrid.

**Benefits:** The ability to keep certain, most likely mission-critical apps on site, while tapping into the cloud for other initiatives.

**Considerations:** Challenges involved in tension and conflict between traditional PD processes and new agile methods, as well as integration issues in a hybrid setting.

**Lift and Shift Explained**

Lift and Shift is also known as ‘wiki building,’ and is a common reason why organizations move to the cloud in the first place, since it is swift to execute. Here are some key aspects to consider:

**Process:**

Identify the current applications and analyse their interconnections.

Migrate the application and the data to Azure Virtual Machines or Azure Container Services.

As much as migrating the system will give it a new outlook ensure that the connectivity and data is not compromised.

**Benefits:**

**Speed of Migration:** Organizations can easily shift loads without a lot of time spent redesigning processes.

**Cost Savings:** Eliminates additional physical equipment expenses while effectively introducing pay-as-you-go characteristics for the cloud.

**Scalability:** The ability to scale up resources when needed on a biased manner.

Challenges:

**Cloud Optimization:** Applications may not leverage cloud cost, may not be optimized for performance.

L**ong-Term Strategy:** Lift and shift could just be initial; an organization may well find itself having to do one-time refactoring or outright rewrite for a more resourceful utilization of the cloud. (Jamshidi & Ahmad)

**Reference**

1. Jamshidi, P. and Ahmad, A. (no date) (PDF) Cloud Migration Research: A systematic review. Available at: https://www.researchgate.net/publication/260420072\_Cloud\_Migration\_Research\_A\_Systematic\_Review (Accessed: 06 October 2024).