Objective

You are a company in progress, but you are working in a waterfall model and on a monolith application, your manager asks a question how can we keep our solution and migrate to microservice application to improve our solution quality, improve productivity and minimize the application components coupled, so your mission is to prepare a strategy for this migration?

Answer

* We choose for that task to use rearchitect modernization method.

Unlike rehosting and refactoring, re-architecting involves fairly intensive changes to an application. These bigger changes may include breaking down a monolithic application into microservices or changing from a relational database to NoSQL.

In both cases, these changes not only serve to make an application more cloud-compatible, but have advantages on their own, such as scalability and reliability. As a result, re-architecting can address the needs of businesses that are at an inflection point, requiring agile scaling and deployment of new features, better than refactoring or rehosting.

* The steps to rearchitect the application:

1- Identify logical components of the application.

2- Improve the design of the code by splitting the monolithic codebase into multiple components.

3- Identify component dependencies and improve their management.

4- Identify component groups.

5- Introduce explicit interfaces.

6- Migrate component groups to microservices:

a- move component groups to separate projects

b- make separate deployments