Chapter 7 solution vs Migrate with Docker Image Deployment

Chapter 7 solution:
Advantages:
1. It enables all the advantages of Kubernetes, such as autoscaling, fault tolerance, load balancer, which provides a much easier automated way to manage a large scale of applications and a large number of users.

2. Migrate for Anthos is an automated way to deploy the applications. Therefore, it's faster and easier to implement than the traditional manual way, the commands we are using are not too much.

3. It takes fewer resources like disk storage or memory since the containers for Anthos are lighter.

4. Users do not need to set up any additional environment or software to convert the format of the VM/App, they only need to provide the VM/App that to be migrated. Thus, it is easier to update and maintain.

Disadvantages:
1. It only works with Kubernetes Engine and it only works with Google cloud platform.

2. It takes more time to build and deploy the application, since it includes not only docker image deployment, but also Kubernetes and Anthos configurations.

3. It requires a cluster to run Kubernetes where docker image only needs 1 node.

Migrate with Docker Image Deployment:

Advantages:
1. This approach enables application portability, it is no longer limited to Kubernetes Engine. With a docker image, there are multiple ways to deploy it on GCP, AWS, Azure and others.

2. It does not require users to have a good knowledge of Anthos, which is a particular technology of Google. More users are familiar with docker image deployment.

3. It does not need the resources of a container orchestration system such as Kubernetes.

Disadvantages:
1. Comparing to Anthos, users need to do manually build and configure the dependencies and environment. The time will be relatively longer.

2. There are some differences between the containerize process of the different structures of applications. It requires users have a good understanding of them.

3. Docker does not have a security guarantee that as good as Anthos has.

4. If the single host node crashes, the company will lose all the related services.

5. If there are thousands of containers, it could be very complicated to build, manage and maintain the system.