# 9. CUTOVER STRATEGY AND TRANSITION PLAN

## 9.1 Definition

Cutover strategy is a set of **migration steps** that would be applied in **implementing a new system** and **replace the existing system** in the process. The cutover strategy is also referred as implantation strategy for this reason. While there are multiple types of cutover strategies available, it must include these basic steps, which are to:

1. Design and perform **final system test** and **user acceptance tests**
2. **Transfer system control** to the users of the implemented system

Thus far, there are 4 types of cutover strategies available, in which they are named **Direct Cutover**, **Parallel Operation**, **Pilot Operation**, and **Phased Operation** respectively

## 9.2 Types of Cutover Strategy

**Direct Cutover**



***FIGURE 9.2.1: Direct Cutover Outline***

Direct cutover strategy is a type of cutover strategy that **immediately replaces the old system with the new system** in a simultaneous order, as shown in ***FIGURE 9.2.1***. The old system would be shut down entirely so there would be no transition period where both systems are active.

While it is **less costly** for the system to be implemented, it has a **high-level risk** of the newly implemented system being entirely unusable to the client. The new system users would face many challenges to get used to the newly implemented system as well.

**Parallel Operation**



***FIGURE 9.2.2: Parallel Operation Outline***

In parallel operation strategy, the **new system is implemented while the old system is still available to use**. After a designated duration of time, the old system would be removed entirely, and the new system takes precedence as shown in ***FIGURE 9.2.2***.

Parallel operation is a strategy that could be adapted with **low risk** and **safe approach**, and thus is usually recommended to critical applications. The downside, however, being having two systems run simultaneously for a period of time and led to **high cost** of operation.

**Pilot Operation**



***FIGURE 9.2.3: Pilot Operation Outline***

Pilot operation is a system where **only part of the new system is implemented into the old system** as a means to measure its impact and effectiveness. Once the ‘pilot’ performs in satisfactory level, the replacement of the old system into the new one takes place immediately, as demonstrated in ***FIGURE 9.2.3***.

While pilot operation proves as an effective strategy in **testing new system performance** without much changes to the old system, there might be **risks of system overlap** if the system is of a large scale. Therefore, this strategy is usually applicable to moderately critical systems.

**Phased Operation**



***FIGURE 9.2.4: Phased Operation Outline***

Phased operation is a strategy where the **new system is slowly phased into the operational system**, replacing the old system in regular intervals until the new system is completely implemented as shown in ***FIGURE 9.2.4***. The part of system added in each phase could be referred as subsystems or units.

This cutover strategy is highly recommended for any critical system implementations since it has **relatively safe and conservative approach** compared to parallel and pilot operations. The new system user could be able to gradually get used to the system controls from such operation. The problem, however, lies in the **large amount of time** **required** to implement the new system this way, and the **higher cost** compared to direct cutover approach.

## 9.3 Selected Cutover Strategy

The selected cutover strategy for ISCMP is **Parallel Operation**, where the newly created centralized supply chain management software would be implemented with the old system still operative for a set amount of time until the new system is able to entirely replace the old system. The amount of time is decided by how the new system is tested or how well the new system users are trained.

Although this would be a costly operation strategy, this attempt is recommended since the supply chain management software is classified as a **‘critical application’** as the implemented system has a centralized database system that require high level of maintenance. Besides, since the core feature of the system is totally different than that of the current system (as current system relies on local database instead), it would be proven a difficulty to delegate the system in pilot operation or phased operation.

The **implementation** would carry out in the form where the newly developed system, along with its required software and hardware, are installed firsthand. While the new system is in setup, the old system, along with its local database server, are used as a **placeholder with backups** made in case of new system being corrupted or incompatible to the new system users. The users would then be **provided theory and practical training** by the system trainers until the users are familiar with the system controls.

During the period of training, the system also undergoes **regular performance and user acceptance test** to ensure its performance level and impact to the users. Once the new system reaches the point where the user could master its usage, the cutover process would be ended with approval from the project team and system clients. At that period, the old system would be removed entirely with the backup deleted from the operating system as well.

While there are no strict requirements on the system implementation, the borderline **requirements** need the user to have **matching version of the operating system** with the new system to ensure there would be no errors from version incompatibility. Secondly, a **local client-server** must be prepared along with the new system, so it could be connected to the host server that houses the centralized database for supply chain management process.