**Risk management strategies**

Risk avoidance, risk reduction, risk transfer, and risk retention are four common strategies in risk management. We exploit the different strategies or combine strategies for a certain project based on the risks occurrence odds and the impact severity of risks. For risks that are with high occurrence odds and would lead to great loss to projects or company but it is easy to mitigate them by some actions, usually we use reduction strategy. For example, the risks of the team members’ turnover; unexpected sick leave or incidents; system crush; disk damage suddenly. To use backup to handle these risks before they happen.

The reduction strategy has some advantages:

1. Keep risks under control. After defining the risks, there are relative actions planned before risks occurrence. Once risks happen, project manager and team members can take these actions to reduce the impact of risks on the project.
2. Avoid huge losses. Important information, for instance, that is a disaster if customers’ data or core code of projects disappear forever when disks damage unexpectedly. However, we can void the loss by backup important data periodically. Almost all companies utilize the version control or backup mechanism to reduce the impact of this kind risk. Compare the cost to recover those data and the cost of tools of revision control or backup, the former is much greater than the latter.

Disadvantages:

1. Increase the cost. Using revision control or backup mechanism, we need to purchase tool like CVS; we need to train all the employees who use it; we need specific people to maintain it. All are money.
2. Increase team members’ workload. Usually, for core functions of a project, we have a pair of developers to do that and have review code meeting weekly. Each developer not only do his/her task but also need to know the other’s job, once one of them leave the team, the other can take over his/her work soon.