Backup Strategy Document

The purpose of creating SQL Server backups is to enable you to recover a damaged database. A well-designed backup and restore strategy maximizes data availability and minimizes data loss, while considering your particular business requirements.

Recovery Model:

Recovery model is a database property that controls how the transaction log is managed. The best choice of recovery model for the database depends on your business requirements. So far in production environment we are maintaining the Full Recovery model because it support point in time recovery, if required. To minimize work-loss exposure, at the cost of administrative overhead, use the full recovery model.

Designing the Backup Strategy

The optimal backup strategy depends on a variety of factors, of which the following are especially significant:

- How many hours a day do applications have to access the database?
  If there is a predictable off-peak period, we recommend that you schedule full database backups for that period.

- How frequently are changes and updates likely to occur?
  If changes are frequent, consider the following:

- Under the full recovery model, you should schedule frequent log backups.

- How much disk space will a full database backup require?

Estimating the Size of a Full Database Backup

Before implement a backup and restore strategy, you should estimate how much disk space a full database backup will use. The backup contains only the actual data in the database and not any unused space. Therefore, the backup is usually smaller than the database itself.

Scheduling Backups

We schedule regular Full backups at everyday at 7 PM (off peak hours) and every 15 minute interval the transaction log backup.

If the database size more than 200GB then will take Full backup weekly at Sunday 7 PM (off peak hours) daily 10 PM Differential backup and every 15 minute interval transaction log backup.

Retention period:

In disk itself we have maintain three days full backup and Storage team take the backup on tape drive for longer retention
Performance Note:

- Schedule Backup Operations When Database Activity Is Low.
- Back up first to disk, whenever possible. Consider using a File Server to store the backups.
- When using a File server to store backups, consider using a private LAN trunk to avoid general network Congestion.
- Back up to tape or other devices for long run storage.
- Do not use the same physical disk that hold the database files or Log files for backup purposes.

Service Level Agreement:

The SLA is an agreement between customers and users on one side and service providers on the other side. The SLA is written like a contract and describes a set of operational goals that the IT Department promises to achieve.

The following example is the part of an SLA3 regarding disaster recovery and backup and restores plans:

In case of the following incidents that disrupt the database service, the IT department will resolve the Problem under the following conditions:

- In case of I/O system failure or human error, the database service will be available within 4 hours of the first report of the incident, and no more than 15 minutes of data will be lost.