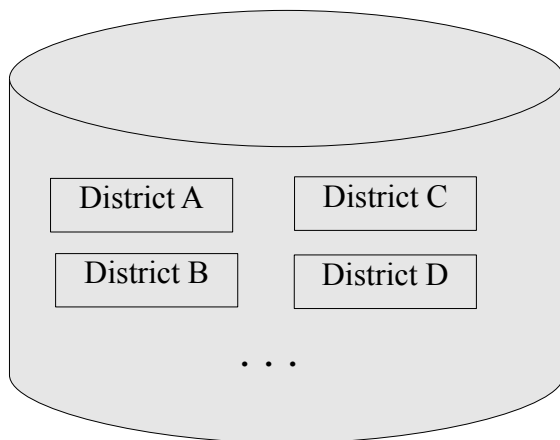


State Software Migration – Phase 2 (Back End Re-implementation)

Database Support:

- Microsoft SQL
- Oracle DB
- Open Source (one or more of):
 - MySQL
 - PostgreSQL
 - HyperSQL (HSQL) – Embedding database for Testing/Development

Database Architecture – Multi vs Single Enterprise



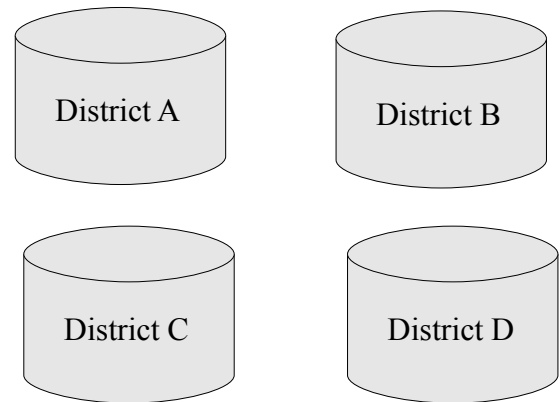
**Multi Enterprise Database
(ITC as Enterprise)**

Advantages:

- Administration & Backup
- Single database to upgrade
- Data sharing between enterprises (?)

Disadvantages:

- Single District Recovery difficult/impossible
- Scaling: Bigger hardware or cluster
- Complex extract/import of single district
- Security:
 - * Risk of application error
 - * Development complexity
 - * Direct ODBC access user difficult



**Single Enterprise Database
(District as Enterprise)**

Advantages:

- Security (Isolation)
- Less complexity:
 - * Security
 - * Development
 - * ODBC
- Single District Backup/Recovery
- Scaling: Split databases across servers
- Flexible configurations, eg:
 - * Single district VM (app+DB)
 - * Central or Distributed Hosting

Disadvantages:

- DB Administration/Backup
- Upgrade multiple databases