Planning for ESRI 9.2 technology

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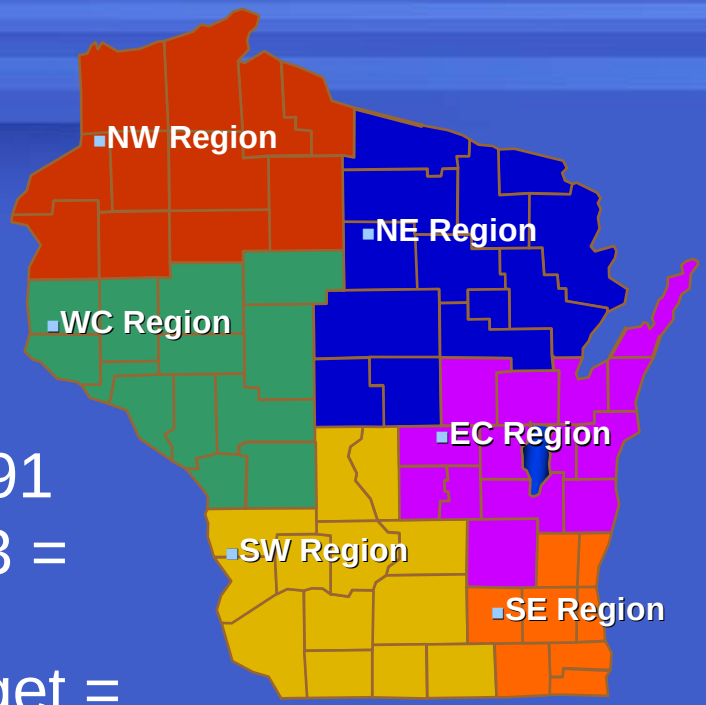
Topics

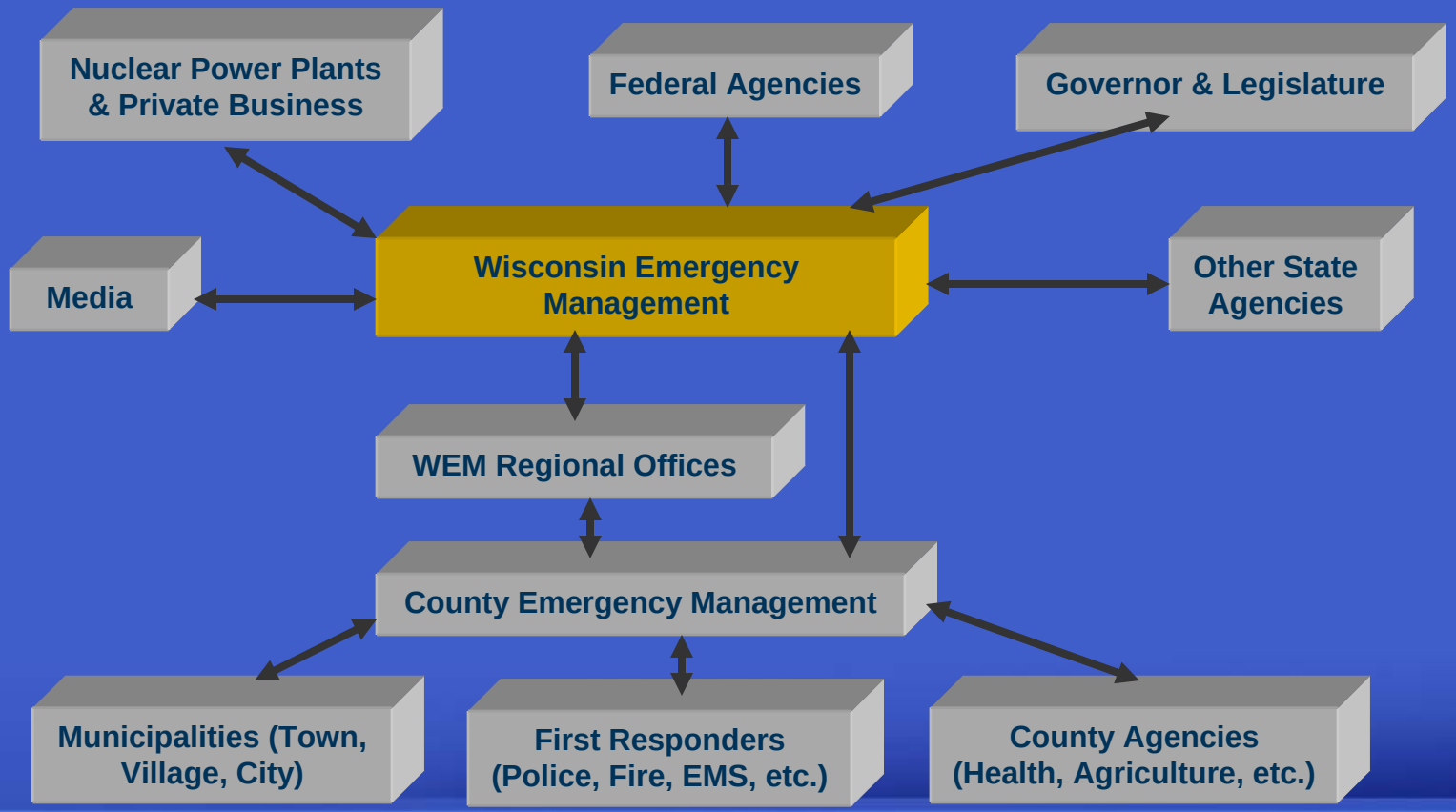
- About DMA
- GIS Needs
- Configurations
- SDE Administration
- Working with Single & Multiple Spatial Database Models
- Logfile Management
- ArcSDE 9.2 Upgrade
- What's New in ArcGIS 9.2
- Summary

About DMA



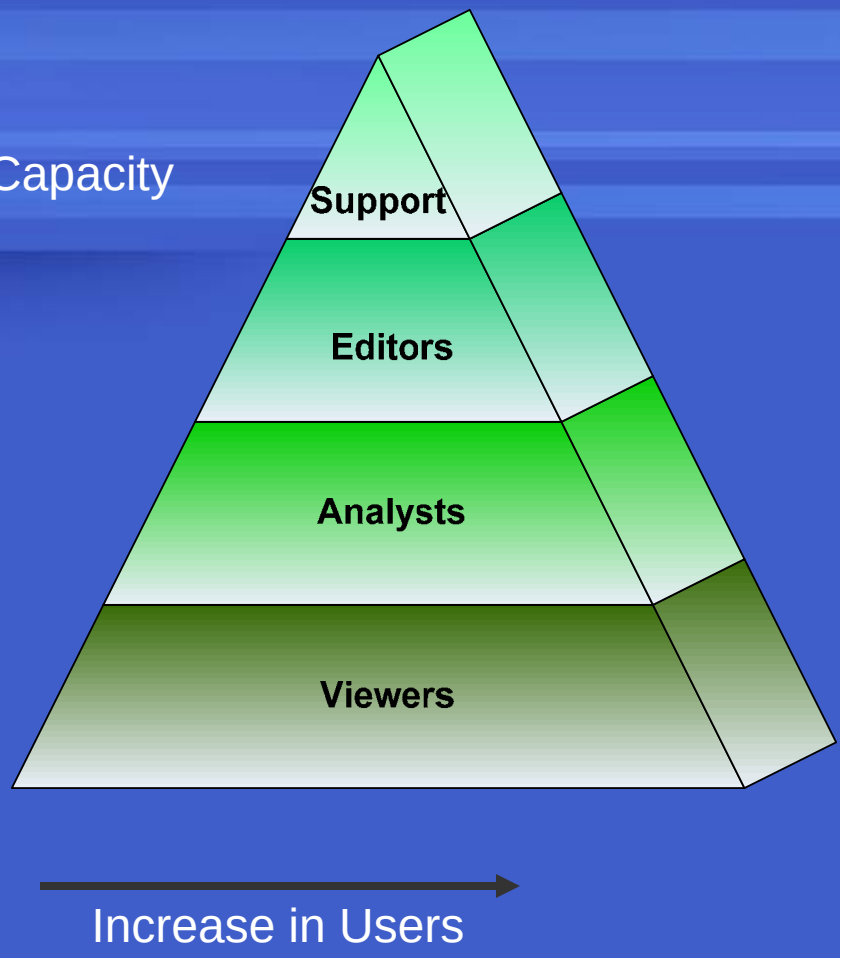
- State Employees = 382.91
- Total State Budget 01-03 = $113,344,700
- Total State Federal Budget = 259.8 million.
- Wisconsin is a ‘Home Rule” State.

Interagency Resources

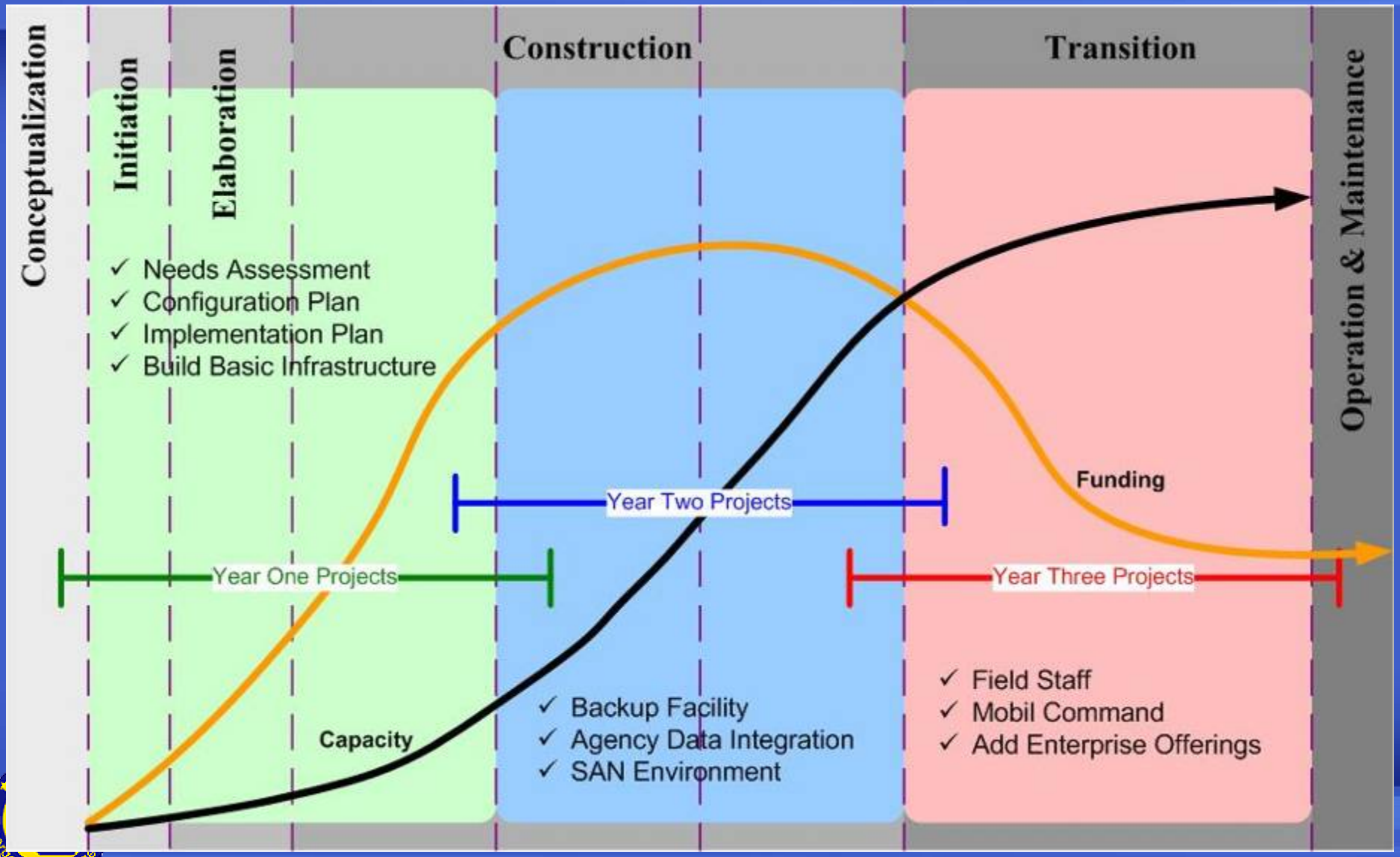


Staffing Needs

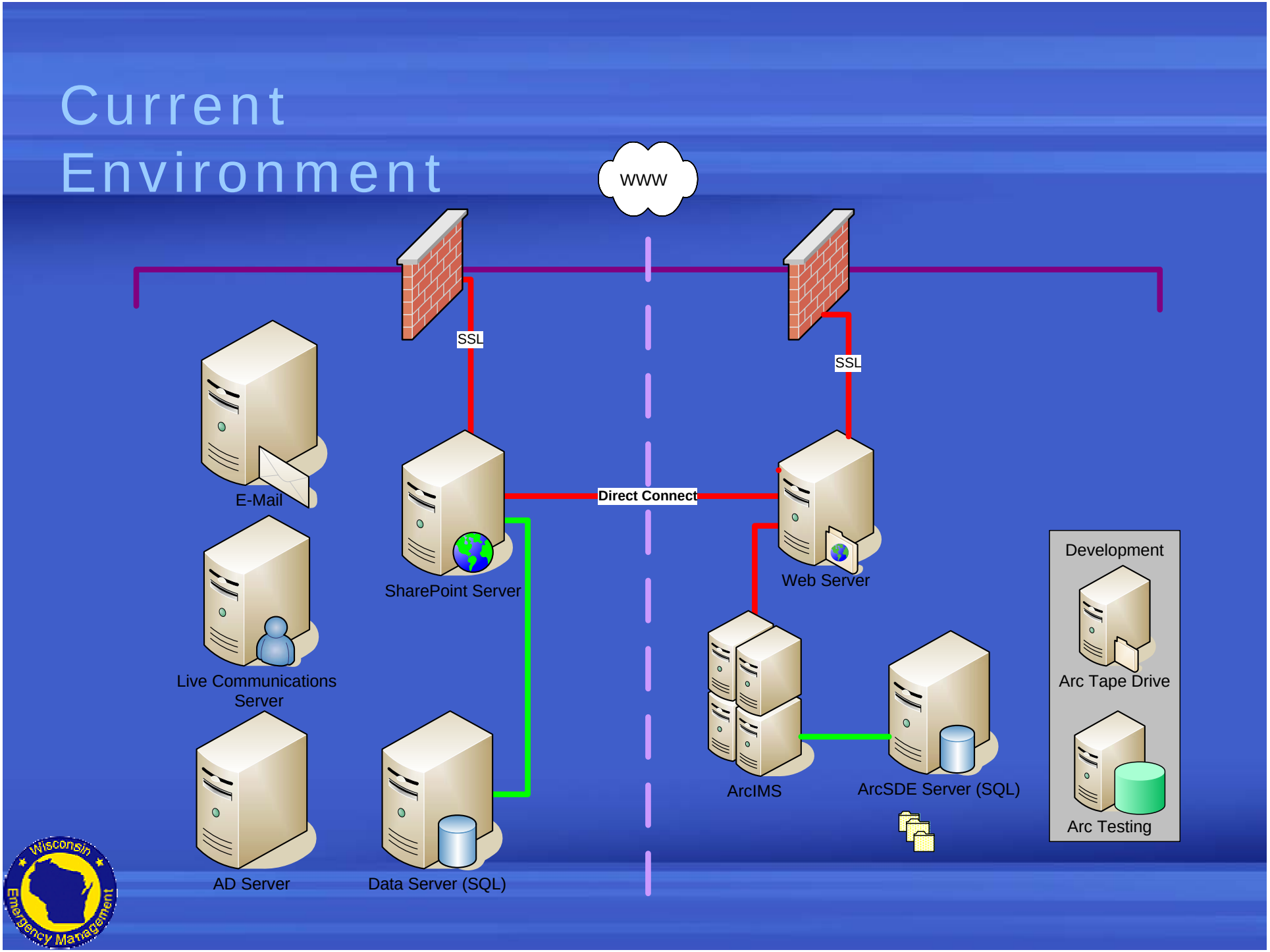
- GIS support roles
  - GIS coordinator.
  - GIS technical lead.
  - Database administrator.
  - GIS application programmer.
  - Web application administrator.
  - System administrator.



Overall Vision



Current Environment

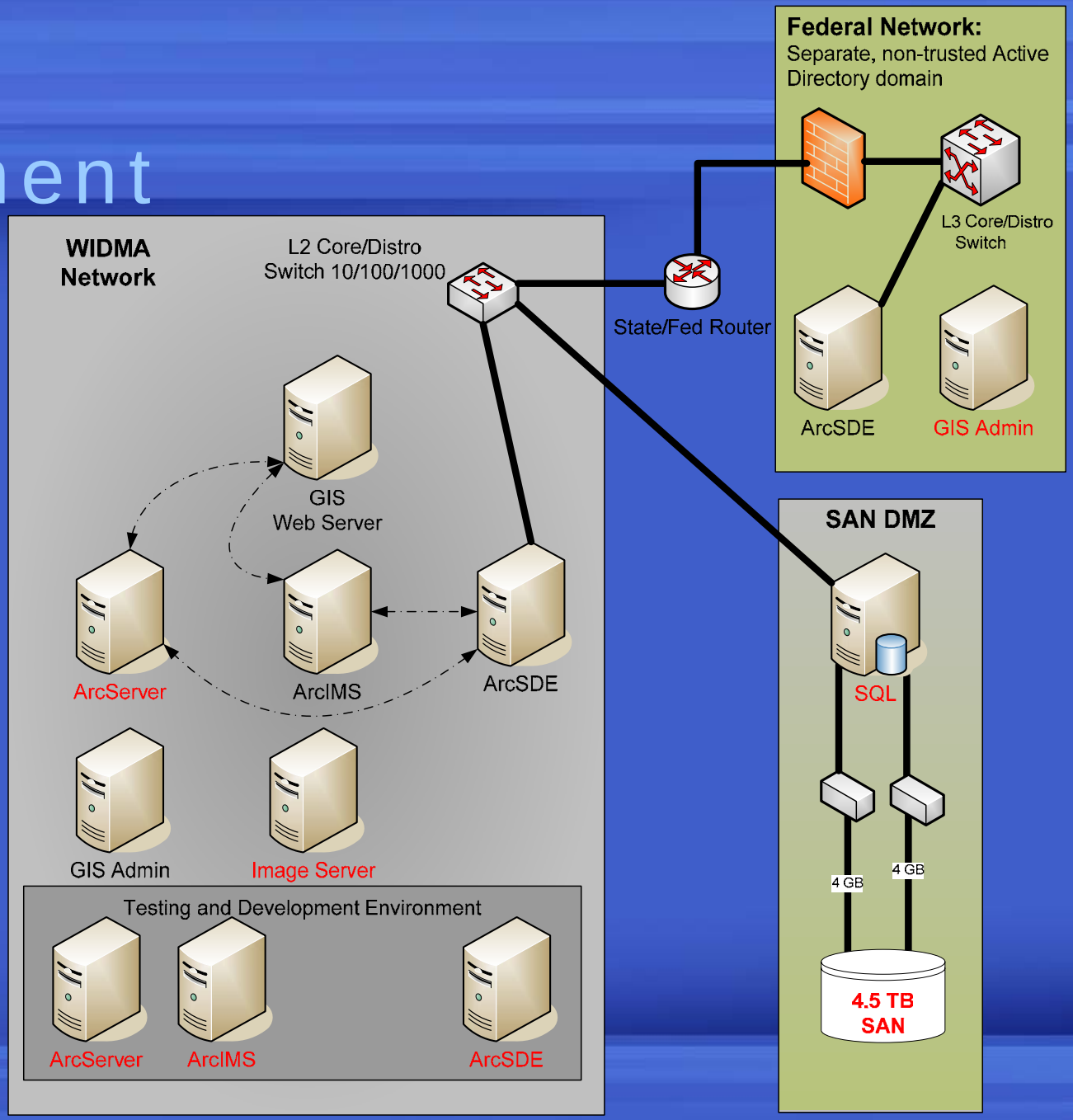


Planned Rollout

- Three Phases
  - State and Federal integration
  - Upgrade Applications to 9.2
  - Upgrade ArcSDE to 9.2

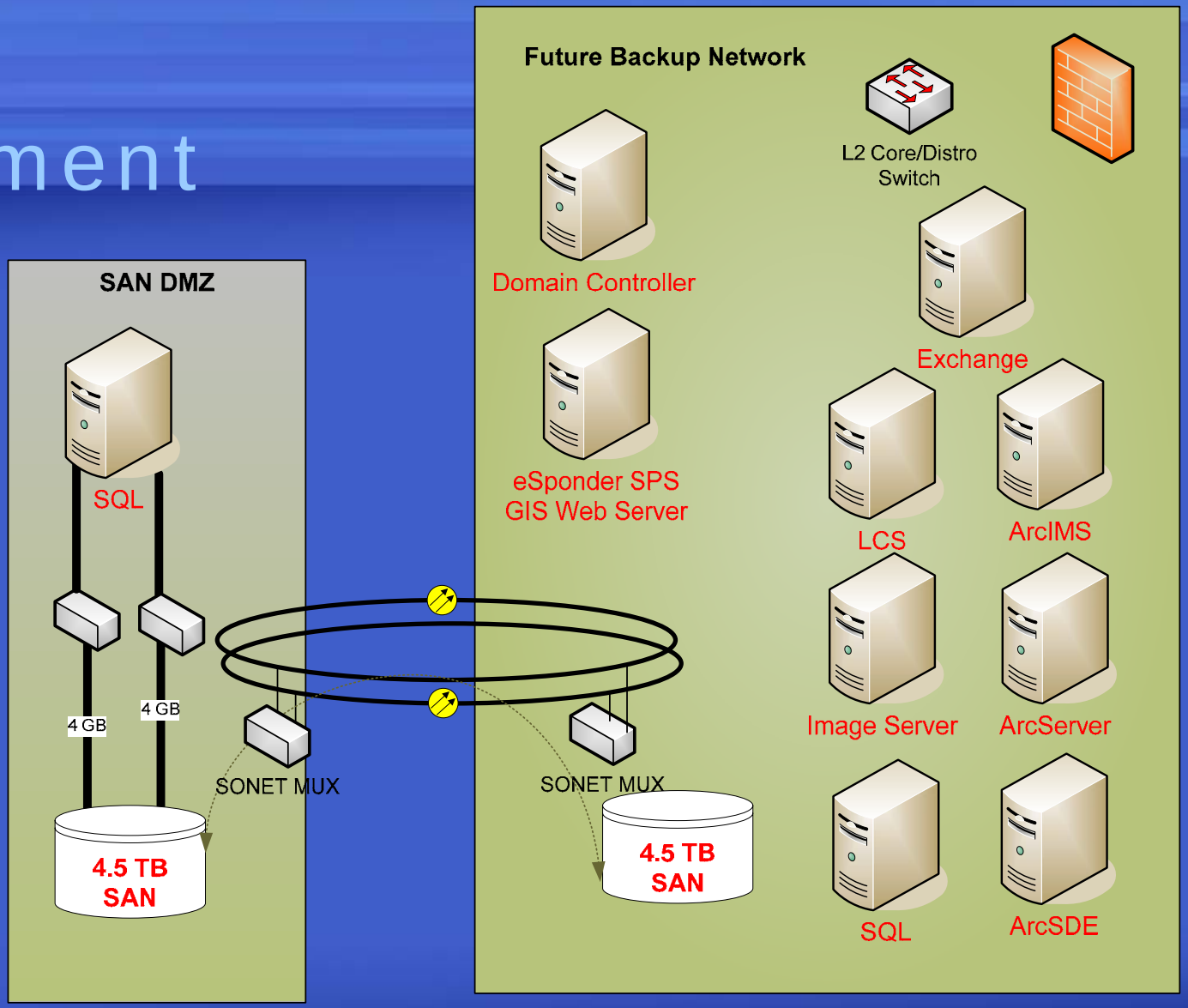
Future Environment

- Storage Area Network (SAN).
- ArcSDE decoupled database.
- Unique ArcSDE configuration.
- Esponder is a critical application
- ArcGIS 9.1 users will use file based datasets.



Backup Environment

- Nightly/real-time replication.
- Failover for all applications.



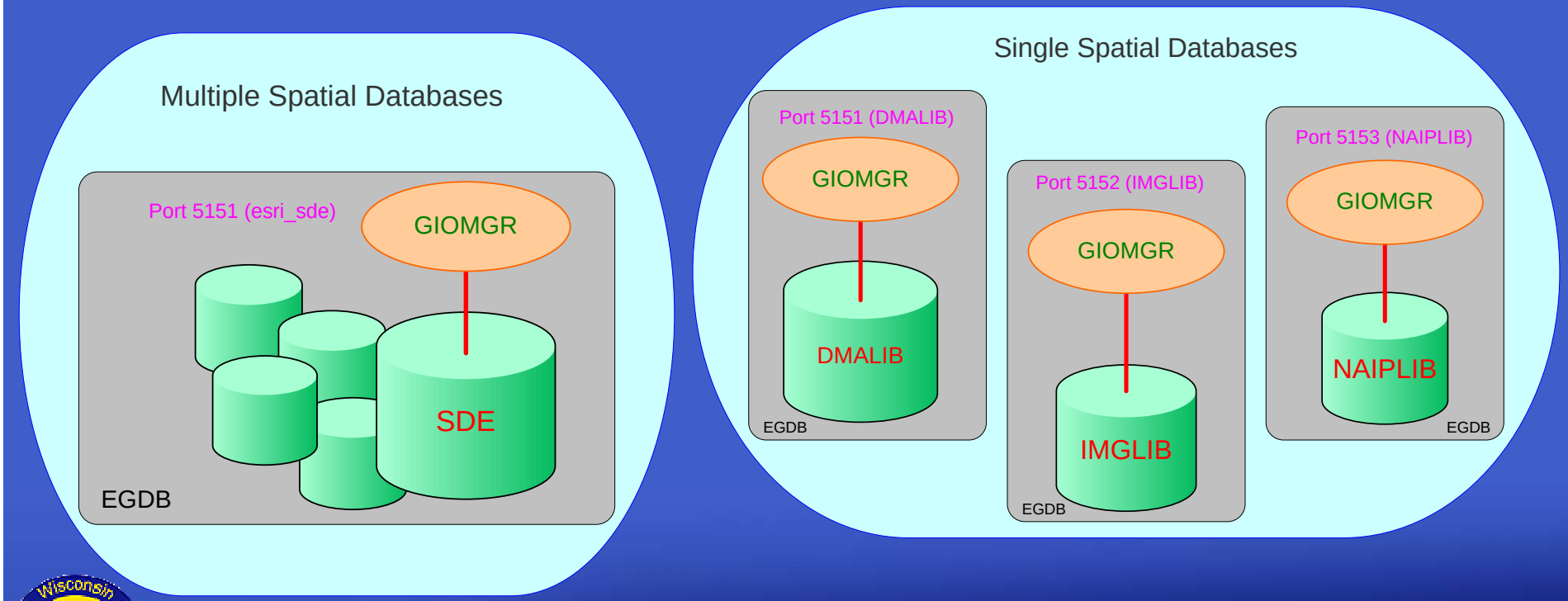
WEM/DMA ArcSDE Administration for SQL Server

Working with single & multiple spatial database models

- Architecture Overview
- Installing
- Cross-database Behavior
- Upgrading

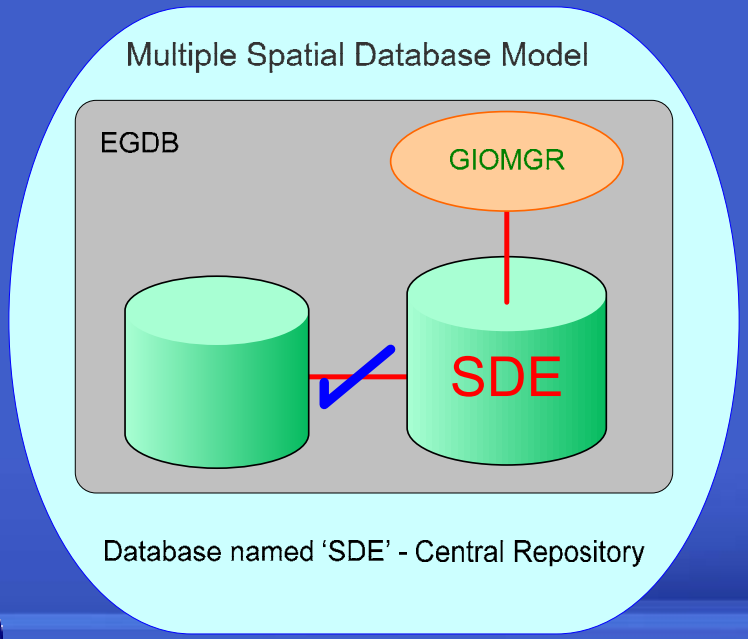
Architecture Overview

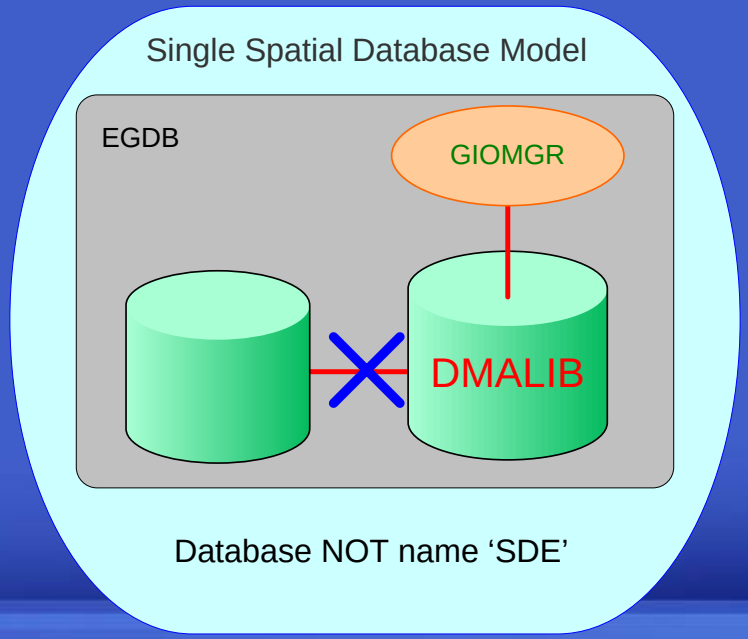
- Two options since ArcSDE9.0



ArcSDE Installation

- Install ArcSDE software
- Post-installation wizard
  - Create a new database
  - Create & populate ArcSDE Repository

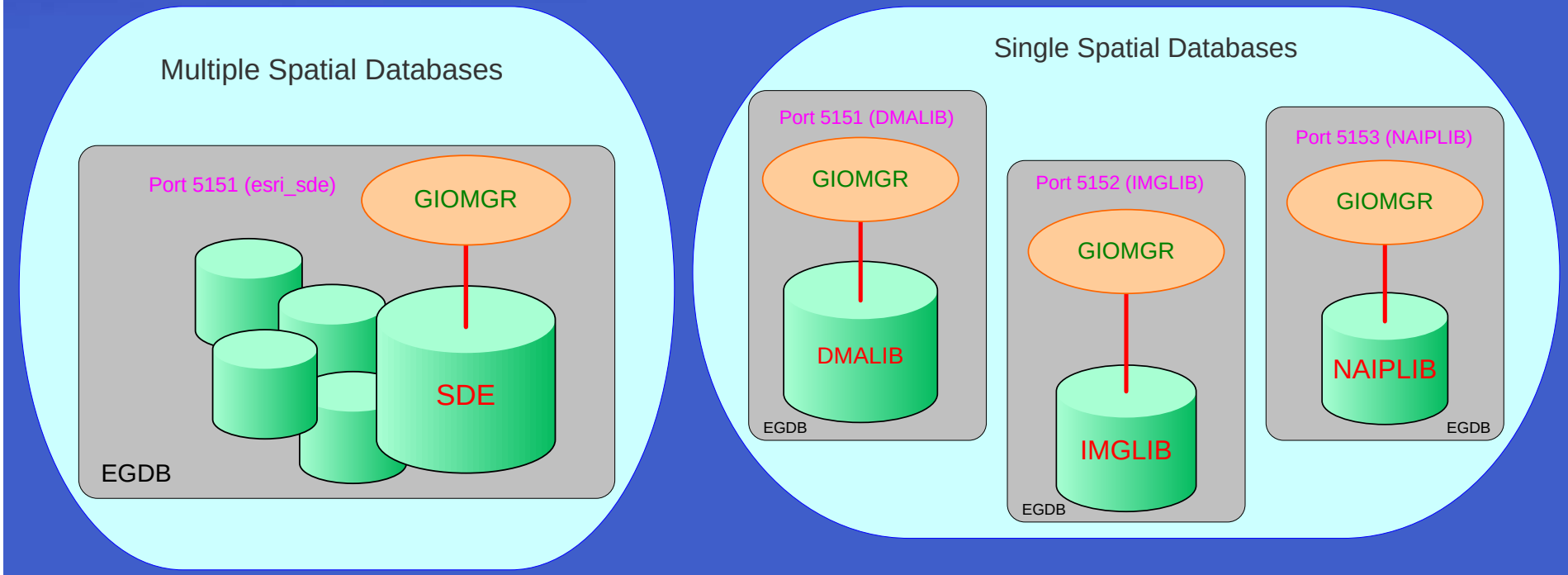




Cross-Database Queries

- Multiple spatial database model
  - All related databases form a single EGDB
  - Cross-database queries supported within the EGDB
  - ArcSDE views to remote data supported
- Single spatial database model
  - Cross-database queries are NOT supported
  - ArcSDE views cannot directly reference remote data

Cross-Database Queries



Logfile Management

- Overview of Logfiles
- Logfile Options
- Logfile Decision Tree

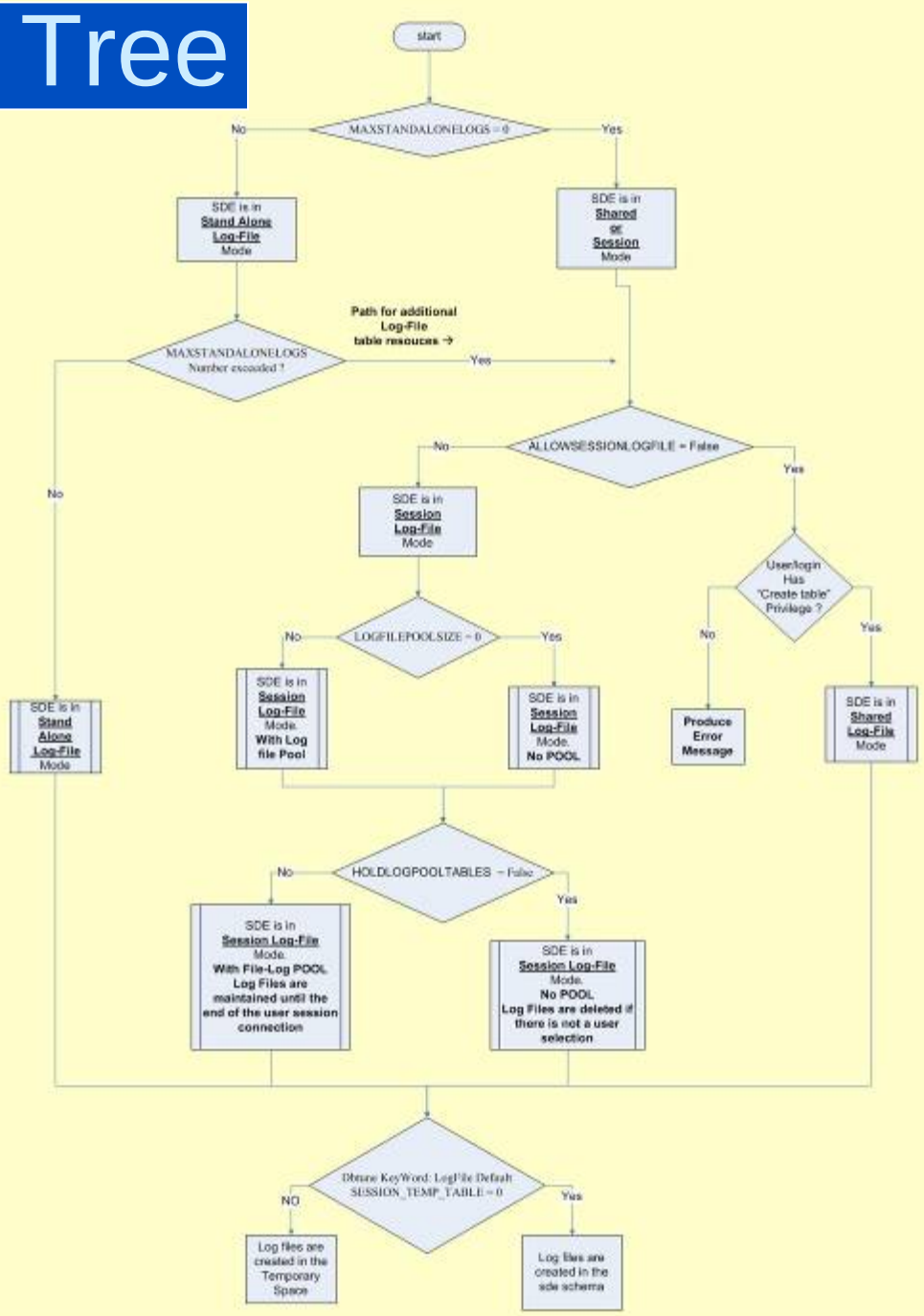
General Information on Logfiles

- Logfile tables maintain sets of selected records
  - Object IDs
- Used by ArcGIS when
  - Selections are greater than or equal to selection threshold
  - Default is 100 features
  - Option to change default selection threshold
  - ESRI knowledgebase article #22668
- Used by ArcIms for selection operations
- Used by ArcSDE for versioning

Logfile Options

- Shared – Shared by all session that connect as the same user (default)
- Session Based – By each session that connects even if same user (WEM uses)
- Standalone – By a session for each logfile the application needs

Logfile Decision Tree



Upgrade Procedure for ArcSDE

1. Backup ALL Databases
2. Stop and Delete all instances (services)
3. Uninstall old ArcSDE version
4. Install new ArcSDE version (no post-installer)
5. Run Checkschema.exe utility (%sdehome%\tools\generic\)
   - Checks for database corruption and identifies orphaned records
6. Run custom post-installation
   - Do not create new database or ‘sde’ user
   - Upgrade ArcSDE repository
   - Authorize software
   - Create new service(s)

ArcSDE Upgrade .....

1. Upgrading does not affect architecture
   - Multiple spatial database upgrades to multiple
   - Single spatial database upgrades to single

2. Upgrade can skip one version (9.0 - 9.2)
   - Can upgrade directly 9.0 to 9.2

3. Can not skip two or more versions (8.3 - 9.2)
   - Must upgrade in stages
   - Example - 8.3 to 9.0 or 9.1 and then to 9.2

Upgrading SQL Server 2000 to SQL Server 2005

Three options

1. Leave ArcSDE software in place
   - Upgrade the instance of SQL Server only

2. Detach & attach ArcSDE geodatabase
   - On a fresh install of SQL 2005

3. Backup and restore databases
   - On a fresh install of SQL 2005

What's new in ArcGIS 9.2

- Historical Archiving
  - Enables storing edits to an archive feature class
- Geodatabase replication
  - Ability ot distribute copies of data across GDBs
- New Editing Options
  - Improved user experience for conflict detecting during reconcile
    * Better conflict detection dialog
    * Conflicts based on object ID or by attribute
  - Versioned editing with move to base option
    * Edits saved directly to the base tables when editing DEFAULT
  - Non-versioned editing mode
    * Direct editing of simple features and table in an ArcSDE GDB without using versioning

Questions?