



Future of Data Management Summit

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 SOLIDWORKS



SQL Maintenance And Performance (PDM)

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Agenda

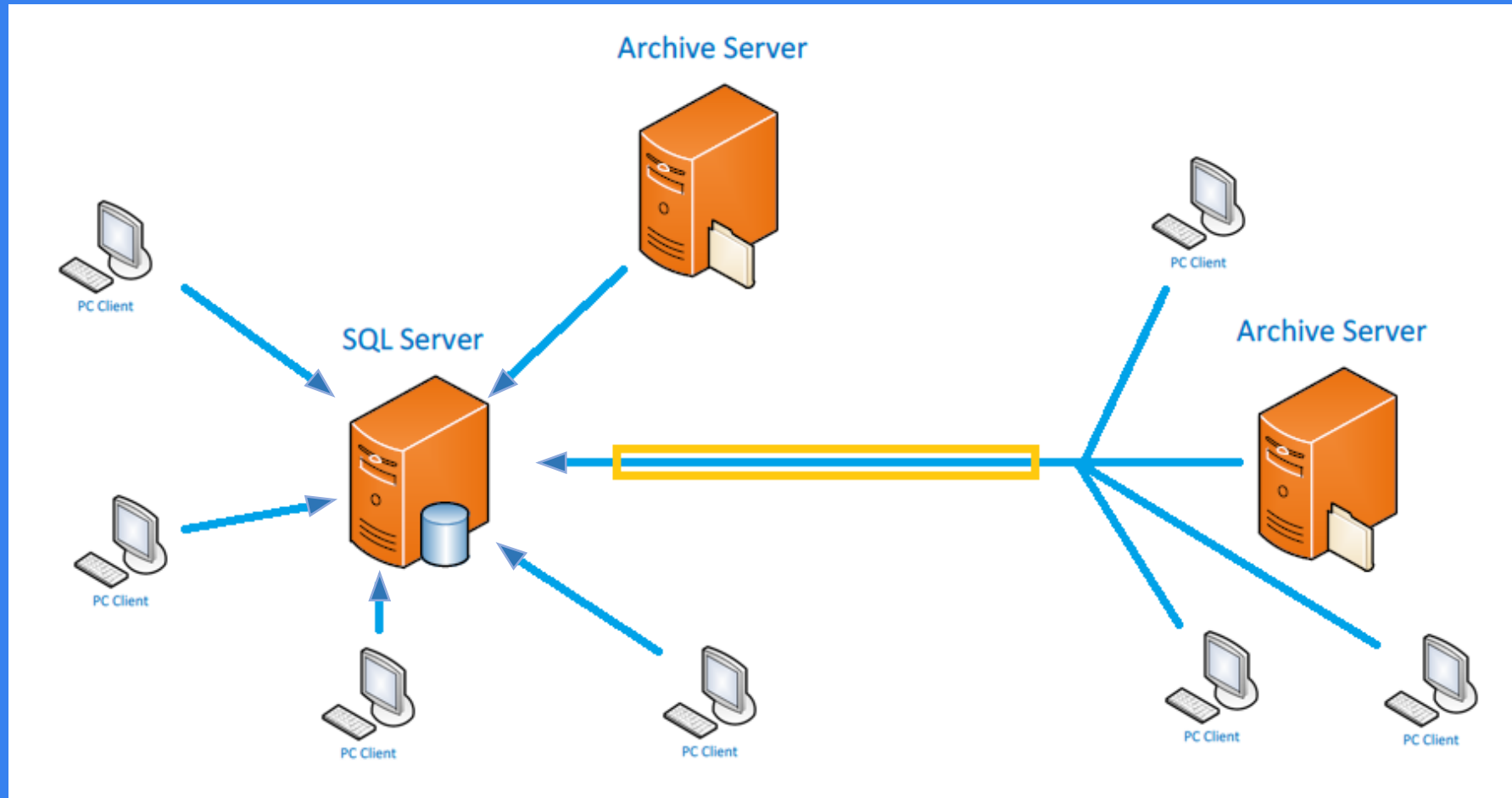
PDM Architecture

SQL Server Performance Considerations

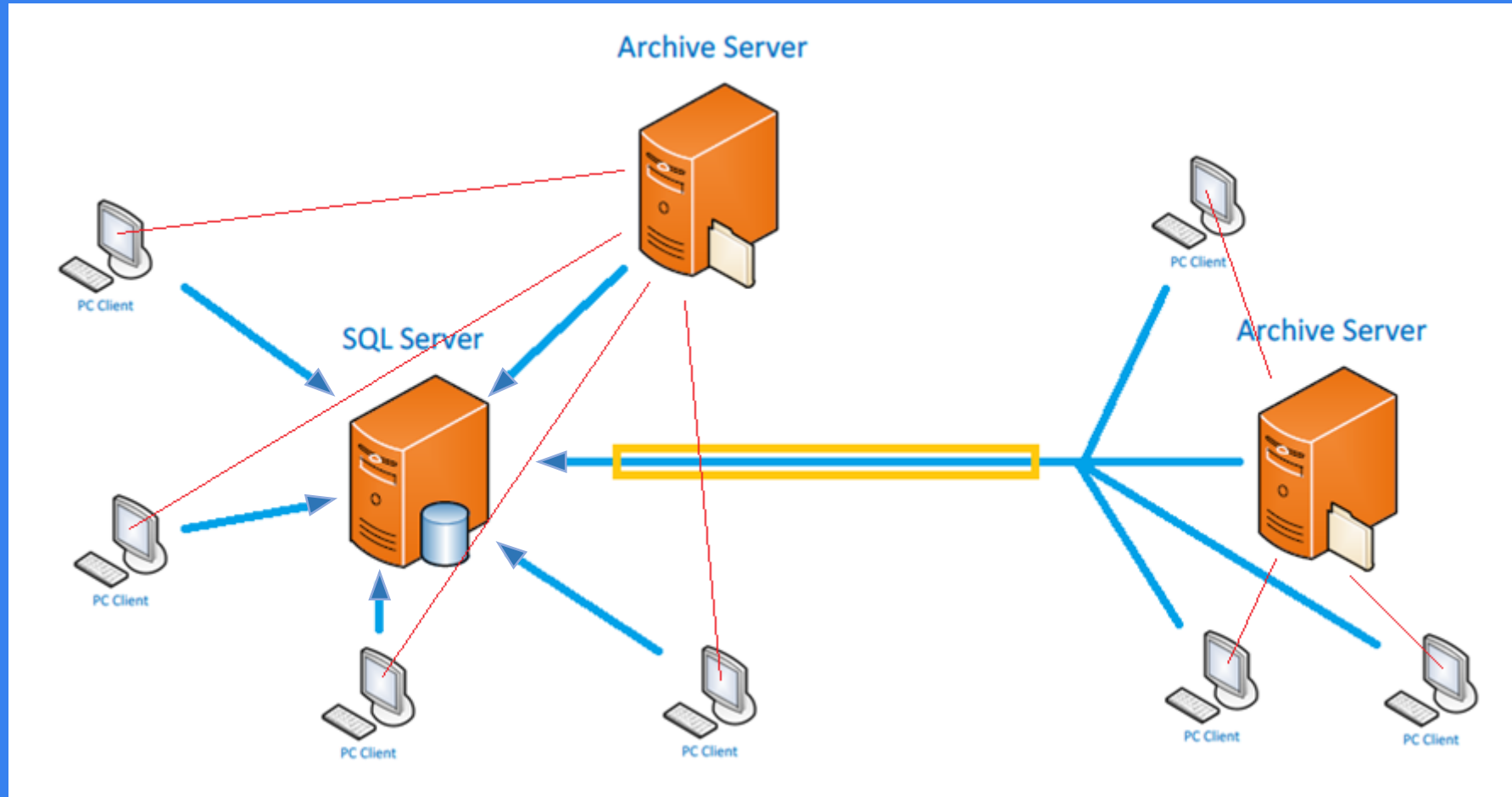
SQL Server Configuration

SQL Scheduled Maintenance

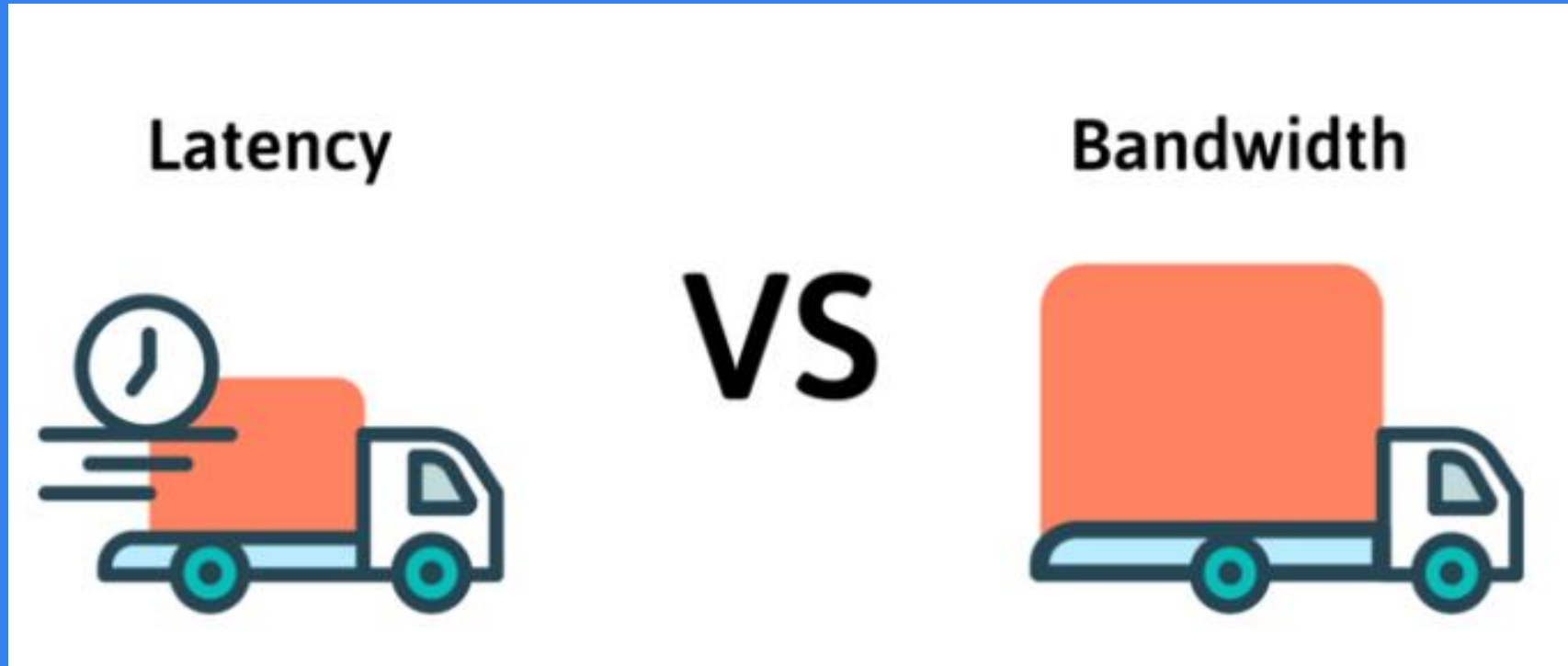
PDM Architecture



PDM Architecture



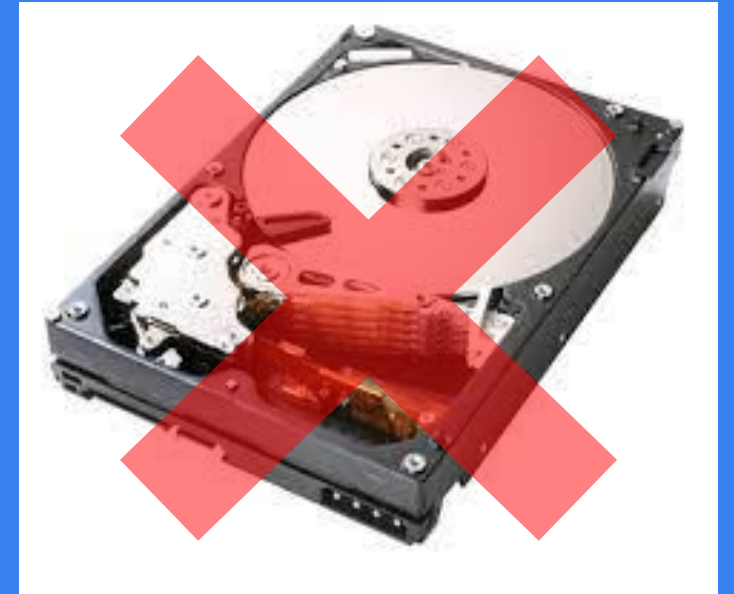
PDM Architecture



SQL Server

Performance Requirements

- Eliminate resource starvation
- Dedicated SQL Server (no other database)
- RAM = DataBase size + 4GB
- CPU average <50% , peak <80%
- Parallel Operations = more cores
- Maximize I/O drive storage speed

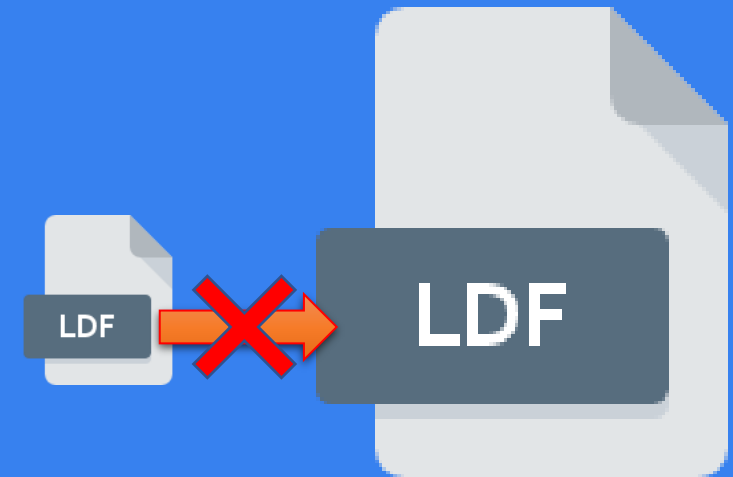
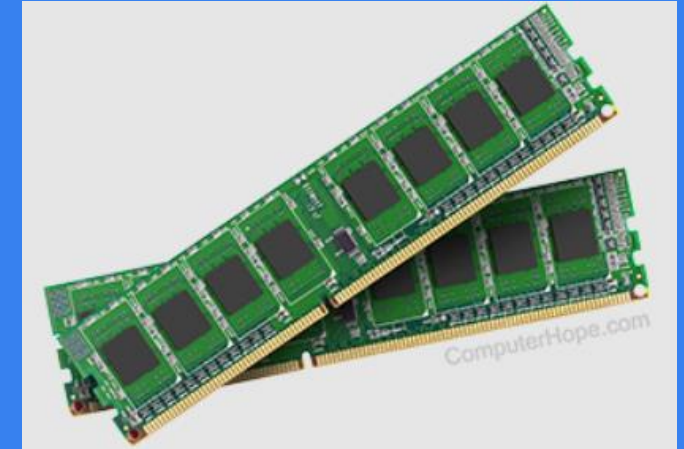


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SQL Server

SSMS Parameters

- SQL RAM = 80% System RAM
or, = Database Size * 1.2 + 4
- Reduce DB files autogrowth
 - Set initial size > db size; grow by large amount
 - Same for TempDB files
- Use Simple Recovery Mode
 - Full recovery can inflate Log file (run out of space)
 - Shrink may be required
- Check available drive space.



SQL Server

SSMS Maintenance Tasks

- ! BACKUP ! (DAILY)
 - Daily, full backup
 - Backup Archive Data at the same time
 - ! Save Backups to a different Machine / Drive ! – keep multiple days
 - ! Test Recovery !
- Rebuild Index + Statistics (end of week)
 - Can improve SQL operation speed
- (Optional) Reorganize Index (mid week)

PDM Services

- Archive Service (Main)
 - Installed on archive server
 - Sends and receives files
 - User logon
 - Runs scheduled replication tasks
 - Deletes destroyed file archives
- Database Service (Helper)
 - Installed on SQL server
 - Notifications: Workflow + Automatic notifications
 - Broadcast Changes to: Schedules (Replication, XML export, Cold Storage)
 - SQL Card List Updates

PDM Services

DataBase Service Stopped

- Can stop without any Red Flags
- Results in:
 - Build up in SQL vault database process queue
 - Message system not working correctly

- Check # of rows in tables:

+  dbo.BroadcastEvent

+  dbo.DocumentActionInfo

+  dbo.ExportBatches

Questions?

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