Etere Supports all Microsoft High Availability Solutions

Solutions in SQL Server

- Backup and Restore
- Log Shipping
- Replication
- Mirroring
- SQL Cluster
- AlwaysOn
- VM mirroring

Microsoft

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Backup and Restore

- Inexpensive Disaster Recovery solution
- No HA
- Data can be lost

Log shipping

- With HA, DR
- No Automatic Failover but with an automated process of backup and restore
- Database level
- Inexpensive

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Log Shipping

Monitor Database
Server (Optional)

LOG SHIPPING

LOG SHIPPING

Primary Database
Server (Backup Job)

Backup Share

Secondary Database
Server(s) (Restore Job)

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Replication

- Database, Object level
- No automatic failover
- Can be used for load balance purposes

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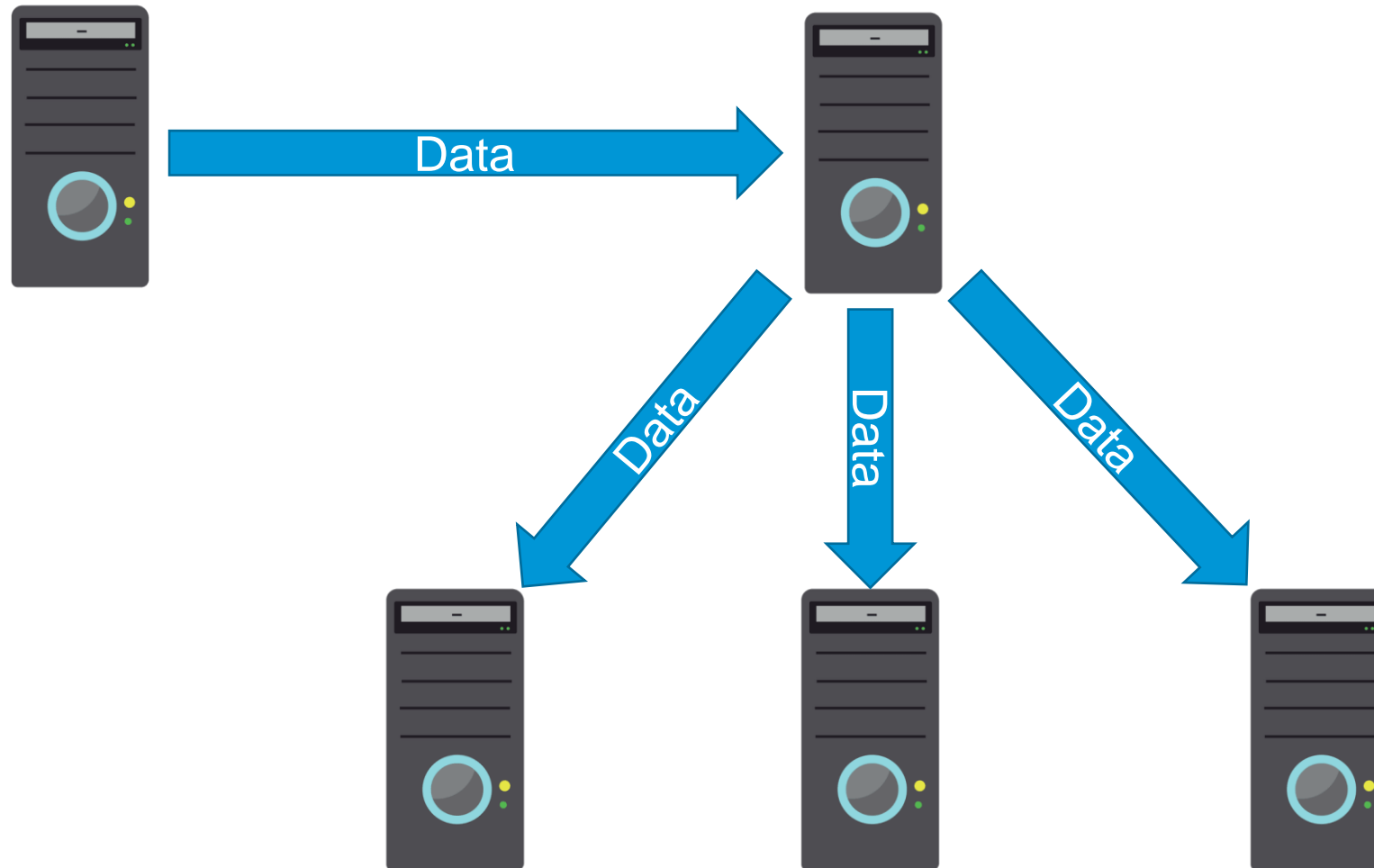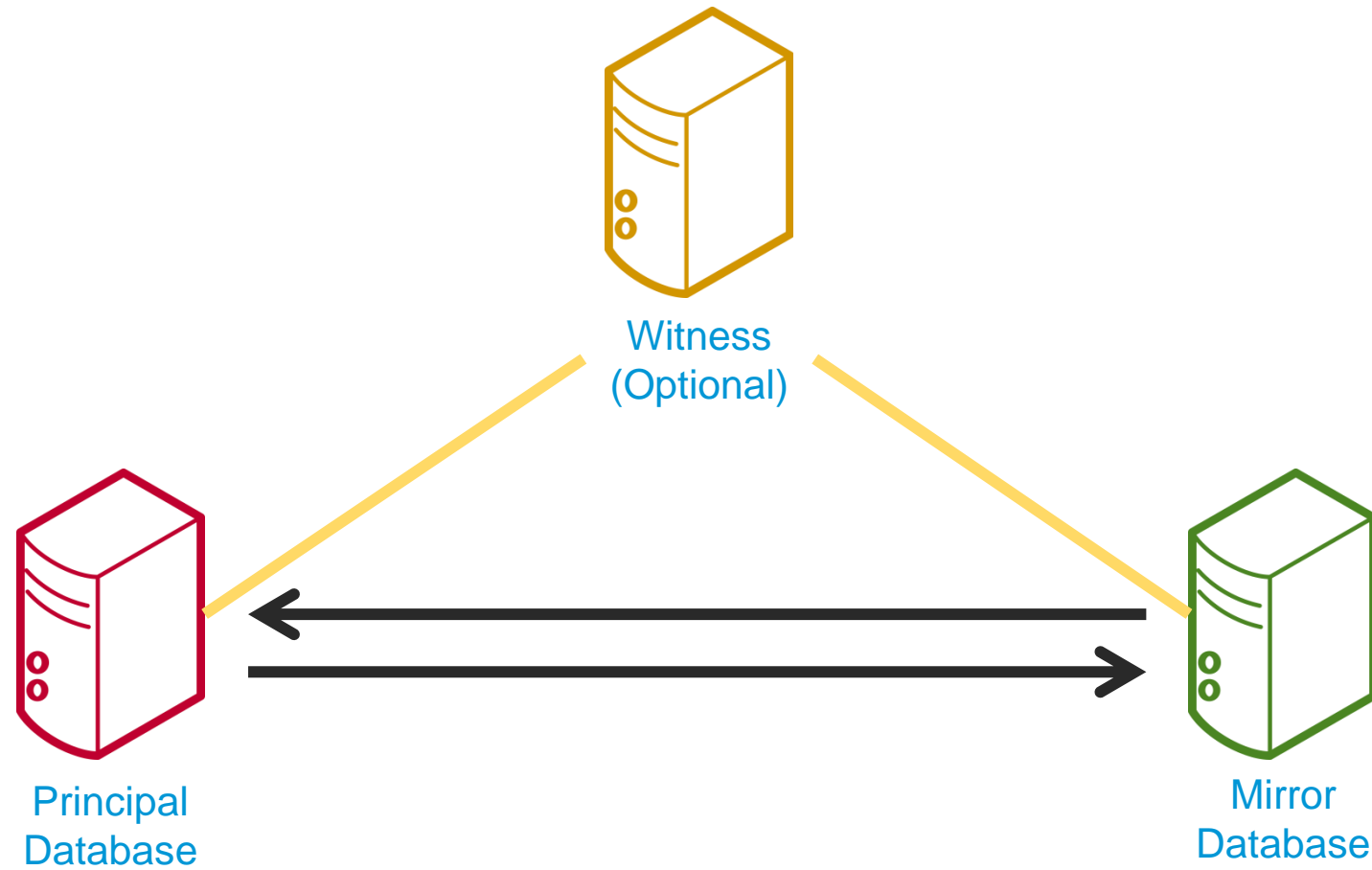
Mirroring

- Automatic failover (need witness server – optional)
- Read-only database for secondary
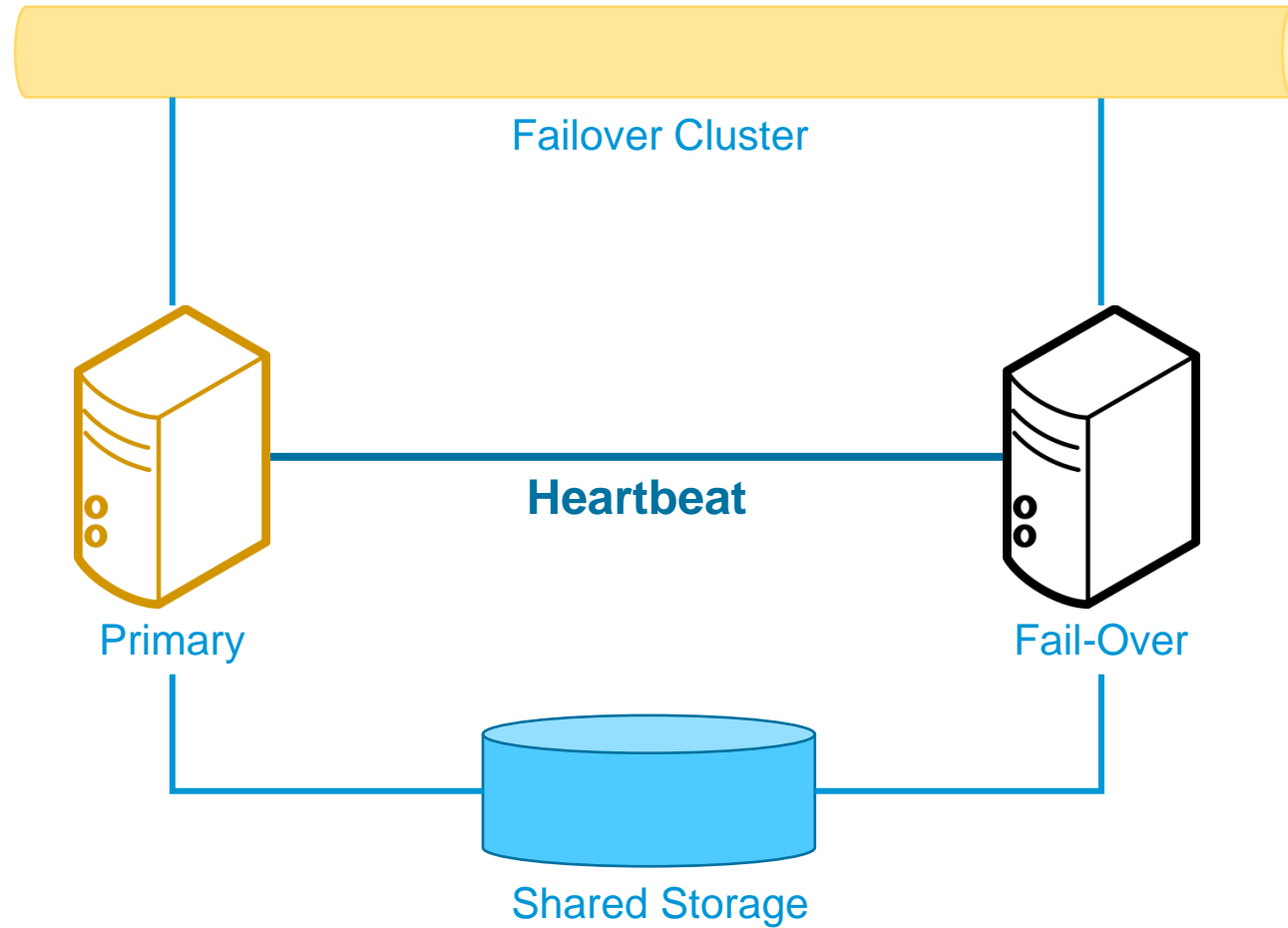- This feature has been declared obsolete by Microsoft

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Mirroring

SQL Cluster

- Expensive solution (HD , License ,..)
- Include two nodes or more
- Required SAN Storage
- Immediate automatic recovery in case of server failure
- It's the best solution for redundancy until SQL2012

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SQL Cluster

Failover Cluster

Heartbeat

Primary

Fail-Over

Shared Storage

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AlwaysOn

- New Feature in SQL Server 2012
- Can have up to 5 replicas
- Can be deployed across different locations
- Can use Secondary servers for read only
- Automatic failover

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Always On

Windows Server Failover Cluster (HADRON-CLUSTER1)

Reporting Services/
Client Apps

Availability group
listener
SQL1

SP-DENALI1\SQL1
(Primary Replica)

SP-DENALI3\SQL1
(Secondary Read-
Only Replica)

SP-DENALI4\SQL1
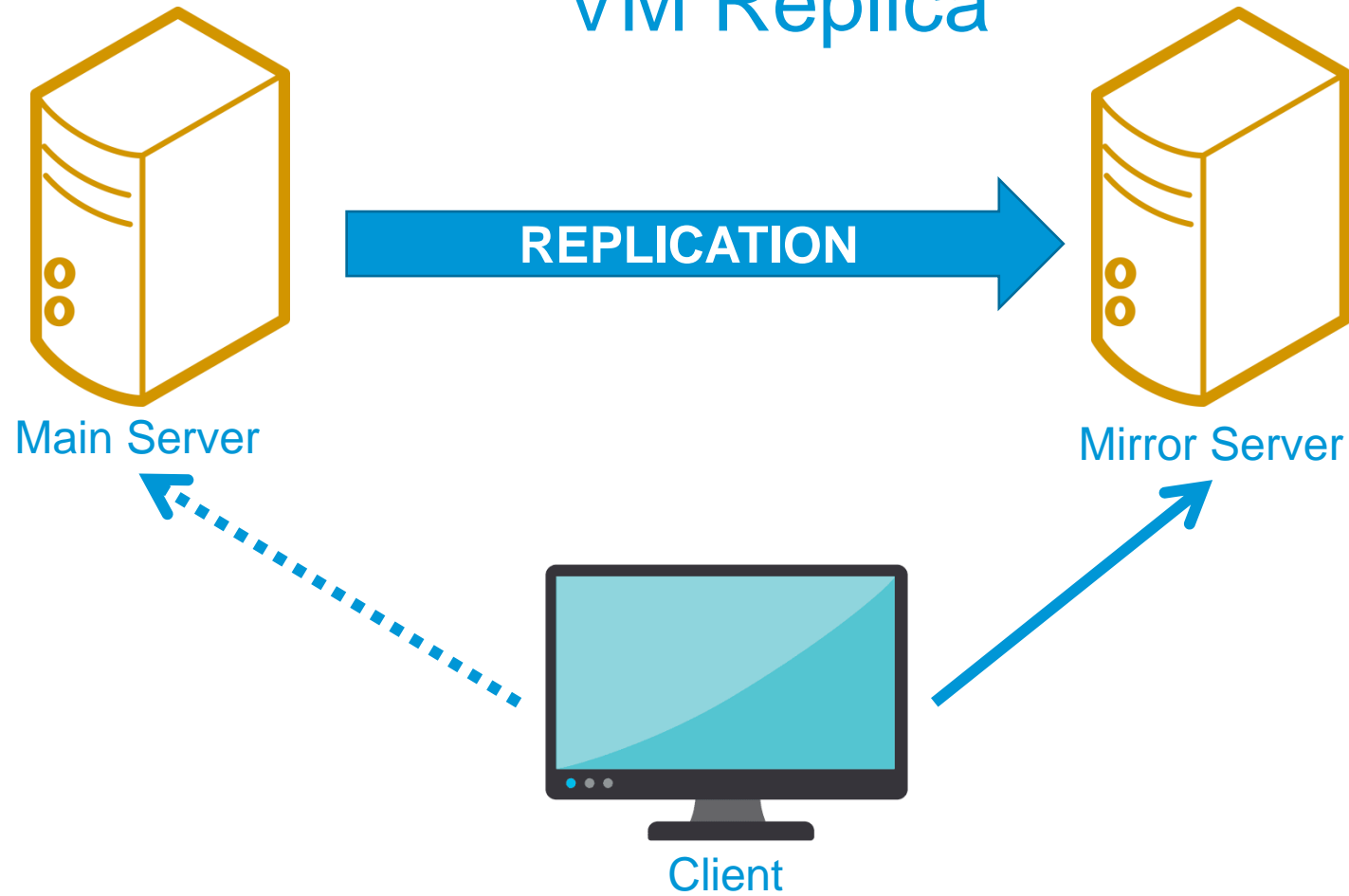(Secondary Read-
Only Replica)

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VM Mirroring

- Easy
- Manual failover
- Not expensive
- Provide Multiple recovery
- Ideal for MAM system that can tolerate a short fail.

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VM Mirroring

- This is a different approach moving SQL server on a VM you can mirror all the VM

- Microsoft Hyper-V provide the facility to mirror

- Mirror can be one to one or one to many, the mirrored HW do not need to be the same as main

- You can setup also restore points to switch back to a configuration after a disaster

- The only problem is that the switch must happen Manually, so this is ideal for system that can allow several minutes of breakdown.

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VM Replica

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