

Comparison of Microsoft SQL Server High Availability Technologies

Technology	Scope of Protection	Complexity	Automatic Failover	Identical Hardware Required?	Relative Cost	Limitations	Can you query/report off the duplicate?
Failover Clustering	Entire node failure, entire SQL instance.	Quite complex.	Yes.	Yes, basically.	High.	Doesn't protect against the loss of a data center. Doesn't protect against the loss of a storage cabinet/solution.	No, there is no duplicate data.
Log Shipping	Database by Database. Can configure more than one Log Shipped database destination.	Low to moderate.	NO.	No.	Low to Moderate.	Can't protect system databases. Can't protect the entire instance.	Yes. And possibly protect against "DB Ah-Oh" situations.
Database Mirroring	Database by Database.	Low.	Yes, only with the "High Availability" configuration.	No.	Low to Moderate.	The "High Availability" requires SQL Enterprise Edition, and requires THREE total SQL Servers. Can't protect system databases. Can't protect the entire instance. Can only have one mirrored destination.	No, but you can create a Database Snapshot of the mirror and query the Snapshot.
Database Replication	>= 1 Table in a DB >= 1 View in a DB >= 1 Sproc in a DB >= 1 Function in a DB The unit of Publication is the scope of protection.	Low to psychotic.	NO.	No.	Low or higher.	Can't protect at entire database, instance, or node.	Absolutely. Strong benefit of Replication.
AlwaysOn Availability Groups	Collection of Databases (availability group).	HIGHEST complexity.	Possible, with synchronous commit option.	No.	Requires multiple machines and licenses.	Requires Windows Failover Clustering Service, but <i>not</i> shared storage.	Yes, conditionally.