

# Log Shipping

## A simpler alternative to database replication

Replication of data from one database to another is a complex process with many pitfalls. SQL Server offers various types of replication, but all of them have technically demanding complexities, require extensive configuration, and need ongoing monitoring and maintenance by an experienced SQL Server database administrator. acquire does not provide support for SQL Server replication and does not recommend its use for the acquire Data Model.

### What is Log Shipping?

Log Shipping is a process that provides an alternative to replication. It starts with a source database (primary database), from which a full backup is taken. This backup is then restored as a new database, which is used as the copy database (secondary database). The source database then provides regular transaction log backups that contain all the changes made to it. These backups are used to restore the changes to the copy database. The process of taking transaction log backups, copying the backup files and restoring the backups is automated via SQL Server Agent. Multiple copy databases can be set up if required.

### Log Shipping Features

- Simple to set up and maintain
- Reliable and robust
- Source and copy databases can be completely remote from one another
- Unlimited number of copy databases can be set up
- Does not affect the performance of the source database
- Available to SQL Server 2000\*, 2005 and 2008.

### Log Shipping Limitations

- The copy databases can only be full copies of the whole source database; therefore, Log Shipping cannot be used to merge multiple sources into a single central copy database.
- All copy databases have Read-Only attributes.
- Automation requires SQL Server Agent; so realistically, Log Shipping is not available with SQL Server Express editions.
- The backup strategy applied to the source database needs to take Log Shipping into consideration. (\*SQL Server 2000 may be problematic in this area.)

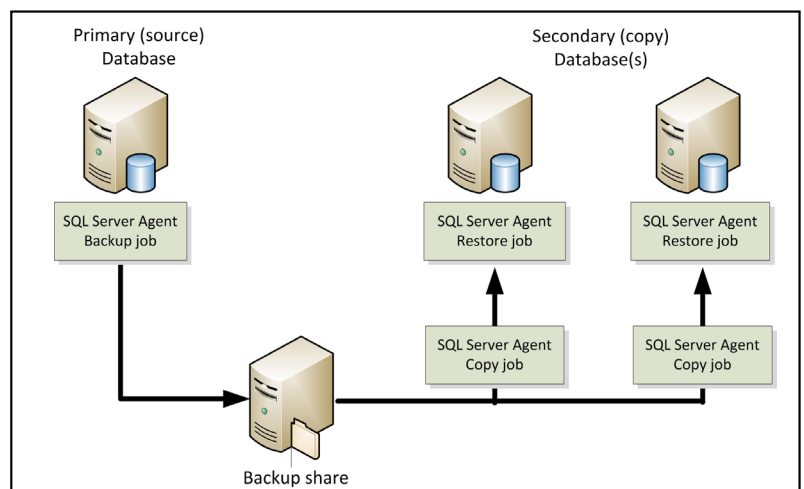
### Log Shipping Process

This process can be described by the following simple steps:

1. SQL Server Agent job fires on the source server and takes a transaction log backup of the source database, placing the backup file in a shared directory.
2. SQL Server Agent job fires on the copy server and copies the backup file from the shared directory to a location on its own hard drive.
3. Another SQL Server Agent job fires on the copy server and uses the copied backup file to restore the transactions from the source database to the copy database.

SQL Server provides an executable file that handles all the backups and restores. It also provides several stored procedures that allow easy, scripted setup and configuration of Log Shipping.

Please contact [support@acquire.com.au](mailto:support@acquire.com.au) for further information.



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