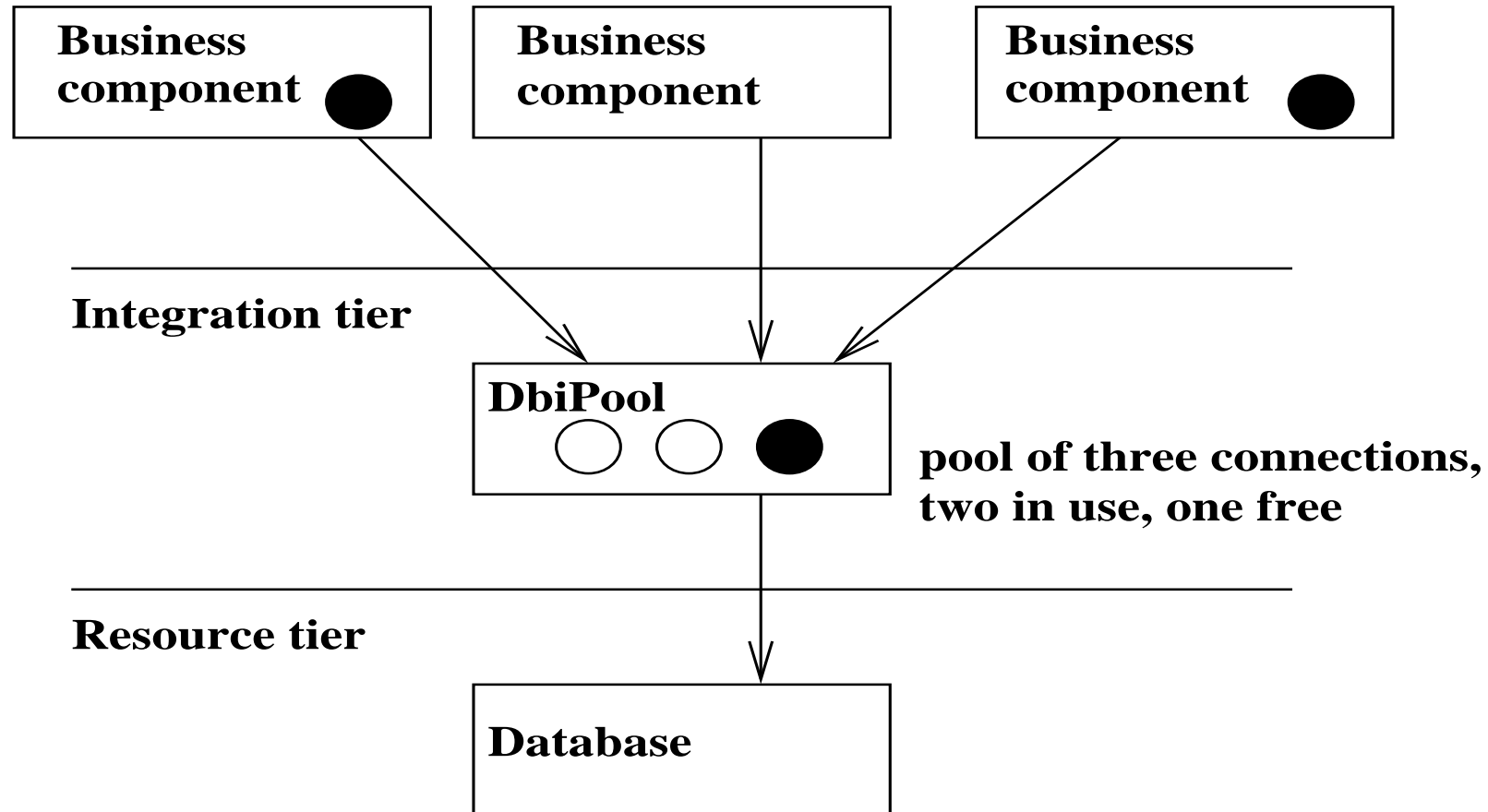*Database connection pooling*

A particular technique useful for increasing the efficiency of a database interface is introduction of a connection pool: creating a connection to a database is expensive, and should be minimised.

This can be achieved by creating a connection management component, *ConnectionPool*, which holds a set of pre-initialised connections.

Components which require a connection must ask the pool for a free connection: $con = pool.getConnection()$. When they have finished using it they must return it to free set: $pool.returnConnection(con)$.

JDBC provides pooling in *javax.sql.DataSource*.

Business tier

Business component ●	Business component	Business component ●

Integration tier

DbiPool
○ ○ ●

pool of three connections,
two in use, one free

Resource tier

Database

Introducing a connection pool