**Failover**

**If a server becomes unavailable for some reason during normal operations, its functions are taken over by another server which is capable of continuing its work. In some cases, the second server will need to have details of the current state of interactions with the users of the first server so that it is able to continue dealing with these users seamlessly.**

**Failover is a backup operational mode in which the functions of a system component (such as a processor, server, network, or database, for example) are assumed by secondary system components when the primary component becomes unavailable through either failure or scheduled down time.**

**History**

The term "failover", although probably in use by engineers much earlier, can be found in a 1962 declassified NASA report. The term "switchover" can be found in the 1950swhen describing '"Hot" and "Cold" Standby Systems', with the current meaning of immediate switchover to a running system (hot) and delayed switchover to a system that needs starting (cold). A conference proceeding from 1957 describes computer systems with both Emergency Switchover (i.e. failover) and Scheduled Failover (for maintenance).

**Why important**

**Failover** is an **important** fault tolerance function of mission-critical systems that rely on constant accessibility. **Failover** automatically and transparently to the user redirects requests from the failed or down system to the backup system that mimics the operations of the primary system.

**Failover test**

**Failover testing** is a **testing** technique that validates a system's ability to be able to allocate extra resource and to move operations to back-up systems during the server failure due to one or the other reasons.