

Single Point of Failure

A single point of failure (SPOF) is a part of a system that, if it fails, will cause the entire system to stop functioning or fail. This means that the system relies on this component, and there is no backup in place to prevent failure.

Some measures can be taken to reduce their impact like:-

- 1) Redundancy: Have multiple components in place so that if one node fails, the others can take over.
- 2) Load Balancing: Distribute workloads across multiple components to prevent any one component from becoming overwhelmed.
- 3) Master-Slave Architecture: Have a backup system in place to ensure that operations can continue even if a primary system fails. Generally we take backups of databases.
- 4) Regular Maintenance: Regular maintenance and testing can help identify and prevent failures before they occur.
- 5) Disaster Recovery Planning: Have a plan in place for how to respond to failures and how to quickly recover operations.

