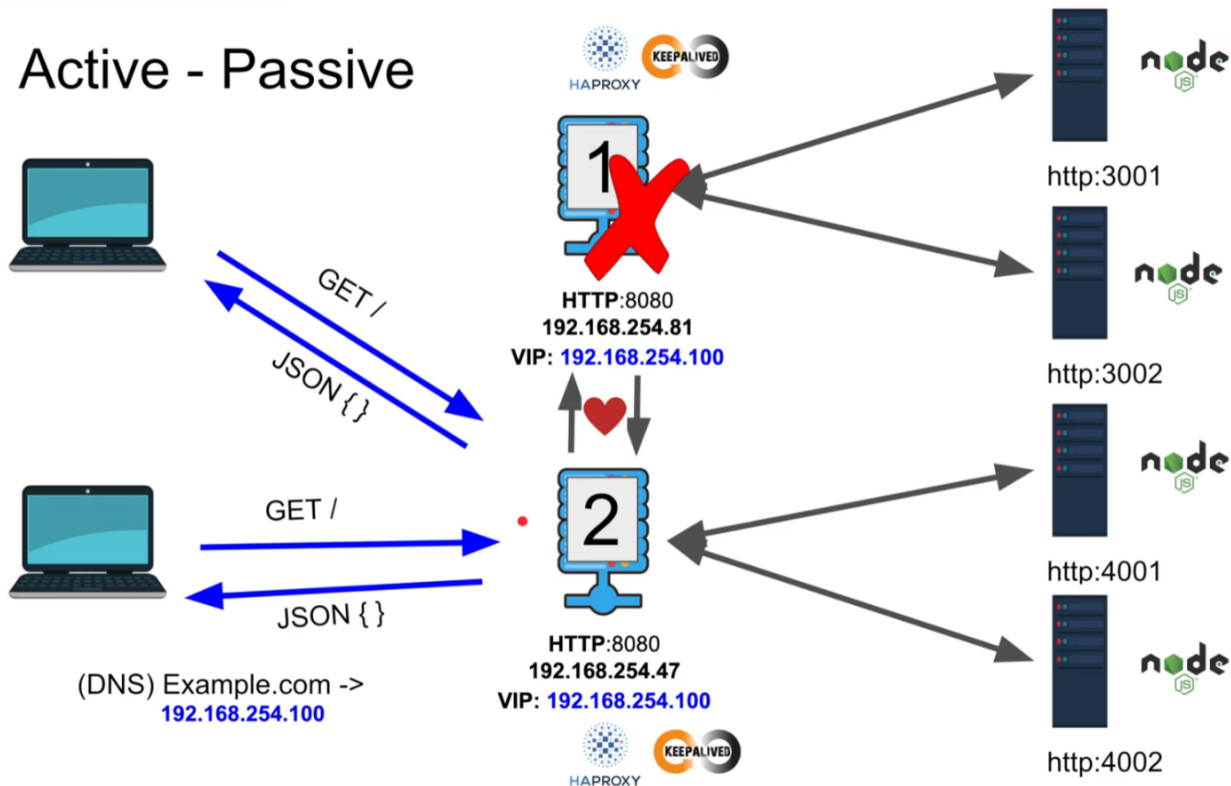


Active - Passive



In an active-passive architecture, one node (the **active node**) handles all requests, while another node (the **passive node**) remains on standby, ready to take over in case of failure.

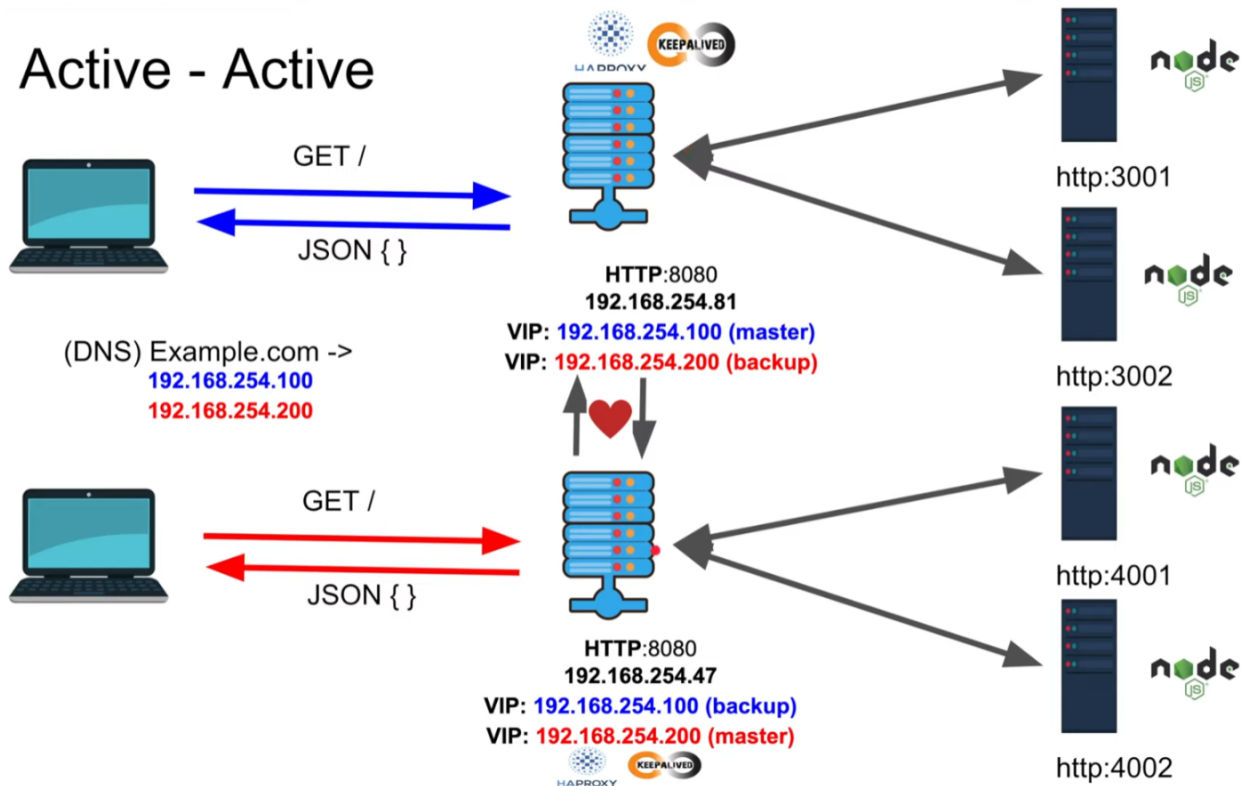
Key Features

- **Failover Mechanism:** The passive node is promoted to active when the primary node fails.
- **Simpler Configuration:** No need for complex synchronization between active and passive nodes during normal operation.
- **Single Point of Write:** Reduces chances of data conflicts.

Use Case Scenarios

- **Databases:** Master-Slave replication in databases like MySQL.
- **Application Servers:** Standby server takes over during primary server downtime.
- **Backup Systems:** Passive node is primarily used for data replication.

Active - Active



Key Features

- Load Balancing: Requests are distributed across all active nodes.
- High Performance: Improves throughput as all nodes process data.
- Fault Tolerance: If one node fails, others continue handling requests without interruption.

Use Case Scenarios

- Databases: Master-Master replication in databases like MySQL or MongoDB replica sets.
- Web Servers: Load-balanced web servers in a cluster.
- Content Delivery Networks (CDNs): Distributing content across multiple geographic locations.