**FAULT TOLERANCE AND LOAD BALANCING**

**WITH DIFFERENT PROTOCOLS**

Fault tolerance protocols are designed to ensure the reliability and availability of a system or network in the face of failures or errors. Here are some common fault tolerance protocols Here we are going to demonstrate the project by different sets of protocols and watch the best performance in packet tracer.

HSRP (HOT STANDBY REDUNDANCY PROTOCOL)

**Layer:** Network Layer (Layer 3)

**Description**: HSRP provides high availability by allowing two or more routers to work together in order to represent a single virtual router IP address. One router is active, and the others are in standby mode.

**Demonstration:** Here we are taking multi-layered switches (3650-24PS), 2911 router, 2960-24TT switch, server and end host PC’s. We need to add the **AC power supply module** for multi layered switches to start.

For multi layered switch, security is

username: switch, secret: pass, password: password, virtual terminal password: virtual