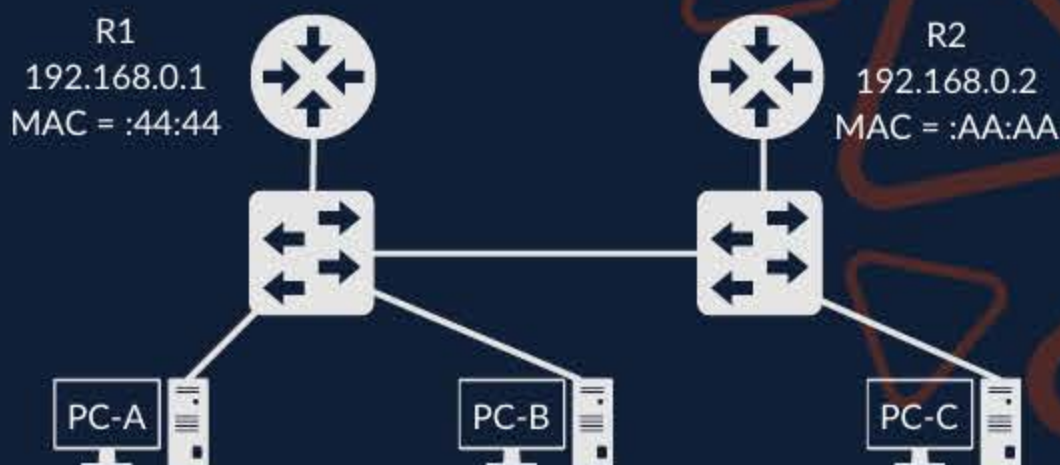
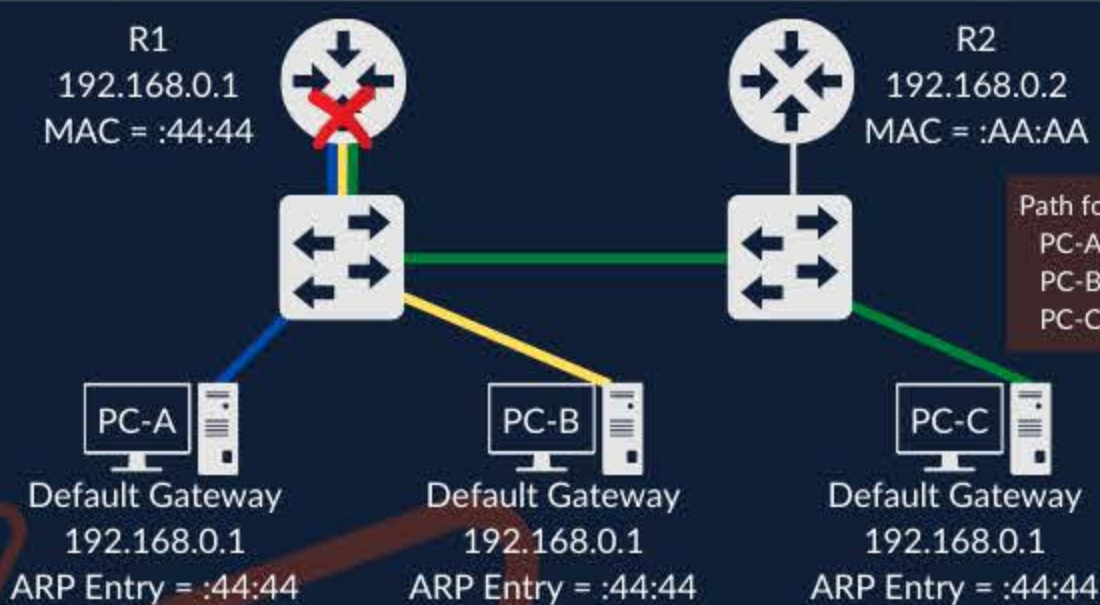


Hot Standby Router Protocol

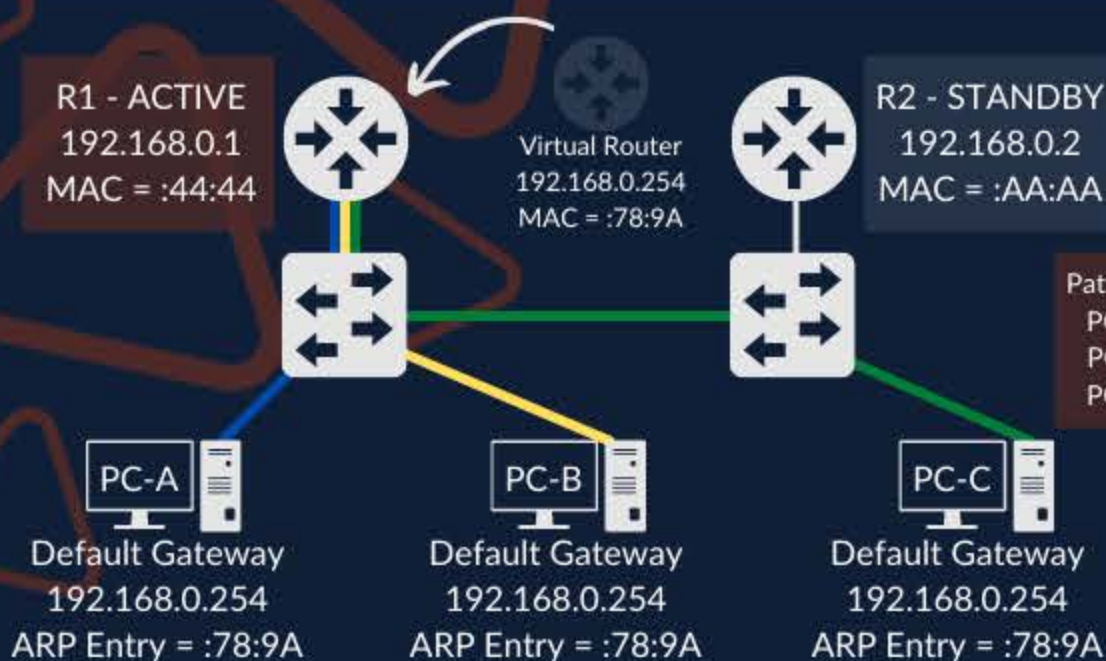
Reference Topology



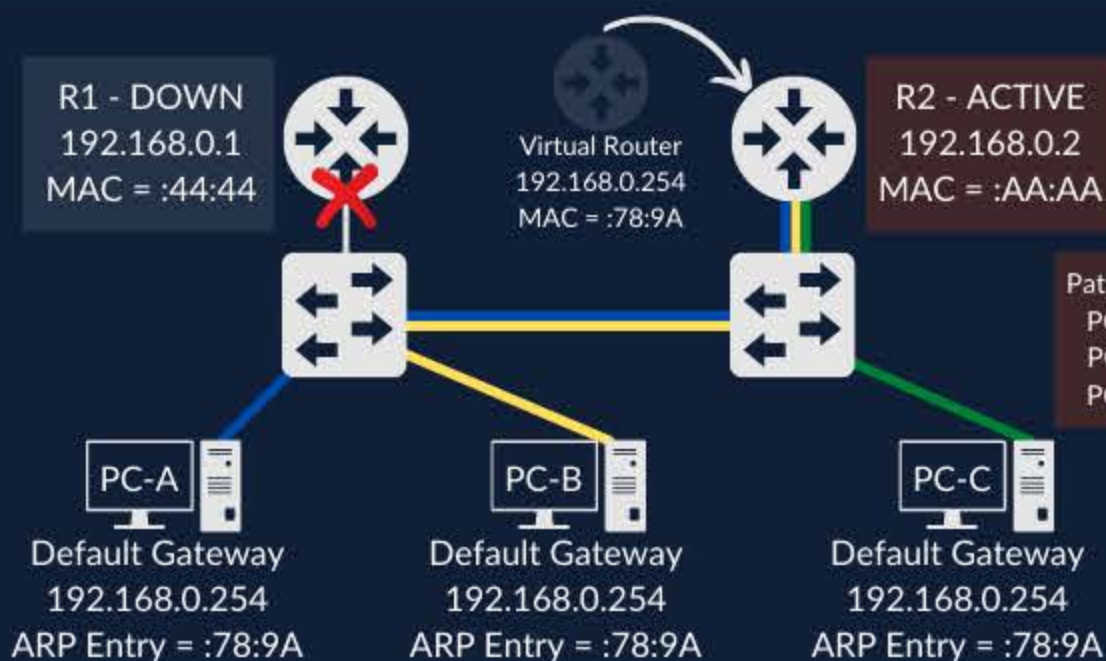
PCs need a default gateway in order to be communicate with other IP networks. In a single router environment, when the router goes down, access to everything outside your network goes with it. The solution? More routers.



This however creates an administrative problem. PCs can only point to a single default gateway. If that device goes down, the same problem persists. This then requires Administrators to reconfigure all PCs somehow.



Instead of giving yourself all that work of reconfiguring every PC in the network. A First hop redundancy protocol like HSPR can create a Virtual Router with both, a Virtual; IP, and MAC Address. One router is elected ACTIVE and assumes these addresses. PC are configured with the Virtual IP.



The Standby router monitors the state of the Active router. If the Active router goes down, Standby takes over as Active router. No reconfiguration is required on the PCs. The process is fast but still requires the switches MAC address table to dynamically change ports associated to the virtual MAC. So you may drop a ping.