

SYSNET NOTES

System And Networking Notes With Interview Questions

Quick reminder about HSRP

- Hot Standby Router Protocol (HSRP) is a Cisco proprietary protocol.
- With HSRP, two or more devices support a virtual router with a fictitious MAC address and unique IP address
- Hosts use this IP address as their default gateway and the MAC address for the Layer 2 header
- The virtual router's MAC address is 0000.0c07.ACxx , in which xx is the HSRP group. Multiple groups (virtual routers) are allowed.
- The Active router forwards traffic. The Standby router is backup and monitors periodic hellos (multicast to 224.0.0.2,
- UDP port 1985) to detect a failure of the active router.
- The active router is chosen because it has the highest HSRP priority (default priority is 100). In case of a tie, the router
- with the highest configured IP address wins the election
- A new router with a higher priority does not cause an election unless it is configured to preempt.

HSRP States

- **Initial:** HSRP is not running.
- **Learn:** The router does not know the virtual IP address and is waiting to hear from the active router.
- **Listen:** The router knows the IP and MAC of the virtual router, but it is not the active or standby router.
- **Speak:** Router sends periodic HSRP hellos and participates in the election of the active router.
- **Standby:** Router monitors hellos from active router and assumes responsibility if active router fails.
- **Active:** Router forwards packets on behalf of the virtual router.