ASA Deep Dive

Failover

Active/Standby & Active/Active

- The failover configuration requires two identical security appliances connected to each other through a dedicated failover link and, optionally, a Stateful Failover link.
- The health of the active interfaces and units is monitored to determine if specific failover conditions are met. If those conditions are met, failover occurs.
- The security appliance supports two failover configurations, Active/Active failover and Active/Standby Failover. Each failover configuration has its own method for determining and performing failover.
- With Active/Active failover, both units can pass network traffic. This lets you configure load balancing on your network. Active/Active failover is only available on units running in multiple context mode.
- With Active/Standby failover, only one unit passes traffic while the other unit waits in a standby state. Active/Standby failover is available on units running in either single or multiple context mode.

Active/Standby & Active/Active

- Failover requirements:
  - Same hardware configuration.
  - Same model.
  - Same number and types of interfaces, and the same amount of RAM.
  - Must be in the same operating modes (routed or transparent, single or multiple context).
  - They have the same major (first number) and minor (second number) software version.
  - However, you can use different versions of the software during an upgrade process; for example, you can upgrade one unit from Version 7.0(1) to Version 7.0(2) and have failover remain active.

Active/Standby & Active/Active

- The Failover Links
  - The two units in a failover pair constantly communicate over a failover link to determine the operating status of each unit. The following information is communicated over the failover link:
    - The unit state (active or standby)
    - Power status
    - Hello messages (keep-alives)
    - Network link status.
    - MAC address exchange.
    - Configuration replication and synchronization.
- The Stateful Failover Links
  - The stateful failover link is used for replicating connection states.
  - You can use a dedicated ethernet link for the stateful failover link.
  - If you are using LAN-based failover, you can share the failover link.