

2. (Active-Active vs Active-Passive)

to Achieve High Availability is Scaling Systems

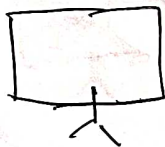
Active-Passive we already discussed in the previous video. How the servers in the network have virtual IP Address and only 1 is the master and rest are the back up.

[Active-Master]

[backup-Passive]

Now Lets discuss (~~Active-Passive~~) (Fail Over)
Active \Rightarrow

Highest level of Load Balancing Achieved



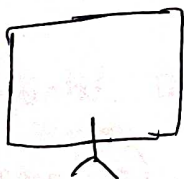
DNS = VIP: 192.168.250.100
VIP: 192.168.254.200



ip: 192.168.254.81

VIP: 192.168.250.100 (master)

VIP: 192.168.254.200 (backup)



ip: 192.168.254.82

VIP: 192.168.250.100 (backup)

VIP: 192.168.254.200 (master)

If you notice in Active-Active the DNS has two VIPs

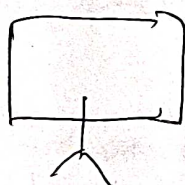
So in one computer in the (VIP1) → the computer 1 is the master of VIP1 and computer 2 is backup of VIP1.

And in computer 2 in VIP2 it is the master and computer 1 is the backup

The DNS, does the round robin → Costly Operation
which ever DNS is picked, the ARP requests returns us the master of that VIP.

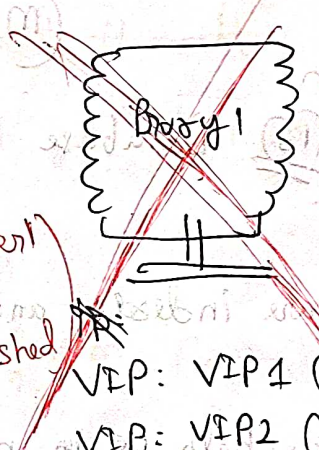
Case: Proxy 1 fails { Basically master of VIP1 fails }.

*** Traffic directed to VIP2



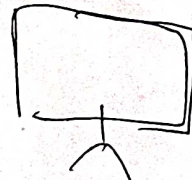
will be served by Proxy 2 as usual.

Server has crashed

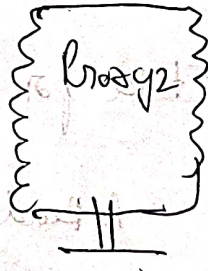


VIP: VIP1 (master)
VIP: VIP2 (backup)

DNS: VIP1 is selected.



Now as you have read about VRRP.
Server 2 becomes VIP1 (master) as well



VIP: ~~VIP1~~ (backup)
VIP: VIP2 (master)

Active-Passive

- * Load on one machine alone
- Simple setup
- When master goes down some lag for new master to be selected and redirect traffic
- Cheap

(Ms Deep Singh)

Active-Active

- No load on single machine as it keeps routing
- Complex setup
- When master of 1 VIP goes down, same lag as Active-Passive
(Lower chances of sensor die because of low pressure on each)
- Not Cheap [DNS Round Robin]