

Master node skdce701, backup node skdce7012.

Master node configured with virtual IPs:

```
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.163 netmask 255.255.255.0 broadcast 192.168.10.255
    inet6 fe80::a00:27ff:fe96:4418 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)
    RX packets 1680 bytes 324350 (316.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2029 bytes 1484082 (1.4 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth0:1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.20 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)

eth0:2: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.21 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)

eth0:3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.22 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)

eth0:4: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.23 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)

eth0:5: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.24 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)

eth0:6: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.25 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:96:44:18 txqueuelen 1000 (Ethernet)
```

Backup node in standby with no virtual IPs.

```
[backup] root@skdce7012:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.171 netmask 255.255.255.0 broadcast 192.168.10.255
    inet6 fe80::a00:27ff:feec:c873 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)
    RX packets 1796 bytes 308720 (301.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1145 bytes 175902 (171.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 1 bytes 88 (88.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1 bytes 88 (88.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@skdce7012:~# tail -f /var/log/syslog
```

I reboot master node skdce701 and the backup skdce7012 detects the failure:

2025-03-11T08:37:37.194908+01:00 skdce7012 skudonet[999]: (INFO) Stop process finished...

2025-03-11T08:38:02.476227+01:00 skdce7012 ucarp[987]: [WARNING] Switching to state: MASTER

2025-03-11T08:38:02.476567+01:00 skdce7012 ucarp[987]: [WARNING] Spawning [/usr/local/skudonet/app/ucarp/sbin/skudonet-ce-cluster-start eth0 192.168.10.25]

2025-03-11T08:38:03.599785+01:00 skdce7012 skudonet[1071]: (INFO) Starting Skudonet Load Balancer v7.2.1

2025-03-11T08:38:03.607301+01:00 skdce7012 skudonet[1071]: (INFO) skudonet: Modules loaded

2025-03-11T08:38:03.619844+01:00 skdce7012 skudonet[1071]: (INFO) skudonet: Setting up NIC interfaces...

2025-03-11T08:38:03.626498+01:00 skdce7012 skudonet[1071]: (INFO) network :: Link status for eth0 is up

2025-03-11T08:38:03.649944+01:00 skdce7012 skudonet[1071]: (INFO) dhcp :: DHCP service was stopped succesfully for eth0

2025-03-11T08:38:03.661967+01:00 skdce7012 skudonet[1071]: (INFO) dhcp :: DHCP service started succesfully for eth0

2025-03-11T08:38:03.662624+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.171/255.255.255.0 to interface eth0

2025-03-11T08:38:03.668964+01:00 skdce7012 skudonet[1071]: (INFO) network :: Applying local routes in stack IPv4 to eth0 with gateway "192.168.10.5"

2025-03-11T08:38:03.706753+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171

2025-03-11T08:38:03.755832+01:00 skdce7012 dhcp[1096]: (WARNING) dhcp :: DHCP does not find any IP/Netmask for interface 'eth0'

2025-03-11T08:38:03.764490+01:00 skdce7012 dhclient[1088]: DHCPREQUEST for 192.168.10.171 on eth0 to 255.255.255.255 port 67

2025-03-11T08:38:03.777409+01:00 skdce7012 skudonet[1071]: (INFO) skudonet: Setting up VLAN interfaces...

2025-03-11T08:38:03.777915+01:00 skdce7012 skudonet[1071]: (INFO) skudonet: Initializing IPDS WAF Module...

2025-03-11T08:38:03.778196+01:00 skdce7012 skudonet[1071]: (INFO) skudonet: Setting up virtual interfaces...

2025-03-11T08:38:03.780799+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.25/255.255.255.0 to interface eth0:6

2025-03-11T08:38:03.799138+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171

2025-03-11T08:38:03.806066+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.20/255.255.255.0 to interface eth0:1

2025-03-11T08:38:03.821473+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171

2025-03-11T08:38:03.825826+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.22/255.255.255.0 to interface eth0:3

2025-03-11T08:38:03.837523+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171

2025-03-11T08:38:03.841672+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.23/255.255.255.0 to interface eth0:4

2025-03-11T08:38:03.854426+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171
2025-03-11T08:38:03.858879+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.24/255.255.255.0 to interface eth0:5
2025-03-11T08:38:03.860187+01:00 skdce7012 dhclient[1088]: DHCPACK of 192.168.10.171 from 192.168.10.5
2025-03-11T08:38:03.875481+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171
2025-03-11T08:38:03.880808+01:00 skdce7012 skudonet[1071]: (INFO) network :: Adding IP 192.168.10.21/255.255.255.0 to interface eth0:2
2025-03-11T08:38:03.896863+01:00 skdce7012 skudonet[1071]: (INFO) network :: Sending 1 ping(s) to gateway 192.168.10.5 from 192.168.10.171
2025-03-11T08:38:03.916125+01:00 skdce7012 skudonet[1071]: (INFO) network :: Gateway "192.168.10.5" is already applied in global routes in stack IPv4
2025-03-11T08:38:03.964501+01:00 skdce7012 skudonet[1071]: (INFO) skudonet: Setting up farms...
2025-03-11T08:38:04.011053+01:00 skdce7012 dhcp[1182]: (WARNING) dhcp :: DHCP is sending same configuration IP/Netmask '192.168.10.171/255.255.255.0', no changes are made for interface 'eth0'
2025-03-11T08:38:04.013111+01:00 skdce7012 skudonet[1071]: (INFO) farms :: Starting farm test-l4 with type http
2025-03-11T08:38:04.019341+01:00 skdce7012 skudonet[1071]: (INFO) lslb :: Checking test-l4 farm configuration
2025-03-11T08:38:04.023243+01:00 skdce7012 dhclient[1088]: bound to 192.168.10.171 -- renewal in 37902 seconds.
2025-03-11T08:38:04.401622+01:00 skdce7012 skudonet[1071]: (INFO) lslb :: Setting backends status in farm test-l4
2025-03-11T08:38:04.414766+01:00 skdce7012 skudonet[1071]: (INFO) farms :: Starting farm test-proxy with type http
2025-03-11T08:38:04.415536+01:00 skdce7012 skudonet[1071]: (INFO) lslb :: Checking test-proxy farm configuration
2025-03-11T08:38:04.815830+01:00 skdce7012 skudonet[1071]: (INFO) lslb :: Setting backends status in farm test-proxy
2025-03-11T08:38:04.819961+01:00 skdce7012 skudonet[1071]: (INFO) Running /usr/local/skudonet/config/zlb-start ...
2025-03-11T08:38:04.824491+01:00 skdce7012 skudonet[1071]: (INFO) End of /usr/local/skudonet/config/zlb-start
2025-03-11T08:38:04.867971+01:00 skdce7012 skudonet[1071]: (INFO) Start process finished.

new Master skdce7012 starts the IPs properly:

```

[master] root@skdce7012:~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.171 netmask 255.255.255.0 broadcast 192.168.10.255
    inet6 fe80::a00:27ff:feec:c873 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)
    RX packets 2079 bytes 335742 (327.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1413 bytes 209588 (204.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth0:1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.20 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)

eth0:2: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.21 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)

eth0:3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.22 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)

eth0:4: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.23 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)

eth0:5: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.24 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)

eth0:6: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.10.25 netmask 255.255.255.0 broadcast 192.168.10.255
    ether 08:00:27:ec:c8:73 txqueuelen 1000 (Ethernet)

```

and ping to 192.168.10.25, 24, 23 and 22 work properly, some icmp packets are lost during the switching, later the IP continues responding:

```

64 bytes from 192.168.10.25: icmp_seq=58 ttl=64 time=0.193 ms
64 bytes from 192.168.10.25: icmp_seq=59 ttl=64 time=0.475 ms
64 bytes from 192.168.10.25: icmp_seq=60 ttl=64 time=0.130 ms
64 bytes from 192.168.10.25: icmp_seq=61 ttl=64 time=0.562 ms
64 bytes from 192.168.10.25: icmp_seq=62 ttl=64 time=0.176 ms
64 bytes from 192.168.10.25: icmp_seq=63 ttl=64 time=0.575 ms
64 bytes from 192.168.10.25: icmp_seq=64 ttl=64 time=0.559 ms
64 bytes from 192.168.10.25: icmp_seq=65 ttl=64 time=0.516 ms
64 bytes from 192.168.10.25: icmp_seq=66 ttl=64 time=0.672 ms
64 bytes from 192.168.10.25: icmp_seq=67 ttl=64 time=0.524 ms
64 bytes from 192.168.10.25: icmp_seq=68 ttl=64 time=0.500 ms
64 bytes from 192.168.10.25: icmp_seq=69 ttl=64 time=0.402 ms
64 bytes from 192.168.10.25: icmp_seq=70 ttl=64 time=0.407 ms
^C
--- 192.168.10.25 ping statistics ---
70 packets transmitted, 66 received, 5.71429% packet loss, time 70590ms
rtt min/avg/max/mdev = 0.105/0.384/0.672/0.134 ms
powit@laptop:~$

```

```

64 bytes from 192.168.10.24: icmp_seq=38 ttl=64 time=0.486 ms
64 bytes from 192.168.10.24: icmp_seq=39 ttl=64 time=0.346 ms
^C
64 bytes from 192.168.10.24: icmp_seq=57 ttl=64 time=0.230 ms
64 bytes from 192.168.10.24: icmp_seq=58 ttl=64 time=0.188 ms
64 bytes from 192.168.10.24: icmp_seq=59 ttl=64 time=0.618 ms
64 bytes from 192.168.10.24: icmp_seq=60 ttl=64 time=0.485 ms
64 bytes from 192.168.10.24: icmp_seq=61 ttl=64 time=0.393 ms
64 bytes from 192.168.10.24: icmp_seq=62 ttl=64 time=0.438 ms
^C
--- 192.168.10.24 ping statistics ---
67 packets transmitted, 45 received, 32.8358% packet loss, time 67548ms
rtt min/avg/max/mdev = 0.144/0.396/0.618/0.136 ms
powit@laptop:~$

```

```

powit@laptop: ~ 74x18
64 bytes from 192.168.10.23: icmp_seq=50 ttl=64 time=0.190 ms
64 bytes from 192.168.10.23: icmp_seq=51 ttl=64 time=0.341 ms
64 bytes from 192.168.10.23: icmp_seq=52 ttl=64 time=0.151 ms
64 bytes from 192.168.10.23: icmp_seq=53 ttl=64 time=0.165 ms
64 bytes from 192.168.10.23: icmp_seq=54 ttl=64 time=0.202 ms
64 bytes from 192.168.10.23: icmp_seq=55 ttl=64 time=0.621 ms
64 bytes from 192.168.10.23: icmp_seq=56 ttl=64 time=0.502 ms
64 bytes from 192.168.10.23: icmp_seq=57 ttl=64 time=0.395 ms
64 bytes from 192.168.10.23: icmp_seq=58 ttl=64 time=0.495 ms
64 bytes from 192.168.10.23: icmp_seq=59 ttl=64 time=0.559 ms
64 bytes from 192.168.10.23: icmp_seq=60 ttl=64 time=0.497 ms
64 bytes from 192.168.10.23: icmp_seq=61 ttl=64 time=0.496 ms
64 bytes from 192.168.10.23: icmp_seq=62 ttl=64 time=0.379 ms
^C
--- 192.168.10.23 ping statistics ---
52 packets transmitted, 58 received, 6.45161% packet loss, time 62361ms
rtt min/avg/max/mdev = 0.071/0.351/0.621/0.139 ms
powit@laptop:~$

```

```

powit@laptop: ~ 74x18
64 bytes from 192.168.10.22: icmp_seq=45 ttl=64 time=0.252 ms
64 bytes from 192.168.10.22: icmp_seq=46 ttl=64 time=0.225 ms
64 bytes from 192.168.10.22: icmp_seq=47 ttl=64 time=0.490 ms
64 bytes from 192.168.10.22: icmp_seq=48 ttl=64 time=0.171 ms
64 bytes from 192.168.10.22: icmp_seq=49 ttl=64 time=0.615 ms
64 bytes from 192.168.10.22: icmp_seq=50 ttl=64 time=0.172 ms
64 bytes from 192.168.10.22: icmp_seq=51 ttl=64 time=0.505 ms
64 bytes from 192.168.10.22: icmp_seq=52 ttl=64 time=0.550 ms
64 bytes from 192.168.10.22: icmp_seq=53 ttl=64 time=0.462 ms
64 bytes from 192.168.10.22: icmp_seq=54 ttl=64 time=0.608 ms
64 bytes from 192.168.10.22: icmp_seq=55 ttl=64 time=0.569 ms
64 bytes from 192.168.10.22: icmp_seq=56 ttl=64 time=0.365 ms
64 bytes from 192.168.10.22: icmp_seq=57 ttl=64 time=0.320 ms
^C
--- 192.168.10.22 ping statistics ---
57 packets transmitted, 50 received, 12.2807% packet loss, time 57317ms
rtt min/avg/max/mdev = 0.137/0.369/0.615/0.139 ms
powit@laptop:~$

```

