

My experience on using zeroshell

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Zeroshell's a fantastic server/gateway software solution. It bundles a lot of features and it's hard to believe that this is a community product. Thanks again for all men who developed and created this fantastic tool to people.

Before I changed to **zeroshell**, I've been using **clarckconnect** (Community version) as my gateway. The main reason I picked this software is that I wanted the gateway software which has a multi-wan solution (used to manage the failover and load balance on multi internet links). **Clarconnect** has a multi-wan feature and we can use web interface to configure this multi-wan feature. However there are two disadvantages when it compare to **zeroshell**. **Clarckconnect** allow multi-wan feature enable if you have multi-physical WAN interfaces installed but **zeroshell** doesn't need (only one interface could be enough). The other disadvantage is the changing of the link status very delay (not immediate).

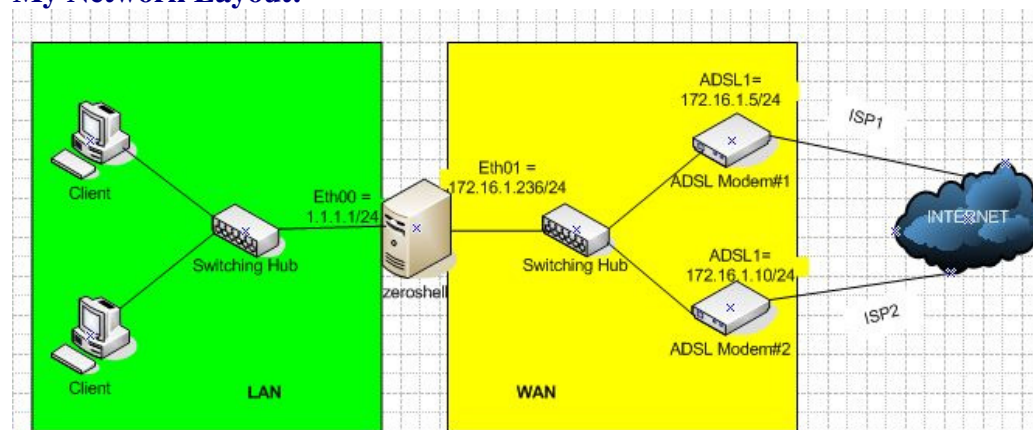
By the way I will show everyone how to enable multi-wan feature on **zeroshell** gateway with only one physical WAN interface.

My scenario:

I have 2 physical Ethernet interfaces installed on **zeroshell** i.e. one for LAN and the other for WAN. I assigned ETH00 to be my LAN interface and assigned IP address 1.1.1.1/24 to it. I assigned ETH01 to be my WAN interface and assigned IP address 172.16.1.236/24 to it.

I have 2 internet gateways and I want **zeroshell** to manage Load Balance and Failover between these internet gateways. I assigned IP address 172.16.1.5/24 to my first Gateway and 172.16.1.10/24 to the other.

My Network Layout:



Configuration:

1. Setup IP Address

After setup IP address on the interfaces it will look like the picture below:

The screenshot shows the ZEROSHELL Net Services interface. The top navigation bar includes SETUP, AutoUpdate, Profiles, Network, Time, https, SSH, Startup/Cron, and Logs. The left sidebar lists various system and network services. The main content area displays the configuration for three network interfaces:

- ETH00**: 100Mb/s Full Duplex, Broadcom Corporation NetXtreme BCM5721 Gigabit Ethernet PCI Express (rev 21). IP: 1.1.1.1, Netmask: 255.255.255.0. Dynamic IP: 0.0.0.0, MAC: 001018351E8B.
- ETH01**: 1000Mb/s Full Duplex, Broadcom Corporation NetXtreme BCM5721 Gigabit Ethernet PCI Express (rev 21). IP: 172.16.1.236, Netmask: 255.255.255.0. Dynamic IP: 0.0.0.0, MAC: 001018351EAA.
- ETH02**: No link detected, Broadcom Corporation NetXtreme BCM5754 Gigabit Ethernet PCI Express (rev 02). Dynamic IP: 0.0.0.0, MAC: 002219023863.

2. Enable NAT on ETH01

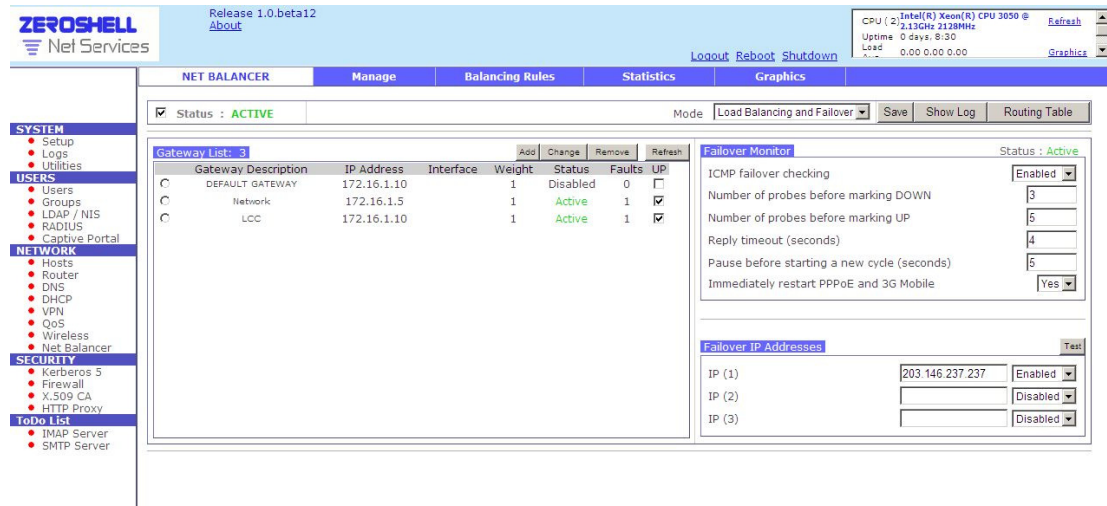
- Use the NETWORK/Router/NAT menu to enable this feature.

The screenshot shows the ZEROSHELL Net Services interface with the NAT configuration page open. The top navigation bar includes ROUTER, Manage, RIPv2, NAT, and Virtual Server. The left sidebar lists various system and network services. The main content area displays the NAT configuration for ETH01:

- Forwarding**: ACTIVE, Enabled, Default GW, Routing Table, Check IP, Show Log.
- STATIC ROUTES**: A table with columns: Destination, Netmask, Type, Metric, Gateway, Interface, State.
- Network Address Translation**: A dialog box with "Available Interfaces" (ETH00, ETH02, VPN99) and "NAT Enabled Interfaces" (ETH01). Buttons for >>> and <<< are visible.
- Note**: the source IP of outgoing packets from the enabled NAT interfaces will be automatic translated using routing table. (MASQUERADE)

3. Enable Multi-WAN or Load Balance feature:

- Use the SYSTEM/Net Balancer menu to enable this feature.
- Click “Add” button to add 2 internet gateways in Gateway List
- Don't forget to enable both gateways by checking in the checkbox.
- After finish it will look like the picture below.



The screenshot displays the Zeroshell Net Services interface for the Net Balancer configuration. The top navigation bar includes 'NET BALANCER', 'Manage', 'Balancing Rules', 'Statistics', and 'Graphics'. The main content area shows the 'Gateway List' table and the 'Failover Monitor' configuration.

Gateway Description	IP Address	Interface	Weight	Status	Faults	UP
DEFAULT GATEWAY	172.16.1.10		1	Disabled	0	<input type="checkbox"/>
Network	172.16.1.5		1	Active	1	<input checked="" type="checkbox"/>
LCC	172.16.1.10		1	Active	1	<input checked="" type="checkbox"/>

Failover Monitor Status: Active

- ICMP failover checking: Enabled
- Number of probes before marking DOWN: 3
- Number of probes before marking UP: 5
- Reply timeout (seconds): 4
- Pause before starting a new cycle (seconds): 5
- Immediately restart PPPoE and 3G Mobile: Yes

Failover IP Addresses

IP	Address	Status
IP (1)	203.146.237.237	Enabled
IP (2)		Disabled
IP (3)		Disabled

Then you've finished set up Multi-WAN on the zeroshell