|  |  |  |
| --- | --- | --- |
| ISP-POD1-R01 Subnets | | |
| **Network Name** | **Outside / WAN IP** | **Inside / Routed IP** |
| Network 30 | 192.168.177.30 /32 | 192.168.30.0 /30 |
| Network 31 | 192.168.177.31 /32 | 192.168.31.0 /30 |
| Network 32 | 192.168.177.32 /32 | 192.168.32.0 /30 |
| Network 33 | 192.168.177.33 /32 | 192.168.33.0 /30 |
| Network 34 | 192.168.177.34 /32 | 192.168.34.0 /30 |
| Network 35 | 192.168.177.35 /32 | 192.168.35.0 /30 |
| Network 36 | 192.168.177.36 /32 | 192.168.36.0 /30 |
| Network 37 | 192.168.177.37 /32 | 192.168.37.0 /30 |

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| ISP-POD1-R02 Subnets | | |
| **Network Name** | **Outside / WAN IP** | **Inside / Routed IP** |
| Network 40 | 192.168.177.40 /32 | 192.168.40.0 /30 |
| Network 41 | 192.168.177.41 /32 | 192.168.41.0 /30 |
| Network 42 | 192.168.177.42 /32 | 192.168.42.0 /30 |
| Network 43 | 192.168.177.43 /32 | 192.168.43.0 /30 |
| Network 44 | 192.168.177.44 /32 | 192.168.44.0 /30 |
| Network 45 | 192.168.177.45 /32 | 192.168.45.0 /30 |
| Network 46 | 192.168.177.46 /32 | 192.168.46.0 /30 |
| Network 47 | 192.168.177.47 /32 | 192.168.47.0 /30 |

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| --- | --- | --- |
| ISP-POD2-R03 Subnets | | |
| **Network Name** | **Outside / WAN IP** | **Inside / Routed IP** |
| Network 50 | 192.168.177.50 /32 | 192.168.50.0 /30 |
| Network 51 | 192.168.177.51 /32 | 192.168.51.0 /30 |
| Network 52 | 192.168.177.52 /32 | 192.168.52.0 /30 |
| Network 53 | 192.168.177.53 /32 | 192.168.53.0 /30 |
| Network 54 | 192.168.177.54 /32 | 192.168.54.0 /30 |
| Network 55 | 192.168.177.55 /32 | 192.168.55.0 /30 |
| Network 56 | 192.168.177.56 /32 | 192.168.56.0 /30 |
| Network 57 | 192.168.177.57 /32 | 192.168.57.0 /30 |

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| --- | --- | --- |
| Configuration logic and reasoning | | |
| **WAN IP** | **Routed IP Subnet** | **LAN IP Subnet** |
| Use available serial No. to determine WAN IP.  *e.g. interface serial 3/0 becomes 192.168.177.30*  Configure Loopback {last WAN Octet}  *e.g. subnet 30 becomes interface loopback 30*  Assign WAN IP to loopback with subnet mask of /32 (255.255.255.255) | Use last WAN IP octet to determine routed subnet IP.  *e.g. 192.168.177.30 becomes 192.168.30.0 /30*  Assign first useable to ISP router serial interface  *e.g.*  *interface serial 3/0 ip address 192.168.30.1 255.255.255.252*  Assigned last useable to customer router WAN interface  *e.g.*  *interface serial 0*  *ip address 192.168.30.2 255.255.255.252* | Use last WAN IP octet to determine LAN subnet IP.  *e.g. 192.168.177.30 becomes 10.10.30.0 /24*  Assign first useable IP to customer router LAN interface  *e.g.*  *interface fastethernet 0/0 ip address 10.10.30.1 255.255.255.0* |
| **NAT rules** | **Routing Customer** | **Routing ISP** |
| Create 1:1 NAT rule on ISP router to map Customer WAN IP to second useable IP of the routed subnet.  *e.g. WAN IP of 192.168.177.30 and routed IP of 192.168.30.2 becomes ip nat inside source static 192.168.30.2 192.168.177.30* | Create default IP route on customer router pointing to first useable IP of the routed subnet.  *e.g. Routed subnet of 192.168.30.0 /30 becomes ip route 0.0.0.0 0.0.0.0 192.168.30.1* | Add routed IP subnet to ISP OSPF router network list.  *e.g. router ospf 1*  *network 192.168.30.0 0.0.0.3 area 0*  Add routed IP subnet to ISP BGP router network list.  *e.g. router bgp 100 address family ipv4 network 192.168.30.0 mask 255.255.255.252* |