Subnet size for a VLAN in a Cisco network running OpenStack:

- **/24** (255.255.255.0) → 254 usable IPs (Common choice for small to medium setups)
- Scalable but not excessive for proof of concept.
- Keeps network simple while allowing enough IPs for VMs and infrastructure.
- **/22** (255.255.252.0) → 1022 usable IPs (Better for larger deployments)
- Avoids unnecessary complexity of larger subnet masks like **/22**
- **/21** (255.255.248.0) → 2046 usable IPs (For even larger networks)

More Proof:

- Cisco Site
- Reddit Post

VLAN configuration guidance on your Cisco switches for OpenStack:

- VLAN 100 is used for OpenStack instances.
- VLAN 200 is used for OpenStack management.
- VLAN 300 is for storage traffic (if needed).
- Trunking is used to allow multiple VLANs between switches and OpenStack nodes.

Number of IP addresses required for OpenStack on Cisco:

- OpenStack Controller needs 1-2 ips
- Compute Nodes needs 3 ips
- Management VLAN (VLAN 200) → For OpenStack services (Controller, Compute, Storage).
- Instance VLAN (VLAN 100) → For VM traffic.
- Storage VLAN (VLAN 300) → If using Ceph/NFS.
- External VLAN → If you need external internet access for VMs.