**README.MD**

**VLAN Network for an Organization**

* Basic configuration on all devices and configured ssh on routers and switches.

BASIC CONFIGURATION for console port and remote access:

* Hostname Switch\_name
* Banner motd # message #
* Line console 0
* Password cisco
* Login
* Exit
* Line vty 0 15
* Password cisco
* Login
* Exit
* Enable password cisco
* Service password-encryption

SSH ON ROUTERS AND SWITCHES :

* Ip domain-name cisco.net
* Username cisco password cisco
* Crypto key generate rsa
* 1024
* Line vty 0 15
* Login local
* Transport input ssh
* exit
* VLANs assignment with access and trunk ports.
* Switchport security to all switches.

VLAN WITH ACCESS AND TRUNK PORT :

* Int range fa0/1-2
* Switchport mode trunk
* Exit
* Int range fa0/3-24
* Switchport mode access
* Switchport access vlan 10
* Switchport port-security
* Switchport port-security maximum 2
* Switchport port-security mac-address sticky
* Switchport port-security violation shutdown

TRUNK FOR L3 SWITCH

* int range fa0/3-8
* switchport trunk encapsulation dot1q
* switchport mode trunk
* exit
* do wr
* Subnetting the basic network and assigned IP address.

**Basic Network : 192.168.10.0 (**Subnetting address file is attached **)**

SWITCH PORT

* int fa0/1
* ip address 10.10.10.1 255.255.255.252
* exit
* int fa0/2
* ip address 10.10.10.9 255.255.255.252
* exit

ROUTER PORT

* int gig0/0
* ip address 10.10.10.21 255.255.255.252
* exit

SERIAL PORT - clock rate

* int ser0/3/0
* ip address 10.10.10.21 255.255.255.252
* Clock rate 64000
* exit
* OSPF on routers and switches.

ROUTER - 2 BROADCAST

* router ospf 10
* network 10.10.10.0 0.0.0.3 area 0
* network 10.10.10.4 0.0.0.3 area 0
* network 10.10.10.16 0.0.0.3 area 0
* network 10.10.10.20 0.0.0.3 area 0
* network 10.10.10.32 0.0.0.3 area 0
* ex

SWITCH - 8 BROADCAST

* ip routing
* router ospf 10
* network 10.10.10.44 0.0.0.3 area 0
* network 10.10.10.52 0.0.0.3 area 0
* network 192.168.11.128 0.0.0.63 area 0
* network 192.168.11.192 0.0.0.63 area 0
* network 192.168.12.0 0.0.0.63 area 0
* network 192.168.12.64 0.0.0.63 area 0
* network 192.168.12.128 0.0.0.63 area 0
* network 192.168.12.192 0.0.0.63 area 0
* ex
* Static IP address to Server Room devices.
* DHCP server configuration.
* ip dhcp pool management-pool
* network 192.168.10.6 255.255.255.192
* default-router 192.168.10.1
* dns-server 192.168.10.1
* Inter-VLAN routing on swtiches and ip dhcp helper addresses.
* vlan 10
* vlan 20
* vlan 30
* vlan 40
* vlan 50
* vlan 60
* int vlan 10
* no sh
* ip address 192.168.10.1 255.255.255.192
* ip helper-address 192.168.12.196
* ex
* int vlan 20
* no sh
* ip address 192.168.10.65 255.255.255.192
* ip helper-address 192.168.12.196
* ex
* int vlan 30
* no sh
* ip address 192.168.10.129 255.255.255.192
* ip helper-address 192.168.12.196
* ex
* Wireless network configuration.