LOMBA KETERAMPILAN SISWA

SEKOLAH MENENGAH KEJURUAN

TINGKAT NASIONAL XXV 2017

MODUL D

PT – TROUBLESHOOTING

IT NETWORK SYSTEMS ADMINISTRATION

LKS2017_ITNSA_MODUL_D

Pay attention carefully to the topology diagram first!!!

CIscoNeX company use network for connecting 3 branch in Indonesia, Malaysia and Thailand. After recent network upgrades there was a major power outage in the area so there are many devices that no longer work on the network. The IT-team did not have time to test the upgrades before the power outage. The IT manager is sick at home and you have been handed **minimum documentation of the network**. Please look at the **Engineers notes**.

Error report from every Cluster:

REMOTE OFFICE Cluster

1. Internal client can't connect to gateway.

INDONESIA HQ Cluster

1. All clients in the Indonesia HQ can't connect to the Internet.
2. Network of Demak can't be reached from all network in Indonesia HQ.
3. IPPhones can't have extension number.
4. Semarang VoIP & Jepara VoIP can't call each other.

MALAYSIA BRANCH Cluster

1. Network can't work properly, make sure all PCs are connected and working properly.

THAILAND BRANCH Cluster

1. All PC Clients can't connect to Gateway so make sure they can connect to gateway.

ENGINEER NOTES:

INDONESIA HQ

VLAN 1 for voice traffic
EIGRP ID 100

NAT overload for all local network, ACL Number 10

Local telephony service

a. RO-SEMARANG
   IP Source: 2.2.2.6
   Max IP phones: 20
   Max directory number: 20
   Directory number: 1xx

b. RO-JEPARA
   IP Source: 2.2.2.14
   Max IP phones: 20
   Max directory number: 20
   Directory number: 2xx

MALAYSIA BRANCH Cluster

Static route using next-hop IP.

THAILAND BRANCH Cluster

1. Engineer Notes:
   -TH_SW1 VTP Server with domain named THBRANCH, TH_SW2 and TH_SW3 as VTP Client
   -All Etherchannel mode is On

2. VLANs:
   VLAN ID 100 named Manager
   VLAN ID 200 named Sales
   VLAN ID 300 named IT

REMOTE OFFICE BRANCH Cluster
You need to analyze the following documentation, some configurations have already configured.

1. Configure REMOTE-RO

    a. Configure Hostname, IP Address according to the topology diagram.

    b. Configure default route to the ISP using next-hop IP.

2. Configure REMOTE-ASA

    a. Hostname: REMOTE-ASA
    b. Interfaces:

Interface VLAN	Name	Security level	Port	IP Address	NB
1	inside	100	Et0/0	192.168.0.129/25	
2	outside	0	Et0/2	1.1.1.18/29	
3	DMZ	50	Et0/1	192.168.0.1/25	No forward to VLAN 1

    c. Configure default route to the REMOTE-RO using next-hop ip.

    d. Configure DHCP for inside:

        Address range: 192.168.0.140-192.168.0.171

        DNS-Server: 192.168.0.130

        Gateway: 192.168.1.129

    e. Create a local user named admin with password Skills39.

    f. Configure SSH with local authentication. It should accessible from the inside and the outside network.

    g. Configure ACL named FROM-INTERNET to allow HTTP packet from the internet to host dmz-server. Apply ACL to the outside interface.

    h. Create an object network named DMZ-SERVER to host dmz-server.

    i. Configure HTTP to be accessible on DMZ-SERVER. From the outside ip 1.1.1.19. Can be tested using PC-Testing.