Cisco CCNA (200-301)

Identifying the function of SNMP

Learning Objective: Identify the usefulness of configuring SNMP on the network.

Description: SNMP provides many details and data about the devices within our networks. You will identify the function of SNMP and see the options for configuring it.

Q: What makes SNMP a great service to use?

- SNMP (Simple Network Management Protocol)

    - Monitoring tool that has insight into almost every level of hardware

Q: Anything special we should know about how SNMP functions?

- 3 versions: SNMPv2c and SNMPv3 but we shouldn't use SNMPv1

Q: Can you show us?

- We need an SNMP server? This is wlll be `PLABCSCO01`

- Configuring SNMPv2c (traps, informs)

```
NYEDGE1#configure terminal
NYEDGE1(config)#ip access-list standard SNMP_RW
NYEDGE1(config-std-nacl)#permit host 192.168.16.10
NYEDGE1(config-std-nacl)#deny any log
NYEDGE1(config-std-nacl)#exit
NYEDGE1(config)#
NYEDGE1(config)#snmp-server community ITProTV rw SNMPRW [called a community string]
NYEDGE1(config)#snmp-server host 192.168.16.10 version 2c ITProTV
NYEDGE1(config)#
```

- Configure SNMPv3 (noauth, auth, and priv)

    - create an access-list to allow only 192.168.16.10 (previously configured)

```
NYEDGE1#configure terminal
NYEDGE1(config)#ip access-list standard SNMP_RW
NYEDGE1(config-std-nacl)#permit host 192.168.16.10
NYEDGE1(config-std-nacl)#deny any log
NYEDGE1(config-std-nacl)#exit
NYEDGE1(config)#
```

    - Create a server group

```
NYEDGE1(config)#snmp-server group MGMTSTATIONS v3 priv
```

    - Create an SNMP user

```
NYEDGE1(config)#snmp-server user snmpManager MGMTSTATIONS v3 auth sha PasswOrd! priv aes 128
EncryptPass access SNMP_RW
```

    - Configure SNMP recipients

```
NYEDGE1(config)#snmp-server host 192.168.16.10 informs version 3 priv snmpManager
```

Endnotes, External and Etc.

- 4.4 Explain the function of SNMP in network operations
- you must download PowerSNMP onto the `PLABCSCO01` machine and install it

    - http://dotnet.dart.com/Trials/PowerSNMP_Free_Manager.msi
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