

Cisco configuration elements

Network Management Workshop

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Overview

- Basic things that we need to make sure are configured on a Cisco router (and switch) to do proper network management
- These apply to other network equipment manufacturers of course, and to servers and workstations

Elements

- Hostname hostname of the device
- SSH enable secure shell
- DNS domain name lookup
- NTP time synchronization
- Syslog syslog messages
- SNMP SNMP configuration
- SNMP traps and where to send traps
- CDP Cisco discovery protocol

Hostname

- Use the FQDN preferably.
- In config mode:

hostname *net-gw.XYZ.domain.name*

or

hostname *net-sw-XYZ.domain.name*

DNS configuration

- Config mode:

```
ip domain-name mgmt.conference.apricot.net  
ip name-server 169.223.140.130
```

NTP + time configuration

- In config mode:

```
ntp server pool.ntp.org  
clock timezone PHT 7
```

- If needed:

```
clock summer-time XXX recurring last  
Sun Mar 2:00 last Sun Oct 3:00
```

- Verify:

```
show clock
```

SSH

- Only crypto version of IOS/CatOS have support for SSH – there are export restrictions... In config mode:

```
aaa new-model  
crypto key generate rsa  
username inst secret 0 xxxxxxxxxxxx
```

- ... above is required to be allowed to enable SSH. Verify creation with:

```
sh crypto key mypubkey rsa
```

- Use at least 768 bits – openssh req't

SSH (2)

- Enforce ssh (disabling telnet) on vty lines:

```
host# conf t
host(config)# line vty 0 4
host(config-line)# transport input ssh
^Z
host#
```

- SSH is now enabled
- Telnet is not necessary disabled!
 - Use ACLs for this to be sure

Syslog

- In config mode:

```
logging noc.mgmt.conference.apricot.net  
logging facility local5  
logging trap debugging
```

SNMP

- In config mode:

```
snmp-server community xxxxxxxxxx RW
snmp-server community aprlcot29 RO
snmp-server location Manila, Apricot
snmp-server enable traps config
snmp-server enable traps envmon
snmp-server enable traps config-copy
snmp-server enable traps syslog
snmp-server host 169.223.140.130 aprlcot29
```

CDP

- Cisco Discovery Protocol
- Normally enabled by default nowadays
- Otherwise, enabled with "cdp enable" or "cdp run"
- tcpdump and tools like cdpr will show you CDP announcements
- check neighbor announcement with:

show cdp neighbors

Questions ?
