INTERFACE MONITORING #CATALYST

connected but the really the device work?

▸ Even the interface is up, no traffic is coming.

▸ Even it's not the network issue, the network can detect and report.

▸ Will monitoring the unicast incoming packet or broadcast (up to you!)

▸ Catalyst 9300 and 16.12.2 was used.

How monitor the interface stat?

1= Text Searching from "show interface"
Rejected ㅠㅠ by the requester

2= SNMP by pysnmp
Guestshell needs python3 and pysnmp (5 rpm and 5 whl)
Can't handle well pysnmp - sorry

3= SNMP by snmpwalk
Guestshell needs 2 rpm for install
Easy to handle

What to Monitor

ifName	ifInMulticastPkts
ifOperStatus	**ifInBroadcastPkts**
	ifOutMulticastPkts
	ifOutBroadcastPkts
	ifInOctets
	ifInUcastPkts
	ifOutOctets
ifInDiscards	ifOutUcastPkts

Pre-Requirement

1 = run guestshell on catalyst

2 = install snmpwalk

yum install net-snmp-utils (if internet is connected)
or copy and install by yum install -y *.rpm
net-snmp-libs-5.7.2-48.el7_8.1.x86_64.rpm
net-snmp-utils-5.7.2-48.el7_8.1.x86_64.rpm

3 = copy 620-4.py, interface.ini and interface.db to bootflash

4 = Edit interface.ini

```
iox

interface VirtualPortGroup0
 ip address 192.168.1.1 255.255.255.0

app-hosting appid guestshell
 app-vnic gateway0 virtualportgroup 0 guest-interface 0
  guest-ipaddress 192.168.1.2 netmask 255.255.255.0
 app-default-gateway 192.168.1.1 guest-interface 0
 name-server0 8.8.8.8
```

Pre-Requirement

192.168.1.1
public
9,10

4 = Edit interface.ini

   First line, IP address of C9K

   Second line, SNMP RO community string

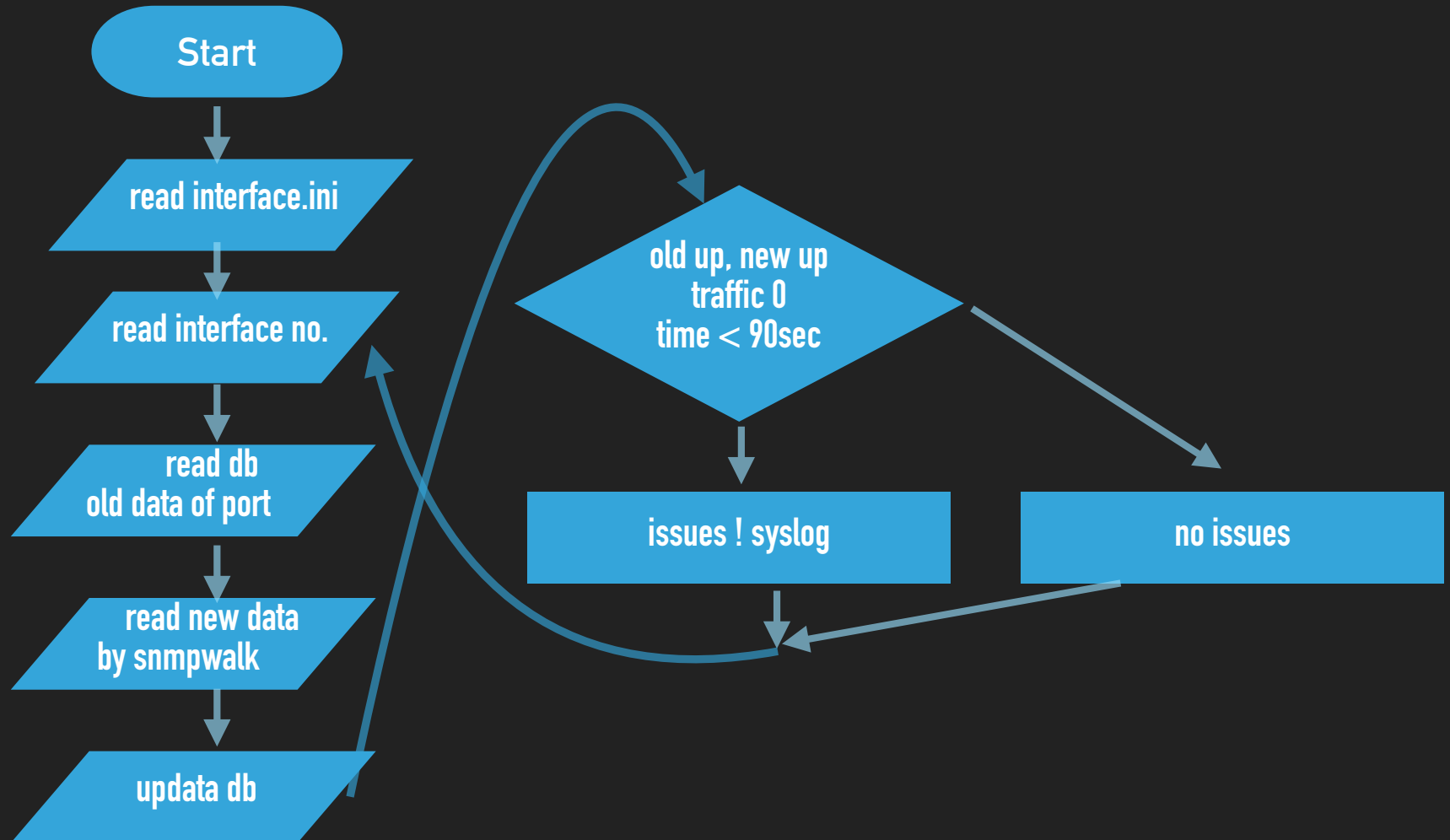   **Third line, Interface Number by SNMPWALK separated by , (comma)**

You can get the number @guestshell by
snmpwalk -v 1 -c public 192.168.1.1 ifName

IF-MIB::ifName.9	=	STRING:	Gi1/0/1
IF-MIB::ifName.10	=	STRING:	Gi1/0/2
IF-MIB::ifName.11	=	STRING:	Gi1/0/3
IF-MIB::ifName.12	=	STRING:	Gi1/0/4
IF-MIB::ifName.13	=	STRING:	Gi1/0/5

Flow chart

Start

read interface.ini

read interface no.

read db
old data of port

read new data
by snmpwalk

updata db

old up, new up
traffic 0
time < 90sec

issues ! syslog

no issues

Run

run event manager - guestshell has no "CRON"

```
event manager applet YAME-INTEFFACE-MONITOR
 event timer watchdog time 60
 action 1.0 cli command "enable"
 action 2.0 cli command "send log 7 620-4.py executed"
 action 3.0 cli command "guestshell run python /bootflash/620-4.py"
 action 4.0 cli command "send log 7 620-4.py ended"
```

DEMO

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