SKXXX - Nagios: Simple Network Management Protocol

Purpose - Automatically monitor assets' uptime

Procedure

Installation

SNMP

```
sudo yum -y install net-snmp net-snmp-utils
sudo systemctl enable snmpd.service
```

Configuration

Create a new snmpd.conf file

```
mv /etc/snmp/snmpd.conf /etc/snmp/snmpd.conf.old
vim /etc/snmp/snmpd.conf
```

Insert:

```
rocommunity    public   192.168.4.30
syslocation    "Watervliet, New York"
syscontact     "JeffreyW@sks-bottle.com
```

Allow the SNMP port

```
sudo firewall-cmd --permanent --zone=public --add-port=161/udp
sudo firewall-cmd --reload
```

Add the SNMP user

```
sudo systemctl stop snmpd.service
net-snmp-create-v3-user -ro -A LINux1986$%^ -a SHA -X snmpv3encPass -x AES snmpnagios
sudo systemctl start snmpd.service
```

Test SNMP

1. Locally

```
snmpwalk -u snmpnagios -A LINux1986$%^ -a SHA -X snmpv3encPass -x AES -l authPriv 127.0.0.1 -v3
```

2. Remotely

```
snmpwalk -u snmpnagios -A snmpnagios -a SHA -X snmpv3encPass -x AES -l authPriv [remote_ip_address] -v3
```

Restart SNMP

```
sudo systemctl restart snmpd.service
```

Additional Knowledge

Delete the SNMPv3 user

```
sudo sed -i '/rouser/d' /etc/snmp/snmpd.conf
sudo sed -i '/usmUser/d' /var/lib/net-snmp/snmpd.conf
sudo systemctl restart snmpd.service
```

SNMP Object Identifiers

Parameter	OID
1 Minute Load	.1.3.6.1.4.1.2021.10.1.3.1
5 Minute Load	.1.3.6.1.4.1.2021.10.1.3.2
15 Minute Load	.1.3.6.1.4.1.2021.10.1.3.3
Ideal CPU Time	.1.3.6.1.4.1.2021.11.11.0
System Uptime	.1.3.6.1.2.1.25.1.1.0
Total Swap	.1.3.6.1.4.1.2021.4.3.0
Available Swap	.1.3.6.1.4.1.2021.4.4.0
Total RAM	.1.3.6.1.4.1.2021.4.5.0
Total Free RAM	.1.3.6.1.4.1.2021.4.11.0
RAM Used	.1.3.6.1.4.1.2021.4.6.0