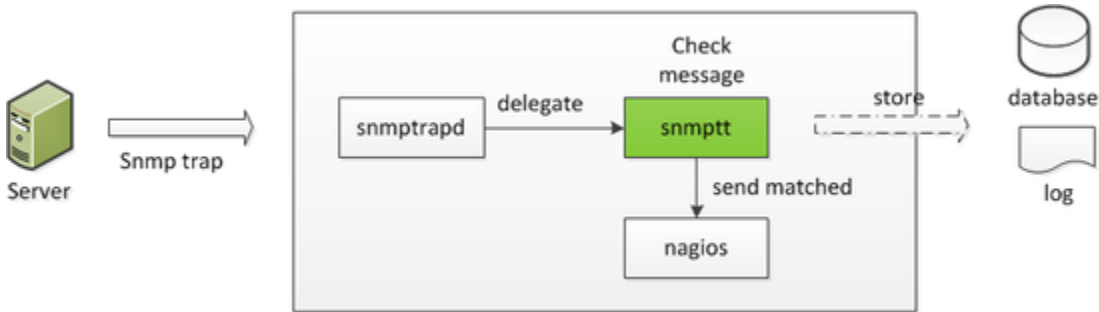


???

- [SNMPTT ??](#)

??  
 ???????? Nagios ?????? SNMP Trap ? IT ?????? Cisco ?????? IBM V7000 ??????  
 SNMP Trap ? SNMP ??CPU/RAM ???????  
 ???? IBM V7000 ???????????? Cisco ??????????  
 ???? Nagios?SNMPTT?snmptrapd ??????????????



?????

- Nagios Core 3.x
- IBM V7000 ?????
- QNAP NAS ??

????

- ??? Nagios Core ? XI ?
- ??? [SNMPTT](#) ??
- ?????????? MIB ??????????

**?? Nagios**

?? SNMP\_TRAP ??????

TIP:

```
max_check_attempts ??? 1????????????????????? snmp trap????????? 1 ????????????
```

```
#> /etc/nagios/objects/templates.cfg
```

```
define service {
    name                SNMP_TRAP
    service_description  SNMP_TRAP
    active_checks_enabled 1 ; Active service checks are enabled
```

```

passive_checks_enabled 1 ; Passive service checks are enabled/accepted
parallelize_check      1 ; Active service checks should be parallelized
process_perf_data      0
obsess_over_service    0 ; We should obsess over this service (if necessary)
check_freshness        0 ; Default is to NOT check service 'freshness'
notifications_enabled  1 ; Service notifications are enabled
event_handler_enabled  1 ; Service event handler is enabled
flap_detection_enabled 1 ; Flap detection is enabled
process_perf_data      1 ; Process performance data
retain_status_information 1 ; Retain status information across program restarts
retain_nonstatus_information 1 ; Retain non-status information across program restarts
check_command          check-host-alive ; This will be used to reset the service to "OK"
is_volatile            1
check_period           24x7
max_check_attempts     1
normal_check_interval  1
retry_check_interval   1
notification_interval  120
notification_period    24x7
notification_options   w,u,c,r
contact_groups         netops-24x7 ; Modify this to match your Nagios contact group definitions
register               0
}

```

?? V7000 ?????

TIP:

????? check\_interval ??? 120 ?????????????????? CRITICAL ?????????????????????????????????????? OK?????????  
 CRITICAL ?????????????????????????????? Re-schedule the next check of this service?

#> vi /etc/nagios/objects/STORAGES.cfg

```

define host{
    use          generic-host
    host_name    ibm_v7k01
    alias       IBM V7000 #1
    address     10.4.1.51
    check_command check-host-alive
    max_check_attempts 5
    check_period 24x7
    notification_interval 120
    notification_period 24x7
    notification_options d,r
    contact_groups adm-alang
    notifications_enabled 1 ;0=disable, 1=enable
}

```

```
define hostgroup{
    hostgroup_name fs-storage
    alias      FileServer Storages
    members    ibm_v7k01
}
```

```
define service {
    use          SNMP_TRAP
    host_name    ibm_v7k01
    service_description  SNMP_TRAP
    check_interval    120 ; Don't clear for 2 hours
    contact_groups    adm-alang
    notifications_enabled  1
}
```

???

```
#> service nagios reload
```

??????????

```
#> /usr/lib64/nagios/plugins/eventhandlers/submit_check_result ibm_v7k01 SNMP_TRAP 2 "TESTING"
```

NOTE: ????????????????????? Nagios ?????????????????????

????: ibm\_v7k01

????: SNMP\_TRAP

????: 2 = Critical

????: TESTING

?? submit\_check\_result ????

# \$1 = host\_name (Short name of host that the service is

# associated with)

# \$2 = svc\_description (Description of the service)

# \$3 = return\_code (An integer that determines the state

# of the service check, 0=OK, 1=WARNING, 2=CRITICAL,

# 3=UNKNOWN).

# \$4 = plugin\_output (A text string that should be used

# as the plugin output for the service check)

?? Nagios ?? submit\_check\_result

```
#> vi /usr/lib64/nagios/plugins/eventhandlers/submit_check_result
```

```
??? #!/bin/sh ?? #!/bin/bash
```

???? MIB ?

```
#> cp SVC_MIB_7.5.0.MIB /usr/share/snmp/mibs/SVC_MIB_7.5.0.MIB.txt
```

TIPs:

???? Cisco ???? MIB ???? <http://ftp.cisco.com/pub/mibs/v2/>

?? snmptrapd

```
#> vi /etc/snmp/snmptrapd.conf
```

```
disableAuthorization yes
traphandle default /usr/sbin/snmpthandler
```

????

```
#> service snmptrapd restart
```

?? MIB ? snmptt ???

```
#> snmpttconvertmib --in=/usr/share/snmp/mibs/SVC_MIB_7.5.0.MIB.txt --out=/etc/snmp/snmptt.conf
--debug --exec='/usr/lib64/nagios/plugins/eventhandlers/submit_check_result $r SNMP_TRAP 2'
```

????????:

Line: 135

NOTIFICATION-TYPE: tsveWTrap

Variables: tsveMACH tsveSERI tsveERRI tsveERRC tsveSWVE tsveFRUP tsveCLUS tsveNODE  
tsveERRS tsveTIME tsveOBJT tsveOBJI tsveADD1 tsveADD2 tsveCOPY tsveMPNO tsveOBJN

Enterprise: ibm2145TSVE

Looking up via snmptranslate: IBM-SVC-MIB::tsveWTrap

Bad month in timestamp (20151704000Z): At line 15 in /usr/share/snmp/mibs/  
SVC\_MIB\_7.5.0.MIB.txt

OID: .1.3.6.1.4.1.2.6.190.2

#

Line: 161

NOTIFICATION-TYPE: tsveITrap

Variables: tsveMACH tsveSERI tsveERRI tsveERRC tsveSWVE tsveFRUP tsveCLUS tsveNODE  
tsveERRS tsveTIME tsveOBJT tsveOBJI tsveADD1 tsveADD2 tsveCOPY tsveMPNO tsveOBJN

Enterprise: ibm2145TSVE

Looking up via snmptranslate: IBM-SVC-MIB::tsveITrap

Bad month in timestamp (20151704000Z): At line 15 in /usr/share/snmp/mibs/  
SVC\_MIB\_7.5.0.MIB.txt

OID: .1.3.6.1.4.1.2.6.190.3

Done

Total translations: 3  
Successful translations: 3  
Failed translations: 0

?: Could not find DEFINITIONS ::= BEGIN statement in MIB file!  
?: ??MIB????????????????

IBM-SVC-MIB DEFINITIONS ::= BEGIN

snmptt.conf ???????:

```
EVENT tsveITrap .1.3.6.1.4.1.2.6.190.3 "Status Events" Normal
FORMAT tsve information trap $*
EXEC /usr/lib64/nagios/plugins/eventhandlers/submit_check_result $r SNMP_TRAP 2 "tsve
information trap $*"
SDESC
tsve information trap
Variables:
 1: tsveMACH
 2: tsveSERI
 3: tsveERRI
 4: tsveERRC
 5: tsveSWVE
 6: tsveFRUP
 7: tsveCLUS
 8: tsveNODE
 9: tsveERRS
10: tsveTIME
11: tsveOBJT
12: tsveOBJI
13: tsveADD1
14: tsveADD2
15: tsveCOPY
16: tsveMPNO
17: tsveOBJN
EDESC
```

?? snmptt ??

#> service snmptt restart

Nagios ????

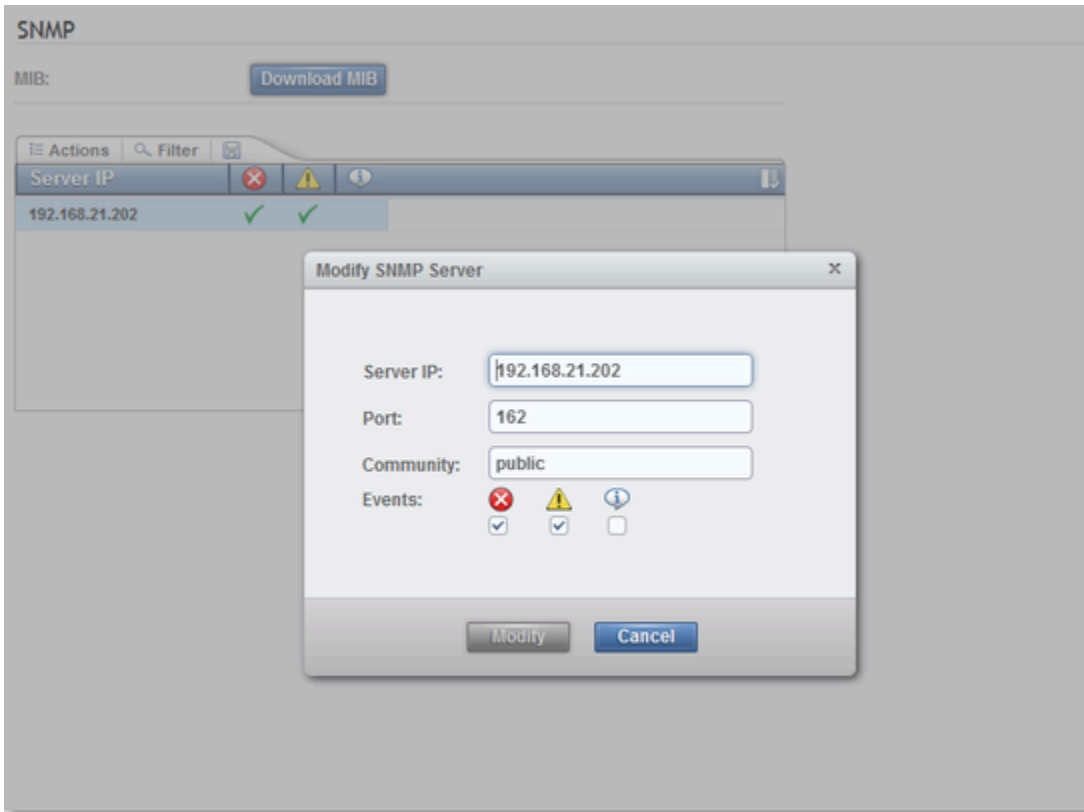
????????

IBM V7000)

???????????? SNMP Trap ??

IBM V7000 > Settings > Notifications > SNMP > Actions > Add

- Server IP: <?? Nagios IP>
- Port: 162 <Nagios ???? snmptrapd ???????? snmp trap ? port ? 162>
- Community: public <?????>



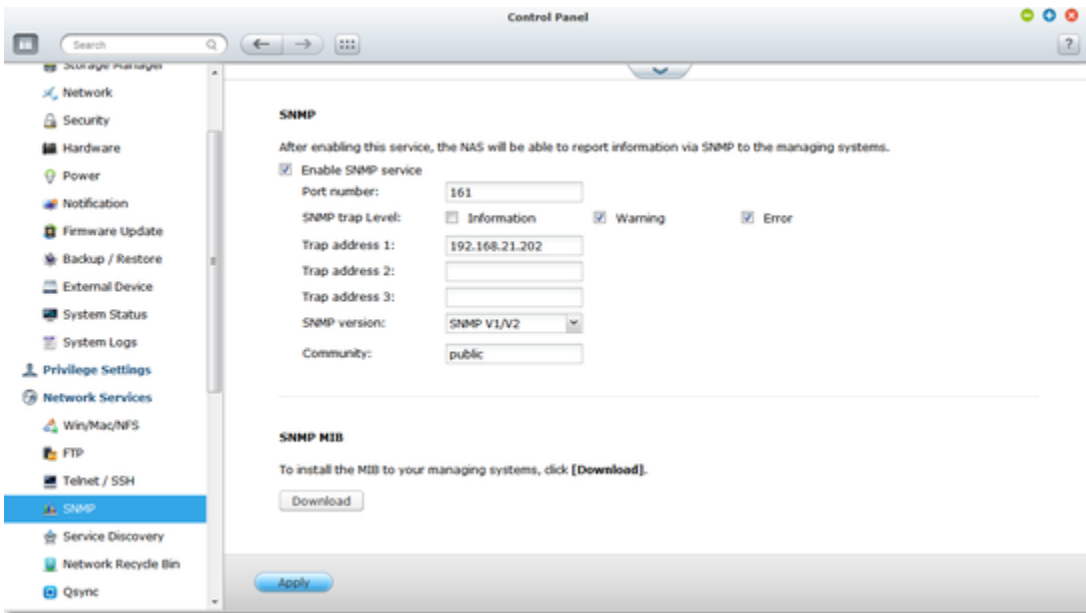
QNAP NAS)

QNAP Admin > System Settings > Network Services > SNMP

- Enable SNMP service: ??
- Port number: 161 <NOTE: ??? port ??? QNAP ??? snmp ??? Nagios ??>
- SNMP trap level: Warning, Error
- Trap address 1: <?? Nagios ?? IP>
- SNMP version: SNMP V1/V2
- Community: public <NOTE: ????? QNAP ??? snmp ??? Nagios ??>

TIPS?

QNAP ? SNMP ??? SNMP ? SNMP Trap ??????SNMP ?????????????????? SntpTrap ??????? Trap address?

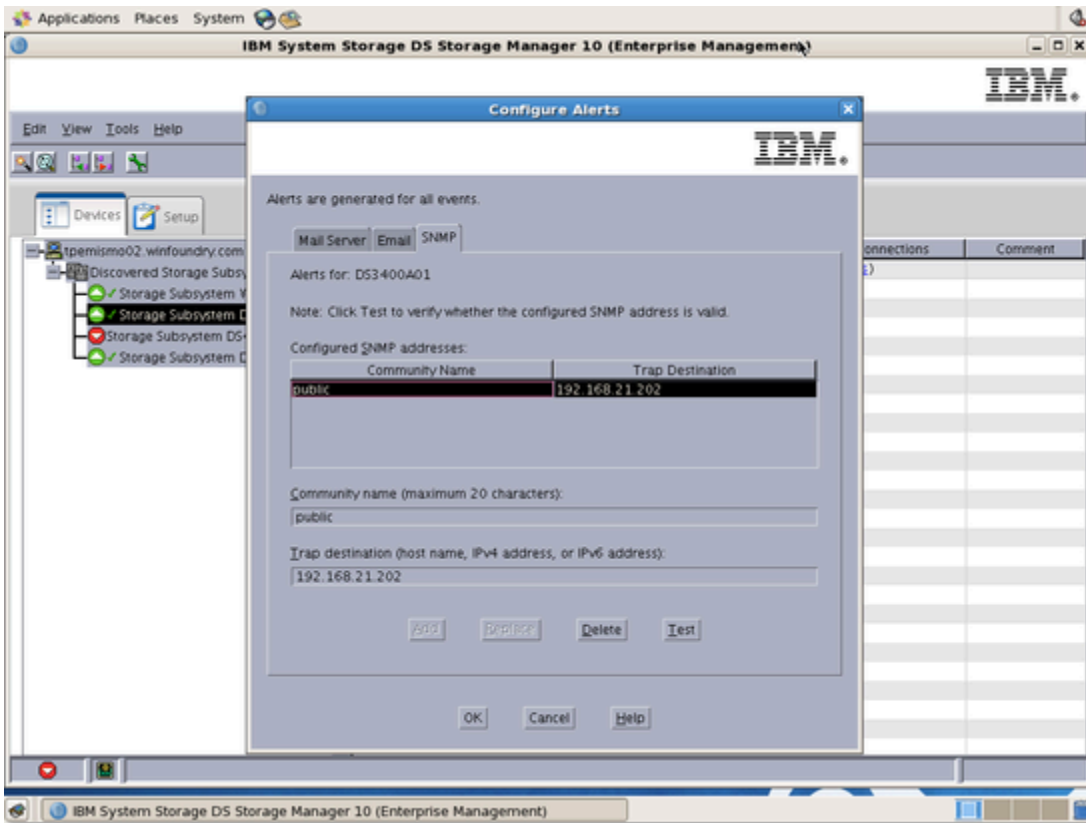


IBM DS 3400/4300/4800 Storage)

???? CentOS Linux ??? IBM DS Storage Management?? storage ? IP ????????

IBM DS Manager > ?????? storage > ???? Configure Alerts > SNMP

- Community Name = public
- Trap destination = <Nagios ?? IP>

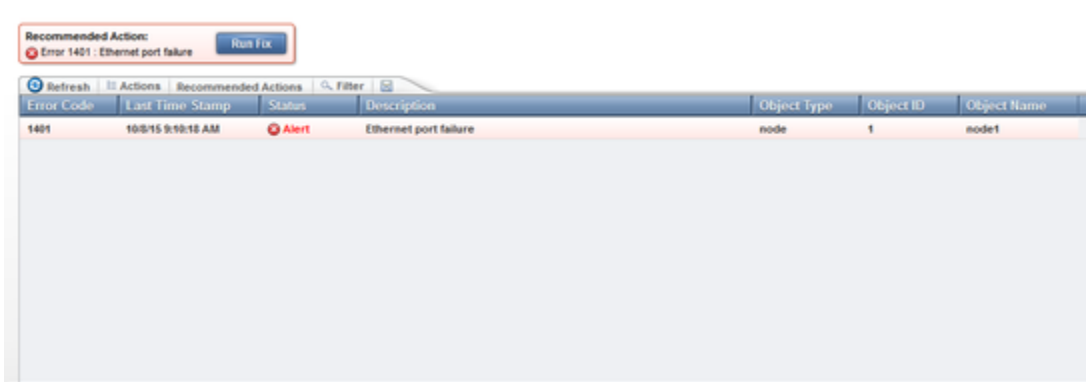


????

V7000 (????)

V7000 ?????????? node ??? standby node ?????(??? primary node)????????? Error ????

V7000 ???



Nagios ???



Service Status Details For Host Group 'fs-storage'

Host	Service	Status	Last Check	Duration	Attempt	Status Information
iem_v7d1	SNMP_TRAP	CRITICAL	10-08-2015 09:10:30	0d 0h 3m 2s	1/1	time warning trap # Machine Type = 2076524 # Serial Number = 7821FCX # Error ID = 71724 : Fewer ethernet ports operable failure # System Version = 7.5.0.2 (build 115.51.1507081154000) # FRU = None # System Name = WFN_V7000_1 # No # Timestamp = Thu Oct 8 09:10:18 2015 # Object Type = node # Object ID = 1 # Object Name = node1 # Copy ID = # Machin # Additional Data (64 -> 127) =
iem_v7d2	SNMP_TRAP	OK	10-08-2015 09:11:20	0d 16h 2m 12s	1/1	PING OK - Packet loss = 0%, RTA = 0.33 ms
iem1stb11	CPU Load	OK	10-08-2015 09:11:51	0d 15h 11m 42s	1/3	OK: CPULOAD 66%
iem1stb11	DiskPowerFail Status	OK	10-08-2015 09:09:21	6d 13h 49m 22s	1/3	OK Temp OK failedfan = 0 failedpsu = 0 faileddisk = There are no failed disks. Ops/Sec = 33
iem1stb11	PING	OK	10-08-2015 09:09:52	117d 19h 11m 53s	1/3	PING OK - Packet loss = 0%, RTA = 0.34 ms
iem1stb12	CPU Load	OK	10-08-2015 09:09:23	20d 19h 36m 28s	1/3	OK: CPULOAD 25%
iem1stb12	DiskPowerFail Status	OK	10-08-2015 09:09:54	602d 23h 13m 11s	1/3	OK Temp OK failedfan = 0 failedpsu = 0 faileddisk = There are no failed disks. Ops/Sec = 0
iem1stb12	PING	OK	10-08-2015 09:09:24	269d 16h 2m 47s	1/3	PING OK - Packet loss = 0%, RTA = 0.34 ms
iem1stb13	CPU Load	OK	10-08-2015 09:09:56	310d 21h 38m 29s	1/3	OK: CPULOAD 3%
iem1stb13	DiskPowerFail Status	OK	10-08-2015 09:09:25	602d 21h 33m 57s	1/3	OK Temp OK failedfan = 0 failedpsu = 0 faileddisk = There are no failed disks. Ops/Sec = 0
iem1stb13	PING	OK	10-08-2015 09:09:58	602d 21h 44m 24s	1/3	PING OK - Packet loss = 0%, RTA = 0.25 ms

QNAP NAS ????)

?? QNA NAS ?? Warning ?????????????????? Linux ????)

```
$> snmpwalk -v 2c -c public <QNAP IP>
```

?? QNAP ?????? DDoS ?????????? QNAP ?? SNMP ??????????

TIPS:

- \* ?????????????????? Nagios ? Status Information ???
- \* ?????????? Nagios ?????????? /var/log/snmpd/snmpd.log

????

- <http://paulgporter.net/2013/09/16/nagios-snmp-traps/>
- <http://hyper-choi.blogspot.tw/2012/1...-1-snmpd.html>
- <http://snmpd.sourceforge.net/docs/s...ation-Overview>