

Nagios monitoring vs. IPv6

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Outline:

1. IPv6 support in Nagios
2. PING sensor etc
3. NRPE, NSCA
4. `check_v46`
5. munin2 and ganglia

Access to the service

- ▶ apache → OK
- ▶ livestatus + multisite
 - ▶ multisite does not connect to IPv6 address in version 1.1.12p7
 - ▶ workaround using xinet + netcat

Configuration, sensors, etc

- ▶ host definition: support of IPv6 address
- ▶ basic checks work out of the box also for IPv6-only hosts:
 - ▶ `check_local_load`, `check_local_procs`, `check_ssh`
 - ▶ ...

Ping sensor

- ▶ by default ping selects one of the addresses
- ▶ maybe better: separate PING and PING6 sensors

Possible problems:

- ▶ datacentre network, firewall etc is setup properly,
- ▶ PING6 sensor says OK, DHCPv6 lease sensor says OK
- ▶ Can we be sure that the host is accessible from outside?

Ping sensor

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- ▶ maybe better: separate PING and PING6 sensors

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- ▶ Can we be sure that the host is accessible from outside?
- ▶ NO! default route can expire as well
→ route expiration sensor

NRPE

- ▶ SL5, version 2.14: no IPv6 support:
Invalid host name 'example-v6.domain'
- ▶ SL6, version 2.15: works OK

NSCA

- ▶ stable version: 2.7.2 (SL5 and SL6)
- ▶ current version: 2.9.1 (Debian 7, Openbsd 5.5)
- ▶ neither supports IPv6:
Invalid host name 'example-v6.domain'
⇒ problems with passive checks for IPv6-only nodes

- ▶ daemon is running...
does it bind to both IPv4 and IPv6 address?

check_tcp

- ▶ support IPv6, IP version can be forced
- ▶ 1.4.15 (SL5): if port is closed, sometimes returns UNKNOWN: Socket creation failed instead of CRITICAL: Connection refused
- ▶ 1.4.16 (SL6): works well

- ▶ we need to check each open port twice:
for IPv4 and IPv6 separately
⇒ too many sensors

check_v46

<https://gitorious.org/nagios-monitoring-tools/>

- ▶ developed by Ville Mattila from CSC in Finland
- ▶ plugin wrapper

```
$PLUGDIR$/check_v46 -H '$HOSTNAME$' $PLUGDIR$/check_srv
```

- ▶ runs check_srv twice: with -4 and -6 option
- ▶ returns the worst of the results

- ▶ sometimes we cannot be sure, what protocol will be used by the sensor
- ▶ e. g. lcg-cp: if IPv6 access fails, it will use IPv4

IPv6-only nagios (or IPv4-only)

- ▶ connected to the central dualstack multisite node via livestatus
- ▶ we use this setup on our IPv6 testbed
- ▶ some checks can be run from IPv6/IPv4-only nagios node
→ we know that the service is fully accessible via IPv6 resp. IPv4
- ▶ we currently don't plan to deploy this in production

munin2

- ▶ we run version 2.0.19
- ▶ no problems occurred with IPv6 clients and/or server
- ▶ communication goes via IPv6 if both server & client support it

ganglia

- ▶ problems if proper `gai.conf` is not present
- ▶ `gmond` does not bind to IPv6 address on aggregators
- ▶ clients fail to report statistics via UDP
- ▶ `gmond` can be also forced to bind to IPv6 address in config file
- ▶ probably the same issue with `gmetad` on the server

- ▶ deployment of IPv6 needs more care in monitoring
- ▶ some new sensors are needed
- ▶ use SL6 rather than SL5
- ▶ most of the sensors are IPv6 compatible
- ▶ `check_v46` — "agregator" of IPv4 and IPv6 checks
- ▶ NRPE works in SL6
- ▶ NSCA does not, hopefully new version will work
- ▶ munin and ganglia work

Thank You

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