

The Sysadmin's Daily Grind: Smokeping

SMOKED OUT!

If you do not receive a response to a ping, or if the response is seriously delayed, you might like to take this as a warning. But who wants to ping all day? You need a ping-based monitoring utility like Smokeping.

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The Smokeping monitoring tool is on the package list of many distributions such as Debian and Gentoo. And if you can't find the package, the 200 KByte tarball from [1] is easy to install. Smokeping needs a few tools by the same author, such as RRD-Tool, Fping, SpeedyCGI, and a web server where it can display the results [2].

Smokeping uses a central configuration file that gives admins several useful examples. The configuration file is the place to configure the paths to the binaries and the web server. Things start to get interesting when you configure the alarm triggers, as Smokeping uses an extremely unusual but effective format. One default trigger looks like this:

```
+bigloss
type = loss
pattern = ==0%,==0%,==0%,>
==0%,>0%,>0%,>0%
```

+bigloss is the trigger label. It has to be unique and alphanumeric. The *type = loss* entry pulls the trigger when packets go astray. The *pattern* entry gives the trigger a pattern to match. And the comma-separated entries are for the percentage of lost packets. By default, Smokeping pings the target twenty times every five minutes. If packets are lost in

three consecutive pings, Smokeping pulls the trigger.

Happy Pinging

The second example is also taken from the default configuration:

```
+rttdetect
type = rtt
pattern = <10,<10,<10,<10,>
<10,<100,>100,>100,>100
```

type = rtt means that Smokeping does not react to lost packets; instead it watches for notable increases in the round trip time. The comma-separated round trip values (in milliseconds) in the *pattern* line define a sequence. The example expects ping replies in less than 10 milliseconds. If a sequence of multiple RTTs of more than 100 milliseconds occurs (> 100, > 100, > 100), Smokeping alerts you to the issue.

Okay so far, but Smokeping does not know which servers you want it to monitor. Another section lower down in the configuration file defines the target server. The default uses geographical sorting:

```
+World
++Europe
+++UK
+++Switzerland
```

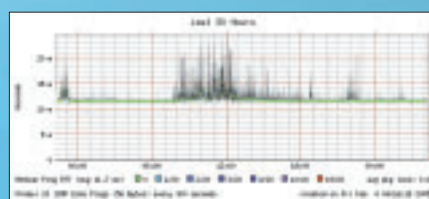


Figure 1: The CGI shows Smokeping's findings.

I added my server:

```
menu = Germany
title = Charlys Webserver
host = kuehnast.com
alerts = bigloss,rttdetect
```

After launching Smokeping, the *smokeping.cgi* tool, which is part of the package, displays the server reply times (see Figure 1). If one of these entries triggers notification, I am alerted by email. Smokeping can do a lot more than this, as the exhaustive documentation at [1] clearly shows. Now all I need is for my server to crash so I can see Smokeping in action. ■

INFO

- [1] Smokeping: <http://people.ee.ethz.ch/~oetiker/webtools/smokeping/>
- [2] Documentation: <http://people.ee.ethz.ch/~oetiker/webtools/smokeping/docs/install.en.html>

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