

Munin

System monitoring made simple

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November 10, 2006*

What is Munin?

- A web based, system monitor
- Can be used to monitor one system, a LAN, or even machines over the internet
- A “client/server”-like model
- Easy to setup
- Very useful for monitoring changes over time
- “At this rate, when am I going to run out of hard drive space?”
- “Why are there network traffic spikes at 3AM?”

Munin Architecture

- munin and munin-node
- munin (server) retrieves data, makes graphs, generates HTML pages
- munin-node (client) obtains data from the system based on the plug-ins enabled and listens on port 4949 for munin requests
- munin and munin-node can both run on the same machine

munin

- Config stored in `/etc/munin/munin.conf`
- Adding hosts is easy, just need a domain name or IP address
- cron job runs every five minutes (default) to collect data, create graphs, and web pages

munin-node

- The part that does the data collecting per machine
- Plug-ins stored in `/usr/share/munin/plugins/`
- Active plug-ins symlinked in `/etc/munin/plugins/`
- `munin-node.conf` has a list of which hosts can retrieve data (so random people don't monitor your system)

Munin Plug-ins

- Munin plug-ins are very easy to write
- No “API” per se, any language that can write to stdout can be used for Munin plug-ins

My Simple (PHP) Plug-in

- `#!/usr/bin/php`
- `<?`
- `if($_SERVER['argc'] > 1)`
- `{`
- `if($_SERVER['argv'][1] == "config")`
- `{`
- `print "graph_title Hercules MIPS\n";`
- `print "graph_vlabel MIPS\n";`
- `print "graph_scale no\n";`
- `print "hercmips.label MIPS\n";`
- `print "hercmips.draw AREA\n";`
- `exit(0);`
- `}`
- `}`

More Code

- `$fp = @fopen(http://localhost:8081/cgi-bin/xml/rates", "r");`
- `if(!$fp) exit(0);`
- `while(!feof($fp)) {`
- `$str = fgets($fp);`
- `if(strpos($str, "<mips>") > -1)`
- `{`
- `$start = strpos($str, ">") + 1;`
- `$str = substr($str, $start);`
- `$len = strpos($str, "<");`
- `$str = substr($str, 0, $len);`
- `echo "hercmips.value " . $str . "\n"; }`
- `}`
- `fclose($fp);`

The Result

