

# NURD

## Nagios-Cacti Unified Reporting Dashboard :: Documentation

### Requirements

- Nagios3
- NDOUtils (particularly ndo2db)
- Cacti
- Apache/MySQL/PHP
- Web Browser supporting AJAX (try Mozilla Firefox or Google Chrome)

### What is NURD?

NURD is a PHP dashboard for quickly gathering the data from both Nagios3 and Cacti into well-formatted reports. To achieve this, NURD first obtains a list of servers from the Nagios MySQL database (created by ndo2db). The user selects a host from this list, then NURD grabs the Nagios and Cacti trend data for that host (for the time span specified by the user) by making AJAX requests to the individual Nagios and Cacti interfaces.

### Installation

NURD requires that the Nagios3 and Cacti web roots be installed on the same domain (because AJAX requests cannot be made across domains). This may be worked around in a future release if such functionality becomes necessary (e.g. with a PHP proxy).

NURD is designed to be placed in a subdirectory of the plugins subdirectory of your Cacti installation (it does not currently actually use the Cacti plugin architecture, but does make use of some functions from Cacti). For example, if you have installed Cacti with its web root at `/var/www/cacti`, you would probably put the NURD files in `/var/www/cacti/plugins/nurd`.

After this there are a couple of configuration files to edit and set up some environment variables.

Open `html_report.js` in your favourite text editor and set the variables at the top of the file as follows:

- `nagios_cgi` – Path to your Nagios3 installation's cgi folder (where `avail.cgi` is located).
- `nagios_root` – Path to your Nagios3 installation's web root
- `cacti_root` – Path to your Cacti installation's web root
- `nurd_root` – Path to your NURD installation's base folder (in our example above, this was `/var/www/cacti/plugins/nurd`)

Now open up `index.php` and set these variables:

- `nagios_db_host` – the host where the Nagios/ndo2db database is located (probably localhost)
- `nagios_db_port` – the port to access the Nagios database host on (blank for default).
- `nagios_db_name` – the name of the Nagios database on the server.
- `nagios_db_user` – the username to use when accessing the Nagios database.
- `nagios_db_pass` – the password to use when accessing the Nagios database.
- `nagios_db_prefix` – the prefix on the Nagios database's table names (often “`nagios_`”).
- `cacti_rootdir` – the relative path to the cacti web root (for including Cacti PHP files).

Finally change the owner, group and permissions on the NURD files to be accessible to http clients.

## Usage

If you navigate your AJAX-capable browser to <https://your-server.com/cacti/plugins/nurd>, you should see the NURD dashboard interface. The interface is fairly self-explanatory, experiment a little and you should have no trouble.

If you select a relative timespan (any timespan other than “custom”), then click the button to open the report in a new window, you will be able to bookmark the resulting URL and simply revisit that page to see up-to-date reports for the selected server (i.e. the report will always show the last week at the time of accessing the report, not the last week from when the URL was generated). This can be useful for giving the boss a quick url link to see the statistics on specific servers and services for the last month, etc.

## Host-agnostic Service Statistics

There is a frequent issue that comes up with monitoring services that are on multiple redundant hosts. How do we test the availability of the service, regardless of which server answers the request, and show trends of the host-agnostic service availability? The solution is to create dummy servers (or use the load balancers if you have them) and associate custom service checks with them. These custom service checks will simply be scripts on the monitoring host that run the necessary commands to determine the host-agnostic availability of the service in question and return the Nagios-understandable status (OK, Warning, Critical or Unknown).

With this done, and services grouped under the appropriate dummy hosts, the person wanting to see the reports can just select the dummy host and check only the “Service Status” box in NURD to see the statistics. For example, a host may be created called “web-services-dummy-host” which has services associated with it like “check-homepage-available”, “check-wiki-available” and “check-webmail-available”.

However, it is beyond the scope of this documentation to describe how to add custom hosts and services to Nagios3.

## Printing Reports

If you have generated a printer-friendly report page and then tried to print it, you may discover that it is very difficult to read because the background colours from the Nagios tables are missing. This is a browser-dependent issue. At the time of writing this document, it is my understanding that Google Chrome does not provide support for printing background colours. However, Mozilla Firefox does allow this. If you open the report in Firefox and bring up the print dialog, there will be a checkbox on the “Options” tab that turns on the printing of background colours (though it is unchecked by default).