Summer 2017 Webinar Series
New Features in Cacti 1.1.x

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Webinar Links: www.mcnc.org/cne-webinars
Agenda

- New feature: auto discovery
- New feature: 1 minute polling
- Issues with upgrading an older installation
- Demo
Auto Discovery

- Or Automation
  - Networks
  - Device Rules
  - Graph Rules
  - Tree Rules
  - SNMP Options
SNMP Options

- Define an SNMP Community String
  - Click the plus symbol and provide a name for the option, such as “Community”

- Add SNMP Community Strings
  - Select SNMP Version, 2 or 3
  - Add your community string, such as public or private or a string that is defined on your network devices.
Graph Options

- Define a Graph Rule
  - Click the plus symbol and provide a name for the option, such as “Add Interface Graphs”
- Select Data Query
  - SNMP – Interface Statistics
- Select Graph Type
  - In/Out Bits with 95\textsuperscript{th} Percentile 64-bit
- Enable Rule
Auto Discovery

Graph Options

- Add Device Selection Criteria
  - Field Name: `snmp_community` – varchar(100)
  - Operator: contains
  - Matching Pattern: your community string

- Add Graph Creation Criteria
  - Field Name: `ifOperStatus`
  - Operator: contains
  - Matching Pattern: Up
Auto Discovery

Networks

- Add a Network Discovery Range
  - Name
  - Subnet Range
  - Schedule Type – Manual, Daily, Weekly, Monthly
  - Run Limit – Make sure to set this appropriately
  - Enabled
  - SNMP Options – select SNMP option created earlier.
1 Minute Polling

- Create new data profile for 1 min polling
  - Name
  - Polling Interval (Every Minute)
  - Heartbeat (2 Minutes)
  - Consolidation Function – select all four

- Create a new data source profile RRAs
  - Name
  - Aggregation Level (Each Insert is New Row)
  - Rows
Create RRAs according to this example

<table>
<thead>
<tr>
<th>Name</th>
<th>Effective Timespan</th>
<th>Steps</th>
<th>Rows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly (1 min Avg) @1min</td>
<td>7 Days</td>
<td>1</td>
<td>10080</td>
</tr>
<tr>
<td>Daily (5 Min Avg) @1min</td>
<td>3 Months</td>
<td>5</td>
<td>25920</td>
</tr>
<tr>
<td>Weekly (30 Min Avg) @1min</td>
<td>6 Months, 1 Week, 12 Hours</td>
<td>30</td>
<td>9000</td>
</tr>
<tr>
<td>Monthly (2 Hr Avg) @1min</td>
<td>6 Months, 1 Week, 12 Hours</td>
<td>120</td>
<td>2250</td>
</tr>
<tr>
<td>Yearly (1 Day Avg) @1min</td>
<td>2 Years, 2 Months, 7 Days</td>
<td>1440</td>
<td>797</td>
</tr>
</tbody>
</table>
Change data source profile on the templates you wish to use 1 minute polling.

- Console -> Templates -> Data Source

Data Source

Name
Choose a name for this data source. It can include replacement variables such as |host_description| or |query_fieldName|. For a complete list of supported replacement tags, please see the Cacti documentation.

☐ Use Per-Data Source Value (Ignore this Value)

|host_description| - Traffic

Data Input Method
The script/source used to gather data for this data source. This field is always templated.

Get SNMP Data (Indexed)

Data Source Profile
Select the Data Source Profile. The Data Source Profile controls polling interval, the data aggregation, and retention policy for the resulting Data Sources.

☐ Use Per-Data Source Value (Ignore this Value)

Data Source Profile

1 min polling

Data Source Active
Whether Cacti should gather data for this data source or not.

☐ Data Source Active

☐ Use Per-Data Source Value (Ignore this Value)
1 Minute Polling

- Change the poller frequency in cron
  - `vi /etc/cron.d/cacti`

  */5 ** * * * * cacti /usr/bin/php /usr/share/cacti/poller.php >/dev/null 2>&1

Change it to

  ** * * *  cacti /usr/bin/php /usr/share/cacti/poller.php >/dev/null 2>&1
Change the poller frequency in Cacti

- Console -> Configuration -> Settings, select “Poller” tab
  - Poller Interval (Every Minute)
  - Cron Interval (Every Minute)

Rebuild the poller cache

- Console -> Utilities -> System Utilities
  - Rebuild Poller Cache
Resolving issue with upgrades

When upgrading from an older version you will see the following error while running upgrade wizard

<table>
<thead>
<tr>
<th>Cacti Installation Wizard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-installation Checks</strong></td>
</tr>
<tr>
<td><strong>MySQL TimeZone Support</strong></td>
</tr>
</tbody>
</table>

ERROR: Your Cacti database login account does not have access to the MySQL TimeZone database. Please provide the Cacti database account "select" access to the "time_zone_name" table in the "mysql" database, and populate MySQL's TimeZone information before proceeding.

**Required PHP Module Support**

Cacti requires several PHP Modules to be installed to work properly. If any of these are not installed, you will be unable to continue the installation until corrected. In addition, for optimal system performance Cacti should be run with certain MySQL system variables set. Please follow the MySQL recommendations at your discretion. Always seek the MySQL documentation if you have any questions.

The following PHP extensions are mandatory, and MUST be installed before continuing your Cacti install.
Add timezone table to MySQL

- `mysql_tzinfo_to_sql /usr/share/zoneinfo | mysql -u root -p mysql`
- enter mysql password for root
Resolving issue with upgrades

- Login to MySQL and add permissions to table
  - `mysql -u root -p`
  - `GRANT SELECT ON mysql.time_zone_name TO cacti@localhost IDENTIFIED BY 'cactipass';`
    - Change cactipass to your cacti password
  - FLUSH privileges;
  - quit;

- vi /etc/php.ini and add after [Date] directive
  - `date.timezone = America/New_York`
  - Save changes
Resolving issue with upgrades

- Restart web server
  - service restart httpd
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