

Nagios XI - BPI XML Cache

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Overview

This KB article will explain how the Business Process Intelligence (BPI) component uses the XML cache file.

If you are not familiar with BPI, please refer to the following documentation:

[Using Nagios BPI](#)

What Is The BPI Cache

The BPI cache is a "point in time" dump of the BPI groups that currently exist in Nagios XI. It contains all the information of each group including the current state of each group. The cache is stored in the file `bpi.xml` and is stored by default in the `/usr/local/nagiosxi/var/components/` location.

However the `bpi.xml` file does not exist by default. It only exists once you have run the **BPI Configuration Wizard** to create service checks of your BPI groups. From the documentation:

Once you've created your BPI groups, to receive notifications when their thresholds are exceeded you need to create services.

The plugin `check_bpi.php` is what actually creates/updates the `bpi.xml` file.

How Is The BPI Cache Used

After creating service(s) for your BPI group(s), the plugin `check_bpi.php` is executed as per the Nagios XI service `check_interval`, lets use **5 minutes** as the example for this KB article.

If the `check_bpi.php` plugin cannot locate the `bpi.xml` file, it will create the file by talking to the Nagios XI database to generate the current state of all the BPI groups.

The `check_bpi.php` plugin will then finish it's job, to check to see if that specific BPI group has exceeded it's threshold.

Every time the `check_bpi.php` plugin is run, it will use the values in the `bpi.xml` file, instead of having to talk to the Nagios XI databases. The following chapter explains when the file is updated.

BPI Cache Threshold

There is an XML Cache Threshold of **90 seconds** defined in the BPI Settings (default value).

Every time the `check_bpi.php` plugin is run, it will test to see if the `bpi.xml` **file age** is greater than the **XML**

Cache Threshold. If the file is older than the threshold, the `bpi.xml` will be updated by talking to the Nagios XI database to generate the current state of all the BPI groups.

This means that when you have lots of BPI service checks, the `check_bpi.php` plugin does not need to perform a database query each time to get the status, it can be obtained directly from the `bpi.xml` file.

The BPI Settings can be accessed from the BPI home page by clicking the **Edit BPI Settings** button.

Threshold Example

Nagios XI service `check_interval` for "Service A", "Service B", "Service C", "Service D", "Service E" = **5 minutes**.

XML Cache Threshold = **90 seconds**.

- 10.01 = "Service A" check, does not find `bpi.xml` file so it is created, next check 10.06
- 10.02 = "Service B" check, finds `bpi.xml` file and it is **not** older than 90 seconds, the data in the file is used, next check 10.07
- 10.03 = "Service C" check, finds `bpi.xml` file and it is **older** than 90 seconds, the file is updated, next check 10:08
- 10.04 = "Service D" check, finds `bpi.xml` file and it is **not** older than 90 seconds, the data in the file is used, next check 10.09
- 10.05 = "Service E" check, finds `bpi.xml` file and it is **older** than 90 seconds, the file is updated, next check 10:10
- 10.06 = "Service A" check, finds `bpi.xml` file and it is **not** older than 90 seconds, the data in the file is used, next check 10.11

You can see in that simple example how the `bpi.xml` file is regularly updated as per the threshold setting.

Final Thoughts

For any support related questions please visit the [Nagios Support Forums](#) at:

<http://support.nagios.com/forum/>

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