so

up:time software
because downtime is not an option

Up. Time IPlanet/Sun One Web Server Monitor

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Executive Summary

This document provides a detailed overview of how to get the Iplanet/Sun One HTTP Monitor for up.time installed and configured.

The purpose of the monitor is to interact with the web based statistics console for the Iplanet/Sun One Webserver and to return the following metrics:

Metric
Connection Queues
Connection Queue Current
Connection Queue Peak
Connection Total Conn Queued
Average Connection Queue Length
Average Connection Queue Delay
Listener Sockets
Listen Socket Acceptor Threads
Keep Alive
Keep Alive Count
Keep Alive Hits
Keep Alive Flushes
Keep Alive Refusals
Keep Alive Timeouts
Session Creation
Active Session Count
Keep Alive Session Count
Total Session Creation Count
Cache Info
Cached Entries Count
Cache Hit Ratio Percentage
Native Pools
Native Pool Idle Count
Native Pool Idle Peak Count
Work Queue Length Count
Work Queue Peak Count
Performance
Average Request Processing Time
Request Count
Invocation Count
Average Latency
Average Function Processing Time
Average Total Response Time

The document will outline how to enable the prerequisites, how to verify it's operation and how to install, configure, and troubleshoot the up.time Iplanet/Sun One HTTP Status Monitor.

NOTE: The purpose of this module is not to provide web analytics for marketing purposes, such as number of site hits, or how long people are spending on particular pages. The type of monitoring just described is best done with web analytics point tools such as Google Analytics. Up.time's primary concern is about the health of the web tier and the state, and factors leading to poor performance of an Iplanet/Sun One HTTP over time. This status information can then be rolled into a business services view along with all other applications/hardware and services that comprise a business deliverable to your internal/external stakeholders. If you are unsure of why you would want to do this, please contact your up.time Solutions Architect or Customer Service Engineer for best practice guidance.

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Prerequisites

The following must be enabled on your Iplanet/SunOne Webserver:

- .perf Statistics/Profiling

Enabling Statistics/Profiling

The perfdump utility is a Server Application Function (SAF) built into Sun ONE Web Server that collects various pieces of performance data from the Web Server internal statistics and displays them in ASCII text. The perfdump utility allows you to monitor a greater variety of statistics than those available through the Server Manager. With perfdump, the statistics are unified. Rather than monitoring a single process, statistics are multiplied by the number of processes, which gives you a more accurate view of the server as a whole.

Installing the perfdump Utility

To install perfdump, make the following modifications in obj.conf:

1. Add the following object to your obj.conf file after the default object:

   ```
   <Object name="perf">
   Service fn="service-dump"
   </Object>
   ```

2. Add the following to the default object:

   ```
   NameTrans fn="assign-name" from="/.perf" name="perf"
   ```

   Make sure that the .perf NameTrans directive is specified before the document-root NameTrans directive in the default object.

3. If not already activated, activate stats-xml.

   For more information, see "Activating Statistics."

4. Restart your server software.
5. Access perfdump by entering this URL:

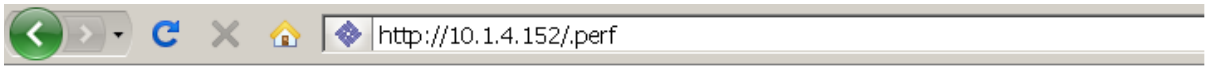
   http://*yourhost*/.perf

You can request the perfdump statistics and specify how frequently (in seconds) the browser should automatically refresh. The following example sets the refresh to every 5 seconds:

http://*yourhost*/.perf?refresh=5

Testing .perf

When you navigate to http://*yourhost*/.perf you should see something like the following, if you don't consult your Sun One/Iplanet webserver documentation.




```
webservd pid: 492

Sun ONE Web Server 6.1SP9 B01/11/2008 22:04 (WINNT DOMESTIC)

Server started Fri Jul 18 09:54:48 2008
Process 492 started Fri Jul 18 09:54:48 2008

ConnectionQueue:
----------------------------------------
Current/Peak/Limit Queue Length            0/1/4096
Total Connections Queued                   49
Average Queue Length (1, 5, 15 minutes)    0.00, 0.00, 0.00
Average Queueing Delay                     0.00 milliseconds

ListenSocket ls1:
------------------------
Address                   http://0.0.0.0:80
Acceptor Threads          1
Default Virtual Server    https-sa-win2k3-base

KeepAliveInfo:
--------------------
KeepAliveCount        0/256
KeepAliveHits         2
KeepAliveFlushes      0
KeepAliveRefusals     0
KeepAliveTimeouts     2
```

Activating Statistics (skip if already done)

To activate statistics from the user interface:

1. From the Server Manager, click the Monitor tab, and then click Monitor Current Activity.

   The Enable Statistics/profiling page displays.

2. Select Yes to activate statistics/profiling.
3. Click OK, click Apply, and then click the Apply Changes button to activate statistics/profiling.

Testing Statistics/Profiling

The bottom of the statistics/profiling page has a button to submit a request for statistics.

Click the “Submit” button.

If the statistics are successfully reported you will see a page as per the screenshot below, if you are unable to get this page to display you will need to consult your Iplanet documentation or contact Sun for support.

Installation

Before you proceed with installation please note the following directory structure for the compressed plugin files that you download :

The doc folder contains this document.
The POSIX folder contains all the scripts necessary to install this plug-in for your respective up.time Monitoring Station operating system.

Please determine which type of monitor architecture you will be installing this plug-in on at this time, if you are unable to do so, abort installation and contact support or your Solutions Architect for more information.

Copying Files

Windows

1. Copy the files MonitorIplanet.bat and MonitorIplanet.php to the scripts directory of your up.time install.
2. Copy the file MonitorIplanet.xml to the xml directory of your up.time install
3. Modify the MonitorIplanet.bat to correctly reference the path to the up.time PHP executable as highlighted below.

```
"c:\Program Files\uptime software\uptime4\apache\php\php.exe" "MonitorIplanetPerf.php" %1 %2”
```

Note: the default install path is C:\Program Files\uptime software\uptime<X> where <X> represents the version of up.time installed.

POSIX

1. Copy the files MonitorIplanet.sh and MonitorIplanet.php to the scripts directory of your up.time install.
2. Copy the file MonitorIplanet.xml to the xml directory of your up.time install
3. You may need to modify the MonitorIplanet.sh to correctly call the path to PHP on your system as highlighted below.

```
/usr/bin/php -q MonitorIplanetPerf.php $*
```

Note: An example default install path is /usr/local/uptime

Initializing the plugin/database

Now execute the following command from the console of your respective server directly from the scripts directory:

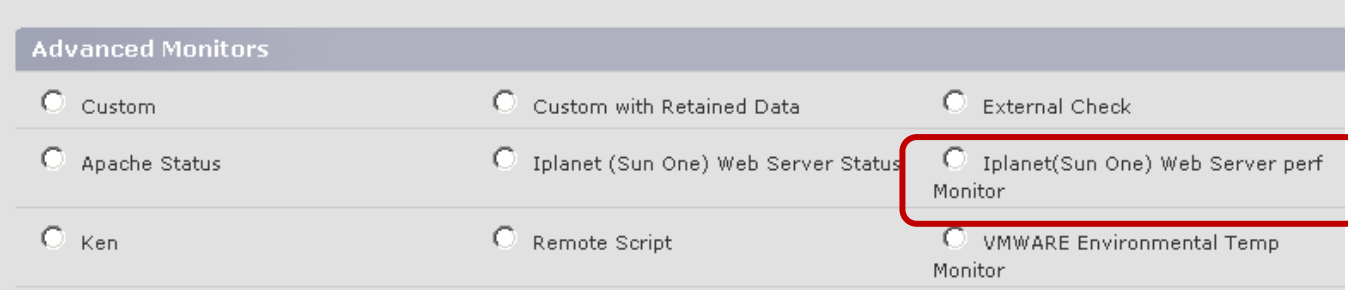
erdcloader -x xml\MonitorIplanetPerf.xml

Once the command has run move onto the next step.

Note: the up.time core does not necessarily give a verbose response, once the command has finished executing you will be returned to the command prompt/shell prompt.

Configure a new monitor

1. Load the up.time web interface
2. Goto service instances
3. Click “add new service instance”
4. Select the Iplanet Status monitor and click “Continue” on the dialogue window as shown below:



5. Configure the monitor as usual to capture the metrics you want, perform thresholding and perform graphing.

   Note: If you are unsure what this means please immediately contact technical support or solutions engineering for assistance and guidance.
6. Save the service monitor, find it on the list of services under “View Service Instances”
7. click edit service instance for the new service monitor and click “test service instance”

   you should see the following kind of output, notice that it says status: OK.

8. You have now successfully configured the Iplanet/Sun One Monitor for up.time.

Troubleshooting

I get the following error when I test the service instance in up.time:

“An error has occoured connecting to the IPLANET/SUN ONE webserver .perf module. Please verify that the server is running .perf by referring to the documentation for this plug-in”

Steps:

1) Go back to page 1 and verify pre-requisites
2) Ensure that you can access the .perf URL from the monitoring station
3) Ensure that you indeed have performance stats enabled on your sun one server

To be expanded/amended based on client feedback, please send your feedback to ken.cheung@uptimesoftware.com

Doc Revision History

Revision/Date	Author	Description
1.0 / 07.04.2008	Ken Cheung	Creation and review
1.1 / 07.18.2008	Ken Cheung	Updated Plug-in and doc to reflect more efficient .perf methedology