

PANDORAFMS
E N T E R P R I S E

Pandora FMS
Administrator Manual
ICMP Latency Monitoring
IIS Servers



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1 CHANGELOG

Fecha	Autor	Cambio	Versión
02/03/12	Tomas	First Version	v1r1

2 INTRODUCTION

This document has as main objective the description of the host massive ICMP monitoring in Windows environments, both status and the latency of them.

To get information, the following elements are used:

- The software already installed in the system (WMI).
- The Powershell Console (installed by default in Windows Server 2008 R2 and Windows 7. Available from Windows XP SP2).
- A series of basic checks “by default”, though they could be deleted or customized.
- An “Open” interface (Pandora's one, as extension of the administration section) to specify SQL free queries.
- The system, that is integrated with the Windows agent.

It Is important to mention that the ICMP monitoring plugin could be used to collect information of numerical kind (to get the latencies of the different hosts), or boolean (to get their status, active or not).

3 REQUIREMENTS

The requirements that are necessary in order the monitoring works right are the following ones:

- To install the Pandora FMS agent in version 3.2.1 or higher.
- A Powershell console to execute the plugin. It comes installed by default in Windows Server 2008 R2 and Windows 7 systems, but it should be downloaded for Windows previous versions. Powershell isn't compatible with Windows XP SP1 or lower versions.
- It is necessary that the user with which the Pandora FMS is executed, that is the user that will execute the plugin, has got the following system permissions:
 - Local Administrator.
- The Powershell scripts execution policy should be fixed as RemoteSigned or lower:

```
Set-ExecutionPolicy RemoteSigned
```

- Right configuration of the connections in order that the Pandora software agent could connect against the host to monitor.

4 COMPATIBILITY MATRIX

The agent compatibility matrix is the following:

Systems where it has been tested	<ul style="list-style-type: none"> • Windows Server 2003 • Windows Server 2008
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Sistemas where it should work	<ul style="list-style-type: none"> • Same system or higher
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5 GENERATED SOFTWARE AGENTS MODULES

The plugin in question could automatically get the latency information of all the hosts that we have specified in a list in the hosts.txt file and it will generate one module for each one and for each check selected in Pandora (Host Alive – Host, Host Latency – Host or both). It could also get it only from a single host, both with both checks or with only one in one execution.

As a new thing, the plugin allows also to perform as an script that returns when output an unique value, for a single IP and for a single check. And it will be possible to include it as a single module using the module_exec parameter in the Pandora agent configuration file.

6 INSTALLING

Copy the plugin to the agent plugin directory, distributing it through file collections or copy it directly in the agent path. The call from the agent will be similar to this, but using the path where the plugin will be installed.

```
module_plugin "<ruta-powershell>\powershell.exe" -command C:\<ruta-  
plugin>\Pandora_Plugin_Ping_vx.y.ps1' -w 1000 -n 4 -select all -list C:\<ruta-  
listado>\hosts.txt' 2> counter_plugin.error
```


7 MONITORING

As we have already installed and configured both Pandora and Powershell, now we are going to explain how to get information about the status of the hard disks installed in the machines to monitor.

For this case, we install both one Pandora software agent and the self-discovery disk plugin in that specific machine.

In order to do that the Pandora software agent that we have installed in our server to monitor executes that script, we should edit the agent configuration file and do the call to the plugin through the **module_plugin** configuration token.

```
# Agent Plugins for ICMP Monitoring

module_plugin "<ruta-powershell>\powershell.exe" -command C:\<ruta-
plugin>\Pandora_Plugin_Ping_vx.y.ps1' -w 1000 -n 4 -select all -list C:\<ruta-
listado>\hosts.txt' 2> counter_plugin.error
```

Edition of the remote configuration file in Pandora FMS

Save the file and re-start the Pandora agent.

It is very important that the Powershell scripts execution policy will be fixed as RemoteSigned or lower in the following way:

```
Set-ExecutionPolicy RemoteSigned
```

The parameters of this plugin are the following:

```
-w          Timeout in milliseconds to wait for each reply (Default timeout is 1000ms)

-n          Number of echo requests to send (Default is 4 echo requests)

-select all      All operations are executed

-select host-alive      Only operations to check host status (responding or
not)

-select host-latency Only      operations to check host latency (returns -1 if not
available)

-list          Provides an absolute path to a list of hosts to check (not to
be used with -only-value)
```

```
-onlyxml          Provides a single host to check returning the value in XML
format

-onlyvalue        Provides a single host to check returning the value in standard
format (useless for -list or -select all)

Usage example: .\Pandora_Plugin_Ping_v1.0.ps1 -w 1000 -n 4 -select all -list

C:\Users\Pandora\hosts.txt 2> plugin_error.log
```

For the correct working of the plugin, it is important to consider that:

- It is not possible to use the select all option when we want that it works as a normal script in a single module (that is, together with the option onlyvalue).
- It is not possible to use the option onlyvalue when we pass a list as parameter to the plugin (that is, together with the list option)
- It is not possible to use multiple select options, only one of the three by execution.

NOTE: It is very important to consider that the files thought for the plugin in WINDOWS should be edited and saved with “WINDOWS” carriage returns type, and if you use “UNIX” carriage returns type, the plugin will not work right.