

# How to use the SSH Server Plugin

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## 0. Introduction

In this sample, we call PANDORA SERVER to the host where is running Pandora FMS, and MONITORED SERVERS to any other unix servers who will be remotely monitored with Pandora FMS SSH Plugin.

First at all, you need to establish automated communication between Pandora FMS server and the monitored servers. This means that your PANDORA SERVER could connect using SSH to REMOTE SERVERS without asking for password, this is called "SSH Automated authentication mechanism", using RSA keys. You can setup for connect with root user or other user. Root user authentication allow to run remotely commands with root account, but for safety considerations we recomend to use another user.

Of course, you first need to have a plugin server running in your system. You should be able to see it running in server view, in Pandora FMS console. Something like this (with your server name insted "Raz0r"):



## 1. Create a SSH key with the user who runs pandora server (usually root).

```
su root
ssh-keygen
```

This should create a file called like

```
/root/.ssh/id_rsa.pub
```

## 2. Copy the SSH key into MONITORED SERVER(s)

Connect to destinations linux servers (where you want to get information with the SSH plugin) and add the contents of file previously created in step 1 in this file:

```
/root/.ssh/authorized_keys
```

If you are creating the file, make sure that permissions are 700:

```
chmod 700 /root/.ssh/authorized_keys  
chown root /root/.ssh/authorized_keys
```

If you want to make the authentication over other user, just edit the `authorized_keys` under the home directory of the user you prefer.

## 3. Check of SSH authentication.

If this is well configured, you should be able to connect automatically from PANDORA SERVER to the MONITORED SERVERS where you have edited the `authorized_keys`.

Try this

```
ssh root@MONITORED_SERVER_ADDRESS
```

This should give you a root login in your MONITORED SERVER. If don't, please recheck steps 1 and 2.

## 4. Checking the Plugin on console. Just for understanding it.

Your plugin (a default plugin in 2.x version and later) should be in

```
/usr/share/pandora/util/plugin/ssh_pandoraplugin.sh
```

And have execution permissions. Just for testing it, execute it with this permissions:

```
/usr/share/pandora/util/plugin/ssh_pandoraplugin.sh -h  
MONITORED_SERVER_ADDRESS -u root ls -la /tmp
```

This should give you a `ls -la /tmp` of remote server.

Another test to check if your ssh service is alive in the `MONITORED_SERVER` (should give you a 1 (OK) because you're using SSH to connect!)

```
/usr/share/pandora/util/plugin/ssh_pandoraplugin.sh -h  
MONITORED_SERVER_ADDRESS -u root ps aux | grep ssh | grep -v  
grep | wc -l
```

Probably now you're starting to understand how it works. It just execute remote commands in the `MONITORED SERVERS` and get's the output to put in Pandora FMS, like a `module_exec` command but using remote SSH to grab it. Yes, it exactly what it does.

## 5. Registering the plugin in the console

Go to Administration menú in Pandora FMS Console: Administration->Server->Manage Plugins and click in "create a plugin" button. Fill the form like this:

PANDORA SERVERS » PLUGIN CREATION ?

Name	<input type="text" value="Remote SSH"/>
Plugin command	<input type="text" value="/usr/share/pandora/util/plugin/ssh_pandoraplugin.sh"/>
Plugin type	Standard ▾
Max. timeout	<input type="text" value="10"/>
IP address option	<input type="text" value="-h"/>
Port option	<input type="text"/>
User option	<input type="text" value="-u"/>
Password option	<input type="text"/>
Description	<div>Use the custom field to put your remote command.</div>

Now go to your REMOTE SERVER admin mode screen, and create a new plugin module like this (using your own IP address for your REMOTE SERVER):

**MODULE ASSIGNMENT » PLUGIN SERVER MODULE**

<b>Using module component</b> ?	--Manual setup--		
<b>Name</b>	SSH Check	<b>Disabled</b>	<input type="checkbox"/>
<b>Type</b> ?	Generic module to acquire boo	<b>Module group</b>	General
<b>Warning status</b>	Min. 0 Max. 0	<b>Critical status</b>	Min. 0 Max. 0
<b>FF threshold</b> ?	0	<b>Historical data</b>	<input checked="" type="checkbox"/>
<b>Plugin</b>	Remote SSH		
<b>Target IP</b>	192.168.50.1	<b>Port</b>	
<b>Username</b>	root	<b>Password</b>	
<b>Plugin parameters</b> ?	ps aux   grep ssh   grep -v grep   wc -l		

Another module definition to get CPU Load Average and assigning a WARNING and a CRITICAL status for it:

<b>Using module component</b> ?	--Manual setup--		
<b>Name</b>	AvgLoad (Last minute)	<b>Disabled</b>	<input type="checkbox"/>
<b>Type</b> ?	Generic module to acquire nun	<b>Module group</b>	General
<b>Warning status</b>	Min. 2 Max. 0	<b>Critical status</b>	Min. 5 Max. 0
<b>FF threshold</b> ?	0	<b>Historical data</b>	<input checked="" type="checkbox"/>
<b>Plugin</b>	Remote SSH		
<b>Target IP</b>	192.168.50.1	<b>Port</b>	
<b>Username</b>	root	<b>Password</b>	
<b>Plugin parameters</b> ?	uptime   awk '{ print \$10 }'   tr -d ", "		

After executing the modules you should see the values, like:

 AvgLoad (Last mi...	 DATA 300	0.4	   	  	1:22 minutes
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