

# Restart server daemon by checking dead processes in PHP

PHP is a good language to manage remote/local server. Below code shows how to restart daemons like httpd, mysqld, Confluence and Jira by PHP.

In order to implement, SSH2 extension must be installed. For more information, please refer at ["Run shell commands on remote server in SSH"](#).

Below is re-usable code named as "ssh\_init.php" for remote management.

## ssh\_init.php

```
<?php
// Programmed by Chun Kang (kurapa@kurapa.com) on Nov 2018

$m_config->session = null;

function get_line_count($r)
{
    $i=0;
    $len = strlen($r);
    $cnt=1;
    while($i<$len)
    {
        if (ord($r[$i])==10) $cnt++;
        $i++;
    }
    if ($cnt>40) $cnt=40;
    return $cnt;
}

function ssh2_run_cmd($cmd, $include_text_area=0)
{
    global $m_config;

    if ($m_config->session==NULL)
    {
        $m_config->session = ssh2_connect( $m_config->server, $m_config->port);

        if (!$m_config->session)
        {
            die( "{$m_config->id}@{$m_config->server}:{m_config->port}...connection failure!!
<br>\n");
        }
        else
        {
            if ($include_text_area) echo "{$m_config->id}@{$m_config->server}:{m_config->port}...
connection ok<br>\n";
        }

        if (ssh2_auth_password( $m_config->session, $m_config->id, $m_config->password))
        {
            if ($include_text_area) echo "Authentication successful!<br>\n";
        }
        else
        {
            die( "Authentication failure...");
        }
    }

    if ($include_text_area) echo "<pre>{$cmd}</pre>\n";
    $stream=ssh2_exec( $m_config->session, $cmd);

    stream_set_blocking($stream, true);
    $stream_out = ssh2_fetch_stream($stream, SSH2_STREAM_STDIO);
    $r=stream_get_contents( $stream_out);
    if ($include_text_area)
    {
```

```
        $rows_cnt = get_line_count( $r);
        return "<textarea cols=120 rows={$rows_cnt} wrap=off style='width:100%'>{$r}</textarea>\n";
    }
    else
    {
        return $r;
    }
}

function kssh2_disconnect() {
    ssh2_disconnect( $m_config->session);
    $m_config->session=NULL;
}

?>
```

Below code actually performs remote process and reboot services. Actually I am checking httpd, mysqld, two confluences and one Jira instance on below code.

## bot-reboot-instances.php

```
<?php
// Programmed by Chun Kang (kurapa@kurapa.com) on Nov 2018

include_once "ssh_init.php";

$m_config->id = "<your user id>";
$m_config->password = "<user password>";
$m_config->server = "<server address>";
$m_config->port = 22;

function service_status($service_name, $message, $prc) {
    $message = str_replace( "/", "\\/", $message);
    if (preg_match(("/{ $message}/", $prc)) {
        echo "{$service_name} ok!\n";
        return 1;
    }
    else {
        echo "{$service_name} does not work!!\n";
        return 0;
    }
}

// collect process information by "ps" command
$prc=ssh2_run_cmd( "ps aux --sort=-pcpu");

if (strlen($prc)>0)
{
    echo "Process Status<br>\n";
    if (!service_status("httpd", "/usr/sbin/httpd -DFOREGROUND", $prc)) {
        ssh2_run_cmd( "/etc/init.d/httpd restart");
        echo "httpd restarted!\n";
    }
    if (!service_status("mysqld", "/usr/sbin/mysqld --basedir=/usr --datadir=/var/lib/mysql", $prc)) {
        ssh2_run_cmd( "/etc/init.d/mysqld restart");
        echo "mysqld restarted!\n";
    }
    if (!service_status("qsok.com - confluence server", "/pub/qsok.com-confluence/jre/bin/java", $prc)) {
        ssh2_run_cmd( "/etc/init.d/confluence restart");
        echo "qsok.com restarted!\n";
    }
    if (!service_status("enewtown.com - confluence server", "/pub/enewtown.com-confluence/jre/bin/java",
$prc)) {
        ssh2_run_cmd( "/etc/init.d/confluencel restart");
        echo "enewtown.com restarted!\n";
    }
    if (!service_status("qsok.com - jira server", "/pub/qsok.com-jira/jre/bin/java", $prc)) {
        ssh2_run_cmd( "/etc/init.d/jira restart");
        echo "qsok.com restarted!\n";
    }
    echo "<hr>";
}
?>
```

In my case, I made a clone job to run above bot code to restart server instances automatically.