parsonsbots / dynamic-proxy-node-reconfiguration

```
Updates
                                                                                                                          Browse files
 master
 parsonsbots committed 26 seconds ago
                                                                    1 parent 2bd4388
                                                                                        commit 37e75ec92a3a600e16c22329c121b9039a9ee6c3
Showing 2 changed files with 514 additions and 534 deletions.
                                                                                                                          Unified
                                                                                                                                   Split
     9 README.md
 42
               ini_set('max_execution_time', 595); // Set time
                                                                                   ini_set('max_execution_time', 595); // Set time
        limit to 10 minutes for reconfiguration
                                                                            limit to 10 minutes for reconfiguration
 43
               require_once('dynamic_reconfiguration.php');
                                                                      43
                                                                                   require_once('dynamic_reconfiguration.php');
 44
                                                                      44
 45
                                                                      45
                                                                                   $api = 'https://example.com/gateways/api.json';
               $api =
        'https://ghostproxies.com/gateways/api.json';
 46
                                                                      46
               $processes = array(
                                                                                   $processes = array(
 47
                                                                      47
                       'http' => array(
                                                                                           'http' => array(
 48
                               array('80', '8888', '55555'), //
                                                                      48
                                                                                                   array('80', '8888', '55555'), //
       Main process ports
                                                                            Main process ports
         ## Coming Soon
                                                                             ## Coming Soon
         * 1.0.1
                                                                             * 1.0.1
               - Full requirements with installation,
                                                                      80
                                                                                   - Full requirements with installation,
        configuration and usage instructions are coming soon
                                                                            configuration and usage instructions are coming soon
 81
              - API gateway example for ACL formatting
 82
                                                                      81
 83
                                                                      82
        * 1.0.2
                                                                             * 1.0.2
               - Apply proxy redundancy configuration from API to
       all redundant processes
              - Move squid configuration and ACLs to same file
        for consistency
              - Chunk and reconfigure HTTP and SOCKS processes
       simultaneously
 87
 88
       - * 1.0.4
 89
                                                                      83

    Add support for additional HTTP and SOCKS proxy

                                                                                   - Add support for additional HTTP and SOCKS proxy
        servers (varnish, dante, etc)
                                                                            servers (varnish, dante, etc)
 91
         ## More From ParsonsBots
                                                                             ## More From ParsonsBots
 92
                                                                      86
         - https://github.com/parsonsbots
                                                                             - https://github.com/parsonsbots
       - - https://gist.github.com/parsonsbots
         - https://parsonsbots.com
                                                                             - https://parsonsbots.com
     1,039 ■■■■ dynamic_reconfiguration.php 🚉
       @@ -1,646 +1,633 @@
         <?php
                                                                       1
                                                                              <?php
       - /**
                                                                                   class DynamicProxyReconfiguration {
       * Dynamic Proxy Node Reconfiguration
   4
                                                                                            public $api;
       - * Reconfigure and manage redundant proxy processes with
                                                                                            public $processes;
       no connection interruptions
   6
       -\ * with an unlimited number of unique ACLs for
                                                                                            public $shell;
       individual proxy nodes using
```

9

- * multiple destination IPs on a single server.

- * @author Will Parsons

8

public \$sshPorts;

\$processes, \$shell, \$sshPorts) {

public function __construct(\$api,

```
10
                                                                    10
     - * @copyright 2019 Will Parsons
                                                                                                 $this->processes = $processes;
    - * @license https://github.com/parsonsbots/dynamic-
    proxy-node-reconfiguration/blob/master/LICENSE MIT License
    - * @link
                     https://parsonsbots.com
                                                                                                  $this->shell = $shell;
    - * @link
                     https://eightomic.com
                                                                                                 $this->sshPorts = $sshPorts:
14
    - */
    - class DynamicProxyReconfiguration {
             public $api;
             public $processes;
18
             public $shell;
             public $sshPorts;
             public function __construct($api, $processes,
     $shell, $sshPorts) {
                     $this->api = $api;
                     $this->processes = $processes;
                     $this->shell = $shell;
                     $this->sshPorts = $sshPorts;
30
     + Apply firewall
       * @return boolean
        */
             protected function _applyFirewall() {
                     if
     (file_exists('/scripts/pid/reconfigure.pid')) {
                             return false;
                     }
                     $this->gatewaysData =
    json_decode(file_get_contents('/scripts/cache/gatewaysData
    '), true);
                                                                                  * Apply firewall
                                                                                  * @return boolean
                                                                    20
                                                                                         protected function _applyFirewall() {
                                                                         (file_exists('/scripts/pid/reconfigure.pid')) {
                                                                                                          return false;
                                                                    24
40
41
                     if (empty($this->gatewaysData['data']
                                                                                                 $this->gatewaysData =
     ['proxy_ips'])) {
                                                                         json_decode(file_get_contents('/scripts/cache/gatewaysData
                                                                         '), true);
42
                             return false;
43
                     }
45
                                                                                                 if (empty($this-
                     $overridePorts = array(
                                                                         >gatewaysData['data']['proxy_ips'])) {
                                                                                                         return false;
46
                             'http' => $this->processes['http']
47
                     );
                     $firewallRules = $this-
    >_configureFirewallRules(false, $overridePorts);
                     $this->_applyFirewallRules($firewallRules,
     'elastic');
50
             }
                                                                                                 $overridePorts = array(
       * Apply firewall rules
                                                                                                          'http' => $this-
```

```
>processes['http']
54
                                                                     34
                                                                                                  );
     - * @param array $firewallRules Firewall rules
                                                                                                  $firewallRules = $this-
                                                                          >_configureFirewallRules(false, $overridePorts);
     * @param string $ruleSet Firewall rule set
                                                                     36
                                                                                                  $this-
                                                                          >_applyFirewallRules($firewallRules, 'elastic');
     - * @return
60
             protected function
     _applyFirewallRules($firewallRules, $ruleSet) {
                     unlink('/scripts/iptables/iptables-' .
     $ruleSet);
                     touch('/scripts/iptables-' .
     $ruleSet);
                     foreach ($firewallRules as $ruleChunk) {
65
                             $saveRules = implode("\n",
     $ruleChunk);
66
                             shell_exec('echo "' . $saveRules .
     '" >> /scripts/iptables/iptables-' . $ruleSet);
                     }
                                                                                          }
                     shell_exec('iptables-restore <</pre>
                                                                     39
                                                                                  /**
     /scripts/iptables/iptables-' . $ruleSet);
70
                     return;
                                                                                   * Apply firewall rules
             }
                                                                     41
                                                                     42
                                                                                   * @param array $firewallRules Firewall rules
                                                                     43
                                                                                   * @param string $ruleSet Firewall rule set
                                                                                   * @return
                                                                     46
                                                                     47
                                                                                          protected function
                                                                          _applyFirewallRules($firewallRules, $ruleSet) {
                                                                     48
                                                                          unlink('/scripts/iptables/iptables-' . $ruleSet);
                                                                     49
                                                                                                  touch('/scripts/iptables/iptables-
                                                                          ' . $ruleSet);
                                                                     50
                                                                                                  foreach ($firewallRules as
                                                                          $ruleChunk) {
                                                                                                           $saveRules = implode("\n",
                                                                          $ruleChunk);
                                                                                                           shell_exec('echo "' .
                                                                          $saveRules . '" >> /scripts/iptables/iptables-' .
                                                                          $ruleSet);
                                                                                                  }
                                                                                                  shell_exec('iptables-restore <</pre>
                                                                          /scripts/iptables/iptables-' . $ruleSet);
                                                                                                  return;
                                                                                          }

    * Apply seamless processes reconfiguration

                                                                                   * Apply seamless processes reconfiguration
76
       * @return boolean
                                                                                   * @return boolean
             protected function _applyReconfiguration() {
                                                                                          protected function _applyReconfiguration()
79
                     $this->_createDirectories();
                                                                                                  $this->_createDirectories();
```

```
(file_exists('/scripts/pid/reconfigure.pid')) {
                                                                                                            $lastRan =
                                                                           file_get_contents('/scripts/pid/reconfigure.pid');
                                                                      70
                                                                                                            if ($lastRan <</pre>
                                                                           strtotime('-15 minutes')) {
                                                                           unlink('/scripts/pid/reconfigure.pid');
                                                                                                            } else {
                                                                                                                    return false;
 80
                      if
                                                                                                    $gatewaysJsonData =
                                                                           shell_exec("curl " . $this->api . " --connect-timeout
      (file_exists('/scripts/pid/reconfigure.pid')) {
                                                                            30");
                                                                                                    $this->gatewaysData =
                               $lastRan =
      file_get_contents('/scripts/pid/reconfigure.pid');
                                                                           json_decode($gatewaysJsonData, true);
 84
                              if ($lastRan < strtotime('-15</pre>
                                                                      81
                                                                                                    if (
      minutes')) {
                                                                                                            empty($this-
                                                                           >gatewaysData['data']) ||
                                                                                                            !is_dir('/etc/squid3')
                                                                                                    ) {
                                                                           file_put_contents('/scripts/errors/api-error-' . time(),
                                                                           $this->gatewaysData);
 85
      unlink('/scripts/pid/reconfigure.pid');
                                                                           unlink('/scripts/pid/reconfigure.pid');
 86
                              } else {
                                       return false;
                                                                                                            return false;
                                                                                                    }
                      $gatewaysJsonData = shell_exec("curl " .
      $this->api . " --connect-timeout 30");
                                                                           file_put_contents('/scripts/cache/gatewaysData',
                                                                           $gatewaysJsonData);
 92
                                                                      91
                      $this->gatewaysData =
      json_decode($gatewaysJsonData, true);
                                                                           file_put_contents('/scripts/pid/reconfigure.pid', time());
 94
                      if (
                                                                      93
                                                                                                    if (!emptv($this-
                                                                           >gatewaysData['data']['server'])) {
                              empty($this->gatewaysData['data'])
      П
                                                                           file_put_contents('/etc/sysctl.conf', implode("\n", $this-
                                                                           >gatewaysData['data']['server']));
                               !is_dir('/etc/squid3')
                                                                                                            shell_exec('sysctl -p');
                      ) {
                                                                      96
 98
      file_put_contents('/scripts/errors/api-error-' . time(),
      $this->gatewaysData);
 99
      unlink('/scripts/pid/reconfigure.pid');
                              return false;
101
                      }
                                                                      97
102
103
                                                                                                    $proxyIps = $this-
      file_put_contents('/scripts/cache/gatewaysData',
                                                                           >gatewaysData['data']['proxy_ips'];
      $gatewaysJsonData);
      file_put_contents('/scripts/pid/reconfigure.pid', time());
106
                                                                     100
                      if (!empty($this->gatewaysData['data']
                                                                                                   if (empty($proxyIps[0])) {
```

```
['server'])) {
107
                                                                    101
      file_put_contents('/etc/sysctl.conf', implode("\n", $this-
                                                                          unlink('/scripts/pid/reconfigure.pid');
      >gatewaysData['data']['server']));
                              shell_exec('sysctl -p');
                                                                                                           return false:
109
                                                                    103
                      }
110
                                                                    104
                      $proxyIps = $this->gatewaysData['data']
                                                                    105
                                                                                                   shell exec('rm -rf
     ['proxy_ips'];
                                                                           /etc/squid3/users/');
                                                                    106
                                                                                                   shell_exec('mkdir -m 777
                                                                          /etc/squid3/users/');
                                                                    107
                                                                    108
                                                                                                   if (!empty($this-
                      if (empty($proxyIps[0])) {
                                                                          >gatewaysData['data']['http']['files'])) {
                                                                                                           foreach ($this-
     unlink('/scripts/pid/reconfigure.pid');
                                                                          >gatewaysData['data']['http']['files'] as $file) {
                              return false;
                                                                                                                   shell_exec('mkdir
                                                                          -m 777 ' . str_replace(array('s.txt', 'd.txt'), '',
                                                                          $file['path']));
116
                                                                                                                   shell_exec('touch
                                                                            . $file['path']);
                                                                           file put contents($file['path'], $file['contents']);
                                                                                                           }
                                                                    114
                      shell_exec('rm -rf /etc/squid3/users/');
                                                                    116
                                                                                                   $firewallRules = $this-
                                                                          >_configureFirewallRules(true);
                      shell_exec('mkdir -m 777
                                                                                                   shell_exec('rm
     /etc/squid3/users/');
                                                                           /etc/squid3/proxy_ip_acl.conf');
                                                                                                   shell_exec('touch
                                                                           /etc/squid3/proxy_ip_acl.conf');
                                                                          file_put_contents('/etc/squid3/proxy_ip_acl.conf', $this-
                                                                          >gatewaysData['data']['http']['acls']);
                                                                    120
                                                                                                   shell_exec('htpasswd -cb
                                                                          /etc/squid3/passwords default default');
                                                                                                   shell_exec('htpasswd -D
                                                                          /etc/squid3/passwords default');
                      if (!empty($this->gatewaysData['data']
                                                                                                   if (!empty($this-
     ['http']['files'])) {
                                                                          >gatewaysData['data']['http']['users'])) {
                              foreach ($this-
                                                                                                           foreach ($this-
     >gatewaysData['data']['http']['files'] as $file) {
                                                                          >gatewaysData['data']['http']['users'] as $username =>
                                                                           $password) {
                                      shell_exec('mkdir -m 777 '
                                                                          +
      . str_replace(array('s.txt', 'd.txt'), '',
                                                                           shell exec('htpasswd -b /etc/squid3/passwords ' .
                                                                           $username . ' ' . $password);
     $file['path']));
124
                                      shell_exec('touch ' .
                                                                    126
     $file['path']);
      file_put_contents($file['path'], $file['contents']);
                              }
                                                                                                   }
                      }
                                                                    129
                      $firewallRules = $this-
                                                                                                   $this-
     >_configureFirewallRules(true);
                                                                          >_applyFirewallRules($firewallRules, 'redundant');
130
                      shell_exec('rm
     /etc/squid3/proxy_ip_acl.conf');
                      shell_exec('touch
     /etc/squid3/proxy_ip_acl.conf');
     file_put_contents('/etc/squid3/proxy_ip_acl.conf', $this-
```

```
>gatewaysData['data']['http']['acls']);
                      shell_exec('htpasswd -cb
      /etc/squid3/passwords default default');
                      shell_exec('htpasswd -D
      /etc/squid3/passwords default');
                      if (!empty($this->gatewaysData['data']
                                                                                                     if (
      ['http']['users'])) {
                               foreach ($this-
                                                                                                             !empty($this-
      >gatewaysData['data']['http']['users'] as $username =>
                                                                            >gatewaysData['data']['socks']) &&
      $password) {
                                       shell_exec('htpasswd -b
                                                                                                             !empty($this-
      /etc/squid3/passwords ' . $username . ' ' . $password);
                                                                            >processes['socks'][0])
                                                                                                     ) {
                                                                                                             $this->_reconfigure(
                                                                                                                      'socks',
                                                                                                                      'service 3proxy
                                                                            start'.
                                                                      138
                                                                                                                      '3proxy.cfg',
                                                                            '/usr/local/etc/3proxy/3proxy.pid',
                                                                                                                     0,
                                                                      141
                                                                                                                     20,
                                                                            '/usr/local/etc/3proxy/3proxy.cfg',
                                                                                                                     $this-
                                                                            >gatewaysData['data']['socks']
                                                                                                             );
                              }
                                                                                                     }
                      }
141
142
                      $this->_applyFirewallRules($firewallRules,
      'redundant');
                      if (
                               !empty($this->gatewaysData['data']
      ['socks']) &&
                               !empty($this->processes['socks']
      [0])
147
                      ) {
                               $this->_reconfigure(
                                                                      147
                                                                                                     $this->_reconfigure(
149
                                       'socks',
                                                                                                             'http',
                                       'service 3proxy start',
                                                                                                             'squid3 start',
                                       '3proxy.cfg',
                                                                      150
                                                                                                             'squid3',
                                                                                                             '/var/run/squid3.pid',
      '/usr/local/etc/3proxy/3proxy.pid',
                                       0.
                                                                                                             0.
                                       20,
                                                                      154
                                                                                                             '/etc/squid3/squid.conf',
      '/usr/local/etc/3proxy/3proxy.cfg',
                                                                                                             str_replace('[pid]',
                                       $this-
                                                                            'pid_filename /var/run/squid3.pid', str_replace('[ports]',
      >gatewaysData['data']['socks']
                                                                            'http_port ' . implode("\n" . 'http_port ', $this-
                                                                            >processes['http'][0]), $this->gatewaysData['data']
                                                                            ['http']['configuration']))
                              );
                                                                                                     $redundantProcesses = $this-
                                                                            >processes['http'];
                                                                                                     unset($redundantProcesses[0]);
                                                                                                     $redundantProcessChunks =
                                                                            array_chunk($redundantProcesses,
                                                                            round(count($redundantProcesses) / 2), true);
```

```
foreach ($redundantProcessChunks
                                                                          as $redundantProcessChunk) {
                                                                                                           $activeRedundantProcesses
                                                                           = array_keys($redundantProcesses);
                                                                           reset($redundantProcessChunk);
                                                                     164
                                                                                                           $redundantProcessStart =
                                                                          key($redundantProcessChunk);
                                                                          end($redundantProcessChunk);
                                                                                                           $redundantProcessEnd =
                                                                          key($redundantProcessChunk);
                                                                                                           $redundantProcessRange =
                                                                           range($redundantProcessStart, $redundantProcessEnd);
                                                                                                           foreach
                                                                          ($redundantProcessRange as $redundantProcess) {
                                                                     170
                                                                          unset($activeRedundantProcesses[$redundantProcess - 1]);
                      $this->_reconfigure(
                                                                                                           $activeRedundantPorts =
                                                                          array();
                              'http',
                              'squid3 start',
                              'squid3',
                              '/var/run/squid3.pid',
                              '/etc/squid3/squid.conf',
                              str_replace('[pid]', 'pid_filename
     /var/run/squid3.pid', str_replace('[ports]', 'http_port '
      . implode("\n" . 'http_port ', $this->processes['http']
      [0]), $this->gatewaysData['data']['http']
      ['configuration']))
170
                      $redundantProcesses = $this-
     >processes['http'];
                      unset($redundantProcesses[0]);
                      $redundantProcessChunks =
      array_chunk($redundantProcesses,
      round(count($redundantProcesses) / 2), true);
174
                      foreach ($redundantProcessChunks as
      $redundantProcessChunk) {
                              $activeRedundantProcesses =
      array_keys($redundantProcesses);
                              reset($redundantProcessChunk);
                              $redundantProcessStart =
     key($redundantProcessChunk);
                              end($redundantProcessChunk);
                              $redundantProcessEnd =
     key($redundantProcessChunk);
180
                              $redundantProcessRange =
      range($redundantProcessStart, $redundantProcessEnd);
                              foreach ($redundantProcessRange as
     $redundantProcess) {
     unset($activeRedundantProcesses[$redundantProcess - 1]);
                                                                    174
186
                              $activeRedundantPorts = array();
                                                                                                           foreach
```

```
($redundantProcesses as $key => $redundantProcess) {
                                                                     176
                                                                                                                     if (in_array($key,
                                                                           $activeRedundantProcesses)) {
                                                                            $activeRedundantPorts = array_merge($activeRedundantPorts,
                                                                            $redundantProcesses[$key]);
                                                                     178
                                                                     179
                                                                     180
                                                                     181
                                                                                                             $overridePorts = array(
                                                                                                                     'http' =>
                                                                           array(array_merge(array(
                                                                     183
                                                                                                                             '80',
                                                                                                                             '8888',
                                                                                                                             '55555'
                                                                                                                     )),
                                                                           $activeRedundantPorts),
                                                                     187
                                                                                                                     'socks' => array(
                                                                                                                             array(
                                                                     189
                                                                            '1090'
                                                                                                             );
                               foreach ($redundantProcesses as
                                                                                                             $firewallRules = $this-
      $key => $redundantProcess) {
                                                                           >_configureFirewallRules(false, $overridePorts);
189
                                       if (in_array($key,
      $activeRedundantProcesses)) {
                                                                           >_applyFirewallRules($firewallRules, 'elastic');
                                                                     196
      $activeRedundantPorts = array_merge($activeRedundantPorts,
      $redundantProcesses[$key]);
                                                                                                             foreach
                                                                            ($redundantProcessRange as $redundantProcess) {
                                                                                                                     $this-
                                                                           >_reconfigure(
                                                                                                                             'http',
                                                                     200
                                                                                                                             'squid3-
                                                                            redundant' . $redundantProcess . ' start -f
                                                                           /etc/squid3/squid-redundant' . $redundantProcess .
                                                                            '.conf',
                                                                     201
                                                                                                                             'squid3-
                                                                            redundant' . $redundantProcess,
                                                                     202
                                                                            '/var/run/squid-redundant' . $redundantProcess . '.pid',
                                                                     203
                                                                                                                             0,
                                                                     204
                                                                                                                             0.
                                                                     205
                                                                            '/etc/squid3/squid-redundant' . $redundantProcess .
                                                                            '.conf',
                                                                     206
                                                                            str_replace('[pid]', 'pid_filename /var/run/squid-
                                                                            redundant' . $redundantProcess . '.pid',
                                                                           str_replace('[ports]', 'http_port ' . implode("\n" .
                                                                            'http_port ', $this->processes['http']
                                                                            [$redundantProcess]), $this->gatewaysData['data']['http']
                                                                            ['configuration']))
                                                                     207
                                                                                                                     );
                                                                     209
                                                                     210
                                                                                                             sleep(75);
                              }
                                                                                                    }
```

```
$overridePorts = array(
                                                                                                    $overridePorts = array(
                                                                      214
                                       'http' =>
                                                                                                             'http' => $this-
      array(array_merge(array(
                                                                           >processes['http']
                                               '80',
                                               '8888'.
                                               '55555'
                                       )),
      $activeRedundantPorts),
                                       'socks' => array(
                                               array(
202
                                                        '1090'
204
                                                                                                    );
                              );
206
                              $firewallRules = $this-
                                                                                                    $firewallRules = $this-
      >_configureFirewallRules(false, $overridePorts);
                                                                            >_configureFirewallRules(false, $overridePorts);
208
                              $this-
                                                                                                    $this-
      >_applyFirewallRules($firewallRules, 'elastic');
                                                                            >_applyFirewallRules($firewallRules, 'elastic');
209
210
                              foreach ($redundantProcessRange as
                                                                                                    if (!empty($this-
                                                                            >gatewaysData['data']['socks-redundant'])) {
      $redundantProcess) {
                                       $this-> reconfigure(
                                                                      220
                                                                                                             $this-> reconfigure(
                                                                                                                     'socks',
                                               'http'.
                                               'squid3-redundant'
                                                                                                                     'service 3proxy-
      . $redundantProcess . ' start -f /etc/squid3/squid-
                                                                            redundant start',
      redundant' . $redundantProcess . '.conf',
214
                                                'squid3-redundant'
                                                                                                                     '3proxy-
      . $redundantProcess,
                                                                            redundant.cfg',
                                                                      224
                                               '/var/run/squid-
                                                                            '/usr/local/etc/3proxy/3proxy-redundant.pid',
      redundant' . $redundantProcess . '.pid',
                                               0,
                                                                                                                     0,
218
                                                                                                                     40.
      '/etc/squid3/squid-redundant' . $redundantProcess .
      '.conf',
      str_replace('[pid]', 'pid_filename /var/run/squid-
                                                                            '/usr/local/etc/3proxy/3proxy-redundant.cfg',
      redundant' . $redundantProcess . '.pid',
      str_replace('[ports]', 'http_port ' . implode("\n" .
      'http_port ', $this->processes['http']
      [$redundantProcess]), $this->gatewaysData['data']['http']
      ['configuration']))
                                                                      228
                                                                                                                     $this-
                                                                            >gatewaysData['data']['socks-redundant']
                                       );
                              sleep(75);
                                                                                                     $this-
                                                                            >_applyFirewallRules($firewallRules, 'elastic');
                      }
                                                                            unlink('/scripts/pid/reconfigure.pid');
                      $overridePorts = array(
                               'http' => $this->processes['http']
                      );
                      $firewallRules = $this-
      >_configureFirewallRules(false, $overridePorts);
                      $this->_applyFirewallRules($firewallRules,
      'elastic');
                      if (!empty($this->gatewaysData['data']
                                                                                                    return true;
      ['socks-redundant'])) {
```

```
$this->_reconfigure(
                                       'socks',
                                       'service 3proxy-redundant
      start',
                                       '3proxy-redundant.cfg',
      '/usr/local/etc/3proxy/3proxy-redundant.pid',
                                       40,
240
      '/usr/local/etc/3proxy/3proxy-redundant.cfg',
241
      >gatewaysData['data']['socks-redundant']
242
                              );
                      }
                       $this->_applyFirewallRules($firewallRules,
      'elastic');
                      unlink('/scripts/pid/reconfigure.pid');
                                                                                     st DNS redundancy health checks and process
                                                                            recovery
                                                                      240
                                                                      241
                                                                                     * @return boolean
                                                                      242
                                                                                            protected function _checkDNS() {
                                                                            (file_exists('/scripts/pid/dns.pid')) {
                                                                      245
                                                                                                             $lastRan =
                                                                            file_get_contents('/scripts/pid/dns.pid');
                                                                      246
                                                                      247
                                                                                                             if ($lastRan <</pre>
                                                                            strtotime('-2 minutes')) {
                                                                            unlink('/scripts/pid/dns.pid');
                                                                                                             } else {
                                                                                                                     return false;
                                                                                                    }
                                                                      254
                      return true;
                                                                            file_put_contents('/scripts/pid/dns.pid', time());
                                                                                                    $this->gatewaysData =
                                                                            json_decode(file_get_contents('/scripts/cache/gatewaysData
                                                                                                    array_shift($this-
                                                                            >gatewaysData['data']['dns_ips']);
                                                                      258
                                                                                                     if (empty($this-
                                                                            >gatewaysData['data']['dns_ips'])) {
        * DNS redundancy health checks and process recovery
        * @return boolean
              protected function _checkDNS() {
                      if (file_exists('/scripts/pid/dns.pid')) {
                              $lastRan =
      file_get_contents('/scripts/pid/dns.pid');
                              if ($lastRan < strtotime('-2</pre>
      minutes')) {
      unlink('/scripts/pid/dns.pid');
                              } else {
                                       return false:
                                                                                                             return false:
```

```
264
                              }
                      file_put_contents('/scripts/pid/dns.pid',
      time()):
                      $this->gatewaysData =
      json_decode(file_get_contents('/scripts/cache/gatewaysData
      '), true);
                      array_shift($this->gatewaysData['data']
      ['dns_ips']);
270
                      if (empty($this->gatewaysData['data']
      ['dns_ips'])) {
                              return false;
                      $dnsIps = array_values($this-
                                                                                                   $dnsIps = array_values($this-
      >gatewaysData['data']['dns_ips']);
                                                                           >gatewaysData['data']['dns_ips']);
                      foreach ($dnsIps as $key => $dnsIp) {
                                                                     264
                                                                                                   foreach ($dnsIps as $key =>
                                                                           $dnsIp) {
                              $processName = $key == 0 ? 'named'
                                                                                                           $processName = $key == 0 ?
      : 'named-redundant' . $key;
                                                                           'named': 'named-redundant' . $key;
                                                                     266
                              $dnsResponse = array();
                                                                                                          $dnsResponse = array();
                              exec('dig +time=2 +tries=1 proxies
                                                                                                           exec('dig +time=2 +tries=1
      @' . $dnsIp . ' 2>&1', $dnsResponse);
                                                                           proxies @' . $dnsIp . ' 2>&1', $dnsResponse);
                              if (
                                                                     269
                                                                                                           if (
                                                                     270
                                       !empty($dnsResponse[3]) &&
                                                                           !empty($dnsResponse[3]) &&
      strpos(strtolower($dnsResponse[3]), 'got answer') ===
                                                                           strpos(strtolower($dnsResponse[3]), 'got answer') ===
      false
                                                                           false
                              ) {
                                                                                                           ) {
                                      $dnsProcesses = array();
                                                                                                                    $dnsProcesses =
                                                                           array();
                                                                     274
                                                                                                                    exec('ps $(pgrep
                                      exec('ps $(pgrep named)
      2>&1', $dnsProcesses);
                                                                           named) 2>&1', $dnsProcesses);
                                                                     276
                                      if (!empty($dnsProcesses))
                                                                                                                    if
                                                                           (!empty($dnsProcesses)) {
      {
290
                                               foreach
                                                                                                                            foreach
      ($dnsProcesses as $dnsProcess) {
                                                                           ($dnsProcesses as $dnsProcess) {
                                                                     278
      $dnsProcess = array_map('strtolower', array_map('trim',
                                                                           $dnsProcess = array_map('strtolower', array_map('trim',
      array_values(array_filter(explode(' ', $dnsProcess)))));
                                                                           array_values(array_filter(explode(' ', $dnsProcess)))));
                                                       if (
                                                                                                                                    if
                                                                     281
      !empty($dnsProcess[0]) &&
                                                                           !empty($dnsProcess[0]) &&
      is numeric($dnsProcess[0]) &&
                                                                           is numeric($dnsProcess[0]) &&
      in_array('/usr/sbin/' . $processName, $dnsProcess)
                                                                           in_array('/usr/sbin/' . $processName, $dnsProcess)
                                                                     284
                                                       ) {
                                                                                                                                    )
                                                                           {
      $killProcesses = array();
                                                                           $killProcesses = array();
      $shellCommands = array(
                                                                           $shellCommands = array(
300
                                                                     287
      '#!' . $this->shell.
                                                                           '#!' . $this->shell.
```

```
301
      'kill -9 ' . trim($dnsProcess[0])
                                                                           'kill -9 ' . trim($dnsProcess[0])
                                                               ):
                                                                           );
                                                                     290
      unlink('/scripts/dns.sh');
                                                                           unlink('/scripts/dns.sh');
304
      file_put_contents('/scripts/dns.sh', implode("\n",
                                                                           file_put_contents('/scripts/dns.sh', implode("\n",
      $shellCommands));
                                                                           $shellCommands));
305
      shell_exec('chmod +x /scripts/dns.sh');
                                                                           shell_exec('chmod +x /scripts/dns.sh');
306
      shell_exec('/scripts/./dns.sh');
                                                                           shell_exec('/scripts/./dns.sh');
                                                                     294
                                                                                                                                     }
307
                                                                                                                             }
                                                       }
                                               }
                                                                                                                    }
310
                                       shell_exec('service ' .
      str_replace('named', 'bind9', $processName) . ' start');
                                                                           shell_exec('service ' . str_replace('named', 'bind9',
                                                                           $processName) . ' start');
                                       sleep(1);
                                                                                                                    sleep(1);
                                                                     300
      unlink('/scripts/pid/dns.pid');
                                                                           unlink('/scripts/pid/dns.pid');
                                       $this->_checkDNS();
                                                                                                                     $this-
                                                                           > checkDNS();
                                                                     302
                                                                                                            }
                                                                     303
                                                                     304
                                                                                                    unlink('/scripts/pid/dns.pid');
                                                                     306
                                                                                                    return true;
                      }
                                                                                            }
318
                      unlink('/scripts/pid/dns.pid');
                                                                                   /**
                      return true;
                                                                                     * Check HTTP and SOCKS ports
320
              }
                                                                                    * @param string $ip Proxy IP
                                                                                     * @param string $port Proxy port
                                                                     314
                                                                                     * @param string $port Proxy protocol (http or
                                                                           socks)
                                                                                     * @param integer $integer Request timeout
                                                                                     * @return boolean $alive True if port is active,
                                                                           false if refusing connections
                                                                     318
                                                                                            protected function _checkPort($ip, $port,
                                                                           $protocol, $timeout = 5) {
                                                                                                    $alive = false;
                                                                                                    switch ($protocol) {
                                                                                                            case 'http':
                                                                     324
                                                                                                                    $response =
                                                                           shell_exec('curl -I -s -x ' . $ip . ':' . $port . '
                                                                           http://squid -v --connect-timeout ' . $timeout . ' --max-
                                                                           time ' . $timeout);
                                                                                                                     if ($this-
                                                                           >_strposa(strtolower($response), array(
                                                                                                                             407
                                                                           proxy',
                                                                     328
                                                                                                                             '403
                                                                           forbidden',
                                                                                                                             ' 503 '.
```

```
330
                                                                                                                           ' timed
                                                                          out '
                                                                                                                   )) !== false) {
                                                                                                                           $alive =
                                                                          true:
                                                                                                                   }
     - /**
                                                                                                                  hreak:
                                                                    336
     - * Check HTTP and SOCKS ports
                                                                                                           case 'socks':
324
                                                                                                                  exec('curl --
                                                                          socks5-hostname ' . $ip . ':' . $port . ' http://socks/ -v
                                                                          --connect-timeout ' . $timeout . ' --max-time ' . $timeout
                                                                          . ' 2>&1', $socksResponse);
     - * @param string $ip Proxy IP
                                                                                                                   $socksResponse =
                                                                          end($socksResponse);
     - * @param string $port Proxy port
                                                                                                                   $alive =
                                                                          (strpos(strtolower($socksResponse), 'empty reply ') !==
                                                                          false):
     * @param string $port Proxy protocol (http or socks)
                                                                    340
                                                                                                                  break;
328
     - * @param integer $integer Request timeout
                                                                    341
                                                                                                  }

    * @return boolean $alive True if port is active, false

     if refusing connections
             protected function _checkPort($ip, $port,
     $protocol, $timeout = 5) {
                      $alive = false;
334
                      switch ($protocol) {
                             case 'http':
                                      $response =
     shell_exec('curl -I -s -x ' . $ip . ':' . $port . '
     http://squid -v --connect-timeout ' . $timeout . ' --max-
     time ' . $timeout):
                                      if ($this-
     >_strposa(strtolower($response), array(
                                              '407 proxy',
                                              '403 forbidden',
                                              ' 503 ',
                                              ' timed out '
                                      )) !== false) {
                                              $alive = true;
347
                                                                    343 +
                                      break;
                                                                                                  return $alive;
                              case 'socks':
                                      exec('curl --socks5-
     hostname ' . $ip . ':' . $port . ' http://socks/ -v --
     connect-timeout ' . $timeout . ' --max-time ' . $timeout .
      ' 2>&1', $socksResponse);
                                      $socksResponse =
     end($socksResponse);
                                      $alive =
     (strpos(strtolower($socksResponse), 'empty reply ') !==
     false);
                                      break;
                      }
                                                                                          }
                     return $alive;
                                                                    346
                                                                    347
             }
                                                                                   * Configure firewall rules
                                                                    349
                                                                                   * @param boolean $redundant Route to redundant
```

```
process ports only if true, all ports if false
                                                                    350
                                                                                  * @param array $overridePorts Override default
                                                                          base ports
                                                                                   * @return array $rules Firewall rules
                                                                    354
                                                                                          protected function
                                                                          _configureFirewallRules($redundant = false, $overridePorts
                                                                          = array()) {
                                                                                                  $rules = array(
                                                                                                          '*filter',
                                                                                                          ':INPUT ACCEPT [0:0]',
                                                                    358
                                                                                                          ':FORWARD ACCEPT [0:0]',
                                                                                                          ':OUTPUT ACCEPT [0:0]',
                                                                    360
                                                                                                          '-A INPUT -p icmp -m
                                                                          hashlimit --hashlimit-name icmp --hashlimit-mode srcip --
                                                                          hashlimit 1/second --hashlimit-burst 2 -j ACCEPT'
                                                                                                  );
359
                                                                    363
                                                                                                  if (
360
     + Configure firewall rules
                                                                                                          !empty($this->sshPorts) &&
                                                                                                          is_array($this->sshPorts)
     - * @param boolean $redundant Route to redundant process
                                                                                                  ) {
     ports only if true, all ports if false
     - * @param array $overridePorts Override default base
                                                                                                          foreach ($this->sshPorts
     ports
                                                                          as $sshPort) {
                                                                                                                  if
     - *
                                                                          (is_numeric($sshPort)) {
                                                                    369
     - * @return array $rules Firewall rules
                                                                                                                          $rules[] =
                                                                          '-A INPUT -p tcp -m tcp --dport ' . $sshPort . ' -m
                                                                          connlimit --connlimit-above 4 --connlimit-mask 32 --
                                                                          connlimit-saddr -j DROP';
                                                                    370
                                                                                                                          $rules[] =
                                                                          '-A INPUT -p tcp -m tcp --dport ' . $sshPort . ' -m
                                                                          hashlimit --hashlimit-upto 15/hour --hashlimit-burst 3 --
                                                                          hashlimit-mode srcip --hashlimit-name ssh --hashlimit-
                                                                          htable-expire 500000 -j ACCEPT';
             protected function
                                                                                                                  }
      _configureFirewallRules($redundant = false, $overridePorts
     = array()) {
                      $rules = array(
                              '*filter',
                              ':INPUT ACCEPT [0:0]',
                              ':FORWARD ACCEPT [0:0]',
                              ':OUTPUT ACCEPT [0:0]',
                              '-A INPUT -p icmp -m hashlimit --
     hashlimit-name icmp --hashlimit-mode srcip --hashlimit
     1/second --hashlimit-burst 2 -j ACCEPT'
374
                     );
                      if (
                              !empty($this->sshPorts) &&
                              is array($this->sshPorts)
                      ) {
                              foreach ($this->sshPorts as
      $sshPort) {
                                      if (is_numeric($sshPort))
     {
                                              rules[] = '-A
     INPUT -p tcp -m tcp --dport ' . $sshPort . ' -m connlimit
      --connlimit-above 4 --connlimit-mask 32 --connlimit-saddr
      -j DROP';
                                              $rules[] = '-A
```

```
INPUT -p tcp -m tcp --dport ' . $sshPort . ' -m hashlimit
      --hashlimit-upto 15/hour --hashlimit-burst 3 --hashlimit-
      mode srcip --hashlimit-name ssh --hashlimit-htable-expire
      500000 -i ACCEPT';
                                      }
                                                                                                           }
                              }
                                                                                                   }
                      }
                      if (
                              !empty($this->gatewaysData['data']
                                                                                                           !empty($this-
      ['firewall_filter']) &&
                                                                          >gatewaysData['data']['firewall_filter']) &&
                              is_array($this-
      >gatewaysData['data']['firewall_filter'])
                                                                          >gatewaysData['data']['firewall_filter'])
                      ) {
                                                                                                  ) {
                              foreach ($this-
                                                                                                           foreach ($this-
      >gatewaysData['data']['firewall_filter'] as $rule) {
                                                                          >gatewaysData['data']['firewall_filter'] as $rule) {
                                      $rules[] = $rule;
                                                                                                                   $rules[] = $rule;
                              }
                                                                                                   }
                      }
396
                      if (
                                                                                                  if (
                              !empty($this->gatewaysData['data']
                                                                                                           !empty($this-
      ['dns_ips']) &&
                                                                          >gatewaysData['data']['dns_ips']) &&
                                                                                                           is_array($this-
                              is_array($this-
      >gatewaysData['data']['dns_ips'])
                                                                          >gatewaysData['data']['dns_ips'])
                      ) {
                                                                                                  ) {
                              $rules[] = '-A OUTPUT -d ' .
                                                                                                          $rules[] = '-A OUTPUT -d '
      implode(',', $this->gatewaysData['data']['dns_ips']) . ' -
                                                                           . implode(',', $this->gatewaysData['data']['dns_ips']) . '
      p udp -m udp -j ACCEPT';
                                                                           -p udp -m udp -j ACCEPT';
402
403
                                                                                                  $rules[] = '-A OUTPUT -s
                      $rules[] = '-A OUTPUT -s 127.0.0.0/24 -p
                                                                          127.0.0.0/24 -p udp -j DROP';
      udp -i DROP':
                      $rules[] = 'COMMIT';
                                                                                                 $rules[] = 'COMMIT';
                      $rules[] = '*nat';
                                                                                                  $rules[] = '*nat';
                                                                                                 $rules[] = ':PREROUTING ACCEPT
407
                      $rules[] = ':PREROUTING ACCEPT [0:0]';
                                                                           [0:0]';
                      $rules[] = ':INPUT ACCEPT [0:0]';
                                                                                                  $rules[] = ':INPUT ACCEPT [0:0]';
409
                      $rules[] = ':OUTPUT ACCEPT [0:0]';
                                                                                                 $rules[] = ':OUTPUT ACCEPT [0:0]';
                      $rules[] = ':POSTROUTING ACCEPT [0:0]';
                                                                                                   $rules[] = ':POSTROUTING ACCEPT
                                                                           [0:0]';
411
412
                      $dnsIps = array_values($this-
                                                                                                  $dnsIps = array_values($this-
                                                                          >gatewaysData['data']['dns_ips']);
      >gatewaysData['data']['dns_ips']);
413
                      unset($dnsIps[0]);
                                                                                                  unset($dnsIps[0]);
414
                      krsort($dnsIps);
                                                                                                  _krsort($dnsIps);
415
416
                      foreach ($dnsIps as $key => $dnsIp) {
                                                                    403
                                                                                                   foreach ($dnsIps as $key =>
                                                                           $dnsIp) {
417
                                                                                                           $loadBalancer = '';
                              $loadBalancer = '';
                                                                    405
                                                                    406
                                                                                                           if ($key > 1) {
                                                                    407
                                                                                                                   $loadBalancer = '-
                                                                          m statistic --mode nth --every ' . $key . ' --packet 0 ';
418
                                                                    409
419
                                                                    410
                              if ($key > 1) {
                                                                                                           $rules[] = '-A OUTPUT -d
                                                                          127.0.0.1/32 -p udp -m udp --dport 53 ' . $loadBalancer .
                                                                          '-j DNAT --to-destination ' . $dnsIp;
420
                                      $loadBalancer = '-m
      statistic --mode nth --every ' . $key . ' --packet 0 ';
```

```
422
                                                                      412
423
                              $rules[] = '-A OUTPUT -d
                                                                      413
                                                                                                     if (
      127.0.0.1/32 -p udp -m udp --dport 53 ' . $loadBalancer .
      '-j DNAT --to-destination ' . $dnsIp;
424
                      }
                                                                      414
                                                                                                             !empty($this->processes)
                                                                            &&
                                                                      415
                                                                                                             is_array($this->processes)
                                                                      416
                                                                                                     ) {
                                                                      417
                                                                                                             foreach ($this->processes
                                                                            as $protocol => $processes) {
                                                                      418
                                                                                                                      $basePorts =
                                                                            array();
425
                                                                      419
                      if (
                                                                      420
                                                                                                                      if ($redundant) {
                               !empty($this→processes) &&
                                                                            unset($processes[0]);
428
                               is_array($this->processes)
                                                                      422
                                                                                                                              $processes
                                                                            = array_values($processes);
429
                      ) {
                                                                      423
430
                               foreach ($this->processes as
      $protocol => $processes) {
431
                                       $basePorts = array();
432
                                                                      424
433
                                                                      425
                                       if ($redundant) {
                                                                            (!empty($overridePorts)) {
434
                                                                      426
                                                                                                                              if
      unset($processes[0]);
                                                                            (empty($overridePorts[$protocol])) {
435
                                                                      427
                                               $processes =
      array_values($processes);
                                                                            continue;
436
                                                                      428
437
                                                                      429
438
                                                                      430
                                       if
                                                                                                                              $processes
      (!empty($overridePorts)) {
                                                                            = $overridePorts[$protocol];
439
                                               if
      (empty($overridePorts[$protocol])) {
440
                                                        continue;
441
                                                                      431
                                                                                                                      }
                                               }
442
                                                                      432
443
                                                                      433
                                                                                                                      foreach
                                               $processes =
      $overridePorts[$protocol];
                                                                            ($processes as $ports) {
                                                                      434
                                                                                                                              $basePorts
                                                                            = array_merge($ports, $basePorts);
                                                                      435
                                                                                                                      }
446
                                       foreach ($processes as
      $ports) {
447
                                               $basePorts =
      array_merge($ports, $basePorts);
448
449
                                                                      436
450
                                                                      437
                                                                                                                     sports =
                                       $ports =
      array_unique($basePorts);
                                                                            array_unique($basePorts);
451
                                                                      438
452
                                                                      439
                                                                                                                      foreach ($ports as
                                       foreach ($ports as $key =>
      $port) {
                                                                            $key => $port) {
                                                                      440
453
                                               if ($this-
                                                                                                                              if ($this-
      >_checkPort($this->gatewaysData['data']['proxy_ips'][0],
                                                                            >_checkPort($this->gatewaysData['data']['proxy_ips'][0],
      $port, $protocol) === false) {
                                                                            $port, $protocol) === false) {
454
                                                                      441
      unset($ports[$key]);
                                                                            unset($ports[$key]);
                                                                      442
                                                                                                                              }
455
                                                                      443
456
457
```

```
458
                                                                      445
                                       shuffle($ports);
                                                                                                                     shuffle($ports);
459
                                                                      446
                                       $ports =
                                                                                                                     $ports =
                                                                            array_values($ports);
      array_values($ports);
                                       krsort($ports);
                                                                                                                     krsort($ports);
461
                                       $dports =
                                                                      448
                                                                                                                     $dports =
      array_merge($this->processes[$protocol][0], $basePorts);
                                                                            array_merge($this->processes[$protocol][0], $basePorts);
462
                                       $dportsSplit =
                                                                      449
                                                                                                                     $dportsSplit =
      array_chunk($dports, '5');
                                                                            array_chunk($dports, '5');
                                                                      450
464
                                       if (!empty($ports)) {
                                                                      451
                                                                            (!empty($ports)) {
                                               foreach
                                                                      452
                                                                            ($dportsSplit as $chunk => $dports) {
      ($dportsSplit as $chunk => $dports) {
                                                                      453
                                                        $dports =
      implode(',', $dports);
                                                                            $dports = implode(',', $dports);
467
                                                                      454
                                                        foreach
                                                                      455
      ($ports as $key => $port) {
                                                                            foreach ($ports as $key => $port) {
                                                                      456
      $loadBalancer = '';
                                                                            $loadBalancer = '';
470
                                                                      457
471
                                                                      458
                                                                if
      (\text{$key > 0)} \ \{
                                                                            if ($key > 0) {
472
                                                                      459
      $loadBalancer = '-m statistic --mode nth --every ' . ($key
                                                                            $loadBalancer = '-m statistic --mode nth --every ' . ($key
      + 1) . ' --packet 0 ';
                                                                            + 1) . ' --packet 0 ';
473
                                                                      460
                                                                }
                                                                            }
474
                                                                      461
475
                                                                      462
      $rules[] = '-A PREROUTING -p tcp -m multiport --dports ' .
                                                                            $rules[] = '-A PREROUTING -p tcp -m multiport --dports ' .
      $dports . ' ' . $loadBalancer . '-j DNAT --to-destination
                                                                            $dports . ' ' . $loadBalancer . '-j DNAT --to-destination
      :' . $port . ' --persistent';
                                                                            :' . $port . ' --persistent';
                                                                                                                                      }
476
                                                        }
                                                                      464
                                                                                                                              }
477
478
                                                                      466
                                       }
                                                                                                             }
479
                                                                      467
                               }
                                                                                                     }
480
                      }
481
                       $rules[] = 'COMMIT';
483
                      $rules = array_chunk($rules, 100);
                       return $rules;
              }
486
                                                                      468
                                                                                                     $rules[] = 'COMMIT';
        * Create writable log and cache directories
                                                                      470
                                                                                                     $rules = array_chunk($rules, 100);
                                                                      471
                                                                                                     return $rules;
      - * @return
491
        */
              protected function _createDirectories() {
493
                      $directories = array(
494
                               '/scripts',
                               '/scripts/cache',
                               '/scripts/errors',
                               '/scripts/iptables',
                               '/scripts/pid'
                      );
501
                       foreach ($directories as $directory) {
                               if (!is_dir($directory)) {
                                       shell_exec('mkdir -m 777 '
      . $directory);
```

```
504
                              }
505
                                                                     472
                                                                                           }
506
                                                                     473
507
                      return;
                                                                     474
                                                                     475
                                                                                    * Create writable log and cache directories
                                                                     476
510
                                                                     477
                                                                                    * @return
                                                                     478
      * Get process IDs from process name
                                                                     479
                                                                                           protected function _createDirectories() {
      - * @param string $processName Process name
                                                                     480
                                                                                                    $directories = array(
514
      - * @param string $configurationFile Full path to process
                                                                     481
                                                                                                            '/scripts',
      configuration file
                                                                     482
                                                                                                            '/scripts/cache',
                                                                     483
                                                                                                            '/scripts/errors',
      - * @return array $processIds Process IDs
                                                                     484
                                                                                                            '/scripts/iptables',
              protected function _getProcessIds($processName,
                                                                                                            '/scripts/pid'
      $configurationFile) {
                      $processIds = array();
                                                                     486
                                                                                                    );
                      exec('ps -fC' . $processName . ' 2>&1',
      $processes);
                      if (!empty($processes[0])) {
                              unset($processes[0]);
                              foreach ($processes as $process) {
                                       $processColumns =
      array_values(array_filter(explode(' ', $process)));
                                                                     487
                                       if (
                                                                     488
                                                                                                    foreach ($directories as
                                                                           $directory) {
                                                                     489
                                                                                                            if (!is_dir($directory)) {
      !empty($processColumns[1]) &&
                                                                                                                    shell_exec('mkdir
                                                                           -m 777 ' . $directory);
      empty($processes[2]) ||
      strpos($configurationFile, '-redundant') === false ||
                                                       $this-
      >_strposa($process, array(
      $processName . ' ',
      $configurationFile
                                                       ))!==
      false
                                       ) {
                                               $processIds[] =
      $processColumns[1];
                                                                                                            }
541
                                                                     492
                              }
                                                                     493
                                                                     494
                                                                                                    return;
                      }
                                                                     495
                                                                                           }
                                                                     497
                      return $processIds;
                                                                     498
              }
                                                                                    * Get process IDs from process name
                                                                     499
                                                                                    * @param string $processName Process name
                                                                                    * @param string $configurationFile Full path to
                                                                           process configuration file
```

503

```
* @return array $processIds Process IDs
                                                                    504
                                                                    505
                                                                                          protected function
                                                                          _getProcessIds($processName, $configurationFile) {
                                                                    506
                                                                                                  $processIds = array();
                                                                    507
                                                                                                  exec('ps -fC ' . $processName . '
                                                                          2>&1', $processes);
                                                                    508
                                                                                                  if (!empty($processes[0])) {
                                                                    510
                                                                                                          unset($processes[0]);
                                                                                                          foreach ($processes as
                                                                          $process) {
                                                                                                                  $processColumns =
                                                                          array_values(array_filter(explode(' ', $process)));
                                                                    514
                                                                                                                  if (
                                                                    516
                                                                          !empty($processColumns[1]) &&
                                                                    518
                                                                          empty($processes[2]) ||
                                                                    519
                                                                          strpos($configurationFile, '-redundant') === false ||
                                                                    520
                                                                          $this->_strposa($process, array(
                                                                          $processName . ' ',
                                                                          $configurationFile
                                                                                                                                   ))
                                                                          !== false
                                                                                                                  ) {
                                                                          $processIds[] = $processColumns[1];
                                                                                                                  }
                                                                    529
546
                                                                    530
547
                                                                                                  return $processIds;
548
      - * Reconfigure specific process
550
     - * @param string $protocol Proxy protocol (http or
      - * @param string $startCommand Command to start process
      - * @param string $processName Process name
     - * @param string $processId Full path to process ID
554
      - * @param integer $delayStart Delay at beginning of
      reconfiguration

    * @param integer $delayEnd Delay at end of

      reconfiguration
556

    * @param string $configurationFile Full path to process

      configuration file
      - * @param string $configurationData Process
      configuration data
558
      - *
      - * @return
             protected function _reconfigure($protocol,
      $startCommand, $processName, $processId, $delayStart = 0,
      $delayEnd = 0, $configurationFile, $configurationData) {
                     if ($delayStart) {
```

```
sleep($delayStart);
                                                                                           }
                      }
                      $killProcesses = array();
                      $shellCommands = array(
                                                                                    * Reconfigure specific process
                              '#!' . $this->shell
                      );
                                                                                    * @param string $protocol Proxy protocol (http or
                                                                          socks)
                      $killProcesses = $this-
                                                                                    * @param string $startCommand Command to start
     >_getProcessIds($processName, $configurationFile);
                                                                          process
                                                                                    * @param string $processName Process name
                                                                                    * @param string $processId Full path to process
                                                                          ID
                                                                    541
                                                                                    * @param integer $delayStart Delay at beginning
                                                                          of reconfiguration
                                                                    542
                                                                                    * @param integer $delayEnd Delay at end of
                                                                          reconfiguration
                                                                    543
                                                                                    * @param string $configurationFile Full path to
                                                                          process configuration file
                                                                                    * @param string $configurationData Process
                                                                          configuration data
                                                                    546
                                                                                    * @return
                                                                    547
                                                                                    */
                                                                                           protected function _reconfigure($protocol,
                                                                          $startCommand, $processName, $processId, $delayStart = 0,
                                                                          $delayEnd = 0, $configurationFile, $configurationData) {
                                                                                                   if ($delayStart) {
                                                                    550
                                                                                                           sleep($delayStart);
                      foreach ($killProcesses as $killProcess) {
                                                                                                   $killProcesses = array();
                              $shellCommands[] = 'kill -9 ' .
                                                                                                   $shellCommands = array(
     trim($killProcess):
574
                                                                                                           '#!' . $this->shell
                                                                                                   );
                                                                                                   $killProcesses = $this-
                                                                          >_getProcessIds($processName, $configurationFile);
                      if (count($shellCommands > 1)) {
                                                                                                   foreach ($killProcesses as
                                                                          $killProcess) {
                              unlink('/scripts/' . $protocol .
                                                                    560
                                                                                                           $shellCommands[] = 'kill
                                                                          -9 ' . trim($killProcess);
      '.sh');
                              file_put_contents('/scripts/' .
      $protocol . '.sh', implode("\n", $shellCommands));
                              shell_exec('chmod +x /scripts/'.
      $protocol . '.sh');
                              shell_exec('/scripts/./' .
      $protocol . '.sh');
                      }
                      if (
                                                                                                  if (count($shellCommands > 1)) {
                              !empty($configurationFile) &&
                                                                    564
                                                                                                           unlink('/scripts/'.
                                                                          $protocol . '.sh');
                              !empty($configurationData)
                                                                          file_put_contents('/scripts/' . $protocol . '.sh',
                                                                           implode("\n", $shellCommands));
                      ) {
                                                                                                           shell_exec('chmod +x
                                                                          /scripts/' . $protocol . '.sh');
                                                                                                           shell_exec('/scripts/./' .
      file_put_contents($configurationFile, $configurationData);
                                                                          $protocol . '.sh');
```

```
570
                      unlink($processId);
                      sleep(2);
                                                                                                             !empty($configurationFile)
                                                                            &&
                       shell_exec($startCommand);
                                                                                                             !empty($configurationData)
                                                                                                     ) {
                                                                            file_put_contents($configurationFile, $configurationData);
                                                                      576
594
                      if ($delayEnd) {
                                                                                                     unlink($processId);
                               sleep($delayEnd);
                                                                                                     sleep(2);
                      }
                                                                      579
                                                                                                     shell_exec($startCommand);
              }
                                                                                                     if ($delayEnd) {
      - * Initiate processes
                                                                                                             sleep($delayEnd);
601
602
         * @param string $processName Process name
604
           @return boolean $status
605
              public function start($processName) {
607
                      switch ($processName) {
                               case 'apply_firewall':
                                       $status = $this-
      >_applyFirewall();
610
                                       break;
611
                               case 'apply_reconfiguration':
612
                                       $status = $this-
      >_applyReconfiguration();
613
                                       break;
614
                               case 'check_dns':
615
                                       $status = $this-
      >_checkDNS();
616
                                       break;
617
                                                                                            }
618
619
                       return $status;
620
              }
                                                                                     * Initiate processes
                                                                                     * @param string $processName Process name
                                                                      590
                                                                                     * @return boolean $status
                                                                                            public function start($processName) {
                                                                                                     switch ($processName) {
                                                                                                             case 'apply_firewall':
                                                                                                                     $status = $this-
                                                                            >_applyFirewall();
                                                                                                                     break;
                                                                                                             case
                                                                            'apply_reconfiguration':
                                                                                                                     $status = $this-
                                                                            >_applyReconfiguration();
                                                                      600
                                                                                                                     break;
                                                                                                             case 'check_dns':
                                                                      602
                                                                                                                     $status = $this-
                                                                            >_checkDNS();
                                                                                                                     break;
                                                                      604
                                                                      605
                                                                                                     return $status;
```

```
621
622
                                                                     609
                                                                                   /**
623
                                                                     610
      - * Format strpos to use array as needle
                                                                                    * Format strpos to use array as needle
624
                                                                     611
625
      - * @param array $haystack
                                                                     612
                                                                                    * @param array $haystack
626
                                                                     613
      - * @param array $needles
                                                                                    * @param array $needles
      - * @param integer $offset
627
                                                                     614
                                                                                    * @param integer $offset
628
                                                                     615
629

    * @return boolean True if match is found, false if no

                                                                     616
                                                                                    * @return boolean True if match is found, false
                                                                           if no match
630
                                                                     617
631
              protected function _strposa($haystack, $needles,
                                                                     618
                                                                                           protected function _strposa($haystack,
      $offset = 0) {
                                                                           $needles, $offset = 0) {
                      if (!is_array($needles)) {
                                                                     619
                                                                                                   if (!is_array($needles)) {
633
                              $needles = array($needles);
                                                                     620
                                                                                                            $needles =
                                                                           array($needles);
                      };
                                                                     621
                                                                                                    };
635
                                                                     622
                      foreach ($needles as $needle) {
                                                                                                    foreach ($needles as $needle) {
637
                              if (strpos($haystack, $needle,
                                                                     624
                                                                                                            if (strpos($haystack,
      $offset) !== false) {
                                                                           $needle, $offset) !== false) {
638
                                                                     625
                                       return true;
                                                                                                                    return true;
                                                                     626
639
                              }
                                                                     627
                                                                                                    }
                                                                     628
                                                                     629
                                                                                                    return false;
                      }
                                                                     630
                                                                                            }
641
                                                                     631
642
                      return false;
                                                                     632
              }
645
     - }
646
                                                                     633
```

0 comments on commit 37e75ec