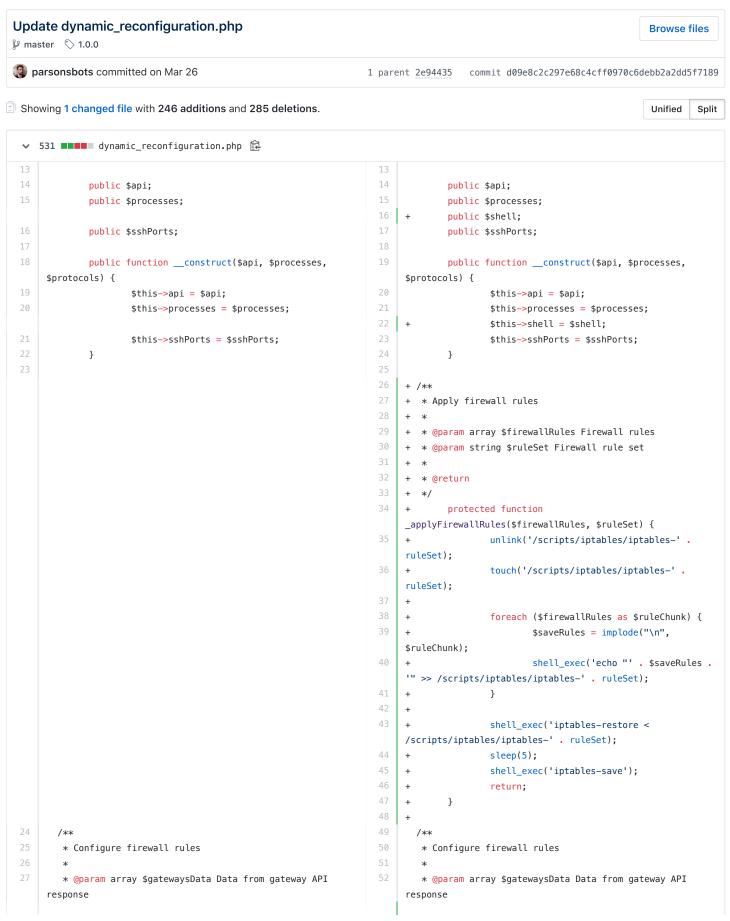
parsonsbots / dynamic-proxy-node-reconfiguration



```
+ * @param boolean $redundant Route to redundant process
                                                                           ports only if true, all ports if false
                                                                           + * @param array $ports Override default base ports
        * @return $rules
                                                                           + * @return array $rules Firewall rules
              protected function
                                                                      58
                                                                                   protected function
      _configureFirewallRules($gatewaysData) {
                                                                           _configureFirewallRules($gatewaysData, $redundant = false,
                                                                           $overridePorts = array()) {
                      // Begin input filter rules
                                                                                           // Begin input filter rules
                      $rules = array(
                                                                                           $rules = array(
                              '*filter',
                                                                      61
                                                                                                   '*filter',
83
                                                                     110
                              is_array($this->processes)
                                                                                                   is_array($this->processes)
                      ) {
                                                                                           ) {
                              foreach ($this->processes as
                                                                                                    foreach ($this->processes as
      $protocol => $processes) {
                                                                           $protocol => $processes) {
                                                                                                            if ($redundant) {
                                                                     114
                                                                           unset($processes[0]);
                                      foreach ($processes as
                                                                                                            foreach ($processes as
      $ports) {
                                                                           $ports) {
87
                                               $basePorts =
                                                                                                                    $basePorts =
      array_merge($ports, $basePorts);
                                                                           array_merge($ports, $basePorts);
90
                                      $ports =
                                                                                                            $ports =
     array_unique($basePorts);
                                                                           array_unique($basePorts);
                                                                           (!empty($overridePorts)) {
                                                                     124
                                                                                                                    if
                                                                           (empty($overridePorts[$protocol])) {
                                                                                                                            continue;
                                                                                                                    $ports =
                                                                           $overridePorts[$protocol];
92
                                      // Remove ports from
                                                                                                            // Remove ports from
      routing list that are refusing connections
                                                                           routing list that are refusing connections
                                      foreach ($ports as $key =>
                                                                                                            foreach ($ports as $key =>
      $port) {
                                                                           $port) {
                                               if ($this-
                                                                                                                    if ($this-
     >_checkPort($gatewaysData['data']['proxies'][0], $port,
                                                                           >_checkPort($gatewaysData['data']['proxies'][0], $port,
      $protocol) === false) {
                                                                           $protocol) === false) {
95
                                                                     134
     unset($ports[$key]);
                                                                           unset($ports[$key]);
96
                                              }
                                                                                                                    }
97
98
                                      // Retrieve list of
                                                                                                            // Retrieve list of
     primary ports for
                                                                           primary ports for current protocol
                                      $primaryPorts =
                                                                                                            $primaryPorts =
      $processes[0];
                                                                           $processes[0];
101
102
                                      // Prevent listening ports
                                                                     141
     from overloading without changing destination IP using
     DNAT port load balancing
                                                                     142
                                                                                                                    Prevent individual
                                                                           listening ports / sockets from overloading using this
```

```
simple, persistent internal load balancing
                                                                                                                    method for DNAT
                                                                           ports only (without changing the destination IP). This
                                                                           also prevents malicious processes from hijacking
                                                                                                                    shared ports (when
                                                                           the combination of SO_REUSEPORT and SO_REUSEADDR are used)
                                                                           while still allowing a large number of sockets
                                                                     145
103
                                       shuffle($ports);
                                                                                                            shuffle($ports);
104
                                       $ports =
                                                                     147
                                                                                                            $ports =
      array_values($ports);
                                                                           array_values($ports);
                                       krsort($ports);
                                                                                                            krsort($ports);
                                                                     220
                                                                              */
         */
              protected function _createDirectories() {
                                                                                   protected function _createDirectories() {
                      $directories = array(
                                                                                            $directories = array(
                                                                                                    '/scripts',
                               '/scripts/cache',
                                                                                                    '/scripts/cache',
181
                               '/scripts/errors'
                                                                                                    '/scripts/errors',
                                                                     226
                                                                                                    '/scripts/iptables',
                                                                                                    '/scripts/pid'
                      );
                                                                                            );
184
                      foreach ($directories as $directory) {
                                                                     230
                                                                                            foreach ($directories as $directory) {
              }
                                                                                   }
        /**
                                                                             /**
     - * Reconfigure process
                                                                              * Get process IDs from process name
                                                                     241
                                                                              * @param string $processName Process name
                                                                     243
                                                                              * @return array $processIds Process IDs
                                                                     245
                                                                                   protected function _getProcessIds($processName) {
                                                                     247
                                                                                            $processIds = array();
                                                                                            exec('ps -fC ' . $processName . ' 2>&1',
                                                                           $processes);
                                                                                            if (!empty($processes[0])) {
                                                                                                    unset($processes[0]);
                                                                                                    foreach ($processes as $process) {
                                                                                                            $processColumns =
                                                                           array_values(array_filter(explode(' ', $process)));
                                                                                                            if
                                                                           (!empty($processColumns[1])) {
                                                                                                                    $processIds[] =
                                                                           $processColumns[1];
                                                                     258
                                                                     259
                                                                                                    }
                                                                     260
                                                                                            }
                                                                                            return $processIds;
                                                                           + /**
                                                                              * Reconfigure specific process
                                                                     268
         * @param string $protocol Proxy protocol (http or
                                                                              * @param string $protocol Proxy protocol (http or
      socks)
                                                                           + * @param string $binary Name of system binary
                                                                     270
                                                                              * @param string $command Software-specific command for
                                                                           reconfiguration
```

```
+ * @param string $errorString Reconfiguration error
                                                                           string for error detection
         * @param string $processName Process name
                                                                              * @param string $processName Process name
         * @param string $processId Full path to process ID
                                                                              * @param string $processId Full path to process ID
      - * @param string $aclFile Full path to ACL filename
200
     - * @param string $aclData ACL data for $aclFile
201
         * @param integer $delayStart Delay at beginning of
                                                                     274
                                                                              * @param integer $delayStart Delay at beginning of
      reconfiguration
                                                                           reconfiguration
         * @param integer $delayEnd Delay at end of
                                                                              * @param integer $delayEnd Delay at end of
      reconfiguration
                                                                           reconfiguration
                                                                     276
204
         * @return
                                                                              * @return
205
                                                                     278
                                                                     279
206
              protected function _reconfigure($protocol,
                                                                                   protected function _reconfigure($protocol,
                                                                           $binary, $command, $errorString, $processName, $processId,
      $processName, $processId, $aclFile, $aclData, $delayStart
      = 0, $delayEnd = 0) {
                                                                           $delayStart = 0, $delayEnd = 0) {
                      if ($delayStart) {
                                                                                           if ($delayStart) {
                                                                     281
                              sleep($delayStart);
                                                                                                   sleep($delayStart);
                      }
                                                                                           }
210
                                                                                           $killProcesses = array();
                      // Reconfigure processes here
                                                                                           $shellCommands = array(
                                                                     286
                                                                                                   '#!' . $this->shell
                                                                                           ):
                                                                                           if (!empty($command)) {
                                                                                                   exec($command . ' 2>&1',
                                                                           $reconfigureResponse);
                                                                                                   $reconfigureResponse =
                                                                           array_shift($reconfigureResponse);
                                                                                           }
                                                                                           if (
                                                                           !empty($reconfigureResponse) &&
                                                                                                           !empty($errorString) &&
                                                                     298
                                                                           strpos(strtolower($reconfigureResponse), $errorString) !==
                                                                           false
                                                                     300
                                                                                                   empty($command)
                                                                     301
                                                                                           ) {
                                                                     302
                                                                                                   $killProcesses = $this-
                                                                           >getProcessIds($processName);
                                                                     303
                                                                                           }
                                                                                           foreach ($killProcesses as $killProcess) {
                                                                     306
                                                                                                   $shellCommands[] = 'kill ' .
                                                                           trim($killProcess);
                                                                     307
                                                                                           }
                                                                     308
                                                                     309
                                                                                           // Run shell commands through bash script
                                                                     310
                                                                                           if (count($shellCommands > 1)) {
                                                                                                   unlink('/scripts/' . $protocol .
                                                                           '.sh');
                                                                                                   file_put_contents('/scripts/' .
                                                                           $protocol . '.sh', implode("\n", $shellCommands));
                                                                                                   shell_exec('chmod +x /scripts/' .
                                                                           $protocol . '.sh');
                                                                     314
                                                                                                   shell_exec('/scripts/./' .
                                                                           $protocol . '.sh');
```

```
316
                                                                                                   // Process recovery
                                                                                                   unlink($processId);
                                                                     318
                                                                                                   sleep(5):
                                                                                                   shell_exec('service ' . $binary .
                                                                            start'):
                                                                                           }
                      if ($delayEnd) {
                                                                                           if ($delayEnd) {
                              sleep($delayEnd);
                                                                                                   sleep($delayEnd);
                      }
                                                                                           }
              }
                                                                                   }
                                                                             /**
     - * Reconfigure redundant processes
                                                                          + * Apply firewall
     - * @return boolean $status
                                                                            * @return boolean
                                                                                   protected function _applyFirewall() {
                                                                           (file_exists('/scripts/pid/reconfigure.pid')) {
                                                                                                   return false;
                                                                                           }
                                                                     336
                                                                                           $gatewaysData =
                                                                           json_decode(file_get_contents('/scripts/cache/gatewaysData
                                                                           '), true);
                                                                     339
                                                                                           if (empty($gatewaysData['data']
                                                                           ['proxies'])) {
                                                                                                   return false;
                                                                                           }
                                                                                           $overridePorts = array(
                                                                                                   'http' => $this->processes['http']
                                                                     345
                                                                                           );
                                                                                           $firewallRules = $this-
                                                                          >_configureFirewallRules($gatewaysData, false,
                                                                           $overridePorts);
                                                                     347
                                                                                           $this->_applyFirewallRules($firewallRules,
                                                                           'elastic');
                                                                     348
                                                                     349
                                                                          + /**
                                                                          + * Apply seamless processes reconfiguration
                                                                             * @return boolean
              protected function _applyReconfiguration() {
                                                                                   protected function _applyReconfiguration() {
224
                      // Create writable log and cache
                                                                     356
                                                                                           // Create writable log and cache
      directories
                                                                          directories
                      // Apply primary Squid config
                                                                                           // Apply primary Squid config
                                                                     401
      file_put_contents('/etc/squid3/squid.conf',
                                                                           file_put_contents('/etc/squid3/squid.conf',
      $gatewaysData['data']['squid_conf']);
                                                                           $gatewaysData['data']['squid_conf']);
                      // TODO: Apply redundant squid
                                                                                           // TODO: Apply global redundant squid
     configuration to all redundant processes
                                                                           configuration to all redundant processes
                                                                     404
                      file_put_contents('/etc/squid3/squid-
                                                                                           file_put_contents('/etc/squid3/squid-
      redundant.conf', $gatewaysData['data']
                                                                           redundant.conf', $gatewaysData['data']
      ['squid_redundant_conf']);
                                                                           ['squid_redundant_conf']);
                                                                     405
274
                                                                     406
                      // Save and apply sysctl settings
                                                                                           // Save and apply sysctl settings
```

```
428
                                                                     429
                                                                     430
                                                                                            $firewallRules = $this-
                      // Retrieve firewall rules
                                                                           >_configureFirewallRules($gatewaysData, true);
                      $firewallRules = $this-
      >_configureFirewallRules($gatewaysData);
300
                                                                     431
301
                      // Save Squid ACLs from API to file
                                                                     432
                                                                                            // Save Squid ACLs from API to file
                      shell_exec('rm
                                                                     433
                                                                                            shell_exec('rm
      /etc/squid3/proxy_ip_acl.conf');
                                                                           /etc/squid3/proxy_ip_acl.conf');
303
                                                                     434
                      shell_exec('touch
                                                                                            shell_exec('touch
      /etc/squid3/proxy_ip_acl.conf');
                                                                           /etc/squid3/proxy_ip_acl.conf');
304
                                                                     435
      file_put_contents('/etc/squid3/proxy_ip_acl.conf',
                                                                            file_put_contents('/etc/squid3/proxy_ip_acl.conf',
      implode("\n", $gatewaysData['data']['acls']));
                                                                            implode("\n", $gatewaysData['data']['acls']));
                                                                     436
                      // Set proxy usernames and passwords using
                                                                     437
                                                                                            // Set proxy usernames and passwords using
                                                                           htpasswd and basic_ncsa_auth for security
      htpasswd and basic_ncsa_auth
                                                                     438
                      shell_exec('htpasswd -cb
                                                                                            shell_exec('htpasswd -cb
      /etc/squid3/passwords default default');
                                                                            /etc/squid3/passwords default default');
308
                                                                     439
                      shell_exec('htpasswd -D
                                                                                            shell_exec('htpasswd -D
      /etc/squid3/passwords default');
                                                                            /etc/squid3/passwords default');
309
                                                                     440
                                                                     445
                      }
                                                                                            }
                                                                     446
                      // Apply redundant firewall rules to begin
                                                                     447
                                                                                            // Apply redundant firewall rules to begin
      seamless reconfiguration
                                                                            seamless reconfiguration
                                                                     448
                      unlink('/scripts/iptables/iptables-
                                                                                            $this->_applyFirewallRules($firewallRules,
      redundant');
                                                                            'redundant'):
                      touch('/scripts/iptables/iptables-
      redundant');
                                                                     449
                      foreach ($rules as $ruleChunk) {
                                                                     450
                                                                                            // Reconfigure existing SOCKS processes
                                                                           first once redundant firewall is applied
                               $saveRules = implode("\n",
      $ruleChunk);
                              shell_exec('echo "' . $saveRules .
      '" >> /scripts/iptables/iptables-redundant');
                      }
                      shell_exec('iptables-restore <</pre>
      /scripts/iptables/iptables-redundant');
                      sleep(5);
                      shell_exec('iptables-save');
                      // Reconfigure existing SOCKS process
      first once redundant firewall is applied
                                                                     451
                      if (
                                                                                            if (
                               !empty($gatewaysData['data']
                                                                     452
                                                                                                    !empty($gatewaysData['data']
      ['socks']) &&
                                                                            ['socks']) &&
                                                                     453
                               !empty($this->processes['socks']
                                                                                                    !empty($this->processes['socks']
      [0])
                                                                            [0])
                                                                     454
                      ) {
                                                                                            ) {
334
                               // Check for alive primary SOCKS 5
                                                                     455
                                                                                                    // SOCKS config and ACLs are in
      port
                                                                           the same file (TODO: move squid configuration and ACLs to
                                                                           same file for consistency)
                               $socksAlive = false;
                              foreach ($this->processes['socks']
      [0] as $socksPort) {
                                       if (($socksAlive = $this-
      >_checkPort($proxies[0], $socksPort, 'socks')) === true) {
                                               break:
```

```
340
                              $this->_reconfigure('socks',
      '3proxy.cfg', '/usr/local/etc/3proxy/3proxy.pid',
      '/usr/local/etc/3proxy/3proxy.cfg', $gatewaysData['data']
      ['socks'], 10, 20);
                              sleep(10);
346
                                                                     456
      file_put_contents('/usr/local/etc/3proxy.cfg',
                                                                           file_put_contents('/usr/local/etc/3proxy.cfg',
      $gatewaysData['data']['socks']);
                                                                           $gatewaysData['data']['socks']);
347
                              $socksProcess =
      array_filter(explode("\n", exec('ps -fC 3proxy.cfg')));
                              if (!empty($socksProcess[0])) {
                                      $splitSocksProcess =
      array_values(array_filter(explode(' ',
      $socksProcess[0])));
                                      if (
      !empty($splitSocksProcess[1]) &&
      is_numeric($splitSocksProcess[1])
                                               $shell =
      '#!/bin/bash';
                                              $shell .= "\n" .
      'kill ' . ($socksAlive ? '-SIGUSR1 ' : '') .
      trim($splitSocksProcess[1]);
      unlink('/scripts/socks.sh');
      file_put_contents('/scripts/socks.sh', $shell);
                                              shell_exec('chmod
      +x /scripts/socks.sh');
      shell_exec('/scripts/./socks.sh');
364
                                      if (!$socksAlive) {
      unlink('/usr/local/etc/3proxy/3proxy.pid');
                                              sleep(10);
      shell_exec('service 3proxy start');
370
                                                                     457
                                                                                                   // Reconfigure main SOCKS instance
                              // Add raw 20 second delay between
      SOCKS and HTTP reconfiguration as necessary
                                                                     459
                              sleep(20);*/
                                                                                                   $this->_reconfigure(
                                                                     460
                                                                                                           'socks',
                                                                     461
                                                                                                            '3proxy',
                                                                     462
                                                                                                           null,
                                                                     463
                                                                                                           null,
                                                                     464
                                                                                                           '3proxy.cfg',
                                                                     465
                                                                           '/usr/local/etc/3proxy/3proxy.pid',
                                                                     466
                                                                                                           10.
                                                                     467
                                                                                                           20
                                                                     468
                                                                                                   );
```

```
469
                      }
374
                                                                     470
                                                                     471
                                                                                            // Reconfigure main HTTP instance
                      /*
                      $mainResponse = shell_exec('squid3 -k
                                                                     472
                                                                                            $this->_reconfigure(
      reconfigure');
                                                                     473
                                                                                                     'http',
                      if (strpos(strtolower($mainResponse), '
                                                                     474
                                                                                                     'squid3',
      error:') !== false) {
                              exec('ps -fC squid3 2>&1',
                                                                     475
                                                                                                     'squid3 -k reconfigure',
      $processes);
                                                                     476
                                                                                                     ' error:',
                                                                     477
                                                                                                     'squid3',
                                                                     478
                                                                                                     '/var/run/squid3.pid',
                                                                     479
                                                                                                    70
                                                                     481
                                                                                            );
                                                                     482
                                                                     483
                              if (!empty($processes[0])) {
                                                                                            $redundantProcesses = $this-
                                                                            >processes['http']; // TODO: chunk and reconfigure HTTP
                                                                            and SOCKS processes simultaneously
                                       unset($processes[0]);
                                                                     484
                                                                                            unset($redundantProcesses[0]);
                                                                     485
                                                                                            $redundantProcessChunks =
                                                                            array chunk($redundantProcesses, 5, true);
                                                                     486
                                       foreach ($processes as
                                                                     487
                                                                                            foreach ($redundantProcessChunks as
      $process) {
                                                                            $redundantProcessChunk) {
                                                                     488
                                               $processColumns =
                                                                                                    // Define active redundant process
      array_values(array_filter(explode(' ', $process)));
                                                                            numbers
                                                                     489
                                                                                                    $activeRedundantProcesses =
                                                                            array_keys($redundantProcesses);
                                                                     490
                                                                     491
                                               if
                                                                                                    // Define redundant process number
      (!empty($processColumns[1])) {
                                                                            range for reconfiguration
                                                                                                     reset($redundantProcessChunk):
      $killProcesses[] = $processColumns[1];
                                                                                                     $redundantProcessStart =
                                                                            key($redundantProcessChunk);
                                       }
                                                                                                    end($redundantProcessChunk);
                                                                     495
                                                                                                    $redundantProcessEnd =
                                                                            key($redundantProcessChunk);
                                                                                                    $redundantProcessRange =
                                                                            range($redundantProcessStart, $redundantProcessEnd);
                                                                     498
                                                                                                    foreach ($redundantProcessRange as
      (!empty($killProcesses)) {
                                                                            $redundantProcess) {
                                               $shell =
      '#!/bin/bash';
                                                                            unset($activeRedundantProcesses[$redundantProcess - 1]);
                                               foreach
      ($killProcesses as $killProcess) {
                                                       $shell .=
      "\n" . 'kill ' . trim($killProcess);
                                               }
      unlink('/scripts/http.sh');
      file_put_contents('/scripts/http.sh', $shell);
401
                                               shell_exec('chmod
      +x /scripts/http.sh');
      shell_exec('/scripts/./http.sh');
403
```

```
500
405
                                                                      501
                                                                      502
                               unlink('/var/run/squid3.pid');
                                                                                                     // Get list of active redundant
                                                                            ports for firewall configuration
407
                                                                      503
                                                                                                     $activeRedundantPorts = array();
                               sleep(3);
408
                               shell_exec('squid3 start');
409
410
                       sleep(70);
412
                       unlink('/scripts/iptables/iptables-
      redundant');
413
                      shell_exec('php
      /scripts/firewall_redundant.php
      ports6+ports7+ports8+ports9+ports10');
414
415
                      foreach (range(1, 5) as $instance) {
416
                               $instance = $instance == 1 ? '' :
      $instance;
417
                               exec('squid3-redundant' .
      $instance . ' -k reconfigure -f /etc/squid3/squid-
      redundant' . $instance . '.conf 2>&1',
      $redundantResponse);
418
                               $redundantResponse =
      array_shift($redundantResponse);
419
420
      (strpos(strtolower($redundantResponse), ' error:') !==
421
                                       exec('ps -fC squid3-
      redundant 2>&1', $processes);
422
423
                                       if (!empty($processes[0]))
      {
424
      unset($processes[0]);
425
426
                                               foreach
      ($processes as $process) {
427
      $processColumns = array_values(array_filter(explode(' ',
      $process)));
428
429
                                                        if (
430
      !empty($processColumns[1]) &&
431
      in_array('/etc/squid3/squid-redundant' . $instance .
      '.conf', $processColumns)
432
                                                        ) {
433
      $killProcesses[] = $processColumns[1];
434
                                                        }
435
                                               }
436
437
                                               if
      (!empty($killProcesses)) {
438
                                                        $shell =
      '#!/bin/bash';
439
440
                                                        foreach
                                                                      505
                                                                                                     foreach ($redundantProcesses as
      ($killProcesses as $killProcess) {
                                                                            $key => $redundantProcess) {
441
                                                                                                             if (in_array($key,
      $shell .= "\n" . 'kill ' . trim($killProcess);
                                                                            $activeRedundantProcesses)) {
```

```
442
                                                                     507
                                                                            $activeRedundantPorts = array_merge($activeRedundantPorts,
                                                                            $redundantProcesses[$key]);
444
      unlink('/scripts/http.sh');
445
      file_put_contents('/scripts/http.sh', $shell);
      shell_exec('chmod +x /scripts/http.sh');
447
      shell_exec('/scripts/./http.sh');
448
449
                                                                                                             }
450
                                       shell_exec('rm
      /var/run/squid-redundant' . $instance . '.pid');
452
                                       sleep(3);
                                       shell_exec('squid3-
      redundant' . $instance . ' start -f /etc/squid3/squid-
      redundant' . $instance . '.conf');
                              }
                                                                                                    }
455
456
457
                      sleep(70);
                      shell_exec('php
      /scripts/firewall_redundant.php
      ports1+ports2+ports3+ports4+ports5');
459
                      foreach (range(6, 10) as $instance) {
461
                              exec('squid3-redundant'.
      $instance . ' -k reconfigure -f /etc/squid3/squid-
      redundant' . $instance . '.conf 2>&1',
      $redundantResponse);
462
                              $redundantResponse =
      array_shift($redundantResponse);
463
464
      (strpos(strtolower($redundantResponse), ' error:') !==
      false) {
                                       exec('ps -fC squid3-
      redundant 2>&1', $processes);
467
                                       if (!empty($processes[0]))
                                                                                                    $overridePorts = array(
                                                                                                             'http' =>
      unset($processes[0]);
                                                                            array_merge(array(
                                                                                                                     '80',
470
                                               foreach
                                                                      514
                                                                                                                     '8888',
      ($processes as $process) {
471
                                                                                                                     '55555'
      $processColumns = array_values(array_filter(explode(' ',
      $process)));
472
                                                                                                             ), $activeRedundantPorts),
473
                                                       if (
                                                                                                             'socks' => array(
474
                                                                                                                     '1090'
      !empty($processColumns[1]) &&
475
      in_array('/etc/squid3/squid-redundant' . $instance .
      '.conf', $processColumns)
476
                                                       ) {
                                                                      520
                                                                                                    );
477
      $killProcesses[] = $processColumns[1];
```

```
478
                                                       }
                                                                                                    $firewallRules = $this-
                                                                           >_configureFirewallRules($gatewaysData, false,
                                                                           $overridePorts);
                                               }
                                                                           unlink('/scripts/iptables/iptables-redundant');
                                                                                                    $this-
                                                                           >_applyFirewallRules($firewallRules, 'elastic');
481
                                               if
      (!empty($killProcesses)) {
482
                                                       $shell =
                                                                                                    foreach ($redundantProcessRange as
      '#!/bin/bash';
                                                                            $redundantProcess) {
                                                                                                            // Reconfigure redundant
                                                                           HTTP instances
                                                                                                            $this->_reconfigure(
                                                       foreach
      ($killProcesses as $killProcess) {
                                                                                                                     'http',
      $shell .= "\n" . 'kill ' . trim($killProcess);
                                                                                                                     'squid3-redundant'
                                                                            . $redundantProcess,
487
                                                                                                                     'squid3-redundant'
                                                                            . $redundantProcess . ' -k reconfigure -f
                                                                           /etc/squid3/squid-redundant' . $redundantProcess .
                                                                            '.conf',
488
                                                                                                                     ' error:',
      unlink('/scripts/http.sh');
                                                                                                                     'squid3-redundant'
      file_put_contents('/scripts/http.sh', $shell);
                                                                            . $redundantProcess,
                                                                     534
                                                                                                                     '/var/run/squid-
                                                                            redundant' . $redundantProcess . '.pid',
      shell_exec('chmod +x /scripts/http.sh');
491
      shell_exec('/scripts/./http.sh');
492
                                               }
                                                                                                            );
494
                                       shell_exec('rm
      /var/run/squid-redundant' . $instance . '.pid');
496
                                       sleep(3):
                                       shell_exec('squid3-
      redundant' . $instance . ' start -f /etc/squid3/squid-
      redundant' . $instance . '.conf');
                                                                                                    // Fixed delay necessary to
                                                                           circumvent connection errors from varying downtime during
                                                                            reconfiguration with bulk ACLs
                                                                     541
                                                                                                    sleep(75);
499
                      }
                                                                                            }
501
                      sleep(70);
                                                                     544
                                                                                            $overridePorts = array(
502
                                                                     545
                                                                                                     'http' => $this->processes['http']
                      shell_exec('php /scripts/firewall.php
      override');
                                                                     546
                                                                                            );
                                                                                            $firewallRules = $this-
                                                                     547
                                                                           >_configureFirewallRules($gatewaysData, false,
                                                                            $overridePorts);
                                                                                            $this->_applyFirewallRules($firewallRules,
                                                                            'elastic');
                      if (!empty($gatewaysData['data']['socks-
                                                                                            if (!empty($gatewaysData['data']['socks-
      redundant'])) {
                                                                            redundant'])) {
505
                              sleep(15);
                                                                            file_put_contents('/usr/local/etc/3proxy/3proxy.cfg',
                                                                            $gatewaysData['data']['socks']);
```

```
506
                               shell_exec('php
      /scripts/firewall.php'):
                               exec('curl --socks5-hostname ' .
      $proxies[0] . ':1090' . ' http://socks/ -v --connect-
      timeout 4 --max-time 4 2>&1', $socksResponseRedundant);
                               $socksResponseRedundant =
      end($socksResponseRedundant);
509
                               $socksAliveRedundant =
      (strpos(strtolower($socksResponseRedundant), 'empty reply
      ') !== false);
      file_put_contents('/usr/local/etc/3proxy/3proxy-
      redundant.cfg', $gatewaysData['data']['socks-redundant']);
                               $socksProcessRedundant =
      array_filter(explode("\n", exec('ps -fC 3proxy-
      redundant.cfg')));
                               if
      (\,!\,empty(\,\$socksProcessRedundant\,[\,\emptyset\,]\,))\  \, \{\,
514
      $splitSocksProcessRedundant =
      array_values(array_filter(explode(' ',
      $socksProcessRedundant[0]));
                                       if (
      !empty($splitSocksProcessRedundant[1]) &&
      is_numeric($splitSocksProcessRedundant[1])
520
                                                $shell =
      '#!/bin/bash';
                                                $shell .= "\n" .
      'kill ' . ($socksAliveRedundant ? '-SIGUSR1 ' : '') .
      trim($splitSocksProcessRedundant[1]);
      unlink('/scripts/socks.sh');
      file_put_contents('/scripts/socks.sh', $shell);
                                                shell_exec('chmod
      +x /scripts/socks.sh');
      shell_exec('/scripts/./socks.sh');
                                       if (!$socksAliveRedundant)
                                                                                                      // Reconfigure redundant SOCKS
      {
                                                                             instance
                                                                                                      $this->_reconfigure(
      unlink('/usr/local/etc/3proxy/3proxy-redundant.pid');
530
                                                                                                              'socks',
                                                sleep(10);
                                                                                                               '3proxy-redundant',
      shell_exec('service 3proxy-redundant start');
                                                                                                              null,
                               }
                                                                                                              null,
                                                                                                              '3proxy-redundant.cfg',
                                                                             '/usr/local/etc/3proxy/3proxy-redundant.pid',
                                                                                                              15,
                                                                      563
                                                                                                      );
                       }
                                                                                             }
                       shell_exec('php /scripts/firewall.php
                                                                                             $this->_applyFirewallRules($firewallRules,
```

```
override');
                                                                               'elastic');
                                                                        567
                                                                                                // Remove reconfiguration process ID
                       unlink('/scripts/pid/reconfigure.pid');
                                                                                                unlink('/scripts/pid/reconfigure.pid');
                       die();
                       */
                                                                                                // Memory cleanup
                                                                                                gc_collect_cycles();
                                                                         574
                                                                                                return true;
               }
                                                                                       }
541
542
                                                                                 /**
586
               }
                                                                        621
                                                                                       }
                                                                        622
        }
                                                                        623
                                                                                 }
590
      - // Debug code, remove later
      - $api = 'https://ghostproxies.com/gateways/api.json';
      - $processes = array(
               'http' => array(
                       array(
                                '80',
596
                                '8888',
                                '55555'),
                       array(
                                '4444',
                                '7777'
601
                       ),
602
                       array(
                                '55540',
604
                                '55541'
605
                       ),
606
                       array(
607
                                '55546',
                                '55547'
                       ),
                       array(
610
611
                                '55520',
612
                                '55521'
613
                       ),
614
                       array(
615
                                '55524',
616
                                '55525'
617
                       ),
618
                       array(
                                '55526',
619
620
                                '55527'
621
                       ),
622
                       array(
623
                                '55528',
624
                                '55529'
625
                       ),
626
                       array(
627
                                '55530',
628
                                '55531'
                       ),
630
                       array(
631
                                '55532',
632
                                '55533'
633
                       ),
634
                       array(
635
                                '55534',
                                '55535'
```

```
637
638
              ),
639
              'socks' => array(
640
                      array(
641
                               '1085'
642
                      ),
643
                      array(
644
                               '1090'
645
                      )
646
647
      - );
648
      - $sshPorts = array(
649
              '22',
650
              '5000'
651
      -);
653
      - $dynamicProxyReconfiguration = new
      DynamicProxyReconfiguration($api, $processes, $sshPorts);
      - $status = $dynamicProxyReconfiguration-
      >start('apply_reconfiguration');
655
656
      - print_r($status);
657
      - die();
                                                                     624
658
        ?>
                                                                              ?>
659
      - Add support for additional HTTP and SOCKS proxy servers
662
      - Apply proxy redundancy configuration from API to all
      redundant processes
663
      - Start additional redundancy processes when CPU exceeds
      x%, provide option to terminate redundant processes if
      average CPU usage is below x%
```

0 comments on commit d09e8c2