APPENDIX B

Perl Client

This appendix provides information about the Perl client, installing ActiveState Perl, and the SOAP:Lite package.

This appendix contains the following sections:

Before executing the Perl script, install ActiveState Perl and the SOAP:Lite package.

Installing Perl

Step 1 Download Perl from http://www.perl.org/get.html

Note Choose and download the appropriate Perl version for your operating system.

Step 2 Run the downloaded executable file to install Perl.

Step 3 To verify whether Perl has been installed properly, use the **perl -v** CLI command in the command prompt.
If the installation is proper, the details of the installed version of Perl are displayed.

Installing SOAP:Lite

Download SOAP:Lite from http://search.cpan.org/dist/SOAP-Lite/.

Note Choose and download the appropriate SOAP:Lite version for your operating system.

To install SOAP:lite, follow these steps:

Step 1 Using the command prompt, browse to the directory where the Makefile.PL is located in the downloaded SOAP:Lite package.

Step 2 Use the **perl Makefile.PL -noprompt** CLI command to install the SOAP:Lite package.

Step 3 Download nmake utility for Windows from ftp://ftp.microsoft.com/Softlib/MSLFILES/Nmake15.exe.

Step 4 Extract the downloaded Nmake15.exe
You will find two files, NMAKE.exe and NMAKE.ERR.
Copy both the NMAKE.exe and NMAKE.ERR files to the installed Perl bin directory.

Step 5 Complete the SOAP:Lite installation by entering the following commands for Windows and Linux machines:

```
nmake
nmake test
nmake install
```

For more information on installing SOAP:Lite, see http://soaplite.com/install.html.

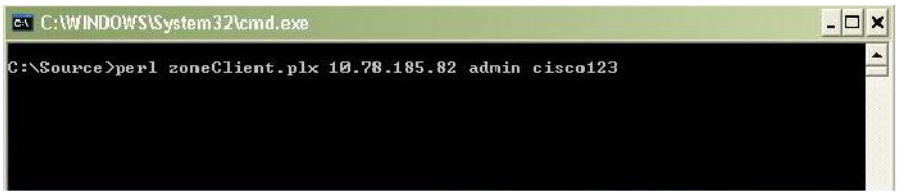
Running the Perl Clients

Note To run a Perl client, the client file and its module file need to be in the same Perl folder.

From the Perl folder where the source files exist, enter the following command:

```
perl Client-File-Name FM-Server-IP Username password
```

Figure B-1 Running a Perl Client



Running the Zone Client

To run the zone client, the files zoneClient.plx and zoneModule.plx need to be in same directory.

From the Perl folder where the source files exist, enter the following command:

```
perl zoneClient.plx FM-Server-IP Username password
```

Running the Statistics Client

To run the statistics client, the files statistics.plx and statisticsModule.plx need to be in same directory.

From the Perl folder where the source files exist, enter the following command:

perl *statistics.plx FM-Server-IP Username password*

Sample Code

Note

- The sample code provided here works only with DCNM release 6.1(x) and later. For prior DCNM versions, you need to make changes to the namespace base on the WSDL.
- To collect statistics related data, you need to turn on the PM.

Example B-1 ZoneClient.plx

```
# File: zoneClient.plx
# Name: Shailin Saraiya
# Description: zoneClient

# Variables

my $username;
my $password;
my $vsanId = 01;
my $vsan_wwn = '20:01:00:0d:ec:19:6a:81';
my $wwn = '20:00:00:0d:ec:19:6a:80';
my $zoneName = 'test5';
my $readOnly = 0;
my $broadcast = 0;
my $qos = 0;
my $qosPriority = -1;
my $zoneMemberType = 1;
my $zoneMemberFormat = 1;
my $zoneMemberIvrFabricIndex = -1;
my $zoneMemberIvrVsanIndex = -1;
my $zoneMemberId = 'b1a2334455667788';
my $zoneLastModtime = 0;
my $zoneMemberLunId = '';
my $zoneMemberDbId = 0;
my $zoneisIvr = 0;
my $zoneSetName = 'ZoneSet5';
my $active = 0;

require 'zoneModule.plx';
 ($url,$username,$password) = @ARGV;
# Getting Token
my $token = getToken($url,$username,$password);
if(!$token) {
print "\nError in getToken call \n";
goto exit;
}
# Creating Zone
my $zoneIndex =
createZone($token,$vsanId,$vsan_wwn,$wwn,$zoneName,$readOnly,$broadcast,$qos,$qosPriority)
;

if(!$zoneIndex) {
print "\nError in createZone call \n";
goto exit;
}
# Adding Member to Zone
```

```
my $status =
addZoneMemberToZone($token,$vsanId,$vsan_wwn,$wwn,$zoneName,$zoneMemberType,$zoneMemberFor
mat,$zoneMemberIvrFabricIndex,$zoneMemberIvrVsanIndex,$zoneMemberId,$zoneMemberLunId);
if(!$status) {
print "\nError in addZoneMemberToZone call \n";
goto exit;
}
# Creating ZoneSet
my $zoneSetIndex = createZoneSet($token,$vsanId,$vsan_wwn,$wwn,$zoneSetName);
  if(!$zoneSetIndex) {
 print "\nError in createZoneSet call \n";
 goto exit;
 }
# Add Zone to ZoneSet
my $status =
addZoneToZoneset($token,$vsanId,$vsan_wwn,$wwn,$zoneIndex,$zoneName,$readOnly,$broadcast,$
qos,$qosPriority,$zoneMemberDbId,$zoneMemberType,$zoneLastModtime,$zoneMemberLunId,$zoneis
Ivr,$zoneSetIndex,$zoneSetName,$active);
if(!$status) {
print "\nError in addZoneToZoneset call \n";
goto exit;
}
# Activate ZoneSet
$status = activateZoneset($token,$vsanId,$vsan_wwn,$wwn,$zoneSetName);
if(!$status) {
print "\nError in activateZoneset call \n";
goto exit;
}
else {
print "successful \n";
}
exit:
```

Example B-2 ZoneModule.plx

```
use SOAP::Lite;
# Get Token
sub getToken {
      my $url;
      my $username;
      my $password;
   ($url,$username,$password) = @_;
      # Setting uri and proxy


      my $client = SOAP::Lite
      #->uri('http://ep.jaxws.dcbu.cisco.com/')
    ->proxy('https://'.$url.'/LogonWSService/LogonWS?wsdl')
    ->ns('http://ep.jaxws.dcbu.cisco.com/','namesp1');
      my $username = SOAP::Data->type('string')->name('username')->value($username);
      my $password = SOAP::Data->type('string')->name('password')->value($password);
      my $expiration = SOAP::Data->type('long')->name('expiration')->value(100000000);
      # Calling requestToken method
         my $result = $client->requestToken($username,$password,$expiration);
      # check for error
      unless ($result->fault) {
      my $token =  $result->result();
      return $token;
      } else {
      # error handling
      print join ', ',
        $result->faultcode,
```

```
        $result->faultstring,
        $result->faultdetail;
      return 0
      }
}


# Create Zone

sub createZone {

    my $token;
    my $arg_vsanId;
    my $arg_vsanwwn;
    my $arg_wwn;
    my $arg_zoneName;
    my $arg_readOnly;
    my $arg_broadcast;
    my $arg_qos;
    my $arg_qosPriority;

($token,$arg_vsanId,$arg_vsanwwn,$arg_wwn,$arg_zoneName,$arg_readOnly,$arg_broadcast,$arg_
qos,$arg_qosPriority) = @_;
my $VsanKey = SOAP::Data->name("vsanKey" => \SOAP::Data->value(
                              SOAP::Data->name("vsanID" => $arg_vsanId),
    SOAP::Data->name("pWwn" => \SOAP::Data->value(SOAP::Data->name("value"   =>
$arg_vsanwwn)))->type("Wwn")))->type("VsanKey");
my $Wwn = SOAP::Data->name("switchKey" => \SOAP::Data->value(
     SOAP::Data->name("wwn" =>
\SOAP::Data->value(SOAP::Data->name("value"=>$arg_wwn)))->type("Wwn")))->type("WwnKey");
    my $zName = SOAP::Data->name("zoneName"=>$arg_zoneName);
    my $readOnly = SOAP::Data->name("readOnly")->value($arg_readOnly);
    my $broadcast = SOAP::Data->name("broadcast")->value($arg_broadcast);
    my $qos = SOAP::Data->type('boolean')->name("qos")->value($arg_qos);
    my $qosPriority =
SOAP::Data->type('int')->name("qosPriority")->value($arg_qosPriority);

    # Setting header
     my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');
    my $client = SOAP::Lite
           #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
           ->proxy('https://'.$url.'/ZoneManagerWSService/ZoneManagerWS?wsdl')
                  ->ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp2');
    # Calling createZone method
my $result =
$client->createZone($header,$VsanKey,$Wwn,$zName,$readOnly,$broadcast,$qos,$qosPriority);
    unless ($result->fault) {
          return $result->valueof('//index');
    } else {
        print join ', ',
              $result->faultcode,
              $result->faultstring,
              $result->faultdetail;
        return 0;
          }
    }

# Adding Zone Member To Zone

sub addZoneMemberToZone {
    my $token;
    my $arg_vsanId;
```

```
    my $arg_wwn;
    my $arg_vsanwwn;
    my $arg_zoneName;
    my $arg_zoneMemberType;
    my $arg_zoneMemberFormat;
    my $arg_zoneMemberIvrFabricIndex;
    my $arg_zoneMemberIvrVsanIndex;
    my $arg_zoneMemberId;
    my $arg_zoneMemberLunId;


($token,$arg_vsanId,$arg_vsanwwn,$arg_wwn,$arg_zoneName,$arg_zoneMemberType,$arg_zoneMembe
rFormat,$arg_zoneMemberIvrFabricIndex,$arg_zoneMemberIvrVsanIndex,$arg_zoneMemberId,$arg_z
oneMemberLunId) = @_;
    my @hex    = ($arg_zoneMemberId =~ /(..)/g);
    my @dec    = map { hex($_) } @hex;
    my @zoneMemberId  = map { pack('C',$_) } @dec;
    my $arg_zoneMemberId = join("",@zoneMemberId);

    my $client = SOAP::Lite
              #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
              ->proxy('https://'.$url.'/ZoneManagerWSService/ZoneManagerWS?wsdl')
              ->ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp3');
    my $VsanKey = SOAP::Data->name("vsanKey" => \SOAP::Data->value(
              SOAP::Data->name("vsanID" => $arg_vsanId),
              SOAP::Data->name("pWwn" => \SOAP::Data->value(SOAP::Data->name("value" =>
$arg_vsanwwn)))->type("Wwn")))->type("VsanKey");
    my $Wwn = SOAP::Data->name("switchKey" => \SOAP::Data->value(
          SOAP::Data->name("wwn" =>
\SOAP::Data->value(SOAP::Data->name("value"=>$arg_wwn)))->type("Wwn")))->type("WwnKey");
    my $zName = SOAP::Data->name("zoneName"=>$arg_zoneName);
    my $zMemberType = SOAP::Data->name("zoneMemberType")->value($arg_zoneMemberType);
    my $zMemberFormat =
SOAP::Data->name("zoneMemberFormat")->value($arg_zoneMemberFormat);
    my $zMemberIvrFabricIndex =
SOAP::Data->name('zoneMemberIvrFabricIndex')->value($arg_zoneMemberIvrFabricIndex);
    my $zMemberIvrVsanIndex =
SOAP::Data->type('int')->name("zoneMemberIvrVsanIndex")->value($arg_zoneMemberIvrVsanIndex
);
    my $zMemberId = SOAP::Data->name("zoneMemberId")->value($arg_zoneMemberId);
    my $zMemberLunId = SOAP::Data->name("zoneMemberLunId")->value(arg_zoneMemberLunId);


    my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');
        my $result =
$client->addZoneMemberToZone($header,$VsanKey,$Wwn,$zName,$zMemberType,$zMemberFormat,$zMe
mberIvrFabricIndex,$zMemberIvrVsanIndex,$zMemberId,$zMemberLunId);
    unless ($result->fault) {
            return 1;
    }
    else {
    print join ', ',
          $result->faultcode,
          $result->faultstring,
          $result->faultdetail;
    return 0;
    }
}

# Creating ZoneSet

sub createZoneSet {
```

```
    my $token;
    my $arg_vsanId;
    my $arg_vsanwwn;
    my $arg_wwn;
    my $arg_zoneSetName;

    ($token,$arg_vsanId,$arg_vsanwwn,$arg_wwn,$arg_zoneSetName) = @_;
    my $client = SOAP::Lite
            #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
            ->proxy('https://'.$url.'/ZoneManagerWSService/ZoneManagerWS?wsdl')
               ->ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp4');
    # Creating complex data type

    my $VsanKey = SOAP::Data->name("vsanKey" => \SOAP::Data->value(
              SOAP::Data->name("vsanID" => $arg_vsanId),
              SOAP::Data->name("pWwn" => \SOAP::Data->value(SOAP::Data->name("value" =>
$arg_vsanwwn)))->type("Wwn")))->type("VsanKey");
    my $Wwn = SOAP::Data->name("switchKey" => \SOAP::Data->value(
          SOAP::Data->name("wwn" =>
\SOAP::Data->value(SOAP::Data->name("value"=>$arg_wwn)))->type("Wwn")))->type("WwnKey");
    my $zSetName = SOAP::Data->name("zoneSetName"=>$arg_zoneSetName);

    # Setting header

    my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');

    # Calling createZone method

    my $result = $client->createZoneSet($header,$VsanKey,$Wwn,$zSetName);

    unless ($result->fault) {
          return $result->valueof('//index')."\n";
     } else {
        print join ', ',
              $result->faultcode,
              $result->faultstring,
              $result->faultdetail;
    return 0;
      }
    }


# Adding Zone to ZoneSet
sub addZoneToZoneset {
    my $token;
    my $arg_vsanId;
    my $arg_vsanwwn;
    my $arg_wwn;
    my $arg_index;
    my $arg_zoneName;
    my $arg_readOnly;
    my $arg_broadcast;
    my $arg_qos;
    my $arg_qosPriority;
    my $arg_zoneMemberDbId;
    my $arg_zoneLastModtime;
    my $arg_memberType;
    my $arg_zoneMemberLunId;
    my $arg_isIvr;
    my $arg_zoneSetindex;
    my $arg_zoneSetName;
```

```
    my $active;


($token,$arg_vsanId,$arg_vsanwwn,$arg_wwn,$arg_index,$arg_zoneName,$arg_readOnly,$arg_broa
dcast,$arg_qos,$arg_qosPriority,$arg_zoneMemberDbId,$arg_memberType,$arg_zoneLastModtime,$
arg_zoneMemberLunId,$arg_isIvr,$arg_zoneSetindex,$arg_zoneSetName,$active) = @_;

    my $client = SOAP::Lite
            #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
            ->proxy('https://'.$url.'/ZoneManagerWSService/ZoneManagerWS?wsdl')
               ->ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp5');
    # Creating complex data type

    my $VsanKey = SOAP::Data->name("vsanKey" => \SOAP::Data->value(
              SOAP::Data->name("vsanID" => $arg_vsanId),
              SOAP::Data->name("pWwn" => \SOAP::Data->value(SOAP::Data->name("value" =>
$arg_vsanwwn)))->type("Wwn")))->type("VsanKey");
    my $Wwn = SOAP::Data->name("switchKey" => \SOAP::Data->value(
          SOAP::Data->name("wwn" =>
\SOAP::Data->value(SOAP::Data->name("value"=>$arg_wwn)))->type("Wwn")))->type("WwnKey");
    my $zoneDO = SOAP::Data->name("zoneDo"=> \SOAP::Data->value(
             SOAP::Data->name("index"=>$arg_index),
                 SOAP::Data->name("name"=>$arg_zoneName),
             SOAP::Data->name("readonly"=>$arg_readonly),
             SOAP::Data->name("qos"=>$arg_qos),
             SOAP::Data->name("qosPriority"=>arg_qosPriority),
             SOAP::Data->name("broadcast"=>$arg_broadcast),
                 SOAP::Data->name("active"=>$active),
             SOAP::Data->name("zoneLastModtime"=>arg_zoneLastModtime),
                 SOAP::Data->name("zoneMemberDbId"=>$arg_zoneMemberDbId),
                 SOAP::Data->name("vsanId"=>$arg_vsanId),
             SOAP::Data->name("isIvr"=>$arg_isIvr),
             SOAP::Data->name("memberType"=>$arg_memberType),
             SOAP::Data->name("lunId"=>$arg_zoneMemberLunId)))->type("zone");
    my $zoneSetDO = SOAP::Data->name("zoneSetDo"=> \SOAP::Data->value(
            SOAP::Data->name("index"=>$arg_zoneSetindex),
            SOAP::Data->name("name"=>$arg_zoneSetName),
            SOAP::Data->name("active"=>$active),
            SOAP::Data->name("zoneLastModified"=>$arg_zoneLastModtime)))->type("ZoneSet");

    # Setting header

    my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');

    # Calling addZonetoZoneSet method

    my $result = $client->addZoneToZoneset($header,$VsanKey,$Wwn,$zoneDO,$zoneSetDO);

    unless ($result->fault) {
        return 1;
    } else {
        print join ', ',
              $result->faultcode,
              $result->faultstring,
              $result->faultdetail;
      return 0;
      }
}

#Actvating ZoneSet

sub activateZoneset {
```

```
    my $token;
    my $arg_vsanId;
    my $arg_vsanwwn;
    my $arg_wwn;
    my $arg_zoneSetName;


    ($token,$arg_vsanId,$arg_vsanwwn,$arg_wwn,$arg_zoneSetName) = @_;

    my $client = SOAP::Lite
        #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
        ->proxy('https://'.$url.'/ZoneManagerWSService/ZoneManagerWS?wsdl')
            ->ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp6');
       # Creating complex data type

       my $VsanKey = SOAP::Data->name("vsanKey" => \SOAP::Data->value(
                 SOAP::Data->name("vsanID" => $arg_vsanId),
                   SOAP::Data->name("pWwn" => \SOAP::Data->value(SOAP::Data->name("value"
=> $arg_vsanwwn)))->type("Wwn")))->type("VsanKey");
    my $Wwn = SOAP::Data->name("switchKey" => \SOAP::Data->value(
          SOAP::Data->name("wwn" =>
\SOAP::Data->value(SOAP::Data->name("value"=>$arg_wwn)))->type("Wwn")))->type("WwnKey");
    my $zSetName = SOAP::Data->name("zoneSetName"=>$arg_zoneSetName);

       # Setting header

    my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');

     # Calling activateZoneset method

       my $result = $client->activateZoneset($header,$VsanKey,$Wwn,$zSetName);
       unless ($result->fault) {
       return 1;
       } else {
           print join ', ',
                 $result->faultcode,
                  $result->faultstring,
                 $result->faultdetail;
         return 0;
         }
    }
    1;
```

Example B-3 StatisticsClient.plx

```
# File: StatisticsClient.plx
# Name: Shailin Saraiya
# Description: Statistics Client

# Variables

my $username;
my $password;
my $url;
my $fabricDbId = -1;
my $switchDbId = -1;
my $vsanDbId = -1;
my $sortField = 'rxTxStr';
my $sortType = 'DESC';
```

```
my $limit = NaN;
my $groupId = -1;
my $isGroup = 0;
my $networkType ='SAN';
my $filterStr = '';
my $temp = '24 Hours';
my $startIdx = 0;
my $recordSize = 45;
my $interval = 1;
require 'statisticsModule.plx';

($url,$username,$password) = @ARGV;


# Getting Token
my $token = getToken($url,$username,$password);
 ($rrdFile,$fid,$pmType) =
getIslStatList($token,$fabricDbId,$switchDbId,$vsanDbId,$sortField,$sortType,$limit,$group
Id,$isGroup,$networkType,$filterStr,$temp,$startIdx,$recordSize);
for (my $i=0;$i<1;$i++) {
    getPmChartData($token,@$rrdFile[$i],@$pmType[$i],@$fid[$i],$interval) . "\n";

}
```

Example B-4 StatisticsModule.plx

```
use SOAP::Lite;
use Time::Local;

# Get Token
$url = '';

sub getToken {
      my $username;
      my $password;
       ($url,$username,$password) = @_;

      # Setting uri and proxy

      my $client = SOAP::Lite
      #->uri('http://ep.jaxws.dcbu.cisco.com/')
    ->proxy('https://'.$url.'/LogonWSService/LogonWS?wsdl')
        -> ns('http://ep.jaxws.dcbu.cisco.com/','namesp1');
        #-> autotype(0)
        #-> readable(1);
      my $username = SOAP::Data->type('string')->name('username')->value($username);
      my $password = SOAP::Data->type('string')->name('password')->value($password);
      my $expiration = SOAP::Data->type('long')->name('expiration')->value(100000000);

      # Calling requestToken method

      my $result = $client->requestToken($username,$password,$expiration);
           # check for error
      unless ($result->fault) {
          my $token =  $result->result();
      $token;
      } else {

      # error handling
      print join ', ',
        $result->faultcode,
        $result->faultstring,
```

```
        $result->faultdetail;
      }
}
sub getIslStatList {
    my $token;
    my $arg_fabricDbId;
    my $arg_switchDbId;
    my $arg_vsanDbId;
    my $arg_sortField;
    my $arg_sortType;
    my $arg_limit;
    my $arg_groupId;
    my $arg_isGroup;
    my $arg_networkType;
    my $arg_filterStr;
    my $arg_interval;
    my $arg_startIdx;
    my $arg_recordSize;



($token,$arg_fabricDbId,$arg_switchDbId,$arg_vsanDbId,$arg_sortField,$arg_sortType,$arg_li
mit,$arg_groupId,$arg_isGroup,$arg_networkType,$arg_filterStr,$arg_interval,$arg_startIdx,
$arg_recordSize) = @_;
       my $DbFilter= SOAP::Data->name("arg0" => \SOAP::Data->value(
             SOAP::Data->name("fabricDbId" => $arg_fabricDbId),
             SOAP::Data->name("switchDbId" => $arg_switchDbId),
             SOAP::Data->name("vsanDbId" => $arg_vsanDbId),
             SOAP::Data->name("sortField" => $arg_sortField),
             SOAP::Data->name("sortType" => $arg_sortType),
             SOAP::Data->name("limit" => $arg_limit),
             SOAP::Data->name("groupId" => $arg_groupId),
             SOAP::Data->name("isGroup" => $arg_isGroup)->type("boolean"),
             SOAP::Data->name("networkType" => $arg_networkType),
             SOAP::Data->name("filterStr" => $arg_filterStr)))->type("DbFilter");

    my $interval = SOAP::Data->type("string")->name("arg1")->value($arg_interval);
    my $data_startIdx = SOAP::Data->name("arg2"=>$arg_startIdx);
    my $data_recordSize = SOAP::Data->name("arg3"=>$arg_recordSize);

    # Setting header

    my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');
    #my $header = SOAP::Header->name('token')->prefix('m')->value($token)->type('string');
    my $client = SOAP::Lite
           #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
           ->proxy('https://'.$url.'/StatisticsWSService/StatisticsWS?wsdl')
                       -> ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp2');
                       #-> autotype(0)
                       #-> readable(1);

    # Calling getIslStatDataLength method
      my $result =
$client->getIslStatList($header,$DbFilter,$interval,$data_startIdx,$data_recordSize);
    unless ($result->fault) {
    print "\ngetIslStatList\n\n";
         my @fabric = $result->valueof('//item/fabric');
         my @title = $result->valueof('//item/title');
         my @maxTxStr = $result->valueof('//item/maxTxStr');
         my @maxRxStr = $result->valueof('//item/rxTxStr');
         my @rxTx = $result->valueof('//item/rxTx');
```

```
            my $count = @fabric;

            for(my $i=0;$i<10;$i++)
            {

               print "------------------------------------------------------------\n";
            print "Fabric -> " . $fabric[$i] . "\n";
            print "Title -> " . $title[$i] . "\n";
            print "maxTxStr -> " . $maxTxStr[$i] . "\n";
            print "maxRxStr -> " . $maxRxStr[$i] . "\n";
            print "rxTx -> " . $rxTx[$i] . "\n";
            print "------------------------------------------------------------\n";

            }

            my @rrdFile = $result->valueof('//item/rrdFile');
            my @fid = $result->valueof('//item/fid');
            my @pmType = $result->valueof('//item/pmtype');
            return (\@rrdFile,\@fid,\@pmType);

    } else {
        print join ', ',
              $result->faultcode,
              $result->faultstring,
              $result->faultdetail;
          }


}


sub getPmChartData {
    my $token;
    my $arg_rrd;
    my $arg_pmType;
    my $arg_fid;
    my $arg_interval;
    ($token,$arg_rrd,$arg_pmType,$arg_fid,$arg_interval) = @_;
    my $data_rrd = SOAP::Data->type("string")->name("arg0")->value($arg_rrd);
    my $data_pmType = SOAP::Data->name("arg1")->value($arg_pmType);

    my $data_fid = SOAP::Data->name("arg2"=>$arg_fid);
    my $data_interval = SOAP::Data->name("arg3"=>$arg_interval);

    # Setting header
    my $header =
SOAP::Header->name('token')->prefix('m')->value($token)->uri('http://ep.cisco.dcbu.cisco.c
om')->type('string');
    my $client = SOAP::Lite
            #->uri('http://ep.san.jaxws.dcbu.cisco.com/')
            ->proxy('https://'.$url.'/StatisticsWSService/StatisticsWS?wsdl')
                        -> ns('http://ep.san.jaxws.dcbu.cisco.com/','namesp3');
                        #-> autotype(0)
                        #-> readable(1);

    # Calling getPmChartData method
       my $result =
$client->getPmChartData($header,$data_rrd,$data_pmType,$data_fid,$data_interval);
    unless ($result->fault) {
    print "\n\nGetPmChartData\n\n";

          my @item = $result->valueof('//item/item');
          for(my $i=2;$i<30;$i=$i+3) {
          print "------------------------------------------------------------\n";
```

```
                print "Rx -> ".$item[$i-2]."\n";
                print "Tx -> ".$item[$i-1]."\n";
                print "Time -> ".scalar localtime($item[$i]) . "\n";
                print "------------------------------------------------------------\n";
                }
              } else {
              print join ', ',
                    $result->faultcode,
                    $result->faultstring,
                    $result->faultdetail;
                }
}

1;
```