

# Setting up PingER servers at Amity

They followed the instructions at [Installation Overview](#). They were able to download and install the files.

The cgi-bin directory appears as:


```
pingeramity@pingeramity:/usr/lib/cgi-bin$ ls
cgi-lib.pl ping_data.pl pinger_trimmer.pl traceroute.pl
pingeramity@pingeramity:/usr/lib/cgi-bin$
```

It would be good to get an ls -l to ensure the files are executable.

and /usr/local/share/pinger appears as:

```
File Edit View Search Terminal Help
pingeramity@pingeramity:~$ cd /usr/local/share/pinger/
pingeramity@pingeramity:/usr/local/share/pinger$ ls -l
total 152
-rw-r--r-- 1 root root 16844 Jan 28 13:35 beacons.txt
drwxr-xr-x 2 root root 4096 Jan 28 14:18 data
-rwxr-xr-x 1 root root 300 Jan 28 13:35 dnsV4Cmd.pl
-rwxr-xr-x 1 root root 5385 Jan 28 13:35 installCron.pl
-rw-r--r-- 1 root root 34443 Jan 28 13:35 pinger2.html
-rw-r--r-- 1 root root 52295 Jan 28 13:35 pinger2.pl
-rw-r--r-- 1 root root 0 Jan 29 17:00 pingerCronStat.stderr
-rw-r--r-- 1 root root 500 Jan 29 17:00 pingerCronStat.stdout
-rw-r--r-- 1 root root 20467 Jan 29 17:00 pinger.xml
-rw-r--r-- 1 root root 2512 Jan 28 13:35 pinger.xsd
pingeramity@pingeramity:/usr/local/share/pinger$
```

They then remotely logged in to test [traceroute.pl](#) file using <http://202.12.103.71/cgi-bin/traceroute.pl> which gives a [webpage](#). This page looks correct, just tap yes to get it to make the traceroute. It also works if I VPN into SLAC from my home in the Bay Area. After pressing Yes I get:



**traceroute from 127.0.1.1 (202.12.103.71) to 10.0.253.1 (10.0.253.1) for 10.0.253.1**

CGI script maintainer: [Les Cottrell, SLAC](#). Script version 6.52, 6/24/2015, Les Cottrell.  
[Download perl source code](#).

To perform a traceroute/ping/tracepath function from 202.12.103.71 to the target, enter the desired target [host domain](#) (e.g. www.yahoo.com) or [Internet address](#) (e.g. 137.138.28.228) in the box below. Note the function is performed for the target's resolved Internet address.

Enter target name or address:  then push 'Enter' key.

Lookup: [domain name](#) | [Locating a Host](#) | [visual traceroute](#) | [Find AS's between hosts](#) | [Find AS of a host](#) | [contacting someone](#)

Related web sites  
[Traceroute servers](#).  
[Monitoring tutorial](#).  
[Internet monitoring](#)  
[What is my IP address?](#)

Please note that traceroutes can appear similar to port scans. If you see a suspected port scan alert, for example from your firewall, with a series of ports in the range 33434 - 33465, coming from 202.12.103.71 it is probably a reverse traceroute from our web based reverse traceroute server. Please do NOT report this to us, it will almost certainly be a waste of both of our times. For more on this see [Traceroute security issues](#).

*10.0.253.1 is a private address*

*See [The Naming System](#) for information on host.domain and [Addresses](#) for information on Internet addresses.*

It appears that though the request is being made to 202.12.103.71 when traceroute.pl at Amity tries to get the IP address of the traceroute server at Amity it gets 127.0.1.1. I suggest adding some debugging statements to traceroute.pl around line 84 (or you can use the perl -dT option (see the lines following line 2 in traceroute.pl)) which reads:

```
use Net::Domain qw(hostname hostfqdn hostdomain);
my $hostname = hostfqdn();
my $ipv="4";#set default used by gethostbyname6 to decide if to force IPv6
my $ipaddr=gethostbyname6($hostname);
```

to trace what is happening and see if it is fixable (possibly hardcode the \$ipaddr).

I would sort this out before going onto ping\_data.pl. Once ping\_data.pl works (puts up its form) then debugging will be simpler.

**Update 2/3/2016**

pinger2.pl has been made executable

```

Activities [x] Terminal Mon 14:42
pingeramity@pingeramity: /usr/local/share/pinger

File Edit View Search Terminal Help

groff
The following NEW packages will be installed:
perl-doc
0 upgraded, 1 newly installed, 0 to remove and 23 not upgraded.
Need to get 7,266 kB of archives.
After this operation, 13.1 MB of additional disk space will be used.
OK (Waiting for headers)
Get:1 https://archive.ubuntu.com/ubuntu/pool/main/perl/perl-doc all 5.18.2-2ubuntu1 [7,266 kB]
Fetched 7,266 kB in 24s (86.1 kB/s)
Selecting previously unselected package perl-doc.
(Reading database ... 9364 files and directories currently installed.)
Preparing to unpack .../perl-doc_5.18.2-2ubuntu1_all.deb ...
Adding 'diversion of /usr/bin/perldoc to /usr/bin/perldoc.stub by perl-doc'
Unpacking perl-doc (5.18.2-2ubuntu1) ...
Processing triggers for man-db (2.6.7.1-1ubuntu1) ...
Setting up perl-doc (5.18.2-2ubuntu1) ...
pingeramity@pingeramity:~$ cd /usr/local/share/pinger/
pingeramity@pingeramity: /usr/local/share/pinger$ ls
beacons.txt data dnsV4Cnd.pl installCron.pl pinger2.html pinger2.pl pingerCronStat.stderr pingerCronStat.stdout pinger.xml pinger.xsd
chmod: changing permissions of 'pinger2.pl': Operation not permitted
pingeramity@pingeramity: /usr/local/share/pinger$ sudo chmod a+x pinger2.pl
pingeramity@pingeramity: /usr/local/share/pinger$ ls
beacons.txt data dnsV4Cnd.pl installCron.pl pinger2.html pinger2.pl pingerCronStat.stderr pingerCronStat.stdout pinger.xml pinger.xsd
pingeramity@pingeramity: /usr/local/share/pinger$ ls -l
total 232
-rw-r--r-- 1 root root 16644 Jan 28 13:35 beacons.txt
-rwxr-xr-x 2 root root 4096 Feb 1 05:40 data
-rwxr-xr-x 1 root root 300 Jan 28 13:35 dnsV4Cnd.pl
-rwxr-xr-x 1 root root 5385 Jan 28 13:35 installCron.pl
-rw-r--r-- 1 root root 34443 Jan 28 13:35 pinger2.html
-rwxr-xr-x 1 root root 52295 Jan 28 13:35 pinger2.pl
-rw-r--r-- 1 root root 0 Feb 1 14:30 pingerCronStat.stderr
-rw-r--r-- 1 root root 105028 Feb 1 14:41 pingerCronStat.stdout
-rw-r--r-- 1 root root 21357 Feb 1 14:30 pinger.xml
-rw-r--r-- 1 root root 2512 Jan 28 13:35 pinger.xsd
pingeramity@pingeramity: /usr/local/share/pinger$

```

After making this change they see:

```

Activities [Terminal] Mon 14:43
pingerng@pingerng: /usr/local/share/pinger/data
File Edit View Search Terminal Help
156 1076 817 879 787 696 674
pingerng.anti.yn0ida.local 127.0.1.1 mail.neda.af 117.55.192.5 100 1454317938 11 10 741.393 854.141 1134.039 1 2 3 4 5 6 7 8 9 10 11 812 806 1042 1134
910 827 741 777 743 746
pingerng.anti.yn0ida.local 127.0.1.1 www.daffodilvarsty.edu.bd 203.190.10.99 100 1454317939 11 10 483.053 602.268 869.438 1 2 3 4 5 6 7 8 9 10 11 661
823 869 655 636 526 561 483 507 497
pingerng.anti.yn0ida.local 127.0.1.1 www.nren.net.np 202.52.0.2 100 1454317941 10 518.797 681.586 855.387 1 2 3 4 5 6 7 8 9 10 855 818 651 680
3 628 672 549 518 750
pingerng.anti.yn0ida.local 127.0.1.1 www.usesp.edu.ph 202.137.113.149 100 1454317941 10 631.085 840.827 1047.105 1 2 3 4 5 6 7 8 9 10 1047 886 96
8 892 803 878 747 631 792 760
pingerng.anti.yn0ida.local 127.0.1.1 monitor.seecs.edu.pk 111.68.101.10 100 1454317941 11 10 629.300 802.291 1129.285 1 2 3 4 5 6 7 8 9 10 11 1129 858
595 788 867 732 623 629 741 710
pingerng.anti.yn0ida.local 127.0.1.1 hunnas.learn.ac.lk 192.248.1.165 100 1454317943 10 320.518 500.895 639.360 1 2 3 4 5 6 7 8 9 10 630 639 489
549 508 475 320 451 430 513
pingerng.anti.yn0ida.local 127.0.1.1 namunu.learn.ac.lk 192.248.1.161 100 1454317943 11 10 514.355 632.248 728.251 2 3 4 5 6 7 8 9 10 11 728 633 619
628 538 514 674 633 705 648
pingerng.anti.yn0ida.local 127.0.1.1 www.singaren.net.sg 203.30.39.3 100 1454317946 10 336.875 485.693 567.667 1 2 3 4 5 6 7 8 9 10 567 528 488
336 466 444 528 483 471 542
pingerng.anti.yn0ida.local 127.0.1.1 www.vnu.edu.vn 112.137.142.4 100 1454317947 10 430.852 519.668 611 634 1 2 3 4 5 6 7 8 9 10 578 430 472 611
489 550 541 497 492 532
pingerng.anti.yn0ida.local 127.0.1.1 www.at.ac.th 203.159.12.5 1000 1454317947 10 545.718 630.564 711.072 1 2 3 4 5 6 7 8 9 10 655 545 711 704 6
18 642 610 648 598 563
pingerng.anti.yn0ida.local 127.0.1.1 mail.neda.af 117.55.192.5 100 1454317949 10 702.047 770.521 858.700 1 2 3 4 5 6 7 8 9 10 726 858 826 755 79
1 748 708 775 702 751
pingerng.anti.yn0ida.local 127.0.1.1 www.nren.net.np 202.52.0.2 1000 1454317950 10 454.560 493.784 545.317 1 2 3 4 5 6 7 8 9 10 545 454 459 527 5
10 476 534 491 455 482
pingerng.anti.yn0ida.local 127.0.1.1 monitor.seecs.edu.pk 111.68.101.10 100 1454317952 10 661.849 694.964 760.094 1 2 3 4 5 6 7 8 9 10 760 690 6
82 723 689 692 661 607 689 680
pingerng.anti.yn0ida.local 127.0.1.1 hunnas.learn.ac.lk 192.248.1.165 1000 1454317952 10 501.616 577.594 652.790 1 2 3 4 5 6 7 8 9 10 614 588 590
802 551 580 501 558 652 534
pingerng.anti.yn0ida.local 127.0.1.1 ba.sanet.sk 192.108.138.12 100 1454317933 30 0
pingerng.anti.yn0ida.local 127.0.1.1 www.sanet.sk 192.248.1.161 1000 1454317953 10 409.586 485.867 545.612 1 2 3 4 5 6 7 8 9 10 531 514 480
545 488 458 458 499 489 445
pingerng.anti.yn0ida.local 127.0.1.1 eltical.epfl.ch 128.178.128.21 1000 1454317934 30 0
pingerng.anti.yn0ida.local 127.0.1.1 pinger.unesp.br 200.145.255.41 1000 1454317940 25 0
pingerng.anti.yn0ida.local 127.0.1.1 cdnet.unstaed.edu.co 157.233.1.13 1000 1454317941 30 0
pingerng.anti.yn0ida.local 127.0.1.1 www.daffodilvarsty.edu.bd 203.190.10.99 1000 1454317940 30 0
pingerng@pingerng: /usr/local/share/pinger/data$

```

[Pinger2.pl](#) is making measurements. It appears for reason I do not currently understand (our install package probably needs updating) they have an old version of [pinger2.pl](#). So next steps:

1. Pick up the current version of [pinger2.pl](http://www.slac.stanford.edu/comp/net/mon/tool/ping_data.pl) at [http://www.slac.stanford.edu/comp/net/mon/tool/ping\\_data.pl](http://www.slac.stanford.edu/comp/net/mon/tool/ping_data.pl) and just replace. No need to go through the install process.
2. [Traceroute.pl](#) does not work, as reported in <http://202.12.103.71/cgi-bin/traceroute.pl> I would next see if you can get that to work.
3. [ping\\_data.pl](#) does not work. I am suspicious that it is for the same reason as [traceroute.pl](#). It gives a 200 but nothing is returned:

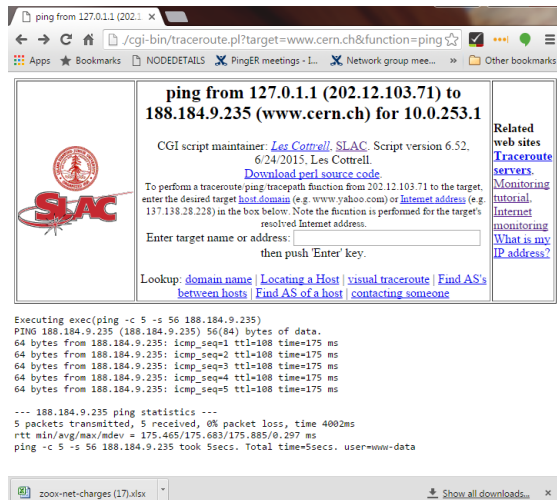
```
215cottrell@pinger:~$wget 'http://202.12.103.71/cgi-bin/ping_data.pl'
--2016-02-03 12:58:12--  http://202.12.103.71/cgi-bin/ping_data.pl
Connecting to 202.12.103.71:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 0 [text/html]
Saving to: "ping_data.pl.3"

[ <=>                                ] 0          --.-K/s   in 0s
2016-02-03 12:58:13 (0.00 B/s) - "ping_data.pl.3" saved [0/0]
216cottrell@pinger:~$head ping_data.pl.3
217cottrell@pinger:~$
```

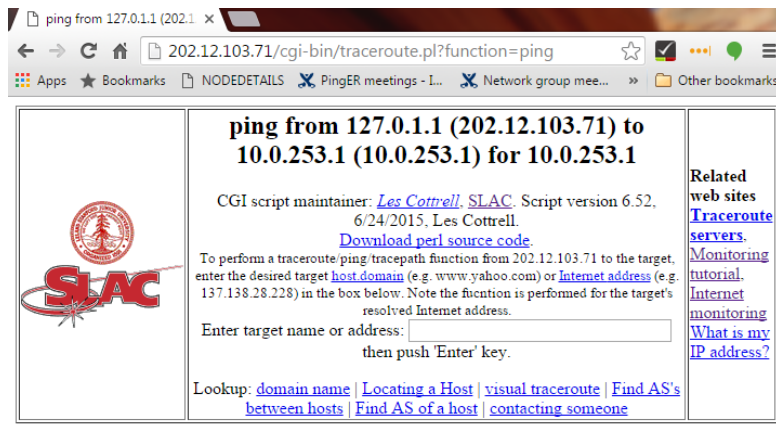
Can you try executing it from the command line. It should create to **STDOUT** the html for a form.

**Update 2/5/2016**

Traceroute works as a traceroute server and a ping server



Looking at the function=ping output, you will notice that the requesting host (in this case at SLAC) is given a private IP address (10.0.253.1) which is going to cause some failures, e.g. a host at SLAC requesting a ping from 202.12.103.71 to the requesting host. The requesting host being identified as a private address 10.0.253.1 will not be able to be pinged. See below:



*10.0.253.1 is a private address  
See [The Naming System](#) for information on host.domain and [Addresses](#) for information on Internet addresses.*

## Update 2/17/2016

Question:

We have also been debugging the [ping\\_data.pl](#) which was giving us some problems. It seems that the script is unable to locate the [pinger2.pl](#) file at /afs/slac/package/pinger/pinger2/share/pinger/[pinger2.pl](#). In our machine the script is placed in the directory /usr/local/share/pinger/[pinger2.pl](#). Do we have to change the file path in [ping\\_data.pl](#)?

Response:

The easiest would be to simply comment out line 323 of [ping\\_data.pl](#) to remove the need to try and grep the /afs file:

my @cmds=('date',

    '/bin/uname -a',    '/usr/bin/uptime',

    '/bin/grep "version" /usr/local/share/pinger/[pinger2.pl](#)',

    '#/bin/grep "version" /afs/slac/package/pinger/pinger2/share/pinger/[pinger2.pl](#)',#line 323

    '/bin/ps -efl | grep pinger2',

    '/bin/cat /etc/hosts',  '/bin/cat /etc/resolv.conf',

    '/usr/bin/whoami',    '/usr/ucb/whoami',    '/bin/pwd',

    '/usr/sbin/sestatus',  '/bin/ps -efl | grep httpd',

```

"/bin/ls -lt $stats_dir",

'/usr/bin/crontab -l', '/bin/crontab -l',

'/bin/hostname',      '/bin/domainname',

);

```

## Update 2/23/2016

Having problems with ping\_data.pl can't find timelocal.pl and ctime.pl.

The [timelocal.pl](#) comes from perl4 and has been superseded by Time::local, see <http://perldoc.perl.org/Time/Local.html>. The script timelocal.pl provides the function timegm which is used in ping\_data.pl

The [ctime.pl](#) is a simple Perl emulation for the well known ctime(3C) function. # # This library is no longer being maintained, and is included for backward ... see <http://cpansearch.perl.org/src/JHI/perl-5.8.1/lib/ctime.pl>. It appears ping\_data.pl does not use ctime.pl.

Fix:

```

Change lines 410-412 from
#####
require "timelocal.pl";
require "ctime.pl";

to
#####
use Time::Local; #require "timelocal.pl";
use POSIX;      #require "ctime.pl";

```

Note ping\_data\_plot.pl and frequency.pl use timelocal and ctime.

## Update 3/9/2016

The above fix has been made both at Amity and at SLAC. [The output from ping\\_data.pl is here](#). Accessing [http://202.12.103.71/cgi-bin/ping\\_data.pl](http://202.12.103.71/cgi-bin/ping_data.pl) gives:

```

Internal Server Error
The server encountered an internal error or misconfiguration and was unable to complete your request.
Please contact the server administrator at [no address given] to inform them of the time this error occurred,
and the actions you performed just before this error.
More information about this error may be available in the server error log.

```

The server is pingable and the web server is responding. I suspect the 5th line of the output "no crontab for pingeramity" is causing the problem. Not sure why the output is coming out so soon. You could comment out the line (around 329)

```

'/usr/bin/crontab -l', '/bin/crontab -l',

```

## Update 4/9/2016

They have added a public DNS name pingeramity.in.

They will need to change from

```

<SrcName>pingeramity.amitynoida.local</SrcName>
to

```

```

<SrcName>pingeramity.in</SrcName>
in /usr/local/share/pinger/pinger.xml

```

also <http://pingeramity.in/cgi-bin/traceroute.pl> is not working. This is at least partially due to hosts environment variable REMOTE\_ADDR=10.0.253.1 whereas it should be the public address of the remote host but. 10.0.253.1 is a private address so here is no way to traceroute to it