

Deploying table.pl

Introduction

The script table.pl takes PingER data and provides a table for various network performance metrics (such as RTTs, Packet Loss, Throughput, etc) from monitored to monitoring hosts in a simple but color-coded fashion (documentation available [here](#)). The script was originally written by Dr. Les Cottrell. Later Zafar Gilani modified it. The script now conforms to perl warnings and tainting mode. New version is now installed both at [SLAC](#) and [SEECs](#).

Changes in Version 0.6, Dated 10/07/2010

This tutorial assumes that the reader has basic knowledge of Perl scripting.

Using "strict"

To make sure all the variables (scalars, arrays and hashes) are declared before usage, use the following line just below top of the script:

```
..
use strict;
..
```

Using "warnings" and "tainting"

To make sure that all warnings are displayed at the standard output (stdout) one should enable warnings. This helps to solve problems with a script.

Tainting on the other hand is used to make sure that a CGI script is logically secure. Taint (T) mode puts a Perl script into **paranoid** mode and treats **all** user supplied input as tainted and bad unless the programmer explicitly **OKs** the data. Read more [here](#).

To display warnings (w), add the following line at the top of the script:

```
#!/usr/bin/perl -w
```

The above is pretty much an older style of Perl coding. One can also use:

```
..
use warnings;
..
```

To enable tainting (T), just add the letter 'T' at the end of the top line of a script:

```
#!/usr/bin/perl -wT
```

Once tainting is enabled, it has to be used at the command prompt as well or the script won't run. If one tried to run the script without tainting option (-T) from command line, the script fails with following message:

```
zafar@pinger $ perl table.pl
"-T" is on the #! line, it must also be used on the command line at table.pl line 1.
```

Elaborate "warnings"

Warnings are often not self-explanatory. One can use diagnostics option to elaborate the warnings. The following helps elaborate on warnings.



```
..
use diagnostics -verbose;
..
```

How to go about the business?

Don't enable all the options above in one go. There will be a humongous number of warnings and error messages. The best way to do this is to go stepwise. Enable the above options one by one, in the order written below. This **must** be followed by test running the script:

1. strict
2. warnings (enabled diagnostics as required)
3. tainting

Once one of the options are enabled, run the program and entertain the warnings and solve error messages. This shall be repeated until all the messages are resolved for that particular step. Also test the html output of the script by saving and accessing the html script via a web browser. A correct output looks something like below:

<div> PingER Summary Table </div>										
Version=0.6, Les Cottrell and Zafar Gilani 10/07/2010: documentation is provided , The PingER pro										
The columns are the monitoring sites, the rows the monitored sites										
From <input type="text" value="Pakistan"/> To <input type="text" value="Pakistan"/> Packet Loss <input type="text" value=""/> Sep 2010 <input type="text" value=""/> <input type="button" value="Submit"/>										
WORLD	PK AUP EDU N2	PK COMSATS EDU N2	PK IIU EDU N2	PK NCP EDU N3	PK NEDUET EDU N1	PK NIIT EDU N2	PK NIIT EDU N6	PK NIIT EDU N7	PK PERN EDU N1	PK U EDU N1
PK.AUP.EDU.N2			0.25	0.54	1.36	4.89	5.45		0.21	11
PK.BUITMS.EDU.N1		1.74		0.65		5.01	4.80	5.07		
PK.COMSATS.EDU.N2	1.46		1.50	1.42	2.71	5.27	5.74		1.54	11
PK.DSL.NET.GTWY.N1							4.30			
PK.GIKI.EDU.N3		1.40		0.35		5.27	5.07	5.14		
PK.HU.EDU.N1		1.64		0.66		4.93	5.25	5.54		
PK.IIU.EDU.N2	1.78			1.53	2.82	5.36	4.85		1.81	13
PK.LSE.EDU.N2							0.00			
PK.MULTINET.N1							5.15			
PK.NAYATEL.COM.N1		1.31		0.04		4.30		4.60		
PK.NCP.EDU.N3	0.61		0.67		1.31	4.17	4.22	4.20	0.78	10

Deploy @ SEECs

Once finished, deploying at SEECs is trivial given you have root access to the pinger machine. I deployed script at the following path on pinger.seecs.edu.pk

```
/var/www/cgi-bin/table.pl
```

A couple of pre-requisite configuration files that are mentioned inside the table.pl script are placed at the following paths at pinger.seecs.edu.pk:

```
/var/www/html/pinger.new.cf  
/var/www/html/nodes.cf
```

Once copied and paths changed, change file access permissions and ownership of table.pl

```
chmod 755 table.pl  
chown pinger:pinger table.pl
```