# **PingER Invitation to add a Monitored Host**

# Invitation to Join the PingER project

#### Introduction

If you are based in a developing country and your host is actually located in that region, we would love to have you on board with other inspiring partner institutes by monitoring the Internet connectivity of your host via the PingER project.

#### What is PingER

The PingER Project: "Active Internet Performance Monitoring for the HENP Community" was started in 1995 to provide end-to-end network performance measurements for the High Energy Physics (HEP) community (http://www-iepm.slac.stanford.edu/pinger/; IEEE Communications Magazine, May 2000)). More recently it has been extended at the request of the International Committee of Future Accelerators (ICFA) and The Abdus Salam International Center for Theoretical Physics (ICTP - http://www.slac.stanford.edu/xorg/icfa/icfa-net-paper-dec02/) to gather information related to quantifying the Digital Divide (http://www.ejds.org/meeting2003/ictp/papers/Cottrell-Logg.pdf), how the Internet performance differs between developed and developing nations (e.g., http://www.ejds.org/), and what are the baselines, trends etc. Currently there are over 60 active monitoring hosts in 23 countries and over 800 monitored hosts in 164 countries. There is also an invited article on PingER entitled "Pinging Africa", by R. Les Cottrell, in IEEE Spectrum February 2013.

#### **Objective**

Our goal is to ensure we have representative network performance between the various regions and countries of the world. This requires that we have several reliable remote hosts monitored in each country preferably in diverse locations. We need the diversity to identify performance in different regions of the country and different service providers (e.g. commercial vs Research & Educational) and to help identify anomalous sites. The reliability is so we can provide a long-term view of the internet going back for more than a decade.

Using the gathered information we provide Internet performance (e.g. round trip time, loss, jitter, throughput, availability, quality of VoIP etc.) measures between hosts, countries, and regions going back over 15 years. These can be further downloaded and mined to compare and contrast different countries and regions, compare the Internet performance measures with economic indicators such as GDP or the UN Human Development Index, to see the impact of events such as earthquakes, cable cuts, uprisings etc., to set expectations, and to make recommendations to policy makers and funding agencies.

#### **Access to Results**

The information gathered is archived and analyzed and freely available via the web. The results are important for trouble-shooting, planning, setting expectations, justifying and seeing the effects of upgrades, diagnosing problems, identifying where assistance is most needed, and for presenting to decision makers and funding bodies. A recent report from the project is at: http://www.slac.stanford.edu/xorg/icfa/icfa-net-paper-jan12/report.doc

#### Requirements

For hosts being monitored, the requirements are basically very minimal:

- no software has to be installed, it uses the standard Internet ping facility that comes pre-installed from the manufacturer;
- the host should plan to run 24 hours a day by 365 days per year (e.g. a web or email or name or time server);
- the host must to respond to pings (e.g. they are not blocked),
- the host must be registered with a name in the Domain Name Services (DNS);
- and we need to know the host's location (city and latitude/longitude).

The network impact is minimal, i.e. about 10-100bits/s on average for each monitoring-remote site pair (there are about 60 monitors around the world).

Typically we need a contact person for each site/host we add since over time hosts may come and go, pings may be blocked, hosts become unreachable etc. So we need to change the host being monitored or understand and remedy problems.

#### **Contact Us**

If you can help please contact Les Cottrell <cottrell @slac.stanford.edu>. You will need to provide the name of a host to ping, its location (cit, latitude, longitude), your contact email address.

Many thanks for your time and in anticipation of your help.

Dr. R.L. (Les) Cottrell Computer Services SLAC National Accelerator Laboratory 2575 Sand Hill Rd, M/S 97, Menlo Park, CA 94025

cottrell@slac.stanford.edu| www.slac.stanford.edu/-cottrell Dr. R.L. (Les) Cottrell Computer Services SLAC National Accelerator Laboratory 2575 Sand Hill Rd, M/S 97, Menlo Park, CA 94025

## **Documents**

Word invitation

Text invitation

### **Invitations**

Bangaldesh