2006-08-21

Maggie-NS Tasklist

Last Updated: August 21, 2006

NEXT MEETING: 9:00 AM California, USA Time*, Thursday August 31st, 2006*

Team members: Abdullah, Arshad, Asif, Asma, Azher, Faran, Fareena, Rabail, Shahryar, Umar

Adnan, Akbar, Connie, Jerrod, Les, Yee

Mailing lists: maggie-niit@ns.niit.edu.pk*; backup: maggie-niit@googlegroups.com*

Awaits something, also provides start of wait date

Done or drop, remove < 2 months are task done

Decreased daise the week

- Person doing the work

Bold face - task in progress, or for discussion at meeting

Recent progress/discussion. Need student to be assigned. Critical.

ActionItems

- 1. PingER contacts: Akbar Mehdi, Umar Khan
 - a. -Remove regions East Europe [Done 7/13/06] Les, Jerrod-
 - b. Provide tools to analyze and create plots of PingER data Akbar, Les
 - i. Tie into webservices/SQL access to data to make a much more flexible distributed way of selecting analyzing and displaying
 - ii. Regional plots for executives using JFreeChart Akbar
 - 1. Working on long term trend graphs for Executive plots from sites to regions. Akbar
 - a. Create a web-page which displays different pinger executive graphs. (has a prototype 4/18/06, need to test) -Akbar
 - i. Enter should be same as Apply changes in Line patterns, also allow selection of colors Akbar
 - ii. Provide cronjob capability (need to understand what is wanted) Akbar
 - -Retain knowledge of most recent directory in Save As and Directly Open File [Done 5/15/06] -Akbar-
 - iii. Provide plots of yearly loss, RTT and throughput (i.e. one point/year, need to get more accurate loss measures and thus derived throughput for excellent paths) Les, Aziz
 - c. PingER web services ?
 - d. Pinger Management project Jerrod, Les
 - i. Down site implementation, i.e. auto-discover and report down sites* *- Adnan, Les
 - 1. Look at analyzing the unreachability for developing regions Les
 - a. *Apply to beacons to decide where replacements are needed Jerrod*
 - 2. *Step changes (Brian Tierney LBL is interested in predictions) Waqar, Adnan*
 - a. Description of what is required to be mailed to Adnan Wagar
 - b. Provide info to Waqar Adnan
 - c. Akbar is looking at this
 - i. Speed up plateau by do-ing in 'C' Akbar
 - 3. *Add check for nodes in NODENODETAILS that are not in pingatble.pl world to world Akbar*
 - 4. Clean up data Jerrod, Les
 - a. Review non responding beacons Jerrod
 - b. -Validate the IP addresses used by the monitoring sites against those in Guthrie [Done 8/12/06]-
 - c. Clean up monitoring sites
 - i. Email sent to ICTP 6/5/06 (responded 6/7/06, awaits director return, they agree 7/20/06) Les
 - ii. monitor.niit.edu.pk down (Jerrod sent email July 17, Les sent email July 26)
 - ii. *Convert offsite.nodes to a Guthrie database Jerrod*
 - 1. *Convert Beacons to Guthrie and make sure they are identical Jerrod*
 - 2. *Integrate with existing code*
 - iii. *Provide a web interface to view and edit Guthrie database entries Jerrod*
 - 1. Add contact names etc.
 - 2. Validate the lat/longs Jerrod
 - 3. *Enable entering the Group (Jerrod is working on 7/28/06) Jerrod*
 - iv. Clean up sub-regions Akbar
 - 1. -Provide CGI script to enable adding countries to groups [Done 8/16/06] Akbar-
 - 2. Complete Mediterranean [Done 8/16/06] Akbar, Les
 - 3. Fix up Africa [Done 8/21/06] Akbar
 - v. *Look at anomalies for various metrics by region and country, define project Akbar*
 - e. PingER Visualization
 - i. Shahryar (Shahryar is sick 8/17/06)
 - 1. Provide a visualroute capability Shahryar
 - a. Look at integration with TULIP Shahryar, Faran
 - 2. Create a map with monitor and remote sites that will enable displaying of path characteristics RTT etc. Shahryar
 - a. Display both lat and long in clickable list Shahryar
 - b. Add down site information on demand (test with ping & synack for given pair) Shahryar
 - c. Fix names persisting outside map following mouseover Shahryar
 - d. *Allow identification of nodes in top left hand corner (was done 8/3/06, but has come back 8/7/06) Shahryar*
 - e. *Plot data seem to be missing (from SLAC site) since July 7 (reported 8/15/06) Shahryar*
 - f. Add min-RTT and IQR to metrics (agreed 7/20/06, hope to have on 8/4/06) Shahryar
 - g. Increase zoom level (agreed 7/20/06, increased by a couple of levels, looking at Google maps 8/7/06) -Shahryar

h. Allow selection of all remote nodes (agreed 7/20/06) - Shahryar

- i. Work on plots (awaits PDS work) Shahryar
 - i. Allow user to specify tick time Shahryar
 - ii. Allow user to specify metric (RTT, Loss and throughput done 5/8/06) Shahryar
 - iii. Plot multi metrics (e.g. RTT & loss, agreed 6/7/06) Shahryar
 - iv. Use smokeping plots for variances and possibly uptime (awaits PDA) Shahryar, Asma
- j. WAN Topology
- k. On demand Ping
- 3. Extend to PDA, initial target HP iPac (in progress 6/6/06) Shahryar
- 4. Add 3D capability (tryhttp://pinger2.niit.edu.pk/~sheryar/) Shahryar
- ii. Paper for Kathmandu?
- iii. Make sure Maxim's monitoring host is current Jerrod
- iv. Look at modifying the NLANR Multicast beacon (at http://dast.nlanr.net/Projects/Beacon/) to use fping
- f. PingER & AMP Integration (AMP/NLANR has run out of funding, AMP will shut down 8/31/06) Abdullah, Adnan
 - i. -List of IP to be prepared and sent to Abdullah [Done for NIIT 6/6/06] Les, Jerrod, Adnan-
 - ii. Extend the addresses to add more source nodes Abdullah
 - iii. -Code to be sent by Abdullah to SLAC [Done 6/6/06, it converts data from a singloe AMP day] Abdullah-
 - iv. Clean up style of script, extend for more options (choice of day, directories etc) Abdullah
 - v. Install & integrate code at SLAC Abdullah
 - 1. -Send code to SLAC [Done 8/20/06] Abdullah-
 - 2. -Review code and make suggestions [Done 8/21/06] Les-
 - 3. Improve code, make production quality, automate getting data (requested with suggestions 8/20/06) Abdullah
 - 4. Install at SLAC & integrate Abdullah
 - a. Get account Abdullah
 - b. -Send configuration file (it is installed at /afs/slac/g/www/www-iepm/pinger/ampnodes.txt) [Done 8/22/06] -Abdullah-
 - vi. -Figure out how to automate getting data now it needs userid and password (looks like can do with wget) Abdullah-
 - 1. -Send email to AMP to see if there is a good way to get data (agreed 8/17/06) [Done 8/18/06] Abdullah-
 - vii. Integrate with pingtable.pl Abdullah, Adnan
 - Create AMP file directory Jerrod
 - 2. Set up daily crontab Jerrod
 - 3. Set up analyze-hourly etc Jerrod
 - 4. Add src & dst amp nodes to Guthrie Jerrod
 - viii. -Choose AMP sites and manually populate directory for current day [Done 5/11/06] Aziz, Jerrod-
 - ix. Think about retrieving older data (find out how long ago there is data for) Jerrod, Adnan
 - x. Notify AMP folks of progress Les, Jerrod
 - xi. AMP and Pinger data comparison Abdullah
- g. Smokeping & PingER Integration Asma (finals 24 July), Yee
 - i. Look at how to input PingER data to Smokeping display module (sounds like we have to convert from PingER to RRD format, can this be done in realtime or do we need an RRD database too) Asma
 - ii. Look at how to to take recent smokeping data and convert to PingER format (in progress 7/19/06, needs pingtable.pl to get all 12 metrics)
 - iii. Look at adding visualization of uptime Asma
 - iv. *Look at how to dynamically change the config file for Smokeping to accomodate the step interval (maybe time consuming, may affect all users and be cumbersome) Asma*
 - v. Look at using Smokeping to determine the quality of home links in Pakistan Asma
 - vi. Will use as a top level access to PIngER and also as links from Pintable to display last 45-90 days using smokeping Asma, Yee
- h. Provide real-time display of PingER data
 - i. Export data to MonALISA from SLAC monitoring site -
 - ii. Figure how to deal with non regular (non exact 30 min data)
 - iii. Do for SLAC
 - iv. Decide on how to extend to other monitoring sites, try with NIIT Akbar, Umer
 - 1. Hassan is looking into the code sent by Fawad (next step is to get ML web services client to get data) Akbar, Hassan
- i. -Install PingER at CDAC Mumbai (Binu Abraham, PingER2 installed but neither ping_data.pl nor traceroute.pl can be found, Aziz will send email 3/22/06, Binu keeps responding that will do it but does not, Aziz will prompt with cc to supervisor 4/18/06, Jerrod will follow up 7/20/06) [Done 8/15/06] Jerrod-
- j. -Install PingER2 at VSNL Mumbai aka-http://59.165.131.15/cgi-bin/ping_data.pl -(sent email to Sunil Abrahim 3/14/06, Sunil sent email to someone else, seems to be a problem with the measurements 3/21/06, Aziz will check status 4/18/06, Jerrod will follow up with email to{-}bs.gupta@vsnl.co.in -7/20/06, ping_data.pl responds but no remote nodes also need to get in DNS, sent email 8/16/06) [Done 8/21 /06] Jerrod-
- k. *monitor.niit.edu.pk down since April 28th (email sent to Azher 7/13/06, 7/14/06, Azher responds 7/18/06, will install a new host, still no data 7/20/06, still no data 7/28/06, email sent to Azher 7/28/06) Azher, Jerrod*
- *Get pinger2.niit.edu.pk to insert the name (and not 203.99.50.206) for the monitoring host into the table of read data (probably needs a rebuild of PingER2, sent email to Azher he replies will do on 8/16/06) - Azher*
- m. -PERN/HEC Monitoring host (Islamabad)-### -Email sent to Asim Raza 2/21/06 we await hearing from him (emailed again 3/14/06, Asim responded, needed help, we await URL of how to gather data 4/13/06, Azher will contact 4/21/06, 7/8/06 pings blocked have requested unblock, Azher will install in Islamabad once network probs are fixed, i.e. it is 1st priority for Azher to be done by 7/27/06 7/20 /06, not done & email sent 7/28/06, Azher has access to the system hopes to install pinger2. He has completed the installation and it is taking data-http://pinger.pern.edu.pk/cgi-bin/ping-data.pl- 8/16/06) [Done 8/16/06] Azher-
- n. *NTC hosts, they agreed to install PingER@ at their 3 backbone sites Azher*
 - i. *Sent email to NTC 3/7/06 (Aziz sent email to Wajid Ali for Lahore & Karachi 3/14/06, they have asked for a physical host from NIIT, Azher will provide 4/20/06, NTC Lahore is 2nd in Azher's priority, NTC Karachi is 3rd 7/28/06, discussed with Arshad will provide host in a month 8/17/06) Azher*
- o. PingER2 improvments
 - i. Provide multiple sources for beacons file Warren
- *Triangulate position of an unknown host (see*http://www.slac.stanford.edu/comp/net/wan-mon/tulip*, Faran seems to be unavailable 8/17/06, Faran back from ITCN 8/21/06) - Faran*
 - a. Deployment Faran

- i. Provide a program API Faran, Shahryar
- ii. -Version at SLAC is not working (reported 8/9/06) [Done 8/21/06] Faran-
- b. *Consider the security aspects of TULIP Faran*
 - i. Add contact info in landmark ping packets for Linux landmarks using the -p (pad option) Les
 - ii. Maybe develop as servlet or CGI script Faran
- c. Visualization
 - i. Make tables sortable (working on 5/25/06, re-agreed 8/3/06, re-requested 8/21/06, done for the RTTs 8/22/06) Faran
 - ii. Can we add AS's to routes Yee, Faran
 - iii. Integrate with Google maps Faran
 - iv. -Position landmarks properly on map (DL, is incorrectly located, reminded 6/19/06, reported still not right 6/22/06, Boston is incorrect, email sent 7/26/06, Les sent lat/longs 7/26/06) [Fixed 7/26/06] Faran-
 - v. -Provide diagnosis for non locateable, non-parseable, non responding paths (so far have NAN for non responsive landmark 6/6 /06, reminded 6/19/06) [Done 8/2/06] Faran-
 - vi. When zooming maintain size of dots Faran
 - vii. Do not truncate the information in the Ping Raw Data window Faran
 - viii. Improve the diagnostic/debugging information for failures (requested 8/21/06) Faran
 - ix. -Add estimates from other sources, e.g. DNS LOC records, GeoLoc [Done GeoLoc is in Log, 8/3/06] Faran-

d. Landmarks

- i. Get more Traceroute Sites to TULIP:
 - See if AMP interested (sent email 3/7/06, yes they appear to be, we have identified suitable landmarks, they will start with NZ 3/9/06, sent reminder 3/21/06 & 4/3/06, 4/18/06, 5/13/06, 6/21/06, more email, talking to kc 8/16/06) - Les
 - 2. -Try Gloriad/Russia (email sent 4/21/06, got response, sent more info 5/6/06, sent reminder 5/24/06, sent reminder 7 /26/06, have contact for RBnet 8/2/06) [Done 8/16/06] Les-
 - 3. Send email to Alaska (5/7/06) Les
 - 4. Send email to Singapore (got response 5/3/06, sent reminder 5/24/06, got response 5/25/06, sent email 7/26/06) Les
 - 5. Send email to Malaysia (5/7/06) Les
 - 6. Sent email Latin America (5/7/06) Les
 - 7. Sent email for China contacts (7/26/06) Les
 - 8. -Add landmarks at Mumbai, http://59.165.131.15/egi-bin/traceroute.pl &nbep-; and-http://pinger.pern.edu.pk/cgi-bin/traceroute.pl -[Done 8/21/06] Faran-
 - 9. COMTEC, Japan (Faran send email reminder 5/25/06, agreed to send another reminder 6/7/06) Faran, Farooq

ii. Use PlanetLab for landmarks

- 1. Join PlanetLab Faran
- 2. Provide a daemon for the ping server Faran
- 3. Provide a client for the TULIP Faran
- iii. *Method for updating the landmarks Faran*
 - 1. *Decide on and implement a method of keeping landmarks in sync (will use a single text file copy at SLAC which clients will access) Faran*
 - a. *Proposal (created and sent 5/13/06, now awaits review) Les, all*
 - b. *Decide on format of text file (Location, lat, long, ping_server, trace_server #comments) & create file- Faran*
 - 2. *Faran has implemented an edit function but unable to make it work at SLAC (5/25/06, demonstrated to Faran 6/21/06, Akbar sent email that modification is not working 7/25/06, Faran said retry but still not working 7/26/06) Faran*
 - 3. Get add feature to work [Done 5/29/06] Faran, Les

iv. Landmarks:

- *pinger.ntc.net.pk denies accesss (email to Azher & Faran 7/25/06, Azher responded that he is checking 7/27/06, email sent again 8/21/06, Azher knows about will send person to repair 8/22/06) - Faran/Azher*
- 2. -202.83.166.182/cgi-bin/mati (Akbar sent email to Faran & Azher 7/25/06, sent email to Azher, is it still in use 8/21/06) [Done 8/21/06, decide to remove the landmarks since have others at NIIT] Faran/Azher-
- 3. -202.83.160.42 aka pinger.ntc.net.pk (Akbar sent email to Azher & Faran 7/25/06) [Fixed 8/21/06] Faran/Azher-
- 4. -Fix or understand why the Looking Glass sites are not working (7/26/06) [Done 8/16/06] Faran, Les, Akbar-
- 5. -bnl.gov needs to be changed to bnl.org [Done 8/22/06] Faran-
- 6. *Checking wget "*http://sfsmds2.vsnl.net/cgi-bin/traceroute.pl?function=ping&target=www.cern. ch&contact=cottrell@slac.stanford.edu&id=TULIP*" works with wget from* www.slac.stanford.edu*, but not from TULIP and not from atreides.slac.stanford.edu windows (Firefox) browser. Turns out pings from atreides and iepm-bw are blocked but not from pinger. (sent email to Mumbai explaining problem and suggesting using a non-standard port 8/21 /06) - Les*
- e. Apply to PingER node database to check the lat/longs are roughly correct Faran
- **f.** Analysis
 - i. -Develop new (alpha free) method to estimate location (in progress, expect to resolve in 2-3 days 7/20/06) [Done did not work out 8/3/06] - Faran-
 - ii. Literature search on triangulation, multi-lateration Faran
 - iii. Compare with DNS LOC records, plus availability of DNS LOCs Faran
 - iv. Compare with IP2Location and/or Netgeo records (from http://netgeo.caida.org/aslatlong.txt) Faran
 - Document Faran's algorithm, try new algorithm with optimized alpha that does not require destination to be inside triangle -Faran, Umar
 - vi. Compare Faran's algorithm with Bamba's, Octant & simple triangulation
 - Contact Bamba to find out ifhttp://planetlab-01.ipv6.lip6.fr:10000/cbg.php works for any sites (email send 4/21/06) -Aziz
 - 2. Confidence estimates
 - 3. Applied to PingER hosts
 - 4. Outside triangles, area coverage, need map with accuracy
- g. Analysis of Accuracy and applicability
 - i. Accuracy vs known locations
 - ii. Effect of removing, adding landmarks
 - iii. Comparison with other sets of landmarks & methods (can't do Bamba since it is down), Octant, NetGeo for accuracy coverage etc.
 - iv. Provide bubble maps of accuracy Faran
 - v. What area/population is covered by TULIP
- 3. NETRAT SLAC contact: Adnan, Les

a. Evaluate PCA multivariate method of Crovella - Waqar, Adnan,

- i. *Compare PCA results with Holt-Winters/plateau Adnan*
 - . 1. -Fetch Data From SLAC, BNL, CALTECH (Pathchirp, Thrulay, Ping) Adnan-
 - 2. *Fetch data from CERN*
 - 3. *Apply PCA on same data and to get potential alerts Adnan*
 - 4. *Comparison of Run-period results and PCA results Adnan*
 - 5. -Improve event detector Adnan-
 - 6. Docment findings on PCA Adnan
- b. *Forecasting comparison of Active vs. passive data Fareena, Adnan*
 - i. Look at eview implementation of ARIMA (QU has copy) Fareena
 - 1. Extend to more sites/metrics, see need for Integration & higher orders farena, Adnan
 - Try with longer time base Fareena
 - 3. Get time estimates Fareena
 - ii. -Look at JMSL (license \$3500 for developer, \$2500 for user) [Done 8/17/06]-
 - iii. -Prepare document of scope of work [Done 4/20/06] Fareena-
 - iv. -mail Fareena about filename format [Done 05/11/06] Adnan-
 - v. Detailed Graphs description Fareena
 - vi. Regularization
 - vii. Look at moodss (http://jfontain.free.fr/statistics.htm) Fareena
 - viii. Send documentation to SLAC
 - ix. Automate procedures
 - 1. Define project
 - 2. Put together presentation for workshop (for Sep 2006) Fareena
 - 3. Gather team
- c. Automatic event isolation Adnan, Yee

 - ii. Canonical Data set Adnan
 - 1. -Fetch data from monitoring nodes (Pathchirp, Thrulay, Ping, Traceroute) Adnan, Ali-
 - 2. Study/Analyze Data Adnan, Ali
 - 3. Run Run-period Adnan
 - iii. ALERT table changes
 - 1. New table design Adnan
 - 2. Script to populate the table Adnan
 - 3. database connectivity problem Jerrod
 - 4. Modify other scripts accordingly Connie
- 4. IEPM SLAC contact Connie
 - a. Install OWAMP at NIIT, get NTP working well (NTP working according to Azher 4/20/06) Connie, Azher
 - b. IEPM-BW Web-services
 - i. Waiting for a new student. Fawad. Umar
- 5. Make traceanal into stand alone package Connie, Umar find someone new to take over
 - a. *Add in new topology Connie*
 - b. *See if can be modularized Yee*
 - c. *Integrate with AMP (need pingtable form like interface to allow selection of sce/dst sites and date).*
 - d. *Define project (check how to get data from AMP) Les, Aziz*
- 6. Pathneck (see) "Yee" title="Visit page outside Confluence" rel="nofollow"linktype="raw" linktext="http://maggie.niit.edu.pk/website/projects /Topological_Analysis.html)*Yee">http://maggie.niit.edu.pk/website/projects/Topological_Analysis.html)*Yee is the lead at the SLAC end - Asif*
 - a. +Try and get pathneck working from NIIT, study debug output, work with Ningning < hnn@cs.cmu.edu> (awaits site upgrade) Asif+
 - b. *Develop and install pathneck reverse server (would like to start at NIIT just to assure code works work with -y option) Les, Asif*
 - i. *Modularize security of traceroute.pl Asif, Yee*
 ii. *Add in PerfSonar Asif, Yee*
 - c. *Evaluate and understand how pathneck needs to be configured, the failure modes, the areas of applicability etc. using iepm-resp.slac. stanford.edu - Asif*
 - i. Provide web site documenting failure modes Asif
 - d. Develop a vizualization
 - i. Topology (currently with Touchgraph), color links, mouseover ID router, provide snapshot
 - ii. Click on link/router to get graph
 - iii. Incorporate location (e.g. via TULIP)
 - e. Investigate integration with traceanal and graphviz Asif
 - f. Integrate topology map with pathneck Asif
 - g. Look at using PerfSONAR router information (do not agree well, need to get more statistics, to enable multiple measures need API to get PerfSONAR data, look perfsonar UI) - Asif
 - h. Try on Ultralight (problems if < 4 hops) Asif
 - i. Problem of 0 results (reported to author but not much happening 4/20/06) Asif
 - j. Add position and AS information to router database Asif
- 7. Communications etc.
 - a. *Umar visit for 2 weeks (visa stamped 7/20/06, re-scheduled to Feb-Mar 2007 due to terrorist activity) Umar, Arshad*
 - b. *Shahryar & Asif have visas will arrive 15th September Shahryar*
 - c. *Arshad may visit for 12-13 September Arshad*
 - i. *Arrange meetings, Jonathan, Neil, Mahesh, Aziz, Bebo Adnan, Les*
 - d. Paper redo for CHEP06 (submitted by Jerrod 5/24/06, *need to get registered as SLAC PUB*) Aziz
 - e. CHEP06 Netflow paper (Umar contacted Fawad 5/17/06) Fawad, Les, Akbar
 - f. Paper for HONET (due June 30, await hearing of acceptance) Shahryar
 - g. *Improve list of hosts monitored from pinger2.niit.edu.pk (remove aiou and monalisa)- Azher*
 - h. Improve reliabilty of mail list server Azher
 - i. Install new UPS (due 7/23/06) Azher
 - ii. Use maggie-niit@googlegroups.com as alternative 8/3/06 Azher
 - i. Improve NIIT connectivity Azher

- i. *Move from NTC to PTCL to remove finger pointing, and upgrade from < 1.5Mbps DSL to 2Mbits/s using fiber pedestal 3 blocks from NIIT with Cu from NIIT to pedestal (recommended, expect to start in a months and for instability during cut-over 7/20/06) -Azher'
- j. Projects (see http://www-iepm.slac.stanford.edu/pinger/projects/)

k. Proposals

- i. Submitted NTC proposal (sent for review by PTCL 8/3/06) Arshad
 ii. Pakistan US Cooperative Grants Program 2006 (submitted awaiting review, 8/3/06)
 - 1. -Need to focus on aiding the people & environment (e.g. Digital Divide, distance learning) [Done 8/3/06]-
 - Review old proposal (Les gave copy to Adnan 5/11/06) [Done 7/17/06] Adnan -Prepare proposal [Done 7/17/06] Les, Umar, Yee-

 - 4. -Get signed by SLAC, Stanford (expect 7/27/06) [Done 8/3/06] Les-
- iii. HEC solicitation for International collaborations, due mid-Sept, Farooq PI

 1. Create draft Umar
- 8. Maggie-NS Site Umar
 - a. Need to be updated with new students photos and profile.
 - i. Adding Student Project Description.
 - ii. Some Pictures Left and will be added soon
 - iii. Post the weekly presentation on the maggie-ns web site.