

ESU Internet Performance Assessment Looking in from the outside

Background

- ? Goal is to assess ESU Internet performance by comparing performance to a number of state schools.
- ? Uses Ping to assess response time to university servers from a DSL connection in Emporia. Data collected from May 2001 to present. Approximately 170,000 observations taken.
 - o Assesses 7 common sites:
 - ~~/~~ Emporia State University (www.emporia.edu)
 - ~~/~~ Fort Hayes State University (www.fhsu.edu)
 - ~~/~~ University of Kansas (www.ukans.edu)
 - ~~/~~ Kansas State University (www.ksu.edu)
 - ~~/~~ Pittsburg State University (www.pittstate.edu)
 - ~~/~~ Wichita State University (www.twsu.edu)
 - ~~/~~ Washburn (www.washburn.edu)
- ? Access time measured approximately every 15 minutes.
- ? Ping - A program used to test “reachability” of destinations by sending them one, or repeated echo requests and waiting for replies. Used for the measurement of round-trip packet delays. Times generally reported in ms (1/1000 of a second).
- ? Assessment uses only observations between 8:00 to 22:00 to eliminate “non-use” times.

Average Performance (average time in ms)

| ESU | FHSU | KU | KSU | PSU | WSU | WASH |
|-----|------|-----|-----|-----|-----|------|
| 187 | 205 | 185 | 185 | 183 | 153 | 157 |

KU Criteria (Old Netometer)

| Performance | Mean round-trip travel times (ms) | | |
|-------------------------|-----------------------------------|---------|---------|
| | Minimum | Average | Maximum |
| During a GOOD interval | 40 | 70 | 120 |
| During a USUAL interval | 70 | 120 | 170 |
| During a BAD interval | 170 | 500 | 750 |

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Average Ranks*

| | site | | | | | | |
|------------|------|------|-----|-----|------|------|-----|
| | esu | fhsu | ksu | psu | ukan | wash | wsu |
| year - mon | | | | | | | |
| 2001 -05 | 2.8 | 5.6 | 1.9 | 3.5 | 2.5 | 4.7 | 1.0 |
| 2001 -06 | 3.7 | 5.3 | 1.9 | 2.8 | 2.5 | 4.7 | 3.2 |
| 2001 -07 | 4.1 | 6.1 | 2.6 | 2.9 | 3.1 | 5.3 | 1.9 |
| 2001 -08 | 3.3 | 6.0 | 3.9 | 3.8 | 3.5 | 5.3 | 2.1 |
| 2001 -09 | 2.9 | 5.0 | 3.8 | 4.4 | 3.2 | 3.2 | 1.6 |
| 2001 -10 | 3.5 | 3.9 | 3.4 | 4.3 | 3.6 | 2.3 | . |
| 2001 -11 | 3.9 | 5.2 | 3.6 | 4.3 | 3.9 | 3.0 | 1.1 |
| 2001 -12 | 4.4 | 6.2 | 3.8 | 4.1 | 3.3 | 4.5 | 1.6 |
| 2002 -01 | 3.1 | 5.4 | 4.6 | 3.5 | 4.3 | 3.8 | 3.1 |
| 2002 -02 | 3.3 | 4.1 | 5.3 | 3.4 | 5.7 | 2.0 | 4.1 |

* At each sampling point, the performance of the sites was ranked to generate these statistics. For example, if a site had the average rank of 1 that would indicate that the site was always faster than all other sites.