Iperf - network stress tool

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1 Beschreibung

While tools to measure network performance, such as ttcp, exist, most are very old and have confusing options. Iperf was developed as a modern alternative for measuring TCP and UDP bandwidth performance.

Iperf is a tool to measure maximum TCP bandwidth, allowing the tuning of various parameters and UDP characteristics. Iperf reports bandwidth, delay jitter, datagram loss.
(http://dast.nlanr.net/Projects/Iperf/#whatis)

2 Installation

- Source code von http://dast.nlanr.net/Projects/Iperf/iperf-1.7.0-source.tar.gz herunterladen
- Entpacken mit tar xvzf iperf-1.7.0-source.tar.gz
- cd iperf-1.7.0
- make
- make install (als root)

3 Befehle

Alle Optionen unter http://dast.nlanr.net/Projects/Iperf/iperfdocs_1.7.0.html
Von uns verwendete Optionen:

iperf -s -p 1234	Server auf Port 1234
iperf -c SERVERIP -p 1234	Als Client mit Server auf Port 1234 verbinden
. . . -u	UDP statt TCP
. . . -w 1M	Windowsize 1MB
. . . -b 100M	Bandbreite für UDP
. . . -P 10	10 parallele Verbindungen

4 Tests

4.1 Client - Hub - Taskrunner - Server

commands: server: iperf -s; client: iperf -c SERVERIP

```
------------------------------------------------------------
Server listening on TCP port 1234
TCP window size: 85.3 KByte (default)
------------------------------------------------------------
-> Die folgenden 3 Tests liefen ueber den alten 10MBit Hub
[  4] local 129.132.57.12 port 1234 connected with 129.132.57.13 port 32818
[  4]  0.0-10.1 sec  9.49 MBytes  7.89 Mbits/sec
[  4] local 129.132.57.12 port 1234 connected with 129.132.57.10 port 32819
[  4]  0.0-10.0 sec  8.20 MBytes  6.86 Mbits/sec
[  4] local 129.132.57.12 port 1234 connected with 129.132.57.10 port 32820
[  4]  0.0-10.0 sec  8.41 MBytes  7.03 Mbits/sec
```

4.2 Client - Crossover - Server

commands: server: iperf -s; client: iperf -c SERVERIP

```
[  4] local 129.132.57.12 port 1234 connected with 129.132.57.10 port 32821
[  4]  0.0-10.0 sec    688 MBytes    577 Mbits/sec
```

4.3 Client - Hub - Taskrunner - Server, Windowsize 1M (-w 1M)

commands: server: iperf -s -w 1M; client: iperf -c SERVERIP -w 1M

```
------------------------------------------------------------
Server listening on TCP port 1234
TCP window size:   216 KByte (WARNING: requested 1.00 MByte)
------------------------------------------------------------
[  4] local 129.132.57.12 port 1234 connected with 129.132.57.13 port 33724
[  4]  0.0-10.0 sec  9.02 MBytes  7.55 Mbits/sec
```

4.4 Client - Hub - Taskrunner - Server, UDP-Test 100MBit (-w 1M -u -b 100M)

commands: server: iperf -s -w 1M -u; client: iperf -c SERVERIP -w 1M -u -b 100M

```
------------------------------------------------------------
Server listening on UDP port 1234
Receiving 1470 byte datagrams
UDP buffer size:   216 KByte (WARNING: requested 1.00 MByte)
------------------------------------------------------------
[  3] local 129.132.57.12 port 1234 connected with 129.132.57.13 port 32825
[  3]  0.0-10.2 sec  11.6 MBytes  9.58 Mbits/sec  5.864 ms    0/ 8271 (0%)
[  3]  0.0-10.2 sec  1 datagrams received out-of-order
```

4.5 Client - Siemens - Server, 1 respektive 50 parallele Verbindungen

commands: server: iperf -s; client: iperf -c SERVERIP -P [1 50]

```
------------------------------------------------------------
Server listening on TCP port 1234
TCP window size: 85.3 KByte (default)
------------------------------------------------------------
[  4] local 129.132.57.12 port 1234 connected with 129.132.57.10 port 33927
[  4]  0.0-10.0 sec    112 MBytes  93.8 Mbits/sec

-> Mit 50 Verbindungen
[SUM]  0.0-27.2 sec    265 MBytes  81.7 Mbits/sec
```