Pixelflut v6
As fast as possible?

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Inhalt

Pixelflut v4

- ASCII-Befehle über TCP, Zeile für Zeile

Verwendung

echo "PX x y rrggbb[aa]" | nc 127.0.0.1 1234

Software

- Server: shoreline von TobleMiner
  - 37G
  - https://github.com/TobleMiner/shoreline
- Client: sturmflut
  - 80G
  - https://github.com/TobleMiner/sturmflut

Pixelflut v6

Das Format der zu sendenden IPv6-Adresse:

- 64 bit festes Prefix
- 16 bit X-Koordinate
- 16 bit Y-Koordinate
- 8 bit R
- 8 bit G
- 8 bit B
- 8 bit Padding

Gesamt ergibt sich: `Prefix:XXXX:YYYY:RRGG:BBPP`

Beispiel

Beispiel

ping 4000:42:0:0:0505:ffaa:ccff

- Netz: 4000:42::/64
- X = 5
- Y = 5
- Farbe: 0xffaacc

Netzarchitektur

- Neighbor Discovery von $>$ 2 Millionen IPv6 Adressen (Full HD)?

Netzarchitektur

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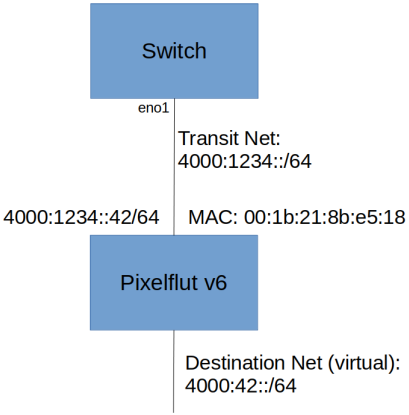
  $\rightarrow$ Nein!

Netzarchitektur



Configuration for switch::
(optional) ip -6 addr add 4000:1234::1/64 dev eno1
ip -6 neigh add 4000:1234::42 lladdr 00:1b:21:8b:e5:18 dev eno1
ip -6 route add 4000:42::/64 dev eno1 nexthop via 4000:1234::42

The clients must send their packets to 4000:42::xxxx:yyyy:rrgg:bb00