Shared Fate Visualizations

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Goal: “see” how sessions tend to drop packets at similar times

1. Packet Sizes over small time int'ls

Show SharedFate1p1.ps

- too few "bright spots"
- many sessions too small to see (bad use of color contrast)
- can't see "packet loss" times

2. Proportion of max (for trace)

Show SharedFate1p2.ps

- now see all sessions
- three bands???
- ordering unclear
- can't see "packet loss" times

3. Trans'n "on" times, sorted by start

Show SharedFate1p22.ps

- suggests only ~ 3 long durations
- mostly "sparse" transmissions
- hard to see "packet loss"

4. Session Durations

Show SharedFate1p23.ps

- same lessons as above
- sparsity of transmissions very clear
- Packet loss disappears in sparsity?

5. “Bandwidth View” of Sizes

Show SharedFate1p31.ps

- Random “slot” (re) assignment
- Avoids “large vertical spread”
- Again too few show up

6. Bandwidth View of max proportion

Show SharedFate1p32.ps

- Better contrast show more
- Sparsity still major problem
- Still can’t see “common misses”

7. Bandwidth view of On Times

Show SharedFate1p33.ps

- Better than above view?
- Still don’t see shared fate

8. Bandwidth view of Connected Times

Show SharedFate1p34.ps

- Highlights sparsity problem

9. Connection Levels

Show SharedFate1p35.ps

- Blue: Connected, but no data
- Green: Connected, data < 1/3
- Yellow: 1/3 < data < 2/3
- White: 2/3 < data
- Shows “nature of connections” well
- Still don’t see shared fate
- “relevant” connections to spread?

10. Connection levels, sorted by size

Show SharedFate1p36.ps

- better grouping
- long colored strips still separate

11. Connect'n levels, sorted by "on time"

Show SharedFate1p37.ps

- brings "right" sessions together
- still don't see "shared fate"???