World IPv6 Day Call to Arms

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Aims

- Raise awareness of the June 8th World IPv6 Day
- Seek to capture:
  - common causes of connectivity and performance issues, focusing on things an end-site can influence, with suggested actions/measures
  - methods to measure and monitor IPv6 traffic, to allow analysis of traffic behaviour on the day
- Produce a final 'guide' well in advance of the IPv6 Day
  - Though the advice may have longer-term benefits
  - Measurement tools could be left in place
- Currently also includes some info on IPv6-only

Issues

- Currently cited (in no particular order):
  - Unmanaged tunnels (6to4 relays, proto41 filters,…)
  - Tunnel broker first-hop
  - Connection timeouts (failover to/from IPv4/IPv6)
  - PMTU discovery
  - Rogue router advertisements (inc. IPv4-only networks)
  - Tunnel performance (under higher load)
  - AAAA record advertised but service not enabled
  - Filtering – impact of drop vs unreachable

Measurement

- Sites may enable clients, servers, or both
- What could be captured on the day:
  - IPv6 traffic levels
  - Flow records
  - Application brokenness/preference
    - Reachability to IPv4-only/dual-stack/IPv6-only
  - PMTUD brokenness
  - IPv4/IPv6 performance comparison
  - Security monitoring (e.g. RAmond, NDPmon)

Next steps

- Is this useful?
- If so, solicit more feedback on the issues and measurement methods suggested
- Raise awareness of the text
- Harden well in advance of June 8th
  - Perhaps useful advice longer-term

- Q: Should we influence the experiment?
  - e.g. fix PMTUD problems or just use 1280?
  - Deploy local 6to4 relays, or discourage 6to4?