Assessing IPv6 Adoption

Mark Allman (ICSI), Michael Bailey (UMich),
Jakub Czyz (UMich), Scott Iekel-Johnson
(Arbor),Eric Osterweil (Verisign)

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Goals

- Observation: many studies focus on a single aspect of IPv6 adoption

  - address allocation, route advertisement, reachability, etc.

- So, develop a taxonomy for assessing IPv6 adoption in a more *holistic* fashion

- Also, bring together our data to gain an overall sense of the state of IPv6

  - (we don't have data covering the entire taxonomy ... need community help)

Taxonomy

- First task: develop a reasonable *first-order* taxonomy

- Not concerned with sub-metrics, but clearly these have value

    - e.g., consider overall performance, not loss rate

Addressing

- Address allocations (M1)

- Routing advertisement (M2)

- Transition technologies (M3)

Naming

- DNS nameservers (M4)

- DNS resolvers (M5)

- DNS queries (M6)

Routing

- Topology (M7)

End-to-End Reachability

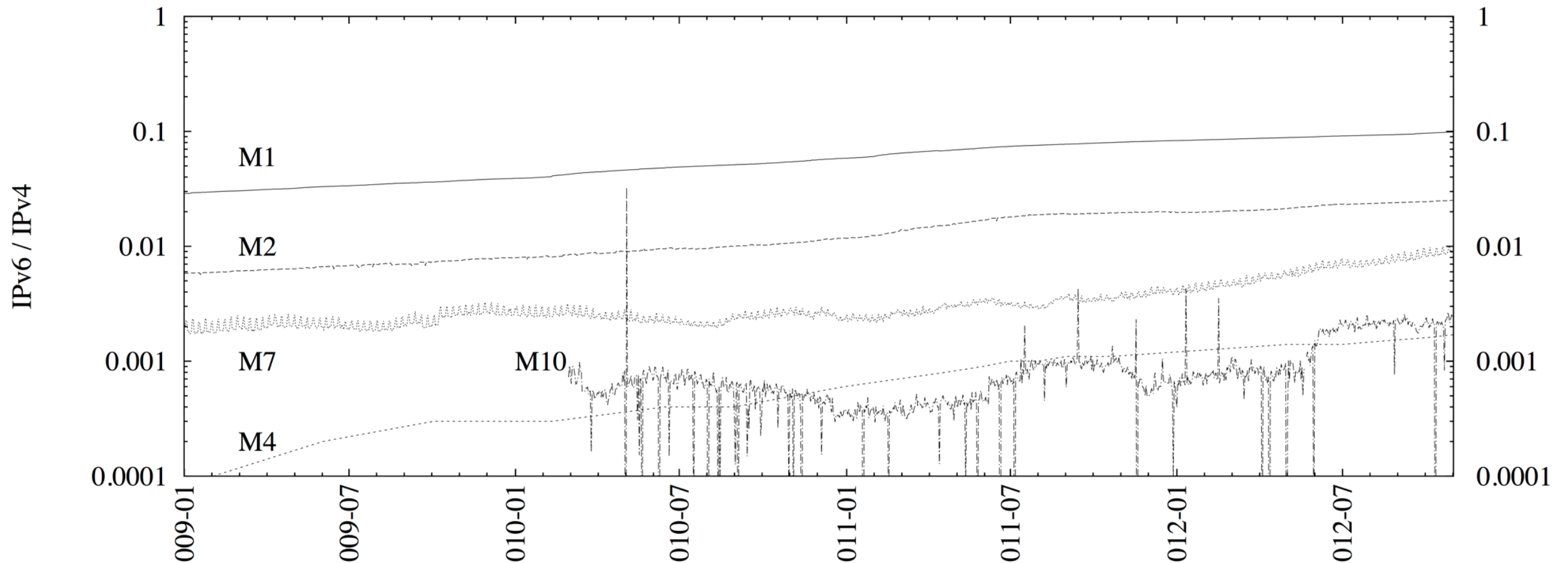- Server-side readiness (M8)

- Client-side readiness (M9)

Traffic

- Traffic volume (M10)

- Application mix (M11)

Performance

- Performance (M12)

Results

M1: address allocation
M2: route advertisement
M4: DNS nameservers
M7: client readiness (really M9)
M10: traffic volume

Draft Paper

- Paper currently under submission, but a not-to-cite-or-redistribute version is at:

  - http://www.icir.org/mallman/share/v6adopt-sigmetrics13-submit.pdf

  - (comments welcome!)

Questions? Comments?

Mark Allman

mallman@icir.org
http://www.icir.org/mallman/