Investigating Interdomain Routing Policies in the Wild

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- **How do we innovate in the Internet?**
  - Building new protocols, playing what-if scenarios
    - Can't test the ideas straight on the Internet
    - Might require Internet-wide changes, cause disruptions
    - Restricts research to today's Internet deployments
  - Solution?
    - Use Internet models to evaluate what would happen

Problem solved?

- **Gao Rexford (GR) Model**
  - ASes connect based on business relationships
    - Prefer customer > peer > provider path
    - Pick the one with shortest path length
    - Export customer paths to all neighbours

But how well this model hold?

Is Gao-Rexford the only model?

- **Methodology**
  - Ripe Atlas probes from different countries and Ases
  - Traceroutes towards popular content providers
  - Compare AS paths with CAIDA's AS topologies
  - How many decisions followed GR model?

  64.7% of total decisions followed Gao-Rexford

- **Causes of limitations**
  - Siblings

For more details, refer to our paper:
"Investigating Interdomain Policies in the Wild" (IMC'15)

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