The Measurable Security Lab (MSL)
Cybersecurity Systems and Data Analysis Research

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- Research focus derived from **real world** cybersecurity threats/solutions/operations
- Cybersecurity is a fascinating space, but can be a challenge to know **what are the “real problems”**

Basic Research with Real-World Impact

- It can be a challenge to find *real* problems that lead to deep/exciting research.

- Industry is full of challenges, problems, and context.

- MSL’s collaborative/community network is vast
  - DigiCert, Verisign, ICANN, ISOC, IETF, ICANN, and more...

- We focus on basic research results impacting operational cybersecurity infrastructure
  - Distributed Denial of Service (DDoS)
  - Internet-scale cryptographic key management protocols
  - Inter-domain routing security
Recent Results

- Just published results from 15 year study of how cryptographic keys are managed in the first core Internet protocol to be enhanced with crypto: DNSSEC
  - Using our unique data corpus of over 36 billion real-world measurements

- Just completing the transition of a research/operational community resource/dataset from an industry partner (ISOC) to our lab at Mason
  
An exciting time for cybersecurity research

Doing basic science in MSL is exciting, and opens opportunities

- Exciting collaborations
- Working with industry and communities
- Real-world impact from research
- Students get known to industry for *your work*