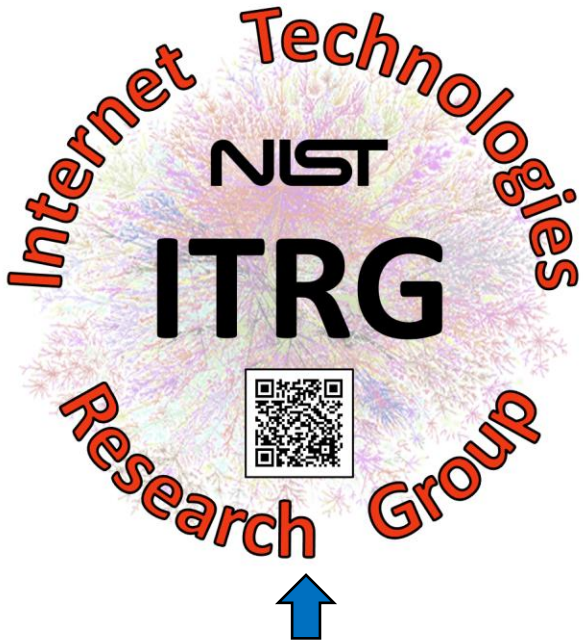
Internet Technologies Research at NIST

Would you like to start your career:

- Collaborating with industry to design, standardize, commercialize and deploy technologies to address vulnerabilities in current and emerging networks.
- Leveraging emerging disruptive technologies to develop new approaches to improve the security and resilience of critical network infrastructure.
- Researching methods to design and validate new network security technologies.



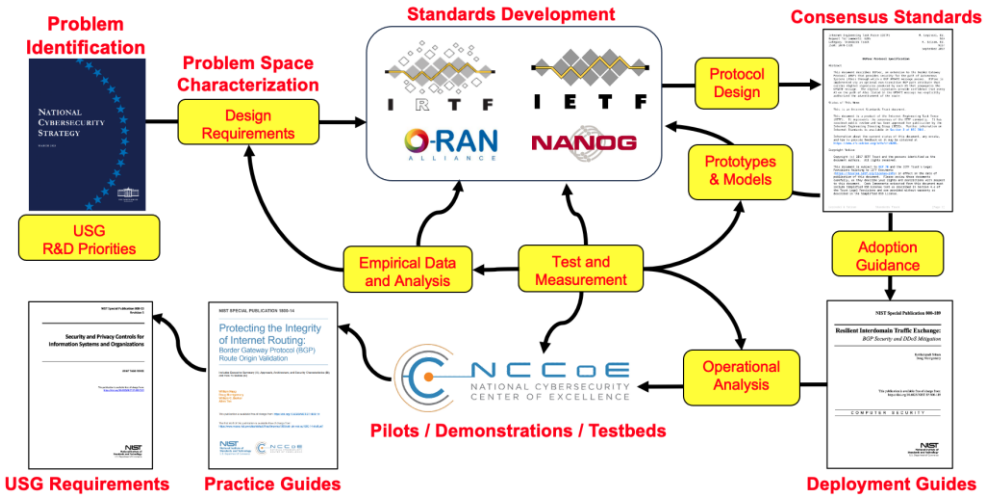
Do you have a background or interest in …….. If so, start here

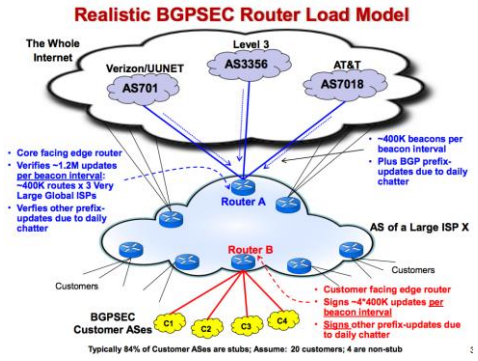
- virtualized network / cloud security, Internet technologies (BGP, DNS, IPv6), Internet of things, next generation wireless technologies (5G/6G), security testing and verification, applications of AI to security, protocol design and standardization, network software development, network measurement and data science.
- working with leading Internet companies in standards / collaborative forums such as..

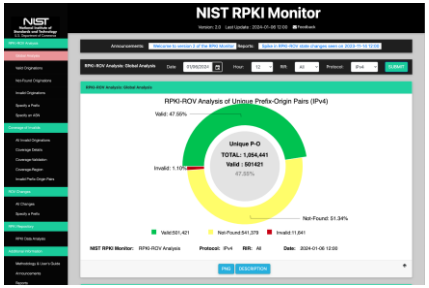
IETF IRTF O-RAN ALLIANCE ARIN American Registry for Internet Numbers NANOG NCCoE NATIONAL CYBERSECURITY CENTER OF EXCELLENCE

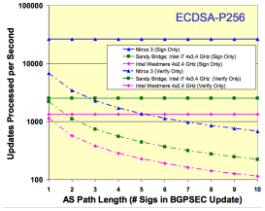
Research, Development, Technology Transfer

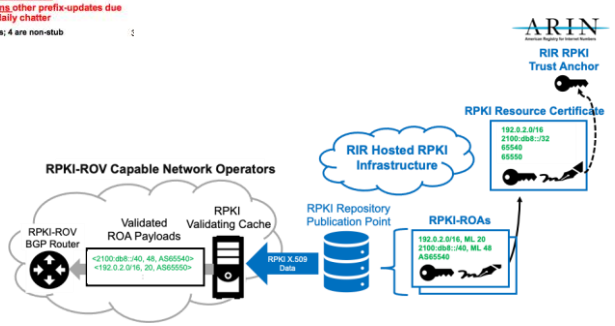
- ✓ **Protocol Design, Analysis and Standardization**
  - Internet Engineering Task Force (IETF), Internet Research Task Force (IRTF), North American Network Operators Group (NANOG), Open Radio Access Network (O-RAN) Alliance.
- ✓ **Internet Scale Measurement and Data Analysis**
  - Measurement, monitoring, and analysis of Internet infrastructure.
- ✓ **Rapid Prototyping**
  - Open source reference implementations of emerging protocol specifications.
- ✓ **Analytical, Simulation & Emulation Modeling**
  - Internet scale modeling for performance, scalability, security, and resilience.
- ✓ **Test and Evaluation of Emerging Implementations**
  - Test tools designed to assist implementers and early adopters.
  - Test methods to ensure product interoperability, conformance and performance.
- ✓ **Operational Guidance and Standards Profiles**
  - Fostering safe, secure and efficient acquisition, deployment and operation of emerging network technologies.











https://www.nist.gov/ctl/wireless-networks-division/internet-technologies-research-group