National Infrastructure Simulation & Analysis Center

Telecom Infrastructure Modeling

Bell Labs Advanced Technologies

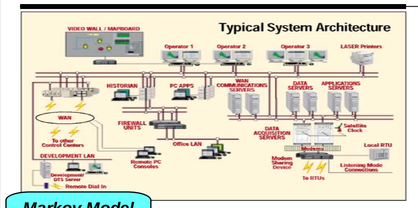
Lucent Technologies
Bell Labs Innovations

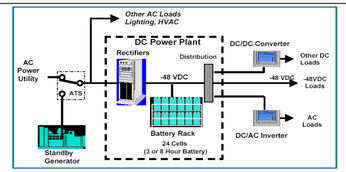
Communications Network Modeling for NISAC Infrastructure Interdependencies

How do Power and Telecom affect Port Operations?

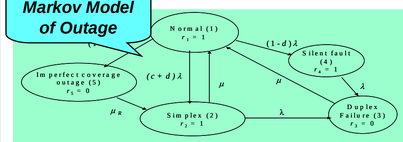
BIG IMPACTS!

Power / Telecom Infrastructures

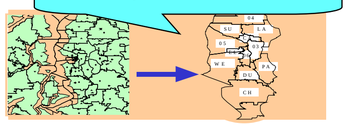




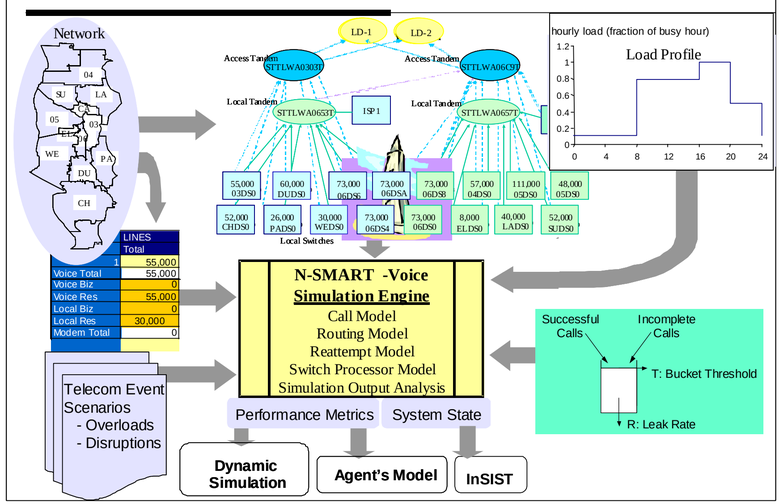
Markov Model of Outage



Overlap of Infrastructures



N-SMART-Voice Simulator

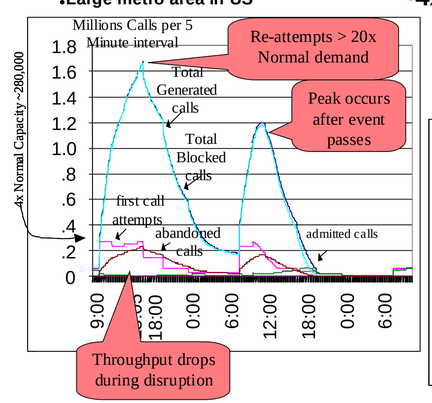


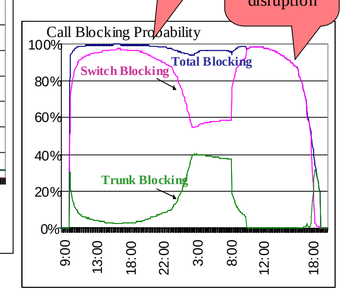
N-SMART-Voice Analysis of Disruptions

Telephone Network Simulation

- ~1,000,000 lines
- Large metro area in US

- 1 day Main Out-of-Service
- 4x normal call volume



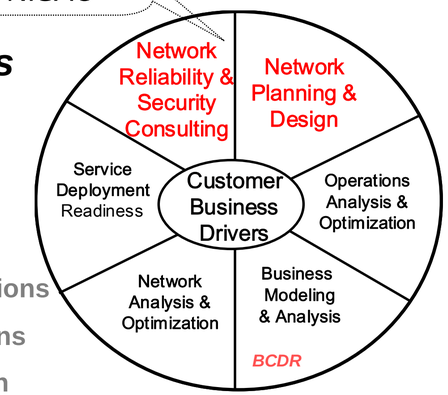


Lucent Worldwide Services Professional Services

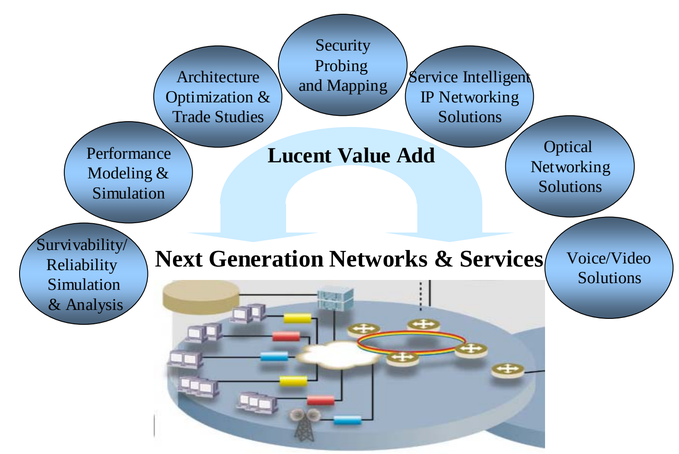
Focus with NISAC

Deliverables

- Assessments
- Analysis
- Plans
- Recommendations
- Detailed Designs
- Implementation



Putting Bell Labs innovations to work



NISAC's core partners are Sandia National Laboratories and Los Alamos National Laboratory.
Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy under contract DE-AC04-94AL85000.
Los Alamos National Laboratory is operated by the University of California for the United States Department of Energy under contract W-7405 ENG-36.