ns-3 briefing for DTNRG

Tom Henderson
ns-3 project (University of Washington)
July 24, 2007
ns-3 Program Details

- Open source project (licensing and development model)
- Initial funding from NSF and INRIA for students and staff programmers
  - NSF PIs: Tom Henderson, George Riley, Sumit Roy, Sally Floyd
  - INRIA Planete' research group (Mathieu Lacage)
- Software developed using freely available tools on commodity hardware
- Intended to eventually replace ns-2
ns-3 goals

- Long-term architectural integrity: high modularity
- Easy integration of real-world code
- Easy integration of network testbeds
- Large scale simulation via parallelization and other proven techniques
- Updated models (detailed 802.11/wimax models, peer-to-peer, etc.)
- Flexible, powerful tracing and statistics
- Focus on research use
  - with frameworks for educational use
ns-3 high-level view

- C++-only core with python wrappers
- Basic IP model close to real-world networks
  - e.g. nodes designed for multiple interfaces
- Every facility is designed with extensibility and flexibility in mind
  - MAC+PHY layers
  - command line arguments and default values
  - COM-like query interface and component manager
  - application layer and APIs
  - packets
  - tracing
  - simulation time
Questions for DTNRG

What are your requirements for simulation of DTNs?

Any interest in the RG in exploring DTN simulations over ns-3?

For more information:
Web site:
  http://www.nsnam.org
Mailing list:
  http://mailman.isi.edu/mailman/listinfo/ns-developers