



TECHNOLOGY

Timestepped Stochastic Simulation of 802.11 WLANs

OVERVIEW

The present technology available for simulation of WLAN links is packet-level simulation. This technology evaluates WLANs by updating the system state at every packet arrival and departure; which is very time consuming for realistic networks and network loads.

Researchers at the University of Maryland have developed a new approach of Timestepped stochastic simulation. This new method simulates WLANs by updating the system state only at the end of timesteps. Whatever the packet level simulation would do within a timestep is abstracted by an analytical computation in Timestepped stochastic simulation. Because the analytical computation is computationally cheaper than packet-level simulation, the new approach is much faster.

A fully featured simulator for wired-cum-wireless networks with a GUI front end and user-modifiable scripting interface and back end can be developed in the near future.

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Additional Information

INSTITUTION

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PATENT STATUS

Patent(s) pending

LICENSE STATUS

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CATEGORIES

- Information Technology

EXTERNAL RESOURCES

- [US Patent 8,264,973](#)

