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ITGuru - A Powerful Network Simulation Environment for Teaching and Research

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TITLE: ITGURU - A POWERFUL NETWORK SIMULATION ENVIRONMENT FOR TEACHING AND RESEARCH[*]

TUTORIAL PRESENTATION

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ITGuru is a powerful simulation environment developed by OpNET Corporation. ITGuru is unique because of its ability to model the entire network, including its routers, switches, protocols, servers, and the individual applications they support. ITGuru improves network designers and instructors the ability to identify and solve problems throughout their network. ITGuru assesses application impact, automates diagnostic testing, expedites server capacity planning and consolidation, analyzes failure impact, and enables network growth planning

ITGuru's Application Characterization Environment (ACE) module enables network designers and instructors the ability to identify the root-cause of end-to-end application performance problems, and solve them cost-effectively by understanding the impact of changes

ITGuru's also contains the NetDoctor and Flow Analysis modules. The NetDoctor module provides a customizable environment that enables network professionals and instructors the ability to automate tasks such as validation of routing protocol configurations, verification of network security policies, and performing rules-based network assessments. The Flow Analysis module enables design of fault-tolerant networks, capacity planning, traffic engineering, and routing protocol studies. The OpNET Corporation provides an academic copy of their simulation environment to universities for both teaching and research.

INTENDED AUDIENCE:

Requires minimal knowledge of network devices and protocols. The tutorial will be geared towards computer science and information systems faculty.

TUTORIAL OUTLINE:
- Fundamentals of IT Guru
- Building network topologies
- Traffic modeling techniques
- Overview of Net Doctor and Flow Analysis
- Introduction to Application Characterization Environment (ACE)