# New Trends and Challenges in Computer Network Security

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*World-Leading Research with Real-World Impact!*

# Major Cyber Drivers

- ➤ # 1 Technology Trend
  - ❖ Cloud Computing
- ➤ # 1 Organizational Trend
  - ❖ Enterprise Information Technology (IT) evolves from technology centric to business centric
- ➤ # 1 Information Trend
  - ❖ Speed: increasing
  - ❖ Volume: increasing
  - ❖ Quality: reducing
  - ❖ Social: increasing

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# Major Cyber Security Challenges

- ➤ Automation
  - ❖ Get the system/security administrator/analyst out of the loop
  - ❖ Mission-awareness built into the IT infrastructure
- ➤ Agility
  - ❖ Deployment and evolution of secure services in minutes not weeks or months
  - ❖ Robust, usable foundational mechanisms, e.g., federated identity management
- ➤ Enablement
  - ❖ Security that solves the real problem rather than mindless compliance
  - ❖ Empower the end user to help figure this out