Threats and Key Issues for Cyber Workforce Training

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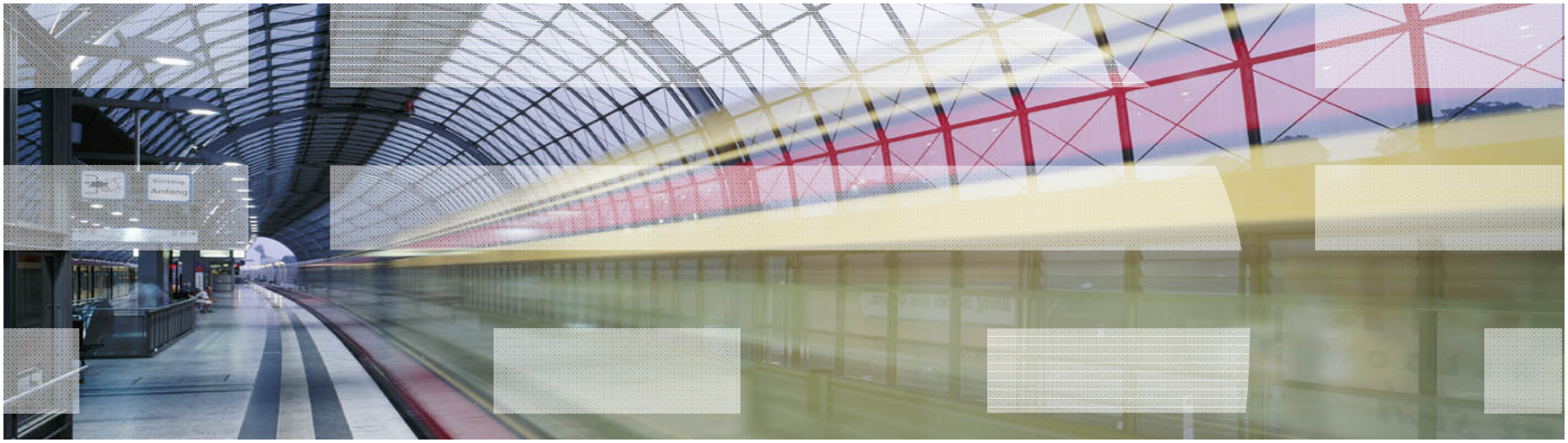
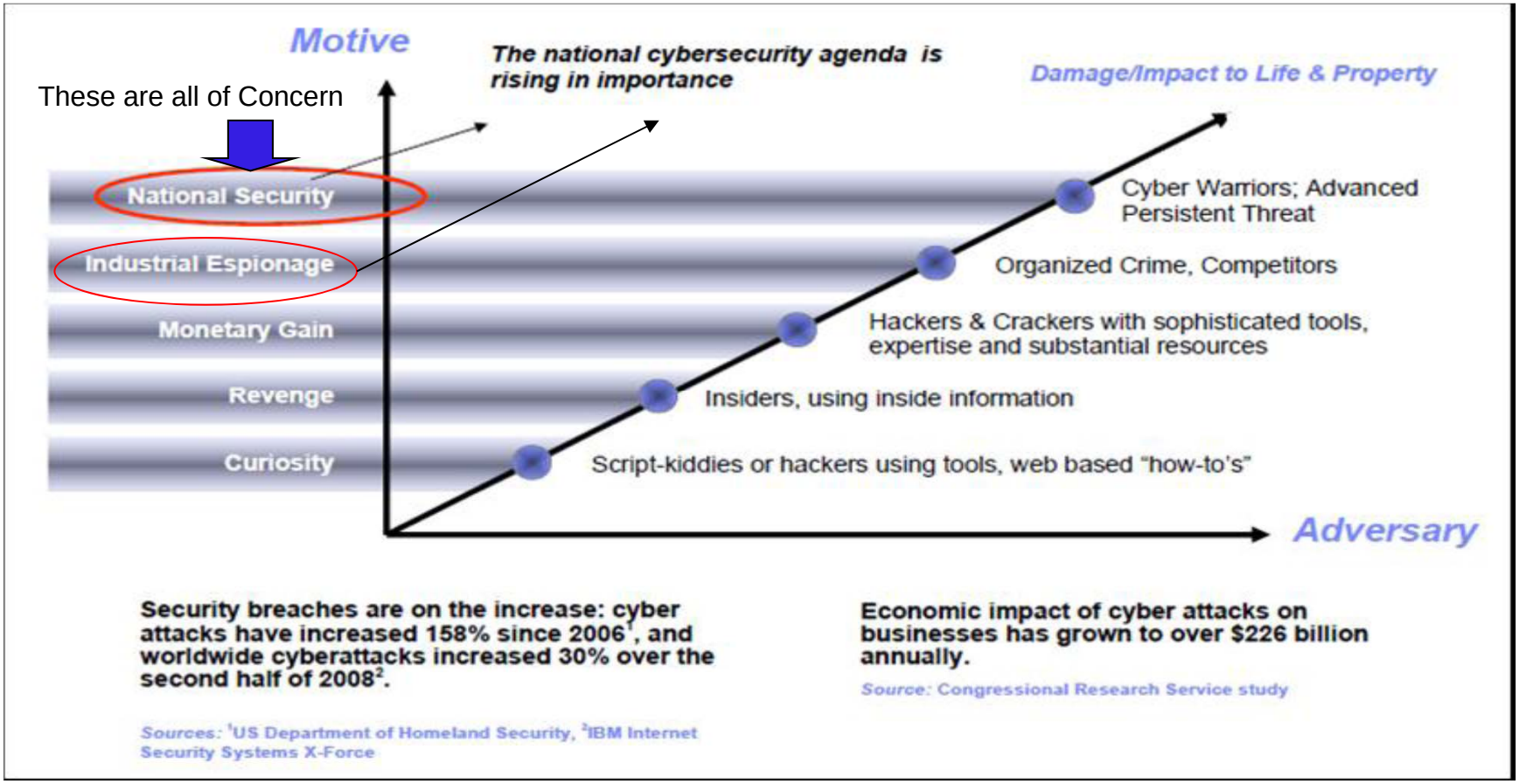
Dan Chenok,

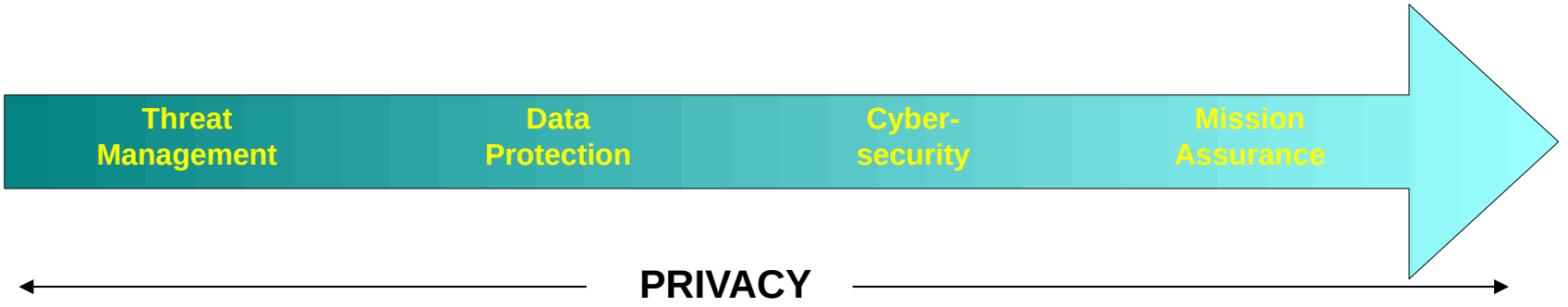
Senior Fellow, IBM Center for The Business of Government
Chair, Federal Information Security and Privacy Advisory Board



Cyber-Threats Are Becoming More Sophisticated



The concept of “cybersecurity” continues to evolve; U.S. federal agencies on maturation path from “react/protect” to “mission assurance”



- **Threat Management** – Identify/respond to computer network exploitation (CNE) and computer network attack (CNA)
- **Data Protection** – Threat management plus additional measures to prevent data loss, damage, and corruption and protect data even if it is lost
- **Cybersecurity** – Defensive measures to protect systems plus response and recovery; broadly includes more than IT, but also defensive measures around people, processes, policies
- **Mission Assurance** – Focus on holistic approach to proactively managing all aspects of IT and IT-related process and human capital that are critical to carrying out organizational mission. This approach results in a broader risk management approach and broadens discussion from tactics to strategy and from IT to all critical IT-related business processes and governance.
- **Privacy** – Permeates all aspects of cyber ; protection of personally identifiable information is essential in all phases

Key Cyber Issues Facing Federal Agencies

- Most important security issues facing Federal systems:
  - IT asset identification and system access
  - Trusted identity; roles based authentication; insider threats
  - Application security
  - Continuous monitoring
  - Situational awareness
  - Vulnerability management
  - Security metrics and dashboards
  - Data breaches/privacy
  - Secure cloud/FedRamp

IMPLICATIONS

- General agreement that bulk of spending on certifying/accrediting (C&A) IT systems must give way to a more operational posture of continuous monitoring
- Surveillance programs, including CYBERCOM and Einstein, may involve the potential for "active" responses by the U.S. in cyberspace
- Privacy and civil liberties concerns – come to fore given greater government monitoring of threats and activity, including on commercial networks
- High scrutiny on security of IT products and IT supply chain integrity

Lots of Policy and Legislation Afoot as a Result – Need to Know

- Legislation:
  - Senate: Lieberman-Collins, Rockefeller-Snowe, and Reid
  - House: Goodlatte, Lundgren, and Thornberry
  - Administration's Bill

- Policy:
  - CNCI and its progeny
  - Cyberspace Policy Review and its progeny
  - National Strategy for Trusted Identities in Cyberspace (NSTC)

- Lead Agencies
  - NSS – Cyber Coordinator
  - DHS -- NPPD
  - Commerce -- NIST
  - DOD – Cybercommand, NSA

Educating the Federal and Contractor Workforce

- NICE!
- Regular review of response to threats
  - Tips of the Day
  - Cyberscope reviews
- Continuous Monitoring
  - iPost
  - Cyberscope
- Different Focus for Different Folks:
  - Cyber team
  - IT team
  - Program officials
  - Executives