NIAC Working Group on Cross Sector Interdependencies & Risk Assessment Guidance

Proposed Recommendations

Martin G. McGuinn, Chairman & CEO
Mellon Financial Corporation

Tuesday – October 14, 2003
Presentation Outline

- Background
- Report on Actions to Date
- Methodology
- Key Issues and Proposed Recommendations
- Next Steps
Background

- April 22 – NIAC Members recommend establishment of working group to:
  - Provide risk assessment guidance based on cross-sector interdependencies and gaps identified in the process.
  - Provide advice and guidance to the President on what needs to be addressed.
Report on Actions Taken to Date

☐ Project Initiation – May 8, 2003
  ■ Invitation sent to NIAC members
  ■ Invitation sent to Sector Coordinators

☐ Kick-off Meeting – May 14, 2003


☐ Deliver Proposed Recommendations – October 14, 2003
Methodology

- Formed Working Group comprised of representatives from NIAC member institutions and sector coordinators. The Working Group:
  - Met by conference call every week.
  - Reviewed existing interdependency studies.
  - Received briefings on the following:
    - DHS Homeland Security Operations Center
    - National Labs Modeling Capabilities
    - DHS Common Lexicon Project
    - InfraGard
    - Incident response plans from some critical infrastructures
Key Findings

- Cross-sector crisis management coordination is fundamental to the rapid restoration of critical infrastructure and integral to sustain the public’s confidence in those infrastructures.

- We have identified nine issues and recommendations, that can help strengthen cross-sector crisis management coordination.
Fundamental Principles

- Projects must be structured to provide short-term deliverables to address the most pressing issues in a useful, if non-optimal, fashion.
- Progress must be monitored to ensure adequate progress is made towards implementing approved recommendations.
- Partnership between the public and private sectors must be a two-way street in order to evolve to a “trusted” partnership.
1. Inconsistencies exist in the definition of the critical infrastructures.


- Each critical infrastructure should have:
  - Sector coordinator
  - Information sharing and analysis center (ISAC)
  - NIAC representation
## ACTION ITEM: Critical Infrastructures

<table>
<thead>
<tr>
<th>Sector</th>
<th>Sector Coordinator</th>
<th>ISAC</th>
<th>ISAC Contact</th>
<th>NIAC</th>
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<tbody>
<tr>
<td>1. Agriculture</td>
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<td>2. Food</td>
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<tr>
<td>- Meat and Poultry</td>
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<td>Food ISAC</td>
<td>Tim Hammonds</td>
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<td>- All Other</td>
<td></td>
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<td>Tim Weigner</td>
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<td>3. Water</td>
<td>Diane VanDe Hei - AMWA</td>
<td>Water ISAC</td>
<td>Susan Tramposch</td>
<td>American Waterworks Service Company, Inc.</td>
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<td>4. Public Health</td>
<td>Tim Zoph - Northwestern Memorial Hospital</td>
<td>HC ISAC in development</td>
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<td>5. Emergency Services</td>
<td>Dave Christler</td>
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<td>City of Albuquerque; City of New York</td>
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<td>6. Government</td>
<td></td>
<td>NASCIO</td>
<td>Chris Dixon</td>
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<td>7. Defense Industrial Base</td>
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<td>10. Transportation</td>
<td>Ed Hamberger - AAR Greg Hull - ACI - NA David Plavin - APTA</td>
<td>Surface Transportation ISAC</td>
<td>Paul Wolfe</td>
<td>American Airlines</td>
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<tr>
<td>12. Chemical Industry &amp; Hazardous Materials</td>
<td></td>
<td>Chemical ISAC</td>
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<td>DuPont Company Pfizer Global</td>
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<tr>
<td>13. Postal &amp; Shipping</td>
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<td>United Parcel Service</td>
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</table>
2. The sector coordinator role is not broadly understood by private industry.

- We support the concept of sector coordinators who participate in, coordinate and support private/public and cross-sector collaborative efforts.

- Coordinator role should be defined and publicized to the CEOs, CIOs, and crisis managers of their sectors.
ACTION ITEMS: Sector Coordinators

- Modify the sector coordinator definition as follows:
  - Each “Critical Infrastructure” should have a consistently appointed and consistently funded sector coordinator.
  - The Sector Coordinators should be responsible to insure that a Crisis Management Plan exists for their sector.
  - The Sector Coordinators should also provide the “cross-sector” liaison role for their respective critical infrastructure.

- Appoint sector coordinators for critical infrastructures that currently do not have a coordinator.

- Create a communication plan to publicize the role of the sector coordinator to their constituents.
3. Crisis Management plans do not exist for each sector and are not tested end-to-end, across the sectors.

- Crisis Management Plans should exist for each sector and be tested.

- Testing should include cross-sector coordination.

- Testing and exercising sector crisis management plans should be under the purview of the sector coordinator.
ACTION ITEMS: Crisis Management Plans

☐ **Short-Term**

- Create automated calling trees via an automated notification system.
- Each sector coordinator should establish a “Virtual Command Center” via an open bridge line to be used during a crisis.

☐ **Long-Term**

- Develop crisis management plans for each sector
- Test annually and validate cross-sector coordination
14. A National Command Center does not exist as a confluence point for the private sectors during times of crisis.

- DHS should establish a virtual command center that provides a call tree, alerting mechanism, and communication point for use by critical sectors during an emergency situation.

- Each sector should have a seat at the Homeland Security Operations Center.
ACTION ITEMS: National Command Center

☐ Establish a virtual command center that provides a call tree, alerting mechanism, and communication point for use by critical sectors during an emergency situation.

☐ Assign each sector a seat at the Homeland Security Operations Center.
5. Government sponsored exercises (e.g., TOPOFF2) do not actively solicit private industry representation.

- DHS should sponsor crisis management exercises that include the participation of the critical infrastructures as soon as possible, and annually thereafter.

- Lessons learned from such exercises should be made available as appropriate and provided to the private sector.
ACTION ITEMS: Government Sponsored Exercises

☐ DHS devise and sponsor crisis management exercises.

☐ Extrapolate lessons learned from such exercises and distribute as appropriate.
6. There is an underestimation of the dependency of the Nation’s critical infrastructures on the Internet.

- Enhance awareness of Internet dependencies, including:
  - Which products are dependent on the internet?
  - How much revenue would be lost if the above product(s) were not available?
  - What customer service products would be unavailable?
  - What internal processing supported applications would be broken?
  - What information/marketing tools would be impacted?
ACTION ITEMS: Internet Dependencies

- Private Industry:
  - Adopt security practices
  - Encourage users to keep skills and knowledge current
  - Help educate users

- Technology Vendors:
  - Design virus resistant-virus proof software
  - Reduce implementation errors
  - Ship products with high-security default configurations

- Government:
  - Provide incentives for higher quality software
  - Support a research agenda that seeks new approaches to software security
  - Encourage more technical specialists
  - Provide more awareness and training for internet users

Excerpts from testimony of Richard D. Pethia, Director, CERT Coordination Center
7. Coordination in planning and response between public emergency management and private critical infrastructure is inadequate and/or inconsistent.

- Provide a framework for public and private emergency management interaction at the national, sector, state, and regional levels.

- The framework should integrate with public and private information sharing models and account for Information Sharing and Analysis Centers and InfraGard.
ACTION ITEMS: Planning and Response Coordination

Short-term
- Review National Incident Management System to insure inclusion of private sector.
- Resolve any duplicative or competing objectives between InfraGard and DHS.
- Provide overview guide to critical infrastructure crisis management for private companies.

Long-term
- DHS should develop a national framework for information sharing and emergency management.
- Ensure above model includes a regional component.
8. There is a lack of incentives that would help defray the expense burden resulting from strengthening the resiliency of the critical infrastructures.

- Consider forming a working group to explore the potential for creating tax incentives or other instruments to incent the private sector to enhance the resiliency of the critical infrastructures.
ACTION ITEMS: Lack of Incentives

☐ Form a working group to study this issue further.
9. Sophisticated modeling capabilities exist at the national laboratories and multiple research and development studies on cross-sector interdependencies have been completed.

- The national labs should focus their interdependency modeling and research on the regions and sectors whose failure would have the greatest impact on the economy and national security.

- The working group suggests modeling the telecommunications and energy sectors, and the interdependencies among them and the other critical infrastructures.

- Existing research and development studies should be indexed and cross-referenced in such a way to make these materials accessible to appropriate parties.
ACTION ITEMS: Modeling and Existing Research.

- Focus modeling efforts on most critical interdependencies, i.e., telecommunications and electricity sectors.

- Index and cross-reference existing research to avoid redundant efforts.
## Sample Report Card

<table>
<thead>
<tr>
<th>Issue #</th>
<th>Action Item(s)</th>
<th>Date Approved</th>
<th>Proposed Completion Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Fill vacant roles in critical infrastructures</td>
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<td>2</td>
<td>Modify sector coordinator definition</td>
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<td>Appoint sector coordinators</td>
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<td>Create a communication plan</td>
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<td>3</td>
<td>Created automated calling trees</td>
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<td></td>
<td>Establish sector virtual command centers</td>
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<td>Develop crisis management plans</td>
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<td>Test and validate plans annually</td>
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<td>4</td>
<td>Establish national virtual command center</td>
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<td>Assign each sector a “seat” at HSOC</td>
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<td>5</td>
<td>Devise and sponsor cross-sector exercises</td>
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<td>Extrapolate and distribute lessons learned</td>
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<td>6</td>
<td>Private Industry</td>
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<td>Technology Vendors</td>
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<td>Government</td>
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<td>7</td>
<td>Review NIMS for private sector inclusion</td>
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<td>Resolve duplicative or competing efforts</td>
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<td>Provide CIP guidance to private sector</td>
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<td>Develop national framework for IS</td>
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<td>Ensure a regional component in IS</td>
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<th>Proposed Completion Date</th>
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<tr>
<td>8</td>
<td>Form a working group to study incentives to strengthen CIP</td>
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<td>9</td>
<td>Focus modeling on telecommunications and electricity sectors</td>
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<td></td>
<td>Index and cross-reference existing research</td>
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Appendices

- Working Group Participants
- Deliverables Contained in Report of Proposed Recommendations
Working Group Participants

- **NIAC Member Institutions and DHS Support**
  - Susan Vismor, SVP, Mellon Financial Corp., Working Group Chair
  - Teresa C. Lindsey, Chief of Staff, BITS
  - Peter Allor - ISS
  - Bob Bergman, UPS
  - Andy Ellis – Akamai
  - Bobby Gilham – Conoco Phillips (Also listed as sector coordinator)
  - Rick Holmes – Union Pacific Corp.
  - Douglas Hurt – V-One
  - Aaron Meckler – Wells Fargo & Company
  - Chris Terzich - Wells Fargo & Company
  - Ken Watson - Cisco Systems, Inc.
  - Nancy Wong, DHS
  - Eric Werner, DHS
  - Clay Woody, DHS
Working Group Participants

- **Sector Coordinators**
  - Kathryn Condello, CTIA, Telecommunications *
  - Matthew Flanigan, TIA, Telecommunications*
    - David Thompson, TIA Online
  - Michehl Gent, North American Electric Reliability Council, Electric Power *
    - Lou Leffler, NERC
    - Dave Nevius, NERC
  - Bobby Gillham, ConocoPhillips, Inc., Oil and Gas *
  - Ed Hamberger, Association of American Railroads, Surface Transportation*
    - Nancy Wilson, Association of American Railroads
  - Rhonda MacLean, Bank of America, Financial Services *
    - Peggy Lipps, Bank of America
  - Harris Miller, ITAA, Information*
    - Greg Garcia, ITAA
  - Daniel Phythyon, USTA, Telecommunications*
    - David Kanupke, USTA
  - Diane Van DeHei, Association of Metropolitan Water Agencies, Water *
  - Tim Zoph, Northwestern Memorial Hospital, Healthcare

* Accepted to participate to date (or send substitute).
Deliverables

- Critical Infrastructures
  - Critical Infrastructures and Federal Liaison Organizations
  - Matrix of Roles Related to Critical Infrastructure Protection
  - Status of Current Information Sharing and Analysis Centers
- Sector Coordinators
  - Roles and Responsibilities Definition
- Crisis Management Coordination
  - Sector Call Trees
  - Sector Approaches to Security/Crisis Management
    - Railroad, Electricity, and Financial Services Sectors
- National Command Center Presentation Overview
- Government Sponsored Exercises
  - Blue Cascades’ Key Findings
Deliverables (continued)

- Dependency on the Internet
  - Business Impact Survey Questions
  - Excerpts from Testimony of Richard D. Pethia, CERT
- Coordination in Planning
  - Business Incident Coordination System (Example)
  - National Crisis Management Partnership (Example)
- Lack of Incentives
  - Recommendation for a Future Working Group Study
- Research and Development and Modeling Capabilities
  - Matrix and abstracts of Reports on Critical Infrastructure Interdependencies
  - Ranking of Interdependencies by Critical Infrastructure Sector Representatives