

National Infrastructure Advisory Council

March 18, 2005

The Honorable George W. Bush
President of the United States
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC

Dear Mr. President:

We are pleased to submit the final report and recommendations of the National Infrastructure Advisory Council (NIAC) study regarding Hardening the Internet. The NIAC would like to credit and thank Mr. George H. Conrades, Chairman and Chief Executive Officer of Akamai Technologies for his leadership in this study. The Council would also like to thank the members of the study group and external reviewers for their dedicated efforts.

Mr. President, more than a year ago, you asked the NIAC to answer the question: What can be done to harden the Internet and its dependent businesses from the spread of worms, denial of service attacks against the services and protocols that make up key sections of the infrastructure? In light of the recommendations of our report, and in support of its objectives, the Council respectfully submits three key conclusions and policy recommendations for your consideration:

- **Sponsor an Education and Awareness Campaign on Internet Security Issues.** The Internet provides increasingly critical services in support of commerce and governmental affairs around the world, but unlike the telephone system, its security can be compromised for all users by the actions of individual Internet systems owners and users. Many of the key factors in hardening the Internet can only be accomplished when system owners are educated and motivated to enact security measures.

The Council's policy recommendation is to establish a national outreach program, as laid out in Recommendation Area 1 of the attached report, to ensure that system owners and users implement the Best Current Practices suggested by industry to harden the Internet and its attached systems.

- **Prioritize Research and Development activities to implement advanced Internet security technologies.** There are well-established areas for improvement of Internet management tools and the protocols underlying the Internet, but challenges of scalability and operational implementation must be overcome to enable forward progress.

Our policy recommendation is to focus on key research and development areas, as laid out in Recommendation Area 2 of the attached report, to provide economically

Mailstop 8500 245 Murray Lane, SW
Washington, DC 20528-8500

feasible and even more secure protocols, and to ensure that technologies are available to Internet first responders that provide robust intelligence collection and analysis during a cyber attack.

- **Enhance Internet Law Enforcement Capabilities.** Protecting the Internet requires reducing the ability of criminals to use the Internet's capabilities for crime. This requires focused resources within law enforcement and empowered Internet providers to work with each other. It will also help law enforcement to handle attackers and criminals.

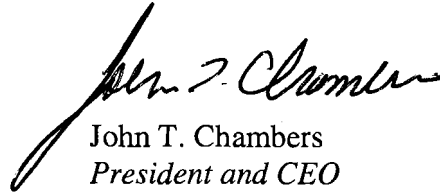
Our policy recommendation is to ensure law enforcement is adequately funded and trained to protect the cyber environment, and that private sector agencies are empowered to work with each other and law enforcement agencies in manners that protect the common good.

Mr. President, on behalf of our fellow NIAC members, we thank you for the opportunity to serve our country through participation in this Council.

Sincerely,



Erle A. Nye
Chairman of the Board
TXU Corp.
Chairman, NIAC



John T. Chambers
President and CEO
Cisco Systems, Inc.
Vice Chairman, NIAC

cc:

Frances Fragos Townsend, Special Assistant to the President for Critical Infrastructure Protection; Homeland Security Advisor
The Honorable Michael Chertoff, Secretary of the Department of Homeland Security

Attachment: Final Report and Recommendations – Hardening the Internet – October 12, 2005