



# *The Internet Security Alliance*

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The **Internet Security Alliance** is a collaborative effort between Carnegie Mellon University's **Software Engineering Institute (SEI)** and its **CERT Coordination Center (CERT/CC)** and the **Electronic Industries Alliance (EIA)**, a federation of trade associations with over 2,500 members.

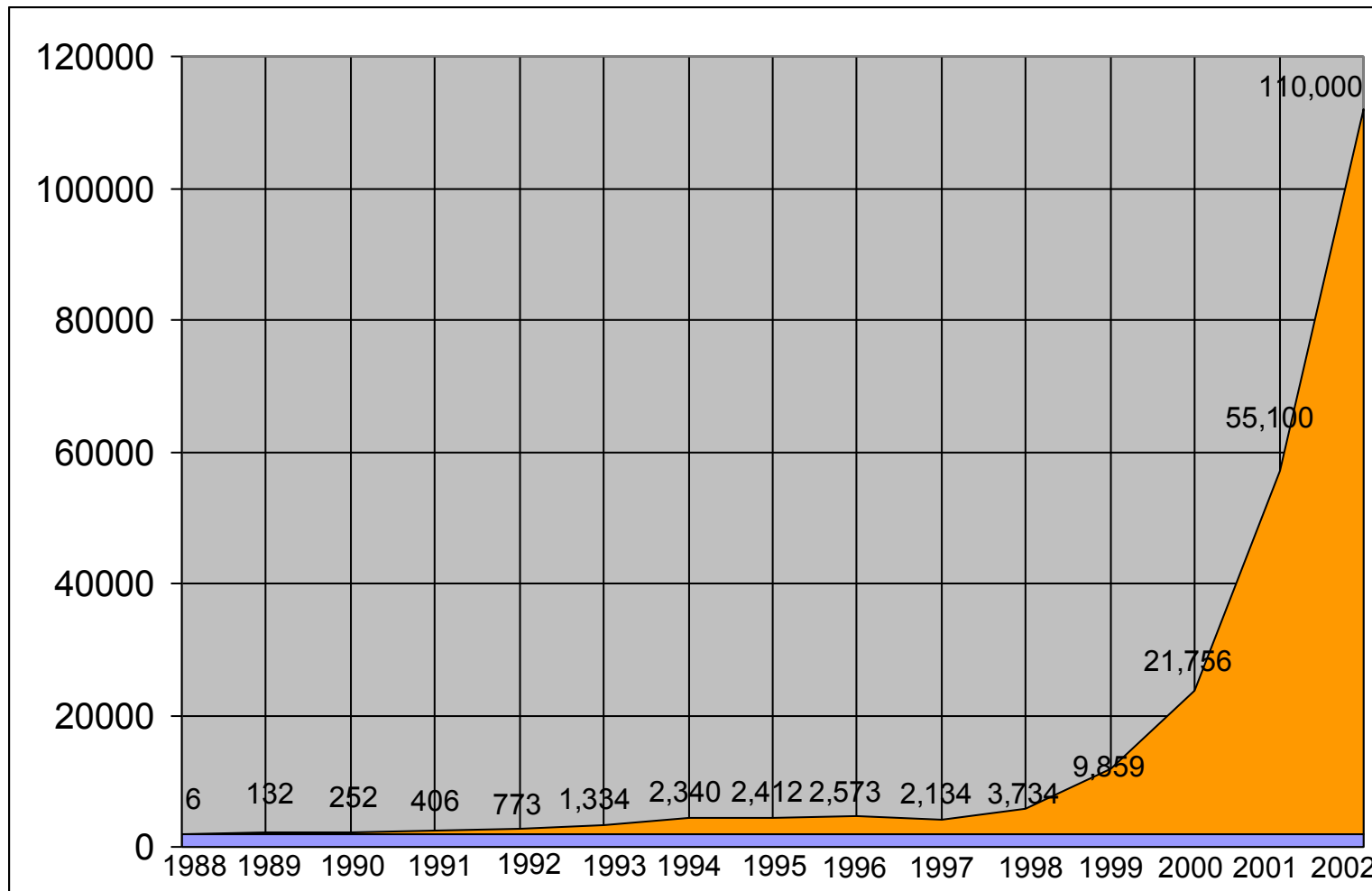


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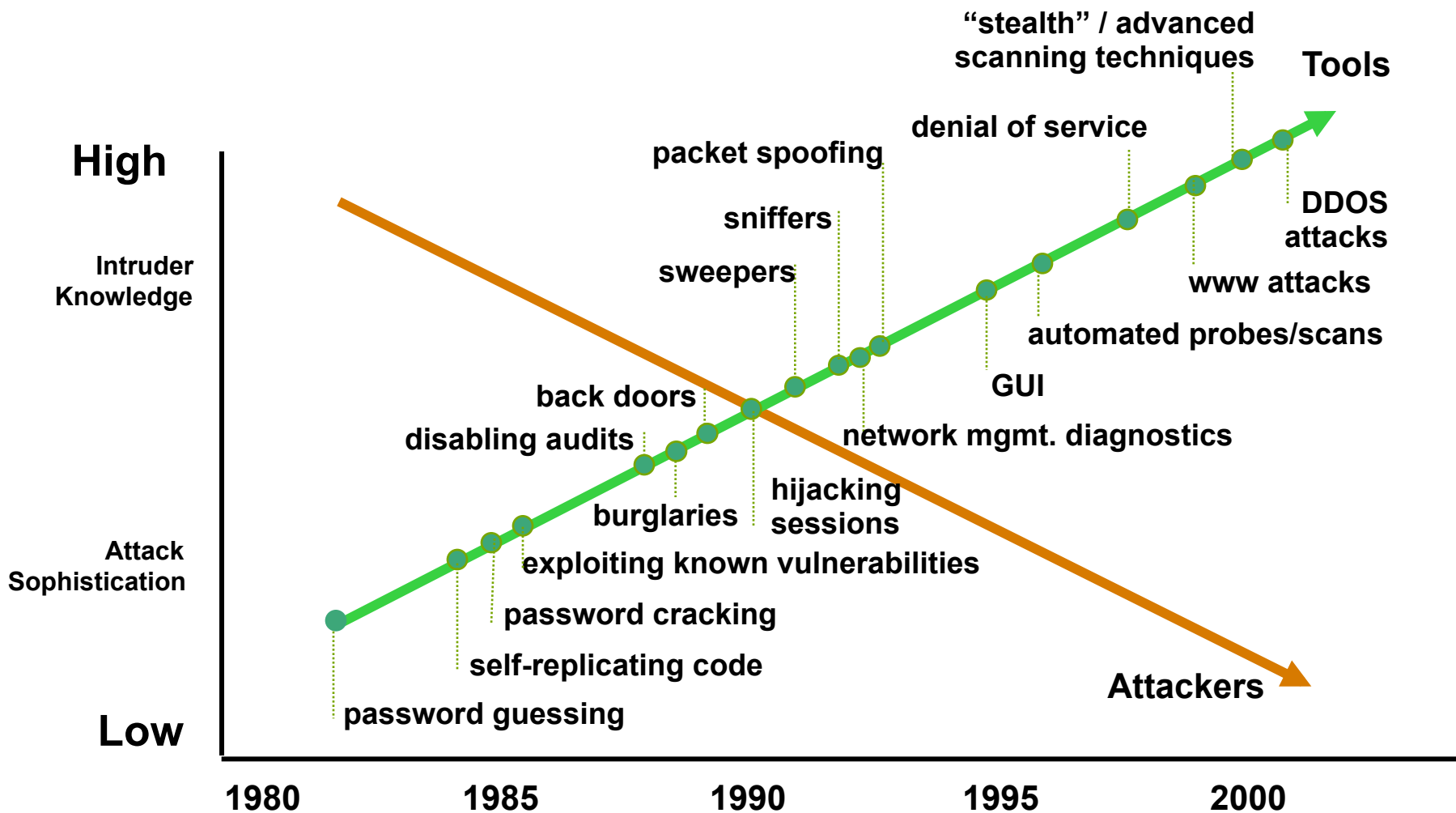


# ***Growth in Incidents Reported to the CERT/CC***





# Attack Sophistication v. Intruder Technical Knowledge





# *Financial Impacts of Attacks*

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- Klez virus:
  - Clean up and lost productivity: **\$9 billion**
- Code Red: 1 million computers affected
  - Clean-up and lost productivity: **\$2.6 billion**
- Love Bug: 50 variants, 40 million computers affected
  - Clean-up and lost productivity: **\$8.8 billion**
- Nimda
  - Clean-up and lost productivity: **\$1.2 billion**
- Slammer
  - Clean up and lost productivity: **\$1 billion +**



# *Won't Advanced Technology Protect Us?*

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“Installing a network security device is not a substitute for a constant focus and keeping our defenses up to date... There is no special technology that can make an enterprise completely secure.”

— *National Plan to Secure Cyberspace, 2/14/03*



# *Step 1 Invest in Cyber Security*

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- US Government increasing spending 64 % for cyber security.

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For Business there is a 21% ROI for early  
incorporation of security  
- CSO Magazine 12/02



# *Step 2. Adopt and Implement Best Practices*

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- Cited in US National Draft Strategy to Protect Cyber Space (September 2002)
- Endorsed by TechNet for CEO Security Initiative (April 2003)
- Endorsed US India Business Council (April 2003)



Top Ten Recommended  
Information Security Practices  
1st Edition - July 2002





# *Common Sense Guide*

## *Top Ten Practice Topics*

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- Practice #1: General Management
- Practice #2: Policy
- Practice #3: Risk Management
- Practice #4: Security Architecture & Design
- Practice #5: User Issues
- Practice #6: System & Network Management
- Practice #7: Authentication & Authorization
- Practice #8: Monitor & Audit
- Practice #9: Physical Security
- Practice #10: Continuity Planning & Disaster Recovery



## *Step 3. Risk Mitigation/Cyber Insurance*

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1. Are you covered?

Many policies no longer  
cover cyber

2. Should you be  
covered?



# ***ISAlliance Cyber-Insurance Program***

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- Free cyber check up provided by AIG for members
- Market incentive for increased security practices
- 10% discount for ISAlliance members
- Additional 5% discount for implementing ISAlliance Best Practices (July 2002)
- Discounts more than offset sponsorship dues
- Audit program to be announced soon



## *Step 4 Join ISAlliance*

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Join and participate in a cyber-security  
information sharing organization



# *Benefits*

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- Share critical information across industries and across national borders
- Provide secure setting to work on common problems
- Provide economic incentive programs
- Develop model industry programs
- Give policy makers an alternative to regulatory models

# CERT Knowledgebase Examples

**CERT**  
Coordination  
Center

Figure 3: Special Communications index page



The screenshot shows the 'Special Communications Database' index page. The page has a red header with navigation links: Home, Site Index, Search, Contact, and FAQ. Below the header, there's a 'Welcome to the CERT/CC Special Communications Database' section. To the left, there's a sidebar with links like 'Special Communications Database', 'Search Special Communications', 'SC Help Information', 'View SCs By ID Number', 'Title', 'Date Published', 'Other CERT/CC Knowledgebase Vulnerability Notes', 'Vulnerability Categories', 'AIRCERT', 'Other Documents', 'Addresses', 'Incident Notes', 'Summaries', 'Current Activity', and 'Tech Tips'. The main content area contains a welcome message and a list of recent special communications, including 'Multiple vulnerabilities in...', 'Denial of Service Vulnerability in...', 'Remotely exploitable buffer overflow in...', 'Multiple Vulnerabilities in...', 'Incident note about Exploitation of Vulnerabilities in...', 'Session Timeout Bypass: fail to remove session table entries for traffic containing invalid Transport Layer checksums [VU#539363]', 'CERT/CC Communication: CERT/CC Manager (High Impact) contains authentication enforcement-type vulnerability', 'Pre-release notification for CERT Advisory CA-2002-12', and 'Buffer overflow in...'. A large, diagonal watermark reading 'Special Communications' is overlaid across the page.



# ***Benefits of Information Sharing Organizations***

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- May lessen the likelihood of attack

*“Organizations that share information about computer break ins are less attractive targets for malicious attackers.” – NYT 2003*

- Participants in information sharing have the ability to better prepare for attacks



# ***Benefits of Information Sharing Organizations/Examples***

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- SNMP vulnerability
  - CERT notified Alliance members Oct. 2001
  - Publicly disclosed Feb. 2002
- Slammer worm
  - CERT notified Alliance members May 2002
  - Worm exploited Jan. 2003