2005 E-Crime Watch Survey – Survey Results
Conducted by CSO magazine in cooperation with the U.S. Secret Service and CERT® Coordination Center

OVERALL RESULTS
E-Crime Watch Survey: 2005
Field Dates: 3/3/05 – 3/14/05
Total completed surveys: 819
Margin of Error: +/- 3.4%

NOTE TO EDITOR
For the purpose of this survey, electronic crime, intrusion, insider and outsider are defined as follows:

- **Electronic Crime:** Any criminal violation in which a computer or electronic media is used in the commission of that crime.

- **Intrusion:** A specific incident or event perpetrated via computer that targeted or affected an organization's data, systems, reputation or involved other criminal behavior.

- **Insider:** Current or former employee or contractor.

- **Outsider:** Non-employee or non-contractor.

The results comprised within this document represent an overview of findings. The survey was conducted online and designed to skip questions that were not relevant or to ask follow-up questions based on previous responses. Please note that prompts were provided to remind respondents of previous answers. Please do not assume questions as laid out in this document are presented exactly as respondents viewed them online.
SECTION ONE: RESPONDENT PROFILE

1) In which category does your organization fall?

Private sector ................................................................. 62%
Government ................................................................. 23%
Law enforcement/Prosecutor ........................................ 14%

2) Are you, your organization or another individual at your organization currently a member of a United States Secret Service Electronic Crimes Task Force (ECTF) or Working Group (ECWG)?

Yes .................................................................................. 33%
No ................................................................................... 52%
Don’t know/not sure ..................................................... 15%

3) To which of the following Electronic Crimes Task Force (ECTF) or Working Group (ECWG) do you belong to? (Base: 267 – ECTF or ECWG members only)

San Francisco ............................................................... 18%
Chicago ................................................................. 13%
New York ................................................................. 13%
Los Angeles .............................................................. 11%
Boston ................................................................. 6%
Charlotte ................................................................. 6%
Dallas ................................................................. 6%
Washington DC .......................................................... 6%
Birmingham ............................................................ 5%
Cleveland ............................................................... 5%
Las Vegas ............................................................... 4%
Miami ................................................................. 3%
Orlando ................................................................. 3%
Oklahoma City Tulsa ................................................... 2%
Philadelphia ............................................................ 1%
Houston ................................................................. <1%
Minneapolis ............................................................ <1%

4) Please indicate the critical infrastructure sector to which your organization belongs:

Government ................................................................. 25%
Information & Telecommunications ............................ 18%
Banking & Finance ...................................................... 14%
Public Health ............................................................. 5%
Defense Industrial Base .............................................. 4%
Emergency Services .................................................. 4%
Transportation ........................................................... 3%
Energy ...................................................................... 2%
Food ....................................................................... 2%
Chemical Industry and Hazardous Materials ............ 1%
Postal & Shipping ......................................................... 1%
Agriculture .............................................................. <1%
Water ................................................................. <1%
Not applicable ............................................................ 20%

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
5) Which of the following best describes your organization’s primary industry?

- Law enforcement/security (non-emergency services) ................................................................. 15%
- Information & telecommunications .......................................................................................... 12%
- Banking & Finance .................................................................................................................. 11%
- Government ............................................................................................................................. 8%
- Education ................................................................................................................................. 7%
- Electronics/Technology .......................................................................................................... 5%
- Health Care ............................................................................................................................. 5%
- Military ...................................................................................................................................... 4%
- Services ..................................................................................................................................... 4%
- Insurance ................................................................................................................................. 3%
- Retail, consumer products ....................................................................................................... 3%
- Defense Industrial Base .......................................................................................................... 2%
- Emergency Services ................................................................................................................ 2%
- Research/Development ........................................................................................................... 2%
- Transportation ........................................................................................................................ 2%
- Agriculture .............................................................................................................................. 1%
- Chemical ...................................................................................................................................... 1%
- Construction/Real Estate ....................................................................................................... 1%
- Electric Power ........................................................................................................................ 1%
- Food .......................................................................................................................................... 1%
- Gas & Oil ................................................................................................................................. 1%
- Pharmaceutical ....................................................................................................................... 1%
- Postal and Shipping ................................................................................................................ 1%
- Retail, food/drink ..................................................................................................................... 1%
- Wholesale ................................................................................................................................ 1%
- Hazardous Materials ............................................................................................................. <1%
- Natural Resources/Mining ...................................................................................................... <1%
- Water ....................................................................................................................................... <1%
- Other ......................................................................................................................................... 9%

6) What is the total number of employees in your entire organization (please include all plants, divisions, branches, parents and subsidiaries worldwide)?

- 100,000 or more ..................................................................................................................... 8%
- 10,000 – 99,999 ..................................................................................................................... 24%
- 1,000 – 9,999 ......................................................................................................................... 31%
- 500-999 .................................................................................................................................. 8%
- 100-499 .................................................................................................................................. 13%
- Under 100 ............................................................................................................................ 15%
- Don’t know .......................................................................................................................... 1%

7) Which of the following best describes your job title?

- IS/IT/networking management ................................................................................................. 29%
- Security management ............................................................................................................. 29%
- Non-IT management ............................................................................................................... 11%
- Law enforcement ................................................................................................................... 17%
- Other ..................................................................................................................................... 14%

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
8) What was your organization’s approximate annual budget for information and corporate/physical security products, systems, services and/or staff in 2004? Please break out for:

**IT security spending** (spending on hardware, software, services, staff for the specific use of protecting the organization's electronic assets ONLY, i.e., firewalls, anti-virus, intrusion prevention systems, content filtering, etc.)

- Over $100 Million ........................................... 4%
- $10 Million - $99.9 Million ................................ 7%
- $1 Million - $9.9 Million ................................. 7%
- $500,000 - $999,999 ...................................... 12%
- $250,000 - $499,999 ...................................... 4%
- $100,000 - $249,999 ...................................... 5%
- $50,000 - $99,999 ......................................... 8%
- Less than $50,000 .......................................... 24%
- Don’t know .................................................. 36%

**Corporate/Physical security spending** (spending on hardware, software, services, staff for the specific use of protecting the organization's physical assets ONLY, i.e., CCTV systems, locks, guard services, etc.)

- Over $100 Million ........................................... 3%
- $10 Million - $99.9 Million ................................ 5%
- $1 Million - $9.9 Million ................................. 7%
- $500,000 - $999,999 ...................................... 12%
- $250,000 - $499,999 ...................................... 4%
- $100,000 - $249,999 ...................................... 5%
- $50,000 - $99,999 ......................................... 8%
- Less than $50,000 .......................................... 24%
- Don’t know .................................................. 36%

**Converged security spending** (spending on hardware, software, services, staff for the specific use of protecting the organization's electronic AND physical assets, i.e., access control systems that control access to both physical and IT assets, etc.)

- Over $100 Million ........................................... 2%
- $10 Million - $99.9 Million ................................ 5%
- $1 Million - $9.9 Million ................................. 7%
- $500,000 - $999,999 ...................................... 12%
- $250,000 - $499,999 ...................................... 4%
- $100,000 - $249,999 ...................................... 6%
- $50,000 - $99,999 ......................................... 7%
- Less than $50,000 .......................................... 24%
- Don’t know .................................................. 42%

9) What is the number of staff assigned to cyber crime investigations or forensics within your organization?

**Full-time (Base = 142 – law enforcement/prosecutor sector/job title only)**

- None .......................................................... 26%
- 1 ............................................................ 20%
- 2 ............................................................ 18%
- 3 ............................................................ 6%
- 4 ............................................................ 6%
- 5 or more .................................................. 24%
- Mean ......................................................... 7
- Median ...................................................... 2

*Percents calculated on total respondent base of 819 unless otherwise specified.*

*Percent may not sum to 100 due to rounding.*
### 10) What is the average time period between when a case is initiated to its referral for prosecution? (Base = 142 – law enforcement/prosecutor sector/job title only)

- Less than 5 weeks: 13%
- 5 weeks – 12 weeks: 46%
- 13 weeks – 30 weeks: 21%
- 31 weeks – 52 weeks: 16%
- Over 52 weeks: 4%

### 11) Which of the following factors contribute to significant time lags from the initiation of a case to its referral for prosecution? (Base = 142 – law enforcement/prosecutor sector/job title only. Check all that apply.)

- Volume of cases compared to trained investigators: 68%
- Forensic processing backlogs: 56%
- Dependencies on other investigative agencies: 41%
- Other: 16%

### 12) Considering your electronic crime related caseload only, in which five (5) areas would you say the majority of your agency’s time is spent? (Base = 142 – law enforcement/prosecutor sector/job title only. Check all that apply.)

- Fraud: 87%
- Identity theft: 80%
- Child exploitation: 62%
- Email threats: 44%
- Network intrusion: 26%
- Intellectual property crimes: 24%
- Phishing: 24%
- Narcotics: 20%
- Unauthorized information disclosure: 16%
- Spam email: 11%
- Denial of service: 11%
- Online extortion: 7%
- Other: 16%
13) Considering your electronic crime related caseload only, in which ONE area would you say the MOST amount of your agency’s time is spent? (Base = 142 – law enforcement/prosecutor sector/job title only)

<table>
<thead>
<tr>
<th>Area</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fraud</td>
<td>30%</td>
</tr>
<tr>
<td>Child exploitation</td>
<td>28%</td>
</tr>
<tr>
<td>Identity theft</td>
<td>18%</td>
</tr>
<tr>
<td>Network Intrusion</td>
<td>3%</td>
</tr>
<tr>
<td>Narcotics</td>
<td>3%</td>
</tr>
<tr>
<td>Intellectual property crimes</td>
<td>2%</td>
</tr>
<tr>
<td>Spam email</td>
<td>2%</td>
</tr>
<tr>
<td>Email threats</td>
<td>2%</td>
</tr>
<tr>
<td>Unauthorized information disclosure</td>
<td>1%</td>
</tr>
<tr>
<td>Phishing</td>
<td>1%</td>
</tr>
<tr>
<td>Online extortion</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
</tbody>
</table>

14) Are you personally involved in any of the following at your organization? (Check all that apply)

- Decisions regarding information security .......................................................... 73%
- Decisions regarding referral of potential electronic crime to law enforcement ........................ 55%
- Investigations or prosecution of electronic crime ............................................... 55%
- Decisions regarding corporate/physical security ................................................. 49%
- Audit reporting concerning fraud or electronic crimes ...................................... 46%
- None of the above ................................................................................................. 6%

15) How knowledgeable do you consider yourself in understanding laws surrounding computer crimes?

(Scale: Extremely knowledgeable, Very knowledgeable, Somewhat knowledgeable, Not knowledgeable, Don’t know/not sure)

**Extremely or Very Knowledgeable**
- In your state ........................................................................................................ 37%
- In the United States ............................................................................................. 31%
- Worldwide ........................................................................................................... 7%

**Not Knowledgeable**
- In your state ........................................................................................................ 11%
- In the United States ............................................................................................. 12%
- Worldwide ........................................................................................................... 46%
SECTION TWO: ELECTRONIC CRIMES

1) Did the total number of electronic crimes and network, system or data intrusions experienced by your organization increase, decrease or remain the same in 2004 compared to 2003?

- Increased .......................................................................................................................................................... 35%
- Decreased ...................................................................................................................................................... 13%
- No Change .................................................................................................................................................... 13%
- Don’t know/not sure .................................................................................................................................... 22%

2) Please estimate the total number of electronic crimes or network, system or data intrusions experienced by your organization in 2004. (Base: 816 – those responding only)

Note that each crime should only be counted once, for example any worm or virus that could be classified as an electronic crime should only be counted as a single attack, not once per infected machine

Outsiders (Base: 554 – those experiencing 1+ electronic crimes or intrusions only)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>4%</td>
</tr>
<tr>
<td>1-9</td>
<td>42%</td>
</tr>
<tr>
<td>10-49</td>
<td>19%</td>
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<tr>
<td>50-99</td>
<td>5%</td>
</tr>
<tr>
<td>100-249</td>
<td>4%</td>
</tr>
<tr>
<td>250 or more</td>
<td>7%</td>
</tr>
<tr>
<td>Mean</td>
<td>86</td>
</tr>
<tr>
<td>Median</td>
<td>3</td>
</tr>
</tbody>
</table>

Insiders (Base: 554 – those experiencing 1+ electronic crimes or intrusions only)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>43%</td>
</tr>
<tr>
<td>1-9</td>
<td>24%</td>
</tr>
<tr>
<td>10-49</td>
<td>10%</td>
</tr>
<tr>
<td>50-99</td>
<td>2%</td>
</tr>
<tr>
<td>100-249</td>
<td>2%</td>
</tr>
<tr>
<td>250 or more</td>
<td>-</td>
</tr>
<tr>
<td>Mean</td>
<td>-</td>
</tr>
<tr>
<td>Median</td>
<td>-</td>
</tr>
<tr>
<td>Don’t know</td>
<td>19%</td>
</tr>
</tbody>
</table>
4) Mean Percent of E-Crimes Caused by Outsiders vs. Insiders: (Base: 554 – those experiencing 1+ electronic crimes or intrusions only)

Outsiders....................................................................................................................................................... 80%
Insiders....................................................................................................................................................... 20%
Don’t know ............................................................................................................................................... 19%

5) Which of the following electronic crimes were committed against your organization in 2004? (Base: 554 – those experiencing 1+ electronic crimes or intrusions only. Check all that apply)

Virus or other malicious code........................................................................................................................................ 82%
Spyware ............................................................................................................................................................... 61%
Phishing ............................................................................................................................................................. 57%
Illegal generation of spam email ................................................................. 48%
Unauthorized access to information, systems or networks ............................................................... 43%
Denial of service attacks ......................................................................................... 32%
Rogue wireless access point ............................................................................... 21%
Exposure of private or sensitive information .................................................... 19%
Fraud ............................................................................................................................................................... 19%
(2004: Employee) Identity theft ........................................................................ 17%
Password sniffing ..................................................................................................... 16%
Theft of intellectual property .................................................................................. 16%
Zombie machines on organization’s network ..................................................... 14%
Theft of other (proprietary) info ............................................................................. 14%
Sabotage ....................................................................................................................................................... 13%
Web site defacement ........................................................................................................ 12%
Extortion ....................................................................................................................................................... 9%
Other .............................................................................................................................................................. 4%
Don’t know/not sure ........................................................................................................... 3%

6) You indicated the following types of electronic crimes were committed against your organization last year. Please indicate the source of these crimes, if known: (Check all that apply)

Outsider
Phishing (Base: 316)........................................................................................................................................... 92%
Web site defacement (Base: 50).......................................................................................................................... 92%
Spyware (Base: 338) ......................................................................................................................................... 89%
Illegal generation of spam email (Base: 266) .................................................................................................. 89%
Denial of service attacks (Base: 179) .................................................................................................................. 88%
Virus or other malicious code (Base: 453) ........................................................................................................ 85%
Identity theft (Base: 95)..................................................................................................................................... 81%
Fraud (Base: 105) .............................................................................................................................................. 80%
Zombie machines on organization’s network (Base: 73) ................................................................................ 77%
Password sniffing (Base: 86) ............................................................................................................................. 74%
Extortion (Base: 10) ......................................................................................................................................... 60%
Sabotage (Base: 61) ............................................................................................................................................. 59%
Unauthorized access to information, systems or networks (Base: 237) ......................................................... 58%
Theft of other (proprietary) info (Base: 65) ...................................................................................................... 54%
Exposure of private or sensitive info (Base: 106) ............................................................................................. 47%
Theft of intellectual property (Base: 75) .......................................................................................................... 33%
Rogue wireless access point (Base: 117)......................................................................................................... 29%
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<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insider</td>
<td></td>
</tr>
<tr>
<td>Rogue wireless access point (Base: 117)</td>
<td>72%</td>
</tr>
<tr>
<td>Theft of intellectual property (Base: 75)</td>
<td>64%</td>
</tr>
<tr>
<td>Exposure of private or sensitive info (Base: 106)</td>
<td>56%</td>
</tr>
<tr>
<td>Theft of other (proprietary) info (Base: 65)</td>
<td>55%</td>
</tr>
<tr>
<td>Unauthorized access to information, systems or networks (Base: 237)</td>
<td>54%</td>
</tr>
<tr>
<td>Sabotage (Base: 61)</td>
<td>44%</td>
</tr>
<tr>
<td>Fraud (Base: 105)</td>
<td>35%</td>
</tr>
<tr>
<td>Password sniffing (Base: 86)</td>
<td>34%</td>
</tr>
<tr>
<td>Extortion (Base: 10)</td>
<td>30%</td>
</tr>
<tr>
<td>Identity theft (Base: 95)</td>
<td>23%</td>
</tr>
<tr>
<td>Zombie machines on organization’s network (Base: 73)</td>
<td>20%</td>
</tr>
<tr>
<td>Spyware (Base: 338)</td>
<td>11%</td>
</tr>
<tr>
<td>Illegal generation of spam email (Base: 266)</td>
<td>11%</td>
</tr>
<tr>
<td>Denial of service attacks (Base: 179)</td>
<td>11%</td>
</tr>
<tr>
<td>Web site defacement (Base: 50)</td>
<td>6%</td>
</tr>
<tr>
<td>Phishing (Base: 316)</td>
<td>2%</td>
</tr>
<tr>
<td>Virus or other malicious code (Base: 453)</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Unknown</strong></td>
<td></td>
</tr>
<tr>
<td>Theft of intellectual property (Base: 75)</td>
<td>16%</td>
</tr>
<tr>
<td>Identity theft (Base: 95)</td>
<td>12%</td>
</tr>
<tr>
<td>Virus or other malicious code (Base: 453)</td>
<td>10%</td>
</tr>
<tr>
<td>Extortion (Base: 10)</td>
<td>10%</td>
</tr>
<tr>
<td>Zombie machines on organization’s network (Base: 73)</td>
<td>10%</td>
</tr>
<tr>
<td>Exposure of private or sensitive info (Base: 106)</td>
<td>9%</td>
</tr>
<tr>
<td>Theft of other (proprietary) info (Base: 65)</td>
<td>9%</td>
</tr>
<tr>
<td>Illegal generation of spam email (Base: 266)</td>
<td>8%</td>
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<tr>
<td>Denial of service attacks (Base: 179)</td>
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<tr>
<td>Rogue wireless access point (Base: 117)</td>
<td>8%</td>
</tr>
<tr>
<td>Sabotage (Base: 61)</td>
<td>8%</td>
</tr>
<tr>
<td>Unauthorized access to information, systems or networks (Base: 237)</td>
<td>8%</td>
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<tr>
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</tr>
<tr>
<td>Web site defacement (Base: 50)</td>
<td>6%</td>
</tr>
<tr>
<td>Fraud (Base: 105)</td>
<td>5%</td>
</tr>
<tr>
<td>Password sniffing (Base: 86)</td>
<td>4%</td>
</tr>
</tbody>
</table>

7) You indicated your organization experienced X intrusions in 2004. How many of these intrusions were handled:

#### Internally without involving legal action or law enforcement

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>6%</td>
</tr>
<tr>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>3-5</td>
<td>19%</td>
</tr>
<tr>
<td>6-9</td>
<td>7%</td>
</tr>
<tr>
<td>10-24</td>
<td>16%</td>
</tr>
<tr>
<td>25 or more</td>
<td>22%</td>
</tr>
<tr>
<td>Mean</td>
<td>84</td>
</tr>
<tr>
<td>Median</td>
<td>6</td>
</tr>
<tr>
<td>Don’t know</td>
<td>16%</td>
</tr>
</tbody>
</table>

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
Internally with legal action
None................................................................................................................................. 69%
1 ........................................................................................................................................... 4%
2 ........................................................................................................................................... 4%
3-5 ......................................................................................................................................... 3%
6-9 ......................................................................................................................................... 1%
10-24 .................................................................................................................................... 2%
25 or more .......................................................................................................................... 3%
Mean ...................................................................................................................................... 5
Median ...................................................................................................................................... -
Don’t know .......................................................................................................................... 16%

With the help of law enforcement
None......................................................................................................................................... 65%
1 ........................................................................................................................................... 7%
2 ........................................................................................................................................... 2%
3-5 ......................................................................................................................................... 4%
6-9 ......................................................................................................................................... 1%
10-24 .................................................................................................................................... 3%
25 or more .......................................................................................................................... 2%
Mean ...................................................................................................................................... 5
Median ...................................................................................................................................... -
Don’t know .......................................................................................................................... 16%

Externally by filing a civil action
None......................................................................................................................................... 80%
1 ........................................................................................................................................... 4%
2 ........................................................................................................................................... 1%
3-5 ......................................................................................................................................... 1%
6-9 ......................................................................................................................................... -
10-24 .................................................................................................................................... -
25 or more .......................................................................................................................... -
Mean ...................................................................................................................................... <1
Median ...................................................................................................................................... -
Don’t know .......................................................................................................................... 16%

8) If any intrusions were not referred for legal action, please indicate the reason(s) not referred: (Base: 554 – those experiencing 1+ electronic crimes or intrusions only. Check all that apply)

Damage level insufficient to warrant prosecution........................................................................ 59%
Lack of evidence/not enough info to prosecute ........................................................................ 50%
Concerns about negative publicity .......................................................................................... 15%
Concerns that competitors would use to advantage ................................................................. 7%
Unaware we could report these crimes .................................................................................... 6%
Prior negative response from law enforcement .................................................................... 6%
Other ...................................................................................................................................... 14%
Don’t know .......................................................................................................................... 7%

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
9) Which of the following types of losses did your organization experience in 2004? (Base: 554 – those experiencing 1+ electronic crimes or intrusions only. Check all that apply)

- Non-critical operational losses: 50%
- Non-critical financial losses: 26%
- Harm to reputation: 12%
- Critical operational losses: 11%
- Critical financial loss: 2%
- Loss of life: 1%
- Other: 6%
- Not applicable – no losses experienced: 17%
- Don’t know/not sure: 17%

10) Please estimate the total monetary value of losses your organization sustained due to electronic crimes or system intrusions in 2004: (Base: 777 – those answering only)

- $10 million or more: 1%
- $1 million - $9.9 million: 2%
- $500,000 - $999,999: 1%
- $100,000 - $499,999: 4%
- Less than $100,000: 31%
- Mean: $506,670
- Median: ~
- Sum: $150,000,000
- Don’t know/not sure: 62%

11) In 2004, did monetary losses to your organization from electronic crime increase, decrease or remain the same compared to 2003? (Base: 723 – those answering only)

- Increase: 22%
- Decrease: 10%
- Remain the same: 21%
- Not sure: 47%

12) In 2005, do you expect monetary losses to your organization from electronic crime will increase, decrease or remain the same compared to 2004?

- Increase: 26%
- Decrease: 13%
- Remain the same: 27%
- Not sure: 34%

13) In your opinion, do you believe the prevalence of e-crime in 2005 will increase, decrease or remain the same as 2004?

- Increase: 88%
- Decrease: 1%
- Remain the same: 4%
- Not sure: 7%
14) Which of the following groups posed the greatest cyber security threat to your organization in 2004?

- Hackers: 37%
- Current employees: 18%
- Foreign entities: 6%
- Former employees: 5%
- Information brokers: 3%
- Current service providers/consultants/contractors: 2%
- Terrorists: 2%
- Customers: 2%
- Suppliers/business partners: 1%
- Competitors: 1%
- Former service providers/consultants/contractors: 1%
- Don’t know/not sure: 21%

15) Does your organization have a formal process or system in place for tracking e-crime attempts?

- Yes: 52%
- No: 31%
- Don’t know/not sure: 18%

16) How far back does your organization keep records on or otherwise keep track of network, data and system intrusions?

- 1 year or less: 21%
- More than 1 year to 2 years: 13%
- More than 2 years to 5 years: 16%
- 5 years or longer: 9%
- Don’t know: 31%
- Not applicable/Does not track: 10%

17) Does your organization have a formalized plan outlining policies and procedures for reporting and responding to e-crimes committed against your organization?

- Yes: 46%
- No, planning to implement next 12 months: 18%
- No plans at this time: 21%
- Don’t know/not sure: 15%
18) How effective do you consider each of the following technologies in place at your organization in detecting and/or countering misuse or abuse of computer systems and networks? (Check all that apply)

(Scale: Extremely effective, Very effective, Somewhat effective, Not very effective, Not at all effective, Don’t know, Not applicable/Do not use)

<table>
<thead>
<tr>
<th>Technologies in Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firewalls</td>
<td>99%</td>
</tr>
<tr>
<td>Automated virus scanning</td>
<td>99%</td>
</tr>
<tr>
<td>Physical security systems (Electronic access control systems, badging systems, CCTV, etc.)</td>
<td>94%</td>
</tr>
<tr>
<td>Spyware/adware detection software</td>
<td>93%</td>
</tr>
<tr>
<td>Intrusion detection systems</td>
<td>91%</td>
</tr>
<tr>
<td>Manual patch management</td>
<td>90%</td>
</tr>
<tr>
<td>Network traffic monitoring/ network based forensic tools</td>
<td>88%</td>
</tr>
<tr>
<td>Encryption</td>
<td>87%</td>
</tr>
<tr>
<td>Automated patch management</td>
<td>86%</td>
</tr>
<tr>
<td>Configuration management/periodic checks for non-baseline files to detect Trojan horses, logic bombs, etc.</td>
<td>86%</td>
</tr>
<tr>
<td>Intrusion detection systems</td>
<td>83%</td>
</tr>
<tr>
<td>Role-based access control</td>
<td>83%</td>
</tr>
<tr>
<td>Anti-fraud technologies working with ERP/accounts payable &amp; billing systems</td>
<td>68%</td>
</tr>
<tr>
<td>Wireless monitoring</td>
<td>66%</td>
</tr>
<tr>
<td>Two-factor authentication (using biometrics, smart cards, etc.)</td>
<td>63%</td>
</tr>
<tr>
<td>Keystroke monitoring of individual users</td>
<td>53%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most Effective (Extremely or Very Effective) Technologies in Use (Base: respondents with technology in use)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firewalls (Base: 810)</td>
<td>68%</td>
</tr>
<tr>
<td>Automated virus scanning (Base: 810)</td>
<td>66%</td>
</tr>
<tr>
<td>Encryption (Base: 715)</td>
<td>58%</td>
</tr>
<tr>
<td>Two-factor authentication (using biometrics, smart cards, etc.) (Base: 517)</td>
<td>56%</td>
</tr>
<tr>
<td>Intrusion detection systems (Base: 743)</td>
<td>50%</td>
</tr>
<tr>
<td>Physical security systems (Electronic access control systems, badging systems, CCTV, etc.) (Base: 771)</td>
<td>49%</td>
</tr>
<tr>
<td>Network traffic monitoring/ network based forensic tools (Base: 722)</td>
<td>46%</td>
</tr>
<tr>
<td>Spyware/adware detection software (Base: 758)</td>
<td>43%</td>
</tr>
<tr>
<td>Role-based access control (Base: 677)</td>
<td>42%</td>
</tr>
<tr>
<td>Automated patch management (Base: 704)</td>
<td>40%</td>
</tr>
<tr>
<td>Configuration mgmt/periodic checks for non-baseline files to detect Trojan horses, logic bombs, etc. (Base: 704)</td>
<td>39%</td>
</tr>
<tr>
<td>Intrusion detection systems</td>
<td>39%</td>
</tr>
<tr>
<td>Role-based access control</td>
<td>35%</td>
</tr>
<tr>
<td>Technologies tracking access &amp; use of corporate data/Info assurance technologies (Base: 682)</td>
<td>28%</td>
</tr>
<tr>
<td>Anti-fraud technologies working with ERP/accounts payable &amp; billing systems (Base: 560)</td>
<td>26%</td>
</tr>
<tr>
<td>Wireless monitoring</td>
<td>26%</td>
</tr>
<tr>
<td>Keystroke monitoring of individual users</td>
<td>22%</td>
</tr>
<tr>
<td>Manual patch management</td>
<td>21%</td>
</tr>
</tbody>
</table>

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
2005 E-Crime Watch Survey – Survey Results
Conducted by CSO magazine in cooperation with the U.S. Secret Service and CERT® Coordination Center

Least Effective (Not Very or Not At All Effective) Technologies in Use  (Base: respondents with technology in use)

Manual patch management (Base: 741) .................................................................................................................. 26%
Keystroke monitoring of individual users (Base: 434) .............................................................................................. 22%
Wireless monitoring (Base: 544) ............................................................................................................................. 15%
Spyware/adware detection software (Base: 758) ...................................................................................................... 12%
Technologies tracking access & use of corporate data/Info assurance technologies (Base: 682) ...................... 12%
Physical security systems (Electronic access control systems, badging systems, CCTV, etc.) (Base: 771) .......... 8%
Automated patch management (Base: 704) ................................................................................................................ 7%
Anti-fraud technologies working with ERP/accounts payable & billing systems (Base: 560) ......................... 6%
Configuration mgmt/periodic checks for non-baseline files to detect Trojan horses, logic bombs, etc. (Base: 704) 6%
Network traffic monitoring/ network based forensic tools (Base: 722) ................................................................. 6%
Two-factor authentication (using biometrics, smart cards, etc.) (Base: 517) ......................................................... 6%
Intrusion detection systems (Base: 743) .................................................................................................................. 5%
Role-based access control (Base: 677) ................................................................................................................... 5%
Encryption (Base: 715) ............................................................................................................................................ 4%
Automated virus scanning (Base: 810) .................................................................................................................. 3%
Firewalls (Base: 810) ............................................................................................................................................. 2%

19) Which of the following security policies and procedures does your organization use to attempt to prevent or reduce electronic crime? (Check all that apply)

Account/password management policies .............................................................................................................. 74%
Formal “inappropriate use” policy ........................................................................................................................ 71%
Employee education & awareness programs ..................................................................................................... 67%
Monitor Internet connections ............................................................................................................................... 65%
Corporate security policy .................................................................................................................................. 62%
Require employees/contractors to sign acceptable use policies .............................................................. 59%
Conduct regular security audits ......................................................................................................................... 57%
Periodic risk assessments ................................................................................................................................. 55%
Employee/contractor background examinations ........................................................................................... 48%
New employee security training ........................................................................................................................ 46%
Periodic systems penetration testing .............................................................................................................. 44%
Segregation of duties .......................................................................................................................................... 43%
Employee monitoring .......................................................................................................................................... 42%
Random security audits ....................................................................................................................................... 40%
Mandatory internal reporting to management of misuse or abuse by employees & contractors .................. 35%
Use of incident response team ............................................................................................................................ 34%
Include security in contract negotiations with vendors/suppliers .................................................................. 34%
Regular security communication from management ..................................................................................... 33%
Storage & review of e-mail or computer files .................................................................................................... 30%
Hired a CSO or CISO .......................................................................................................................................... 24%
Government security clearances ....................................................................................................................... 22%
Use of “white hat” hackers ............................................................................................................................... 14%
None of the above/not sure ................................................................................................................................... 8%

20) Have any security policies and procedures at your organization supported or played a role in the deterrence, detection, termination or prosecution of an individual? (Base: 751 – among those organizations using 1+ policy/procedure to prevent/reduce electronic crime only )

Yes .................................................................................................................................................................... 61%
No ...................................................................................................................................................................... 15%
Don’t know/not sure .......................................................................................................................................... 24%

21) In your opinion, have any of the following security policies and procedures at your organization supported or played a role in the…(Check all that apply per row)

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
### Deterrence of a potential e-criminal? (Base: respondents with policy/procedure in place)

<table>
<thead>
<tr>
<th>Measures</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>New employee security training</td>
<td>80%</td>
</tr>
<tr>
<td>Regular security communication from management</td>
<td>80%</td>
</tr>
<tr>
<td>Employee education &amp; awareness programs</td>
<td>78%</td>
</tr>
<tr>
<td>Require employees/contractors to sign acceptable use policies</td>
<td>74%</td>
</tr>
<tr>
<td>Segregation of duties</td>
<td>73%</td>
</tr>
<tr>
<td>Account/password management policies</td>
<td>72%</td>
</tr>
<tr>
<td>Include security in contract negotiations with vendors/suppliers</td>
<td>72%</td>
</tr>
<tr>
<td>Formal “inappropriate use” policy</td>
<td>70%</td>
</tr>
<tr>
<td>Corporate security policy</td>
<td>69%</td>
</tr>
<tr>
<td>Hired a CSO or CISO</td>
<td>67%</td>
</tr>
<tr>
<td>Mandatory internal reporting to management of misuse or abuse by employees &amp; contractors</td>
<td>66%</td>
</tr>
<tr>
<td>Random security audits</td>
<td>61%</td>
</tr>
<tr>
<td>Employee/contractor background examinations</td>
<td>60%</td>
</tr>
<tr>
<td>Government security clearances</td>
<td>58%</td>
</tr>
<tr>
<td>Employee monitoring</td>
<td>57%</td>
</tr>
<tr>
<td>Storage &amp; review of e-mail or computer files</td>
<td>56%</td>
</tr>
<tr>
<td>Monitor Internet connections</td>
<td>52%</td>
</tr>
<tr>
<td>Conduct regular security audits</td>
<td>51%</td>
</tr>
<tr>
<td>Periodic risk assessments</td>
<td>51%</td>
</tr>
<tr>
<td>Periodic systems penetration testing</td>
<td>48%</td>
</tr>
<tr>
<td>Use of “white hat” hackers</td>
<td>46%</td>
</tr>
<tr>
<td>Use of incident response team</td>
<td>42%</td>
</tr>
</tbody>
</table>

### Detection of an e-criminal? (Base: respondents with policy/procedure in place)

<table>
<thead>
<tr>
<th>Measures</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of “white hat” hackers</td>
<td>59%</td>
</tr>
<tr>
<td>Monitor Internet connections</td>
<td>56%</td>
</tr>
<tr>
<td>Random security audits</td>
<td>52%</td>
</tr>
<tr>
<td>Conduct regular security audits</td>
<td>51%</td>
</tr>
<tr>
<td>Periodic risk assessments</td>
<td>51%</td>
</tr>
<tr>
<td>Periodic systems penetration testing</td>
<td>50%</td>
</tr>
<tr>
<td>Employee monitoring</td>
<td>50%</td>
</tr>
<tr>
<td>Use of incident response team</td>
<td>49%</td>
</tr>
<tr>
<td>Storage &amp; review of e-mail or computer files</td>
<td>48%</td>
</tr>
<tr>
<td>Periodic risk assessments</td>
<td>43%</td>
</tr>
<tr>
<td>Mandatory internal reporting to management of misuse or abuse by employees &amp; contractors</td>
<td>39%</td>
</tr>
<tr>
<td>Hired a CSO or CISO</td>
<td>38%</td>
</tr>
<tr>
<td>Employee/contractor background examinations</td>
<td>30%</td>
</tr>
<tr>
<td>Segregation of duties</td>
<td>28%</td>
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<td>Account/password management policies</td>
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<tr>
<td>Corporate security policy</td>
<td>20%</td>
</tr>
<tr>
<td>Government security clearances</td>
<td>20%</td>
</tr>
<tr>
<td>Formal “inappropriate use” policy</td>
<td>19%</td>
</tr>
<tr>
<td>Employee education &amp; awareness programs</td>
<td>17%</td>
</tr>
<tr>
<td>Include security in contract negotiations with vendors/suppliers</td>
<td>17%</td>
</tr>
<tr>
<td>Require employees/contractors to sign acceptable use policies</td>
<td>14%</td>
</tr>
<tr>
<td>Regular security communication from management</td>
<td>11%</td>
</tr>
<tr>
<td>New employee security training</td>
<td>9%</td>
</tr>
</tbody>
</table>

Per cents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
Termination of an employee or contractor? (Base: respondents with policy/procedure in place)

- Employee monitoring (Base: 344) ................................................................. 37%
- Storage & review of e-mail or computer files (Base: 244) .................................. 34%
- Formal “inappropriate use” policy (Base: 584) .................................................. 32%
- Mandatory internal reporting to management of misuse or abuse by employees & contractors (Base: 285) ... 32%
- Monitor Internet connections (Base: 536) ......................................................... 31%
- Corporate security policy (Base: 504) ............................................................... 27%
- Require employees/contractors to sign acceptable use policies (Base: 486) .......... 24%
- Use of incident response team (Base: 274) ....................................................... 22%
- Conduct regular security audits (Base: 466) ..................................................... 17%
- Employee/contractor background examinations (Base: 397) ......................... 16%
- Hired a CSO or CISO (Base: 194) ................................................................. 14%
- Random security audits (Base: 331) ................................................................. 14%
- Include security in contract negotiations with vendors-suppliers (Base: 274) .... 11%
- New employee security training (Base: 379) ..................................................... 9%
- Government security clearances (Base: 182) .................................................... 8%
- Employee education & awareness programs (Base: 550) .............................. 7%
- Segregation of duties (Base: 355) ................................................................. 7%
- Account/password management policies (Base: 609) ...................................... 7%
- Periodic risk assessments (Base: 448) .............................................................. 6%
- Periodic systems penetration testing (Base: 364) .............................................. 5%
- Use of “white hat” hackers (Base: 119) ......................................................... 3%
- Regular security communication from management (Base: 272) .................. 2%

Prosecution of an alleged criminal? (Base: respondents with policy/procedure in place)

- Use of incident response team (Base: 274) ....................................................... 15%
- Hired a CSO or CISO (Base: 194) ................................................................. 13%
- Storage & review of e-mail or computer files (Base: 244) .............................. 12%
- Employee monitoring (Base: 344) ................................................................. 11%
- Corporate security policy (Base: 504) ............................................................... 10%
- Mandatory internal reporting to management of misuse or abuse by employees & contractors (Base: 285) ... 10%
- Require employees/contractors to sign acceptable use policies (Base: 486) .......... 7%
- Conduct regular security audits (Base: 466) ..................................................... 7%
- Use of “white hat” hackers (Base: 119) ......................................................... 7%
- Formal “inappropriate use” policy (Base: 584) .................................................. 6%
- Monitor Internet connections (Base: 536) ......................................................... 6%
- Random security audits (Base: 331) ................................................................. 5%
- Include security in contract negotiations with vendors-suppliers (Base: 274) .... 5%
- Account/password management policies (Base: 609) ...................................... 4%
- Government security clearances (Base: 182) .................................................... 4%
- Employee education & awareness programs (Base: 550) .............................. 3%
- Employee/contractor background examinations (Base: 397) ......................... 3%
- New employee security training (Base: 379) ..................................................... 3%
- Segregation of duties (Base: 355) ................................................................. 3%
- Periodic risk assessments (Base: 448) .............................................................. 2%
- Periodic systems penetration testing (Base: 364) .............................................. 2%
- Regular security communication from management (Base: 272) .................. 2%

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
Don’t know (Base: respondents with policy/procedure in place)

Government security clearances (Base: 182) ................................................................. 29%
Employee/contractor background examinations (Base: 397) ............................................. 24%
Hired a CSO or CISO (Base: 194) .................................................................................. 24%
Periodic risk assessments (Base: 448) .............................................................................. 22%
Periodic systems penetration testing (Base: 364) ............................................................ 20%
Include security in contract negotiations with vendors/suppliers (Base: 274) ................. 20%
Require employees/contractors to sign acceptable use policies (Base: 486) .................. 19%
Use of incident response team (Base: 274) ..................................................................... 19%
Account/password management policies (Base: 609) ...................................................... 18%
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Storage & review of e-mail or computer files (Base: 244) ............................................... 18%
Corporate security policy (Base: 504) ............................................................................. 17%
Segregation of duties (Base: 355) ................................................................................... 17%
Employee education & awareness programs (Base: 550) .............................................. 16%
New employee security training (Base: 379) ................................................................. 16%
Regular security communication from management (Base: 272) ................................... 16%
Monitor Internet connections (Base: 536) ..................................................................... 15%
Use of “white hat” hackers (Base: 119) .......................................................................... 15%
Random security audits (Base: 331) ............................................................................... 14%
Mandatory internal reporting to management of misuse or abuse by employees & contractors (Base: 285) ... 14%
Formal “inappropriate use” policy (Base: 584) ................................................................. 13%
Employee monitoring (Base: 344) .................................................................................. 12%

Percents calculated on total respondent base of 819 unless otherwise specified.
Percent may not sum to 100 due to rounding.
SECTION THREE: INSIDER THREATS

1) Does your organization monitor its computer systems and networks for misuse or abuse by employees or contractors?

Yes, systems only ........................................................................................................................................... 5%
Yes, networks only .......................................................................................................................................... 11%
Yes, both systems & networks ........................................................................................................................ 64%
No .................................................................................................................................................................... 12%
Don’t know/not sure ........................................................................................................................................ 7%

2) Does your organization require internal reporting of misuse or abuse of computer access by employees or contractors?

Yes ................................................................................................................................................................. 69%
No.................................................................................................................................................................... 20%
Don’t know/not sure ........................................................................................................................................ 11%

3) Does your organization have a written "inappropriate use" security policy for use of networks, data, and systems?

Yes ................................................................................................................................................................. 83%
No.................................................................................................................................................................... 6%
Policy pending................................................................................................................................................. 7%
Don’t know/not sure ........................................................................................................................................ 3%

4) Are employees required to review and accept the written inappropriate use policy on any periodic basis?  
(Base: 681 – those with inappropriate use policy in place only. Check all that apply)

Upon employment ........................................................................................................................................... 54%
Upon accessing data ...................................................................................................................................... 9%
Every six months............................................................................................................................................. 1%
Annually .......................................................................................................................................................... 27%
Periodically ...................................................................................................................................................... 14%
No.................................................................................................................................................................... 12%
Don’t know/not sure ........................................................................................................................................ 4%

5) How does your organization communicate the written inappropriate use policy to its employees and contractors? (Base: 681 – those with inappropriate use policy in place only. Check all that apply)

Hardcopy distribution ...................................................................................................................................... 62%
Electronic mail ................................................................................................................................................ 47%
Web reference ................................................................................................................................................ 39%
Training materials .......................................................................................................................................... 31%
Direct communication from managers ............................................................................................................. 29%
Training classes .......................................................................................................................................... 24%
Other ............................................................................................................................................................... 3%
Don’t know ...................................................................................................................................................... 1%
6) How often does your organization review or update its security policy? (Base: 681 – those with inappropriate use policy in place only)

- Every 6 months ............................................................................................................................................... 5%
- Annually .......................................................................................................................................................... 28%
- As needed ....................................................................................................................................................... 46%
- Other ............................................................................................................................................................... 2%
- Don’t know ...................................................................................................................................................... 19%

7) Please indicate all sources of insider intrusions in 2004 (Base: 214 – those experiencing insider intrusions. Check all that apply)

- Current employees in non-managerial positions ............................................................................................ 52%
- Current contractors or temporary employees ................................................................................................. 34%
- Current employees in managerial positions .................................................................................................... 27%
- Former employees in non-managerial positions ............................................................................................. 24%
- Former employees in managerial positions .................................................................................................... 16%
- Former contractors/temporary workers ........................................................................................................... 13%
- Don’t know ..................................................................................................................................................... 22%

8) With respect to your organization, what is the most adverse consequence that has ever occurred from an insider network, data, or system intrusion?

- Critical system disruption to organization only............................................................................................. 22%
- Critical system disruption affecting customers and business partners ............................................................. 8%
- Harm to organization’s reputation .................................................................................................................. 7%
- Loss of current or future revenue .................................................................................................................... 6%
- Critical system disruption affecting the larger critical infrastructure sector ..................................................... 4%
- Loss of customers ............................................................................................................................................ 3%
- Loss of business partners ............................................................................................................................... <1%
- Loss of life ...................................................................................................................................................... <1%
- Personal injury ................................................................................................................................................. <1%
- No impact ........................................................................................................................................................ 50%

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