



**2013 IT Risk/Reward Barometer:
Global Results**

October 2013

www.isaca.org/risk-reward-barometer

Number of respondents (n) = 2,013

Respondents are business and IT professionals and are members of ISACA.

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1. The “Internet of Things” refers to machines, devices, sensors, cars, cameras and other items that are connected to the Internet and often to each other. It is predicted that 50 billion things will be connected to the Internet by 2020. Does your enterprise have plans to capitalize on the Internet of Things? (n = 1,992)
 - a. Yes.....**51%**
 - b. No.....22%
 - c. Unsure.....27%

2. Regarding benefits related to the Internet of Things: (n = 1,863)

	Which of the following does your enterprise hope to achieve by capitalizing on the Internet of Things?	Which of the following has your enterprise already achieved?
Greater efficiency	53%	20%
Improved services	51%	28%
Improved supply chain	39%	15%
Lower costs	48%	21%
Improved data storage	38%	19%
Greater accessibility to information	47%	31%
Increased employee productivity	48%	22%
Increased customer satisfaction	53%	22%

No benefits have been/will be achieved	15%	12%
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3. What do you see as the biggest governance issue regarding the Internet of Things? (n = 1,980)

- a. **Increased security threats**.....**38%**
- b. Identity and access management.....9%
- c. Data privacy.....28%
- d. Ownership of technology and/or data by stakeholders outside of IT.....6%
- e. Requests to share data with authorized third parties (e.g., government).....2%
- f. Attacks against connected devices.....9%
- g. Compliance requirements.....7%
- h. I do not believe there is a governance issue.....1%
- i. Other.....1%

4. How soon do you believe the Internet of Things will affect your enterprise? (n = 1,979)

- a. **It already has**.....**45%**
- b. Within the next 12 months.....12%
- c. Within the next two years.....18%
- d. Within the next five years.....16%
- e. More than five years from now.....7%
- f. Never.....2%

5. Which of the following do you believe is the most accurate statement about the Internet of Things? (Please select one answer for enterprises and one for individuals.) (n = 1,968)

	For enterprises	For the average consumer/individual
The benefit outweighs the risk.	41%	50%
The risk outweighs the benefit.	29%	26%
The benefit and risk are appropriately balanced.	30%	24%

6. Below are some of the general public's concerns about the Internet of Things. Which do you think they should be most concerned about? (n = 1,985)
- a. I don't know how the information that is collected by these devices will be used.....29%
 - b. Information collected by these devices will be used to market to me.....9%
 - c. I don't know who has access to the information collected by these devices.....44%**
 - d. Someone will hack into the device.....16%
 - e. They should not have any concerns.....1%
 - f. Other.....1%
7. Big Data refers to data sets typically consisting of billions or trillions of records, which require new and powerful computing resources to process. Does your enterprise have a policy regarding how it manages Big Data? (n = 1,921)
- a. Yes.....32%
 - b. No.....50%**
 - c. Unsure.....18%
8. What is the biggest challenge your enterprise is facing related to Big Data? (n= 1,903)
- a. Large-volume data management and storage.....26%**
 - b. Shared ownership with other departments.....10%
 - c. Security threats from outsiders.....11%
 - d. Security threats from insiders.....6%
 - e. Lack of analytics capabilities or skills.....22%
 - f. Compliance requirements.....13%
 - g. We are not facing any challenges.....10%
 - h. Other.....3%
9. How prepared is your enterprise to provide effective governance and manage privacy related to Big Data? (n = 1,916)
- a. Extremely prepared.....4%
 - b. Adequately prepared.....22%
 - c. Somewhat prepared.....46%**
 - d. Not at all prepared.....19%
 - e. Unsure.....9%
10. Which of the following is most accurate for your enterprise? (n = 1,916)
- a. Big Data has already added significant value.....11%
 - b. Big Data has the potential to add significant value.....35%**
 - c. Big Data has caused significant challenges.....12%
 - d. Big Data has the potential to cause significant challenges.....15%

- e. It is too early to determine the value of Big Data.....20%
 - f. Unsure.....8%
11. Which of the following do you believe is the most accurate statement about BYOD (bring your own device, which means employees are allowed to use personal devices for work)? (n = 1,914)
- a. The benefit outweighs the risk.....27%
 - b. The risk outweighs the benefit.....45%**
 - c. The risk and benefit are appropriately balanced.....28%
12. Does your enterprise allow BYOD? (n = 1,918)
- a. Yes.....50%**
 - b. No, but we used to.....7%
 - c. No, and we never have.....22%
 - d. No, but we plan to soon.....16%
 - e. Unsure.....5%
13. What is the main reason your enterprise prohibits BYOD? (n = 854)
- a. Concern about employees handling highly sensitive data.....39%**
 - b. Resistance to adopt new operating models.....6%
 - c. Fear of losing control of data.....33%
 - d. Regulatory compliance concerns.....16%
 - e. Other.....6%
14. For which devices does your enterprise permit BYOD? (Please select all that apply.) (n = 949)
- a. Tablets.....79%
 - b. Smartphones.....90%**
 - c. Laptops.....51%
 - d. PCs.....19%
 - e. Unsure.....2%
 - f. Other.....2%
15. What is the primary reason your enterprise chose to allow BYOD? (n=948)
- a. Satisfy employee demand.....24%
 - b. Save money.....14%
 - c. Increase productivity.....34%**
 - d. It was already happening without official permission.....21%
 - e. Unsure.....4%
 - f. Other.....2%

16. Does your enterprise have a policy regarding the security and privacy of the corporate data residing on employees' personal devices? (n = 947)
- a. **Yes, BYOD is covered by a broader policy**.....44%
 - b. Yes, we developed a policy specifically for BYOD.....34%
 - c. No.....18%
 - d. Unsure.....5%
17. Do employees support their own devices or does the IT department support them (in terms of antivirus, repairs, etc.)? (n = 943)
- a. **Employees support their own devices**.....52%
 - b. IT department supports employee-owned devices.....11%
 - c. IT department supports only corporate applications and capabilities, and the employee is responsible for the rest.....35%
 - d. Unsure.....3%
18. What is your enterprise using to help ensure that employees' personal devices connected to the corporate network remain secure? (Please select all that apply.) (n = 919)
- a. **Remote-wipe capability**.....46%
 - b. Encryption of data at rest.....44%
 - c. **Transport encryption**.....46%
 - d. Enhanced authentication (multi-factor).....42%
 - e. Security policy notification upon connection to the network.....42%
 - f. Other (please specify).....10%
19. How is your enterprise managing BYOD security? (Please select all that apply.) (n = 935)
- a. Agent-based mobile device management (MDM).....35%
 - b. **Device configuration and policy controls (e.g., Microsoft Exchange ActiveSync)**.....44%
 - c. Network access control (NAC).....41%
 - d. Application-layer controls.....23%
 - e. Digital leak prevention tools.....9%
 - f. Virtualization.....15%
 - g. **Signed employee agreement**.....44%
 - h. No controls in place.....11%
 - i. Other.....2%

20. Has your enterprise experienced a material security incident as a direct result of a personal device being used to access corporate data or networks? (n = 1,989)
- a. Yes (optional: please explain).....8%
 Frequently cited responses include:
 - Virus
 - Data leakage
 - Device lost or stolen
 - b. No.....50%**
 - c. Not applicable, because we have never allowed BYOD.....18%
 - d. Unsure.....24%

21. What was the primary negative outcome of the BYOD-related security incident? (n = 160)
- a. Financial loss.....21%
 - b. Reputation damage.....31%**
 - c. Regulatory infraction.....13%
 - d. Loss of customers' personally identifiable information (PII).....20%
 - e. Other.....15%

22. What is the greatest threat created by employees conducting personal activities on devices that connect to the corporate network? (n = 1,822)
- a. Increased likelihood of hacking.....7%
 - b. Increased likelihood of viruses/malware.....30%
 - c. Increased likelihood of phishing attacks.....4%
 - d. Data leakage.....47%**
 - e. Impact on network performance.....3%
 - f. Loss of productivity.....7%
 - g. Other.....1%

23. During November and December (holiday season, in some regions), how much total time do you think an average employee at your enterprise spends shopping online? (Please select one answer per column.) (n = 1,796)

	A work-supplied device, at work or elsewhere	A personal device, during work hours
0 hours	8%	7%
1-2 hours	34%	29%
3-5 hours	20%	20%
6-8 hours	12%	12%
9-12 hours	8%	9%
13-16 hours	4%	6%
17-20 hours	5%	6%
21-29 hours	3%	3%
30-39 hours	2%	3%

40-49 hours	1%	2%
50 hours or more	2%	3%

24. Compared to last year, do you think employees at your enterprise will do more, less or about the same amount of online shopping during work hours in November and December? (n = 1,796)
- a. More.....39%
 - b. Less.....9%
 - c. **About the same**.....**53%**

25. In terms of lost productivity, how much money (in US dollars) do you think your enterprise loses in November and December as a result of an employee shopping online during work hours? (n = 1,767)
- a. \$0.....14%
 - b. \$1-\$999.....24%
 - c. \$1,000-\$4,999.....18%
 - d. \$5,000-\$9,999.....13%
 - e. \$10,000-\$14,999.....6%
 - f. **\$15,000 or more**.....**25%**

26. Which of the following is your enterprise well prepared to handle? (Please select all that apply.) (n = 1,804)
- a. Advanced persistent threat (APT).....32%
 - b. Distributed Denial of Service (DDoS) attack.....53%
 - c. **Malware**.....**74%**
 - d. Theft or fraud from a trusted insider.....37%
 - e. Accidental disclosure by an insider.....32%
 - f. Loss of unencrypted mobile device.....36%
 - g. None of these.....9%

27. How is the IT department at your enterprise perceived? (Please select one choice for each column.) (n = 1,805)

	How I perceive it	How employees outside of the IT department perceive it	How enterprise leadership perceives it
Valued business partner	50%	17%	44%
Helper	31%	37%	34%
Rule maker	11%	22%	13%
Obstacle	8%	24%	10%

28. In what country do you live? (n = 1,733)

Argentina.....	0.6%
Aruba.....	0.1%
Australia.....	3%
Austria.....	0.5%
Bahrain.....	0.2%
Bangladesh.....	0.2%
Barbados.....	0.1%
Belgium.....	0.9%
Bolivia.....	0.1%
Bosnia and Herzegovina.....	0.2%
Botswana.....	0.1%
Brazil.....	1%
Bulgaria.....	0.1%
Cameroon.....	0.1%
Canada.....	5.9%
Chile.....	0.2%
China.....	0.8%
Colombia.....	0.8%
Costa Rica.....	0.5%
Croatia.....	0.4%
Curacao.....	0.1%
Czech Republic.....	0.3%
Denmark.....	0.3%
Dominican Republic.....	0.1%
Ecuador.....	0.2%
Egypt.....	0.1%
El Salvador.....	0.1%
Ethiopia.....	0.1%
Finland.....	0.5%
France.....	0.7%
Germany.....	1.8%
Ghana.....	0.6%
Greece.....	0.5%
Guatemala.....	0.1%
Guinea.....	0.1%
Honduras.....	0.1%
Hong Kong.....	1.1%
Hungary.....	0.4%
India.....	7.6%
Indonesia.....	0.6%
Ireland.....	0.5%
Italy.....	1%
Jamaica.....	0.1%
Japan.....	1.2%
Jordan.....	0.1%

Kenya.....	1.7%
Kuwait.....	0.2%
Latvia.....	0.2%
Lebanon.....	0.2%
Lithuania.....	0.3%
Luxembourg.....	0.3%
Macau.....	0.1%
Macedonia.....	0.1%
Malawi.....	0.2%
Malaysia.....	0.6%
Malta.....	0.2%
Mauritius.....	0.3%
Mexico.....	0.8%
Montenegro.....	0.1%
Nepal.....	0.1%
Netherlands.....	1.5%
New Zealand.....	0.7%
Nicaragua.....	0.1%
Niger.....	0.1%
Nigeria.....	2%
Norway.....	0.3%
Oman.....	0.3%
Pakistan.....	0.7%
Palestinian Territories.....	0.1%
Panama.....	0.2%
Papua New Guinea.....	0.1%
Peru.....	0.9%
Philippines.....	1%
Poland.....	0.3%
Portugal.....	0.2%
Qatar.....	0.3%
Romania.....	0.6%
Russia.....	0.3%
Saint Lucia.....	0.1%
Saudi Arabia.....	0.6%
Senegal.....	0.1%
Serbia.....	0.1%
Sierra Leone.....	0.1%
Singapore.....	1.5%
Slovakia.....	0.1%
Slovenia.....	0.1%
South Africa.....	1.8%
South Korea.....	0.5%
Spain.....	2.5%
Sri Lanka.....	0.2%
Sudan.....	0.1%

Sweden.....	0.8%
Switzerland.....	0.9%
Taiwan.....	0.1%
Tanzania.....	0.4%
Thailand.....	0.4%
Togo.....	0.1%
Trinidad and Tobago.....	0.3%
Tunisia.....	0.1%
Turkey.....	0.9%
Uganda.....	0.3%
Ukraine.....	0.2%
United Arab Emirates.....	1.2%
United Kingdom.....	3.5%
United States.....	34.1%
Uruguay.....	0.2%
Venezuela.....	0.1%
Vietnam.....	0.1%
Zambia.....	0.1%
Zimbabwe.....	0.1%
Other.....	0.2%

29. In what region do you live? (n = 1,800)

a. Asia-Pacific.....	19%
b. EMEA (Europe, Middle East, Africa).....	33%
c. Latin America (Mexico, Central America, South America).....	7%
d. North America.....	39%
e. Oceania.....	2%

30. In what industry do you work? (n = 1,808)

a. Financial/Banking.....	24%
b. Insurance.....	5%
c. Public Accounting.....	4%
d. Transportation.....	2%
e. Aerospace.....	1%
f. Retail/Wholesale/Distribution.....	3%
g. Government/Military.....	10%
h. Technology Services/Consulting.....	21%
i. Manufacturing/Engineering.....	6%
j. Telecommunications/Communications.....	4%
k. Mining/Construction/Petroleum/Agriculture.....	3%
l. Utilities.....	2%
m. Legal/Law/Real Estate.....	0%
n. Healthcare/Medical.....	4%
o. Pharmaceutical.....	1%

- p. Advertising/Marketing/Media.....1%
- q. Education/Student.....4%
- r. Other.....5%

31. How many people are employed in your enterprise, including all branches, divisions and subsidiaries? (n = 1,804)

- a. Fewer than 50.....9%
- b. 50-149.....5%
- c. 150-499.....11%
- d. 500-1,499.....13%
- e. 1,500-4,999.....15%
- f. 5,000-9,999.....12%
- g. 10,000-14,999.....6%
- h. 15,000 or more.....28%**

32. Which of the following is closest to your job title? (n = 1,809)

- a. Student.....1%
- b. External Consultant.....10%
- c. Professor/Teacher.....2%
- d. Practitioner.....14%
- e. Supervisor.....10%
- f. Manager.....34%**
- g. Director.....9%
- h. Vice President.....3%
- i. CIO/CISO/CAE.....6%
- j. President/CEO.....2%
- k. Other.....11%

Note: Due to rounding, percentages may not add up to 100.

About the 2013 IT Risk/Reward Barometer

The annual IT Risk/Reward Barometer is a global indicator of trust in information. Conducted by ISACA, a global association of 110,000 IT security, assurance, risk and governance professionals, the Barometer polls thousands of business and IT professionals and consumers worldwide to uncover attitudes and behaviors about essential technologies and information, and the trade-offs people make to balance risk and reward. The study is based on September 2013 online polling of 2,013 ISACA members from 110 countries. Additional online surveys were fielded by M/A/R/C Research among 1,216 consumers in the US, 1,001 consumers in India, and 1,001 consumers in Mexico. The US survey ran 16–18 September 2013, and the India and Mexico surveys ran 25 September–5 October 2013. At a 90 percent confidence level, the margin of error for each individual country sample is +/- 2.8 percent. A UK survey of 1,000 employed consumers was conducted by OnePoll on 2 October 2013 with a

margin of error of +/- 3.9 percentage points at the 95 percent confidence level. To see the full results, visit www.isaca.org/risk-reward-barometer.