



## 2016 IT Risk/Reward Barometer North America Results

November 2016

[www.isaca.org/risk-reward-barometer](http://www.isaca.org/risk-reward-barometer)

Number of respondents (n) = 2,814

Respondents are business and IT professionals in North America who are members of ISACA.

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1. Which of the following augmented reality applications, if any, has your current workplace used for business purposes in the past year (to the best of your knowledge)? Select all that apply.

|   |            |
|---|------------|
| Wearable devices (e.g., Google Glass)   | 4%         |
| Holographic meetings  | 0%         |
| Remote business applications (e.g., remote diagnostics, remote healthcare, etc.)  | 16%        |
| Transportation applications (e.g., vehicle HUD, etc.)   | 4%         |
| Digital navigation tablets (e.g., for warehouse searching efficiency)   | 4%         |
| Smartphone apps that overlay the camera view with additional information or graphics on top of the real scene   | 6%         |
| <b>My organization has not used augmented reality applications for business purposes in the past year, and does not plan to use them in the next year</b> | <b>38%</b> |
| My organization has not used augmented reality applications for business purposes in the past year, but plans to do so within the next year               | 7%         |
| None of these   | 20%        |
| Unsure  | 17%        |
| Other (please specify)  | 1%         |

2. What is the biggest barrier, if any, to adopting augmented reality at your organization?

|  |            |
|--|------------|
| Insufficient budget                          | 13%        |
| Insufficient staff resources                 | 3%         |
| Lack of skills/knowledge from existing staff | 11%        |
| Insufficient ROI                             | 14%        |
| Security concerns                            | 18%        |
| There are no barriers                        | 7%         |
| <b>Unsure</b>                                | <b>27%</b> |
| Other (please specify)                       | 3%         |

3. To what extent do you agree or disagree that augmented reality could lead to the following workplace benefits?

|                                | Completely agree | Somewhat agree | Somewhat disagree | Completely disagree | Don't know |
|--------------------------------|------------------|----------------|-------------------|---------------------|------------|
| New business models/ offerings | 21%              | <b>47%</b>     | 9%                | 3%                  | 19%        |
| Better marketing               | 18%              | <b>44%</b>     | 11%               | 4%                  | 23%        |
| Better collaboration           | 19%              | <b>53%</b>     | 9%                | 3%                  | 17%        |
| Increased efficiency           | 14%              | <b>55%</b>     | 10%               | 3%                  | 18%        |
| Resource optimization          | 11%              | <b>46%</b>     | 16%               | 4%                  | 22%        |
| Improved safety                | 9%               | <b>32%</b>     | 23%               | 7%                  | 28%        |
| Financial savings              | 7%               | <b>37%</b>     | 23%               | 6%                  | 26%        |

4. Virtual graffiti programs enable individuals to post negative or inappropriate comments about places via augmented reality apps. Does your organization have a program in place to monitor negative comments on augmented reality programs (e.g., virtual graffiti)?

|           |            |
|-----------|------------|
| Yes       | 7%         |
| <b>No</b> | <b>55%</b> |
| Unsure    | 38%        |

5. Does your organization have a way to detect any publicly posted social media posts, picture or videos that are geotagged to your business or tagged to your signage or advertisements and could show up in augmented reality applications that aggregate such information?

|               |            |
|---------------|------------|
| Yes           | 31%        |
| No            | 30%        |
| <b>Unsure</b> | <b>39%</b> |

6. Does your organization have a policy that addresses staff use of augmented reality apps in the workplace?

|   |            |
|---|------------|
| Yes, we allow them with no restrictions | 1%         |
| Yes, and we allow them with limitations | 8%         |
| Yes, and we prohibit them               | 8%         |
| <b>No</b>                               | <b>58%</b> |
| Unsure                                  | 25%        |

7. Do the benefits of augmented reality outweigh the risks?

|               |            |
|---------------|------------|
| Yes           | 15%        |
| No            | 18%        |
| <b>Unsure</b> | <b>67%</b> |

8. Which industries do you think will benefit the most from augmented reality? Select all that apply.

*Top three responses are bolded.*

|   |            |
|---|------------|
| Financial/Banking                         | 12%        |
| Insurance                                 | 8%         |
| <b>Entertainment</b>                      | <b>60%</b> |
| <b>Travel</b>                             | <b>50%</b> |
| Transportation                            | 29%        |
| Aerospace                                 | 29%        |
| Retail                                    | 40%        |
| Government/Military                       | 32%        |
| Technology                                | 46%        |
| Manufacturing                             | 23%        |
| Engineering                               | 30%        |
| Telecommunications                        | 23%        |
| Mining/Construction/Petroleum/Agriculture | 18%        |
| Utilities                                 | 13%        |
| Legal                                     | 5%         |

|                        |            |
|------------------------|------------|
| Real Estate            | 41%        |
| Healthcare/medical     | 45%        |
| Marketing/media        | 49%        |
| <b>Education</b>       | <b>50%</b> |
| Other (please specify) | 2%         |
| Unsure                 | 8%         |

9. How concerned should organizations be about the privacy risks of augmented reality?

|                       |            |
|-----------------------|------------|
| <b>Very concerned</b> | <b>52%</b> |
| Somewhat concerned    | 35%        |
| Not too concerned     | 4%         |
| Not at all concerned  | 1%         |
| Unsure                | 9%         |

10. How concerned should consumers be about the privacy risks of augmented reality?

|                       |            |
|-----------------------|------------|
| <b>Very concerned</b> | <b>55%</b> |
| Somewhat concerned    | 33%        |
| Not too concerned     | 4%         |
| Not at all concerned  | 1%         |
| Unsure                | 7%         |

11. Have you used augmented reality applications for personal use within the past year?

|           |            |
|-----------|------------|
| Yes       | 14%        |
| <b>No</b> | <b>86%</b> |

12. Have you used augmented reality applications for business use within the past year?

|           |            |
|-----------|------------|
| Yes       | 3%         |
| <b>No</b> | <b>97%</b> |

13. Do you think your IT department is aware of all of your organization's connected devices (e.g., connected thermostats, TVs, fire alarms, cars, etc.)?

|            |            |
|------------|------------|
| <b>Yes</b> | <b>40%</b> |
| <b>No</b>  | <b>40%</b> |
| Unsure     | 20%        |

14. Does your organization have a policy regarding the use of cloud-based applications without involving IT?

|  |            |
|--|------------|
| Yes, we allow it   | 15%        |
| <b>Yes, we prohibit it</b>   | <b>52%</b> |
| No, we do not have a policy regarding putting workloads into the cloud | 17%        |
| Unsure   | 16%        |

15. Does your organization have a policy regarding staff deploying apps to get their job done?

|  |            |
|--|------------|
| Yes, we allow it                                   | 15%        |
| <b>Yes, we prohibit it</b>                         | <b>51%</b> |
| No, we do not have a policy about staff using apps | 18%        |
| Unsure   | 17%        |

16. What do you think is the likelihood of an organization being breached through an IoT device?

|             |            |
|-------------|------------|
| Low         | 9%         |
| Medium      | 34%        |
| <b>High</b> | <b>44%</b> |
| Unsure      | 13%        |

17. Which of the following, if any, do you see as significant security concerns for organizations, related to the IoT? Select all that apply.

|   |            |
|---|------------|
| <b>Vulnerabilities in the device themselves</b>     | <b>85%</b> |
| Data leakage  | 81%        |
| Access control                                      | 78%        |
| Asset management                                    | 46%        |
| IoT does not pose any significant security concerns | 3%         |
| Other (please specify)                              | 2%         |

18. To what extent, if any, do you agree or disagree with the following statements about IoT device manufacturers?

|  | Completely agree | Somewhat agree | Somewhat disagree | Completely disagree |
|--|------------------|----------------|-------------------|---------------------|
| Device manufacturers are implementing sufficient security measures in IoT devices.               | 3%               | 23%            | <b>44%</b>        | 30%                 |
| Manufacturers make consumers sufficiently aware of the information that IoT devices can collect. | 3%               | 19%            | <b>39%</b>        | 38%                 |

19. Is your organization maximizing the potential of the data it collects through IoT devices/applications?

|               |            |
|---------------|------------|
| Yes           | 6%         |
| No            | 46%        |
| <b>Unsure</b> | <b>48%</b> |

### Demographics

20. In what industry do you work?

|   |            |
|---|------------|
| <b>Financial/Banking</b>                  | <b>24%</b> |
| Insurance                                 | 7%         |
| Public accounting                         | 3%         |
| Transportation                            | 2%         |
| Aerospace                                 | 0%         |
| Retail/Wholesale/Distribution             | 3%         |
| Government/Military                       | 10%        |
| Technology Services/Consulting            | 17%        |
| Manufacturing/Engineering                 | 4%         |
| Telecommunications/Communications         | 3%         |
| Mining/Construction/Petroleum/Agriculture | 2%         |
| Utilities                                 | 4%         |
| Legal/Law/Real Estate                     | 1%         |

|                             |    |
|-----------------------------|----|
| Healthcare/Medical          | 7% |
| Pharmaceutical              | 1% |
| Advertising/Marketing/Media | 1% |
| Education/Student           | 3% |
| Other                       | 7% |

21. How many people are employed in your enterprise, including all branches, divisions and subsidiaries?

|                       |            |
|-----------------------|------------|
| Fewer than 50         | 8%         |
| 50-149                | 5%         |
| 150-499               | 7%         |
| 500-1,499             | 9%         |
| 1,500-4,999           | 17%        |
| 5,000-9,999           | 12%        |
| 10,000-14,9           | 7%         |
| <b>15,000 or more</b> | <b>36%</b> |

22. Which of the following is closest to your job title?

|                     |            |
|---------------------|------------|
| Student             | 0%         |
| External consultant | 9%         |
| Professor/teacher   | 1%         |
| Practitioner        | 17%        |
| Supervisor          | 6%         |
| <b>Manager</b>      | <b>28%</b> |
| Director            | 14%        |
| Vice president      | 6%         |
| CIO/CISO/CAE        | 4%         |
| President/CEO       | 1%         |
| Other               | 13%        |

23. Please select your gender.

|                      |            |
|----------------------|------------|
| Female               | 29%        |
| <b>Male</b>          | <b>66%</b> |
| Prefer not to answer | 5%         |

24. Please select your age group.

|                           |            |
|---------------------------|------------|
| Less than 20 years old    | 0%         |
| 20 to 25 years old        | 1%         |
| 26 to 30 years old        | 5%         |
| 31 to 35 years old        | 11%        |
| 36 to 40 years old        | 14%        |
| <b>41 to 45 years old</b> | <b>15%</b> |
| <b>46 to 50 years old</b> | <b>15%</b> |
| <b>51 to 55 years old</b> | <b>15%</b> |
| 56 to 60 years old        | 11%        |
| 61 to 65 years old        | 6%         |
| 66 to 70 years old        | 2%         |
| 71 years old or older     | 0%         |
| Prefer not to answer      | 5%         |

#### **About ISACA's 2016 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 more than 140,000 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 online polling of 6,591 ISACA members among 140 countries, including 2,814 from North America, from 19-29 September 2016. Additional online surveys were fielded by M/A/R/C Research among 1,230 consumers in the US, 1,000 consumers in the UK, 1,000 consumers in Australia, 1,001 consumers in India and 1,000 consumers in Singapore. The US survey ran 6-8 August 2016, and the UK, Australia, India and Singapore surveys ran 12-23 August 2016. At a 95 percent confidence level, the margin of error for each individual country sample is +/- 3.1 percent.

To see the full results, visit [www.isaca.org/risk-reward-barometer](http://www.isaca.org/risk-reward-barometer).

*Note: Due to rounding to the nearest whole number, responses may not add up to 100%.*