The Changing Mobile Landscape in Financial Services

Sponsored by MobileIron

Independently conducted by Ponemon Institute LLC

Publication Date: March 2014

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Ponemon Institute, March 2014

Part 1. Introduction

Sponsored by MobileIron, *The Changing Mobile Landscape in Financial Services* was conducted by Ponemon Institute to learn how organizations are enabling the use of mobile devices and technologies in ways that support business objectives and employee productivity. The study also examines the challenges many companies face when migrating from BlackBerry to a multi-OS mobile environment.

As shown in the findings from this research, mobility in the workplace is changing because of a seismic shift from the dominance of desktops and laptops to the proliferation of smart phones and tablets. Keeping up with the rapid adoption of these new devices, companies seem to be more focused on end-user productivity and convenience and less concerned with the enforcement of mobile security features and policies.

Ponemon Institute surveyed 405 IT and IT security practitioners in such financial services organizations as banking, insurance, brokerage, investment management and payment processing. Participants in this research are familiar with their organization's mobile policies and strategies and are involved at some level in managing mobile technologies and platforms, developing the organization's mobile architecture and applications.

The main themes of the research are:

- Characteristics of the changing mobile landscape
- A serious commitment to mobile migration
- Mobile strategies for the changing mobile landscape

Key findings of the research include the following:

- **The end is near for workplace desktops and laptops.** Sixty-nine percent of respondents say their CIOs believe smartphones and tablets will replace most desktops and laptops. As a result, 66 percent are committed to expanding the functionality of smartphones and tablets so that end users can do much more than just email.

- **Smartphones in the workplace will double.** According to respondents, the average number of smartphones in companies is 7,430. One year from now the average amount is predicted to be almost 14,000.

- **End-user satisfaction trumps security.** While 60 percent of CIOs believe smartphones and tablets are less secure than laptops, less than one-third of respondents say the CIO believes the security of smartphones and tablets is more important than end-user choices and preferences. Malware is considered the biggest risk to business data on mobile devices but less than half (48 percent) have mobile security features in place.

- **Major increases in the use of mobile devices for business applications are predicted.** Respondents anticipate a huge increase in employees' accessing of business applications other than email. On average, organizations will see an increase from 23 percent of employees to 42 percent.

- **The cost of migrating from BlackBerry is estimated to be four times what the average organization budgets**. Only 34 percent have a budget for migration and the average budget is about $4 million. However, respondents estimate the average cost will be about $17 million.

Part 2. Key Findings

In this section, we present an analysis of the key findings. The complete audited results are shown in the appendix of this report.

The main themes of the research are:

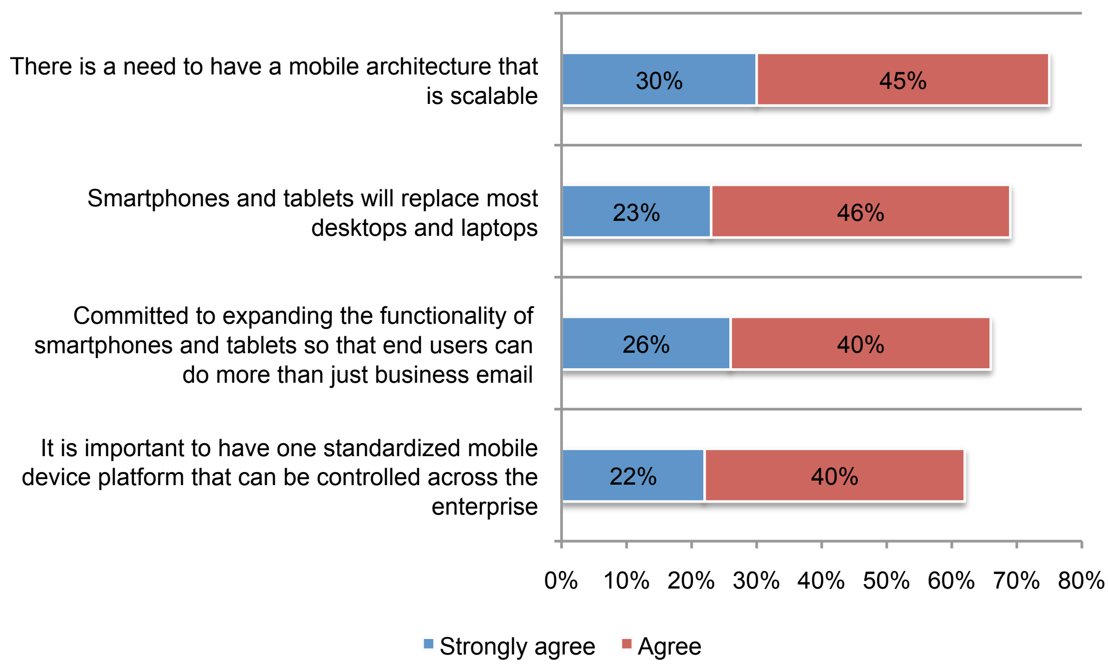
- Characteristics of the changing mobile landscape
- A serious commitment to mobile migration
- Mobile strategies for the changing mobile landscape

Characteristics of a changing mobile landscape

The end is near for workplace desktops and laptops. In this study, we asked respondents what they believe their CIOs think about mobile device strategies and security. It is interesting to learn that 69 percent of respondents say their CIOs believe that desktops and laptops will be replaced by smartphones and tablets.

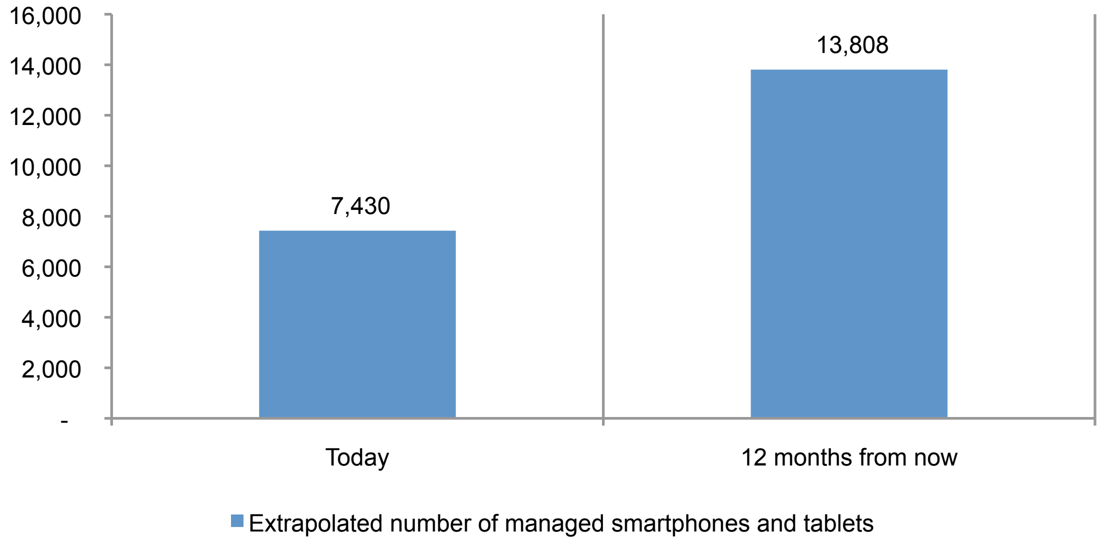
As a result of this proliferation, 75 percent say the CIO sees a need to have a mobile architecture that is scalable and 66 percent say the CIO is committed to expanding the functionality of smartphones and tablets so that end users can do much more than just business email as shown in Figure 1. Sixty-two percent say the CIO believes in the importance of having one standardized mobile device platform that can be easily controlled across the enterprise.

Figure 1. CIO's perceptions about mobile device strategy
Strongly agree and agree response combined



Smartphones in the workplace will double. According to Figure 2, the average organization represented in this study manages approximately 7,430 smartphones and tablets and this is expected to increase to an average of 13,808 in the next 12 months.

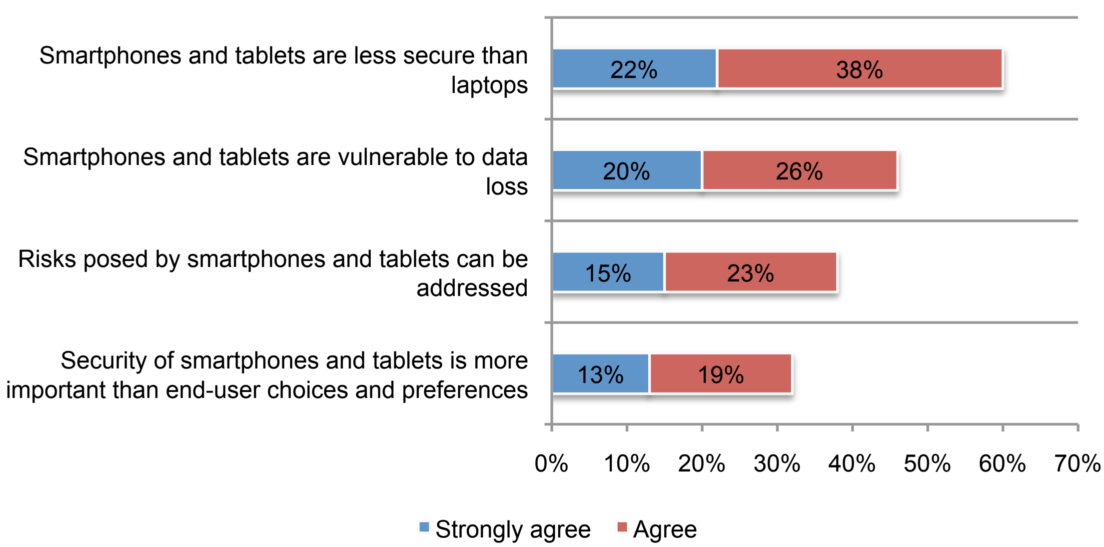
Figure 2. Smartphones and tablets managed by the organization
Extrapolated values



End-user satisfaction trumps security. Sixty percent of respondents say their CIOs believe smartphones and tablets are less secure than laptops, as revealed in Figure 3. Forty-six percent also say the CIOs think smartphones and tablets are vulnerable to data loss.

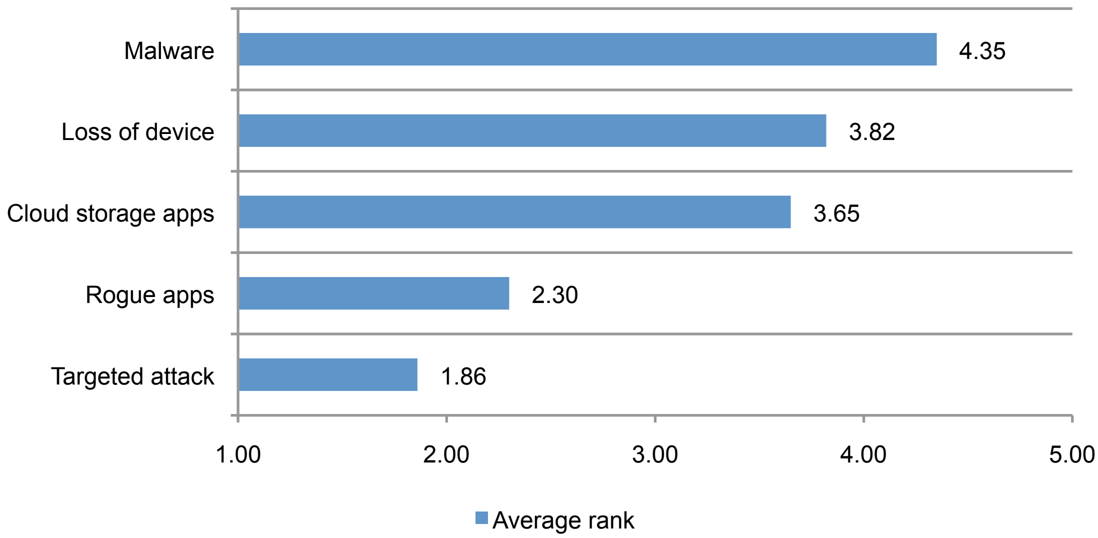
Figure 3 also shows evidence of a significant shift in attitudes about the importance of mobile security, 68 percent (100 - 32) percent of respondents believe their CIOs think end-user choices and preferences are more important than security. Perhaps it is because of this perception that only 38 percent say the CIO is confident that risks posed by smartphones and tablets can be addressed.

Figure 3. CIO's perceptions about mobile device security
Strongly agree and agree response combined



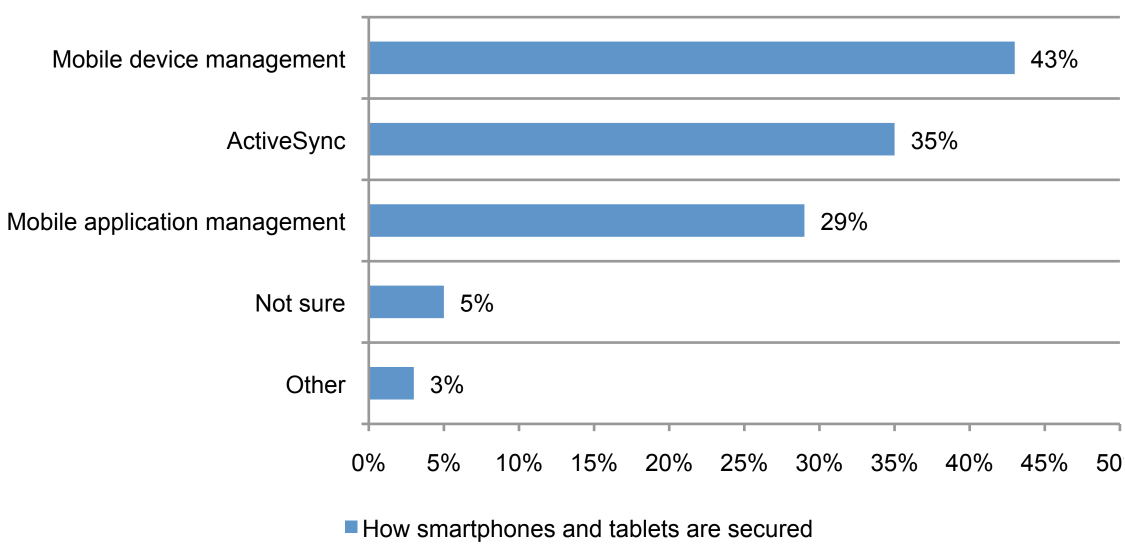
Malware is considered the biggest risk to business data on mobile devices. Tablets and smartphones are considered most at risk and malware is the number one threat. This is followed by loss of the device and cloud storage apps as shown in Figure 4.

Figure 4. Greatest risk for loss of business data on smartphones and tablets
5 = highest risk to 1 = lowest risk



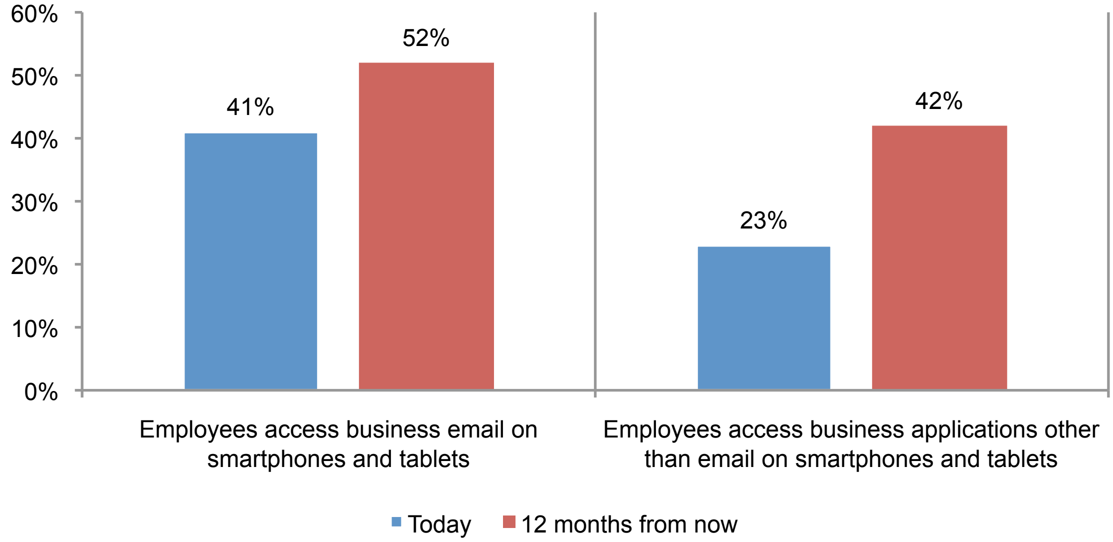
Three ways to secure mobile devices. Figure 5 reveals 43 percent who say their organizations use mobile device management to secure smartphones and tablets. Thirty five percent say their organizations utilize ActiveSync and 29 percent use mobile application management. While not shown in this chart, 48 percent of respondents say their organization is not using any of these technologies to secure mobile devices in the workplace.

Figure 5. How smartphones and tablets are secured
More than one response permitted



Major increases in the use of mobile devices for business applications are predicted. According to the organizations represented in this research, on average 41 percent of employees currently access business email on smartphones and tablets. As shown in Figure 5, this is expected to increase to 52 percent in the next 12 months. Respondents also anticipate a huge increase in access to business applications other than email. On average, organizations will see an increase from 23 percent of employees to 42 percent.

Figure 6. Use of mobile devices for business applications



BYOD smartphones and tablets will increase. Fifty-six percent of respondents say BYOD is permitted. Of those employees who are allowed to use their own devices, an average of 50 percent are permitted access the corporate intranet or apps.

Today, an average of 40 percent of all smartphones and tablets in the companies represented in this study are BYOD. Next year, this is expected to increase to almost half (49 percent) of all devices used in the workplace, as shown in Figure 7.

Figure 7. BYOD smartphones and tablets

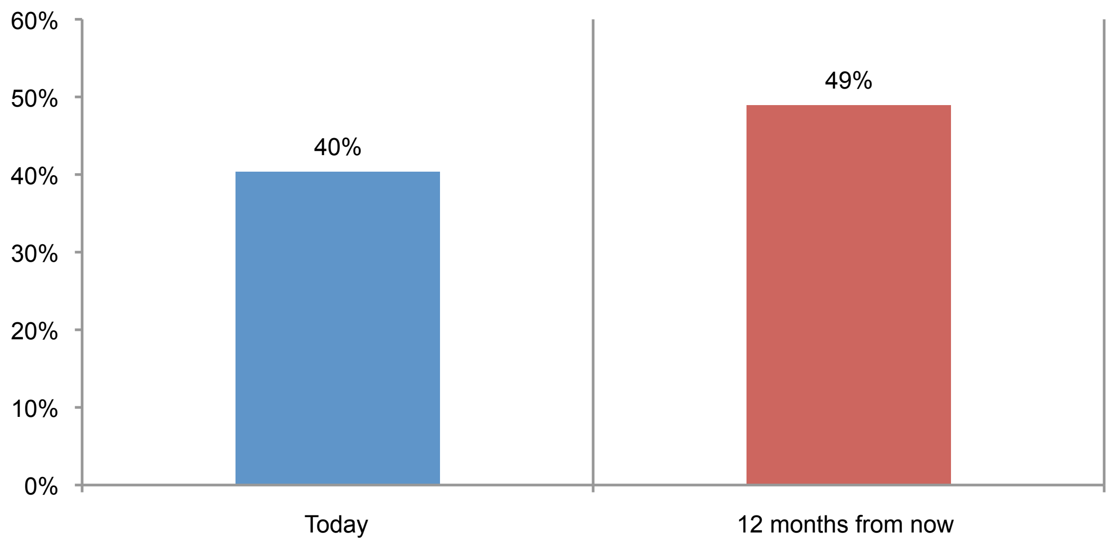
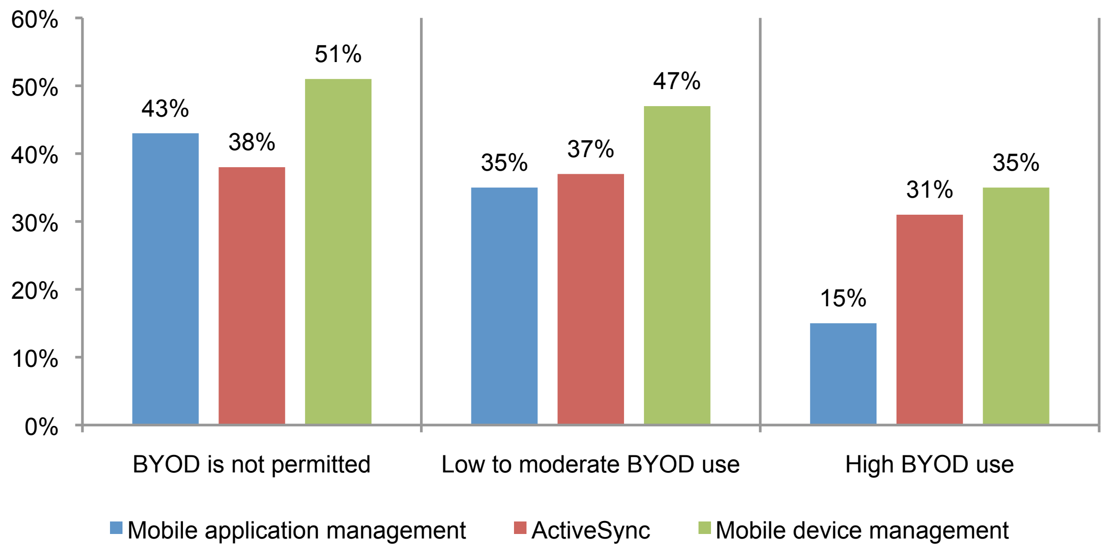


Figure 8 provides a cross tabulation: (1) use of three mobile device security technologies and (2) rate of BYOD use. The group labeled BYOD is not permitted has a zero use rate. The group labeled low to moderate has a range of BYOD use from1 to 50 percent, and the group labeled high pertains to BYOD use above 50 percent.

The use rates of three technologies appear to be inversely related to the use of BYOD among participating organizations. As shown, the use of mobile application management, ActiveSync and mobile device management is highest for companies that do not allow BYOD. In contrast, companies that allow the pervasive or high BYOD use are least likely to use the three device level security technologies.

Figure 8. How smartphones and tablets are secured by BYOD use rates
More than one response permitted

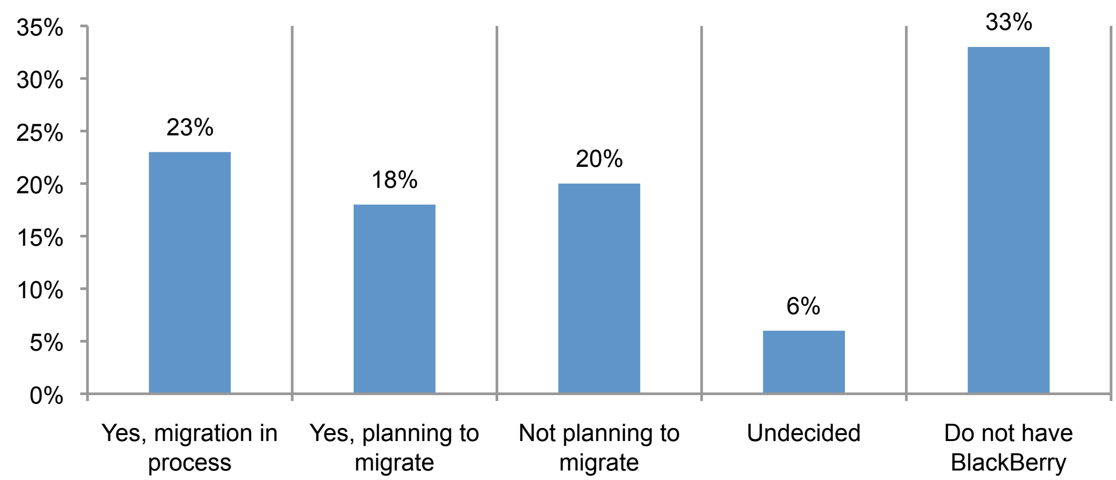


A serious commitment to mobile migration

Most companies have a team dedicated to mobile migration. As evidence of a serious commitment to the migration, 52 percent of organizations represented in this research have a team dedicated to mobile migration. In the organizations represented in this research 44 percent of devices are currently BlackBerry and this is expected to decrease to an average of 30 percent in the next 12 months.

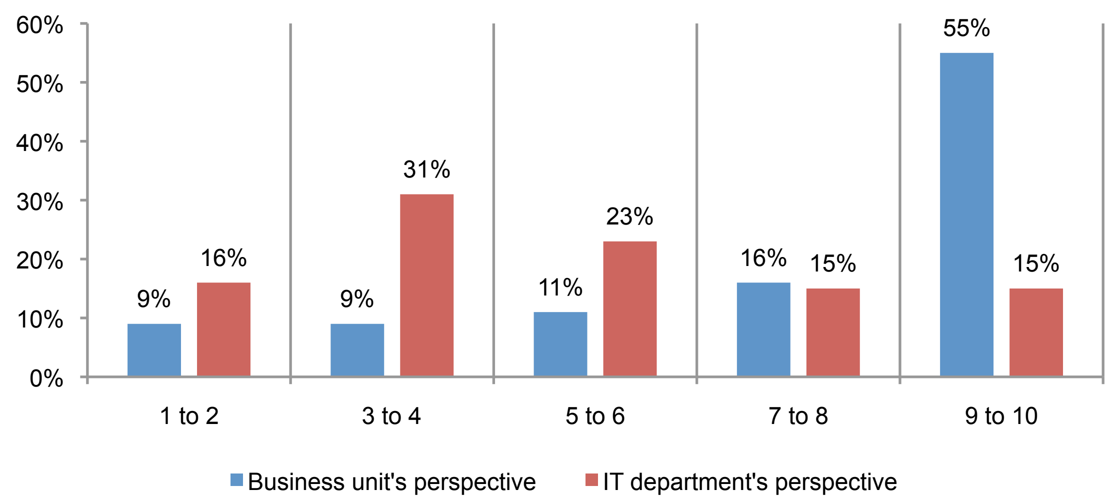
As shown in Figure 9, 41 percent of respondents (23 + 18 percent) are in the process of migrating from BlackBerry to a multi-OS mobile environment and 26 percent are not planning to migrate or are undecided. Thirty-three percent of organizations in this study do not have BlackBerry.

Figure 9. Migration from BlackBerry to a multi-OS mobile environment



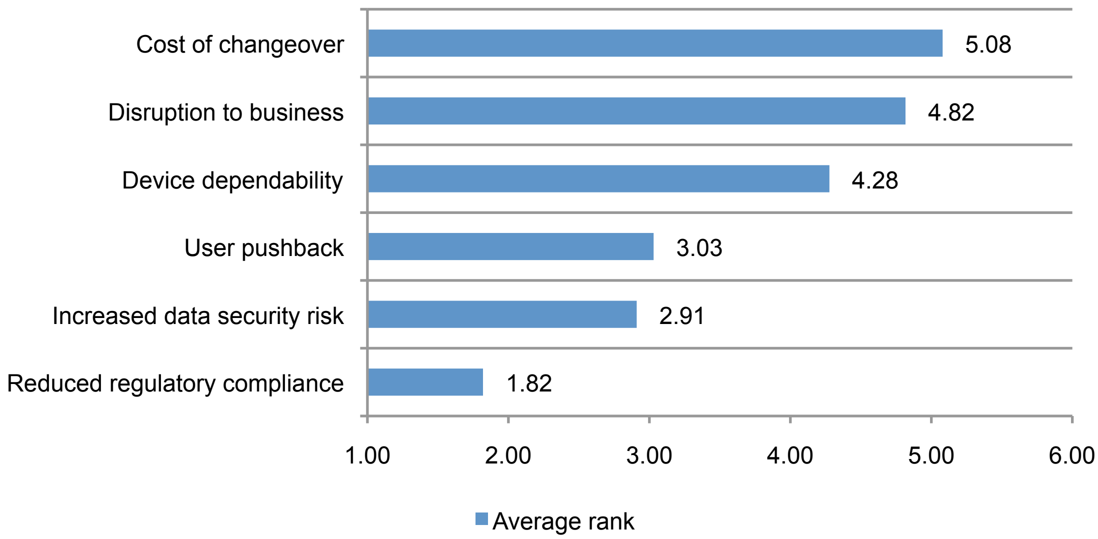
Using a 10-point scale, Figure 10 shows differences between business and the IT function on the level of urgency in migrating from BlackBerry to a multi-OS mobile environment. As can be seen, business units appear to attach a much higher level of urgency in migration than IT. Fifty-five percent of respondents rated the business unit's level of urgency, while only 15 percent rated the IT function's level of urgency, at 9 or 10.

Figure 10. What is the level of urgency in making the migration happen?
Scale: 1 = not urgent to 10 = extremely urgent



Cost of migration is a concern. Respondents worry about the cost of changeover, disruption to business, and device dependability, as shown in Figure 11. Of least concern is increased data security risk and compliance.

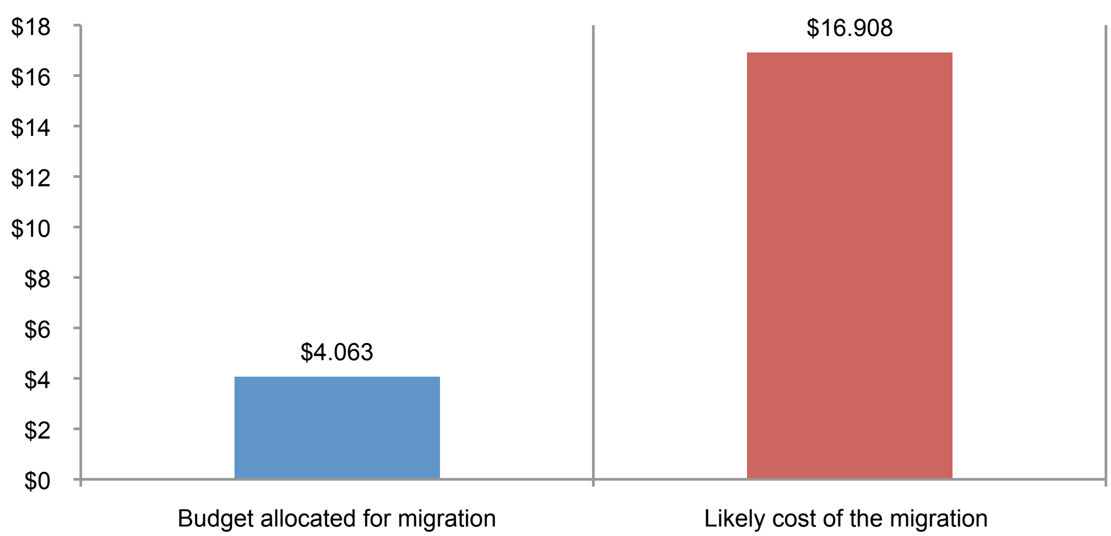
Figure 11. Significant concerns about migration to a multi-OS mobile environment
6 = most significant to 1 = least significant



The average cost of migration is four times what is budgeted. Approximately one-third of respondents (34 percent) say their organization has a budget to support the migration from BlackBerry to a multi-OS mobile environment. The average amount budgeted is $4.0 million. However, respondents believe the average cost could be as high as $16.9 million, as shown in Figure 12.

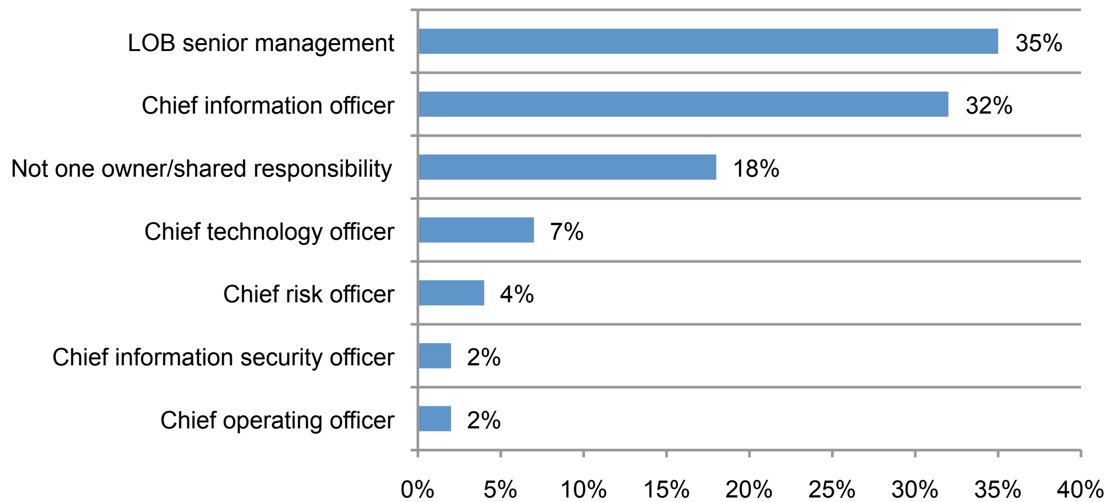
Assuming that the total number of managed devices for the present sample is 7,430 (see Figure 2), the budget allocation for migration is estimated at $547 per managed device and the likely total cost of migration is estimated at $2,276 per managed device.

Figure 12. Migration budget and cost
($1,000,000 omitted) Extrapolated values



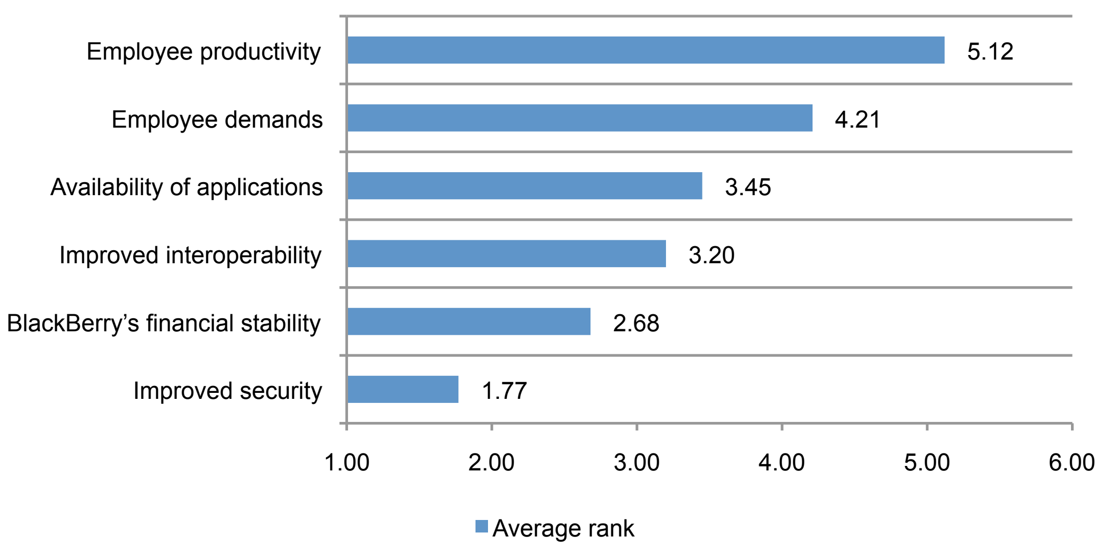
Business units drive mobile migration. As revealed in Figure 13, 35 percent of respondents say it is senior management in lines of business who are most eager to transition to a multi-OS mobile environment. Thirty-two percent of respondents say the CIO is behind the migration.

Figure 13. The driver of the migration from BlackBerry to a multi-OS mobile environment



The end user experience is motivation to migrate. As shown in Figure 14, Employee productivity followed by employee demands is the primary motivation for migration. Improved security provides the least amount of motivation.

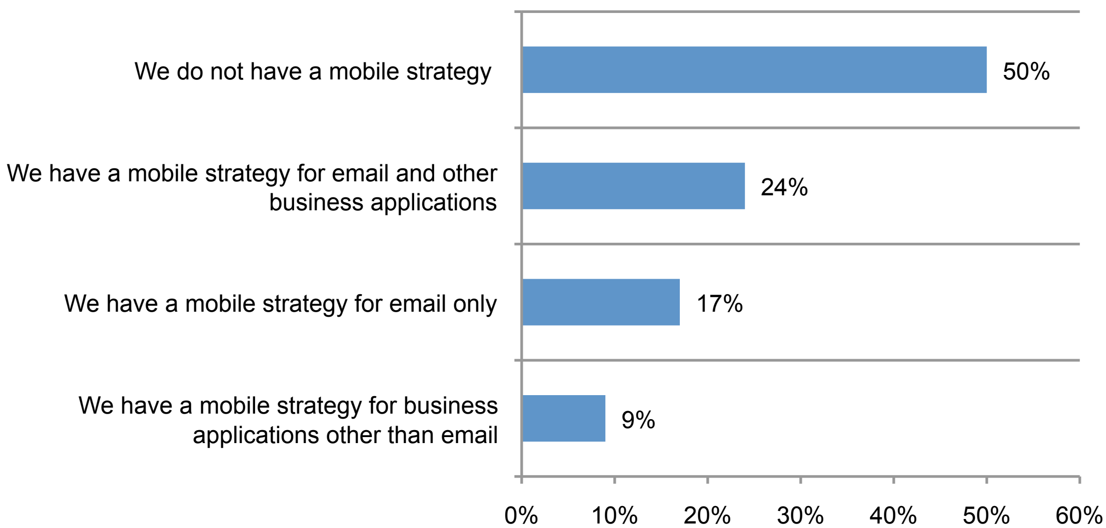
Figure 14. The primary motivation for migration
6 = most important to 1 = least important



Mobile strategies are needed to support the changing mobile landscape

Most organizations do not have a mobile strategy. According to Figure 15, 50 percent of respondents say no mobile policy exists. Of those organizations that have a strategy, 24 percent have a strategy for email and other business applications, 17 percent have a strategy for email only and 9 percent of respondents say it is for business applications other than email.

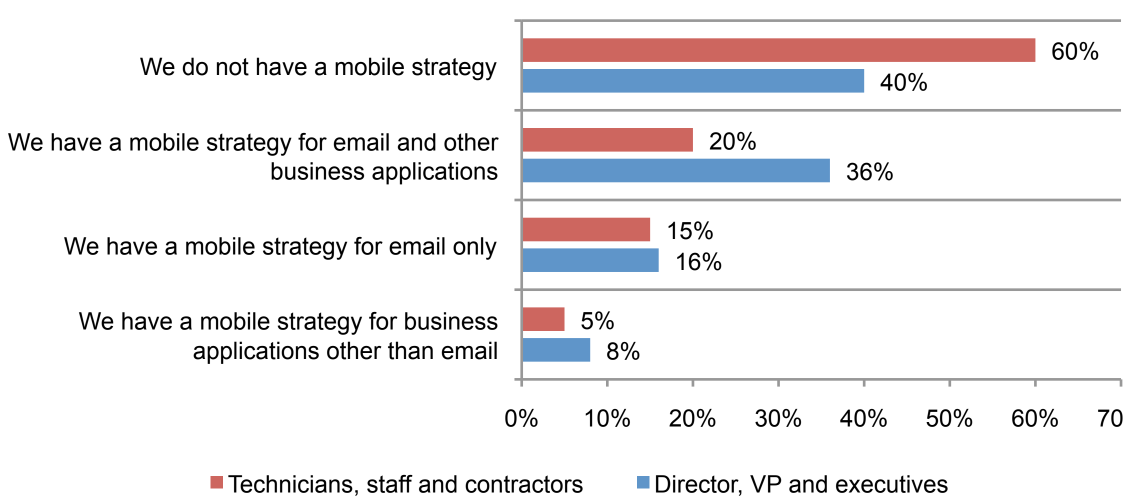
Figure 15. The organization's mobile strategy today



Our next cross tabulation compares two bifurcated subsamples based on respondents' position levels. One group includes senior-level respondents who are directors and above. The second group includes rank-and-file respondents (i.e., technicians, staff or contractors). As can be seen, there appears to be significant perceptual differences between the two groups.

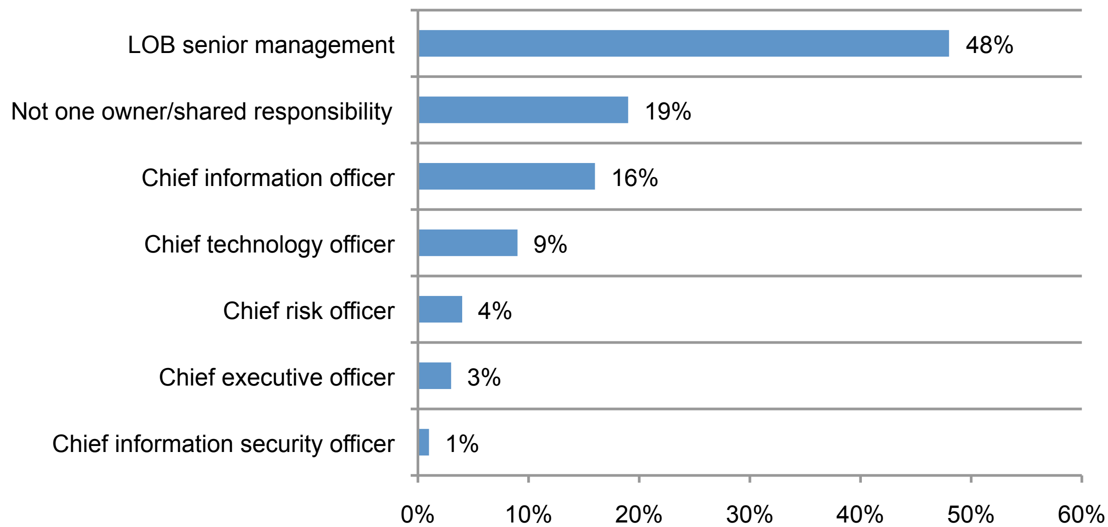
Figure 16 shows 60 percentage of lower level respondents believes their organization does not have a mobile strategy. However, only 40 percent of senior level respondents believe their organizations do not have a mobile strategy. In contrast, 36 percent of senior level respondents believe their organizations have a mobile strategy for email and other business applications. However, only 20 percent of rank-and-file respondents believe this to be true.

Figure 16. Executives vs. rank-and-file employees' perceptions about mobile strategy



Responsibility for mobile strategy rests with senior management. Employee productivity is an important part of the new mobile landscape and the lines of business are most often cited by respondents as being responsible for the mobile strategy, according to Figure 17. Nineteen percent say responsibility is shared and only 16 percent say it is the CIO. Most likely the execution of the strategy is handled on a decentralized basis by the lines of business (35 percent of respondents) followed by 31 percent of respondents who say it is managed by a central mobile excellence team.

Figure 17. Who is most responsible for the organization's mobile strategy?



More organizations have a mobile strategy that is aligned with business rather than IT objectives. While most organizations have at least a partial alignment with IT and business objectives (Figure 18)**,** 45 percent say there is no alignment with IT objectives and 36 percent say it is not aligned with business objectives.

Figure 18. Is your organization's mobile strategy aligned with IT & business objectives?

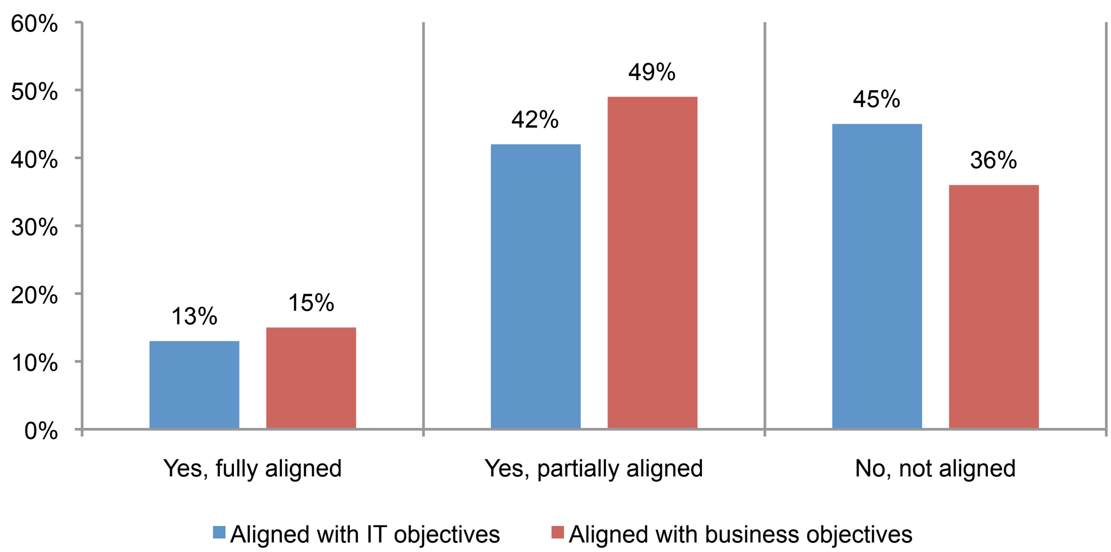
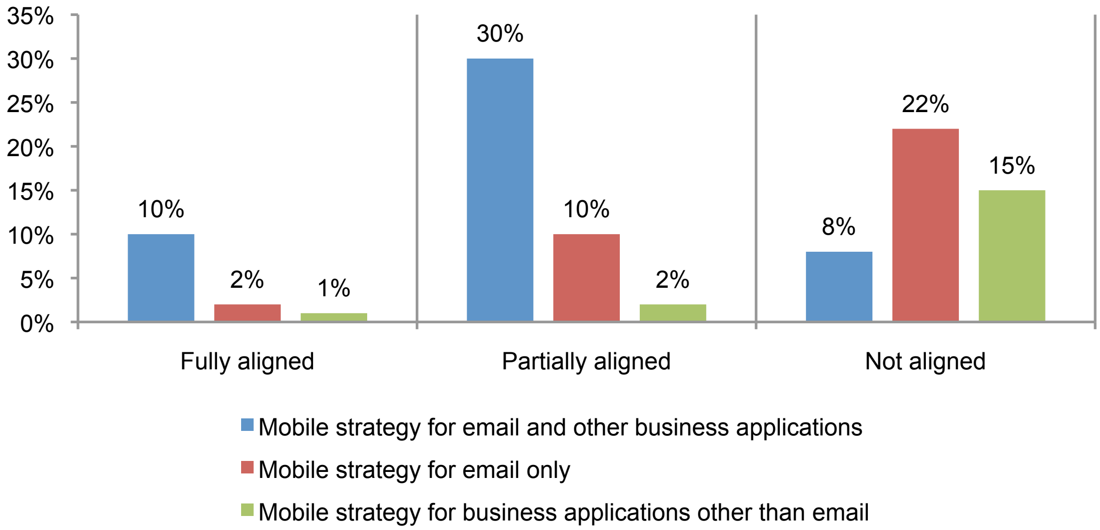


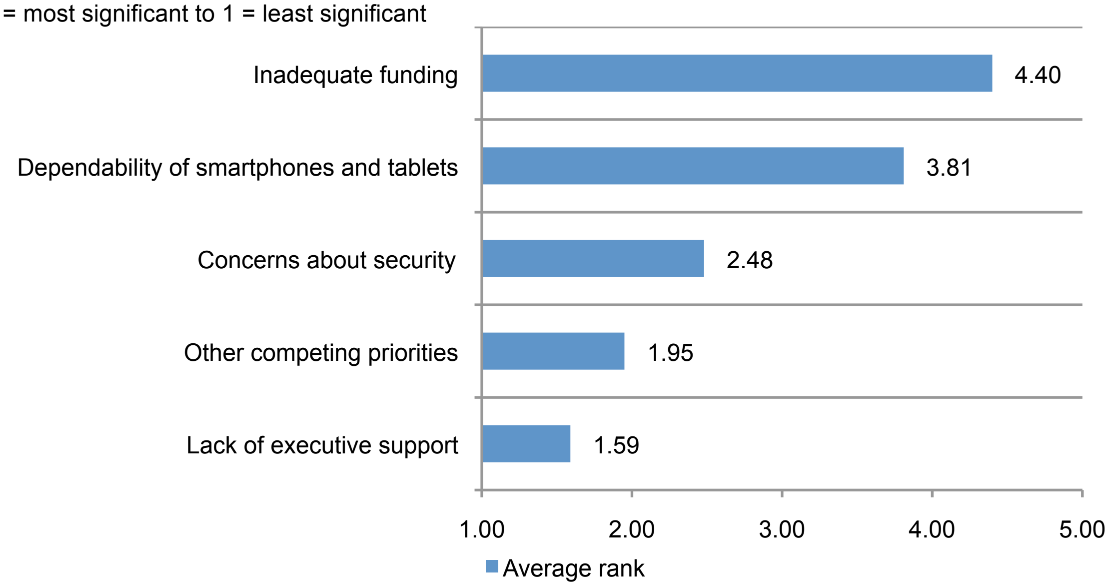
Figure 19 provides a cross tabulation on three mobile strategies by the degree of alignment with IT objectives. Of the 13 percent of respondents who believe their mobile strategy is fully aligned, the majority has a mobile strategy for email and other business applications. The same appears to be true for the 42 percent of respondents who say their organization's strategy is only partially aligned. The remaining 45 percent who admit their organization's mobile strategy is not aligned with IT objectives are most likely to have a narrow strategic focus on email or other business applications excluding email.

Figure 19. Degree to which the mobile strategy is aligned with IT objectives



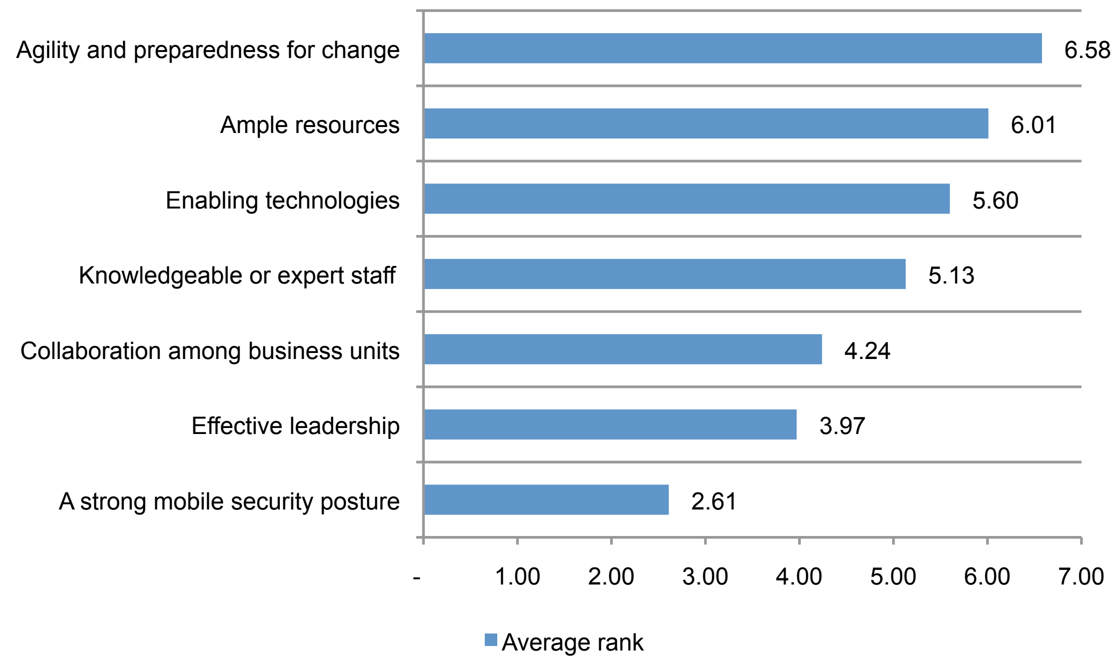
Inadequate funding is the primary barrier to an effective mobile strategy. When asked what is preventing organizations from achieving the most effective strategy possible, respondents say it is not enough funds followed by dependability of smartphones and tablets and concerns about strategy, as revealed in Figure 20.

Figure 20. Barriers to achieving an effective mobile strategy
5 = most significant to 1 = least significant



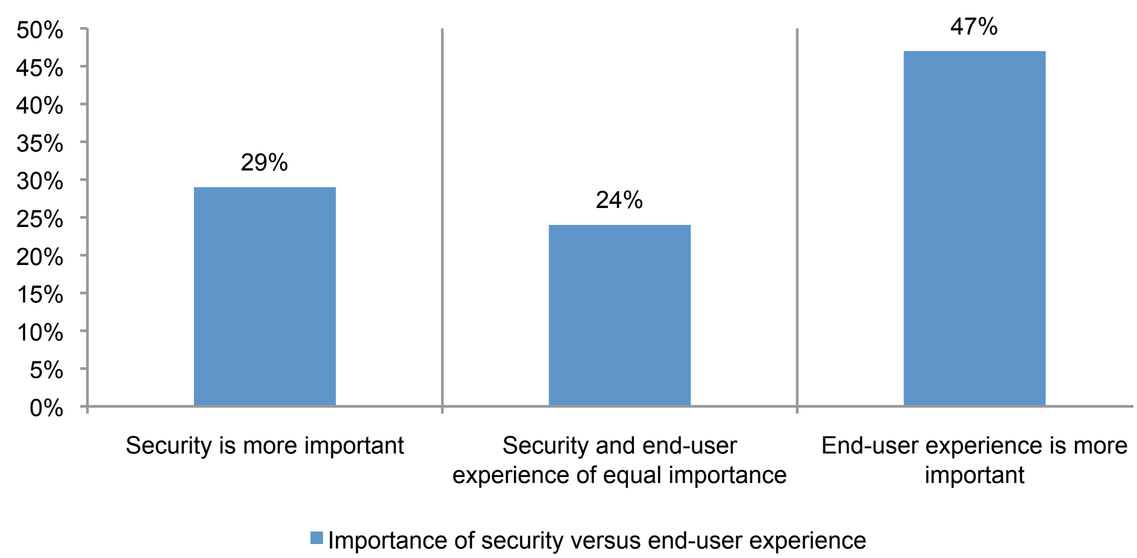
An effective mobile strategy is dependent upon agility. As shown in Figure 21, in order to maintain such a strategy, respondents say it is agility and preparedness for change followed by ample resources and enabling technologies that are key. Once again, security ranks last in the changing mobile landscape.

Figure 21. Factors that contribute to maintaining an effective mobile strategy over time
7 = most important to 1 = least important



The user experience may be affecting the mobile strategy. As shown in Figure 22, 47 percent of respondents say the end-user experience is marginally or much more important than security to the organization's long-term mobile strategy.

Figure 22. Is the end-user experience more important to mobile strategy?



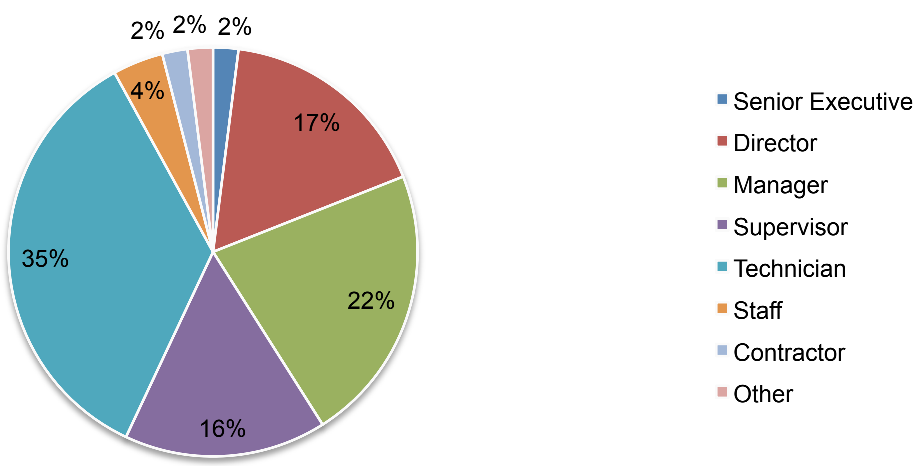
Part 4. Methods

A proprietary sampling frame consisting of 8,912 IT and IT security practitioners in U.S. financial services who are familiar with their organization's mobile policies and strategies and are involved at some level in managing mobile technologies were participants to this survey-based research. Table 1 shows 463 respondents completed the survey. Screening and reliability checks resulted in the removal of 58 surveys. The final sample consists of 405 surveys and a 4.5 percent response rate.

Table 1. Sample response	Freq	Pct%
Total sampling frame	8,912	100.0%
Total returns	463	5.2%
Rejected and screened surveys	58	0.7%
Final sample	405	4.5%

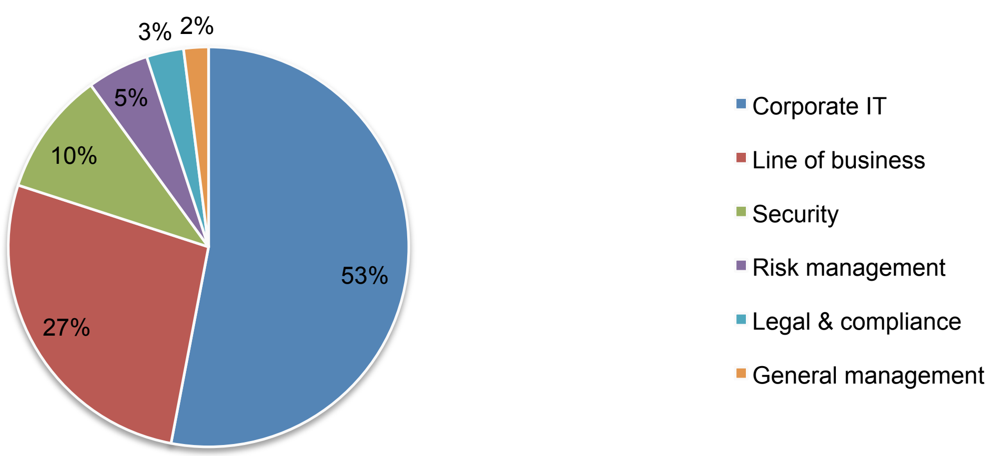
Pie Chart 1 reports the organizational level of respondents' current position. By design, 57 percent of respondents are at or above the supervisory levels.

Pie Chart 1. Organizational level that best describes respondents' position levels
Sample of 405 U.S. respondents



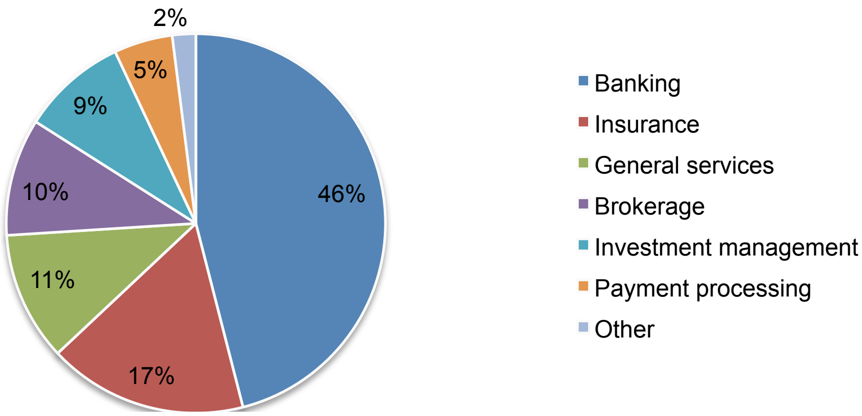
According to Pie Chart 2, 53 percent of respondents are located in Corporate IT and 27 percent function in the line of business.

Pie Chart 2. Department or function where respondents are located
Sample of 405 U.S. respondents



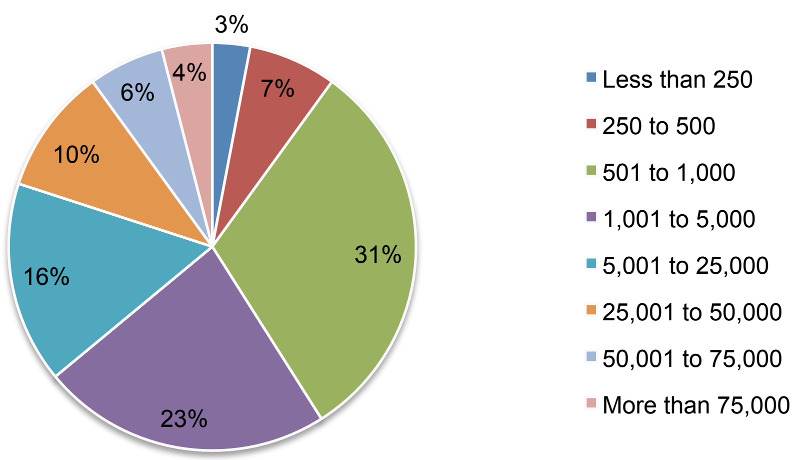
Pie Chart 3 reports the primary focus of respondents' organizations. This chart identifies banking (46 percent) as the largest segment, followed by insurance (17 percent) and general services (11 percent).

Pie Chart 3. Area of financial service best describes the organization's primary focus
Sample of 405 U.S. respondents



Pie Chart 4 shows, 59 percent of respondents are from organizations with a headcount greater than 1,000 employees.

Pie Chart 4. The worldwide headcount of respondents' organizations



Part 5. Caveats

There are inherent limitations to survey research that need to be carefully considered before drawing inferences from findings. The following items are specific limitations that are germane to most web-based surveys.

Non-response bias: The current findings are based on a sample of survey returns. We sent surveys to a representative sample of individuals, resulting in a large number of usable returned responses. Despite non-response tests, it is always possible that individuals who did not participate are substantially different in terms of underlying beliefs from those who completed the instrument.

Sampling-frame bias: The accuracy is based on contact information and the degree to which the list is representative of individuals who are IT or IT security practitioners in financial services. We also acknowledge that the results may be biased by external events such as media coverage. We also acknowledge bias caused by compensating subjects to complete this research within a holdout period.

Self-reported results: The quality of survey research is based on the integrity of confidential responses received from subjects. While certain checks and balances can be incorporated into the survey process, there is always the possibility that a subject did not provide an accurate response.

Appendix: Detailed Survey Results

The following tables provide the frequency or percentage frequency of responses to all survey questions contained in this study. All survey responses were captured in December 2013.

Sample response	Freq
Total sampling frame	8,912
Total returns	463
Screened & rejected surveys	58
Final sample	405

Part 1. Background

Q1. Please select **all** of the following tasks that you are involved in within your organization.	Pct%
Setting the mobile strategy	41%
Creating acceptable use policies for smartphones and tablets	39%
Managing mobile technologies and platforms	57%
Developing the organization's mobile architecture	23%
Developing the organization's mobile applications	38%
Setting the mobile security policy	45%
None of the above (Stop)	0%

Q3. What percentage of your organization's employees access business email on smartphones and tablets?	
Q3a. Today	Pct%
Zero	3%
1 to 10%	9%
11 to 25%	20%
26 to 50%	33%
51 to 75%	25%
76 to 100%	10%
Total	100%

Q3b. 12 months from now (estimated)	Pct%
Zero	1%
1 to 10%	6%
11 to 25%	12%
26 to 50%	26%
51 to 75%	34%
76 to 100%	21%
Total	100%

Q4. What percentage of your organization's employees access business applications other than email on smartphones and tablets? Examples of these business applications could include CRM, collaboration, or other productivity and line-of-business apps.	
Q4a. Today	Pct%
Zero	32%
1 to 10%	21%
11 to 25%	15%
26 to 50%	12%
51 to 75%	12%
76 to 100%	8%
Total	100%

Q4b. 12 months from now (estimated)	Pct%

Zero	20%
1 to 10%	12%
11 to 25%	9%
26 to 50%	9%
51 to 75%	28%
76 to 100%	22%
Total	100%

Q5a. Does your organization allow employees to use personally owned smartphones and tablets (a.k.a. BYOD) for business email or apps?	Pct%
Yes	56%
No	44%
Total	100%

Q5b. If yes, what percentage of BYOD devices are only allowed to access business email but not the corporate intranet or apps?	Pct%
Zero	19%
1 to 10%	10%
11 to 25%	8%
26 to 50%	6%
51 to 75%	15%
76 to 100%	42%
Total	100%

Q6. Approximately, how many smartphones and tablets are managed by your organization?	
Q6a. Today	Pct%
Less than 500	10%
500 to 1,000	16%
1,001 to 5,000	29%
5,001 to 10,000	31%
10,001 to 25,000	9%
25,001 to 75,000	5%
More than 75,000	0%
Total	100%

Q6b. 12 months from now (estimated)	Pct%
Less than 500	10%
500 to 1,000	11%
1,001 to 5,000	12%
5,001 to 10,000	35%
10,001 to 25,000	20%
25,001 to 75,000	8%
More than 75,000	4%
Total	100%

Q7. What percentage of the smartphones and tablets currently in your organization are personally owned (a.k.a. BYOD)?	
Q7a. Today	Pct%
Zero	24%
1 to 10%	9%
11 to 25%	9%
26 to 50%	16%
51 to 75%	18%
76 to 100%	24%
Total	100%

Q7b. 12 months from now (estimated)	Pct%
Zero	10%
1 to 10%	9%
11 to 25%	11%
26 to 50%	19%
51 to 75%	21%
76 to 100%	30%
Total	100%

Q8. Is your organization migrating from BlackBerry to a multi-OS mobile environment?	Pct%
Yes, migration in process	23%
Yes, planning to migrate	18%
Not planning to migrate	20%
Undecided	6%
Do not have BlackBerry (Go to Part 3)	33%
Total	100%

Q9. If you have BlackBerry deployed today, what are your main concerns about migration to a multi-OS mobile environment? Please rank the following list from 1 = most significant to 6 = least significant. Ranking was reversed scored in the paper.	Average rank
Cost of changeover	1.92
Increased data security risk	4.09
Reduced regulatory compliance	5.18
Disruption to business	2.18
Device dependability	2.72
User pushback	3.97
Average	3.34
[Those not planning to migrate or undecided go to Part 3]	

Part 2. Mobile migration

Q10. What percentage of devices managed by your organization are BlackBerry?	
Q10a. Today	Pct%
Zero	33%
1 to 10%	5%
11 to 25%	5%
26 to 50%	6%
51 to 75%	15%
76 to 100%	36%
Total	100%

Q10b. 12 months from now (estimated)	Pct%
Zero	49%
1 to 10%	4%
11 to 25%	6%
26 to 50%	9%
51 to 75%	10%
76 to 100%	22%
Total	100%

Q11a. Does your organization have a budget to support the migration from BlackBerry to a multi-OS mobile environment?	Pct%
Yes	34%
No	66%
Total	100%

Q11b. If yes, how much has your organization allocated for this migration?	Pct%
Zero	0%
Less than $10,000	1%
$10,001 to $100,000	2%
$100,001 to $250,000	5%
$250,001 to $500,000	11%
$500,001 to $1,000,000	27%
$1,000,001 to $5,000,000	32%
$5,000,001 to $10,000,000	14%
$10,000,001 to $25.000,000	6%
$25,000,001 to $50,000,000	2%
$50,00,001 to $100,000,000	0%
More than $100,000,000	0%
Total	100%

Q12. Approximately, how much will the migration from BlackBerry to a multi-OS mobile environment cost your organization?	Pct%
Zero	0%
Less than $10,000	0%
$10,001 to $100,000	1%
$100,001 to $250,000	0%
$250,001 to $500,000	2%
$500,001 to $1,000,000	10%
$1,000,001 to $5,000,000	15%
$5,000,001 to $10,000,000	23%
$10,000,001 to $25.000,000	28%
$25,000,001 to $50,000,000	16%
$50,00,001 to $100,000,000	5%
More than $100,000,000	0%
Total	100%

Q13a. Who in your organization is driving the migration from BlackBerry to a multi-OS mobile environment? Please select only one.	Pct%
Chief information officer	32%
Chief technology officer	7%
Chief operating officer	2%
Chief financial officer	0%
Chief executive officer	0%
Chief information security officer	2%
Chief risk officer	4%
LOB senior management	35%
Not one owner/shared responsibility	18%
Other (please specify)	0%
Total	100%

Q13b. Does your organization have a dedicated team for managing the migration from BlackBerry to a multi-OS mobile environment?	Pct%
Yes	52%
No	48%
Total	100%

Q14. What is the primary motivation for migration? Please rank the following list from 1 = most important to 6 = least important. Ranking was reversed scored in the paper.	Average rank
BlackBerry company's financial stability	4.32
Employee demands	2.79
Employee productivity	1.88
Improved security	5.23
Improved interoperability	3.80
Availability of applications	3.55
Average	3.60

Q15. From the business unit's perspective, what is the level of urgency in making this migration happen?	Pct%
1 to 2	9%
3 to 4	9%
5 to 6	11%
7 to 8	16%
9 to 10	55%
Total	100%

Q16. From the IT department's perspective, what is the level of urgency in making this migration happen?	Pct%
1 to 2	16%
3 to 4	31%
5 to 6	23%
7 to 8	15%
9 to 10	15%
Total	100%

Part 3. Mobile strategy

Q17. Please check **one** statement that best describes your organization's mobile strategy today.	Pct%
We have a mobile strategy for email only	17%
We have a mobile strategy for business applications other than email	9%
We have a mobile strategy for email and other business applications	24%
We do not have a mobile strategy (Go to Part 4)	50%
Total	100%

Q18. Is your organization's mobile strategy aligned with IT objectives?	Pct%
Yes, fully aligned	13%
Yes, partially aligned	42%
No, not aligned	45%
Total	100%

Q19. Is your organization's mobile strategy aligned with business objectives?	Pct%
Yes, fully aligned	15%
Yes, partially aligned	49%
No, not aligned	36%
Total	100%

Q20. Who is most responsible for your organization's mobile strategy? Please select one top choice.	Pct%
Chief information officer	16%
Chief technology officer	9%
Chief operating officer	0%
Chief financial officer	0%
Chief executive officer	3%
Chief information security officer	1%
Chief risk officer	4%
LOB senior management	48%
Not one owner/shared responsibility	19%
Other (please specify)	0%
Total	100%

Q21. Please check **one** statement that best describes how the organization's mobile strategy is executed.	Pct%
Centralized control within corporate IT	20%
Centralized control within non-IT business function	8%
Centralized control by a dedicated mobile excellence team	31%
Decentralized control by a dedicated mobile excellence team	6%
Decentralized control within LOB or business unit	35%
Other (please specify)	0%
Total	100%

Q22. What are the barriers to achieving an effective mobile strategy within your organization today? Please rank the following list from 1 = most significant to 5 = least significant. Ranking was reversed scored in the paper.	Average rank
Inadequate funding	1.60
Concerns about security	3.52
Dependability of smartphones and tablets	2.19
Lack of executive support	4.41
Other competing priorities	4.05
Average	3.15

Q23. What factors would most contribute to your organization's ability to maintain an effective mobile strategy over time? Please rank the following list from 1 = most important to 7 = least important. Ranking was reversed scored in the paper.	Average rank
Agility and preparedness for change	1.42
Collaboration among business units	3.76
A strong mobile security posture	5.39
Knowledgeable or expert staff	2.87
Effective leadership	4.03
Enabling technologies	2.40
Ample resources	1.99
Average	3.12

Q24. How does your organization secure smartphones and tablets used by employees in the workplace? Please select all that apply.	Pct%
ActiveSync only	35%
Mobile device management	43%
Mobile application management	29%
No mobile security features in place	48%
Not sure	5%
Other (please specify)	3%
Total	163%
Q26. How important is security versus end-user experience to your organization's long-term mobile strategy?	Pct%
Security much more important	10%
Security marginally more important	19%
Security and end-user experience of equal importance	24%
End-user experience marginally more important	26%
End-user experience much more important	21%
Total	100%

Q27. Which mobile operating system presents the greatest security risk? Please rank the following list from 1 = highest risk to 5 = lowest risk. Ranking was reversed scored in the paper.	Average rank
iOS	2.88
Android (non-Samsung)	1.67
Android (Samsung)	1.96
Windows Phone	3.59
BlackBerry	4.61
Average	2.94

Q28. Which mobile device presents the greatest security risk? Please rank the following list from 1 = highest risk to 3 = lowest risk. Ranking was reversed scored in the paper.	Average rank
Laptop	2.65
Tablet	1.45
Smartphone	1.92
Average	

Q29. Which presents the greatest risk for loss of business data on smartphones and tablets? Please rank the following list from 1 = highest risk to 5 = lowest risk. Ranking was reversed scored in the paper.	Average rank
Malware	1.65
Rogue apps	3.70
Loss of device	2.18
Targeted attack	4.14
Cloud storage apps	2.35
Average	2.80

Part 4. Attributions: Please rate each of the following statements about your organization's CIO using the agreement scale below each item.	Strongly agree
Q30. My organization's CIO believes it is important to have one standardized mobile device platform that can be easily controlled across the enterprise.	22%
Q31. My organization's CIO believes the security of smartphones and tablets is more important than end-user choices and preferences.	13%
Q32. My organization's CIO is confident that risks posed by smartphones and tablets can be addressed.	15%
Q33. My organization's CIO believes smartphones and tablets will replace most desktops and laptops.	23%
Q34. My organization's CIO recognizes the need to have a mobile architecture that is scalable.	30%
Q35. My organization's CIO is committed to expanding the functionality of smartphones and tablets so that end users can do much more than just business email.	26%
Q36. My organization's CIO believes smartphones and tablets are vulnerable to data loss.	20%
Q37. My organization's CIO is skeptical about migrating from BlackBerry to a multi-OS mobile environment	32%
Q38. My organization's CIO believes smartphones and tablets are less secure than laptops.	22%

Part 5. Role and organizational characteristics

D1. What organizational level best describes your current position?	Pct%
Senior Executive	2%
Vice President	1%
Director	17%
Manager	22%
Supervisor	16%
Technician	35%
Staff	4%
Contractor	2%
Other	1%
Total	100%

D2. Check the department or function that best describes where you are located in your organization.	Pct%
General management	2%
Finance & accounting	0%
Legal & compliance	3%
Corporate IT	53%
Line of business	27%
Human resources	0%
Risk management	5%
Security	10%
Other	0%
Total	100%

D3. What financial service category best describes your organization's primary focus?	Pct%
Banking	46%
Insurance	17%
General services	11%
Brokerage	10%
Investment management	9%
Payment processing	5%
Other	2%
Total	100%

D4. Where are your employees located? Please choose all that apply.	Pct%
United States	100%
Canada	67%
Europe	62%
Middle east & Africa	31%
Asia-Pacific	55%
Latin America (including Mexico)	59%

D5. What is the worldwide headcount of your organization?	Pct%
Less than 250	3%
250 to 500	7%
501 to 1,000	31%
1,001 to 5,000	23%
5,001 to 25,000	16%
25,001 to 50,000	10%
50,001 to 75,000	6%
More than 75,000	4%
Total	100%

Ponemon Institute

Advancing Responsible Information Management

Ponemon Institute is dedicated to independent research and education that advances responsible information and privacy management practices within business and government. Our mission is to conduct high quality, empirical studies on critical issues affecting the management and security of sensitive information about people and organizations.

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