



## **The Business Case for Data Protection: What Senior Executives Think about Data Protection**

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Independently conducted by Ponemon Institute LLC

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## The Business Case for Data Protection: What Senior Executives Think about Data Protection

By Dr. Larry Ponemon March 2012

### Part 1. Introduction

The steady occurrence of data breaches and attacks on sensitive and confidential information is making data protection a critical component of an organization's leadership and governance strategy. *What Senior Executives Think about Data Protection*, conducted by Ponemon Institute and sponsored by IBM, was conducted to determine what corporate executives believe are the most important factors and activities to consider when safeguarding sensitive information and complying with increasing regulation, including the data breach notification laws that now exist in more than 45 states.

This is the second study sponsored by IBM and conducted by Ponemon Institute to investigate what senior executives think about the value of corporate data protection efforts within their organizations. The research focuses on how aware CEOs and other senior executives are about their organization's data protection efforts, what they believe is the economic justification for investment in a data protection program, how such efforts support organizational goals, and what are the major risks to sensitive and confidential data in the cloud.

In this study, we surveyed 265 C-level executives, of whom 44 are CEOs, in organizations with a data protection and privacy program or initiative. This is an increase from the 213 C-level executives surveyed in the 2009 research. Some of the most interesting findings are:

- Ninety percent of senior executives surveyed say their company has had a data breach and almost half (forty-eight percent) expect more data breaches to occur.
- Senior executives believe the most important information to safeguard is non-financial confidential business information, typically stored as unstructured data. This is followed by intellectual property and business customer information.
- Senior executives concur that mobile devices in the workplace are putting sensitive and confidential information at greater risk and they acknowledge that they are challenged to secure them.
- Thirty-nine percent of executives say their companies do not address security issues in application development, waiting until the launch or post-launch phase.
- Seventy percent of organizations in this study use public, private and/or hybrid cloud computing resources. Senior executives in organizations using cloud resources are more confident that their organization will not suffer a data breach in the next 12 months.
- Executives believe spending to achieve compliance with regulations is diverting spending from IT security and is causing data to be less secure.
- Senior executives estimate that, on average, their organizations saved \$19 million last year as a result of data protection efforts. This is an increase from \$16 million in 2009.

The study reveals that in some areas of data protection senior executives are in touch with the threats to sensitive information, such as the use of mobile devices. In other areas, such as cloud computing, many senior executives do not acknowledge the increase in data protection risks that may be created. In addition, there are other indications that data protection is not a strategic imperative. Specifically, measures used to justify spending on data protection are after-the-fact,

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such as reductions in the cost of a data breach, rather than focusing justification on the serious impact of the theft or loss of valuable information assets.

## Part 2. Key Findings

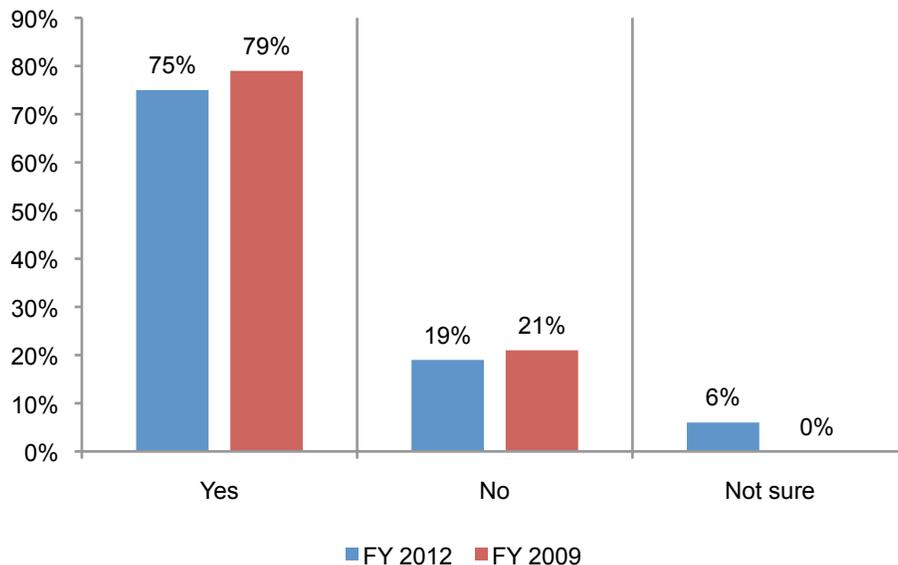
The following are what we believe to be the major findings in this study. We organized these findings according to six major themes that emerged: responsibility and accountability, perceived threats to sensitive and confidential information, perceived value of a data protection program, measuring the value of data protection, budgets and characteristics of organizations using cloud computing.

The complete audited findings from this study are presented in the Appendix to this report, including a special analysis showing differences between organizations that are using cloud computing and those that have yet to use public, private and or hybrid cloud computing resources.

### Responsibility & Accountability

**Data protection responsibility most often resides within IT, and not within the privacy function.** The majority (75 percent) of respondents say their organizations have one person responsible for data protection as shown in Bar Chart 1. This is a slight decrease from 2009 when 79 percent said this was the case.

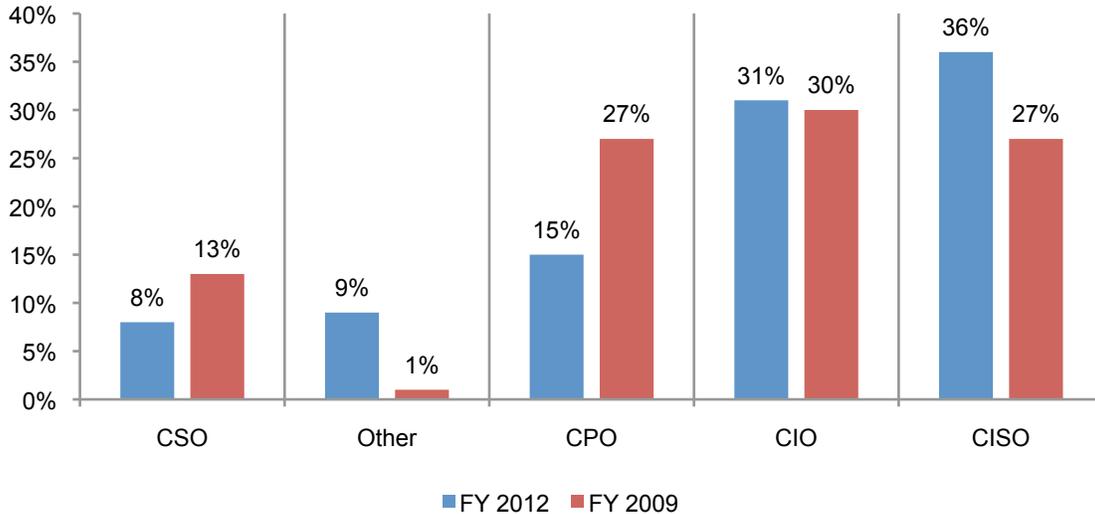
**Bar Chart 1: Percentage of organizations with one person responsible for data protection**



Typically the individuals most responsible for data protection are the chief information security officers (CISO) and chief information officers (CIO). This is understandable given the investments organizations are making in security technologies for data protection purposes.

Bar Chart 2 indicates the percentage of organizations that say their chief privacy officer (CPO) is most responsible for overall data protection has declined from 27 percent to 15 percent. Other executives most often selected as being responsible include the general counsel, cross-functional committees and chief marketing officers (not shown in the chart).

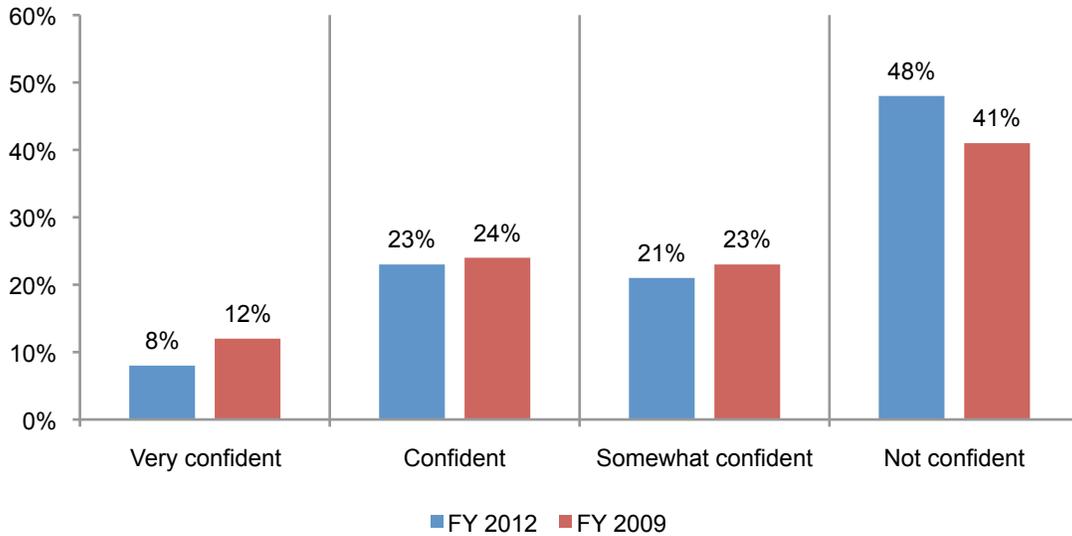
**Bar Chart 2: The person most responsible for an enterprise's data protection efforts**



**Threats to Sensitive & Confidential Information**

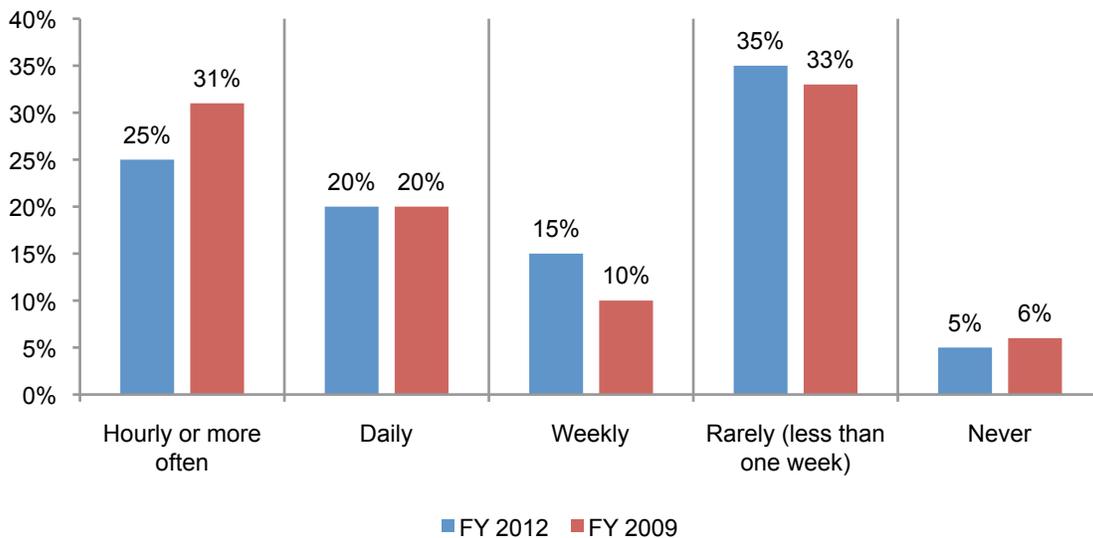
**Confidence in the ability to stop a data breach has declined.** Ninety percent of organizations in this study had a data breach. It is not surprising that senior executives surveyed lack confidence in their organizations' ability to stop a data breach. As shown in Bar Chart 3, only 8 percent are very confident their organizations will not suffer a data breach. This is a decline from 12 percent in the 2009 study. Almost half (48 percent) of the executives are concerned that more data breaches will occur, an increase from 41 percent in 2009.

**Bar Chart 3: Confidence in the ability to stop future data breaches**



It is interesting to note that concerns about cyber attacks have not increased. As shown in Bar Chart 4, 40 percent of senior executives say that in the past 12 months cyber criminals have rarely or never attacked their organization. This is similar to the last study when 39 percent say attacks happened rarely or never.

**Bar Chart 4: Frequency of cyber attacks in the past 12 months**



**Senior executives are most concerned about protecting non-financial, business confidential information.** In 2009, senior executives were most concerned about protecting business customer information. In this year’s study, non-financial, business confidential information is considered most critical to the organization’s operations.

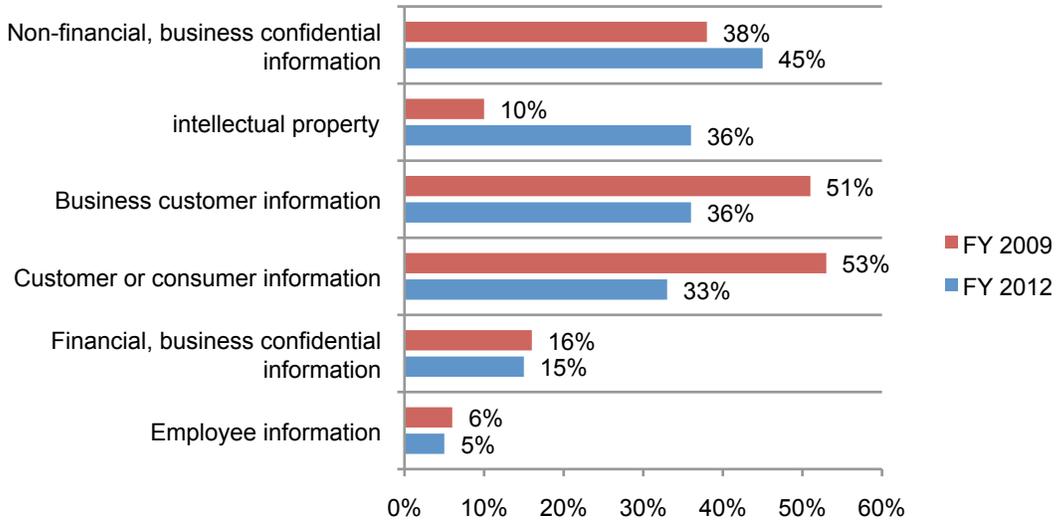
As shown in Bar Chart 5, this information is the most difficult to secure. Often residing outside of traditional databases and data structures, a typical business or government organization stores many thousands of files containing sensitive non-financial data in shared folders on file servers

and NAS devices. Examples of this unstructured data include electronic spreadsheets, PowerPoint and Word documents, audio files, videos, blueprints, software source code, instant messages, Web pages and so forth.

Bar Chart 5 also reveals the increasing difficulty in securing intellectual property, an increase from 10 percent of respondents in 2009 to 36 percent in 2012. Information not considered as difficult to secure are: business customer information and customer or consumer information. We believe this is due to senior executives' belief that compliance with Sarbanes-Oxley has succeeded in improving organizations' safeguarding of financial data.

**Bar Chart 5: Types of data most difficult to secure**

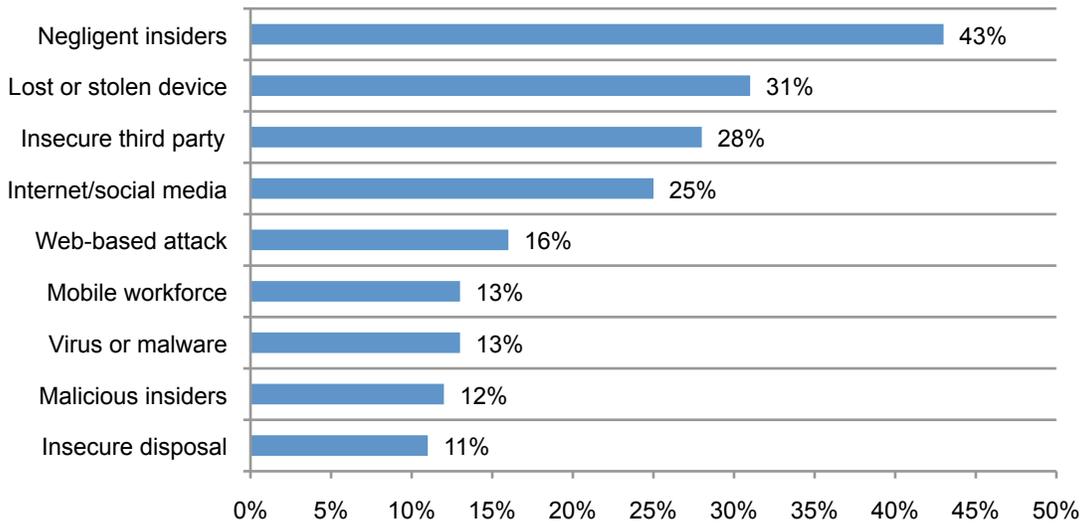
(Two choices permitted)



**Negligence and missing devices are the greatest threats to sensitive data.** Employees and other insiders that are careless with data and the mobile devices entrusted to their care pose the greatest risks as shown in Bar Chart 6.

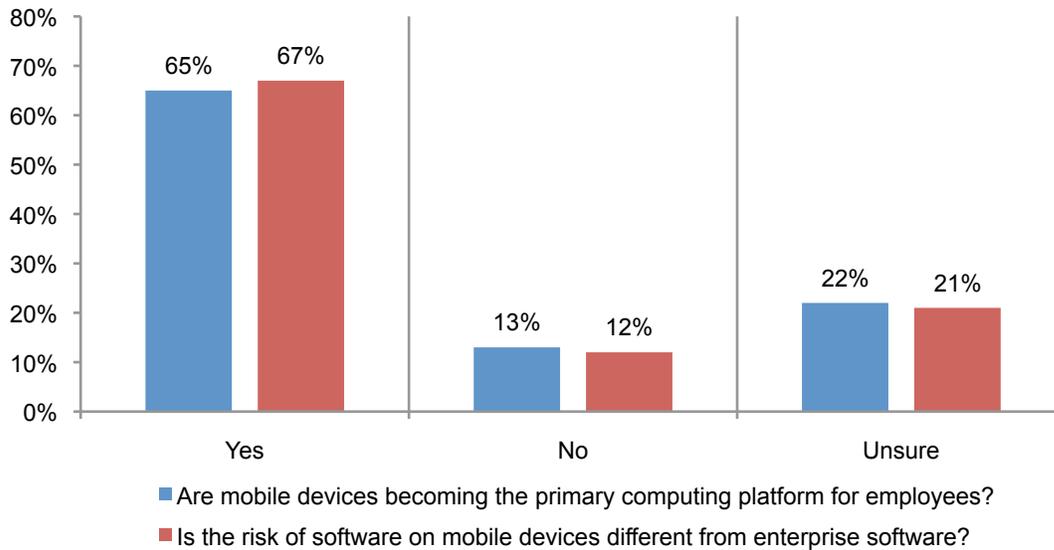
**Bar Chart 6: The source of greatest risk to sensitive data**

(Two choices permitted)



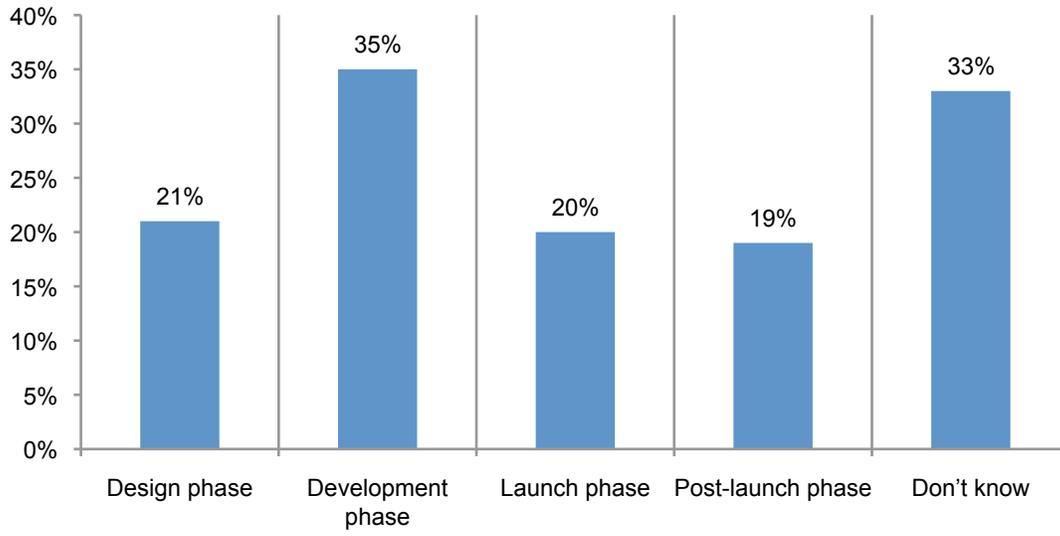
**Senior executives concur that mobile devices pose a risk.** The majority (58 percent) of respondents say they are very concerned or concerned about the security of mobile devices used by employees and contractors. As shown in Bar Chart 7, 65 percent of senior executives believe mobile devices are becoming the primary computing platform for employees in their organizations and 67 percent view the risk of software on mobile devices differently from enterprise software.

**Bar Chart 7: Perceptions about the use of mobile devices in the workplace**



**Data continues to be at risk from insecure applications.** As shown in Bar Chart 8, while the majority of organizations believe that they have a process for ensuring data security is built into new applications, 39 percent say security features are built in during the launch or post-launch phase and 33 percent do not know when security is addressed in development.

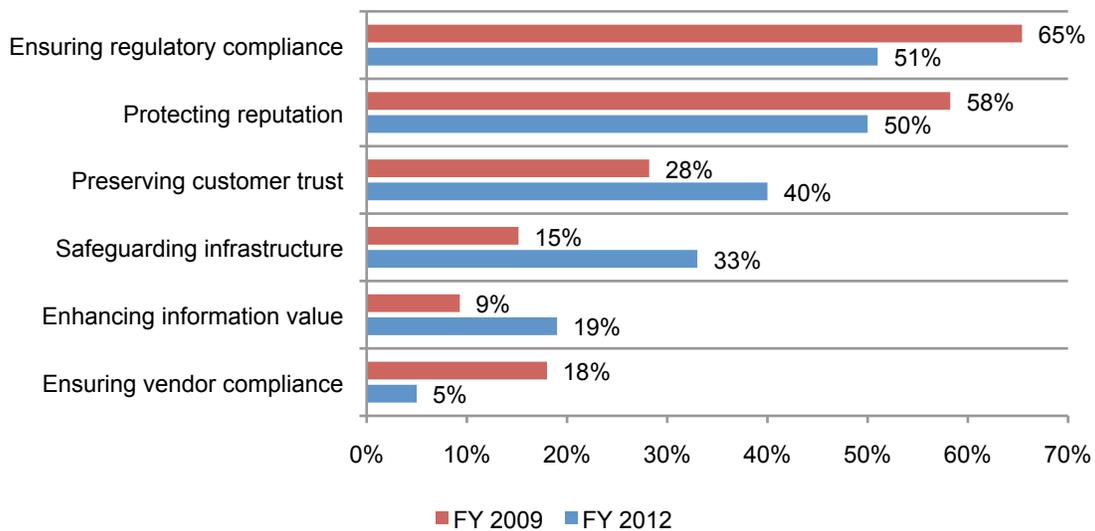
**Bar Chart 8: The phase of the development lifecycle when organizations build in security**  
(More than one choice permitted)



## The Value of Data Protection

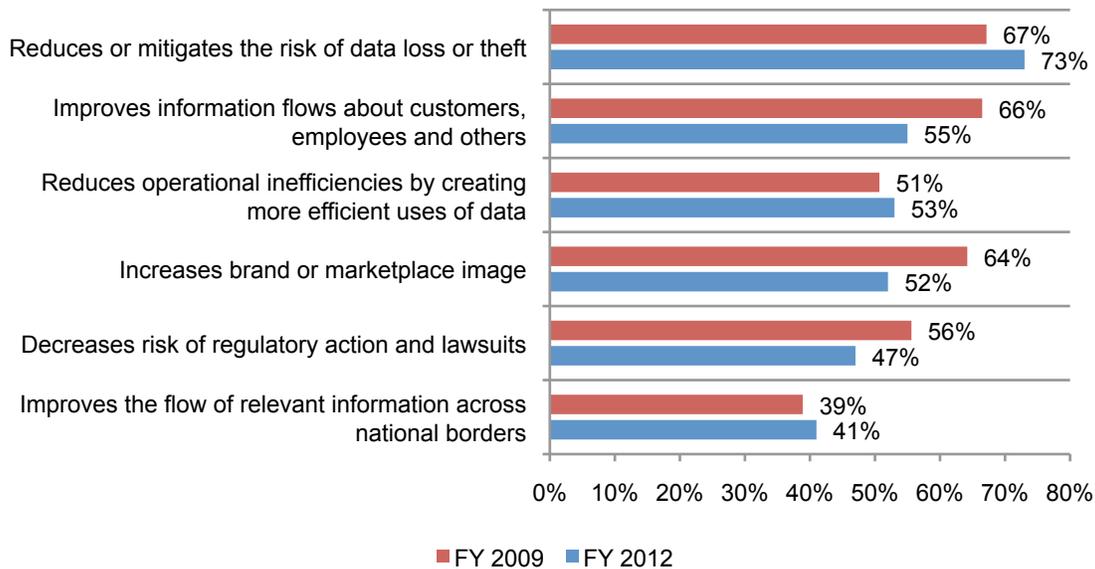
**What organizational goals are dependent upon good data protection practices?** As shown in Bar Chart 9, despite the fact that ensuring regulatory and legal compliance is the top rated organizational goal dependent upon good data protection practices, it has decreased significantly from 2009 (a difference of 14 percent). Increasing or maintaining marketplace reputation and brand is the number two goal but also has decreased significantly from 58 percent. Goals that increased are preserving customer trust, safeguarding the infrastructure and enhancing information value.

**Bar Chart 9: Organizational goals that are dependent upon good data protection efforts**  
(Two choices permitted)



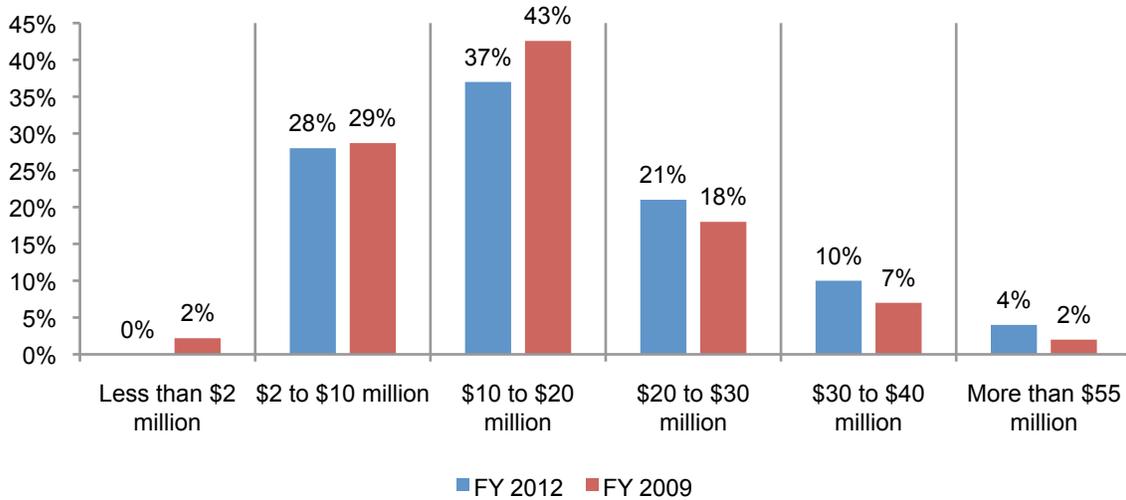
**The most highly rated purpose of an enterprise data protection program is to stop the risk of a data breach.** According to Bar Chart 10, the importance of stopping the risk of a data breach has increased from two-thirds in 2009 to roughly three quarters of respondents. Another highly ranked value is the improvement of information flows about key stakeholders, but that value decreased by more than 10 percent since the 2009 study. A slight increase was realized for the value of reducing operational inefficiencies by creating more efficient uses of data and improving the relevant information about customers and employees across national borders.

**Bar Chart 10: The value of a coherent and comprehensive data protection program**  
(Strongly agree and agree responses combined)



As shown in Bar Chart 11, senior executives estimate that, on average, their organizations saved \$19 million last year as a result of its data protection efforts. This is an increase from \$16 million in 2009, while the data protection budget responses for the next 12 months show a flat or slightly declining investment (presented in Bar Chart 17).

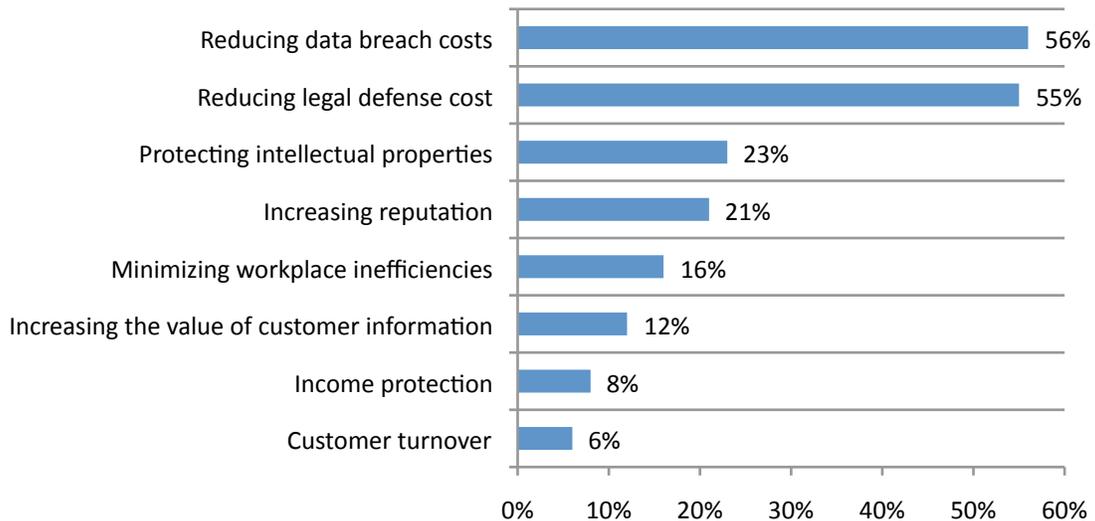
**Bar Chart 11: Cost savings or revenue improvements as a result of data protection efforts this year.** (extrapolated average of \$19 million)



### Measurements

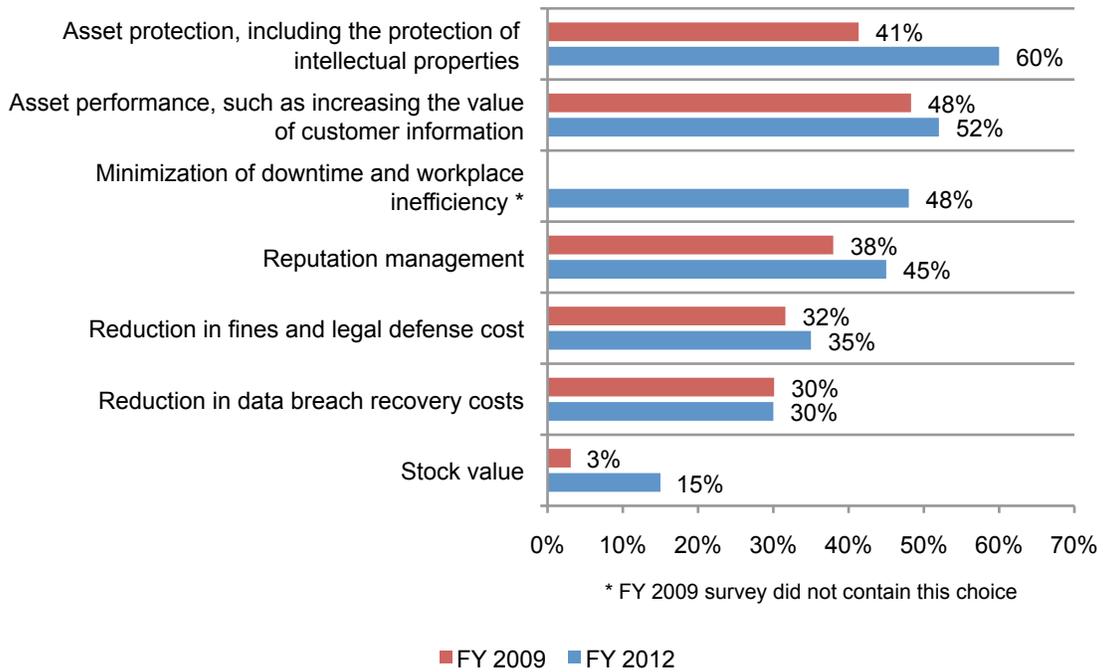
**Measurements used to justify spending on data protection programs are most often after-the-fact and not proactive such as preventing customer turnover in the event of a data breach.** As shown in Bar Chart 12, reduction in the costs associated with data breaches is the metric most used for justifying data protection expenditures but is not the preferred measure. Specifically, 56 percent say it is reduction in data breach recovery costs and 55 percent say it is reduction in fines and legal defense costs. Customer turnover and income protection are least used, 6 and 8 percent respectively.

**Bar Chart 12. Measures used to justify spending on data protection**  
(More than one choice permitted)



Sixty percent of senior executives in this study believe they should be using asset protection, including the protection of intellectual properties as a metric. In fact this increased from 41 percent in the 2009 study. This is followed by asset performance, such as increasing the value of customer information. Using stock value as a metric increased from 3 percent to 15 percent.

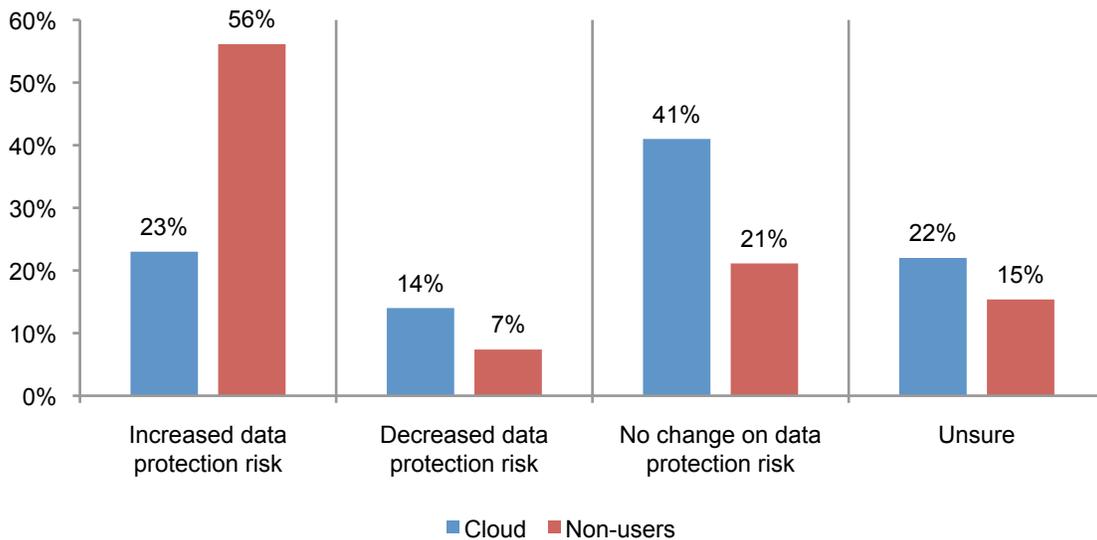
**Bar Chart 13: Measures that should be used to justify spending on data protection** (More than one choice permitted)



## Cloud Computing

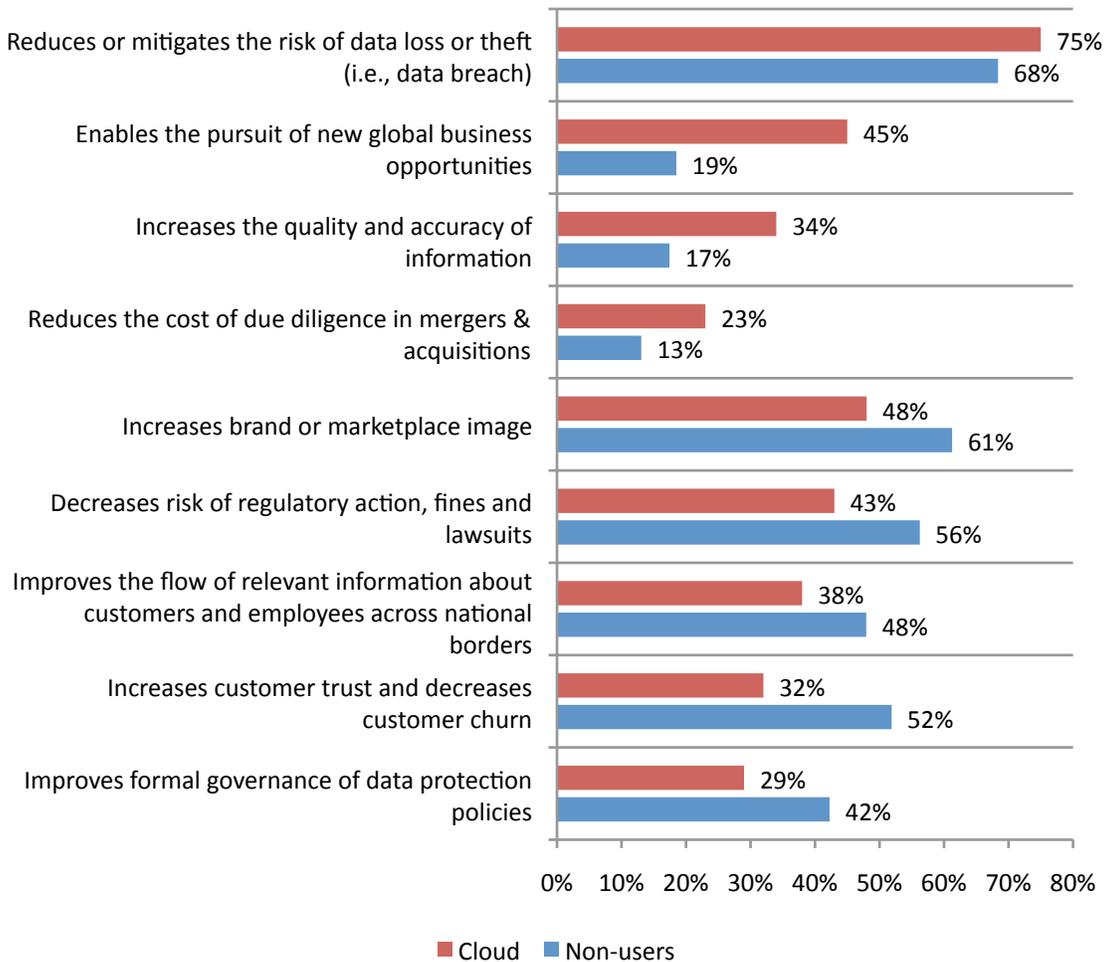
**Cloud users have different perceptions about data protection in their organizations.** In our analysis, we thought it would be interesting to examine the different perceptions senior executives have about data protection if their organizations use public, private and/or hybrid cloud computing resources. The majority of organizations in this study (70 percent) have embraced the cloud. As shown in Bar Chart 14, these respondents are more likely to say that it has not changed data protection risk in their organizations (41 percent of cloud users vs. 21 percent of non-users) or that it has actually decreased data protection risk (14 percent vs. 7 percent).

**Bar Chart 14: Cloud users perceptions about data protection risks**



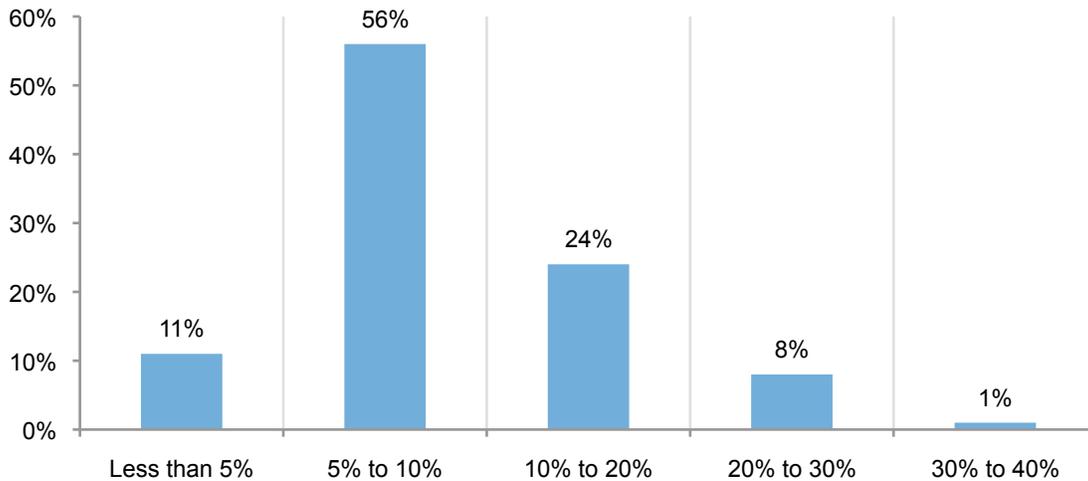
We asked respondents to state their agreement to a series of attributes about the importance of a coherent and comprehensive enterprise data protection plan. We then analyzed the differences between cloud and non-cloud users. According to Bar Chart 15, cloud users in our study are more confident in their organization’s ability to avoid a data breach. They are more likely to see cloud computing as enabling the pursuit of new global business opportunities and increasing the quality and accuracy of information.

**Bar Chart 15: Different perceptions about the benefits of a comprehensive data protection program: cloud vs. non-cloud users** (strongly agree and agree responses combined)



We calculated the extrapolated average of how much of the current data protection budget is allocated to securing data located or processed in the cloud. According to the results presented in Bar Chart 16, the average is 11 percent.

**Bar Chart 16: Percentage of the present data protection budget dedicated to securing data located or processed in cloud environments**

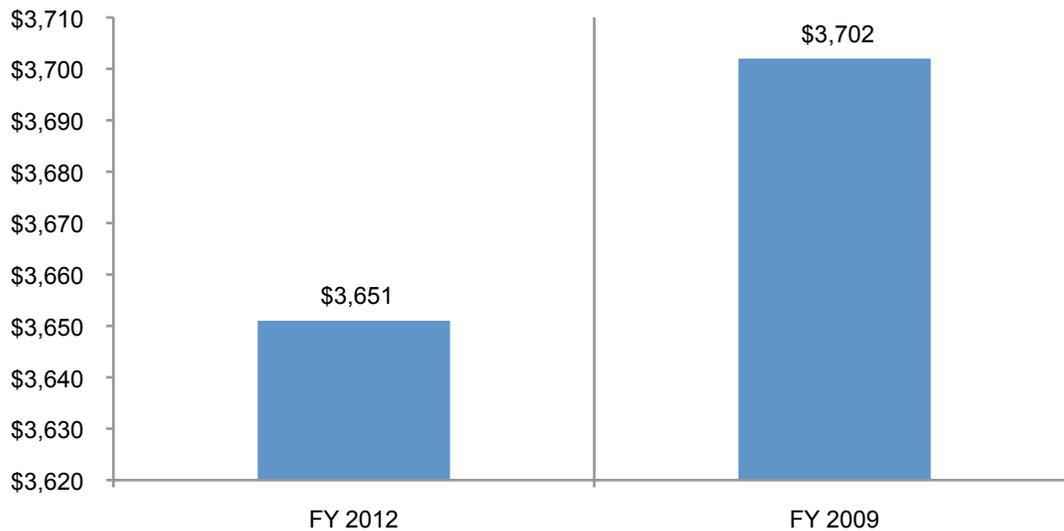


**Budgets & Spending**

**Senior executives are divided as to whether their organization’s data protection budget is sufficient.** On average, organizations plan to spend \$3.65 million on data protection in the next 12 months and this is nearly unchanged from the previous study (\$3.70 million). Fifty percent of respondents would like to see this amount increase on average about 34 percent. Fifty-five percent of this budget is spent on technologies such as application security, DLP and encryption.

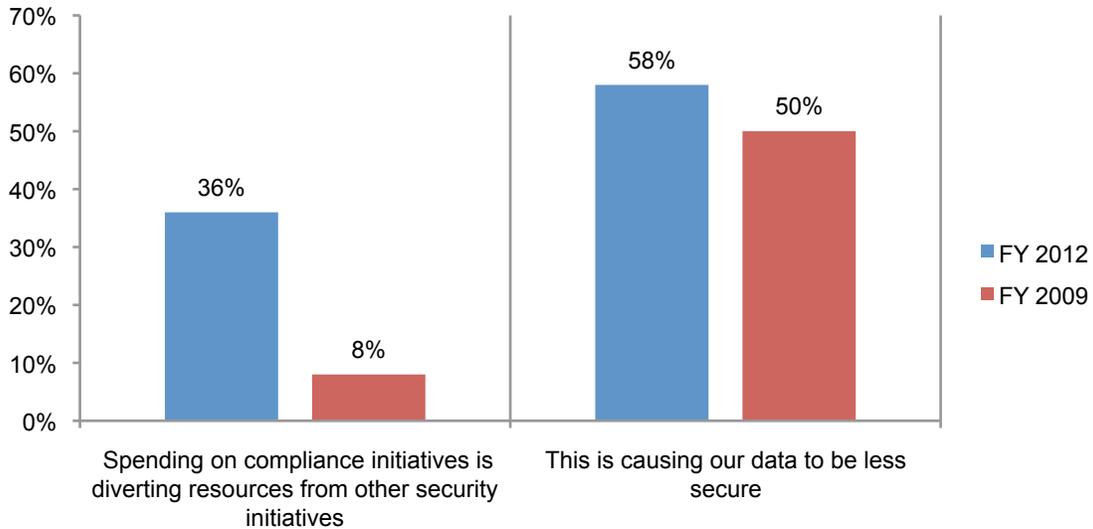
**Bar Chart 17: Data Protection Budget for the next 12 months**

(000's omitted)



**More organizations blame spending on compliance initiatives for diverting resources from other security initiatives.** In 2009, only 8 percent of respondents said spending on compliance initiatives this was a problem. This year the percentage increased to 36 percent. Fifty-eight percent say this is putting the organization at risk. Data breach notification laws, PCI and Sarbanes Oxley are the regulations most organizations in the study cited.

**Bar Chart 18: Spending on compliance diverts resources from other security initiatives**  
(yes responses)



### **Part 3. Conclusion**

Do senior executives see the importance of data protection? While the answer is yes, it is qualified. Based on survey results, the following are the key perceptions of senior executives surveyed:

- There is increasing risk from the expansion in use of mobile devices and the fact that they are becoming the primary computing platform in the workplace.
- There is an acknowledged need to safeguard the critical infrastructure, and to protect unstructured data and intellectual property.
- They recognize that customer trust and loyalty is dependent upon good data protection practices.

Areas that should have a higher priority among senior executives include the following:

- The importance of consistent and well understood processes to secure applications in the design phase to prevent future data breaches.
- An assessment about how the move to the cloud may be affecting data protection risks.
- The costs and risks of continued use of after-the-fact measures to determine the value of data protection.
- A better understanding of the risks posed by cyber criminals. In this study, many senior executives believe cyber attacks are considered to occur rarely or never.

Understanding the perceptions senior executives have about data protection is helpful to those in organizations who must make the business case for investing in people, process and technologies to prevent the loss or theft of sensitive and confidential information.

## Part 5. Methods

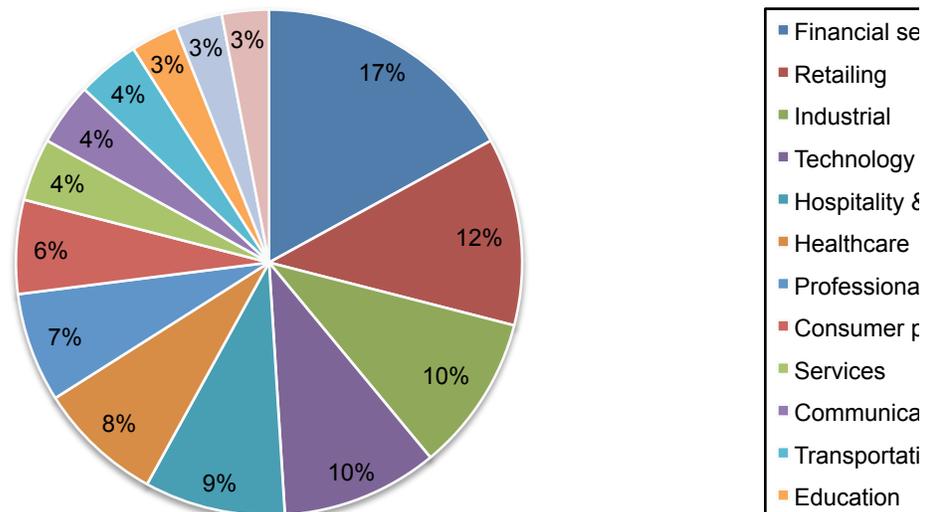
This study was conducted over a two-month period concluding in December 2011. CEOs and other very senior executives were recruited to participate in this study.<sup>1</sup> The final survey sample consisted of 265 executives who work various industry sectors.

Representative (judgmental) sample	FY 2012	FY 2009
Initial US executive panel	9,062	9,776
Revised US executive panel	4,312	4,980
Final US executive panel	3,019	2,893
Final sample	265	213
Response	2.9%	2.2%

Approximate position level of respondents	FY 2012	FY 2009
Chief executive (CEO)	44	30
Chief operating officer (COO)	34	22
Division presidents, GMs & EVPs	103	89
CIO	33	27
Other C-level executives	50	45
Total	264	213

Pie Chart 1 reports the sample distribution by industry classification. As shown, the largest segments include financial services (17%), retail (12%), technology and software (10%) and industrial (10%).

**Pie Chart 1. Sample distribution by Industry segments**



<sup>1</sup> By design, C-level respondents who were not CEOs were no more than two steps away from the CEO or Chairman level in their organizations.

Table 3 reports the organization's worldwide headcount, showing that 22 percent have more than 5,000 employees.

Table 3 Worldwide headcount	FY 2012	FY 2009*
Less than 50	14%	15%
50 to 500	20%	18%
500 to 1,000	20%	19%
1,001 to 5,000	24%	26%
5,001 to 25,000	16%	15%
25,001 to 75,000	5%	6%
More than 75,000	1%	1%
Total	100%	100%

\*FY 2009 data were recalculated to fit the revised question.

Table 4 reports the geographic footprint of participating organizations.

Table 4 Operating locations	FY 2012	FY 2009
United States	100%	100%
Canada	63%	61%
EMEA	65%	63%
APJ	51%	57%
LATAM	48%	42%
Total	327%	323%

Table 5 reports the frequency of companies that are publicly traded on NYSE, NASDAQ, or other exchanges.

Table 5 Is your company publicly traded?	FY 2012	FY 2009
Yes, NYSE	15%	16%
Yes, NASDAQ	21%	20%
Yes, overseas exchange	5%	5%
Yes, other minor exchange	6%	5%
No	53%	54%
Total	100%	100%

Please contact [research@ponemon.org](mailto:research@ponemon.org) or call us at 800.887.3118 if you have any questions.

## **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.

As a member of the **Council of American Survey Research Organizations (CASRO)**, we uphold strict data confidentiality, privacy and ethical research standards. We do not collect any personally identifiable information from individuals (or organization identifiable information in our business research). Furthermore, we have strict quality standards to ensure that subjects are not asked extraneous, irrelevant or improper questions.

## Appendix: Detailed Survey Results

<b>Part 1. Awareness about your organization's data protection efforts.</b>	Frequencies	
	FY 2012	FY 2009
Q1. Does your organization have a data protection and privacy program or initiative?		
Yes	255	205
No (stop)	5	2
Not sure (stop)	5	6
Total	265	213

Remainder of the survey results are presented in a percentage frequency format

Q2a. Is there one person responsible for the overall data protection effort within your enterprise?	FY 2012	FY 2009
Yes	75%	79%
No	19%	21%
Not sure	6%	0%
Total	100%	100%

Q2b. Who is most responsible for the overall data protection effort within your enterprise?	FY 2012	FY 2009
Chief information officer (CIO)	31%	30%
Chief information security officer (CISO)	36%	27%
Chief privacy officer (CPO)	15%	27%
Chief security officer (CSO)	8%	13%
Data protection officer (DPO)	0%	2%
Other	9%	1%
Not sure	1%	0%
Total	100%	100%

Q2c. What is the organizational level that best describes the position level of your organization's data protection leader?	FY 2012	FY 2009
SVP/Executive	0%	2%
Vice President	12%	15%
Executive Director	17%	16%
Director	26%	25%
Manager	31%	30%
Associate/Staff	14%	11%
Other	0%	1%
Total	100%	100%

Q2d. Is this a full time position?	FY 2012	FY 2009
Yes	68%	73%
No	28%	27%
Not sure	4%	0%
Total	100%	100%

Q2e. Who else in your organization is responsible for data protection? Please check the other executives within your organization who are responsible for data protection.	FY 2012	FY 2009
Chief Financial Officer	23%	11%
General Counsel	65%	62%
Chief Information Officer	50%	51%
Chief Information Security Officer	26%	
Compliance Leader or Officer	35%	43%
Chief Marketing Officer	40%	29%
Human Resources VP	38%	36%
Chief Security Officer	11%	16%
Chief Risk Officer	30%	22%
Cross-functional committee	52%	54%
Other	5%	0%
Not sure	6%	5%
Total	381%	329%

Q3. What types of data are most critical to your organization's operations? Please rank order the following list from 1 = the most critical information to 6 = your least critical information.	FY 2012	FY 2009
Customer or consumer information	3.40	2.86
Business customer information	2.87	2.21
Employee information	4.09	3.66
Financial, business confidential information	2.89	3.21
Non-financial, business confidential information	2.30	3.75
Intellectual property	2.49	2.30
Average	3.01	3.00

Q4. What types of data do you believe are most difficult to secure within your organization? Please check the top two choices.	FY 2012	FY 2009
Customer or consumer information	33%	53%
Business customer information	36%	51%
Employee information	5%	6%
Financial, business confidential information	15%	16%
Non-financial, business confidential information	45%	38%
intellectual property	36%	10%
Other data (please specify)	3%	0%
Total	173%	174%

Q5a. Has your company ever experienced a data breach (defined as the loss of any sensitive or confidential information)?	FY 2012	FY 2009
Yes	90%	82%
No	10%	18%
Total	100%	100%

Q5b. How confident are you that your organization will not suffer a data breach in the next 12 months?	FY 2012	FY 2009
Very confident	8%	12%
Confident	23%	24%
Somewhat confident	21%	23%
Not confident	48%	41%
Total	100%	100%

Q6. In the last 12 months, how often has your organization's data been attacked by cyber criminals?	FY 2012	FY 2009
Hourly or more often	25%	31%
Daily	20%	20%
Weekly	15%	10%
Rarely (less than one week)	35%	33%
Never	5%	6%
Total	100%	100%

Q7. What is the source of greatest risk to your sensitive data? Please select only two responses.	FY 2012	FY 2009
Negligent insiders	43%	
Malicious insiders	12%	6%
Virus or malware attacks	13%	
Exposed via Internet/social media	25%	7%
Exposed via insecure third party including cloud providers	28%	
Hacker/cyber criminal attacks	16%	12%
Insecure disposal of hard/soft files	11%	22%
Lost or stolen mobile devices including smartphones, tablets and others	31%	25%
Mobility of the workforce	13%	
Other	1%	0%
Don't know	2%	
Total	195%	

Q8. How concerned is your organization about the security of mobile devices used by employees and contractors?	FY 2012
Very concerned	23%
Concerned	35%
Somewhat concerned	18%
Not concerned	15%
Unsure	9%
Total	100%

Q9. Does your organization view the risk of software on mobile devices differently from enterprise software?	FY 2012
Yes	65%
No	13%
Unsure	22%
Total	100%

Q10. In your opinion, are mobile devices becoming the primary computing platform for employees in your organization.	FY 2012
Yes	67%
No	12%
Unsure	21%
Total	100%

Q11a. Does your organization use public, private and/or hybrid cloud computing resources?	FY 2012
Yes	70%
No	17%
Unsure	13%
Total	100%

Q11b. How has the use of cloud resources affected data protection risks within your organization?	FY 2012
Increased data protection risk	33%
Decreased data protection risk	12%
No change on data protection risk	35%
Unsure	20%
Total	100%

Q12. In your opinion, would the use of cloud resources compromise your organization's ability to meet regulatory mandates for privacy and data protection around the globe?	FY 2012
Yes	34%
No	40%
Unsure	26%
Total	100%

Q13. Please select from the following list of organizational goals that are dependent upon good data protection efforts? Please select only two choices.	FY 2012	FY 2009
Decreasing employee turnover	0%	2%
Enhancing the value of information assets	19%	9%
Ensuring business partner or vendor compliance	5%	18%
Ensuring regulatory and legal compliance	51%	65%
Increasing customer trust and loyalty	40%	28%
Increasing or maintaining marketplace reputation and brand	50%	58%
Safeguarding critical infrastructure	33%	15%
Other	0%	0%
Total	198%	197%

Q14. Based on the organizational goals listed above, how important is collaboration between data protection and other business functions within your organization?	Very important & important	
	FY 2012	FY 2009
Legal	67%	71%
Information technology	67%	60%
Privacy office	43%	59%
Finance & accounting	55%	56%
Risk Management	56%	52%
Records management	25%	51%
Information security	62%	50%
Security	46%	50%
Compliance	52%	48%
Public relations	26%	45%
Internal audit	30%	44%
Human resources	28%	39%
Marketing & communications	46%	34%
Procurement	20%	29%
Government or public affairs	25%	23%
Logistics	9%	10%
Sales	18%	2%
Other	0%	0%
Total	675%	724%

Q15. Following are typical business activities for organizational data protection efforts. Please rate the importance of each action.	Very important & important	
	FY 2012	FY 2009
Developing a data protection strategy for the organization	64%	75%
Training employees, temporary employees and contractors	60%	71%
Reducing potential security flaws within business-critical applications	65%	70%
Establishing and managing a crisis management, disaster management, and business continuity plan	54%	66%
Identifying and responding to data breach (loss or theft)	64%	65%
Conducting due diligence on transactions and relationships that involve the sharing of personal and confidential information	45%	64%
Protecting personal or confidential information shared with vendors, business partners and other third parties	44%	57%
Ensuring record retention requirements are met	35%	56%
Monitoring new legal and regulatory requirements	56%	56%
Preventing cyber and malicious insider attacks	47%	54%
Conducting data vulnerability or privacy impact assessments for new products	38%	48%
Auditing business processes for compliance with data protection and privacy policies	29%	47%
Mapping data flows and conducting a data inventory	25%	46%
Implementing customer access and redress programs	32%	43%
Deploying enabling data protection technologies	45%	42%
Creating policies and SOPs for the handling and use of personal information	25%	41%
Complying with employee data protection and privacy laws	26%	39%
Analyzing data collection, use and sharing	24%	39%
Complying with marketing data protection and privacy laws	46%	37%
Implementing employee access and redress programs	26%	35%
Responding to e-discovery requests	33%	29%
Performing background checks on employees, temporary employees and contractors	26%	18%
Safeguarding information in cloud environments	46%	
Securing employee and contractor mobile devices including apps	52%	
Securing the existing (legacy) applications in your organization	49%	
Average	42%	50%

Q16. Does your organization have a process for ensuring data security is built into new applications?	FY 2012
Yes, a standardized process	25%
Yes, a non-standardized process	26%
No	35%
Don't know	14%
Total	100%

Q17. Where in the application development lifecycle does your organization build in security features? (Please check all that apply.)	FY 2012
Design phase	21%
Development phase	35%
Launch phase	20%
Post-launch phase	19%
Don't know	33%
Total	128%

<b>Part 2. About your organization's data protection efforts</b>	Strongly agree & agree	
	FY 2012	FY 2009
Q18. Does a coherent and comprehensive enterprise data protection program increase your organization's value? Please rate your level of agreement.		
Reduces or mitigates the risk of data loss or theft (i.e., data breach).	73%	67%
Improves information flows about people such as consumers, customers, business partners and other stakeholders.	55%	66%
Increases brand or marketplace image.	52%	64%
Decreases risk of regulatory action, fines and lawsuits.	47%	56%
Reduces operational inefficiencies by creating more efficient uses of data.	53%	51%
Increases customer trust and decreases customer churn.	38%	45%
Improves formal governance of data protection policies.	33%	40%
Improves the flow of relevant information about customers and employees across national borders.	41%	39%
Increases the quality and accuracy of information.	29%	38%
Improves IT processes because of a better data governance structure.	37%	38%
Increases our suppliers' accountability to our data protection and privacy policies.	26%	37%
Enables the pursuit of new global business opportunities.	37%	36%
Reduces the cost of due diligence in mergers & acquisitions.	20%	32%
Reduces potential risks under e-discovery laws.	18%	25%
Increases employee trust and decreases employee churn.	9%	13%
Average	38%	43%

Q19. Please rate each value proposition based on importance to your organization.	FY 2012	FY 2009
Decreases risk of regulatory action, fines and lawsuits.	44%	55%
Enables the pursuit of new global business opportunities.	46%	36%
Improves formal governance of data protection policies.	43%	41%
Improves information flows about people such as targeted consumers, customers, business partners and other stakeholders.	70%	65%
Improves IT processes because of a better data governance structure.	41%	37%
Improves the flow of relevant information about customers and employees across national borders.	42%	37%
Increases brand or marketplace image.	65%	62%
Increases customer trust and decreases customer churn.	49%	45%
Increases employee trust and decreases employee churn.	9%	13%
Increases our suppliers' accountability to our data protection and privacy policies.	33%	35%
Increases the quality and accuracy of information.	31%	37%
Reduces operational inefficiencies by creating more efficient uses of data.	68%	52%
Reduces or mitigates the risk of data loss or theft (i.e., data breach).	69%	48%
Reduces potential risks under e-discovery laws.	28%	24%
Reduces the cost of due diligence in mergers & acquisitions.	19%	32%
Average	44%	41%

<b>Part 3. Measures for success</b>	
Q20. What objective measures are used to justify spending on data protection within your organization? Please choose all that apply.	FY 2012
Income protection	8%
Asset performance, such as increasing the value of customer information	12%
Asset protection, including the protection of intellectual properties	23%
Customer turnover	6%
Employee turnover	0%
Income performance, such as a more effective marketing campaign	11%
Minimization of downtime and workplace inefficiency	16%
Reduction in data breach recovery costs	56%
Reduction in fines and legal defense cost	55%
Reputation management	21%
Stock value	0%
Don't know	0%
Total	208%

Q21. What objective measures should be used to justify spending on data protection efforts within your organization? Please choose all that apply.	FY 2012	FY 2009
Income protection	8%	11%
Asset performance, such as increasing the value of customer information	52%	48%
Asset protection, including the protection of intellectual properties	60%	41%
Customer turnover	12%	15%
Employee turnover	2%	1%
Income performance, such as a more effective marketing campaign	15%	13%
Minimization of downtime and workplace inefficiency	48%	
Reduction in data breach recovery costs	30%	30%
Reduction in fines and legal defense cost	35%	32%
Reputation management	45%	38%
Stock value	15%	3%
Other	0%	0%
Don't know	0%	0%
Total	322%	232%

Q22. Please state whether or not each one of the following objective measures is being used to justify your organization's data protection efforts today.	FY 2012	FY 2009
Asset performance, such as increasing the value of customer information	7%	8%
Asset protection, including the protection of intellectual properties	21%	15%
Customer turnover	9%	19%
Employee turnover	0%	0%
Income performance, such as a more effective marketing campaign	23%	16%
Income protection	5%	3%
Minimization of downtime and workplace inefficiency	26%	
Reduction in data breach recovery costs	54%	41%
Reduction in fines and legal defense cost	42%	35%
Reputation management	18%	11%
Stock Value	3%	4%
Average	19%	15%

Q23a. Approximately (gut feel is okay), what is the dollar range that best describes your organization's budget for data protection next year (12 months from now)?	FY 2012	FY 2009
Less than \$100,000	5%	6%
Between \$100,000 to \$200,000	8%	9%
Between \$300,000 to \$400,000	2%	3%
Between \$500,000 to \$1 million	16%	21%
Between \$2 million to \$3 million	29%	27%
Between \$4 million to \$5 million	25%	21%
Between \$5 million to \$10 million	11%	6%
Between \$10 to \$20 million	2%	3%
Between \$30 to \$40 million	1%	3%
Between \$50 to \$60 million	1%	1%
More than \$60 million	0%	0%
Total	100%	100%
Extrapolated value	\$3,651	\$3,702

Q23b. Is the budget for data protection adequate?	FY 2012	FY 2009
Yes	50%	56%
No	50%	44%
Unsure	0%	0%
Total	100%	100%

Q23c. If no, how much would you like to see it increased?	FY 2012	FY 2009
More than 50%	20%	14%
Between 40 and 50%	18%	17%
Between 30 and 40%	23%	18%
Between 20 and 30%	22%	14%
Between 10 and 20%	14%	21%
Less than 10%	3%	15%
Total	100%	100%
Extrapolated percentage	34%	30%

Q24a. Is spending on compliance initiatives diverting resources from other security initiatives?	FY 2012	FY 2009
Yes	36%	8%
No	43%	64%
Unsure	21%	28%
Total	100%	100%

Q24b. If yes, is this causing your data to be less secure?	FY 2012	FY 2009
Yes	58%	50%
No	31%	43%
Unsure	11%	7%
Total	100%	100%

Q25. Approximately (gut feel is okay), what percentage of the present data protection budget is dedicated to such technology solutions as application security, DLP and encryption?	FY 2012	FY 2009
Less than 5%	0%	0%
Between 5% to 10%	0%	0%
Between 10% to 20%	2%	3%
Between 20% to 30%	8%	5%
Between 30% to 40%	11%	10%
Between 40% to 50%	23%	25%
Between 50% to 60%	20%	20%
Between 60% to 70%	11%	12%
Between 70% to 80%	9%	11%
Between 80% to 90%	10%	9%
More than 90%	6%	5%
Total	100%	100%
Extrapolated percentage	55%	56%

Q26. Approximately (gut feel is okay), what percentage of the present data protection budget is dedicated to securing data located or processed in cloud environments?	FY 2012
Less than 5%	11%
Between 5% to 10%	56%
Between 10% to 20%	24%
Between 20% to 30%	8%
Between 30% to 40%	1%
Between 40% to 50%	0%
Between 50% to 60%	0%
Between 60% to 70%	0%
Between 70% to 80%	0%
Between 80% to 90%	0%
More than 90%	0%
Total	100%
Extrapolated percentage	11%

Q27. Approximately (gut feel is okay), what is the dollar range that best describes your organization's cost savings or revenue improvements as a result of data protection efforts this year?	FY 2012	FY 2009
Less than \$1 million	0%	0%
Between \$1 to 2 million	0%	2%
Between \$2 to \$5 million	13%	12%
Between \$5 to \$10 million	15%	16%
Between \$10 to \$15 million	19%	22%
Between \$15 to \$20 million	18%	20%
Between \$20 to \$25 million	13%	12%
Between \$25 to \$30 million	8%	6%
Between \$35 to \$40 million	6%	5%
Between \$45 to \$50 million	4%	2%
Between \$55 to \$60 million	3%	2%
More than \$60 million	1%	0%
Total	100%	100%
Extrapolated value	19 million	16 million

Q28. If your company had a data breach involving the loss or theft of sensitive personal information about customers, employees or consumers (say 1,000 or more records), what would this incident cost your company per record lost?	FY 2012	FY 2009
Less than \$50	13%	12%
Between \$50 to \$100	15%	28%
Between \$101 to \$150	27%	21%
Between \$151 to \$200	23%	15%
Between \$201 to \$250	11%	9%
Between \$251 to \$300	4%	6%
Between \$301 to \$350	0%	1%
Between \$351 to \$400	3%	5%
Between \$401 to \$450	0%	0%
Between \$451 to \$500	0%	1%
Between \$501 to \$1,000	2%	2%
More than \$1,000	2%	1%
Don't know	100%	100%
Extrapolated value	175	160

Q29. How have you learned about the success or status of your organization's data protection efforts? Choose only one.	FY 2012	FY 2009
Corporate communications about policy	19%	18%
Corporate training programs about data protection (including privacy)	11%	13%
Crisis and data breach incidents reported to management	20%	11%
No regular or formal communications (merely informal chatter)	3%	1%
Regular presentation by the data protection leader or other personal to senior management	12%	15%
Regular presentation by the data protection leader or other personal to the board or audit committee	4%	5%
The results of data protection audits from external auditors	5%	8%
The results of data protection audits from internal auditors	6%	8%
Written reports from the data protection leader	20%	21%
Other	0%	0%
Total	100%	100%

Q30. Is your organization subject to any of the following data protection or privacy regulatory requirements and guidance? (Please check all that apply.)	FY 2012
Health Insurance Portability & Accountability Act/Health Information Technology for Economic & Clinical Health (HIPAA/HITECH)	23%
North American Electric Reliability Corporation (NERC)	5%
Children's Online Privacy Protection Act (COPPA)	23%
Sarbanes Oxley	50%
SEC CF Guidance on Disclosure Obligations for cyber security risks and incidents	45%
PCI	67%
Federal Privacy Act	3%
Basel II	12%
European Union Data Protection Directive	36%
Gramm-Leach-Bliley (GLBA)	15%
Data breach notification laws (various states)	70%
Data protection laws (various nations)	43%
FACTA	12%
FCRA	11%
Total	415%

**Part 4. Your position and other organizational characteristics**

Q32. In your organization, how many reporting layers or levels are there between the data protection leader and the CEO (or highest ranking executive)?	FY 2012	FY 2009
I am the CEO	18%	14%
One level (direct report)	48%	46%
Two levels	25%	30%
Three levels	9%	10%
Four levels	0%	0%
Five levels	0%	0%
Total	100%	100%

Q33a. Total business experience	32.56	29.28
Q33b. Total years in the current position	7.09	4.11

Q34. Gender	FY 2012	FY 2009
Female	49%	53%
Male	51%	47%
Total	100%	100%

Q35. Industry	FY 2012	FY 2009
Consumer products	6%	5%
Education	3%	4%
Energy	3%	3%
Financial services	17%	17%
Healthcare	8%	8%
Hospitality & leisure	9%	8%
Industrial	10%	9%
Pharmaceuticals	3%	4%
Professional services	7%	7%
Retailing	12%	10%
Services	4%	6%
Technology & software	10%	11%
Communications	4%	6%
Transportation	4%	3%
Total	100%	100%

Q36. Geographic footprint	FY 2012	FY 2009
United States	100%	100%
Canada	63%	61%
EMEA	65%	63%
APJ	51%	57%
LATAM	48%	42%
Total	327%	323%

Q37. What is the worldwide headcount of your organization?	FY 2012	FY 2009*
Less than 50	14%	15%
50 to 500 people	20%	18%
500 to 1,000 people	20%	19%
1,001 to 5,000 people	24%	26%
5,001 to 25,000 people	16%	15%
25,001 to 75,000 people	5%	6%
More than 75,000 people	1%	1%

Total	100%	100%
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\*FY 2009 data were recalculated to fit the revised question.

Q38. Is your company publicly traded?	FY 2012	FY 2009
Yes, NYSE	15%	16%
Yes, NASDAQ	21%	20%
Yes, overseas exchange	5%	5%
Yes, other minor exchange	6%	5%
No	53%	54%
Total	100%	100%

Q39. Removed for respondent confidentiality reasons.

### Cloud Cross-tabulated Data

	FY 2012	Cloud users	Non-users
Representative sample			
Initial US executive panel	9,062		
Revised US executive panel	4,312		
Final US executive panel	3,019		
Final sample	265	185	80
Response	2.9%		

Q11a. Does your organization use public, private and/or hybrid cloud computing resources?	FY 2012	Cloud users	Non-users
Yes	70%	70%	0%
No	17%	0%	17%
Unsure	13%	0%	13%
Total	100%	70%	30%

Q2a. Is there one person responsible for the overall data protection effort within your enterprise?	FY 2012	Cloud users	Non-users	Difference
Yes	75%	70%	87%	-17%
No	19%	25%	5%	20%
Not sure	6%	5%	8%	-3%
Total	100%	100%	100%	0%

Q5b. How confident are you that your organization will not suffer a data breach in the next 12 months?	FY 2012	Cloud users	Non-users	Difference
Very confident	8%	11%	1%	10%
Confident	23%	27%	14%	13%
Somewhat confident	21%	21%	21%	0%
Not confident	48%	41%	64%	-23%
Total	100%	100%	100%	

Q7. What is the source of greatest risk to your sensitive data? Please select only two responses.	FY 2012	Cloud users	Non-users	Difference
Hacker/cyber criminal attacks	16%	18%	11%	7%
Mobility of the workforce	13%	15%	8%	7%
Virus or malware attacks	13%	14%	11%	3%
Other	1%	2%	0%	2%
Exposed via Internet/social media	25%	25%	25%	0%
Don't know	2%	2%	2%	0%
Malicious insiders	12%	11%	14%	-3%
Insecure disposal of hard/soft files	11%	10%	13%	-3%
Lost or stolen mobile devices including smartphones, tablets and others	31%	29%	36%	-7%
Negligent insiders	43%	40%	50%	-10%
Exposed via insecure third party including cloud providers	28%	24%	37%	-13%
Total	195%	190%	208%	-18%

Q13. Please select from the following list of organizational goals that are dependent upon good data protection efforts? Please select only two choices.	FY 2012	Cloud users	Non-users	Difference
Ensuring business partner or vendor compliance	5%	6%	3%	3%
Enhancing the value of information assets	19%	20%	17%	3%
Decreasing employee turnover	0%	0%	0%	0%
Other	0%	0%	0%	0%
Increasing customer trust and loyalty	40%	35%	52%	-17%
Safeguarding critical infrastructure	33%	27%	47%	-20%
Ensuring regulatory and legal compliance	51%	44%	67%	-23%
Increasing or maintaining marketplace reputation and brand	50%	43%	66%	-23%
<b>Total</b>	<b>198%</b>	<b>175%</b>	<b>251%</b>	<b>-76%</b>

Q14. Based on the organizational goals listed above, how important is collaboration between data protection and other business functions within your organization?	Very important & important			
	FY 2012	Cloud users	Non-users	Difference
Sales	18%	25%	2%	23%
Procurement	20%	22%	15%	7%
Human resources	28%	30%	23%	7%
Logistics	9%	10%	7%	3%
Public relations	26%	27%	24%	3%
Security	46%	46%	46%	0%
Marketing & communications	46%	46%	46%	0%
Other	0%	0%	0%	0%
Internal audit	30%	29%	32%	-3%
Government or public affairs	25%	24%	27%	-3%
Legal	67%	65%	72%	-7%
Privacy office	43%	41%	48%	-7%
Compliance	52%	48%	61%	-13%
Finance & accounting	55%	50%	67%	-17%
Information security	62%	55%	78%	-23%
Records management	25%	18%	41%	-23%
Information technology	67%	60%	83%	-23%
Risk Management	56%	49%	72%	-23%
<b>Total</b>	<b>675%</b>	<b>645%</b>	<b>744%</b>	<b>-99%</b>

Q15. Following are typical business activities for organizational data protection efforts. Please rate the importance of each action.	Very important & important			Difference
	FY 2012	Cloud users	Non-users	
Performing background checks on employees, temporary employees and contractors	26%	31%	14%	17%
Reducing potential security flaws within business-critical applications	65%	70%	53%	17%
Complying with marketing data protection and privacy laws	46%	50%	37%	13%
Identifying and responding to data breach (loss or theft)	64%	67%	57%	10%
Implementing employee access and redress programs	26%	28%	21%	7%
Conducting data vulnerability or privacy impact assessments for new products	38%	40%	33%	7%
Responding to e-discovery requests	33%	35%	28%	7%
Establishing and managing a crisis management, disaster management, and business continuity plan	54%	56%	49%	7%
Safeguarding information in cloud environments	46%	48%	41%	7%
Implementing customer access and redress programs	32%	33%	30%	3%
Deploying enabling data protection technologies	45%	46%	43%	3%
Auditing business processes for compliance with data protection and privacy policies	29%	30%	27%	3%
Mapping data flows and conducting a data inventory	25%	26%	23%	3%
Creating policies and SOPs for the handling and use of personal information	25%	26%	23%	3%
Complying with employee data protection and privacy laws	26%	27%	24%	3%
Ensuring record retention requirements are met	35%	36%	33%	3%
Analyzing data collection, use and sharing	24%	23%	26%	-3%
Protecting personal or confidential information shared with vendors, business partners and other third parties	44%	43%	46%	-3%
Preventing cyber and malicious insider attacks	47%	45%	52%	-7%
Securing employee and contractor mobile devices including apps	52%	50%	57%	-7%
Securing the existing (legacy) applications in your organization	49%	47%	54%	-7%
Training employees, temporary employees and contractors	60%	56%	69%	-13%
Developing a data protection strategy for the organization	64%	60%	73%	-13%
Conducting due diligence on transactions and relationships that involve the sharing of personal and confidential information	45%	41%	54%	-13%
Monitoring new legal and regulatory requirements	56%	51%	68%	-17%
Average	42%	43%	41%	1%

Q16. Does your organization have a process for ensuring data security is built into new applications?	FY 2012	Cloud users	Non-users	Difference
Yes, a standardized process	25%	19%	39%	-20%
Yes, a non-standardized process	26%	23%	33%	-10%
No	35%	39%	26%	13%
Don't know	14%	19%	2%	17%
Total	100%	100%	100%	0%

Q17. Where in the application development lifecycle does your organization build in security features? (Please check all that apply.)	FY 2012	Cloud users	Non-users	Difference
Design phase	21%	18%	28%	-10%
Development phase	35%	31%	44%	-13%
Launch phase	20%	25%	8%	17%
Post-launch phase	19%	20%	17%	3%
Don't know	33%	39%	19%	20%
Total	128%	133%	116%	17%

Q18. Does a coherent and comprehensive enterprise data protection program increase your organization's value? Please rate your level of agreement.	Strongly agree & agree			
	FY 2012	Cloud	Non-users	Difference
Enables the pursuit of new global business opportunities.	37%	45%	19%	27%
Increases the quality and accuracy of information.	29%	34%	17%	17%
Reduces the cost of due diligence in mergers & acquisitions.	20%	23%	13%	10%
Reduces or mitigates the risk of data loss or theft (i.e., data breach).	73%	75%	68%	7%
Improves information flows about people such as consumers, customers, business partners and other stakeholders.	55%	56%	53%	3%
Reduces potential risks under e-discovery laws.	18%	17%	20%	-3%
Increases employee trust and decreases employee churn.	9%	8%	11%	-3%
Improves IT processes because of a better data governance structure.	37%	36%	39%	-3%
Increases our suppliers' accountability to our data protection and privacy policies.	26%	25%	28%	-3%
Reduces operational inefficiencies by creating more efficient uses of data.	53%	51%	58%	-7%
Improves the flow of relevant information about customers and employees across national borders.	41%	38%	48%	-10%
Decreases risk of regulatory action, fines and lawsuits.	47%	43%	56%	-13%
Improves formal governance of data protection policies.	33%	29%	42%	-13%
Increases brand or marketplace image.	52%	48%	61%	-13%
Increases customer trust and decreases customer churn.	38%	32%	52%	-20%
Average	38%	37%	39%	-2%

Q23b. Is the budget for data protection adequate?	FY 2012	Cloud	Non-users	Difference
Yes	50%	56%	36%	20%
No	50%	44%	64%	-20%
Unsure	0%	0%	0%	0%
Total	100%	100%	100%	0%

Q23c. If no, how much would you like to see it increased?	FY 2012	Cloud	Non-users	Difference
More than 50%	20%	11%	41%	-30%
Between 40 and 50%	18%	15%	25%	-10%
Between 30 and 40%	23%	19%	32%	-13%
Between 20 and 30%	22%	30%	4%	27%
Between 10 and 20%	14%	20%	0%	20%
Less than 10%	3%	3%	0%	3%
Total	100%	100%	100%	0%

Extrapolated percentage	34%	28%	40%	-12%
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Q30. Is your organization subject to any of the following data protection or privacy regulatory requirements and guidance? (Please check all that apply.)	FY 2012	Cloud	Non-users	Difference
Data protection laws (various nations)	43%	46%	36%	10%
Federal Privacy Act	3%	6%	-4%	10%
Children's Online Privacy Protection Act (COPPA)	23%	25%	18%	7%
Data breach notification laws (various states)	70%	72%	65%	7%
FCRA	11%	12%	9%	3%
North American Electric Reliability Corporation (NERC)	5%	6%	3%	3%
SEC CF Guidance on Disclosure Obligations for cyber security risks and incidents	45%	45%	45%	0%
Basel II	12%	12%	12%	0%
Gramm-Leach-Bliley (GLBA)	15%	15%	15%	0%
FACTA	12%	11%	14%	-3%
PCI	67%	64%	74%	-10%
Health Insurance Portability & Accountability Act/Health Information Technology for Economic & Clinical Health (HIPAA/HITECH)	23%	19%	32%	-13%
Sarbanes Oxley	50%	45%	62%	-17%
European Union Data Protection Directive	36%	30%	50%	-20%
Total	415%	408%	431%	-23%

Q11b. How has the use of cloud resources affected (or might affect) data protection risks within your organization?	FY 2012	Cloud	Non-users
Increased data protection risk	33%	23%	56%
Decreased data protection risk	12%	14%	7%
No change on data protection risk	35%	41%	21%
Unsure	20%	22%	15%
Total	100%	100%	100%

Q11b. How has the use of cloud resources affected (or might affect) data protection risks within your organization?	Cloud	Non-users	FY 2012
Increased data protection risk	23%	56%	33%
Decreased data protection risk	14%	7%	12%
No change on data protection risk	41%	21%	35%
Unsure	22%	15%	20%
Total	100%	100%	100%

Q11a. Does your organization use public, private and/or hybrid cloud computing resources?	FY 2012	Cloud users	Non-users
Yes	70%	70%	0%
No	17%	0%	17%
Unsure	13%	0%	13%
Total	100%	70%	30%

Q18. Does a coherent and comprehensive enterprise data protection program increase your organization's value? Please rate your level of agreement.	Cloud	FY 2012	Non-users	Difference
Increases employee trust and decreases employee churn.	8%	9%	11%	-3%
Reduces potential risks under e-discovery laws.	17%	18%	20%	-3%
Reduces the cost of due diligence in mergers & acquisitions.	23%	20%	13%	10%
Increases our suppliers' accountability to our data protection and privacy policies.	25%	26%	28%	-3%
Improves formal governance of data protection policies.	29%	33%	42%	-13%
Increases customer trust and decreases customer churn.	32%	38%	52%	-20%
Increases the quality and accuracy of information.	34%	29%	17%	17%
Improves IT processes because of a better data governance structure.	36%	37%	39%	-3%
Improves the flow of relevant information about customers and employees across national borders.	38%	41%	48%	-10%
Decreases risk of regulatory action, fines and lawsuits.	43%	47%	56%	-13%
Enables the pursuit of new global business opportunities.	45%	37%	19%	27%
Increases brand or marketplace image.	48%	52%	61%	-13%
Reduces operational inefficiencies by creating more efficient uses of data.	51%	53%	58%	-7%
Improves information flows about people such as consumers, customers, business partners and other stakeholders.	56%	55%	53%	3%
Reduces or mitigates the risk of data loss or theft (i.e., data breach).	75%	73%	68%	7%
Average	37%	38%	39%	-2%

Q18. Does a coherent and comprehensive enterprise data protection program increase your organization's value? Please rate your level of agreement.	Strongly agree & agree			FY 2012
	Cloud	Non-users	Difference	
Enables the pursuit of new global business opportunities.	45%	19%	27%	37%
Increases the quality and accuracy of information.	34%	17%	17%	29%
Reduces the cost of due diligence in mergers & acquisitions.	23%	13%	10%	20%
Reduces or mitigates the risk of data loss or theft (i.e., data breach).	75%	68%	7%	73%
Reduces operational inefficiencies by creating more efficient uses of data.	51%	58%	-7%	53%
Improves the flow of relevant information about customers and employees across national borders.	38%	48%	-10%	41%
Decreases risk of regulatory action, fines and lawsuits.	43%	56%	-13%	47%
Improves formal governance of data protection policies.	29%	42%	-13%	33%
Increases brand or marketplace image.	48%	61%	-13%	52%
Increases customer trust and decreases customer churn.	32%	52%	-20%	38%
Average	37%	39%	-2%	38%