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# **Retention and Disposition in the Cloud**

## **Executive Summary of Survey Distributed to Members of ARMA International**

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InterPARES Trust Research Project:  
***Retention and Disposition in a Cloud Environment***

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The Institutional Review Board of San José State University approved the survey instrument used.

Five researchers and four graduate research assistants have contributed to the InterPARES Trust Research Project: *Retention and Disposition in a Cloud Environment* to date:

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## Purpose of Summary

This Executive Summary provides an overview of the results of the Retention and Disposition in the Cloud survey conducted of members of ARMA International as part of the InterPARES Trust Research agenda (<https://interparestrust.org/>). InterPARES Trust (ITrust 2013-2018) is a multi-national, interdisciplinary research project exploring issues concerning digital records and data entrusted to the Internet. Its goal is to generate theoretical and methodological frameworks to develop local, national and international policies, procedures, regulations, standards and legislation, in order to ensure public trust grounded on evidence of good governance, a strong digital economy, and a persistent digital memory.

## Survey Dates and Number of Participants

The online survey instrument was developed and made available through Survey Monkey. Members of ARMA International were invited to participate through an initial email announcement and one reminder email sent out by ARMA as well as posts in social media accounts. The first invitation to participate was sent to all ARMA members on February 5, 2015. A final reminder was sent on February 26, 2015. The survey was closed on March 15. A total of 168 individuals responded to the survey.

## Rationale for the Survey

By 2017, nearly half of all large enterprises are expected to be engaged in hybrid (i.e., public and private) cloud computing (Gartner, 2013). It is essential that public and private organizations are able to “trust” that their records residing in the cloud can be retained and disposed of in accordance with the same requirements that govern the retention and disposition of records stored within the enterprise. This prompted two research questions:

“How does the use of cloud services affect our ability to retain and dispose of records in accordance with the law and other applicable guidelines?”

“What can be done to mitigate any risks arising from the gaps between our ability to apply retention and disposition actions to manage records residing within the enterprise and those residing in the cloud?”

The response to this survey will provide data that will be used to answer the first question.

Major funding was provided by a Social Sciences and Humanities Research Council of Canada Partnership Grant, with matching funds from participating partners. The survey instrument was approved by the Institutional Review Board of San José State University.

The survey instrument was comprised of four main sections: demographics, non-cloud users, current cloud users, and request for permission to follow up with respondents. Non-cloud users were presented with a number of questions to determine the reason for non-participation in the cloud and potential plans for future participation. The cloud users were queried as to their experiences with cloud models, cloud services, and retention and disposition successes and challenges. Twenty-nine of the 168 respondents provided their email addresses so that they may be contacted in the future.

## Section 1: Respondent Profiles

Questions 1 – 4 were presented to all survey participants and were included under the category of demographics on the survey form.

### ***(Q-1) In what industry do you work?***

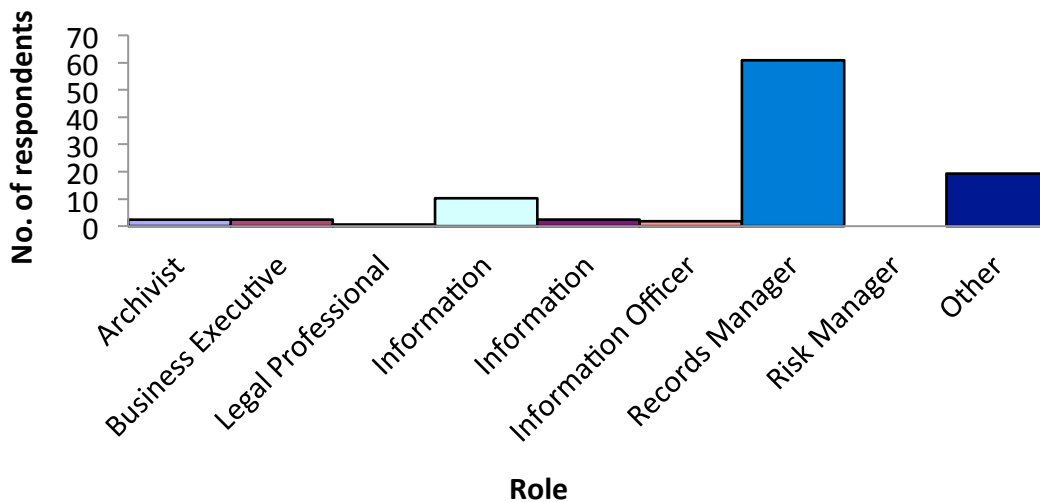
An overwhelming majority (62 or 37.13%) of respondents answered that they worked in the Government sector. The second highest category selected was “other,” with the option to specify another industry. The answers in the “other” category included various industries, from business and banking to transportation and utilities. Of these respondents, eight people noted that they worked in the utility or electric industry, making it the highest category in the “other” field. Of the predefined categories, Professional/Scientific/Technical Services was the second highest industry chosen by 15 respondents (8.98%). The third highest category was Finance and Insurance with 14 respondents or 8.38%.

### ***(Q-2) How many people does your business employ?***

The majority of the respondents (26.67%) work for an organization of more than 5,000 employees. The second highest number (24.24%) was organizations with 1,000 to 5,000 employees. Only 15 respondents (9%) indicated that their company employed less than 100 individuals.

### ***(Q-3) What is your role in the organization?***

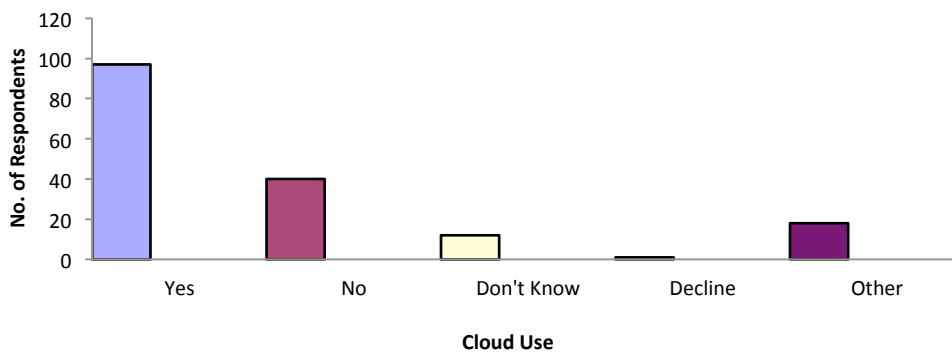
When asked about their role in the organizations, 101 (60.84%) of the respondents identified themselves as records managers. Only four (2.41%) claimed the title of archivist, while seventeen (10.24%) identified their role as Information Governance professionals.



Among the 32 in the “other” category were records coordinators, records clerks, records specialists, records managers, and records analysts, revealing the myriad of ways in which organizations choose to define their records professionals.

***(Q-4) “Does your organization use cloud computing?”***

When asked whether their company used cloud computing, 97 respondents (57.74%) answered affirmatively. Only 40 respondents (23.81%) selected “no,” with 7.14% stating they did not know and 10.71% answering “other.” This latter group was a mix of those who either had limited or restricted cloud services or would soon be implementing a program.



Survey participants were presented with a specific set of questions based on their response to question 4. Those who responded yes were considered our primary target and were presented with questions 14-46. Those who responded no, don’t know, or decline to answer were considered a secondary

audience and were presented with questions 5-13. Although the questions are numbered consecutively in this report, the numbers were adjusted automatically based on the response to this question; no participant was presented with all questions.

## Section 2: Non-Cloud Users

Questions 5-13 were presented only to those 71 (of 168) survey respondents who answered “no” to question 4: “Does your organization employ cloud services?” Those questions and responses are provided in this section.

### ***(Q-5) Has your organization employed cloud computing in the past?***

Only four (4.23%) of the 71 respondents selected yes to this question. Fifty (70.42%) answered no, while sixteen (22.54%) did not know. Two respondents selected “other,” one explaining that their attempts had yet to succeed, and the other stating that cloud services had only been employed on a small scale in the past.

### ***(Q-6) If your organization used cloud services in the past, which products or services? Please provide vendor/product names and purpose.***

Only two individuals responded to this question. One stated that specifics were not known. The other used an HR service for performance management and software for Planning and Development processes.

### ***(Q-7) What is the main reason your organization no longer employs cloud services? Select all that apply.***

When asked what the main reason was for no longer employing cloud services, only three individuals responded—all in the “other” category. All stated they were still users, but one added that their use of cloud services is limited.

### ***(Q-8) Does your organization plan to employ cloud services in the future? And (Q-13) If not, why not?***

In response to the question of whether their organizations would use cloud services in the future, 26 individuals (38.24%) stated yes and thirteen (19.12%) stated no. Nineteen respondents (27.94%) did not know, one (1.47%) declined to answer, and nine (13.24%) selected “other.” The “other” responses indicated that cloud adoption was either being considered or that the decision depended on state and federal guidelines.

**(Q-13) If not, why not?** [Intentionally moved to immediately follow Question 8 in this report.]

Of the twelve respondents who indicated no intention to use cloud services in the future, eight (66.67%) cited “legal liability,” “third-party control of your data,” and “uncertainty” (e.g., sustainability of service, ability to retrieve data) as primary concerns. Six (50.00%) noted “fear of third party insider threats,” three (25.00%) worry about the “risks of cyber-attacks,” and two noted “government intrusion.” “Lack of standardization” and “lack of support” each had one respondent (8.33%). Of the two who responded in the “other” category, both cited legislation and international jurisdiction problems:

- “Breach of Canadian privacy legislation that requires personal information to be retained in Canada only.”
- “Most cloud and computing is outside of the jurisdiction [in which] we operate thus exposing the company to a new set of information laws and regulations.”

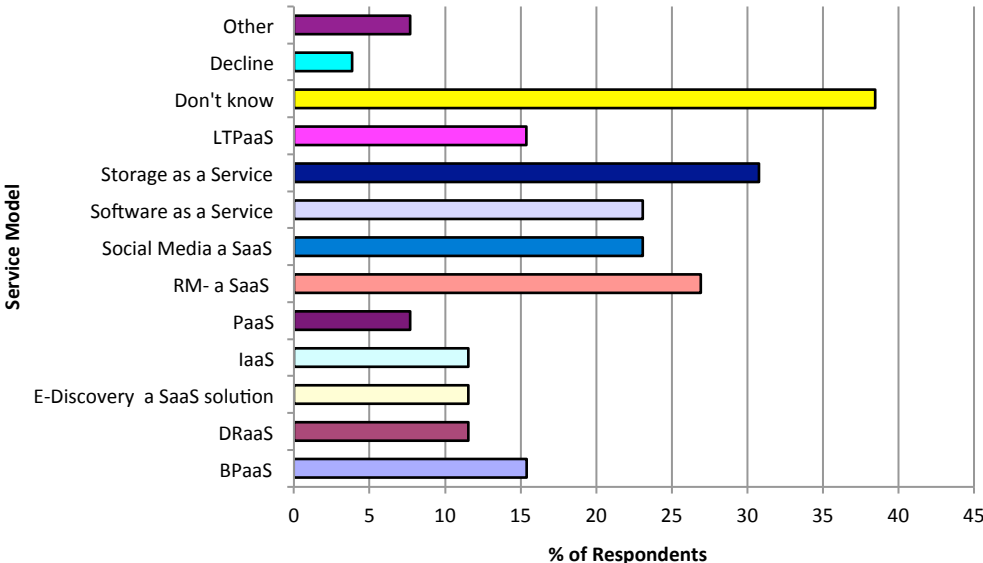
**(Q-9) If your organization plans to use cloud products and services in the future, which products and services? Please provide vendor name and purpose.**

Of the 24 responses to the question of which vendor their organization plans to use in the future, fourteen respondents (15.33%) did not know. Several indicated their intention to use Microsoft 360 and Microsoft 365. Other answers included ECM, HP TRIM, Preservica, and Amazon Web Services.

**(Q-10) What benefits do you expect to realize from using cloud computing in the future? Select all that apply.**

Only 26 individuals responded to the question on the expected benefits of cloud computing, but each selected multiple answers. Nineteen respondents (73.08%) selected “work from anywhere” and seventeen (65.38%) were hopeful that “reduced spending on technology infrastructure” would be realized. “Improved accessibility” (61.54%), “increased collaboration” (53.85%), and “streamline processes” (50%) reflect the association of cloud technology with improved workflow and accessibility. Surprisingly to the researchers, fewer respondents selected “document control” (10 or 38.46%) and “improve disaster recovery response” (12 or 46.15%), suggesting that organizations chose cloud services for their workflow efficiency and convenience rather than for their storage and recovery functionalities.

**(Q-11) Which service model(s) do you plan to employ? Select all that apply.**

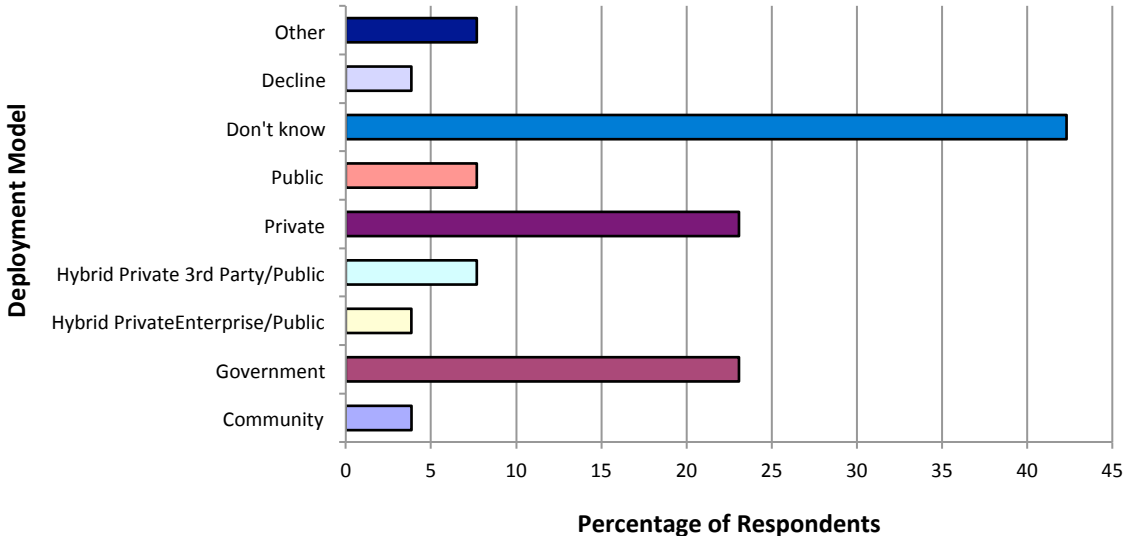


Ten out of twenty-six respondents (38.46%) did not know the future plans for service models in the enterprise. Additional comments included: “not known” and “Discussions are under consideration as a topic to use the cloud.”

**(Q-12) “Which Deployment model do you intend to employ? Select all that apply.”**

Eleven of 26 respondents did not know which deployment model was planned for the future. Six (23.08%) specified “government cloud,” and “private cloud.” Two (7.69%) chose “hybrid cloud (private third-party owned + public) and “other.” The respondents who chose “other” included the comments: “not known,” and “probably private cloud.” “Community cloud,” “hybrid cloud (private enterprise owned + public” and “decline to answer” were each selected once.





### Section 3: Current Cloud Users

Ninety-seven of 168 respondents indicated that their organization currently employs cloud services. They were presented with questions 14-46. Not all of the participants who indicated their organizations employ cloud services answered each of the questions presented. The percentages reported for each question are of the number responding to that specific question.

***(Q14) How long has your organization been using cloud services?***

A majority (56.82%) of 88 respondents who answered this question indicated that their organizations had been using cloud services for one to three years, followed by 13.64% of those using the cloud for less than one year, and 15.91% using the cloud between three and five years. Only eight respondents (9.09%) had been using the cloud for more than five years. Four (4.55%) were not familiar with their company’s history of cloud use. These responses suggest that the adoption of cloud services is a recent phenomenon for most organizations.

***(Q-15) Were you involved in the selection of a cloud provider?***

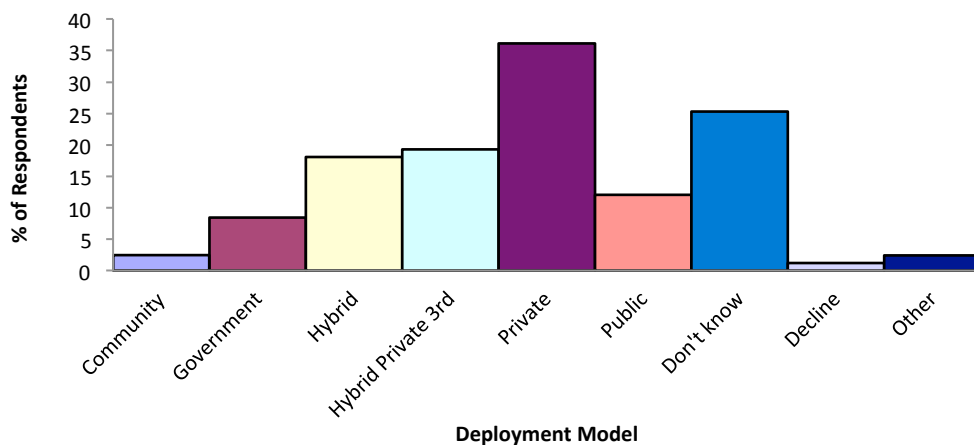
Of the 86 responses to this question, only 18 (20.93%) indicated that they were involved in the selection of a cloud provider for their current employer. Sixty-six (76.74%) were not involved, and two (2.33%) declined to answer.

The additional comments provided by respondents who were not involved in the selection of a cloud provider reveal some tension between records administrators and IT staff. Comments included:

- “IT and Legal did not ask me for my opinion.”
- “Records role did not have a seat at the table.”
- “Records Management is not invited in the decision process for IT business solutions.”
- “IT made the decision.”
- “RIM is typically the last to know anything. Personally I think we ask too many good questions and our Enterprise is just looking for less expensive storage as most companies are doing today.”

**(Q16) What type of deployment model is used? (Select all that apply.)**

Of the 83 responses to this question, 21 indicated they did not know and one declined to answer. This left 62 respondents, a number of who selected multiple options. Of the 62, 30 (48.39%) use a private cloud model, 16 (25.81%) use a hybrid model consisting of private third-party hosted and public cloud, and 15 (24.19%) use a hybrid model consisting of private enterprise hosted and public cloud. Ten (16.13%) respondents use a public cloud model. Only seven (11.29%) selected Government Cloud, and two (3.32%) a Community Cloud.



**(Q-17) What kind of service model? (Select all that apply.)**

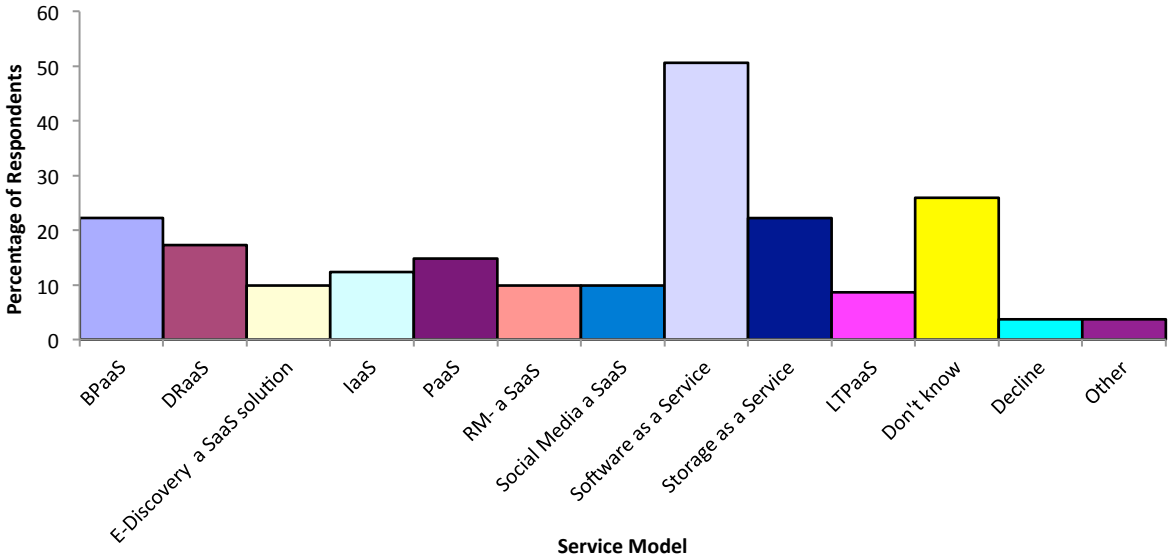
Acronyms were used for many of these in the graph for Question 17. They are explained in Table 1.

Table 1: Service Model options presented for Question 17

|  |  |
|--|--|
| Business Process as a Service (BPaaS)                          | Records Management (a SaaS solution)         |
| Disaster Recovery (& Business Continuity) as a Service (DRaaS) | Social Media (a SaaS solution)               |
| eDiscovery (a SaaS solution)                                   | Software as a Service (SaaS)                 |
| Infrastructure as a Service (IaaS)                             | Storage as a Service (STaaS)                 |
| Platform as a Service (PaaS)                                   | Long-Term Preservation as a Service (LTPaaS) |

With 171 selections and only 81 respondents to this question, it is clear that a number of those enterprises employing cloud services use more than one service model.

The issues of limited RIM involvement and incomplete understanding of cloud technology are seen here as well; 21 (25.93%) respondents did not know what types of cloud services were in use and three (3.70%) declined to answer.



**(Q-18) Does your organization have a policy on records retention and disposition?**

Of the 83 who responded to this question, 76 (91.57%) confirmed that their organization had a records retention and disposition policy. Six (7.23%) answered that they did not have such a policy, and one (1.20%) did not know. Several respondents offered comments: one stated, “We are drafting one this year,” and another commented that their policy had been in a “draft form for a long time.”

***(Q-19) Does your organization store content that is evidence of an activity or transaction in a cloud service that is not stored elsewhere?***

More than half (55.42%) of eighty-three respondents answered that their organization stored content that was evidence of an activity or transaction in the cloud that was not stored elsewhere. Seventeen (20.48%) answered no, and twenty (24.10%) did not know. Some comments expressed concern over this practice:

- “We do not engage cloud based systems where there are activities or transactions that have security and or retention concerns.”
- “I want to believe the information is stored with us in the Record Center but as more and more records are being created electronically, evidence may only being [sic] stored in a cloud service.”

In contrast to other respondents’ concerns, one individual answered that their records were “stored locally for 90 days then stored exclusively in the cloud.” The responses to this question suggest varying levels of trust in the cloud among organizations.

***(Q-20) If yes, does your organization’s retention schedule address this content residing in the clouds? Please explain.***

Half of the 44 respondents who answered this follow up question indicated that their organization’s retention schedule addressed the content residing in the clouds. Nineteen (43.18%) did not and three (6.82%) did not know. Individual comments indicated that some are in the process of updating their policy to address records in the cloud or that their policies are inadequate or not enforced. Others stated that their retention policy is holistic, applying to records wherever they reside.

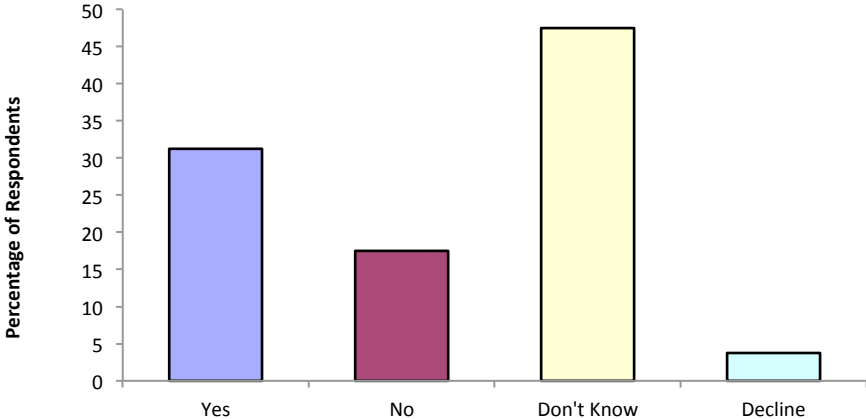
***(Q-21) Were retention and disposition considerations included in the initial decision to use specific cloud services?***

The majority of respondents (49.37%) stated that retention and disposition considerations were not included in the initial decision to use a specific cloud service. Twenty-four (30.38%) answered that those concerns were considered in the decision making process. Sixteen (20.25%) did not know. Some commentary indicated the lack of records management staff in the decision making process or that business needs outweighed records and disposition planning.

***(Q-22) Are vendor terms and conditions consistent with your organization’s goals and objectives for retention and disposition?***

Of 80 responses to the question asking if vendor terms and conditions were consistent with their organizations goals for retention and disposition, 31.25% answered yes, 17.50% answered no, and 51.25% stated they did not know or declined to answer. The comments of two respondents indicate a

position that could be taken in order to mitigate risk related to retention and disposition: vendors that do not support retention and disposition are not considered.



**(Q-23) Has your organization performed any dispositions on its content in the cloud?**

The majority of the 80 who responded to this question (53.75%) had yet to perform any dispositions on their cloud content. Only fourteen (17.50%) answered yes, and twenty-two (27.50%) did not know.

**(Q-24 through Q-33)**

A number of the questions related to specific details related to cloud services currently employed—such as the ability to conduct audits (Q-24), encryption of content at rest in the cloud (Q-26), and compatibility of metadata schema with other systems such as Enterprise Content Management Systems or Records Management Systems (Q-33)—were answered with “don’t know” as the majority response.

**Q-24: Does the vendor allow your organization to conduct audits?**

Although 43 of 78 respondents selected “don’t know,” 31 indicated “yes”. Only 3 stated “no” and 1 declined to respond.

**Q-25: Does the vendor provide encryption of content while in transit to the cloud?**

The majority of the 79 respondents to this question selected “yes” (39), 36 “did not know,” 3 selected “no,” and 1 declined to answer.

**Q-26: Does the vendor provide encryption of content at rest in the cloud?**

The majority (45 of 77 respondents) did not know, 31 indicated “yes,” and 1 declined to answer. Notable is the fact that none of the respondents selected “no.”

**Q-27: Are the vendor’s physical servers located within a jurisdiction approved for your organization?**

The majority of respondents (42 of 78) selected “yes.” Only 5 selected “no,” but 31 “did not know.” One respondent with multiple cloud solutions in use by their organization stated that “Some are, some aren’t. It is always recommended that they be in a jurisdiction that we approve of.”

**Q-28:** *Are the vendor's back-up servers located within a jurisdiction approved for your organization?*

The majority of respondents to this question (40 of 79) selected "yes." Only one respondent selected "no," and 38 "did not know."

**Q-29:** *What indexing capabilities are supported? Select all that apply.*

Specific options were provided but participants could add other indexing capabilities. Of the 62 who responded to this question, 31 (50%) selected "metadata schema" and 28 (45%) selected "document naming conventions." Other selections were "classification code" (24 or 38.71%), "taxonomy" (18 or 29%), and "retention periods (15 or 24.19%). Of the 17 (27.42%) who selected "other," most indicated they did not know. One stated that the answer varies with each application.

**Q-30:** *Can a disposition authority (retention and disposition specifications) be applied to aggregations of records?*

Of the 72 who responded to this question, 40 (55.56%) did not know, 13 (18.06%) selected no, and one declined to answer. Eighteen (25%) selected yes. One comment stated that the organization had a "program working in the background through the IT portal to the system that ties to our RIM inventory program. Testing is scheduled for FY 2015." Another added, "not easily."

**Q-31:** *Can records be transferred from the vendor's system at a future date?*

More than half of the 73 answers to this question (41 or 56.16%) were "yes." No one selected "no," but 31 (42.47%) did not know and 1 declined to answer. Two comments underscore the uncertainty of respondents who selected "don't know": "My guess would be 'yes.'" "I sure hope they are."

**Q-32:** *Is the metadata schema compatible with other systems, such as Enterprise Content Management or Records Management Systems?*

The majority of the 71 respondents did not know the answer to this question (41 or 57.75%), nine (12.68%) selected "no" and one declined to answer. Twenty respondents (28.17%) indicated that the metadata schema was compatible.

**Q-33:** *Is it possible to integrate the cloud provider's system with other systems, such as Enterprise Content Management or Records Management Systems?*

Of the 72 responding to this question, most did not know (46 or 63.89%); however, 19 (26.39%) selected yes. Six selected no and 1 declined to respond. Of the comments, one added, "It would certainly be useful." Another stated, "We do not have an ECM or a RMS for e-records."

### **(Q-34 through Q-44)**

Questions 34-44 relate specifically to retention and disposition functionality of the cloud services employed. Of concern is that the majority of respondents selected "don't know" to 10 of these 11 questions. In only one instance—Question 35, "Can records be deleted according to the

retention/disposition schedule?”—the yes responses outweighed the don’t know responses, and that was by only one response.

Questions about freezing dispositions, documenting disposition actions within the metadata, automatic notifications of actions, and administrator rights remained beyond the scope of most participants’ familiarity with their cloud systems.

**Q-34:** *Can destruction be automated?*

Of the 72 responses, 14 (19.44%) were “yes,” 13 (18.06%) were “no,” and 45 (62.5%) were “don’t know.”

Two comments of note: “Partially. We need to secure approval before destruction takes place. Once we have approval, we start the deletion process.” “Too many event based retentions that would require more research so answer is no at this time—however, desired state is to have that automated destruction.”

**Q-35:** *Can records be deleted according to the retention/disposition schedule?*

Of the 70 responses, the responses were almost equally divided between “yes” (32 or 46.71%) and “don’t know” 31 (44.29%); 7 (10%) were “no.”

Two comments of note: “Most systems don’t have disposition built in or have unknown disposition capabilities. This happens when contracts and agreements are put in place without regard to record retention and disposition as a main requirement.” “Only physical records under our control follow the retention/disposition schedule. All e-records are currently not managed by Records but by the end-user themselves. Our State has a difficult and cumbersome requirement to purge electronic with minimal support and instructions on how to effectively complete this process.” Several comments added that the process exists but it is a manual one.

**Q-36:** *Can backups be deleted according to the retention/disposition schedule?*

Fewer respondents were as sure of disposition of content on backups than of information on servers. Of 70 respondents, 17 (24.29%) selected “yes,” but 45 (64.29%) reported they “don’t know;” 8 (11.43%) reported “no.”

Two comments of note: “We don’t schedule back-ups. However, our vendor recycles the back-up tapes on an agreed upon schedule.” “Process and retention is across their enterprise but very similar to ours so no issue. We only keep backups at the most 32 days although many are at 28 days.”

**Q-37:** *Can the system recognize relationships between aggregates of records when applying disposition actions?*

One comment stating, “Not sure what you are asking” reveals a lack of understanding of the term “aggregates of records,” which may be the case for more than one of the 51 (73.91%) of the 69 respondents selecting “don’t know” to this question. Only 5 (7.25%) answered “yes,” and 12 (17.39%) answered “no;” with 1 (1.45%) respondent declining to answer.

**Q-38:** *Can a manual or automatic lock or freeze be imposed on the disposition process?*

Of 69 respondents, 24 (34.78%) reported “yes,” and ten (14.49%) reported “no.” More than half, 35 or 50.72%, did not know.

**Q-39:** *Are disposition actions documented in process metadata?*

Again, more than half of the 68 respondents (45 or 66.18%) did not know. Ten (14.71%) selected “yes,” and 13 (19.12%) selected “no.” For users of multiple cloud solutions, the answer may be more complicated as one comment indicates: “Depends on the system and manual of automated deletion.”

**Q-40:** *Is disposition notification presented to the administrator so both content and record management metadata can be reviewed prior to disposition action?*

More than half (38 of 68 respondents or 55.88%) don’t know; 15 (22.06%) indicated “yes,” and the same number, 15, selected “no.”

The one comment added in response to this question for users of multiple cloud solutions is similar to that of question 39, “Most of the time. Again this assumes one vendor.”

**Q-41:** *Are disposition actions automatically recorded and reported to the administrator?*

More than half (40 of 69 or 57.97%) did not know; 15 (21.74%) selected “yes,” and 14 (20.29%) selected “no.”

Two comments of note: “No automation—standard reporting processes in place.” “Recorded—yes. Reported—no. We set it up so the administrator could run a report.”

**Q-42:** *Can the administrator change/override the disposition action?*

More than half of the 67 respondents to this question (40 or 59.70%) did not know; 19 (28.36%) selected “yes,” and 8 (11.94%) selected “no.”

**Q-43:** *Are all decisions made during review stored in metadata?*

More than half of the 69 respondents (51 or 73.91%) did not know; 8 (11.59%) selected “yes,” and 10 (14.49%) selected “no.”

**Q-44:** *Does the system generate a report on the disposition process after it has been performed?*

More than half (42 of 69 or 60.87%) did not know; 13 selected “yes,” and 14 (20.29%) selected “no.”

## Section 4: Request for Additional Information

### Q-45 and Q 46

Question 45 asked if the respondent would be willing to be contacted to provide additional information about responses. If so, respondents were asked to insert their e-mail address in the comment box for Question 46. Twenty-nine of the 168 respondents that began this survey provided e-mail addresses. InterPARES Trust researches will contact these respondents for additional information such as number of systems used and cloud services employed.



## Summary/Conclusions

The purpose of the overall “Retention and Disposition in a Cloud Environment” is to answer two research questions:

“How does the use of cloud services affect our ability to retain and dispose of records in accordance with the law and other applicable guidelines?”

“What can be done to mitigate any risks arising from the gaps between our ability to apply retention and disposition actions to manage records residing within the enterprise and those residing in the cloud?”

The data obtained from this survey can be used to partially answer the first question: “How does the use of cloud services affect our ability to retain and dispose of records in accordance with the law and other applicable guidelines?”

The fact that only 168 responses were obtained from an association of more than 11,000 members is disappointing. Although the survey was extensive, those that started the survey did complete it. The others chose not to participate for unexplained reasons. Could it be lack of interest? Lack of time to participate in a survey? Lack of knowledge of cloud services employed within the firm? Another reason?

Although the largest segment of respondents (37.13%) came from government, a number of industries were represented including education, construction and manufacturing, finance and insurance, healthcare, mining/quarrying and oil and gas extraction, non-profit, professional/scientific/technical services, and wholesale trade/retail trade. Respondents also came from organizations of all sizes from less than 100 (9.09%) to more than 5,000 (26.67%).

Although most respondents were records managers (60.84%), other professionals were represented, including information governance professional, archivist, business executive, information technology specialist, and legal professional. A significant percentage (19.28%) selected “other” but among the other listed were versions of the term records manager, including records management clerk, records coordinator, and Records/FOI coordinator. However, derivations of the other categories were also added as “other,” including Director, Secretary of State, Archives Division and Information Systems Manager. Positions indicating the diverse responsibilities of records and information professionals included consultant, open government manager, project analyst, and compliance officer and chief records manager.

More than half of the 168 respondents (97 or 57.74%) indicated their organizations store content in a cloud solution. An additional 26 (28.24%) of those who answered “no,” stated their organization plans to employ cloud services in the future. If this takes place, 123 of the 168 (73.21%) are likely to employ cloud services in the future.

Although all 168 respondents completed the survey, 88 at most answered any one of the questions. One of the comments indicates that a yes, no, or don’t know response to the question of whether a cloud

solution is employed is not as simple as first thought: “We do not intentionally use the cloud, but we do use hosted services where the provider uses cloud.”

Using the results of this survey as a microcosm of the records management profession, it is likely that Gartner’s prediction that nearly half of all large enterprises are expected to be engaged in hybrid cloud computing by 2017 has already been realized (Gartner, 2013).

## Internal and External Obstacles to Retention and Disposition in the Cloud

Based on the comments included in the survey, it appears that both external and internal obstacles exist to retention and disposition in the cloud. Most comments related to external factors are risk related and include:

- Potential move to the cloud “depends on Federal and State acceptable security guidelines.”
- Lack of standardization.
- Risk of cyber attacks.
- Most cloud computing is outside of the jurisdiction we operate thus exposing the company to a new set of information laws and regulations.
- Breach of Canadian privacy legislation that requires personal information to be retained in Canada only.

Those comments indicating internal factors include:

- Some comments from respondents reflect differences in corporate culture between IT and RIM departments, which cause difficulties in establishing and enforcing retention policies in a cloud environment.
- Respondents indicated that decisions are frequently made based on cost-efficiency and business needs or are at the discretion of the IT programmers creating or launching the cloud services.
- Several responses also indicate a passive stance by records managers, in which respondents state that they were not involved in decision-making simply because they were not invited.
- The issue of trust in the cloud as it relates to the user’s level of understanding is also apparent in the survey results.
- Some enterprises do not use cloud services due to a lack of trust in the cloud to retain and properly and securely dispose of record aggregates according to their retention schedules.
- Records managers are uncertain about the functionalities and limitations of cloud services, as shown by the number of “don’t know” responses to many of the questions on records functionality in the cloud.
- Those respondents who were involved in the decision-making process for cloud implementation tended to have a better understanding of the cloud service’s capabilities, and therefore had more trust in the cloud.

## Recommendations

The larger study is not yet complete; however, based on the data from this survey, several recommendations can be made:

1. Before a cloud solution is implemented, consideration must be given to retention and disposition requirements.
2. Records professionals should take advantage of training and education opportunities to ensure they are prepared to address retention and disposition challenges related to records and information stored in the cloud.
3. Records professionals must be proactive in becoming a valuable member of the overall information governance team, if one, within their organization.
4. Records managers must be proactive in working closely with other stakeholders to ensure that records and information stored in the cloud is retained as long as necessary.
5. Records managers must also be proactive in working with other stakeholders to ensure that records and information stored in the cloud can be disposed of according to a defensible deletion policy.
6. Cloud providers must work more closely with records professionals to understand retention and disposition requirements, to inform organizations how these basic functions can be accomplished, and to develop their products and services accordingly.
7. The organization must be able to assess the risks presented by the use of various cloud service deployment and service models and determine which, if any, are most appropriate for their use.

The use of cloud services present risks to organizations that must be considered when determining whether and how the organization will employ cloud solutions. A risk analysis will reveal what content can safely be stored in the cloud. Many organizations will employ more than one model—e.g., public, private, or hybrid—and enter into an agreement with more than one vendor.

Overall, greater understanding of and attention to retention and disposition needs of clients on the part of the cloud service providers is necessary to develop solutions that assist the organization in complying with existing laws and regulations regarding the management of records. Increased training and education of and cooperation among all stakeholders involved in information governance decisions within the organization is necessary to mitigate risk and take advantage of the benefits of employ cloud solutions. Only then can records and information residing in the cloud be managed according to a defensible retention policy.

**Note:** This survey was conducted with the permission of ARMA International on behalf of a workgroup of InterPARES Trust (<https://interparestrust.org/>). This summary was developed for distribution to ARMA International members through the association. It will also be available as a resource to interested parties on the InterPARES Trust website. The data obtained from this survey will be incorporated into the InterPARES Trust project, “Retention and Disposition in a Cloud Environment.” Questions about this survey or the InterPARES Trust project can be directed to Dr. Patricia C. Franks, San José State University, [patricia.franks@sjsu.edu](mailto:patricia.franks@sjsu.edu).