



Answering the Most Challenging Data Management Questions

MARKET TRENDS REPORT



Introduction

Data storage looks nothing like it did just a few years ago. Think back to federal buildings with back offices and storage rooms full of paper stacks, manila folders and filing cabinets – lots and lots of filing cabinets. Some data was well organized and systematically classified to make both storage and retrieval easier. And then there was the rest, randomly scattered about or stuffed away and virtually inaccessible to anyone who needed it.

Today, instead of folders and paper, information is stored, accessed and secured electronically, and it's housed in high-tech data centers. Even though it's on a server instead of thrown onto a stack, much like the old days, government data can still get lost in the abyss. In the digital age, government agencies are producing and consuming unfathomable amounts and types of data. But as they don't always know what to do with it, the vast majority of data is unorganized.

Given new technological capabilities, it doesn't have to be that way, and that's where a data governance strategy comes in. Data governance provides a comprehensive strategy for information storage, security and analysis. With the right data management solutions, organizations can turn data from a morass of indecipherable zeroes and ones into important, usable assets that open new windows for mission growth.

To ascertain the best ways for agencies to govern their masses of data, GovLoop partnered with data management providers Veritas and ThunderCat Technology to produce this report. In it, we highlight strategies and solutions that government agencies have successfully put into place to realize and protect the potential of their data. We also share insights from Kurt Steege, Chief Technology Officer at ThunderCat Technology, and Jonathan Alboum, Chief Technology Officer, U.S. Public Sector at Veritas Technologies.

BY THE NUMBERS

52%

of data in an organization is dark data.

Source: [Veritas' 2016 Global Databerg Report](#)

216,646

federal government data sets are reported on Data.gov as of August 2018.

Source: [Data.gov](#)

47

data best practices are proposed by the Federal Data Strategy.

Source: [Federal Data Strategy](#)

6th percentile

is where the U.S. ranks in the Organization for Economic Cooperation and Development's (OECD) open-useful-reusable government data index.

Source: [OECD](#)

12 of 23

civilian Chief Financial Officers Act agencies meet government targets for data protection.

Source: [President's Management Agenda](#)

70%

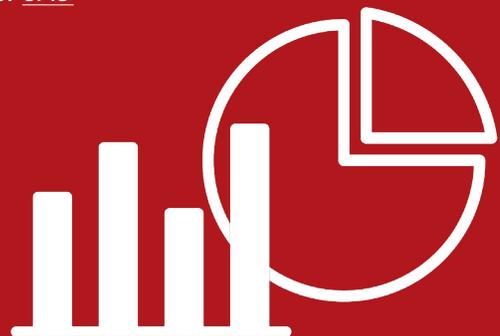
of U.S. federal employees surveyed said their agencies' information was breached at some point in the past.

Source: [Thales Data Threat Report: Federal Edition](#)

Only 21%

of federal spending data elements met all of the International Organization for Standardization (ISO) leading practices.

Source: [GAO](#)



THE CHALLENGE

Lots of Data, Little Visibility

“The amount of data out there is expanding at a frightening rate, and it continues to grow exponentially,” Steege said.

Already, governments struggle to process existing data and its associated metadata. Lacking proper visibility, most of the information remains unorganized and therefore inaccessible.

Add this to the fact that government agencies now have to brace for Internet of Things (IoT) data that will increasingly add to existing information, as well as more complex data formats – such as video and social media sources – and you have a problem of ever-expanding proportions.

Unorganized data poses several threats to government. For one, unwieldy data storage patterns increase upfront costs – costs that could be eliminated if the data is disposed of when obsolete or unnecessary. Furthermore, that same data can prove costly further down the road if organizations need to spend countless man hours retrieving what they already have to fulfill a Freedom of Information Act (FOIA) request or complete an archival project.

While such cases are inconvenient and detract from agency missions, bigger risks loom with data security. Organizations with poor data visibility can lose track of sensitive information, lacking the policies or access credentials to protect and account for it. Data leaks in the past have derailed mission objectives and eroded public trust.

Experts agree that stricter policies on data security and data visibility are coming to the federal government very soon. In the European Union, the General Data Protection Regulation (GDPR) cements individuals’ “right to be forgotten” and enforces strict liability laws – forcing U.S. federal agencies to re-evaluate their data protection standards. Stateside, California already passed its own data privacy laws similar to GDPR.

As more data comes, so will more regulations. Failure to standardize and police agency data practices now could be costly in the long run. And for all of the data risks, agencies without a plan fail to capitalize on the untapped potential of data, which could accelerate mission progress, drive greater efficiencies and cut costs.

THE SOLUTION

Create a Strong Data Governance Strategy

Before climbing a mountain, you have to take a single step. When it comes to data, agencies must take a similar approach. Although dealing with data can seem like an uphill struggle – because of its sheer size and unfamiliarity – the first step is accounting for what you have.

That’s why a data governance strategy is important. An agencywide data governance strategy puts the policies into place to take stock of data, standardize reporting, implement security procedures and discover potential use cases for data.

“One way to start the conversation is for IT to explain data governance in terms that leadership can understand,” Alboum said. “Leaders understand costs, and they understand risks.”

From there, learning both the priorities and concerns of leadership can create a shared, united approach, while emphasizing mission progress can reveal places for improvement in data management. Once leaders understand the importance of data governance, a top-down enthusiasm can be suffused throughout an organization.

A data governance committee is a must, but it can’t be laden with too many IT or business-side professionals. A steady mix is necessary, as it ensures that the goals of the committee will align with organizational goals and that the committee has the knowledge to turn goals into reality.

With support throughout the enterprise, agencies can turn standardized data into insights and discard old, unnecessary data. From there, leadership can make informed, higher-value decisions – such as whether a cloud approach to data management could cut costs and create efficiencies.

By having a committee and a plan, organizations can turn data baggage into mission fuel.

BEST PRACTICES

6 Steps to Crafting a Comprehensive Data Governance Strategy



1. Account for the data you have

Before starting down the road of protecting your data or trying to analyze it, you need to know what you have. Data visibility is the first step, and it's where many agencies go wrong. First, ask agency leaders what data is most important. Then dig further, asking about classification, storage and protection. If leaders don't have the answers, that's all the more reason why a data management strategy is needed.



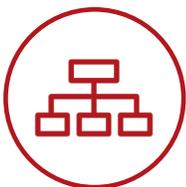
2. Establish a data management framework

Changing the way an organization views and uses data is a team effort. When advocating for data governance, it's imperative early on to create a data management committee – pulling members from all sectors of the agency. The role of the committee will be to advocate for data stewardship, as well as determine the best business, security and IT data protocols.



3. Demonstrate business value

What's learned from data is far more important than numbers in a spreadsheet. When discussing data governance, always consider the business value and how data can be used to further your agency's mission. Offering tangible end goals will get leadership on board and increase commitment to a data culture.



4. Eliminate data and workflow silos

A patchwork of data governance can only do so much, meaning it's important to have data advocates in every corner pushing for data management. A holistic data governance strategy will help every department, so ensuring that data is open and shared between branches will multiply agency benefits.



5. Prepare for the future

New technologies and federal laws will change the way agencies receive, process, secure and leverage data. As the rules of engagement change, be sure that your agency is evolving with the times – incorporating modern technologies such as cloud computing — to maximize output with data.



6. Partner with industry

Fortunately, private sector partners can help every step of the way. From standardizing and classifying data at the beginning to offering modern solutions, vendors can ensure that data governance strategies are set into place smoothly. With an outside eye, industry partners can also determine the best security practices and install them on the front end.

CASE STUDY

Veritas deployed **Data Insight** at a large federal agency to help it understand its stored data. The findings showed the following:

- 58 percent of the agency's data was dark, meaning that it hadn't been accessed in over 36 months and had no owner in Active Directory.
- 31 percent of its data was ROT (redundant, obsolete and trivial) and had not been accessed for one to three years.
- 11 percent of its data was active information needed to run the agency.

The agency took actions based on the intelligence it received from Data Insight. Veritas' **Integrated Classification Engine** was used in conjunction with **Enterprise Vault** to scan the data and then, through policy, move it from primary storage to other cheaper storage areas seamlessly, with no impact on the end users.

For example, the dark data was moved to Amazon Glacier. All sensitive data was moved to a long-term storage device with an automated seven-year retention policy. The organization's most important data was moved to high-speed primary storage. This data strategy resulted in a much lower primary storage footprint, which moved a large amount of data out of its backup environment.

The agency also used Data Insight to understand user behavior. At one point, this allowed the agency to detect a user copying a large amount of data that was outside of their normal workday. While the incident was minor, it could have been the prelude to a data breach. Data Insight gave the agency the tools to detect this behavior deviation.

As a tangential benefit, the agency was then in position to start an eDiscovery practice using Veritas' **eDiscovery Platform**. The eDiscovery Platform allowed the department to search all of its storage locations, email, SharePoint, desktops and other loose file locations for data that pertained to a particular matter. It used this tool to answer FOIA requests and legal searches. Before, it had taken four or five days to respond to a small request, and redaction was almost impossible. With the eDiscovery Platform in place, the agency was quickly able to respond and redact in at least a third of the time.

Legal hold matters were also an issue. The agency needed a tool that could notify and track users who were required to be on legal hold, and it was tracking this on a spreadsheet. Now it had a tool that could create, monitor, track and escalate legal holds automatically. This freed up the time of one supervisor to do other work. Lastly, producing data was streamlined for the FOIA and legal departments by placing all search and redaction results into organized use files that could be sent to FOIA requestors or the legal team for their needs.

HOW VERITAS AND THUNDERCAT HELP

In partnership, Veritas and ThunderCat provide agencies with proven solutions to harness the power of data across diverse technological environments. The Veritas 360 Data Management Suite is a comprehensive multi-cloud data management solution that's both platform and cloud agnostic – offering agencies maximum service reliability and control of storage costs and workload operations.

Using the Veritas 360 Data Management Suite, agencies can take full control of their data with assessment tools providing insights to cost and time-saving solutions.

In the realm of data management, Veritas and ThunderCat can answer the business questions of risk and reward. They make backup and recovery easy, all the while preparing agencies for the next wave of data privacy.

With new data management tools and techniques, agencies can accomplish tasks that were previously inconceivable. By consolidating storage and eliminating silos, agencies are free to streamline their workflow and immediately track improvements to user experience.

Conclusion

While the information contained in lengthy data sets and spreadsheets is often uncharted territory, it's also just the beginning. New multimedia files are changing the dynamic of data management, requiring that agencies have modern storage and management practices.

Meanwhile, agencies are beginning to realize what they already possess – both in risk and potential. Old, unencrypted data can be vulnerable to hackers and insider threats when the appropriate security protocols aren't in place. Furthermore, imminent data privacy laws will force agencies to account for and update their data management practices sooner than later, and the process will only become more expensive as agencies absorb more data.

Data governance solutions can help here. As in the past, they've uncovered significant amounts in missing funds, created efficiencies and eliminated silos between different agency arms.

The good news is that agencies can look at their data optimistically, not fearfully. As agencies have to increasingly maximize their resources, a data management strategy can provide more flexibility than ever before.

ABOUT VERITAS

Veritas empowers the public sector to discover the truth in information—their most important digital asset. Using Veritas, customers accelerate their digital transformation and solve pressing IT and business challenges including multi-cloud data management, data protection, storage optimization, compliance readiness and workload portability—with no cloud vendor lock-in.

Visit www.veritas.com/publicsector.

VERITAS™

ABOUT THUNDERCAT

ThunderCat Technology is a Service-Disabled Veteran-Owned Small Business (SDVOSB) that delivers technology services and solutions to government organizations, educational institutions, and commercial entities. ThunderCat brings an innovative approach to solving customer problems in and around the datacenter and cloud by providing strategies for Data Management, Networking, Cyber Security, and Cloud Solutions. ThunderCat approaches each engagement with integrity and commitment to help our customers fulfill their mission.

For more information, visit www.thundercattech.com.



ABOUT GOVLOOP

GovLoop's mission is to “connect government to improve government.” We aim to inspire public-sector professionals by serving as the knowledge network for government. GovLoop connects more than 270,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to connect and improve government.

For more information about this report, please reach out to info@govloop.com.





1152 15th St. NW Suite 800
Washington, DC 20005

P: (202) 407-7421 | F: (202) 407-7501

www.govloop.com
@GovLoop