

Cloud Usage: Risks and Opportunities Report

September 2014



CI	\cap	П		۱۱	10	Δ	G	F	RΙ	\leq	K	- 5	2,	\cap	D	Dί	\cap	D.	Τī	IN	ΛH	т	ΙF	ς	R	F	Di	\cap	D.	Т	$\subset \mathcal{L}$	rد	٦t	Δ	m	١h	Δ۵	r	2	7	1 /	1
l I	\ /		ш.	, ,	- ر	١Н	лπ	Г.	п	_ `	r\ ·	γ	\sim		·	Р١	. ,	П.	11		ALI.		ΙГ	_	\neg	. —	-	v	\Box		7 F	-1) [\vdash	11	11	\mathcal{L}		/ 1		4	+

© 2014 Cloud Security Alliance – All Rights Reserved

All rights reserved. You may download, store, display on your computer, view, print, and link to the Cloud Security Alliance "Cloud Usage: Risks & Opportunities" at https://cloudsecurityalliance.org/research/surveys/, subject to the following: (a) the Document may be used solely for your personal, informational, non-commercial use; (b) the Document may not be modified or altered in any way; (c) the Document may not be redistributed; and (d) the trademark, copyright or other notices may not be removed. You may quote portions of the Document as permitted by the Fair Use provisions of the United States Copyright Act, provided that you attribute the portions to the Cloud Security Alliance "Cloud Usage: Risks & Opportunities" (2014).

Acknowledgements

Managing Editors / Researchers

Luciano (J.R.) Santos, Global Research Director, CSA

John Yeoh, Senior Research Analyst, CSA

Design/Editing

Kendall Cline Scoboria, Graphic Designer, Shea Media

Evan Scoboria, Co-Founder, Shea Media; Webmaster, CSA

Sponsors



Netskope, the leader in safe cloud appenablement



Okta, an enterprise-grade identity management service

Table of Contents

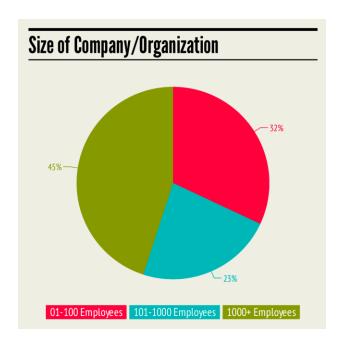
Acknowledgements	3
Table of Contents	
Introduction	
Usage	6
Risks	
Response Comment Sampling	11
Summary	
References	

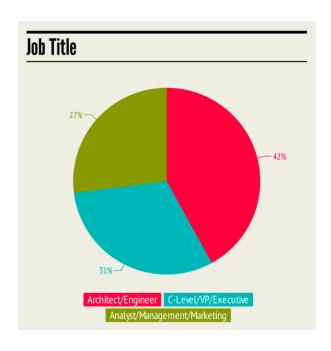
Introduction

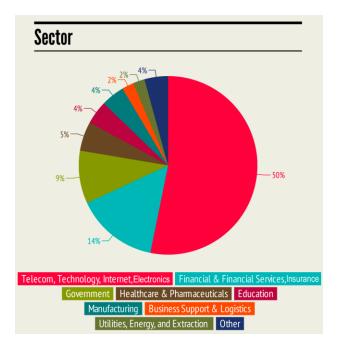
This survey was circulated to over 165 IT and security professionals in the U.S. and around the globe representing a variety of industry verticals and enterprise sizes. The goal was to understand their perception of how their enterprises are using cloud apps, what kind of data are moving to and through those apps, and what that means in terms of risks.

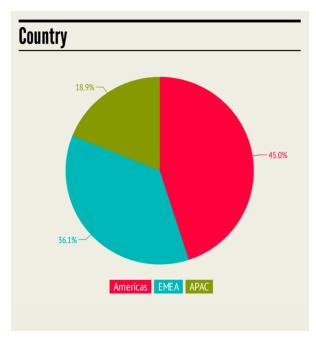
Beyond raising awareness around cloud service risk, the findings of this survey are intended to provide usage intelligence that helps IT, security, and business decision-makers take action in their organizations—from consolidating and standardizing on the most secure and enterprise-ready cloud services, to knowing what policies will have the most impact, to understanding where to focus when educating users.

Survey respondents were categorized into the following:





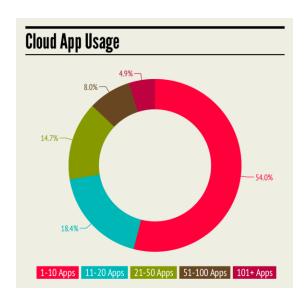




Usage

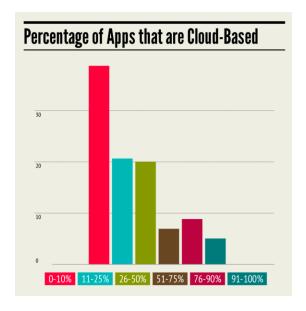
How many cloud apps do you believe are in use for business purposes in your organization?

More than half (54 percent) of the respondents believe that they have ten or fewer cloud apps running in their organization, with 87.1 percent indicating 50 or fewer and a weighted average of 23 apps per organization. These estimates are far lower than those reported by vendors who observe more than 500 cloud apps, on average, per enterprise.



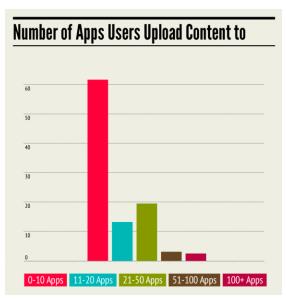
Approximately what percentage of the total applications in your organization are cloudbased?

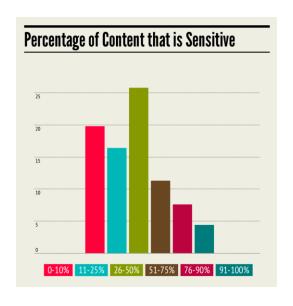
59.3 percent of respondents believe that a fourth or fewer of their total apps are in the cloud. This differs from recent studies, such as Data Breach: The Cloud Multiplier Effect, a survey carried out by the Ponemon Institute, in which respondents reported that 45 percent of their software applications are in the cloud.



To how many cloud apps do you believe your users are uploading content?

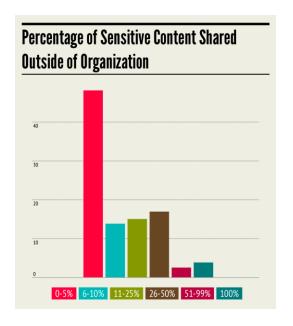
Over 60 percent of respondents believe that content is uploaded to 10 or fewer cloud apps.





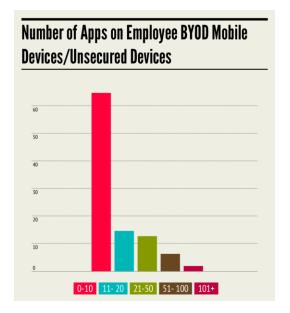
Approximately what percentage of content that is uploaded to cloud apps do you believe is sensitive?

74.8 percent of respondents say their users upload content to 20 apps or fewer, yet nearly half (49.1 percent) report that over one-fourth of that content is sensitive.



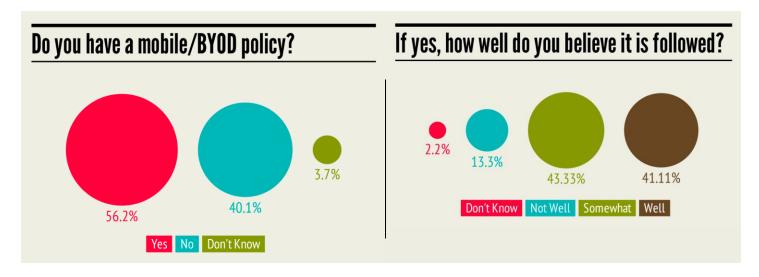
Approximately what percentage of sensitive content that is uploaded to cloud apps do you believe has been shared with unauthorized individuals or individuals outside of your organization?

Nearly half (48.1 percent) of respondents say that less than 5 percent of their sensitive content in the cloud has been shared with unauthorized individuals or individuals outside of the organization.



How many cloud apps do you believe are most used on employee BYOD mobile devices and/or unsecured devices?

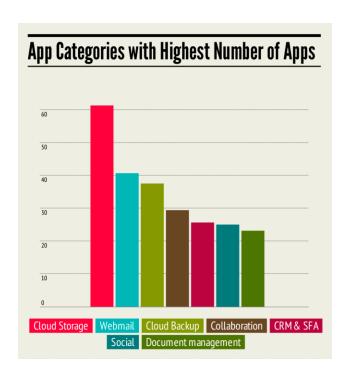
50 percent of respondents say that their users have 5 cloud apps or fewer on employee BYOD devices.

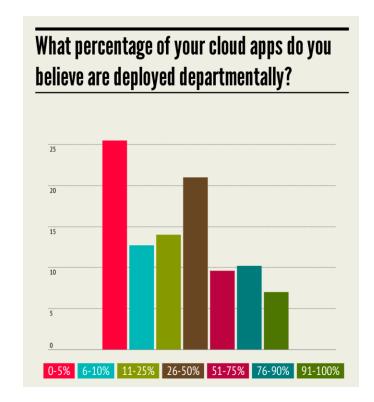


Well over half of the respondents reported having a policy addressing bring-your-own devices, and over 80 percent believe it is at least somewhat followed.

Which cloud app categories do you believe have the highest number of apps?

Respondents reporting believing that cloud storage is the most plentiful category, with webmail and cloud backup in second and third place.



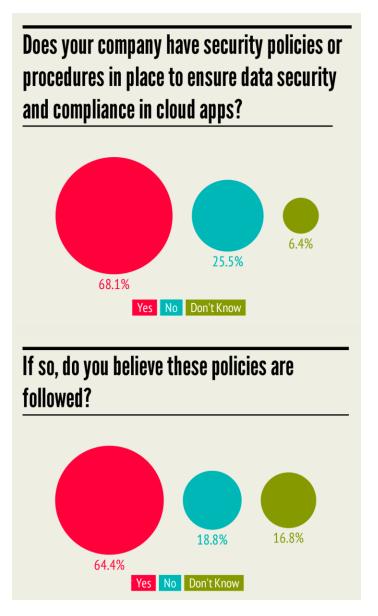


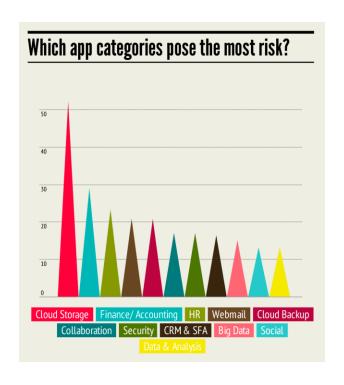
More than half (52.2 percent) of respondents believe that less than a fourth of their cloud apps are deployed departmentally (vs. company-wide). This runs counter to data that show that approximately 90 percent of cloud apps are unknown to IT.

Risks

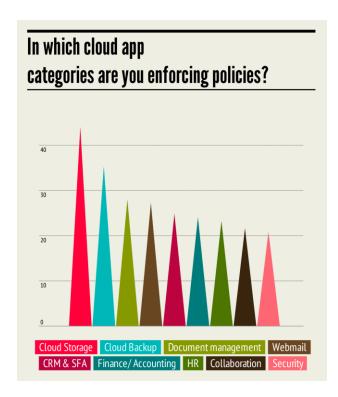
Which cloud app categories do you believe are the most risky based on your organization's definition of risk?

Most people's perception is that cloud storage is the riskiest category, followed by finance/accounting and HR, respectively.

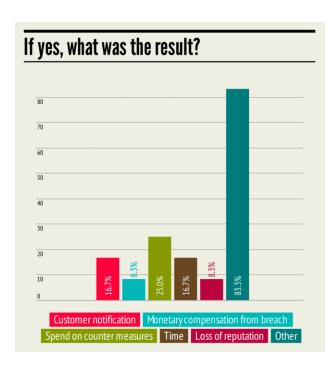




The vast majority of respondents report having policies and procedures in place to protect data and ensure compliance, and most report that those policies are well-enforced.

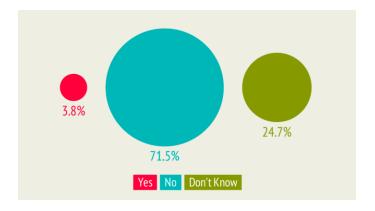


Nearly 80 percent of policy enforcement in cloud apps is in cloud storage and cloud backup, indicating serious concerns about data leakage and protection.

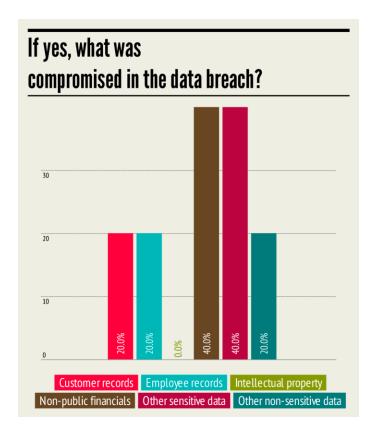


25 percent of the responses were unknown, and 25 percent of the responses had no corresponding result. "Other" included loss of confidentiality.

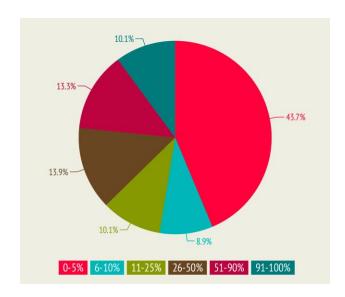
Have you experienced a data breach involving a cloud app in the last year?



Very few respondents, or nearly 4 percent, report experiencing a data breach involving their cloud apps in the past year.

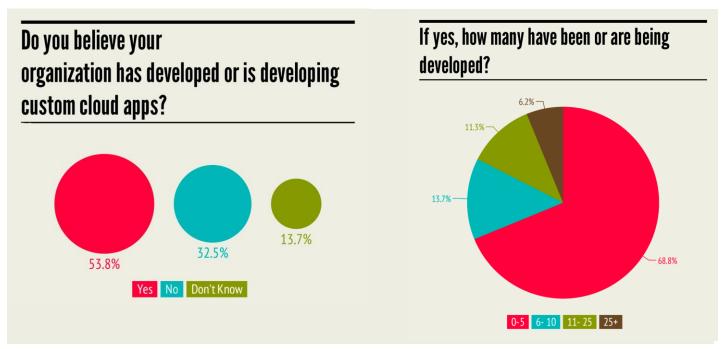


Non-public financials, other sensitive data, customer records, employee records, and other non-sensitive data were compromised in these breaches.



What percentage of your cloud apps do you believe are integrated with your corporate directory to authenticate users?

43.7 percent show less than 5 percent of apps are integrated with their corporate directory. This displays a very low monitoring of apps and calls for a need of better corporate tools.



Over half of respondents reported that their organizations are developing custom cloud apps.

Response Comment Sampling

The following comments were collected from survey respondents:

"Cloud Security is most important. Respective procedures and policies have to be enforced by human and software."

"Data and privacy are the important aspects to securing data in cloud."

"How do we know what employee users are doing in the cloud and what authority they have to install applications?"

"There is a decrease of reputation when considering cloud solutions and not being able to state the risks and the solutions to reduce the risks."

Summary

Users believe that few cloud apps are used by employees and BYOD devices, while other studies noted show that hundreds of cloud apps are in use within each enterprise today. This tells us that cloud application discovery tools and analytical tools on cloud app policy use and restrictions are crucial in the workplace, especially when it comes to sensitive data being used by these cloud applications. With sensitive data being uploaded and shared by these apps with authorized and unauthorized users, policy enforcement becomes a major role in protecting your data.

References

Asymco's Estimate, http://www.asymco.com/2013/05/31/100-billion-app-downloads/

CASB Report, http://www.casb.org/about-casb/annual-report

Data Breach, http://www.netskope.com/reports-infographics/ponemon-2014-data-breach-cloud-multiplier-effect/

Netskope Cloud Report, http://www.netskope.com/reports/netskope-cloud-report-2014-april/

Ponemon Research, http://www.ponemon.org/blog/can-a-data-breach-in-the-cloud-result-in-a-larger-and-more-costly-incident