

The Results of a Study of Nonprofit Use of Cloud Software

FEBRUARY 2016

Survey Introduction

When we previously conducted research about the use of cloud services in the nonprofit sector, it was 2011. In that original report we noted that many nonprofit staff were using hosted services without realizing that they were accessing the cloud.

We also found that there was strong concern about the security of cloud systems like databases, although those same organizations were using hosted services for accessing and sharing sensitive data.

At the end of 2015, we partnered with Microsoft Philanthropies to conduct another round of research to get a better sense of the cloud services being used by nonprofits, fears or struggles around using the cloud, and plans for potential expansion.

We anticipated that some notable changes might have occurred in the years since the last report and certainly have proof of those changes in this new report. Some key findings include:

- Cloud services are a core part of nonprofit operations with 100% of survey respondents indicating they use at least two cloud services, up from 80% of survey participants in our last survey.
- The newest addition to organizations' cloud services ecosystems is document storage.
- Leading factors in decision making are service features and the ability for staff to work remotely (remote access) with the service.
- In evaluating potential services, the biggest concern is whether staff will have reliable access to the organization's data.
- In comparing installed versus hosted services, respondents noted staff training as important but not likely to have a difference in their selection (contrast this to the results in NTEN's annual Tech Staffing & Investment research, where respondents indicate that they have the tools they need but not the training to use those tools well).

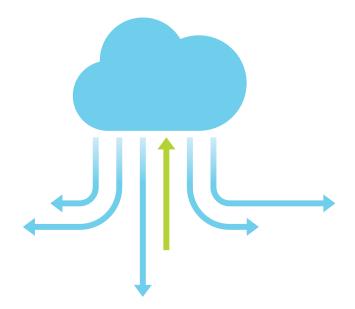


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Our intention in conducting this research for a second time was to understand how nonprofits leverage cloud services as these services expand and evolve. We also wanted this research to help us identify trends or concerns, and areas where we may be able to provide additional training or resources to help organizations make strategic decisions about technology that might best help them achieve their missions.

We hope you find this report valuable. If you have observations, feedback, ideas, or requests for how we can help you and your organization use technology, please let us know!

About NTEN: The Nonprofit Technology Network

NTEN

NTEN: The Nonprofit Technology Network is a community of over 70,000 nonprofit professionals transforming technology into social change. We aspire to a world where all nonprofit organizations skillfully and confidently use technology to meet community needs and fulfill their missions. We connect our members to each other, provide professional development opportunities, educate our constituency on issues of technology use in nonprofits, and spearhead groundbreaking research, advocacy, and education on technology issues affecting our entire community. Learn more at nten.org.

About Microsoft Philanthropies



Microsoft's mission is to empower every person and every organization on the planet to achieve more. Through Microsoft Philanthropies, we're

investing Microsoft's strongest assets to drive greater inclusion and empowerment of people who do not have access to technology and the opportunities it creates. These assets include our technology, societal investments, brand and voice, and the generosity and technical talents of our employees. To learn more, visit www.microsoft.com/philanthropies.



Current State of the Cloud

Are you currently using a cloud service that you access over the Internet for any of these things? Cloud services are a regular part of the digital environment. Every respondent indicated current use of cloud services for at least two purposes. Email services account for the largest use, with other established activities like office software, databases, and data storage ranking high. In general, if a respondent uses a service, it has been in place for at least a year.

Trending uses – those that respondents are considering or have recently implemented – include project management, accounting, virtual machines, and data analysis. These purposes also tend to be less well known, accounting for larger portions of the "Don't Know" response.

Based on these answers, cloud services are a significant component of the digital platform for most respondents, and most plan some growth in use.

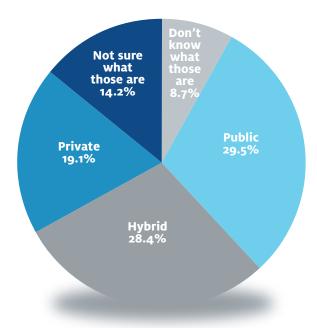
Answer Options	Used for more than 3 years	Used for 1 to 3 years	Used for less than 1 year	Considering	No Plan to Use	Don't Know
Broadcast email to constituents	117	26	7	10	15	8
Staff email	93	35	17	17	15	6
Office software (e.g. word processing, spreadsheets, etc.)	58	39	23	27	31	5
Document storage	56	47	17	30	24	9
Constituent database	81	20	14	36	25	7
Data storage	52	38	14	37	26	16
Databases	68	19	17	27	31	21
Phone system or voicemail	53	31	12	18	56	13
Photo sharing (e.g. Flickr)	40	32	9	17	76	9
Servers	49	24	6	30	44	30
Project management software	20	30	22	31	60	20
Custom applications	51	10	10	23	49	40
Accounting system	38	19	12	34	55	25
User network access & control	30	14	11	29	60	39
Operating Systems	34	15	5	23	72	34
Virtual Machines	30	17	6	19	67	44
Device management	20	19	9	24	64	47
Data Analysis & other BI	21	12	13	37	58	42
VLANs (virtual local area networks)	27	7	3	26	76	44



Are you using a Public Cloud, Private Cloud, or Hybrid Cloud model?

Cloud services are typically provided in one of two ways. Private clouds are run by the organization itself to provide expanded access and enhanced resource sharing. Public clouds are run by an outside entity (such as Microsoft, Google, or Amazon); they allow an organization to obtain the benefits of cloud services without expending internal resources and maintenance efforts. Some opt for a hybrid service, relying primarily on the security and control of a private cloud and using a public service to ensure access during usage spikes and server outages.

For respondents who are familiar with their options, cloud types are well distributed. A significant majority rely on some public component for their services.





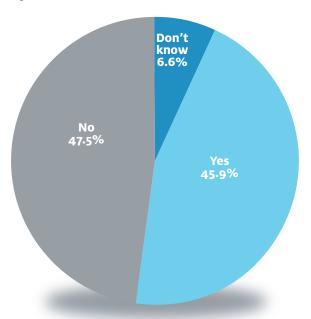
Decision-Making for Cloud Services

How do we make cloud services decisions?

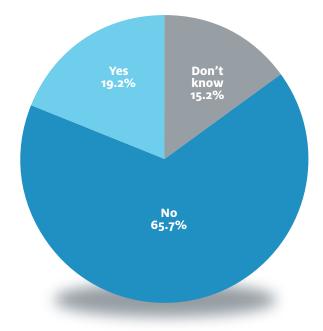
Organizations continue to make cloud services decisions, but many have established the environment they need. When it comes to making new decisions, reliable, safe access from any location is the most significant concern.

Only about half of respondents indicate selecting a new cloud service in the past year, which is consistent with the adoption information provided earlier in the survey. Respondents seldom actively reject a cloud service, with nearly 2/3 indicating they have never done this.

Did your organization make a decision to use a particular cloud service in the past year?



Have you specifically decided against using one or multiple cloud services for your organization?



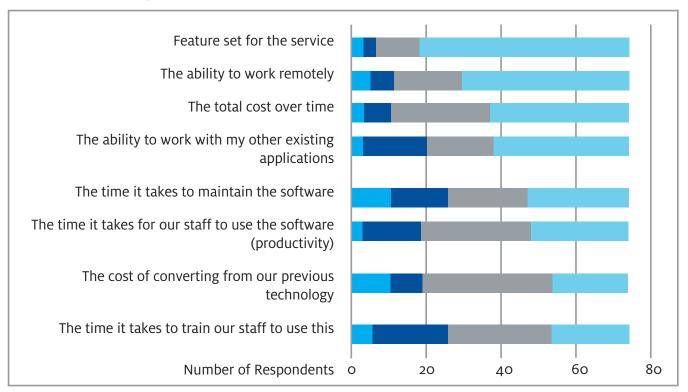


What type of cloud service did you most recently choose?

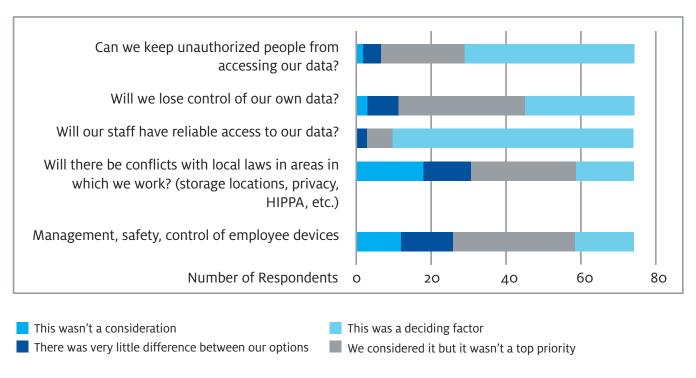
Answer Options	Response Percent
Document storage	18.7%
Other (please specify)	16.0%
Project management software	10.7%
Staff email	10.7%
Office software (e.g. word processing, spreadsheets, etc.)	9.3%
Constituent database	8.0%
Databases	6.7%
Phone system or voicemail	4.0%
Servers	4.0%
Broadcast email to constituents	2.7%
Accounting system	2.7%
Data storage	1.3%
Data Analysis & other BI	1.3%
Virtual Machines	1.3%
Device management	1.3%
User network access & control	1.3%
Photo sharing (e.g. Flickr)	0.0%
Operating Systems	0.0%
VLANs (virtual local area networks)	0.0%



When comparing your software options for that choice, how did the following concerns factor into your decision-making?



When comparing your software options, how did the following security concerns factor into your decision-making?





Just under half of all respondents indicated which service they adopted most recently. The largest categories were document storage, project management software, staff email, and office software. This is a mix of the most well-established services and those that are currently trending upward. Those who said "other" indicated a variety of services, with about a third naming a specific software product.

What type of cloud service did you most recently choose?

Answer Options	Response Percent
Document storage	18.7%
Other (please specify)	16.0%
Project management software	10.7%
Staff email	10.7%
Office software (e.g. word processing, spreadsheets, etc.)	9.3%
Constituent database	8.0%
Databases	6.7%
Phone system or voicemail	4.0%
Servers	4.0%
Broadcast email to constituents	2.7%
Accounting system	2.7%

Approximately 40% of respondents indicated what concerns went into their decision making for adopting cloud services. For general concerns, the most significant were features and remote access. Cost and interoperability were also notable factors. Staff adoption and training issues emerged as the area in which various options were the most similar, and time or cost of adoption were the least significant factors.

In terms of security, data access was a critical issue. the most significant concern by far was reliable access to data, with keeping out unauthorized people a distant second. Concern about conflicts with local laws was the smallest concern.



Return On Investment

What is the Business Impact of Adopting Cloud Services?

About 40% of respondents replied to questions regarding the return on their cloud services investment. These organizations were evenly split between those who actively measured ROI (52%, with 8% "substantially measuring") and those who did not (48%).

Respondents provided free text answers when considering the advantages and disadvantages of implementing cloud services. The replies fit into six broad categories.

Access includes collaboration, remote access, regional issues, and mobility. This was the most significant advantage given; it was also important to helping organizations meet their mission.

Behavior addresses changing habits of users, training, and adoption. It was only an issue in the disadvantages, where it accounted for the largest number of responses.

Features relate to the aspects of an implemented service, often related to a specific software package. This category was only mentioned as an advantage, and was not very significant in that analysis.

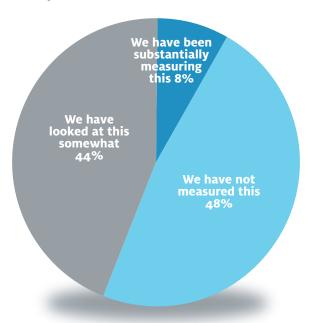
Performance includes flexibility, reliability, speed, consistency, support, security, and efficiency. These tended to be the longest and most enthusiastic replies. Performance was by far the biggest factor in helping with the mission and the second largest category for advantages. When mentioned as a disadvantage, this category almost always related to loss of control.

Resources, the classic business concerns of cost, staffing, and time. Approximately 20% of respondents listed this as an advantage and as a key factor in meeting mission. When considering this a disadvantage, most respondents referred to local internet access issues, either in terms of cost or network speeds.

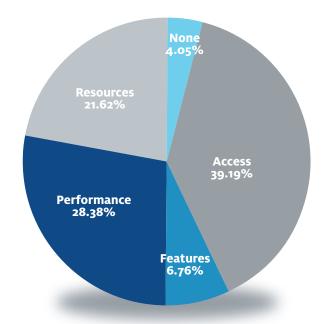
None, indicating that the respondent did not have an answer for the question or answered with some form of negative. Nearly a third of respondents replied this way for disadvantages. Most of these replies for advantages and mission came from respondents who indicated that their organization had not actively measured the impact of cloud services.



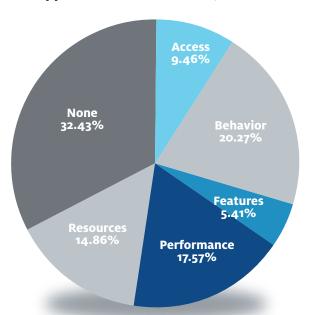
Has your organization measured the Return on Investment of your cloud service in comparison to other, installed solutions?



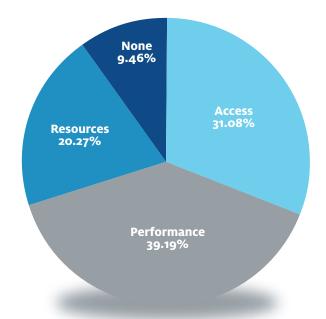
Have you found any specific advantages for your organization in using cloud services over installed? If so, what?



Have you found any specific disadvantages for your organization in using cloud services as opposed to installed? If so, what?



Do you feel that the cloud services you use help your organization meet its mission? If so, how?



What other concerns do you have regarding cloud services?

Only a few respondents completed this open-ended question. Those who did mostly cited issues of security, dependence on an outside entity (that might go out of business or be sold), and loss of local control.

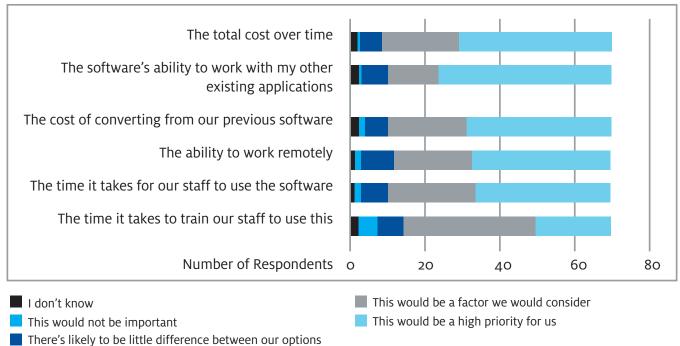


Comparing With Installed Services

When comparing a cloud service to an installed service, respondents weighed all the provided concerns seriously. When "high priority" and "a factor" responses are combined, five of the six issues were a factor for over 80% of respondents, with little variation. The two cost categories were slightly more significant. Staff training was also important, but rated highest in the "no likely difference" category. Security issues were given similar weight, with concern ranging from 85% to 94%.

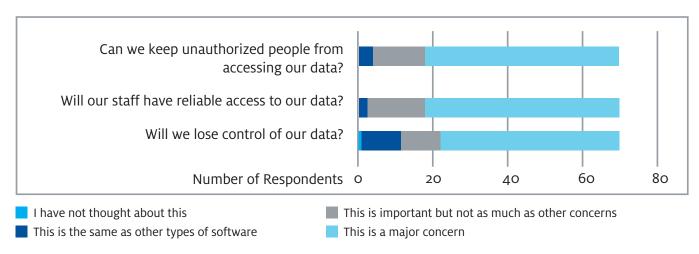
Respondents' free-text responses in for advantages and disadvantages fell into similar categories to the Return on Investment questions. Access was the largest advantage seen, with significant numbers noting performance and resource gains. Over 20% of respondents saw no real disadvantages. The biggest concerns were performance issues, mostly loss of control and issues of security.

When choosing between a cloud service and an installed software package in general, what are the major factors you would consider?

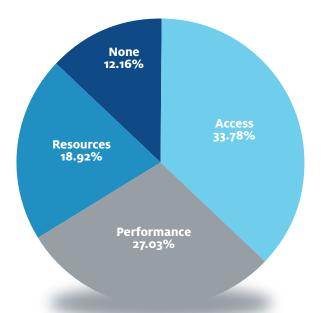




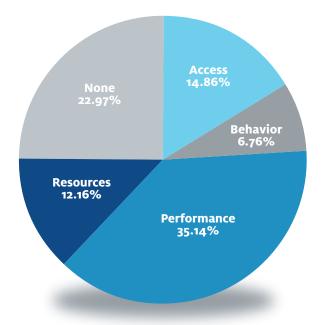
When thinking about cloud services, how do you feel about the following security concerns?



Do you think there are any specific advantages for your organization in using cloud services over installed? If so, what?



Do you think there are any specific disadvantages for your organization in using cloud services over installed? If so, what?

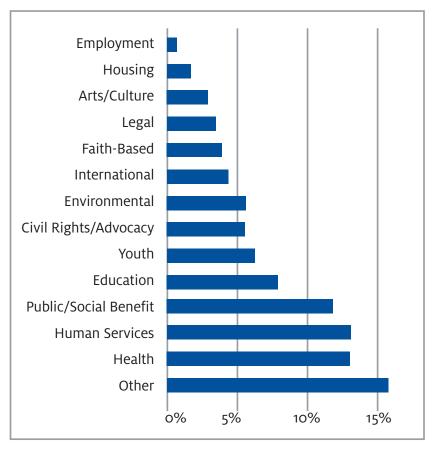




Demographics

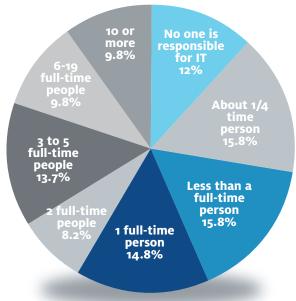
What best describes your organization's primary issue area?

The majority of respondents work in the areas of human and public services, with four categories accounting for nearly half of the responses.



About how many IT staff members does your organization have?

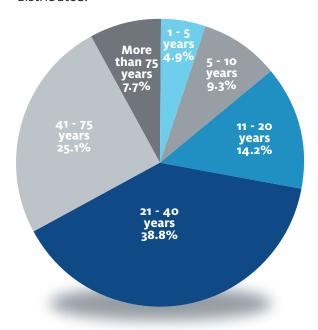
Numbers are fairly well distributed, aligned with overall size of the organization. Over half of respondents have one or fewer FTE assigned to IT.



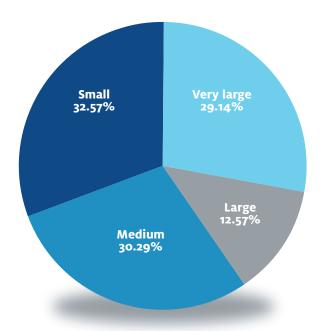


For how long has your organization operated?

The majority of respondents represented well-established organizations; over 2/3 have operated 20 years or longer. Approximately 15% were relatively new (five years or fewer), with the remaining organizations fairly evenly distributed.

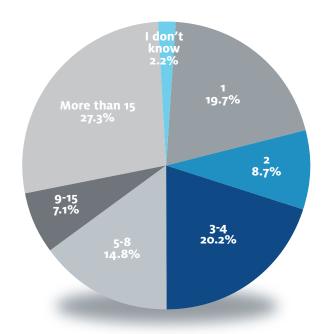


What is the approximate annual budget of your organization?



From about how many locations does your organization work? (offices, home, telecommuting)

Nearly 80% of respondents indicate multiple workplaces, with over 25% having more than 15.





In which state is your organization's headquarters?

Region	%
Mid-Atlantic	15.30%
Midwestern	11.48%
Northeastern	18.58%
Northwestern	13.11%
Southern	9.84%
Southwestern	6.01%
Western	19.13%
Canadian	1.09%
Other International	5.46%

