

Making the Business Case for Office 365™

An Osterman Research White Paper

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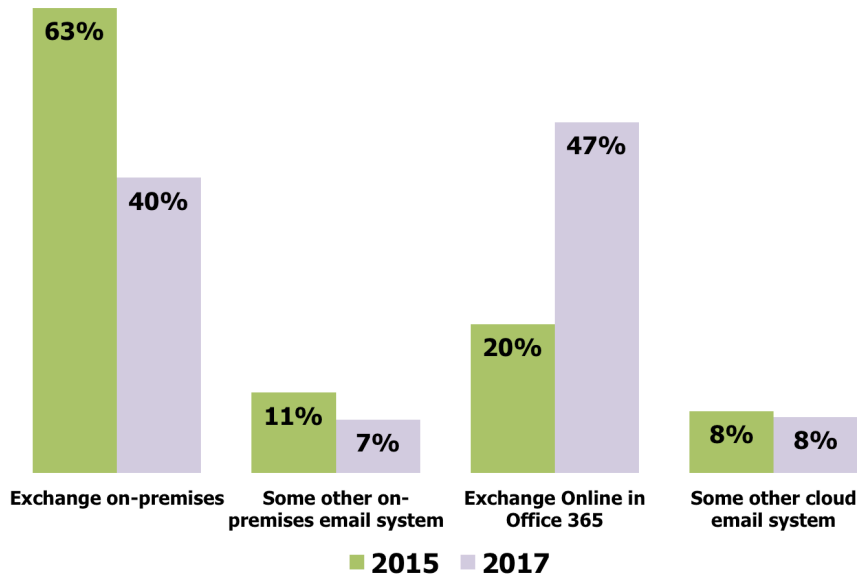
P.O. Box 1058 • Black Diamond, Washington • 98010-1058 • USA
Tel: +1 253 630 5839 • Fax: +1 253 458 0934 • info@ostermanresearch.com
www.ostermanresearch.com • twitter.com/mosterman

EXECUTIVE SUMMARY

The current iteration of Office 365™ represents Microsoft's 15-year-plus history of remotely hosted offerings that began in the late 1990s with hosted delivery of Microsoft Exchange through a variety of business partners.

So, can a business case be made for deploying Microsoft Office 365? Absolutely yes, and many organizations agree, as shown in the following figure that shows the projected growth of Office 365 over the next two years.

Figure 1
Distribution of Users by Platform, 2015 and 2017



Source: Osterman Research, Inc.

Microsoft delivers in Office 365 a highly capable set of offerings that offer a robust email, calendaring, scheduling, task management, desktop productivity, telephony, real-time communications, and collaboration experience. Moreover, Office 365 is offered in a variety of packages that allow decision makers to tailor these capabilities to their specific requirements, as well as those of particular groups of users within their organizations.

KEY TAKEAWAYS

- Organizations can substantially reduce their cost of ownership for communications and collaboration by eliminating virtually all of their up-front costs for deploying new or upgraded messaging systems, reducing their ongoing costs by minimizing the amount of IT labor required to manage these capabilities, and shifting problems to Microsoft's carrier-grade data center infrastructure and staff. Moreover, the difficulties associated with deploying new users and avoiding updates and migration efforts are eliminated by migrating to Office 365.
- Microsoft is shifting its offerings to the cloud for good reason: it generates more revenue by doing so. However, customers also benefit from substantially reduced costs of ownership for providing the communications and collaboration tools that their users require.

- Microsoft is a cloud vendor that organizations can trust to remain in the cloud business – and to continue to innovate – for many years to come.
- However, no vendor or solution can be all things to all customers. Consequently, there are some limitations in Office 365 that can be better addressed through the use of archiving, security, encryption, business continuity, disaster recovery and other solutions that are offered by third parties.

ABOUT THIS WHITE PAPER

This white paper was sponsored by Zix – information about the company is included at the end of this paper.

WHAT IS OFFICE 365?

Virtually anyone reading this white paper is no doubt generally familiar with what Office 365 is and does. However, in this section we simply want to provide a quick overview of the basics of Office 365 that might not be familiar to all readers, particularly the breadth of versions available in Office 365.

THE SHIFT FROM CAPEX TO OPEX

The shift to cloud services offers organizations of all sizes a way to gain access to communication and collaboration services without incurring the capital costs to build an on-premises environment, nor accepting the responsibility and related costs of managing the resulting on-premises infrastructure. Since Office 365 is, for all intents and purposes, rented as a cloud service and key infrastructure elements are not owned, organizations must continue to pay monthly or annual fees for the service. By no means is that a bad thing, but simply a different way of thinking about shifting the software mindset from acquisition costs to licensing fees: the shift from capital expenditures (CAPEX) to operating expenditures (OPEX).

To be sure, there are pros and cons associated with this shift. Among the benefits of operating internal infrastructure is the ability to bypass one or two upgrade cycles and thereby avoid the costs associated with migration from one version of Exchange (or some other platform) to another. For example, many organizations migrating to Exchange Online are migrating from Exchange 2003 or 2007, having never deployed Exchange 2010 or 2013. These organizations have been able to use products purchased a decade ago without incurring the potentially significant cost of a migration. Once an organization has shifted to Office 365, that option is no longer available. However, this also means that software is continually up-to-date and current with new standards, file formats, etc. So, by deploying Office 365, organizations can realize the benefits associated with migration to new platforms without incurring the difficulties associated with the migration process.

KEY FEATURES AND FUNCTIONS IN OFFICE 365

Office 365 consists of a variety of offerings, some or all of which are offered in the various plans offered by Microsoft:

- Business-grade email, calendaring and scheduling functionality with a 50 Gb mailbox.
- Full copies of Microsoft Office applications, including Word, Excel, PowerPoint, Outlook, Publisher and OneNote on up to five PCs or Macs.
- Microsoft Office on up to five mobile devices.
- Online versions of Word, Excel and PowerPoint.
- One terabyte of storage using Microsoft OneDrive for Business per user.

- Skype for Business, which offers voice, instant messaging and videoconferencing.
- Social media capabilities using Yammer.
- Various other tools and capabilities, including corporate intranets, Office Graph, a corporate video portal, business intelligence tools, group policy tools, and various compliance tools, among others.

SELECTING THE BEST PLAN FOR YOUR ORGANIZATION

Office 365 is available in a variety of use plans, at a number of price points, and tailored for several different markets, as shown in Figure 4 in the Appendix to this report. One of the advantages of Office 365, as with any cloud-based messaging and collaboration solution, is the ability to mix and match plans to suit various constituencies within an organization. For example, full-time information workers can be outfitted with a full suite of Office 365 solutions, while temporary workers, those who work in the field, or roaming employees (such as retail workers) can be enabled with a less feature-rich – and less expensive – plan. This can save significantly on communication and collaboration costs in an organization relative to the traditional, on-premises delivery model.

SHOULD YOU CONSIDER OFFICE 365?

Should decision makers consider Office 365 for deployment in their organizations? In a word, yes, and millions already have. Microsoft's own numbers show that as of late 2015 there are more than 60 million active Office 365 users in the commercial space and more than 18 million consumer subscribers¹. Office 365 is a robust offering with a large number of features that is continually being improved and updated. And, it's offered by a large, profitable and financially stable company that is now fully committed to the delivery of its offerings through the cloud first.

OFFICE 365 CAN LOWER THE COSTS OF COMMUNICATION AND COLLABORATION

Office 365, as well as other cloud-based communication and collaboration solutions, can significantly lower the costs associated with providing these capabilities to end users in a number of ways:

- **Minimal up-front costs**

One of the most significant ways in which Office 365 can lower the cost of ownership for communication and collaboration is by eliminating most of the up-front costs associated with deploying new systems. For example, a fresh deployment of Microsoft Exchange or an upgrade from one version of Exchange to another can be an expensive proposition because of the need to purchase servers, appliances, software and the other infrastructure elements necessary to support it. By using Office 365, the majority of these expenses are eliminated. Of course, most of the desktop and/or mobile infrastructure costs must still be incurred, but these represent only a fraction of the total cost of ownership for deploying a new system.

- **Potentially lower ongoing costs**

Another important advantage of Office 365 is its ability to eliminate virtually all of the ongoing costs of ownership associated with communication and collaboration. For example, an on-premises deployment of Exchange would require periodic upgrades of hardware as new users are added to the system, additional servers or appliances are added to deal with new threats, etc. These costs are eliminated when using Office 365.

Another important benefit of Office 365 is its ability to enable "rightsizing" of the communication and collaboration infrastructure. For example, if an organization has deployed an infrastructure capable of supporting 500 users, but then must

undergo a 20% reduction in staff, the use of Office 365 enables a significant cost reduction by allowing these now redundant accounts simply to be turned off. In a traditional on-premises solution, the infrastructure to support the 100 users who are no longer with the firm represent a sunk cost that the organization has paid for, but now cannot use until staffing levels return to the previous level. In short, the use of Office 365 provides greater certainty over costs, both in the short term and the long term.

- **Reduced IT labor costs**

One of the chief benefits of Office 365 is its ability to dramatically reduce IT labor costs. For example, in the typical Exchange-enabled organization, a full-time equivalent (FTE) IT staff member can support roughly 500 to 1,500 users, depending on the size of the deployment, the capabilities provisioned to users, and the geographic distribution of users, among other factors. Using Office 365, however, a single IT staff member can support significantly more users. For example, if we assume that each Office 365 user in an organization will require 30 minutes of support per year (an overly large estimate for most Office 365-enabled organizations), then an FTE IT staff member working 2,000 hours per year will be able to support 4,000 users.

Using the figures in the paragraph above, and assuming that the fully burdened annual salary of an IT staff member is \$75,000, the on-premises labor cost to support Exchange will be anywhere from \$50 to \$150 per user per year. The annual labor cost for Office 365, on the other hand, will be just \$18.75.

It is important to note that while some consider the use of Office 365 or other cloud-based solutions a means of eliminating now-redundant IT staff members, more forward-thinking organizations will view these cloud-based capabilities as a way of freeing up IT staff for initiatives that will provide more value to the organization. For example, regardless of how well an IT staff member manages an email server, this activity provides comparatively little value to the organization. However, if that same IT staff member could be freed to work on tasks that would provide greater competitive advantage – such as integrating mobile capabilities into the customer experience – the organization derives greater benefit from that IT staff member's time.

- **Problem shifting**

Another important benefit of Office 365 is what we're calling "problem shifting". When using Office 365, the problems of crashed servers, faulty storage, power interruptions, application faults, failed backups, corrupted data stores, and other problems do not go away – but for customers of Office 365 they do. Rather, these problems are transferred to Microsoft and are borne by their data center infrastructure and staff members. The result is a shift of problems away from customers – the organizations that provide Office 365 to their users – and to Microsoft who are arguably better equipped to deal with them than most of these customers. This can significantly reduce the cost of ownership for communication and collaboration, and is one of the primary reasons that IT staff members can support so many more users in an Office 365 environment.

However, it is important to note a couple of things. First, while email-related problems are shifted to Microsoft, users will still hold IT responsible for email outages and other problems, and so organizations that deploy Office 365 will still need to be prepared to deal with these problems. Second, an enormous opportunity created by problem shifting, and the resulting freeing up of IT staff time that was formerly devoted to managing on-premises infrastructure, is that IT can devote more attention to issues like insider threats, how and where sensitive information is being stored, and other critical issues.

- **Potentially higher uptime**

Another important cost benefit of using Office 365 is the potentially greater uptime that the system can offer when compared to traditional, on-premises

deployments. While many IT departments do a very good job at maintaining the uptime of their internal infrastructure, Microsoft is among the leading cloud providers that have invested heavily in robust data center deployments, redundant communication links, data georedundancy, and other carrier-grade capabilities that enable very high uptime.

While Office 365 has had some significant outages in the past, Microsoft has done a good job at building reliability into the system and today generally meets or exceeds its promised 99.9% Service Level Agreement. This is another significant cost benefit because it enables users to remain more productive than they otherwise could be.

WHY IS MICROSOFT SHIFTING TO THE CLOUD?

Organizations that are licensed to use Office 365 typically pay more to Microsoft over the long term. In a presentation to Wall Street analysts, highlights of which are shown below, Microsoft has claimed that it can earn up to 80% more revenue using the Office 365 approachⁱⁱ, while customers also benefit by eliminating various expenses when they migrate to Office 365:

- **New Microsoft Enterprise Agreement Customer**
 - On-premises: License + SA for first three years, SA only thereafter
 - Office: Office Professional Plus + Core CAL
 - Office 365: E-3
 - Increase in lifetime value: 20%
- **Existing Microsoft Enterprise Agreement Customer**
 - On-premises: Software Assurance
 - Office: Office Professional Plus + Core CAL
 - Office 365: E-3
 - Increase in lifetime value: 40%
- **Transactional Customer**
 - On-premises: buys every 5-7 years
 - Office: Office Standard + Core CAL
 - Office 365: E-3
 - Increase in lifetime value: 80%

Microsoft benefits from customers deploying Office 365 through:

- **A more consistent payment schedule**

Office 365 customers follow a more consistent payment schedule compared with organizations using traditional, on-premises approaches. For example, customers can no longer opt out of an upgrade cycle if they deem it unnecessary. In Microsoft's analysis, the transactional customer is the prime example of this transition, as they migrate from purchasing every five to seven years for on-premises platforms to paying on a consistent monthly basis for Office 365.
- **A different allocation for administration expenses**

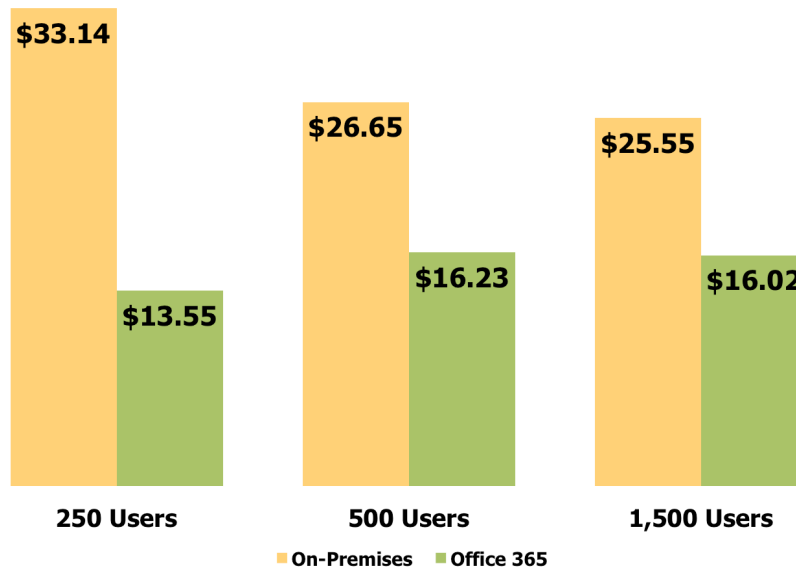
One of the chief benefits of Office 365 for its customers, as discussed later in this paper, is the significant reduction in IT expenses that they incur. However, these expenses don't simply disappear – instead, some of the greater revenue generated by Microsoft goes to maintaining the company's multiple, worldwide data centers and the staff to maintain them. While serving customers via a cloud model is generally more efficient than maintaining a much larger number of smaller on-premises deployments, the cost to Microsoft of building out and maintaining a robust worldwide network to support Office 365 is substantial.

In short, while Microsoft generates more revenue from the shift to Office 365, organizations that deploy it simultaneously reduce their costs by doing so.

COMPARING THE COST OF OFFICE 365 AND EXCHANGE

The following figure demonstrates the cost savings of Office 365 compared to Exchange for 250, 500 and 1,500 users. This figure was generated using the Osterman Research cost model that was developed for this white paper.

Figure 2
Office 365 vs. Exchange
Average Monthly Cost per User Over Three Years – 250 to 1,500 Users



Note: Office 365 Business Essentials for 250 users, Office 365 Enterprise 1 for other user counts

Source: Osterman Research, Inc.

Figure 3
Office 365 vs. Exchange
Distribution of Cost Elements

Cost Element		250 Users	500 Users	1,500 Users
On-Premises Exchange	Labor	35%	43%	45%
	Anti-virus and anti-spam filtering	4%	2%	1%
	Archiving	22%	14%	5%
	Cloud email fees	0%	0%	0%
	Downtime	10%	12%	13%
Office 365	Labor	5%	4%	4%
	Anti-virus and anti-spam filtering	7%	6%	6%
	Archiving	22%	18%	19%
	Cloud email fees	37%	49%	50%
	Downtime	5%	4%	4%

Note: Cost model assumes that availability for on-premises Exchange is 99.90% and 99.98% for Office 365.

Source: Osterman Research, Inc.

RAPID DEPLOYMENT OF NEW USERS

One of the key benefits of Office 365, as with any other cloud-based solution, is its ability to enable rapid deployment of new users. For example, a new hire can be fully provisioned with all of the Office 365 capabilities they will need within a few minutes. While this is not atypical for a well-managed, on-premises deployment, Office 365 enables more rapid deployment of a large number of users, as well as users in smaller firms that may not have dedicated IT staff who are proficient in provisioning new users.

AVOIDING THE PAIN OF UPDATES AND MIGRATION

Another important benefit of Office 365 is its ability to enable IT staff to avoid the difficulties associated with regularly applying server patches, performing appliance firmware upgrades, and managing all of the other minutiae associated with the administration of an on-premises IT infrastructure. This is an important benefit because it frees IT staff for other tasks that may provide more value to the organization.

Perhaps more importantly, the use of Office 365 enables organizations to avoid the pain of migrating from one version of Exchange to another, as well as migration between versions of SharePoint. Even at its best, migrating to a new version of Exchange or SharePoint is a significant undertaking that requires planning and proper execution, as well as time to deal with the problems that may arise. This is one of the key reasons that many Exchange- and SharePoint-enabled organizations skip versions, and why many organizations still support dated, legacy versions of the platform.

IMPROVED USER PRODUCTIVITY

Arguably, employees can be more productive when using Office 365 than they can be when using an on-premises solution. One way this comes about is by enabling greater uptime, which leads directly to higher productivity. However, because many versions of Office 365 also include Office for the Web and mobile platforms, this enables greater productivity when employees are traveling, working from home, working at a customer site, or any other time they are away from the office.

IMPROVED ORGANIZATIONAL AGILITY

Another important benefit of using Office 365 is its ability to enable improved organizational agility. For example, Office 365 – as well as other cloud-based solutions – make it much easier for employees to work remotely by providing them with their “desktop” tools from any location. This is particularly true for organizations that are using Skype for Business (formerly Lync Online), since it enables voice and other real-time communications capabilities in addition to email, calendaring and other functions from a single platform. Moreover, the use of Office 365 makes it much easier for organizations to provide a full suite of productivity applications to users in smaller or remote offices that may not have dedicated IT staff available and that want to avoid the costs of using external IT consultants. In addition, most Office 365 plans offer online versions of Microsoft Office, further enhancing the potential for making workers more productive when remote.

In a larger context, the use of Office 365 and other cloud solutions enables organizations to be more flexible and agile in how they deploy staff members. For example, an organization of 250 employees may need to provide office space only for 100 staff members, since the majority who are not in the office can be just as productive, in most cases, when working remotely. This would allow an organization to have a physical presence in a location with much more expensive office space (e.g., Manhattan or San Francisco), while significantly reducing its costs of real estate and facilities management.

MICROSOFT IS A LONG-TERM VENDOR

Finally, an important reason to use Office 365 is Microsoft itself. Unlike an on-premises solution that continues to operate even if its vendor(s) go out of business,

such is not the case in the cloud. Consequently, it is essential that when selecting a cloud vendor, a key element of the due diligence process is evaluating the financial health of the prospective vendors and assessing their long-term financial viability. Among cloud vendors, Microsoft is among the most financially solvent and cash-rich, and is highly likely to continue as a profitable and growing company for many years to come. This cannot be said for all cloud vendors, but Microsoft certainly allows an organization easily to “check the box” on financial viability in the context of performing due diligence on cloud vendors.

In addition to financial viability, Microsoft is also heavily committed to the cloud and the continued development of cloud-based solutions. The cloud has taken on a new sense of importance with the company’s current CEO, so much so that Microsoft’s focus is now cloud first, on-premises after. As just one minor example, Office 2016 was available in Office 365 roughly two months before it was available as a standalone, on-premises offering.

KEY ISSUES TO CONSIDER

NO OFFERING CAN BE ALL THINGS TO ALL CUSTOMERS

It is essential to note that no offering – cloud-based or otherwise – can be all things to all customers. Even though Office 365 comes in a variety of packages with different capabilities and a wide range of price points, decision makers must remember that the offering is intended for a mass audience. Consequently, the generalist nature of any cloud offering of this type necessitates that the developer implement features and functions that will appeal to the greatest number of current and prospective customers, meaning that some users will not have all of their needs met. That’s not a slam against Office 365 or any other cloud-based solution, but merely an acknowledgement that not every customer can be fully satisfied by any one solution.

Although Office 365 is a solid offering that is improving over time, there are some shortcomings that decision makers must consider as they perform their due diligence in making the decision of whether or not to migrate to the platform:

ARCHIVING LIMITATIONS

- Office 365 does not by default protect items in the archive from being tampered with or altered. The result is that archived mailbox content cannot necessarily be classified as immutable. In order to protect archived mailbox content from being modified, an administrator must originate an In-Place Hold or a Litigation Hold. Only from that point forward can the data truly be represented as unaltered.
- For the most part, centralized retention and archiving of emails in Office 365 is based on fairly basic policies and the placement of end-user tags. The three retention tags available in Office 365 are relatively basic and don’t really address the granularity of retention requirements for many corporate information governance environments because they are applied to an entire folder instead of an individual email message.
- Office 365 email archive mailboxes can fill up and stop accepting additional email. Administrators have the ability to assign archive mailbox quotas so that archives cannot grow beyond a certain size or age in order to avoid additional subscription costs. For some subscription plans, an unlimited archive mailbox size is the default, but on others a maximum mailbox/archive mailbox size could be the default. The issue surfaces when a quota-limited archive mailbox nears its limit, resulting in a warning message to the user, not the administrator or a compliance officer, for example. By default in Exchange Online, the archive-warning quota is set to 45 gigabytes and the archive quota is set to 50 gigabytes.

- The retention/disposition capability in Office 365 is somewhat basic in that the system can choose to retain, delete or archive based on email age and/or custodian, department, etc. While this does not make the disposition process indefensible (systematic disposal can be defensible if the reasoning is documented and is consistently followed), some CIOs and legal counsels need a more granular retention/disposition capability.
- The 58 file types that Exchange Online Archiving indexes will cover the majority of email attachments normally encountered in many organizations, but there are hundreds of different file types in use. This could result in missing the data needed in an Office 365 archive that is processed during eDiscovery data collection.

That said, there is a system command that an administrator can run to list unindexed files so that they can be exported for further processing and review. However, the administrator must remember to actually look for unindexed files during the search. If performed, this could increase the cost of review by collecting files that may not be relevant to the case, but that must be reviewed because they were not indexed. Moreover, there have been some cases in which individuals assigned to data collection for eDiscovery have not been technically proficient, and so would be unlikely to know how to find or list unindexed files.

- Office 365's eDiscovery workflow will not be adequate for many organizations, which can be a serious problem for organizations that are involved in frequent litigation. While the fairly limited 58 file types indexed noted above is a problem, there is a system command that an eDiscovery administrator can run to list those files not indexed so that they can be exported from the system for further eDiscovery processing and review. However, the eDiscovery administrator must remember to look for unindexed files during the search. This action will also drive up the cost of review by collecting files that may not be relevant to the case, but must be reviewed because they were not indexed. Moreover, there is a default timeout limit for Office 365 eDiscovery searches. Microsoft defines this default (set at 10 minutes) as *the number of minutes that an In-Place eDiscovery search will run before it times out*ⁱⁱⁱ. In other words, unless the administrator changes this default as Office 365 is installed, a large eDiscovery search will error out if it takes more than 10 minutes
- The audit reports in Exchange Online are purged every 90 days, an insufficient length of time for many organizations. Some regulations require audit logs to be stored for seven years, which is not available by default in Office 365. An Osterman Research survey conducted during 2015 found that only 62% of those surveyed consider the 90-day limit to be sufficient – among organizations that find this limit to be unsatisfactory, 24% want retention of six months and 38% require one year retention of logs.
- Microsoft stores Office 365 customer data in a number of different countries based on the location of the customer^{iv}. While this is done to enhance the performance of Office 365 by placing data closer to the customer, Microsoft can move customer data without notice and will not guarantee exactly where a customer's data will be stored for customers without a dedicated Office 365 deployment. Given that a dedicated deployment typically requires at least 20,000 users, this is not feasible for most customers.
- There is the potential problem of Office 365 (or any other single cloud provider) being the sole source of data. If there is not an independent store of the data for validation purposes, data corruption or deletion can result in deletion of the single source of "truth" for key business records. Best practice for a comprehensive information governance is to have an independent source of these records in a separate archive/data store.

SECURITY LIMITATIONS

- Given the havoc a successful virus or malware attack can unleash on an organization, Osterman Research has long advised clients to invest in multiple layers of email security: one in the cloud, and one on-premises. With Exchange now shifting to the cloud in Office 365, the advisory still stands, but with multiple cloud layers. Screening email for advanced threats—such as polymorphic malware, malicious URLs, and malicious attachments in the form of zero-day threats—prior to routing it to Office 365’s own email security services will greatly assure a cleaner mail flow and the removal of any attack vectors. This is particularly relevant as Office 365 grows in popularity and attackers invariably will shift from on-premise Exchange attacks to Office 365. With the continued escalation of attack methods, advanced protection is required that can emulate user and browser activity, provide per-user insight for threat remediation, and offer detailed reporting for post-infection clean up activities.
- All of the various Office 365 plans offer administrator management of the spam quarantine, but some plans allow access only via direct access to the Exchange Admin Center management interface^v. Moreover, Office 365 does not directly support the deployment of multiple spam filters in parallel with Office 365’s built-in spam protection.
- Some customers of Office 365 may not be satisfied with the protection from advanced threats native to the platform. While Office 365 did not previously offer protection from advanced threats, Microsoft has added more advanced protection from threats into Office 365. For example, the IP Throttling capability in Office 365 will analyze threats based on their source, but will sometimes block valid messages from sources that are not recognized. Moreover, Microsoft’s advanced threat protection capabilities, which includes attachment sandboxing capabilities to detect malware, come at an extra cost – \$2.00 per user per month, which is anywhere from 9% to 40% of the cost of an Office 365 plan.
- Sandboxing for URLs is currently not available. Emerging threats and zero days delivered through a Website-based payload will have a drastically reduced chance of being detected. In addition, the forensics and reporting capabilities provided by both Exchange Online Protection and Advanced Threat Protection are minimal and can make response to compromise difficult. For example, kill chain and attack campaign analysis aren’t provided as a part of the reporting capabilities.
- The native malware filtering in Office 365^{vi} is inexpensive, employs several scanning engines from leading security vendors, and the Service Level Agreement (SLA) claims to detect 100% of all *known* viruses with updates every 15 minutes. Microsoft’s SLA provides no assurances that they can or will detect emerging threats. Moreover, there are some limitations^{vii} in Exchange Online Protection that some Office 365-enabled organizations may want to avoid, such the 15-day spam quarantine limit, reporting and message trace limits, the number of outbound messages that can be sent per day, and limits on message size, among others. Moreover, some customers may be more comfortable adding an additional layer of inbound protection to improve abilities for phishing or spearphishing detection. Alternatively, they may simply want to add another layer of malware or spam filtering for additional protection beyond that which Microsoft provides.
- Graymail capabilities are included in Office 365, but graymail is classified as spam, making it appear identical to “actual” spam. DLP compliance template capabilities are also included, but they will not satisfy all customers’ needs. Moreover, it is essential to separate phishing content from spam, allowing for proper management of phishing messages (e.g., not placing phishing messages in the same quarantine as spam in order to prevent end users from opening

phishing messages and thereby compromising their PC and the corporate network).

- Large numbers of users can easily be added to Office 365, but where is it appropriate for them to have access? What happens if they leave and an organization needs to quickly remove their permissions across the various Office 365 services (Exchange, SharePoint, Skype et al)? These are important considerations that third party offerings may be better able to address.
- Spammers often will use forged email addresses in the return-path headers of their messages. When a mail system receives such a message for a non-existent user, for example, it can return the bounce message to the forged address, resulting in the generation of non-delivery reports (NDRs), or what is known as “backscatter spam”. There are limitations on the visibility into NDRs in Office 365 that are more adequately addressed by some third-party solutions.
- Office 365 Message Encryption is available as a part of Microsoft Azure Rights Management (at a surcharge of \$2.00 per user per month) and is included with the Office 365 Enterprise E3 and E4 plans. While the encryption in Office 365 is useful, there are some limitations that decision makers should consider: users cannot track document usage, they cannot revoke access to documents, support for Android and iOS users is available only through an app (which some IT departments will not allow users to download), key encryption options (e.g. S/MIME and PGP) are not supported, and new recipients of an encrypted message must provide sensitive information to create a Microsoft account in order to read the message. Moreover, encryption in Office 365 uses only a single delivery method (inclusion of an encryption HTML file in a clear text message pushed to the mailbox), but users must be online to decrypt the message because authentication is against the Office 365 service. Also, there is no facility for sending bulk emails or states, no audit or compliance reporting.
- Office 365 generally works well with mobile devices, but the capabilities for iOS and Android, for example, differ in the user experience. Also, the native apps available for SharePoint do not provide full SharePoint functionality.

OTHER CONSIDERATIONS

- Another important limitation of Office 365 is its lack of a business continuity solution that can be activated during outages. While Microsoft has done a good job of addressing availability concerns in Office 365, there continue to be outages as with any other on-premises or cloud-based email system. For example, Office 365 experienced a significant outage on July 15, 2015^{viii} and again 12 days later^{ix}, in addition to some other, minor outages that month^x.

What this speaks to is the importance of implementing a continuity solution that can keep Office 365 functionality running during these outages. Osterman Research has calculated that for the typical organization, the cost of user productivity loss during email outages is 20 cents per user per minute. This means that a single, 30-minute outage for a 500-seat organization will be \$3,000.

- It is also important to note that many, if not most, organizations will need to manage heterogeneous cloud environments. While email and productivity applications may be provided by Microsoft through Office 365, there are numerous non-Microsoft cloud applications in use with which Office 365 must get along, such as Salesforce, DocuSign, Box, Evernote and many others.
- Office 365 comes with a substantial amount of storage – 50 gigabytes for email inboxes and 10 gigabytes plus 500 megabytes per user for shared collaboration storage. That’s a significant amount and Office 365 provide additional storage at nominal cost. However, Microsoft does not currently provide an easy way to

determine how users or groups are using all of that storage. For example, third party tools to eliminate redundant information can help to keep storage under control.

- The one terabyte of storage in OneDrive for Business is impressive, but potentially creates problems. For what information are users placing into that storage? With whom are users sharing content with external parties? Is copyrighted information being stored in violation of the law?

MOST ORGANIZATIONS SHOULD CONSIDER THE USE OF THIRD-PARTY OFFERINGS

Osterman Research strongly recommends that the majority of organizations considering migration to Office 365 – particularly mid-sized and large organizations – should seriously consider the use of third party offerings to supplement the native capabilities in Office 365. These third party offerings include those that enable additional features and functions for archiving of email and other content, eDiscovery of archived content, anti-spam capabilities, anti-malware capabilities, advanced threat protection, encryption, business continuity, and disaster recovery. Here again, while Office 365 includes a number these capabilities, the platform cannot be all things to all organizations, and so contains some deficiencies that third party offerings can more adequately address. Moreover, the use of third party offerings to supplement the capabilities in Office 365 will mitigate the risks inherent in a single-vendor approach to managing communication and collaboration in the cloud.

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+1 888 771 4049

APPENDIX

The following figure offers an overview of the various Office 365 business-grade plans that are available as of late 2015.

Figure 4
Office 365 Business-Grade Plans

Industry	Plan	Max Users	\$ per User per Month	Email	Storage	Office Apps	Collaboration Tools
Business	Office 365 Business Essentials	300	\$5.00	●	●	OL	
	Office 365 Business	300	\$8.25		●	●	
	Office 365 Business Premium	300	\$12.50	●	●	●	
Enterprise	Office 365 Enterprise 1	No limit	\$8.00	●	●		●
	Office 365 ProPlus	No limit	\$12.00	●	●	●	●
	Office 365 Enterprise 3	No limit	\$20.00	●	●	●	●
	Office 365 Enterprise 4	No limit	\$22.00	●	●	●	●
	Exchange Online Kiosk	No limit	\$2.00	●			
	Office 365 Enterprise K1	No limit	\$4.00	●			●
Education	Office 365 Education E1	No limit	Free	●	●		●
	Office 365 Education E3	No limit	\$2.50 (students) \$4.50 (faculty)	●	●	●	●
Govt.	Exchange Online US Government Plan 1	No limit	\$3.50	●			
	Exchange Online US Government Plan 2	No limit	\$7.00	●			
	Office 365 Government E1	No limit	\$6.00	●	●	OL	●
	Office 365 Government E3	No limit	\$17.00	●	●	●	●
	Office 365 Government E4	No limit	\$	●	●	●	●
Non-Profit	Office 365 Nonprofit Business Essentials	300	Donation	●	●	OL	●
	Office 365 Nonprofit Business Premium	300	\$2.00	●	●	●	●
	Office 365 Nonprofit E1	No limit	Donation	●	●	OL	●
	Office 365 Nonprofit E3	No limit	\$4.50	●	●	●	●

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