



Executive Summary

If your organization has decided to standardize on Microsoft® OneNote® as a productivity and collaboration tool for mobile users, choose your mobile devices carefully. OneNote availability on most platforms does not mean that every platform is an equally good choice for business users.

Prowess Consulting put OneNote to the test on four mobile devices to determine which platform is the best fit for business use:

Table 1. Prowess consulting tested Microsoft® OneNote® on four mobile platforms

Dell™ XPS™ 12 2 in 1 powered by Intel® architecture and Windows® 8	Apple® iPad® powered by an ARM® based processor and iOS® 6	Microsoft® Surface™ RT powered by ARM and Windows RT	Lenovo® IdeaTab™ powered by ARM and Google™ Android™
<ul style="list-style-type: none"> 4th generation Intel® Core™ i7 processor Windows 8 	<ul style="list-style-type: none"> Dual-core A6X processor iOS 6.1.3 	<ul style="list-style-type: none"> Quad-core NVIDIA® Tegra™ 3 Windows RT 	<ul style="list-style-type: none"> MediaTek® Cortex™ A9 Android 4

We found that the user experience varies significantly across devices, and that some of the most powerful OneNote features for mobile business users are available only on devices running Windows® on Intel® architecture. Careful evaluation shows that the most complete and productive mobile user experience with OneNote is on devices running Windows 8 and powered by Intel® Core™ processors. Only on these platforms can mobile business users take advantage of the full power of OneNote through capabilities such as:

- **Audio and video recording**—Users can record meetings or interviews and embed the files in notes.
- **Intelligent media processing**—OneNote can recognize and process text inside handwritten notes, pictures, scanned documents, and even audio and video files, making it searchable and available for indexing.¹
- **OneNote add-ins**—Organizations can extend and customize OneNote capabilities through add-ins and custom apps.
- **Attached scanner support**—Users can easily capture documents or images and add them to notes.

These features are available exclusively on computers running Windows and powered by Intel architecture. Organizations that standardize on alternative mobile devices can inadvertently diminish the value of OneNote to their employees. The fullest mix of performance, security, and business-ready features can only be found with OneNote on devices running Windows 8 and powered by Intel Core processors. Read the rest of this paper for additional guidance about OneNote for mobile users.

Introduction: OneNote and Mobile Productivity

A challenge and an opportunity of the bring-your-own-device (BYOD), three-screen workplace is keeping workers productive across multiple devices. Microsoft OneNote can be an ideal fit for this environment: it is designed for collaboration and is available on almost any mobile device.

However, OneNote functionality is not the same across devices, and some of the most powerful features for business use are only available to users running OneNote on Windows. These features are enhanced by performance and security provided by Intel architecture. Even when used on companion devices, companies will find that workers are most productive using OneNote on 2 in 1 devices, Ultrabook™ devices, and tablets running Windows 8 and powered by Intel Core processors.

Prowess Consulting put four mobile devices to the test with OneNote to determine which platform is the best fit for business users. Our tests found that OneNote functionality varies across platforms.

Table 2. Microsoft® OneNote® across four different mobile platforms. For full configuration and test environment description, see Appendix A.

Dell™ XPS™ 12 2 in 1 powered by Intel® architecture and Windows® 8	Apple® iPad® powered by an ARM® based processor and iOS® 6	Microsoft® Surface™ RT powered by ARM and Windows RT	Lenovo® IdeaTab™ powered by ARM and Google™ Android™
			
<ul style="list-style-type: none"> • 4th generation Intel® Core™ i7 processor • Windows 8 	<ul style="list-style-type: none"> • Dual-core A6X processor • iOS 6.1.3 	<ul style="list-style-type: none"> • Quad-core NVIDIA® Tegra™ 3 • Windows RT 	<ul style="list-style-type: none"> • MediaTek® Cortex™ A9 • Android 4

Our tests showed that the best, most productive user experience with OneNote is on 2 in 1 devices, Ultrabook devices, and tablets running Windows 8 and powered by Intel Core processors. When you deploy OneNote on these platforms, users can enjoy the following capabilities they cannot get from OneNote on alternative platforms:

- **Record audio and video**—Users can record meetings or interviews and embed the files in notes.
- **Intelligent media processing**—OneNote can recognize and process text inside handwritten notes, pictures, scanned documents, and even audio and video files, making it available for search and indexing.¹
- **OneNote add-ins**—Organizations can extend and customize OneNote capabilities through add-ins and custom apps.
- **Attached scanner support**—Users can easily capture documents or images and add them to notes.

Use Case: Training and Education

Microsoft produced a white paper detailing the benefits of Microsoft® OneNote® on Windows® 8 in a 1:1 tablet deployment—that is, one tablet per student (available for download at <https://www.mseducommunity.com/Lists/News/DispForm.aspx?ID=136>). Not only could OneNote scale (8,900 OneNote notebooks for a single school year in a typical school of 1,200 students), but the notes and other materials students gathered in OneNote grew exponentially more useful when shared with teachers and parents for assessment and with other students for collaboration. OneNote did this without compromising control, with teachers, administrators, students, and parents all having different levels of access to different notebooks.

Even outside of education, the OneNote desktop app, which runs only on devices running Windows and powered by Intel® architecture, provides full-featured collaboration combined with control and security.

In addition, the OneNote desktop app running on devices powered by Windows and Intel processors provides the following advantages over mobile apps and the web app running on Apple® iPad® or Google™ Android™ devices:

- **Extensive formatting and proofing tools**—Users can customize the look and feel of their notes with rich, easy-to-use tools.
- **Advanced notebook organization features**—Users can stay organized with multiple ways to create, copy, and move notebooks and sections.
- **Integration with other Microsoft software**—Users can synchronize Microsoft® Outlook® tasks and meeting details with OneNote, e-mail OneNote pages, and edit Microsoft® Office files embedded in OneNote.
- **Document security**—OneNote can apply and consume data-protection schemes such as information rights management (IRM) technologies and password protection for notebook sections.

OneNote Overview

Based on the analogy of a tabbed notebook, OneNote lets users assemble typed and hand-written notes, drawings, screen clippings, and files anywhere on pages, which are then sorted into sections. Pages can be arbitrarily large and OneNote does not enforce any uniform layout or structuring on pages. Multiple users on a variety of platforms can work in the same notebook and on the same pages simultaneously.

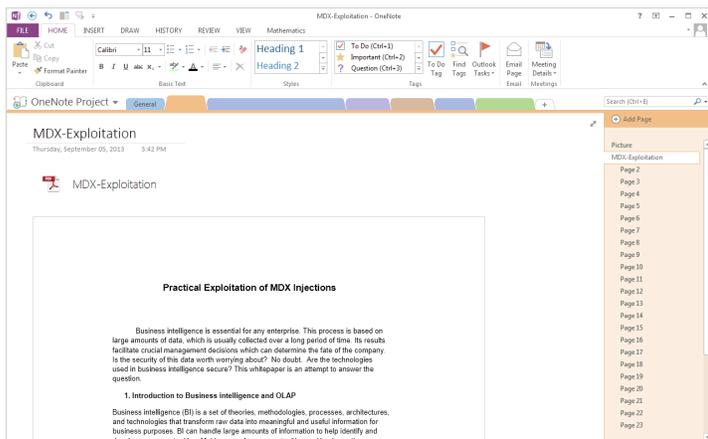


Figure 1. Microsoft® OneNote® 2013 user interface on a computer running Windows® 8 and powered by Intel® architecture

One Application, Several Versions

OneNote comes in five different versions, each with different functionality. It is available for Windows computers, iOS® devices, Android devices, Windows Phone devices, and Symbian™ mobile devices. A browser-based version of OneNote is provided as part of Microsoft® SkyDrive® and Microsoft® Office Web Apps for users who either do not or cannot install the desktop OneNote app on their devices. To distinguish between OneNote versions, table 3 shows the terminology and definitions we use in this paper:

Table 3. Versions of Microsoft® OneNote® and the devices we tested

Microsoft® OneNote® Versions		
Version	Description	Tested On
Desktop app	<ul style="list-style-type: none"> • A full installation of OneNote 2013 on devices running Windows® 8 (or Windows 7) and powered by Intel® architecture • Available as part of the Microsoft® Office 2013 suite, or with Microsoft Office 365™, or as a standalone application 	<ul style="list-style-type: none"> • Mobile device running Windows 8 and Intel architecture
Windows Store app	<ul style="list-style-type: none"> • A version designed for the Windows RT runtime environment on devices running Windows RT or Windows 8 • Available from the Windows Store 	<ul style="list-style-type: none"> • Mobile device running Windows 8 and Intel architecture • Microsoft® Surface™ RT
Office 2013 RT app ²	<ul style="list-style-type: none"> • A version that is part of Office 2013 RT and is specifically designed for Windows RT and ARM® architecture • Office 2013 RT (preview) is preinstalled on Windows RT devices, including the Microsoft Surface RT we tested 	<ul style="list-style-type: none"> • Microsoft Surface RT
Mobile app	<ul style="list-style-type: none"> • A version designed for the iOS® and Google™ Android™ operating systems • Available from various app stores for Apple® iPhone® devices, Apple® iPad® devices, and Android devices 	<ul style="list-style-type: none"> • Mobile device running Android and ARM • Apple iPad
Web app*	<ul style="list-style-type: none"> • A lightweight, browser-based version of OneNote built into Microsoft® SkyDrive® and Microsoft® SharePoint® Online • Available to view and edit OneNote notebooks in a browser session when the user is signed in to his or her Microsoft account 	<ul style="list-style-type: none"> • Mobile device running Windows 8 and Intel architecture

*Though all tested devices support some functionality within the OneNote Web App, it is useful primarily as a notebook viewing tool on iPads and Android mobile devices using mobile Apple® Safari® and Google™ Chrome™ browsers. At time of testing, editing and notebook creation using the web app on these platforms was difficult and erratic.

Want Full Features? Deploy the Desktop App

The most fully featured version is the OneNote desktop app, which runs on PCs, Ultrabook devices, 2 in 1 devices, and tablets running Windows 7 or Windows 8 and powered by Intel architecture. This version supports advanced features and capabilities not available in other versions, as you'll see in *Scenario 1: Intel Architecture, Windows 8, and the OneNote Desktop App*. For example, it supports intelligent processing on graphics, video, and audio files embedded in OneNote pages.¹ This processing, called OCR, enables advanced search features and indexing of text inside media files. OneNote can also replay audio concurrently with notes taken during the recording.

Why Your Hardware Platform Matters

Your organization's platform choice dictates the version of OneNote users can use, and therefore defines the limits of your users' ability to maximize the tool for collaboration and productivity. These differences can have profound impacts on the usefulness of OneNote for teams of business users. To underscore this impact, this section shows the experience that a team using OneNote would have on various mobile platforms:

- Scenario 1: The OneNote Desktop app on Intel architecture and Windows 8
- Scenario 2: The OneNote Windows Store app on Windows RT or Windows 8
- Scenario 3: The Office 2013 RT OneNote app on Windows RT and ARM
- Scenario 4: The OneNote mobile app on iPad and Android devices
- Scenario 5: The OneNote Web App

Scenario 1: The OneNote Desktop App on Intel® architecture and Windows® 8



The only team members to benefit from the full business-ready feature set for OneNote are those using the OneNote desktop app. Only this version provides advanced functionality that lets OneNote fully flex its muscle as a collaboration and productivity tool for business users. And this version is only available on devices running Windows 7 or Windows 8 and powered by Intel architecture.

Use Case: Team Research

When users store Microsoft® OneNote® notebooks on Microsoft® SkyDrive® and Microsoft® SharePoint® and share them with colleagues, OneNote can become a super-wiki for teams. OneNote accepts text, ink, images, audio, video, files, or any combination to meet team needs at any stage of a project.

For example, a team working on a new consumer product could use a dedicated, password-protected notebook for the project stored on the corporate SharePoint site. Within the notebook, team members could create new sections as necessary, to which they could post video from focus groups, annotated audio recordings of interviews, and pictures of prototypes. The data put into OneNote is also fully searchable. Team members can search for key words in specific sections or across notebooks for raw text, handwritten text, text in embedded images and document files (including PDF files and scanned documents), and even phonetic searches of audio and video files. They can also limit their searches to data inserted by specific users. Only the OneNote desktop app, which runs on devices powered by Windows and Intel, can combine all of these features with the flexibility of 2 in 1 devices, Ultrabook™ devices, and tablets.

Record Audio and Video

Team members who are equipped with the desktop app and a mobile device powered by Intel architecture and Windows can record audio and video files—from within the OneNote interface—and embed the files in notebooks for playback and sharing. This is an easy and effective way to capture and share meetings, interviews, demos, or other audio or video content, all without leaving the OneNote app.

Extend OneNote Capabilities

The desktop version of OneNote is also unique in its support for add-ins both from Microsoft and from third-parties. Add-ins extend the functionalities of OneNote and can enhance OneNote as a productivity tool. For example, a mathematics add-in for OneNote and Word could simplify the insertion of equations into OneNote and also graph and solve those equations. An add-in called Onetastic is recommended by the OneNote development team, and was created by one of its members. This add-in provides a macro processor for OneNote, in addition to other features, such as a calendar view, to be used in your notes. Organizations can also create their own add-ins for OneNote to customize it and optimize its usefulness—but only the desktop OneNote app, which runs on devices with Windows and Intel architecture, can use them.

Expand the Usefulness of Media Files

Users of any OneNote version can view images embedded in notes. However, team members who are using the desktop app on a device powered by Intel architecture and Windows can do more with embedded media than users on alternative platforms. That's because OneNote 2013 indexes the text in embedded documents, pictures, and recordings so that it is searchable and, in some cases, available for copying through the following technologies:

- **Optical character recognition**—When you place pictures, screen clippings, or scanned documents into OneNote 2013, OneNote automatically uses OCR to make text in the picture or document searchable. You can also choose to copy scanned text out of the picture or document or select specific portions of text to copy to your clipboard.
- **Phonetic indexing**—When you embed or record audio or video clips in OneNote 2013, you can choose to make those clips searchable. When this option is selected, text searches in OneNote 2013 will also return results from audio and video clips, along with the time marker for where they occur in the recording; clicking these results will play the clip at that point.

These features make a wider assortment of content searchable, and then the OneNote desktop version can complement that assortment with search options that are not available in the mobile apps or the web app. In addition to searching by word or phrase, users can search by tag, author, or date—options that are not available in the mobile apps. Importantly, OneNote searches in the desktop and mobile versions span all of the notebooks to which the user has access (as opposed to just searching within the current section—a limitation of the web app). This greatly increases the value of OneNote for users with access to many notebooks with a lot of content in them.

OneNote desktop app users on platforms powered by Intel architecture and Windows also enjoy capabilities that are either limited or not available with mobile apps or the web app, including advanced formatting and proofing, notebook organization, and integration with other Microsoft software.³

Advanced Formatting and Proofing

All versions of OneNote provide some capabilities for formatting text in notebooks. However, the desktop version provides a complete assortment of formatting and proofing features that are not found in most other versions. These capabilities are more than cosmetic: comprehensive, granular options for paragraph formatting and styles help make raw text more readable and help team members collaborate effectively. For example, plain text extracted from a scanned document can be formatted to look like the original document, or to emphasize key ideas.

Proofing options on these platforms also extend beyond the cosmetic. In addition to simply pointing out spelling and grammatical problems, OneNote provides the same multilingual thesaurus and dictionary features as Microsoft Word, in addition to translation features. Proofing in the desktop version is also available in nearly twice as many languages as the iPad version (52 languages versus 27).⁴

Additionally, the full assortment of tags available on Windows and Intel platforms can make notes and research materials easier to find, easier to organize, and easier to share with colleagues.

Take Advantage of More Notebook Organization Options

Users of the OneNote desktop app on Windows and Intel mobile devices have the complete range of options for creating, moving, and rearranging notebook sections and pages. Mobile apps and the web app version can create, rename, and delete notebooks, sections, and pages.

Users of the desktop app can also do much more in terms of organization. They can move entire notebooks, move and copy sections and pages, view previous versions of pages, and merge pages to keep things simple. Additionally, this version allows users to create, manage, and store OneNote notebooks as local files. Local creation and storage can enhance productivity by allowing users to create new notebooks when there is no Internet connectivity—while on airplanes, for example.

Integration with Other Microsoft Software

OneNote integration with Outlook in the desktop version also provides additional value. Business users can send tasks and emails from Outlook to OneNote and sync completion of those tasks with Outlook. They can also easily import meeting details from Outlook into notes and can choose to take meeting notes independently or share the meeting notes with colleagues. If they choose to share notes with colleagues, integration between OneNote 2013 and Outlook inserts a link to the shared notes in the Outlook invitation, which helps simplify communication and collaboration as meeting attendees can quickly view and edit shared notes. Users of the desktop app can also email OneNote pages through Outlook with the click of a button.

Import from an Attached Scanner

Users of the OneNote desktop app can import scanned images directly from an attached scanner without switching to another app. This capability lets users capture scans more efficiently than on other platforms, contributing to overall productivity.

Data Protection

Users of the desktop app can secure sensitive information stored in notebooks by adding password protection to specific sections. These versions also support IRM technologies such as Active Directory® Rights Management Services (AD RMS). These features can help protect information from unauthorized access in a fast-moving, collaborative environment, and they are either not available or are limited in the web app and in mobile apps. Users of the web app can view and edit password-protected content, but cannot apply password protection. The mobile apps can neither open password-protected content nor apply password protection. No version other than the desktop one can accommodate IRM-protected notebooks.

Complement Functionality with Intel Architecture
OneNote users on mobile devices running Windows 8 and powered by Intel Core processors can enjoy additional security benefits because security features built into Intel Core processors extend the security features of OneNote 2013. OneNote uses CryptoAPI: Next Generation (CNG) to take advantage of Intel AES-NI, a cryptographic instruction set that accelerates AES data encryption and decryption on devices powered by Intel Core processors.⁶ The enhanced cryptographic performance delivered by Intel AES-NI allows users to reap the benefits of strong encryption for OneNote notebooks without imposing any significant performance hit on a mobile device. Moreover, Intel Secure Key creates high-quality, true digital random numbers on the processor to better secure encrypted files.

Intel processors can also speed up the computationally intense features in the desktop version of OneNote. For example, additional processing power helps speed up OCR on embedded documents. Our testing demonstrated performance improvements of 42–49 percent in OCR between 3rd generation and 4th generation Intel Core processors.⁶ **Powered by a 4th gen Intel Core processor, OneNote 2013 on the Dell™ XPS™ 12 2 in 1 device we tested completed OCR processing almost 15 times faster than OneNote 2013 RT on the Microsoft® Surface™ RT powered by ARM® architecture.**⁷ Increased processing power can also help with indexing audio and video files. Because it allows indexing to run in the background, a powerful processor can help OneNote deliver value to users more quickly.

Scenario 2: The OneNote Windows Store App on Windows 8 or Windows RT



Team members can use the OneNote Microsoft store app either on a Windows RT device or a Windows 8 device.



OneNote Microsoft Store App
This version is designed for the new set of Windows RT APIs that can run on Windows RT or Windows 8 and is available from the Windows Store. It is unique among

OneNote versions for its context-sensitive radial interface, which lets users perform almost all functions in OneNote without having to navigate to a different part of the screen (see Figure 2). The OneNote Windows Store app also takes advantage of Windows RT search functionality to provide more complete search options and results than those available in the OneNote Web App.

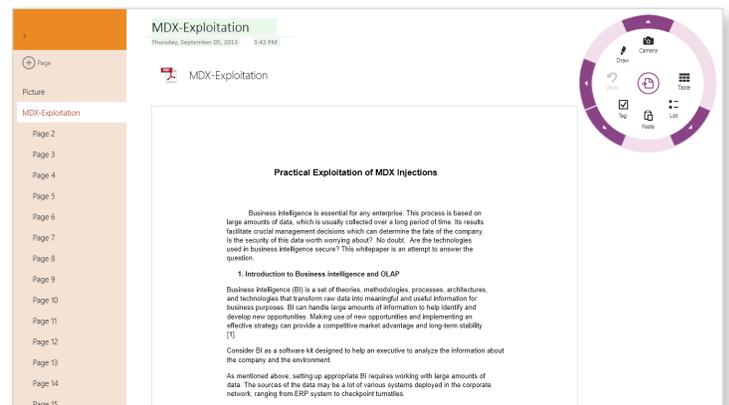


Figure 2. Microsoft® OneNote® Windows® Store app running on Windows RT with ARM® architecture. Radial menu visible in the upper right.

While users of this version of OneNote enjoy several more features than users of the OneNote mobile apps or web app, the OneNote Windows Store app is aimed squarely at the consumer market. It is missing key business-ready features found in the OneNote desktop app—such as support for password protection, IRM, and the ability to identify colleagues who are working on a notebook simultaneously.

The OneNote Windows Store app also lacks the intelligent media processing that lets users search inside embedded graphics and scanned documents. Business users will also feel its lack of integration with Outlook—users cannot e-mail notebook pages or import meeting details from Outlook to OneNote like they can in the desktop app. Users who want this functionality will have to switch to OneNote 2013 (on Windows 8 devices) or OneNote 2013 RT (on Windows RT devices).

Scenario 3: The Office 2013 RT OneNote App on Windows RT and ARM®

This version is specifically designed for Windows RT and ARM architecture and is preinstalled on Windows RT devices as part of as Microsoft Office Home and Student 2013 RT (either final or preview).⁹

At first glance, OneNote 2013 RT looks and behaves much like the desktop app that runs on platforms powered by Windows 8 and Intel processors, but users of the OneNote 2013 RT app will notice several missing features. For example, they cannot:¹⁰

- Record audio or video and embed these files in their notebooks
- Extend OneNote functionality with add-ins, macros, and custom apps
- Search inside audio and video
- Directly import images or text into a notebook from a scanner
- Interact with Outlook from OneNote¹¹

In addition, organizations should understand the licensing limitations of the preinstalled OneNote 2013 RT version. Microsoft states, “As sold, Office 2013 RT is not designed for commercial, nonprofit, or revenue-generating activities. However, organizations who purchase commercial use rights or have a commercial license to Office 2013 suites that include Outlook can use Office 2013 RT for commercial, nonprofit, or revenue-generating activities.”¹²

Scenario 4: The OneNote Mobile App on Apple® iPad® and Google™ Android™ Devices



Organizations that deploy iPads or Android tablets for their business users limit their users’ access to OneNote features to those offered by the mobile apps or the web app. These users enjoy the sleek tablet form factor and touch interface, but they make a significant tradeoff because their interface and editing tools are rather basic: users can perform simple editing and tagging, can create and delete notebooks, sections, and pages, and can work in notebooks at the same time as other users. What surprises a lot of users, however, is that while they can view “inked” drawings and

handwriting in notebooks, the OneNote mobile app does not support drawing with a stylus or finger. Worse still from a work perspective, the mobile app cannot open password- or IRM-protected notebook sections.

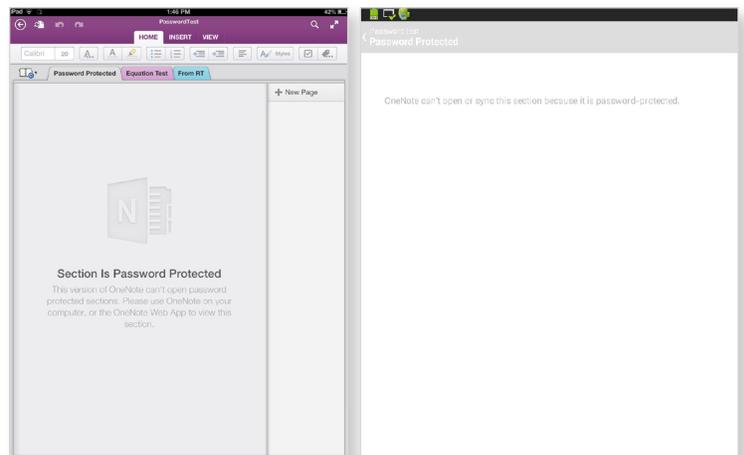


Figure 3. The Microsoft® OneNote® mobile app for Apple® iPad® devices (left) and Google™ Android™ tablets (right) cannot open or sync password-protected notebooks

Scenario 5: The OneNote Web App

Team members who do not or cannot install the full-featured desktop app can use the OneNote Web App through most browsers. This version provides rich text formatting, tagging, proofing tools, the ability to insert tables and pictures, and access to previous versions of notebook pages. Users can also create new notebooks in either consumer SkyDrive accounts or on SharePoint, and can take advantage of some features not available in OneNote mobile apps.



Figure 4. Microsoft® OneNote® web app Home ribbon

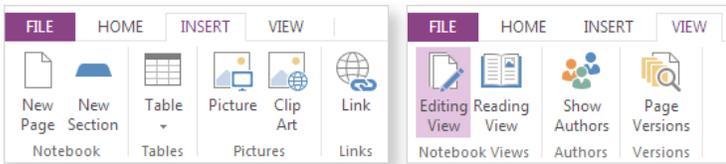


Figure 5. Microsoft® OneNote® web app Insert and View ribbons

For example, the web app provides proofing tools and lets users toggle author tags indicating which authors inserted which text.

But the OneNote Web App can also leave much to be desired. The biggest drawback for users of the OneNote Web App is the lack of any offline viewing and authoring. Moreover, notebooks created with the web app must reside on the cloud or the corporate network; they cannot be saved locally. Even when connected to the network, OneNote Web App users still lack some useful business capabilities such as embedding files into notebooks, searching notebooks by tags or authors, and OCR to enhance searching and to get more use from media files. However, in contrast with coworkers using the OneNote mobile apps, users in the OneNote Web App can open password-protected notebooks (though they cannot edit notebooks protected by IRM technologies).

Concluding Thoughts

In the three-screen, BYOD era, many information workers have two (or more) companion devices, and it is something of a false dichotomy to view the different versions of OneNote as an either-or choice. Microsoft has specifically designed OneNote to work on a variety of platforms so that user can access, consume, and share their data on the best platform for a given situation. That said, OneNote functionality across these platforms is not uniform. Organizations that choose to standardize on OneNote and then further choose, for reasons of fashion or finance, to standardize on mobile devices not running Windows 8, needlessly diminish the value that their employees can gain from OneNote, possibly without knowing it until well after devices are purchased and deployed to users. Organizations can unlock the full potential of OneNote by running the OneNote desktop app on Windows 8 devices powered by Intel Core processors.

Appendix A

We examined OneNote in its various iterations across four different devices:

Table 4

Device Model	Basic Configuration	Microsoft® OneNote® Version(s)
Dell™ XPS™ 12-9Q33 2 in 1*	Windows® 8 Dual-core Intel® Core™ i7 processor 4500U 8 GB RAM	OneNote 2013 (desktop app) installed under volume licensing agreement (15.0.4517.1003)
Apple® iPad® 4	iOS® 6.1.3 Dual-core A6X 1 GB RAM	Microsoft OneNote for iPad (mobile app) version 2.1.2
Lenovo® IdeaTab™	Google™ Android™ 4 MediaTek® Cortex™ A9 (ARM v7)	Microsoft OneNote for Android (15.0.2020.2302)
Microsoft® Surface™ RT	Windows RT Quad-core NVIDIA® Tegra™ 3 (ARM) 2 GB RAM	<ul style="list-style-type: none"> OneNote Windows Store app installed from the Windows Store in June, 2013 OneNote 2013 RT (15.0.4517.1003)

All usability tests were performed while the devices were connected to a wireless (802.11n) network under normal business-use conditions.

* The Dell XPS 12 was the only tablet-like device powered by a 4th generation Intel Core processor available at time of testing. It is obviously packed with more computing power than the rest of the devices. This was intentional: our goal was to examine the extent to which the tablet hardware affected user experience with OneNote, not simply to compare in-class devices to each other.

Appendix B

This appendix gives more detail about the features available on the different versions of OneNote. It is not an exhaustive list, but captures significant points of overlap and divergence between the various OneNote versions.

Table 5. Features by mobile device and Microsoft® OneNote® version

	Apple® iPad® 4	Lenovo® IdeaTab™	Microsoft® Surface™ RT	Dell™ XPS™ 12	All Devices	
Microsoft® OneNote® Version	OneNote 2.1.2 for iOS® 6	OneNote for Google™ Android™ (15.0.2020.2302)	OneNote 2013 RT	Windows® Store OneNote App	OneNote 2013	OneNote Web App
Feature	Compatibility					
Advanced collaboration						
New content shows as unread			√		√	
Presence					√	
Identify concurrent authors			√	√	√	√
Show or hide authors			√		√	√
Microsoft® Outlook® integration					√	
Share			√		√	√
View previous page versions			√		√	√

	Apple® iPad® 4	Lenovo® IdeaTab™	Microsoft® Surface™ RT		Dell™ XPS™ 12	All Devices
Microsoft® OneNote® Version	OneNote 2.1.2 for iOS® 6	OneNote for Google™ Android™ (15.0.2020.2302)	OneNote 2013 RT	Windows® Store OneNote App	OneNote 2013	OneNote Web App
Feature	Compatibility					
Advanced capture functions and file management						
Record audio and insert in notes		√			√	
Record video and insert in notes					√	
Embed files	√ (from camera or camera roll)	√ (from camera or camera roll; recorded audio)	√	√ (from camera)	√	√ (Images only)
Download copies of embedded files			√		√	√
Edit embedded Microsoft Office files			√		√	
Clipping experiences			√		√	√
Playback embedded audio		√	√		√	
Playback embedded video		√	√		√	
Note formatting and editing						
Bullets and numbering	√ (1 bullet, 1 number style)	√ (1 bullet, 1 number style)	√ (many styles)	√ (several styles)	√ (many styles)	√ (several styles)
Equations (add, edit, view)			√	√ View/edit only	√	
Insert hyperlinks	√		√		√	√
Proofing tools	√		√	√	√	√
Styles	√		√	√	√	
Tables (create)	√		√		√	√
Apply page templates			√		√	
Undo and Redo			√	√	√	√

	Apple® iPad® 4	Lenovo® IdeaTab™	Microsoft® Surface™ RT		Dell™ XPS™ 12	All Devices
Microsoft® OneNote® Version	OneNote 2.1.2 for iOS® 6	OneNote for Google™ Android™ (15.0.2020.2302)	OneNote 2013 RT	Windows® Store OneNote App	OneNote 2013	OneNote Web App
Feature	Compatibility					
Search capabilities						
Apply tags	√		√	√	√	√
Search by tag			√		√	
Search by author			√		√	
Search by date			√		√	
Image optical character recognition (OCR)			√		√	
OCR enables searching text embedded in images	√	√	√	√	√	
OCR enables searching text embedded in audio					√	
OCR enables searching text embedded in video					√	
Digital ink support						
Ink viewing	√	√	√	√	√	
Ink input			√	√	√	
Convert ink to text and math			√		√	
Customizable pens			√	√	√	
Drawing tools			√	√	√	
Notebook management						
Create and manage notebooks, pages, and sections	√	√ create pages only	√	√	√	
Cross section/notebook page filing			√	√	√	
Section re-order			√	√	√	√
Create/delete section groups			√		√	
Offline viewing and authoring	√			√	√	
Security						
Consume IRM			√		√	
Open password-protected notebooks			√		√	

Advanced Collaboration

Users can identify and authenticate other authors more easily with the integrated profiles in OneNote, and they can simultaneously edit notebooks with people in other locations. Users can search for notebook changes and revisions by authors' names and view all recent edits when they return to a shared notebook.

- **New content shows as unread:** OneNote shows pages that have content on them unread by the user.
- **Presence:** OneNote integrates with Microsoft® Lync® to show the presence information of authors.
- **Identity concurrent authors:** Users can see a listing of authors currently working in a given notebook at a given time.
- **Show or hide authors:** Users can turn off the author tags that appear when a user edits a notebook. This will remove the initials that appear next to new notes on a page. Author tags are turned on by default.
- **Microsoft® Outlook® integration:** OneNote supports commands that work with Outlook, such as **e-mail page**, **Outlook tasks**, or **meeting details**.
- **Share:** Users can share notebooks saved to a consumer SkyDrive account or a SharePoint document library with other users.
- **View previous page versions:** Users can view and restore previous versions of a page, including who wrote the page and when. Changes relative to previous versions of a page are automatically highlighted.

Advanced Capture Functions and File Management

- **Record audio and insert in notes:** From within OneNote, users can record audio notes that are directly linked to any text notes they take while the recording is made.
- **Record video and insert in notes:** From within OneNote, users can record video notes that are directly linked to any text notes they take while the recording is made.

- **Embed files:** Users can insert files as attachments (the actual file is embedded in the notebook) or printouts (an image of the file is embedded) to store them as part of the notebook. Users can also insert pictures taken from cameras embedded on their devices, and they can insert Outlook meeting details and Outlook tasks into OneNote or e-mail a OneNote page to Outlook.
- **Download copies of embedded files:** Users can download embedded files to their device to open them.
- **Edit embedded Microsoft Office files:** Users can create or import Microsoft® Excel® spreadsheets and Microsoft® Visio® diagrams within OneNote and edit their information in place in their notes. Inserted files show up as icons on the notes page. Users can double-click any icon to open the associated file.
- **Clipping experiences:** Users can clip whatever they see on their screen; for example, to send a web page or an entire document to a notebook section, or to jot down quick notes that are automatically saved and filed as part of a notebook.
- **Playback embedded audio:** Users can play embedded audio.
- **Playback embedded video:** Users can play embedded video.
- **Clipboard:** Users can cut, copy, and paste content in a notebook.

Note Formatting and Editing

- **Bullets and numbering:** Users can apply bullet styles or numbering styles and can use the Increase Indent and Decrease Indent buttons to change the list level for existing bulleted and numbered lists in a notebook.
- **Equations:** Users can write or type math equations into OneNote and it can calculate the results within the notebook.
- **Insert hyperlinks:** Users can insert a hyperlink to a web address or apply a link to selected text. They can also right-click a page tab to copy a direct link to that page.

- **Proofing tools:** OneNote automatically checks spelling as users type and applies a wavy red underline to misspelled text. Common autocorrect actions are included, such as correcting misspellings or converting characters to symbols. Additionally, users can set the proofing language or turn off the spelling checker for selected text.
- **Styles:** Users can apply text styles, change paragraph alignment, increase or decrease the indent from left margin, or change text direction from left to right.
- **Tables:** Users can insert tables, edit table text, and edit basic table structure (such as by adding or deleting rows and columns). This can also include advanced table features, such as converting a table to an Excel spreadsheet, cell shading, header rows, and data sorting within table cells.
- **Template support:** Users can utilize a template as a page design that can be applied to new pages in their notebooks to give them an appealing background, a more uniform appearance, or a consistent layout.
- **Undo and redo:** OneNote has undo and redo actions for each page that is edited in the active notebook. OneNote gives users a separate undo history for each page edited in the active notebook; users can undo an infinite number of actions per page during the current editing session, until either a picture is inserted or an edit is received from another author. Moving and deleting pages cannot be undone.
- **Linked notes:** Users can link note-taking to files.

Search Capabilities

Users can use the instant search feature to recall anything they have ever created or saved in OneNote.

- **Apply tags:** OneNote enables users to apply a variety of tags to notes for easy organization and follow-up. For example, flagging notes as questions, to-do items, or contact information.
- **Search by tag:** Users can use advanced search features to search by tag.
- **Search by author:** Users can use advanced search features to search by author.
- **Search by date:** Users can use advanced search features to search by date.

- **Optical character recognition (OCR) enables searching text embedded in images:** OCR automatically translates images of text, such as scanned documents, for indexing. Users can also copy the extracted text from the indexed file to a notebook page.
- **OCR enables searching text embedded in audio:** OCR can phonetically scan embedded audio files for indexing.
- **OCR enables searching text embedded in video:** OCR can phonetically scan embedded video files for indexing.

Digital Ink Support

- **Ink viewing:** Users can view ink.
- **Into-to-text and match:** Users can draw, erase, and edit with their finger, stylus, or mouse and can convert handwriting to text or equations.
- **Customizable pens:** Users can customize their “pen,” or digital ink input method, such as by changing its color or width.
- **Drawing tools:** OneNote includes tools that let users do more with digital ink, such as a lasso select, panning hand, and eraser.

Notebook Management

- **Create and manage notebooks, pages, and sections:** Users can add to new or existing notebooks and create new pages in sections or new sections in notebooks.
- **Cross section/notebook page filing:** Users can customize, format, move, and copy pages between notebooks and sections, in addition to using drag-and-drop page filing.
- **Section re-order:** Users can re-order sections.
- **Create/delete section groups:** Users can create and delete section groups.
- **Offline viewing and authoring:** Users can view and edit notebooks while disconnected from the Internet.

Security

- **Apply and consume IRM:** OneNote can display notebooks protected with IRM technologies such as AD RMS.
- **Open password-protected notebooks:** OneNote can apply password protection and can open and edit notebooks that are encrypted with a password.

- ¹ Microsoft refers to this capability as optical character recognition (OCR). OCR works for digital ink and images in Microsoft® OneNote® 2013 RT, but not for audio and video. OCR works for all of these media types in OneNote 2013 (also referred to as the desktop app in this paper).
- ² Organizations that are considering Windows® RT devices and that hope to standardize on Microsoft® OneNote® 2013 RT should consider the licensing implications of their decision. Microsoft warns that “Office 2013 RT is not designed for commercial ... activities. However, organizations who purchase commercial use rights or have a commercial license to Office 2013 suites that include Outlook can use Office 2013 RT for commercial, nonprofit, or revenue-generating activities.” Source: Microsoft. “Office 2013 RT Frequently Asked Questions.” October 2013. <http://office.microsoft.com/en-us/home-and-student/office-2013-rt-faqs-FX103210361.aspx>.
- ³ The next capabilities discussed in this section are also available in Microsoft® OneNote® 2013 RT. We include them here because our experience testing found that the advanced features that are exclusive to the desktop app (OneNote 2013) are most useful within the full context of a rounded user experience that includes advanced features that are also available in OneNote 2013 RT, but not on mobile apps or the web app.
- ⁴ For a count of languages, we referred to the Microsoft® OneNote® for iOS® documentation (<https://itunes.apple.com/us/app/microsoft-onenote-for-ipad/id478105721?mt=8>) and the languages included in the Microsoft® Office Language Pack 2013 proofing tools (<http://office.microsoft.com/en-us/language-packs/microsoft-office-language-pack-proofing-tools-multilingual-support-FX101828851.aspx>).
- ⁵ CNG is set to AES by default: <http://technet.microsoft.com/en-us/library/cc179125.aspx>
- ⁶ Research conducted by Prowess Consulting on September 5, 2013 using OCR in Microsoft® OneNote® for a 32-page PDF document on an Intel® Core™ i5-2410M processor and an Intel Core i7-4500U processor.
- ⁷ Research conducted by Prowess Consulting on October 2, 2013. Test conditions: import a 32-page PDF document using Microsoft® OneNote® 2013 RT running on a Microsoft® Surface™ RT powered by a quad-core NVIDIA® Tegra™ 3 (ARM®) processor. Import a 32-page PDF document using Microsoft® OneNote® 2013 running on a Dell XPS 12 mobile device running Windows 8 and powered by an Intel® Core™ i7 4500U processor.
- ⁸ Mobile devices running Windows® 8 and powered by Intel® architecture can support the Windows Store app and the desktop app, so users on Windows 8 tablets do not need to choose between the two.
- ⁹ This version does not include Microsoft® Outlook®. Microsoft states that the Microsoft® Office 2013 RT version of Outlook will be included on tablets running on Windows® 8.1 RT Preview or Windows 8.1 RT (once it's available). <http://office.microsoft.com/en-us/home-and-student/office-2013-rt-faqs-FX103210361.aspx>
- ¹⁰ This is a representative list of features that will have the most direct impact on user experience, but it is not a comprehensive list. Other features missing from Office 2013 RT include support for Visual Basic for Applications (VBA) and management through Group Policy Object (GPO).
- ¹¹ As of October 17, 2013, Microsoft® Office 2013 RT does not include Microsoft® Outlook®.
- ¹² Microsoft. “Office 2013 RT Frequently Asked Questions.” <http://office.microsoft.com/en-us/home-and-student/office-2013-rt-faqs-FX103210361.aspx>.



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