Summary
Texas A&M University has a legal responsibility to provide IT services that are accessible to users with disabilities. As private entities, Google and Microsoft do not have the same obligations.

Several lawsuits have been filed against institutions of higher education for failing to meet accessibility requirements, for example:

- Louisiana Tech (2013)
- South Carolina Technical College System (2013)
- University of Montana (2012)
- Florida State University (2012)

Typically, this involves a school relying on web-based services for providing course materials. A disability advocacy organization and/or student finds the service to be inaccessible, and they file suit. Investigations often grow into accessibility reviews of the entire organization, beyond the scope of the original complaint.

To minimize our exposure to these risks and provide equal access, it’s important to work closely with vendors to ensure we offer services that are accessible to all, including users with disabilities.

Are Google Apps and Office 365 accessible?
Google Apps presents significant challenges for assistive technology users. The Office 365 web apps also present challenges, but users have the option to continue operating Microsoft’s traditional desktop software with the Office 365 service.

Both services are a set of highly complex web applications. A full accessibility evaluation of each application requires considerable time and ideally, the input of assistive technology users. This report represents a high-level review, drawing general conclusions from a condensed accessibility evaluation and public information. Its intent is to raise awareness, and provide a baseline for the selection committee to consider the accessibility of each service.

Recommendations
The current level of accessibility and the vendor’s commitment to improving the accessibility of their product, should be factors in determining which service will be provided to the University.

1. Request Voluntary Product Accessibility Templates (VPAT) from both vendors
2. Review VPATs, evaluate and test vendor claims
3. Learn from others by requesting public information (e.g., other universities’ contracts)
4. Invite assistive technology users to participate in pilot programs and provide feedback
5. Determine accommodation strategies for each product (i.e., what equivalent service or product will be offered for users who cannot use all or part of the service due to accessibility barriers?)
6. Include accessibility requirements in contract negotiations
Google Apps
The accessibility of Google Apps has come under considerable scrutiny since it began making a push into the Education sector a few years ago. Specifically, in 2011, the National Federation of the Blind (NFB) filed complaints with the U.S. Department of Justice against Northwestern University and New York University (plus four school districts in Oregon) for violating Section 504 and the Americans with Disabilities Act by adopting Google Apps.

After the formal complaint by the NFB, Google has made efforts to improve this aspect of their products, but overall accessibility remains low. Universities that have adopted Google Apps often provide alternative services and restrictions to accommodate users with disabilities.

Accessibility Evaluation
Google Apps are designed to run on Google’s Chrome browser/Chrome OS, and they are most accessible when used in conjunction with these products. When using other assistive technologies and browsers, there are many more accessibility issues.

In particular, the user experience when running Google Chrome and ChromeVox is good. It’s clear that Google optimized their web apps to work well with their web browser and screen reader extension. However, when running other screen readers and web browsers, the user experience was considerably worse. While some operations were still accessible, it was clear that less effort was made to optimize the experience.

The following are general observations after using a combination of ChromeVox, JAWS, NVDA, and ZoomText with Chrome, Firefox, and Internet Explorer. Keyboard-only access was also evaluated in these browsers.

Email
- Tab order is illogical
- Rich text editing tools often aren’t available
- Difficult to access labels (i.e., mailbox folders)

Calendar
- The Agenda View generally works well, but other views do not
- Keyboard focus is not always visible

Documents
- Keyboard focus is not always visible
- Unable to add accessibility features when creating/adding content (e.g., alt text, table headers)
- Accessing toolbar functions in all applications is difficult without understanding application-specific keyboard shortcuts

Additional Information
- Google Apps Documentation and Support – Accessibility
- Google Apps Documentation and Support – Administrator Guide to Accessibility
- Google Product VPATs

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1 https://support.google.com/a/topic/3035040?hl=en&ref_topic=29157
2 https://support.google.com/a/answer/2821355?hl=en&ref_topic=3035041
Benchmarking
For universities who have implemented Google Apps, it’s common practice to acknowledge the accessibility shortcomings of the products, and restrict the use of particular applications and/or recommend alternative accommodations for users with disabilities. For example, advising users with disabilities to access email using the desktop client of their choice and providing technical assistance.

The following universities have implemented Google Apps.

**University of Texas**
Applications within the Google Apps suite other than Gmail are not permitted for official university business (e.g., as required elements of course curriculum), because they do not currently meet the university’s accessibility standards.\(^5\)

Gmail is permitted using any email client, not exclusively through the Gmail interface.\(^6\)

Since the University of Texas shares the same legal responsibilities as Texas A&M, it may be useful to contact the Accessibility Coordinator to discuss their adoption of Google Apps and accessibility accommodations.

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**University of Arkansas**
IT Services has a help page dedicated to addressing Google Apps accessibility. It provides accommodation information.\(^7\)

Google Drive documents should be converted to Microsoft Office formats before sharing.

Gmail and Calendar can be configured for use with desktop clients. Students can also request Exchange mailboxes.

**North Carolina State University**
IT Services has a help page dedicated to addressing Google Apps accessibility. It outlines limitations for Google Apps and accommodations.\(^8\)

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\(^3\) [http://www.athenpro.org/google-gmail-calendar-accessibility](http://www.athenpro.org/google-gmail-calendar-accessibility)
\(^4\) [http://www.athenpro.org/google-docs-accessibility](http://www.athenpro.org/google-docs-accessibility)
\(^5\) [http://www.utexas.edu/its/email/FAQs](http://www.utexas.edu/its/email/FAQs)
\(^6\) [https://www.tsl.state.tx.us/slrm/blog/?p=4831](https://www.tsl.state.tx.us/slrm/blog/?p=4831)
\(^7\) [https://techarticles.ukr.edu/google_apps/google_apps_and_accessibility_guidelines/](https://techarticles.ukr.edu/google_apps/google_apps_and_accessibility_guidelines/)
\(^8\) [http://google.ncsu.edu/accessibility/google-apps-accessibility](http://google.ncsu.edu/accessibility/google-apps-accessibility)
No limitations imposed for “personal use.” Google Drive documents should be converted to Microsoft Office formats before sharing. Recommend assistive technology users access email and calendar using desktop clients.

Provide a Bookmarklet for assistive technology users to automatically download Google Drive documents, making it easier to save the file and open it in Microsoft Office.9

**Stanford**
IT Services has a help page dedicated to addressing Google Apps accessibility. It provides basic recommendations for assistive technology users accessing email, calendar, and Google Drive, with links to Google’s help documentation.10

Email can be configured to use desktop clients.

Desktop clients are recommended for Calendar. If assistive technology users choose the web interface, the Agenda view is recommended.

**Other Institutions of Higher Education with Google Apps**
- Abilene Christian University
- Arizona State University
- Boise State University
- Boston College
- Brown University
- California State University Monterey Bay
- Central Piedmont Community College
- George Washington University
- New York University
- Northwestern
- UC Davis
- University of California, Santa Cruz
- University of Connecticut
- University of Michigan
- University of Minnesota
- University of North Carolina at Greensboro
- University of Notre Dame
- University of Southern California
- Utah State University

**Office 365**
The accessibility of Office 365 has not received much attention. The Office desktop applications have good support for assistive technology. Since Office 365 allows users to continue operating the Microsoft Office desktop applications, the accessibility of the Microsoft Office web apps has probably not been scrutinized as closely as Google Apps.

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9 [http://accessibility.oit.ncsu.edu/tools/google/download-doc/](http://accessibility.oit.ncsu.edu/tools/google/download-doc/)
10 [https://itservices.stanford.edu/service/googleapps/emailcalendar/accessibility](https://itservices.stanford.edu/service/googleapps/emailcalendar/accessibility)
Accessibility Evaluation
Office 365 web apps, in general, are fairly accessible. There are issues that make them more difficult than the desktop equivalents, but many of the core functions are accessible with assistive technology.

During the evaluation, Internet Explorer crashed three times (twice while running JAWS and once while running ZoomText). This proved to be the most challenging issue, and certainly a point of concern. However, many factors could contribute to this issue; the web apps may not have been the cause.

The following are general observations after using a combination of JAWS, NVDA, and ZoomText with Firefox and Internet Explorer. Keyboard-only access was also evaluated in these browsers.

Email
- Button labels not always available

Calendar
- Keyboard focus is not always visible

Documents
- Accessing toolbar functions in all applications is difficult without understanding application-specific keyboard shortcuts

Additional Information
- [Accessibility in Microsoft Products – Office 365](http://www.microsoft.com/enable/products/office365/)
- [Microsoft Product VPATs](http://www.microsoft.com/government/en-us/products/section508/Pages/default.aspx)

Benchmarking
Most organizations that have adopted Office 365 seem to have done so recently, with many still in the process of migrating their services. No public information was found that specifically addressed the accessibility of Office 365 or accommodations for users with disabilities.

The Texas Health and Human Services Commission (HHSC) migrated to Office 365 recently. Since HHSC is also a Texas state agency, their legal responsibilities will be similar to Texas A&M. Contacting their CIO may provide useful information on how they met accessibility requirements.

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Institutions of Higher Education with Office 365
- Duke University
- Emory University
- Florida State University
- George Mason University

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Google Apps and Office 365 Accessibility Report

- Georgia State University
- Texas A&M University-San Antonio
- Thomas Jefferson University
- Tulane University
- University of California, Santa Barbara
- University of Iowa
- University of Nebraska
- University of New Mexico
- University of Southern California
- University of Texas at San Antonio
- University of Washington