

# ***AFB Consulting American Foundation for the Blind***

## **AFB DISCOVER 508 REPORT**

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# AFB Discover 508 Report

## Executive Summary

AFB Consulting (AFBC), the consulting division of the American Foundation for the Blind (AFB), conducted a comprehensive accessibility and usability evaluation of the Discover 508 for SharePoint software from Discover Technologies of Reston VA. The product evaluation compared Out of the Box (OOTB) SharePoint in SP 2010 and SP O-365 with Discover 508 for SharePoint, a software solution designed to make SharePoint easier to use. AFBC tested and compared these products based on how well they interact with various screen reader software products used by people with vision loss to access Windows computers.

Testing results clearly illustrate that Discover 508 has significant usability advantages over the out of the box experience in both environments. The usability and accessibility advantages allow a blind or visually impaired person to complete tasks much more easily and quickly than in the OOTB environment. The superior usability comes largely from a more intuitive, well-designed architecture that is easier to navigate and more suitable for efficiently accomplishing tasks. It also lacks inaccessible pop-ups and other features designed with only sighted users in mind. A clear and easy to use set of instructions provided by Discover 508 is another significant advantage over the OOTB experience, providing step-by-step guidance and allowing a beginner user to learn how to use the system.

Discover 508 provides an environment that is more suitable for use with screen readers, with a markup that includes among other things, properly coded headings, properly labeled links and form elements, and properly formatted and tagged tables. Properly tagged headings allow a person using a screen reader to quickly navigate to the headings that indicate the important sections of the page, and it also allows screen reader users to get a better concept of the overall layout and logical hierarchy of the page. Discover 508's properly labeled form elements let screen reader users determine things like a particular type of edit field, such as Document Title or Date. They also help make combo boxes, check boxes, and radio buttons easier to use. Discover 508 also avoids the use of poorly formatted and tagged tables experienced in the OOTB environment.

With the Discover 508 for SharePoint solution, AFB testers found it substantially easier to manage calendar events, upload and edit documents and collaborate with team members. Time spent learning the system and completing individual tasks was significantly shorter when using Discover 508.

While SharePoint has made progress with their “More Accessible” mode, Discover 508 clearly stands out as the more accessibility usable solution. Although we found that we could eventually complete most tasks we attempted in the out of the box environment, there were some inaccessible tasks that we could not complete without sighted assistance. The level of frustration and confusion was also significant. For example, simply changing the name of a document took nearly 20 minutes in our initial attempt. Adding a folder to a document library is an example of the difficult and sometimes illogical nature of the OOTB experience. Rather than beginning the process with something intuitive like a “New Folder” or “Add Folder” link, the user first has to activate a “New Document” link. AFBC usability testers spent nearly 40 minutes trying to determine how to create a document library, including time spent with SharePoint’s online help instructions, some of which were helpful and some of which were not. The instructions that did help get the job done said to go to “Settings” and then “Add an App,” which obviously lacks a logical or intuitive path.

Discover 508 for SharePoint avoids all that difficulty and confusion. The experience with the Discover 508 solution was much more intuitive and streamlined, giving a person with vision loss the ability to complete each task as effectively and efficiently as his or her sighted peers. This is extremely important in today’s competitive job market, giving people with vision loss the ability to compete on an even playing field with their sighted peers.

## **Evaluation Methodology**

Discover Technologies provided the test environments for both platforms in both OOTB and Discover 508 modes. Discover 508 associate Bruce Stover visited the AFB Tech product evaluation labs in Huntington WV to assist with the setup and to observe the first full day of testing. Discover 508 provided the lists of tasks to test on each platform/mode. The four attached documents contain the task lists for each test scenario.

Three AFB Tech accessibility and usability experts, two blind and one sighted, tested each task on each platform/mode on Windows 7 and Windows 8 computers, using two popular screen readers and two popular web browsers. The JAWS for Windows versions 14 and 15 and NVDA version 2014.1 screen readers were used on Internet Explorer 10 and 11 and the latest version of Firefox. Testers detailed any accessibility or usability issues that they encountered with each task. The goal was to compare the accessibility and usability differences between Discover 508 and OOTB on the SharePoint 2010 and Office 365 platforms.

Note: OOTB has a “More Accessible” mode, and that mode was active during all testing on the OOTB platforms.

## **Evaluation Results**

Test results were dramatically in favor of the Discover 508 solution on both the Office 2010 and Office 365 platforms. Testers using screen readers could more easily complete the tasks using Discover 508, and in a much less time consuming manner. Testers could eventually complete nearly all the tasks using the OOTB environment, but the tasks were much more difficult, frustrating, and time consuming. Results did not significantly vary between the two screen readers or web browsers used in testing.

In both the OOTB and Discover 508 environments, 22 tasks were tested on the 2010 platform and 39 on the 365 platform. Rather than detail the experience on each of the tasks tested, we will summarize the results in general and detail the areas where accessibility or usability barriers exist.

## **Discover 508 Results**

For the overall majority of tasks tested in the Discover 508 environment, our test notes were clear and simple: “successful with no issues.” The only exception is:

- 1) People picker label not read properly. Discover is using a custom modified version of the people picker that was made to be more accessible than the out of the box SharePoint people picker.

## **OOTB Results**

Even with “More Accessible” mode enabled, usability was a significant problem on both the 365 and 2010 OOTB platforms. The lack of clear instructions added to the problems because when interacting with the OOTB environment, it is not clear at all as to the proper steps to take. Nearly every task had a usability or accessibility issue, and even though many tasks can be completed if the screen reader user has the patience, most cannot be completed efficiently in a competitive employment situation. A user will gain some efficiency if forced to use this environment on a regular basis, but some tasks will remain completely inaccessible. Detailing all of the OOTB issues would extend this report dozens of pages, so only select issues will be used to illustrate the situation.

## OOTB 365 Testing:

The Log in form was not accessible. Although savvy screen readers might complete the task, average users will not.

Opening a file displays a screen with the document, but you cannot read or edit it with a screen reader.

You can use the Word web app to open and edit a document, but the process is extremely cumbersome and unintuitive.

Throughout the testing process, testers encountered unlabeled form elements.

To edit a document's properties, you have to open an "Open" drop down menu, and then scroll around to find and activate another "Open Menu" item to finally bring up the menu used to edit the document's metadata.

Most pages had no useful heading structure.

When using JAWS in Internet Explorer to navigate the pages line by line, phantom edit fields that were not visible to the sighted tester kept appearing and slowing progress. The JAWS user has to continuously press the escape button to leave the phantom edit fields and continue scrolling

Simply changing the name of a document took nearly 20 minutes in our initial attempt.

Adding a folder to a document library is an example of the difficult and sometimes illogical nature of the OOTB experience. Rather than beginning the process with something intuitive like a "New Folder" or "Add Folder" link, the user first has to activate a "New Document" link.

When adding a new folder with NVDA, each character of text entered into the folder name field is repeated twice, which can be confusing and irritating.

When adding a new announcement, a standard text editor is not used. You cannot read the text you are typing and instead have to tab out to read the text and back in to edit it. That same issue occurs when creating, editing, deleting, or replying to a discussion.

AFBC usability testers spent nearly 40 minutes trying to determine how to create a document library, including time spent with SharePoint's online help instructions, some of which were helpful and some of which were not. The instructions that did help get the job done said to go to "Settings" and then "Add an App," which obviously lacks a logical or intuitive path.

After completing the cumbersome task to delete a document, the confirmation screen appeared in a new window, unbeknownst to the screen reader user, who has to alt-tab to find that window.

The calendar is very difficult to use. Navigating through the calendar dates is difficult because blank lines appear to a screen reader between each week of dates, but the calendar events do not even appear to a screen reader user anyway.

Calendar events do appear at the bottom of the page, but with only a time associated with them and not a date, rendering the calendar useless from a practical standpoint.

When deleting a list item, the confirmation screen is spoken, but a screen reader cannot re-read the confirmation if he or she did not hear it clearly the first time it was spoken. Discover 508 renders these confirmations as actual html pages so that a screen reader user can review them.

Several pages had poorly formatted and untagged tables. Sometimes tables were erroneously used when the data was not of a tabular nature.

To edit a calendar item or announcement, one first activates the item, but then has to activate an "edit item" link. However, a screen reader has to scroll around to locate that link and it is not easily associated with the item you want to edit. Similar issues occur with the "delete item" link when deleting list items.

In the form to edit a discussion topic, the topic field was not labeled and appeared as "subject" to JAWS. Also, the save button was skipped when trying to navigate to it with JAWS.