High–level accessibility review – BTAA
(NetAdvantage Platform)

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NetAdvantage Platform

Summary

Top 3 problems for the NetAdvantage Platform

This assessment covers portions of the NetAdvantage platform. The assessment revealed major problems with screen reader compatibility, resulting in screen reader users often missing critical information needed to understand content and operate features.

1. **Keyboard –** Many functions of the system are implemented as mouse-specific functions. Therefore, the functions and some content is completely unavailable to keyboard users.
2. **Name Role Value –** Many buttons, links and interactive functions are not semantically identified as the elements/functions that they behave like. Also, several elements do not programmatically communicate information that is visually communicated.
3. **Images –** Several images are either missing an alternate description or inappropriately use an empty alternative description, which inappropriately renders the important image as decorative. In some cases, the images (like graphs) communicate information vital to the system but this information is not available in an alternate method.

Accessibility findings

Project wide issues

The issues presented in this section were identified in multiple pages and are recorded here to avoid repetition. These are applicable to each screen. Due to particularities, similar issues are still reported on a page per page basis, where applicable.

Automated findings using Axe

Issues found through automated testing come from the Axe plugin, an open source accessibility testing tool that is available for Chrome, Firefox and Edge. Details here: https://www.deque.com/products/axe/.

1. **SC 1.4.3 AA** – The placeholder text in the search field in the page header has insufficient color contrast of 2.84 (foreground color: #999999, background color: #ffffff, font size: 9.0pt (12px), font weight: normal). Expected contrast ratio of 4.5:1
2. **SC 4.1.1 A** – The site contains multiple static elements with the same id attribute: addToListIFrame
3. **SC 3.1.1 A** – The <html> element does not have a lang attribute
4. **SC 4.1.2 A** – The 'search submit' button is missing an accessible name, aria-label or some other type of programmatic label/name.
5. **SC 1.3.1 A** – The 'search term' field is missing a programmatic label.
6. **SC 4.1.2 A** – The 'NetAdvantage' link in the header is missing a programmatic link name or label.
7. **SC 4.1.2 A** – A series of hotkey links (#_hotkey0 to #_hotkey9) are missing a programmatic link name or label.
8. **SC 2.4.1 A** – The page has no method for a user to bypass navigation and jump straight to content. A valid mechanism would include: a 'skip to content' link, semantic headings on the page, landmark regions.

Additional manual findings using NVDA screen reader

1. **SC 4.1.2 A** – In the header, the 'Contact Us' item does not programmatically indicate it has a submenu available.
2. **SC 4.1.2 A** – Within the 'Contact Us' submenu, all the links are missing an href attribute.
3. **SC 1.4.11 AA** – In the header, the top navigation items do not provide sufficient contrast for the visible focus indicator when the menu items receive focus.
4. **SC 1.1.1 A** – In the footer, the 'S&P Global Market Intelligence' image is missing an alternate

description.
5. **SC 4.1.2 A** – In the header, the current item in the top navigation is only visually indicated and not programmatically indicated.
6. **SC 4.1.2 A** – In the header, top navigation items with a submenu do not indicate that a submenu is present/
7. **SC 2.1.1 A** – In the header, a keyboard user is unable to activate any submenu options within the top navigation.
8. **SC 1.3.2 A** – In the top navigation, when a submenu is opened by a mouse user, the markup for the submenu is not placed in a logical code sequence, so the user must navigate backwards and outside of the top navigation in order to access the submenu items.
9. **SC 4.1.3 AA** – In the search function, when a listing of suggested search results appears, the listing is not announced.
10. **SC 2.1.1 A** – In the search function, a keyboard user is unable to access the "See all results for…" and "close" links.
11. **SC 4.1.2 A** – In the search function, a screen reader user is unable to accurately determine the actual name for each suggested search result.
12. **SC 2.1.1 A** – A keyboard user is unable to collapse the left-hand navigation menu.
13. **SC 4.1.2 A** – In the left-hand navigation menu, sections that can expand and collapse do not programmatically indicate the collapse /expand state. E.g. 'My Capital IQ'
14. **SC 4.1.2 A** – In the left-hand navigation menu, buttons that can expand and collapse are missing required role and attributes. E.g. 'My Capital IQ'

1. NetAdvantage Landing Page

Source: https://www–capitaliq–com.proxy.wm.edu/CIQDotNet/my/dashboard.aspx

Test case: Test initial interface/landing page to ensure menus, search box, images, icons, reading order, and charts are accessible. From the initial interface, perform a search for: Apple.

Automated findings using Axe

1. **SC 1.4.3 AA** – All date and details lines from the 'Proprietary Data and Analysis from S&P Capital IQ' that have the light grey color has insufficient color contrast of 2.67 (foreground color: #9f9e9e, background color: #ffffff, font size: 7.5pt (10px), font weight: normal). Also, the same color against the zebra stripe background has insufficient color contrast of 2.45 (foreground color: #9f9e9e, background color: #f5f5f5, font size: 7.5pt (10px), font weight: normal). In both instances, the expected contrast ratio is 4.5:1.

2. **SC 1.4.3 AA** – The negative growth on the selected market in 'Market Overview' has insufficient color contrast of 3.65 (foreground color: #cc0000, background color: #c2cdd9, font size: 7.5pt (10px), font weight: normal). Expected contrast ratio of 4.5:1

3. **SC 1.4.3 AA** – All instances of positive growth in 'Market Overview' and 'Stock Performance' has insufficient color contrast of 3.77 (foreground color: #009900, background color: #ffffff, font size: 7.5pt (10px), font weight: normal). Also, the darker background has insufficient color contrast of 3.46 (foreground color: #009900, background color: #f5f5f5, font size: 7.5pt (10px), font weight: normal). Expected contrast ratio of 4.5:1.

4. **SC 1.4.3 AA** – All instances of 'date' text (Fri, Sat, Sun, Mon, etc.) in 'Macroeconomic Events' have insufficient contrast. #a0a0a0 foreground against #ffffff and #EAEAEA backgrounds result in 2.61:1 or 2.2:1 contrast ratio, where the expected ratio is 4.5:1.

5. **SC 1.4.3 AA** – In the 'Market Overview' section, unselected tabs have insufficient contrast. #ffffff foreground against #949494 results in 3:1 contrast ratio where the expected ratio is 4.5:1.

6. **SC 1.1.1 A** – Images are missing an alt attribute. An empty attribute would be required for a decorative image or an image that has its information described in an alternate, accessible format. A descriptive attribute would be required for an informative image that does not have its meaning communicated in another accessible method. The 'collapse' image to the left of 'My Capital IQ' and the chart in 'Government Debt Rates'.

7. **SC 1.3.1 A** – The 'Date from' and 'Date to' fields in the "Government Debt Rates" section is missing a

programmatic label.
8. **SC 4.1.2 A** – The 'Charting Builder' links in the 'Market Overview' section is missing a programmatic link name or label.

Additional manual findings using NVDA screen reader

1. **SC 1.4.1 A** – Links in the product update section are not visually distinguished as links. E.g. "Learn what's new", "Register Here"
2. **SC 2.4.7 AA** – The tools/widgets in 'Welcome College of Willian & Mary Dashboard' do not receive a visible focus indicator when the elements receive keyboard focus.
3. **SC 4.1.2 A** – In the 'Welcome College of William & Mary Dashboard', the 'Full screen' and 'Set as CIQ start page' are missing a href attribute.
4. **SC 1.4.5 AA** – In the 'Welcome College of William & Mary Dashboard', the 'Full screen' and 'Set as CIQ start page' are implemented as images of text instead of real text.
5. **SC 4.1.2 A** – The 'Take a Tour of the New Dashboard' link is missing an href attribute.
6. **SC 2.1.1 A** – In all dashboard widgets, the 'options' menu is not keyboard accessible.
7. **SC 1.3.1 A** – The table in 'Welcome College of William & Mary Dashboard' is missing programmatic table headers.
8. **SC 2.1.1 A** – All dashboard widgets cannot be resized by a keyboard user.
9. **SC 4.1.2 A** – All dashboard widgets 'options' menus do not indicate that they contain a submenu.
10. **SC 4.1.2 A** – All links in all dashboard widgets 'options' submenus are missing an href attribute.
11. **SC 4.1.2 A** – The listing of tabs in 'Market Overview' behave like a tab panel but are missing required ARIA roles and attributes to be identified and behave as one.
12. **SC 1.4.1 A** – In 'Market Overview' and 'Stock Performance', color is being used to communicate an increase or decrease in values.
13. **SC 4.1.2 A** – In 'Macroeconomic Events', the currently selected date is not programmatically indicated.
14. **SC 1.4.3 AA** – In 'Government debt rates' the "Canada government debt" text is low in contrast.
15. **SC 1.4.11 AA** – In 'Government debt rates' the "Canada government debt" line graph foreground is low in contrast.
16. **SC 1.4.3 AA** – In 'Government debt rates' the red text is low in contrast (#FE1F1F on #FEFEFF results in 3.8:1 contrast)
17. **SC 1.1.1 A** – Toward the bottom of the page the 'data provided by' informative images are missing a descriptive alternative description. ("Ice", "4CAST", "S&P Global Ratings")
18. **SC 1.4.10 AA** – When reflow rules are applied to the page; the content does not fit to a 320 px wide viewport.
19. **SC 1.4.5 AA** – The 'Government Debt Rates' and 'Market Overview' graph images contain content that is implemented as images of text instead of real text.
20. **SC 1.1.1 A** – The meaning behind the graph images in 'Government Debt Rates', 'Market Overview', 'Stock Performance – Price' column and 'Stock Performance – Volume' column is not described or communicated in an accessible manner.

2. NetAdvantage Search Profiles

Source: https://www-capitaliq-com.proxy.wm.edu/CIQDotNet/Search/Search.aspx

Test case: Test results page, including tabs for Profiles/Lists/Funds/Products, horizontal links underneath Profiles tab, and icons.

Automated findings using Axe

1. **SC 1.4.3 AA** – The 'Result Name', 'Type' and 'Features' are low in contrast. There is insufficient color contrast of 3.94 (foreground color: #808080, background color: #ffffff, font size: 9.0pt (12px), font weight: bold). Expected contrast ratio of 4.5:1.
2. **SC 1.4.3 AA** – The 'Your search returned more than 200 results. Please refine your search' content is low in contrast. There is insufficient color contrast of 3.57 (foreground color: #ff0000, background color: #f2f2f2, font size: 7.5pt (10px), font weight: normal). Expected contrast ratio of 4.5:1.
3. **SC 1.1.1 A** – All instance of "i" (quick info) and 'alternate name arrow' are missing an alternative description.
4. **SC 1.1.1 A** – The "search" image button is missing an alternate description.
5. **SC 1.3.1 A** – The 'Search Profiles - search term' field is missing a programmatic label.

Additional manual findings using NVDA screen reader

1. **SC 1.4.5 AA** – The "search" image button contains an image of text instead of real text.
2. **SC 2.1.1 A** – All instances of "i" (quick info) and 'filter' cannot be activated by a keyboard user.
3. **SC 4.1.2 A** – All instances of "i" (quick info) and 'filter' buttons are missing required roles and attributes to be identified as buttons.
4. **SC 1.4.11 AA** – All instances of "i" (quick info) are low in contrast in their default unfocused state.
5. **SC 1.4.10 AA** – When reflow rules are applied to the page; the content does not fit to a 320 px wide viewport.
6. **SC 4.1.2 A** – The 'Filings and Annual Reports', 'Investment Research', 'Screening and Analytics' and 'Chart Builder' tools are all missing an href in the link.
7. **SC 1.4.5 AA** – The 'Filings and Annual Reports', 'Investment Research', 'Screening and Analytics' and 'Chart Builder' tools images all contain images of text instead of real text.
8. **SC 4.1.2 A** – The 'Filings and Annual Reports', 'Investment Research', 'Screening and Analytics' and 'Chart Builder' tools are all missing an accessible link name.

9. **SC 2.1.1 A, 4.1.2 A** – The 'Search type' dropdown and 'search tips' button functions are not keyboard accessible and are missing required roles and attributes.
10. **SC 4.1.2 A** – The listing of tabs 'Profiles', 'Lists', 'Funds', 'Products' behave like a tab panel but are missing required ARIA roles and attributes to be identified and behave as one.
11. **SC 2.1.1 A** – A keyboard user cannot navigate tabs other than the default selected tab, to access content that a mouse user can hover to.
12. **SC 2.1.1 A** – A keyboard user cannot access all the filters.
13. **SC 1.3.1 A** – The Results Listing and visually associated column headings are implemented as two separate tables. Therefore, the visual column associations are not programmatically available.
14. **SC 1.3.1 A** – In the 'Quick Info' popup, the table row headings are not programmatically associated with their visually associated cells.

3. NetAdvantage Apple Inc.

Source: https://www-capitaliq-com.proxy.wm.edu/CIQDotNet/company.aspx?companyId=24937

Test case: Select Apple Inc. from results – test the landing page for the search result. Click the link for "Key Stats" under Financials / Valuation and test resulting page. From the filters on top, set "Units" to "Millions" > Select "Total Revenue" from the table and then click the link for "Chart Selected Items".

Automated findings using Axe

1. **SC 1.3.1 A** – Input fields routinely are missing programmatic labels.
2. **SC 4.1.2 A** – Buttons routinely are missing button text or a label.
3. **SC 1.4.3 AA** – Color contrast for text often does not meet the minimum contrast ratio 4.5:1.
4. **SC 4.1.1 A** – IDs for elements are duplicated on the page when they must not be.
5. **SC 1.1.1 A** – Images are consistently missing an alternative description.

Additional manual findings using NVDA screen reader

1. **SC 1.4.10 AA** – When reflow rules are applied to the page; the content does not fit to a 320 px wide viewport.
2. **SC 4.1.2 A** – A slider function is missing required ARIA role and attributes to function as one.
3. **SC 2.1.1 A** – A keyboard user cannot select a row in the 'Key Stats' table like a mouse user can.
4. **SC 2.4.4 A** – 'View details' repetitive links do not programmatically indicate their unique purpose.
5. **SC 1.4.1 A** – Color is being used to communicate an increase or decrease in values.

6. **SC 2.1.1 A** – A keyboard user is unable to activate the data point tooltip items from the 'Quick Chart'.
7. **SC 1.3.1 A** – The 'Key Professionals' and 'Key Board Members' tables are visually two tables but are programmatically a single table. Therefore, the table structure is not available to AT users, which includes the Name and Title column headings for both visual tables.
8. **SC 1.3.1 A** – Table row/column headings routinely are not programmatically identified.
9. **SC 1.1.1 A** – Toward the bottom of the page the 'data provided by' informative images are missing a descriptive alternative description. ("Ice", "S&P Global Ratings").
10. **SC 1.1.1 A** – The meaning behind the graph information is generally not described for AT users.
11. **SC 2.4.3 A** – When the 'Chart Selected Items > Quick Chart' is generated, focus is not set to the modal.
12. **SC 2.4.3 A** – For the 'Chart Selected Items > Quick Chart' modal, focus is not maintained in the modal.
13. **SC 2.1.1 A** – For the 'Chart Selected Items > Quick Chart' modal, a keyboard user is unable to activate the data point tooltip items.