



# COHESITY

## IRIS v6.3.1x //JPMC ACCESSIBILITY AUDIT

Prepared by

**Hashedin** | **HUX.** | Oct 14, 2019

HUX.

## ACCESSIBILITY TESTING

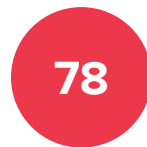
How did we  
perform testing?

JPMC requirement only

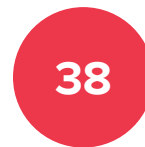
15 MAY - 15 JUN '2019



**Month**  
Testing Activity



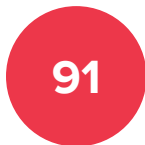
**WCAG 2.0**  
Guidelines



**JPMC**  
Needed only



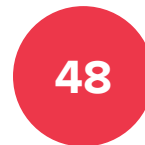
**Not Applicable**  
for IRIS UI



**Total Tests**  
performed



**UI Screenshots**  
logged

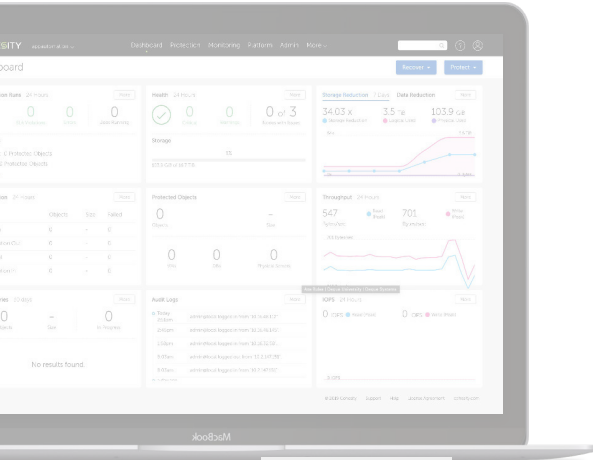


**JIRA** Tickets  
raised



**Initial Compliance** to  
JPMC Requirements

# HOW is testing performed

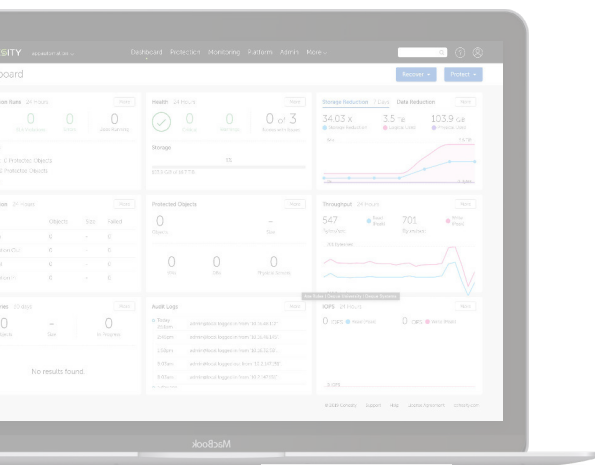


WCAG Success Criteria	Level	Brief Description	WCAG 2.0 Principle	WCAG 2.0 Guidelines	Sufficient Techniques (Test Methodology)	Test Procedure
1.3.3	A	Sensory Characteristics	Adaptable (Perceivable)	<a href="#">link</a>	<a href="#">G96: Providing textual identification of items that otherwise rely only on sensory information to be understood</a>	Find all references in the Web page that mention the shape, size, or position of an object. For each such item:  Check that the reference contains additional information that allows the item to be located and identified without any knowledge of its shape, size, or relative position.
1.4.1	A	Use of Color (Color Alone used to visually convey meaning)	Distinguishable (Perceivable)	<a href="#">link</a>	<a href="#">G14: Ensuring that information conveyed by color differences is also available in text</a>	For each item where a color difference is used to convey information:  Check that the information conveyed is also available in text and that the text is not conditional content.
1.4.3	AA	Contrast (minimum)	Distinguishable (Perceivable)	<a href="#">link</a>	<a href="#">G18: Ensuring that a contrast ratio of at least 4.5:1 or (3:1) exists between text (and images of text) and background behind the text</a> <a href="#">SL13: Providing A Style Switcher To Switch To High Contrast</a>	<a href="#">Use Color Contrast Analyser application</a>
1.4.4	AA	Resize text	Distinguishable (Perceivable)	<a href="#">link</a>	<a href="#">C12: Using percent for font sizes</a> <a href="#">C14: Using em units for font sizes</a>  <a href="#">G146: Using liquid layout</a>  <a href="#">G178: Providing controls on the Web page that allow users to incrementally change the size of all text on the page up to 200 percent</a>	Check that the value of the CSS property that defines the font size is a percentage. Check that the value of the CSS property that defines the font size is expressed in em units. Display content in a user agent. Increase text size to 200%. Check whether all content and functionality is available with no horizontal scrolling. Set the viewport size to 1024px by 768px or larger. Increase the text size and check to see if the text size increased. Check that the text size can be increased to 200% of the original size.

- WCAG2.0 Guidelines spread across 4 principles
  - **Perceivable, Operable, Understandable, Robust**
- Average 3 test performed for every requirement
- 60% guidelines are validated using automated tools

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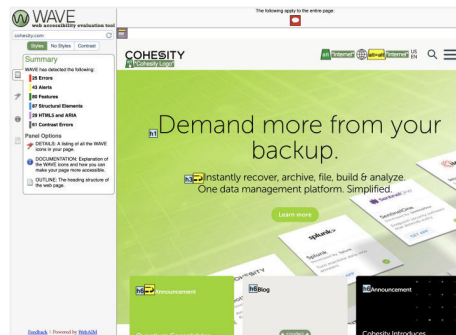
# WHICH tools did we use



## WAVE Evaluation Tool

Offered by: WebAIM

★★★★★ 107 | [Accessibility](#) | 157,259 users



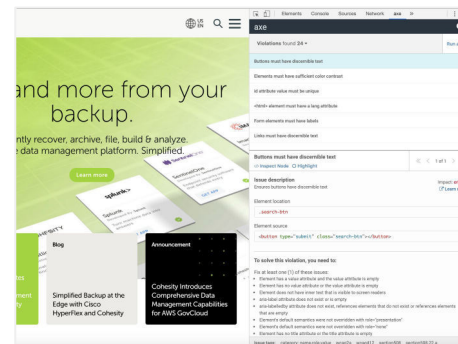
Opens browser-inset, locates errors  
simultaneously, very popular tool



## axe

Offered by: [www.deque.com](http://www.deque.com)

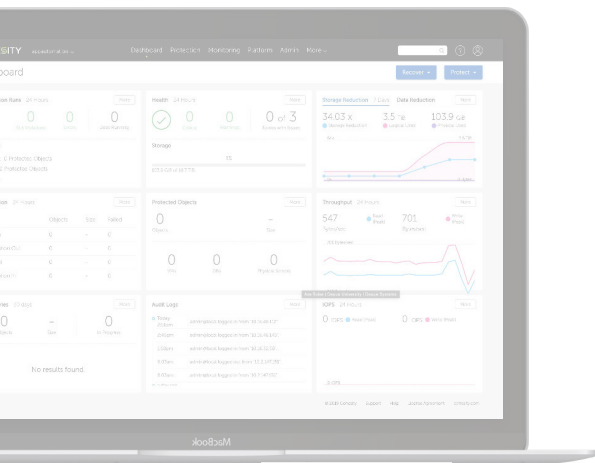
★★★★★ 69 | [Developer Tools](#) | 96,078 users



Opens within "Inspect page",  
highlights errors on demand

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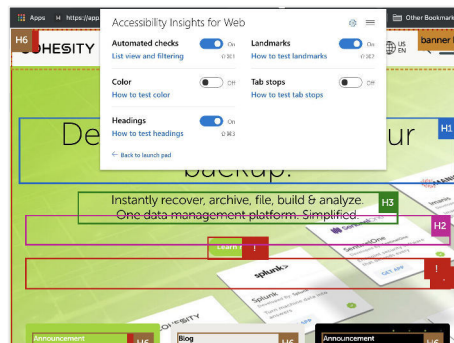
# WHICH tools did we use



## Accessibility Insights for Web

Offered by: Accessibility Insights

★★★★★ 13 | [Developer Tools](#) | 21,717 users



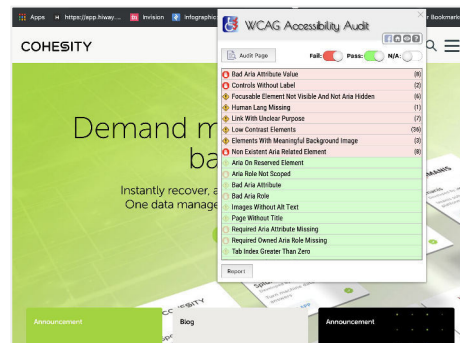
Quick vs detailed assessment, keyboard  
tabbing, linearization, landmarks & sections



## WCAG Accessibility Audit Developer UI

Offered by: Horia Tudose

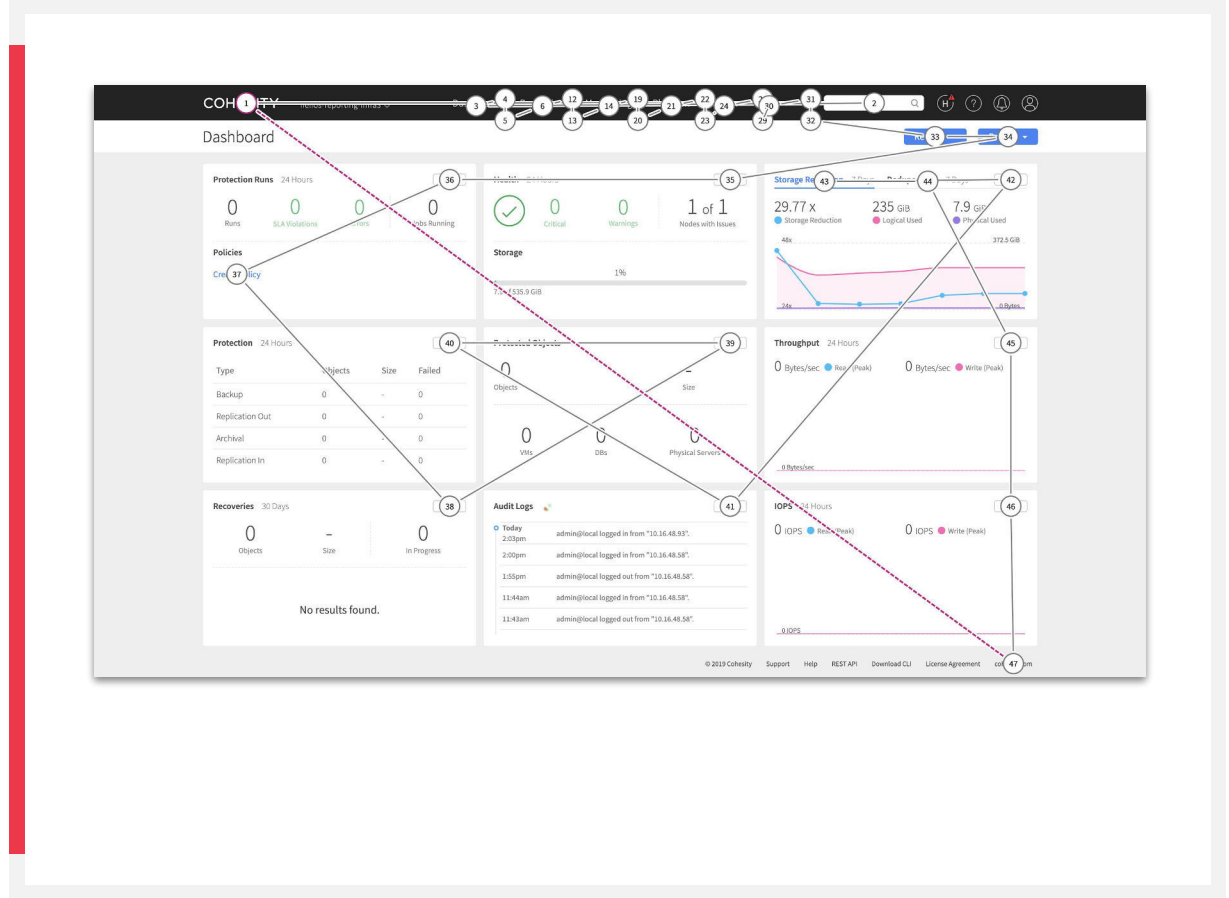
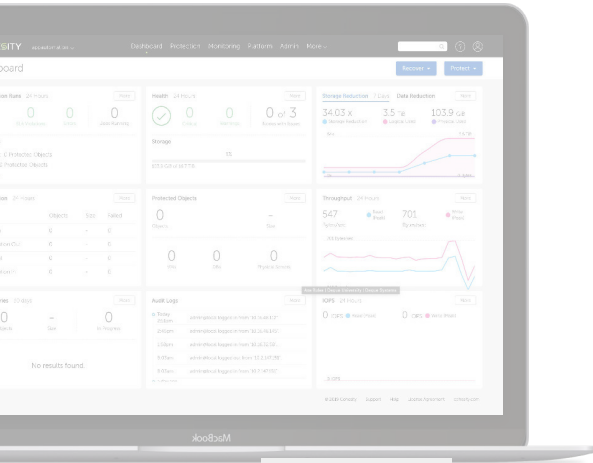
★★★★★ 10 | [Accessibility](#) | 5,706 users



Displays accessible components as well,  
HTML based Audit Report

HUX.

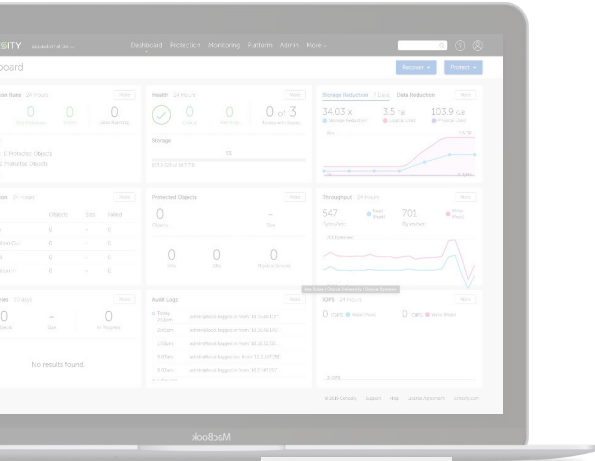
# KEYBOARD Accessibility



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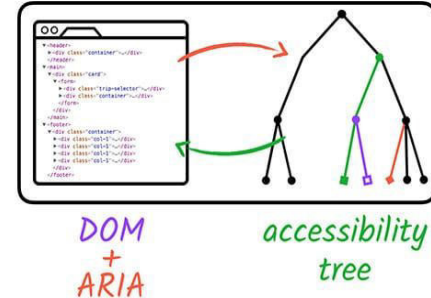
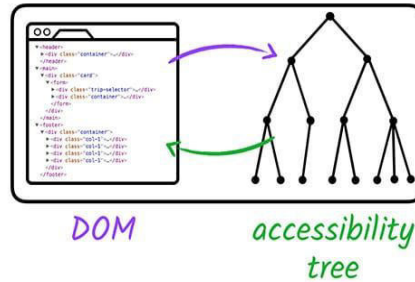
# WAI ARIA

## What is it?



Complex web applications become inaccessible when assistive technologies cannot determine the page semantics behind portions of a document

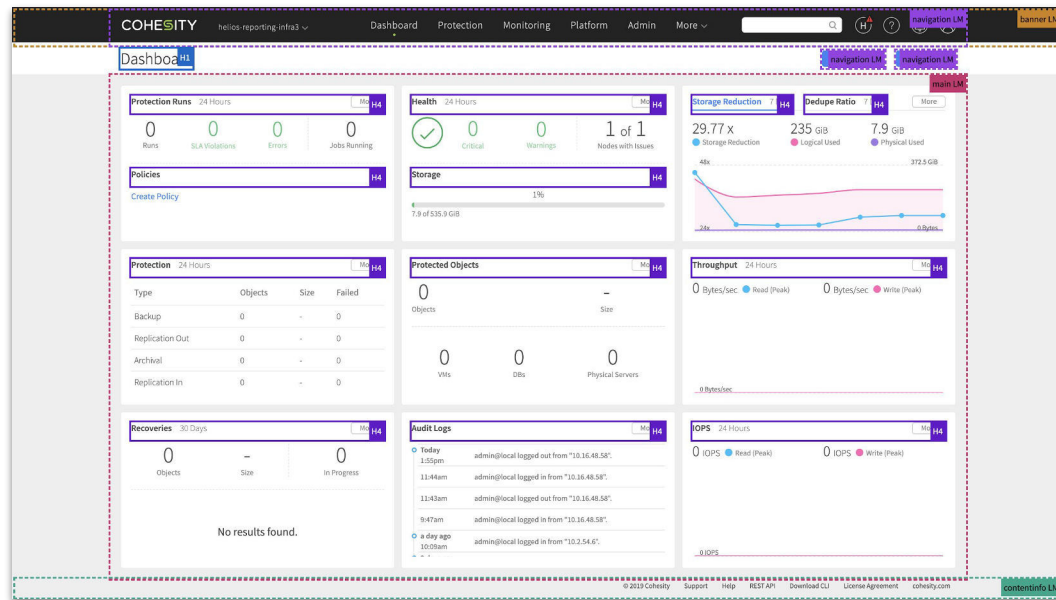
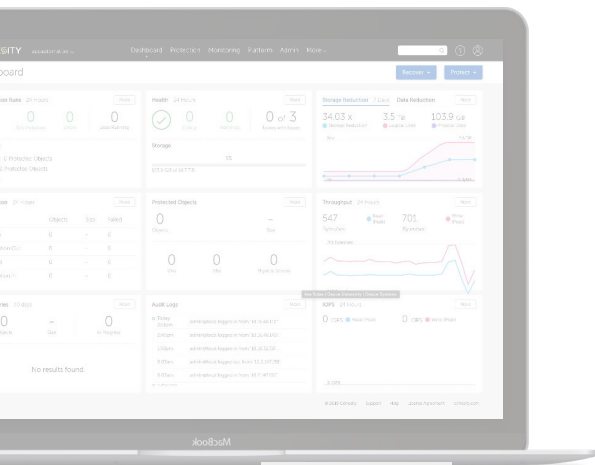
ARIA divides the semantics into roles, states and properties supported by the roles



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# ARIA

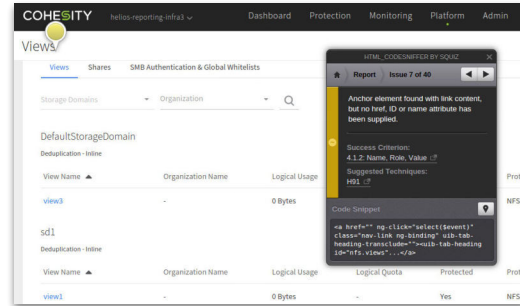
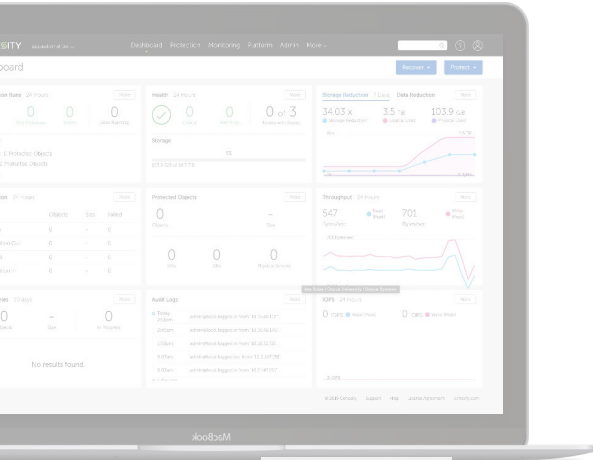
## Landmarks & Headers





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# HOW did we log them



Screenshots

## WCAG AccessAudit Report

MS SQL Dashboard - Cohesity Dashboard  
<https://10.2.148.70/dashboard/sql>

### There are 6 fail-rules:

This implies that there were elements on the page that did not pass this audit rule. This is the only result you will probably be interested in.

#### 3 Severe:

##### Controls and media elements should have labels

[https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax\\_text\\_01](https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax_text_01)

2 elements break this rule:

1. id("global-search-typeahead-input")
2. id("host-name-search")

##### Elements with ARIA roles must ensure required owned elements are present

[https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax\\_aria\\_08](https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax_aria_08)

1 element breaks this rule:

1. id("typeahead-119-8809")

##### This element has an unsupported ARIA attribute

[https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax\\_aria\\_10](https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax_aria_10)

1 element breaks this rule:

1. id("global-search-typeahead-input")

#### 3 Warning:

##### These elements are focusable but either invisible or obscured by another element

[https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax\\_focus\\_01](https://github.com/GoogleChrome/accessibility-developer-tips/wiki/Audit-Rules#ax_focus_01)

24 elements break this rule:

1. id("nav-dashboard-dashboard")
2. id("nav-dashboard-sql-dashboard")
3. id("nav-jobs-jobs")
4. id("nav-jobs-policies")
5. id("nav-jobs-recover")
6. id("nav-jobs-cloud-retrieval")
7. id("nav-jobs-sources-new")
8. id("nav-jobs-remote-clusters")
9. id("nav-job-external-targets")
10. id("nav-performance-performance")
11. id("nav-performance-storage")

HTML based Audit Report

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## ACCESSIBILITY FIXING

How did we fix the  
issues to improve  
the compliance?

JPMC requirement only

01 JUL - 30 SEP '2019

3

**Months**  
UI Fixing by dev

2

**Browser plugins**  
used for fixing

6

**Browser plugins**  
used for testing

2

**Times full product**  
Accessibility Testing

CSS

**Color Contrast**  
Fixed

16

**ARIA** guidelines  
identified

9

**ARIA** guidelines  
**FIXED**

76%

**Final Compliance** to  
JPMC Requirements  
after UI Fixing

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# ACCESSIBILITY FIXING

## ARIA

JPMC requirement only

NOT FIXED	ARIA1: Using the aria-describedby property to provide a descriptive label for user interface controls
FIXED	ARIA2: Identifying a required field with the aria-required property
FIXED	ARIA7: Using aria-labelledby for link purpose
FIXED	ARIA8: Using aria-label for link purpose
NOT FIXED	ARIA9: Using aria-labelledby to concatenate a label from several text nodes
FIXED	ARIA11: Using ARIA landmarks to identify regions of a page
FIXED	ARIA12: Using role=heading to identify headings
FIXED	ARIA13: Using aria-labelledby to name regions and landmarks
NOT FIXED	ARIA14: Using aria-label to provide an invisible label where a visible label cannot be used
NOT FIXED	ARIA16: Using aria-labelledby to provide a name for user interface controls
NOT FIXED	ARIA17: Using grouping roles to identify related form controls
FIXED	ARIA18: Using aria-alertdialog to Identify Errors
FIXED	ARIA20: Using the region role to identify a region of the page

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# ACCESSIBILITY FIXING

## Other important issues

JPMC requirement only

FIXED

**H37:** Using alt attributes on img elements

FIXED

**H51:** Using table markup to present tabular information

FIXED

**H42:** Using h1-h6 to identify headings

FIXED

**H97:** Grouping related links using the nav element

FIXED

**H43:** Using id and headers attributes to associate data cells with header cells in data tables

FIXED

**H69:** Providing heading elements at the beginning of each section of content

FIXED

**G125:** Providing links to navigate to related Web pages

FIXED

**C15:** Using CSS to change the presentation of a user interface component when it receives focus

FIXED

**G165:** Using default focus indicator so that high visibility default focus indicators will carry over

FIXED

**G80:** Providing a submit button to initiate a change of context

FIXED

**SCR18:** Providing client-side validation and alert

FIXED

**G89:** Providing expected data format and example

FIXED

**G177:** Providing suggested correction text

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## **ACCESSIBILITY FIXING**

### **Other important issues**

JPMC requirement only

**NOT FIXED** **H85:** Using OPTGROUP to group OPTION elements inside a SELECT

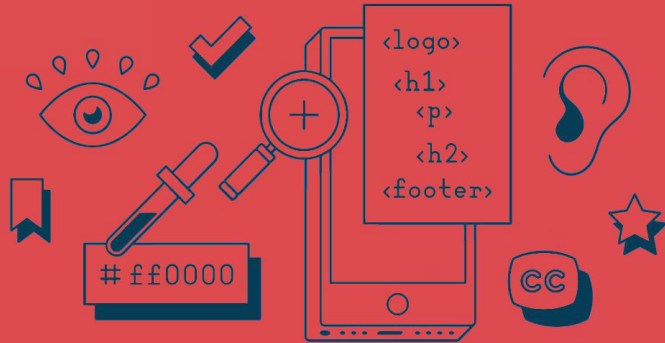
**NOT FIXED** **SL13:** Providing A Style Switcher To Switch To High Contrast

**NOT FIXED** **G146:** Using liquid layout

**NOT FIXED** **ARIA17:** Using grouping roles to identify related form controls

**NOT FIXED** **G178:** Providing controls on the Web page that allow users to incrementally change the size of all text on the page up to 200 percent

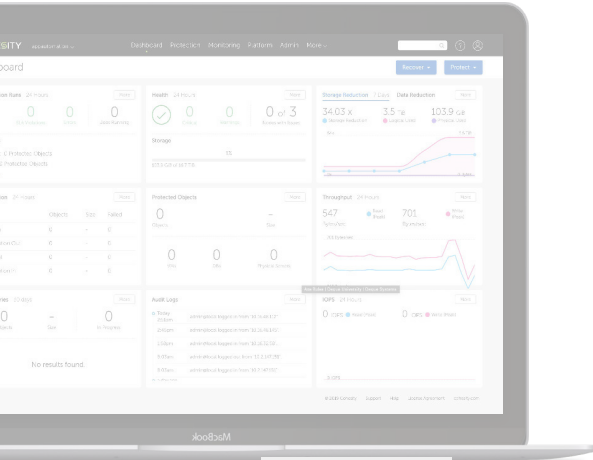
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# SAMPLES

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# ISSUE #1



COHESITY helios-reporting-infra3 Dashboard Protection Monitoring Platform Admin More

### Dashboard

Runs SLA Violations Errors Jobs Running

**Policies**  
Create Policy

**Storage**  
45.44k 1%  
6.5 of 535.9 GiB

**Protection 24 Hours**  
Type Objects Size Failed  
Backup 0 -- 0  
Replication Out 0 -- 0  
Archival 0 -- 0  
Replication In 0 -- 0

**Protected Objects**  
0 Objects  
0 VMs 0 DBs 0 Physical Servers

**Recoveries 30 Days**  
0 Objects  
0 Size  
0 In Progress

**Audit Logs**  
Today 1:37pm admin@local logged in from "10.16.48.232".  
1:35pm admin@local logged out from "10.16.48.232".

**Storage Reduction**  
45.44k  
45.44k

**Throughput 24 Hours**  
379 Bytes/sec Read (Peak) 89  
379 Bytes/sec

**IOPS 24 Hours**  
0 IOPS Read (Peak) 0

**HTML: COHESITY BY SQUJZ**  
Report Issue 6 of 21

This form field should be labelled in some way. Use the label element (either with a "for" attribute or wrapped around the form field), or "title", "aria-label" or "aria-labelledby" attributes as appropriate.

Success Criterion: 1.3.1: Info and Relationships

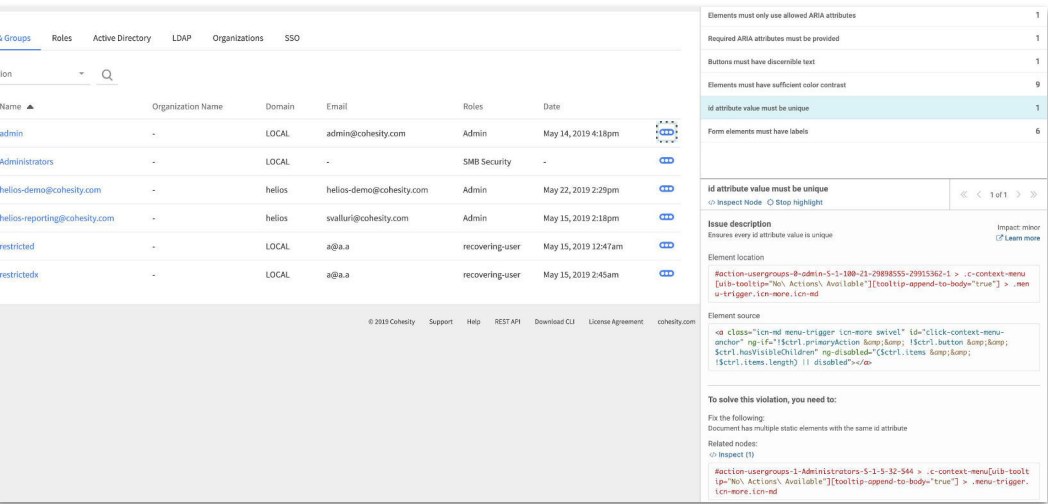
Suggested Techniques: F68

Code Snippet

```
<input class="c-input-filter ng-pristine ng-untouched ng-valid ng-scope ng-empty" type="text" id="global-search-typeahead-input" ng-if="!$ctrl.isSearchState" ng-model="$ctrl.query" ng-model-options="{ debounce: 400 }" c-input-spinner="$ctrl.loadingData" spinner-disables="false" ui-b-typeahead="result as result.source.name for result in $ctrl.getResults($viewValue)" typeahead-loading="$ctrl.loadingData" typeahead-on-select="$ctrl.selectResult($item)" typeahead-focus-first="false" c-enter="$ctrl.selectResult($viewValue)" aria-autocomplete="list" aria-expanded="false" aria-owns="typeahead-119-5541"></input>
```

- **Guideline violated** - 1.3.1. Info & Relationship
- **Severity:** A
- **Fix:** Use appropriate labels attributes for form fields like **aria-label** or **aria-labelledby**

# ISSUE #2

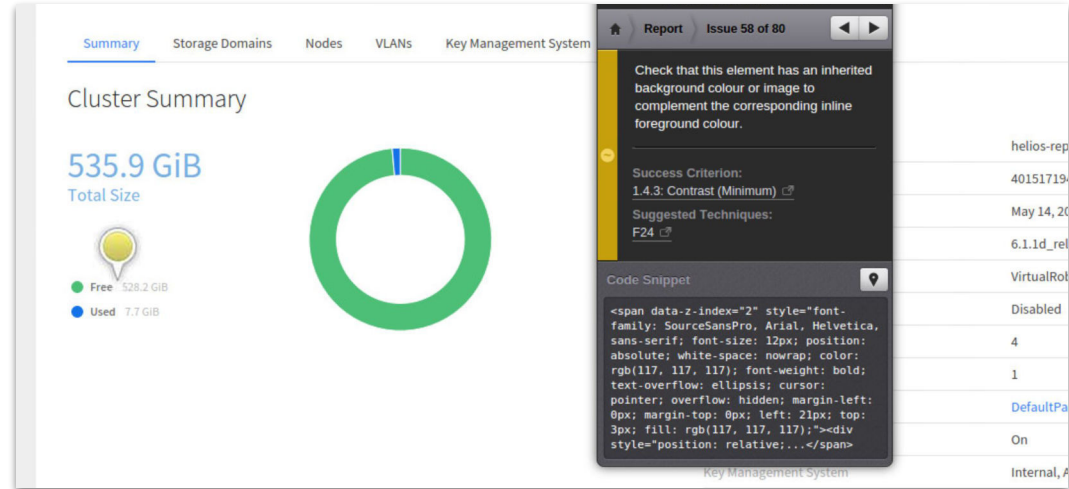
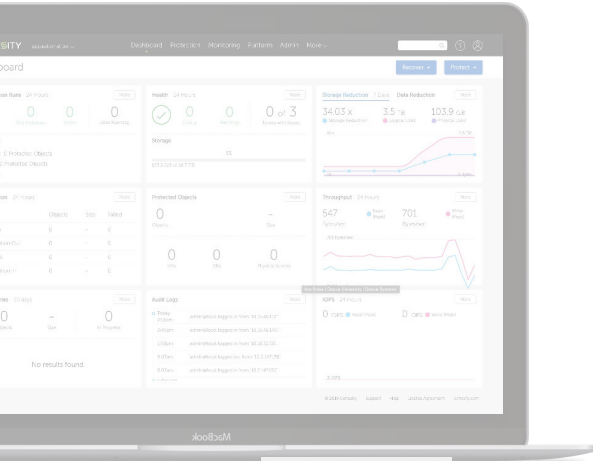


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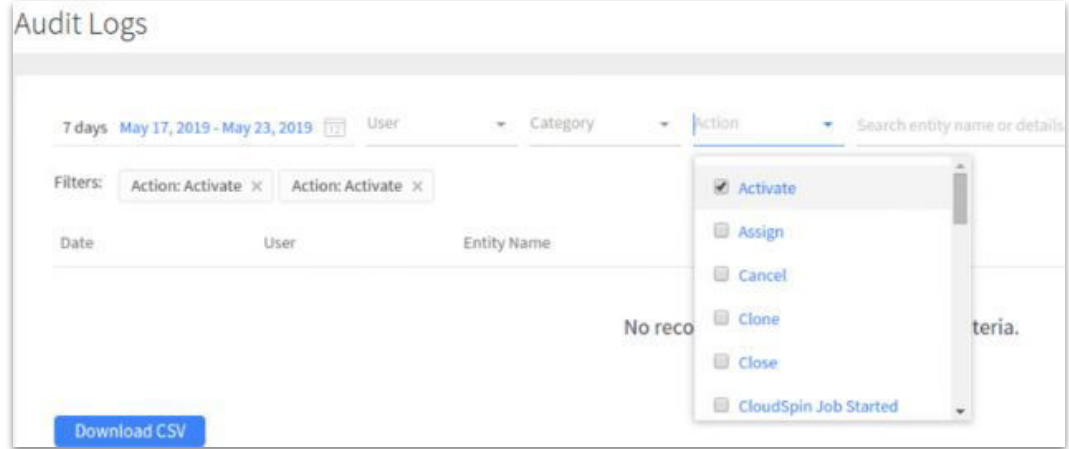
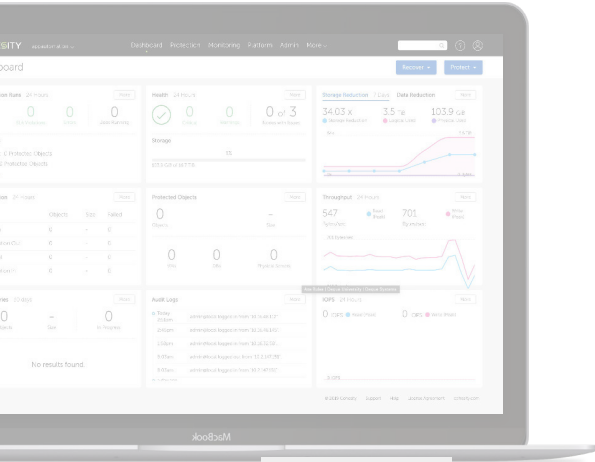
# ISSUE #3



- **Guideline violated** - 1.4.3. Contrast (Minimum)
- **Severity:** AA
- **Fix:** Ensure the contrast ratio of at least 4.5:1 exists between text (and images of text) and background behind the text

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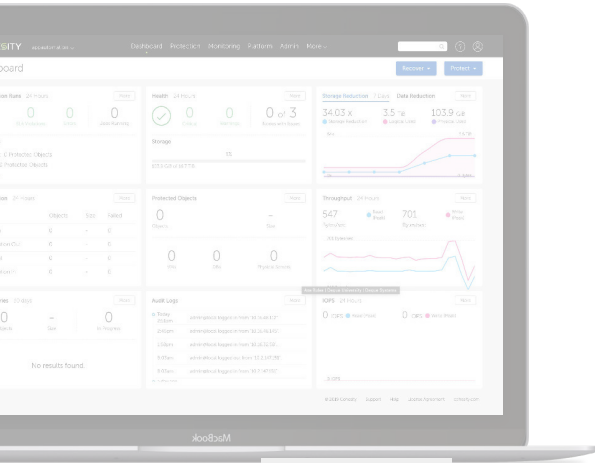
# ISSUE #4



- **Guideline violated** - 2.1.2. No Keyboard Trap
- **Severity:** A
- **Fix:** Tab through content from start to finish. Check to see that keyboard focus is not trapped in any of the content and if it is possible to move keyboard focus out of the UI element or plug-in content without closing the user agent or restarting the system.

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# ISSUE #5



Register Hypervisor Source

Select Hypervisor Source Type

VMware: Standalone ESXi Host

Hostname or IP Address\* 192.0.2.1

Username\* MyServerUsername

Password\* MyServerPassword

☒ Cap concurrent streams per Datastore

☐ Auto Cancel Backups if Datastore is running low on space

- **Guideline violated** - 3.1.2. Language of parts
- **Severity:** AA
- **Fix:** For each element in the document, check that the human language of the content of the element is the same as the inherited language for the element as specified in HTML 4.01, Inheritance of language codes.

# CONTACT US

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