

# National Finance Center Customer Notification

Date of Notification: December 18, 2008

Subject: Section 508 of the Rehabilitation Act of 1973

System(s) Affected: EmpowHR

Database/Customer(s) Affected: EmpowHR Users

#### **Dear Customer:**

Section 508 of the Rehabilitation Act of 1973 (508 Compliancy) requires that all electronic and information technology, used by a Federal agency, is comparably accessible by employees with disabilities as it is for those employees without any disability; unless undue burden would be imposed on the agency.

The National Finance Center (NFC) has developed a plan to begin testing the NFC's Human Capital Management Enterprise System, EmpowHR, to ensure it is 508 compliant.

Internal Quality Assurance (QA) testing is scheduled to begin the middle of January, 2009 and continue through the end of February, 2009. Once QA testing is complete, we will provide the test results to you.

NFC is working with USDA's Target Center. The Target Center supports USDA's efforts in enforcing federal disability legislation by providing workstations equipped with hardware and software to accommodate people with mobility, speech, visual, hearing, and cognitive impairments.

In an effort to ensure EmpowHR is 508 compliant, NFC would like to work with it's customers who utilize the system. At this time we are requesting that all EmpowHR customers identify a point of contact for future testing. Please provide this information to your Customer Service Representative no later than January 16, 2008.

The EmpowHR draft test plan for Section 508 Compliancy is attached.

A separate Customer Notification will be sent that will address other systems owned and operated by NFC to ensure they are 508 compliant.

If you have any questions regarding this notification, please contact NFC's Client Management Branch at <a href="mailto:Customer.Support@usda.gov">Customer.Support@usda.gov</a>.

GS/M5-09-027





# UNITED STATES DEPARTMENT OF AGRICULTURE NATIONAL FINANCE CENTER

EMPOWHR Section 508 Compliancy Test Plan

December, 2008

POC: Kasey Elwood TCAssociates 6551 Loisdale Court, Suite 500 Springfield, VA 22150

## **REVISION HISTORY**

| Version | Date             | Author       | <b>Summary of Changes</b> |
|---------|------------------|--------------|---------------------------|
| 1.0     | December 1, 2008 | Kasey Elwood | Initial Draft             |
|         |                  |              |                           |
|         |                  |              |                           |
|         |                  |              |                           |

## **REVIEWER**

| Version | Date             | Reviewer     | <b>Summary of Comments</b> |
|---------|------------------|--------------|----------------------------|
| 1.0     | December 1, 2008 | Chris Elwood |                            |

# RELEASE AUTHORIZATION

| Author:            | Kasey Elwood    | Date: |  |
|--------------------|-----------------|-------|--|
| QA Coordinator     | Jane Ladner     | Date  |  |
| HRAB Branch Chief: | Brenda Mandella | Date: |  |
| Technical Lead:    | Larry Barreca   | Date: |  |

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## EmpowHR 9.0 508 Compliancy Test Plan

#### 1.0 Introduction

#### 1.1 Purpose

The purpose of this 508 Compliancy Test Plan is to establish the goals, processes, and responsibilities required to test the compliancy and usability of the EmpowHR 9.0 application as it pertains to Section 508 of the Rehabilitation Act of 1973. The EmpowHR 9.0 508 Compliancy Test Plan provides the framework necessary to ensure a consistent approach to the Quality Assurance (QA) testing phase. It defines the approach that will be used by the Quality Assurance (QA) team to manually assess the complicacy and usability of the EmpowHR 9.0 application as well as the coordination with USDA's Target Center for a more technical testing of the EmpowHR 9.0 application using assistive technologies.

#### 1.2 Scope

The focus of this plan is the Quality Assurance testing phase for 508 compliancy and usability for the EmpowHR 9.0 application.

#### 1.3 Background of Section 508 of the Rehabilitation Act of 1973

Section 508 of the Rehabilitation Act of 1973 requires that all electronic and information technology, used by a Federal agency, is comparably accessible by employees with disabilities as it is for those employees without any disability; unless undue burden would be imposed on the agency. There are two sub sections to Section 508, which apply to the use EmpowHR 9.0 application: 1194.21 Software Application and Operating Systems, and 1194.22 Web-based Intranet and Internet Information and Applications.

#### 1.4 Background of PeopleSoft Compliancy

According to Oracle's Accessibility statement, both the PeopleSoft 9.0 application and PeopleTools (version 8.49 and above) are coded to industry standards. Although Oracle can speak to the compliancy of its products, it cannot speak to any customization made to EmpowHR 9.0 application. Although EmpowHR 9.0 is built off of the PeopleSoft 9.0 framework, due to the customizations, it still requires testing to ensure compliancy with Section 508.

#### 2.0 Staffing

To be successful, the QA activity requires a team of skilled and dedicated personnel working together in an appropriate and clearly defined team structure. This team consists of representatives from TCAssociates, USDA-NFC, HR Management Staff, Agency POCs and UNISYS.

The following outlines the team responsibilities and approximate number of resources for each role:

| Table | 1 | Staffing |
|-------|---|----------|
| Lanc  | _ | Duning   |

| Role | Responsibility | Apprx. # of Resources |
|------|----------------|-----------------------|
|------|----------------|-----------------------|

| TCA 508 QA<br>Test<br>Coordinator | <ul> <li>Represents the EmpowHR implementation by monitoring QA activities</li> <li>Review QA-related deliverables</li> <li>Review entrance criteria to ensure QA readiness</li> <li>Monitoring all test efforts to assure that test schedules are adhered to and maintained to reflect an accurate progression of the testing activities.</li> <li>Review exit criteria to ensure that the QA activity is complete and a quality software solution is provided</li> <li>Create script and test validation methods</li> <li>Execute and evaluate test results</li> </ul> | 1   |
|-----------------------------------|--|-----|
| TCA Technical Director            | <ul> <li>Provides overall management and direction to the TCA QA team</li> <li>Communicates test status and test execution results to NFC Management and the TCAssociates Program Manager or the designee</li> <li>Prepares for and manages QA activities</li> <li>Reviews test results and collects test metrics</li> <li>Receives feedback regarding the test results from the TCAssociates Test Analysts</li> <li>Relays test information to the USDA-NFC Management and other teams as necessary to resolve issues</li> <li>Manages TCA QA team resources</li> </ul> | 1   |
| TCA Test<br>Analysts              | <ul> <li>Perform 508 testing</li> <li>Report and document test results</li> </ul>  | 2.5 |
| Agency POCs                       | <ul> <li>Execute 508 test scripts</li> <li>Provide guidance from previous 508 testing efforts</li> </ul>   | 1   |
| Unisys<br>Coordinator             | <ul> <li>Provide details on the contract requirements for Unisys in regards to 508 compliancy</li> <li>Assist in the coordination and management of the 508 testing strategy</li> <li>Manage the remediation effort for any non-compliant development</li> </ul>   | 1   |

## 3.0 QA Testing Strategy

#### 3.1Test Data

Data for compliancy testing will be a copy of the EmpowHR 9.0 production data that will include user profile information, custom roles and permission list and dept security for all agencies.

#### 3.2 Test Scenario

In order to efficiently test the complicacy and usability of the EmpowHR 9.0 application as it pertains to Section 508; two testing approaches will be used. The QA team will

perform manual testing of the system and the Target Center will be used to validate compliancy with assistive technology tools such as screen readers, and zoom texts.

#### 3.11 Manual Testing

Manual Quality Assurance Testing is scheduled to begin the middle of January 2009 and continue through the end of February 2009. This testing will be done in parallel with the release of 9.0 Security. The QA team is responsible for defining the tests to be performed. These tests are derived from the technical standards for software application and web-based applications sections (1194.21-1194.22) of Section 508 of the Rehabilitation Act of 1973, previous 508 testing efforts provided from the Department of Homeland Security, and NFC compliancy directives. The 9.0 security will affect all EmpowHR 9.0 components and the scripts used to test will also be executed using specific 508 test strategies.

#### 3.12 Target Center Testing

NFC and the QA team will work with USDA's Target Center to perform more technical testing of the EmpowHR 9.0 application. Testing will be conducted using the Target Center's assistive technologies.

Table 2 and 3 provides a summary of the requirements from Sub Sections 11.94.21 and 1194.22 and a summary of the testing to be performed.

**Table 2 Sub Section 1194.21 Requirements** 

| Requirement   | <b>Testing Strategy</b>  |
|---|--|
| 1194.21(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.   | Using the PeopleSoft<br>Accessibility options, test<br>EmpowHR 9.0 scripts,<br>strictly using the keyboard |
| 1194.21(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer. | Target Center Testing with assistive technologies  |
| 1194.21(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.   | Target Center Testing with assistive technologies  |
| 1194.21(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.   | Target Center Testing with assistive technologies  |
| 1194.21(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the   | Not applicable   |

| meaning assigned to those images shall be consistent throughout an application's performance.   |   |
|---|---|
| 1194.21(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.                        | Target Center Testing with assistive technologies                                     |
| 1194.21(g) Applications shall not override user selected contrast and color selections and other individual display attributes.   | Target Center Testing with assistive technologies                                     |
| 1194.21(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.  | Not applicable EmpowHR does not use animation.  |
| 1194.21(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.   | Test that EmpowHR has an alternative method for identifying "yellow" required fields. |
| 1194.21(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.  | Not applicable. This is the Internet Browser and not the EmpowHR 9.0 application.     |
| 1194.21(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.   | Not Applicable, EmpowHR does not use flashing or blinking text.                       |
| 1194.21(l) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues. | Covered in section 1194.22  |

**Table 3 Sub Section 1194.22 Requirements** 

| Requirement   | Testing Strategy  |
|---|---|
| 1194.22(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).                         | Test customized fields and buttons for long descriptions                              |
| 1194.22(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.   | Not Applicable. EmpowHR does not use multimedia presentations.                        |
| 1194.22(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup. | Test that EmpowHR has an alternative method for identifying "yellow" required fields. |
| 1194.22(d) Documents shall be organized so they are   | Target Center Testing with  |

| readable without requiring an associated style sheet.   | assistive technologies   |
|---|--|
| 1194.22(e) Redundant text links shall be provided for each active region of a server-side image map.  | Not Applicable. PeopleSoft applications do not use server-side image maps      |
| 1194.22(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape  | Target Center Testing with assistive technologies                              |
| 1194.22(g) Row and column headers shall be identified for data tables.  | Manually run queries and reports to validate row and column headings.          |
|   | -and-  |
|   | Target Center Testing with assistive technologies                              |
| 1194.22(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.   | Target Center Testing with assistive technologies                              |
| 1194.22(i) Frames shall be titled with text that facilitates frame identification and navigation.   | Target Center Testing with assistive technologies                              |
| 1194.22(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes. | Not applicable   |
| 1194.22(I) When pages utilize scripting languages to display content or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.   | Target Center Testing with assistive technologies                              |
| 1194.22(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with Section 1194.21 (a) through (l).   | Identify additional applications/applets and validate that it is 508 compliant |
| 1194.22(n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.                       | Not Applicable   |
| 1194.22(o) A method shall be provided that permits users to skip repetitive navigation links.   | Manually test using<br>PeopleSoft's accessibility<br>features                  |
|   | -and-  |

|  | Target Center Testing with assistive technologies |
|--|---|
| 1194.22(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required. | Manually test time out responses.                 |

### 4.0 Compliancy Problem Reporting

#### 4.1 Grading Matrix

The following process will be used to track compliancy. A grading matrix will be used to track the level of compliancy to which the EmpowHR 9.0 application adheres. Each requirement will further be broken down into specific EmpowHR 9.0 components which will be tested. Each component will be graded on a compliancy scale from 1 to 3.

- 1 = Not compliant must be addressed
- 2 = Partially compliant
- 3 = Compliant

#### 4.2 Regression Testing

Once all of the results are tabulated, a Voluntary Product Accessibility Template (VPAT) will be completed for the EmpowHR 9.0 application. Any component that is not compliant will be submitted to the Unisys Coordinator for verification. The compilation of all components that are not compliant and must be mitigated will be submitted to Unisys in a change request package. The Target Center will be used in conjunction with the QA team to regression test any fixes to a 508 compliancy related change package.

## 5.0 Future EmpowHR 9.0 Releases and 508 Testing

As part of the testing strategy for 508 compliancy of the EmpowHR 9.0 application, a guideline for testing compliancy will be created and used to test any new releases. Testing of 508 compliance will be done in parallel with testing of the release. This will ensure that the EmpowHR 9.0 maintains compliancy. As part of the release, the VPAT for EmpowHR will be updated to include the new functionality of the release.