



# The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

## Final Copy of Case Study

**LOCATION:**  
*Alexandria, VA, US*

**ORGANIZATION:**  
National Industries for the Blind

**YEAR:**  
*2011*

**ORGANIZATION URL:**  
<http://www.Abilityone.com>

**STATUS:**  
*Laureate*

**PROJECT NAME:**  
AbilityOne eCommerce Site

**CATEGORY:**  
*Digital Access*

### PROJECT OVERVIEW

In 2009, National Industries for the Blind (NIB) initiated an Enterprise Resource Planning (ERP) project to support internal operations across the enterprise and provide a fully accessible web-based eCommerce platform. It was of paramount importance that the technology utilized was aligned with the core mission of NIB as stated below: At National Industries for the Blind (NIB), it is our mission to enhance the opportunities for economic and personal independence of persons who are blind, primarily through creating, sustaining and improving employment. Our associated agencies are the largest providers of employment to Americans who are blind, presenting them with the opportunity to master the most skilled positions based on their interests, skills and abilities. With the core mission in mind, NIB selected software from Oracle Corporation and selected a regional IT services company named BizTech to lead the implementation which included the R12 Oracle E-Business Suite (EBS) and the Oracle iStore eCommerce application. The eCommerce site, accessible at <http://www.AbilityOne.com>, was developed to support the sale of nearly 8,000 products produced by people who are blind or severely disabled that are sold online and through other channels to the U.S. Government and Department of Defense through the AbilityOne Program. NIB and its 90 associated agencies are the largest employers of people who are blind in the country. The website is an online catalog and purchasing store for all products being offered. Further information on the AbilityOne program and the AbilityOne site can be found at, [http://www.AbilityOne.com/OA\\_HTML/xxnib\\_ao\\_FAQs.jsp](http://www.AbilityOne.com/OA_HTML/xxnib_ao_FAQs.jsp). At the onset of this implementation project, NIB emphasized the mandate to meet all requirements as specified in Section 508C of the Rehabilitation Act of 1998, which specifies the functional performance criteria necessary to make electronic and information technology (EIT) accessible to people with disabilities (<http://www.Section508.gov>). As a further criterion of success, the project was also measured against the Web Content Accessibility Guidelines (<http://www.w3.org/TR/WCAG20/>) and was subjected to the NIB's internal usability guidelines for people who are blind and using assistive technology such as the JAWS screen reader and Ai Squared's ZoomText. The "out of

the box” Oracle EBS software has been developed and certified to meet the above noted specifications. The project team was able to verify this through conference room pilots and the use of a 3rd party accessibility testing tool available through the HiSoftware® Cynthia Says™ Portal (<http://www.CynthiaSays.com>). This is in itself a testament to the application development standards employed by the software manufacturer. The project team was further tasked with extending the baseline software to include a highly customized eCommerce web site, <http://www.AbilityOne.com>, with the same stringent accessibility standards as employed by Oracle in the baseline applications. This was accomplished with a relatively small and focused team of experienced web developers following a standard set of java based programming methods to build out the full functionality of the eCommerce site which was implemented in August 2010.

## **SOCIETAL BENEFITS**

Making technology accessible to blind and partially-sighted individuals is one more way to integrate a disabled population into modern life. The ability to use new technologies enhances their self esteem, engages blind users, reduces the experience of being disenfranchised and provides economic and personal freedoms at a level equal to sighted persons.

## **PROJECT BENEFIT EXAMPLE**

The project has benefited NIB and its partners because of its 508c standard compliance and blind friendly user interface. Section 508 allows latitude in software design, some features work better with access technology than others, resulting in greater user efficiency and productivity. With the objective of increasing usability, the following recommended 508c preferences are part of Oracle EBS specific design features:

- User interfaces must work with access technology, such as a screen reader, a screen magnifier or a speech recognition product (e.g. Jaws® or Zoom Text)
- User input may be by keyboard and mouse but must also be possible by keyboard only (i.e. without a mouse)
- ALT text should be provided for all graphical elements except decorative graphics (e.g. a blue line)
- For any reports or database content that is presented as graphical text (e.g., an image of a fax), provision must be made for the simultaneous presentation of a text version or equivalent description
- Graphical toolbar buttons must have text labels (these may be in tooltips)
- Hypertext forms must include access keys for quick navigation to all form elements and the list of all access keys must be available for presentation on the screen (e.g. in a Help window)
- Data tables must use only the first row for column headings and only the first column for row headings
- Data tables must not be nested (i.e. table cells must not contain tables)
- Whenever possible, use drop down lists rather than edit fields for input of routine data values
- User documentation must be provided in an electronic format suitable for printing in large print or translation into Braille.

Any graphs or tables must have text description in a caption or in the adjacent document content

NIB Customer Care team, which includes employees who are blind or visually impaired, has benefited from the flexibility offered by Oracle E-Business Suite's user interface. Along with the visual settings offered with Zoom Text and Windows, we were able to dial in the right color contrast and look-and-feel with standard settings in Oracle. Depending on the users' preferences for light and colors, we personalized the environment to high contrast, black and white, or mix of settings to arrive at a hybrid solution. During the training process, there was an emphasis on the variety of shortcuts offered with EBS. This aided in user adoption and individual efficiency on daily tasks. Following are some of the other user-friendly features implemented for Customer Care:

- Consolidated steps within the credit process
- Visibility into the Vendor order details and the agency shipping details
- Access to order in every stage from order placement to shipment
- Quick access to agency shipping information/details
- Order



retrieval much quicker • Advanced Oracle reporting tools assist with details and enhance decision making • Consolidated search functions because of single database source • System provides more transparency to customer care and is now able to provide better order tracking

## **IS THIS PROJECT AN INNOVATION, BEST PRACTICE?** Yes

### **ADDITIONAL PROJECT INFORMATION**

As a leader and a proponent in accessibility, NIB felt very strongly about providing a site (AbilityOne.com) that was 508c compliant with user friendly features that enables blind or visually impaired users to participate in online commerce or benefit from the employment provided as a Customer Care representative. It reflects strongly on our mission and our core values. Some of the advanced features that were implemented for NIB users and partners:

- Forms personalization
- HTML 508c web based forms
- Accessible Business Intelligence reports with accessible outputs
- Internal System accessibility and navigation

Looking forward, the priority is to enable and hire more blind employees that can utilize the system to its fullest capacity.