

HCL DX Portal Upgrade Project for a Major State Agency

DOR's Investment in Asponte's Faster,
More Affordable Solution Pays Dividends

About the Client

The [Commonwealth of Massachusetts Department of Revenue](#)'s primary mission is to manage state taxes and child support, assist municipalities' finance planning, and administer the statewide Underground Storage Tank Program. Their system must be able to track relevant rulings and regulations, up-to-date tax policy analysis, digital communication, and coordinate legislative affairs.



Business Challenges

The client relied on an out-of-date version of IBM WebSphere Portal (V8.0) inviting security risks. The Commonwealth had purchased an extended support agreement to keep their operations moving, but that agreement had a looming expiration date.

Under a deadline, the required development, testing, and server migration would need to be executed to align with the Commonwealth's on-going work without interruption to the services their citizens rely on.

Our Approach

Asponte assisted Mass DOR through HCL Software's DX Lab Services team from planning and migration through testing and transition to operations.

- Review existing environments and applications
- Created detailed migration plan
- Installed & configured HCL DX v9.5 on new virtual machines in 9 distinct environments
- Performed a [Lift and Shift](#) migration to deploy existing codebase to new servers
- Migrated custom applications and remediate issues as needed
- Assisted with content and artifact migration
- Supported functional and environment acceptance test cycles
- Collaborated with on site teams during go live through virtual meetups
- Continued maintenance and support post go live

Process

A total of 9 environments, designed to support various user types, were migrated to updated systems. The Commonwealth now enjoys the security and functionality provided by the most recent version of HCL DX v9.5, RHEL v7.9 and Oracle v19.10.

As part of the code migration, a custom portlet code was discovered to contain build dependencies on its separate (Service Oriented Architecture services. The Commonwealth did not want to update the associated SOA services due to the additional time and effort that it would take for their team to complete the portal upgrade project.

Next, we dove into decoupling the build dependencies between the HCL DX custom portlets and their associated web services deployed to a different IBM WebSphere environment. Prior to Asponte's engagement, both the web services and the custom portlets were built as a single package and deployed.

Decoupling the builds significantly reduced testing and deployment times. The Commonwealth was then able to deploy updates to each asset individually without impacting other custom applications while allowing the web services and custom portlets to leverage different java frameworks.

Previously, the Commonwealth leveraged IBM Rational Application Developer (RAD) as their Integrated Development Environment (IDE). Asponte assisted the transition from IBM RAD to open-source Eclipse IDE by assisting the Commonwealth's development team in learning to perform their tasks using IBM RAD. The shift from a paid IDE to a free, open-source IDE provided significant savings on software development.

Each change and every upgrade was tested in lower environments prior to going into production. Finally, Asponte provided collaboration and support during go live and for 30 days after to address any issues resulting from the migration.

Results

Once the project was completed, the team at Massachusetts DOR noted several improvements on their experience with the platform.

- ✓ Better Access: Ability to use either Chrome or Edge
- ✓ Time Saved: Combined Portal & Eclipse deployment package on Developer's workstations
- ✓ Vulnerability Remediation: (Log4J) for all upgraded servers
- ✓ New IBM RAD IDE with Open-Source Eclipse
- ✓ Updated Development Workstation Setup Guide

Software Products Leveraged

HCL Digital Experience

Red Hat Enterprise Linux v7.9

Oracle v19.10



HCL Digital Experience



Red Hat

19^c ORACLE[®]
Database

About Asponte

Asponte Technology connects applications, data, content, and people. Primarily supporting Enterprise clients with advanced development services ranging from websites, user portals, API integrations and web apps to systems architecture consulting, cloud hosting & management, to full design services and more.

Asponte is highly skilled in managing modern digital transformations and IT services. Since 2008, we have developed websites and solutions that allow companies to deliver amazing Digital Experiences to their clients and employees. Digital Experiences are the core competencies of Asponte Technology. Our team members have worked as Solution Architects at some of the top companies in the world.

Asponte offers custom development and infrastructure services, software sales, cloud migrations plus hosting options. We focus on the business strategy to deliver technical expertise along with value-added digital solutions that improve user satisfaction and achieve business goals. We provide reliability, proven technology and security through managed infrastructure, platform and software responses for clients seeking enterprise grade solutions along with Management Consulting Services.

Our experience working with Fortune 1000 companies has made us a top choice for technology services, architecture and development to help companies solve complex problems, speed time to market, and improve engagement with a lower total cost of ownership.

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