Browser Considerations for Workforce Central v8 (HTML5)

Browser Technology using HTML5

New modern-day user interfaces that have been designed and developed using HTML5 technologies depend much more heavily on browser technologies to complete many operations, compared with older, traditional applications using Java applets or Flash. Therefore, the user's perception of overall application performance is influenced more directly by the browser than ever before. HTML5 applications, such as the Workforce Central suite version 8, utilize specific browser operational technologies, which differ by browser. When deciding which browser will ensure the best overall experience for the customer working with HTML5 applications, it is important to:

- Understand the basic browser technologies
- Understand how browsers work with HTML5 applications in general
- Consider each browser's strengths

Factors that Influence Browser Performance Today

In HTML5 applications, web browsers complete these fundamental operations:

- Render the user interface
- Run JavaScript (not java applets) to run web page functions outside of the server
- Complete network operations between the browser and the application server
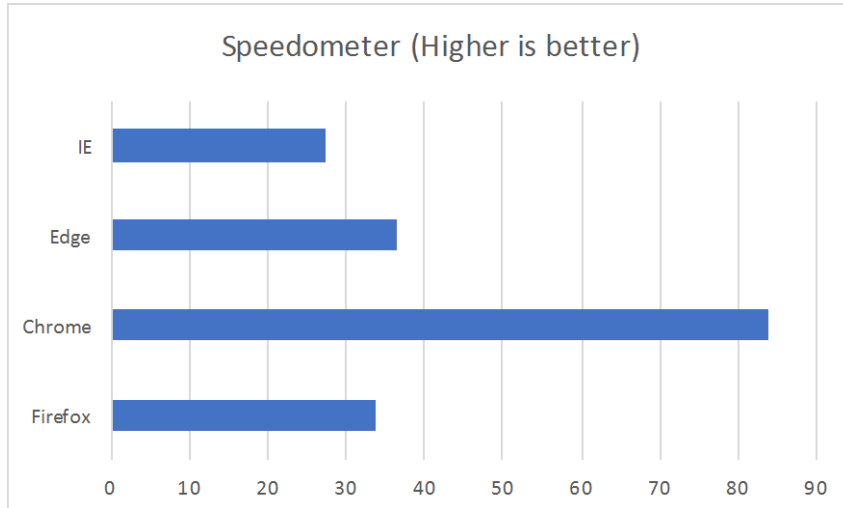- Ensure efficient memory management

Workforce Central users require a robust, rich, informational, and action-based experience to easily and efficiently do their job. Workforce Central v8 HTML5 pages were built with these user-based characteristics as their primary focus. Under such conditions, however, browsers must be able to quickly render the screens, perform real-time actions (for example, run JavaScript) directly on the client, and efficiently manage memory and network traffic so that users do not see any degradation in performance during long-running (all-day) sessions. A browser's efficiency is very important to the overall customer user experience and ultimate success.

Browsers are not all created equal in their operational technology capability and are also constantly evolving to keep up with delivering high performance in all operations. Typically, browsers fall into two categories — modern browsers (developed more recently, such as Google Chrome, Firefox, and Microsoft Edge) and traditional browsers (such as Microsoft Internet Explorer). Modern browsers generally do a better job in many of the operational technologies that provide the best experience when working with HTML5-based applications, including Workforce Central v8.

Industry Benchmark Studies Comparing Browsers

Several commonly referenced, industrywide browser performance benchmark studies illustrate these differences. Some early industry benchmarks, such as Kracken and Octane, focus almost exclusively on the browser's ability to run JavaScript. However, newer studies such as Speedometer have expanded to profile the combination of other operational technologies that are important to HTML5 applications: user interface rendering, networking, and memory and network management. This chart

shows Speedometer benchmark data for the four most frequently used browsers, completing the same set of operations specific to the industry (i.e., non-Workforce Central). For this test, Chrome performed at the fastest rate of operations (2 minutes and 13 seconds), followed by Edge (4 minutes and 19 seconds), Firefox (4 minutes and 44 seconds), and Internet Explorer (5 minutes and 32 seconds).

Source: https://www.youtube.com/watch?v=TeBeAn0zZco

The Kronos® Commitment

Kronos® Workforce Central is one of many HTML5 applications that depend on the interaction between browsers and their applications. Kronos is committed to supporting and optimizing the Workforce Central application and providing the best possible application performance for all supported browsers. Kronos has worked with, and will continue to actively work directly and in close collaboration with, individual browser vendors to improve the overall end-user performance experience. With Workforce Central v8.0.13, Kronos has achieved excellent response-time performance results for all browsers; however, because of the inherent technology differences, customers will note a difference in Workforce Central v8 performance time when using modern browsers as compared to traditional browsers.