**Onsite Campus Visits ADDENDUM**

**PROJECT:**    **Blackboard Learn SaaS**

**Date:**    **May 10, 2018**

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## Background

Blackboard and Core Technology Services (CTS) completed the second round of campus visits with BSC, DCB, DSU, MaSU, MiSU, NDSCS and WSC April 9-12 2018. The purpose of the visits was to invite Blackboard stakeholders (faculty, staff, and students) to an open forum allowing for questions and to address concerns. Blackboard and CTS captured and summarized each discussion and organized the content below.

## Overview

The improved performance of the LMS resulted in a positive shift in end-user sentiment to utilization/optimization rather than technical stability. Discussion related to performance and stability was minimal and only occurred when the Blackboard team prompted it. As a result, the primary recurring theme of all visits centered on features and functionality (How do I, etc.). Beyond functionality, other discussion topics included concerns with the tool, emerging/ancillary products, system monitoring, and options moving forward.

## Functionality

For all seven-campus visits, most of the discussion time focused on the features and functionality of Blackboard Learn. The specific topics or themes could be subdivided into three primary categories:

1. Functional usage of the technology
   - Layout and design questions related to Bb Learn (E.g; BSC: left navigation should be a more open example)
   - Exams, point totals and a different total in the grade book
   - The old LMS did something this way, how do I replicate that in the new environment
   - Tickets and support - the location of tickets, issues they have had with submitting the ticket (submitting tickets to both) Tickets were closed and resolved but not satisfied with the results

2. Training Deficiencies (or, Additional Experience Needed With This Tool)
   - Gradebook heard at multiple schools; a lot of questions about the functionality
   - Instructional Design
   - Retention Center

3. Feature Requests
   - Navigation-related (Import/export, notifications, filtering, grade book, nested dropdowns)
   - Completing tasks with fewer clicks (batch copy/delete, editing assessments, moving items)

To address the areas above, CTS and Blackboard has implemented and/or are considering the following:
   - Utilize the North Dakota Blackboard User Group (NDBUG) to work through training needs
     o NDBUG suggest/identify training needs through their monthly meetings
   - CTS multi-tier approach to providing training resources and support
     o On a weekly basis, CTS publishes and distributes "Chalk Line." The intent of Chalk Line is to provide users with a quick hitting, drive-by information and solutions

- On a monthly basis, CTS publishes and distributes "Learn Fast." The intent of Learn Fast is to do a deeper dive on a particular Bb Learn topic
- On a quarterly basis, CTS will deliver a more formal training activity. These activities will be varied, based on emergent issues or campus needs. Events might include a daylong campus visit or a webinar for faculty
- NDBUG site has links to past editions of Chalk Line and Blackboard Learn Fast, links to a plethora of resources, and soon links will be available to past training provided by Blackboard
- Possible Blackboard led faculty training session during fall orientation
  - NDUS has a standard academic calendar; an opportunity for Blackboard to provide some onsite training during fall in-service orientation

## Emerging or Ancillary Products

Some functional deficiencies with existing Bb Learn/SaaS were addressed with the introduction of emerging or ancillary products, including:
- Learn "*Ultra*" – describes the transformation of the user interface and workflows in Blackboard Learn from your current experience to a new, simple navigation and more modern, comfortable experience. Ultra is not a new LMS and due diligence by CTS in partnership with all institutions is required before campuses can enable this functionality
- "*Analytics for Learn*" – This platform enables individual NDUS institutions to conduct analysis for instructors, students, and administrators at the institutional level on a shared instance of Learn.
- "*Ally*" – Automatically runs all course materials through an accessibility checklist that checks for common accessibility issues. It also generates a range of more accessible alternatives from the instructor's original and makes these available to all students in the course (including Semantic HTML, audio, ePub and electronic braille)

## Concerns

- SafeAssign- Common sentiment from campuses is the SafeAssign tool and how it functions differently from when Blackboard was first implemented. Faculty has found that the tool does not identify plagiarism like it has in the past. Blackboard responded that there were changes along the way.
  - Blackboard shared their roadmap with various stakeholders during a meeting held on April 23, 2018, if interested review the meeting using the Bb Collaborate Ultra presentation link: SafeAssign_Mtg. 04.23.2018

## System Monitoring

During the second round of visits, campuses requested monitoring charts to be included in the addendum. Below are several charts that display how the system is monitored on various levels. A brief explanation is provided for each graph.

Graph #1: **Non-web transactions** are transactions that are not web transactions; New Relic does not detect they were initiated by a web request. This includes processes and jobs that do not handle web requests, such as message processing and background tasks. For example, you might schedule something to periodically run on your server to do database work, send emails, etc. The source is not a web request but something on your server.
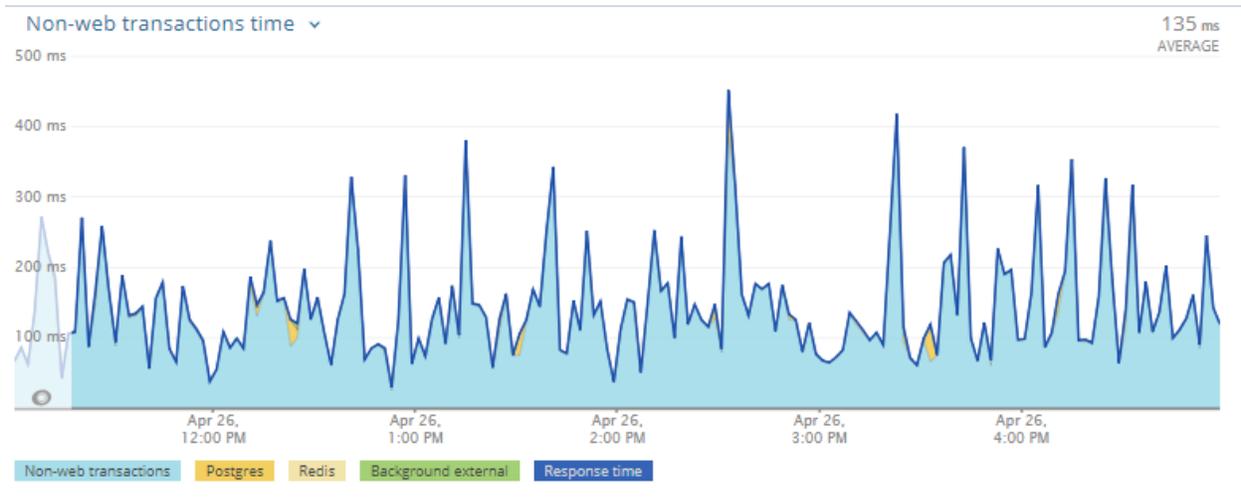
Graph #2: **Page View Load time** displaying metrics on each task when any web page is loaded. For more information on the timeline of how pages load in most web pages see this.

https://docs.newrelic.com/sites/default/files/styles/inline_660px/public/thumbnails/image/browser-page-load-timeline.png?itok=aViNqkJz
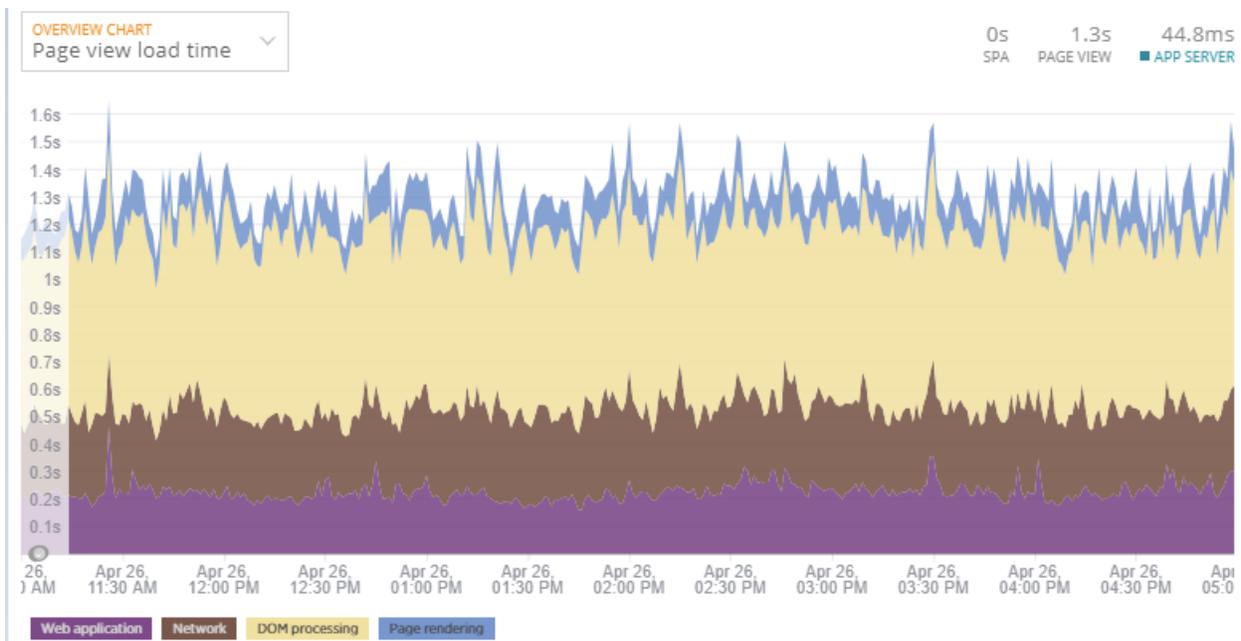


Graph #3 and #4: **Throughput** is measured by requests per minute and page view per minute. RPM will be large than the throughput by the browser (ppm). The largest reason for this is that API usage and AJAX calls fall into RPM and not PPM. Basically, this is a good metrics for activity on the environment. These metrics are used to determine peak usage for instance.
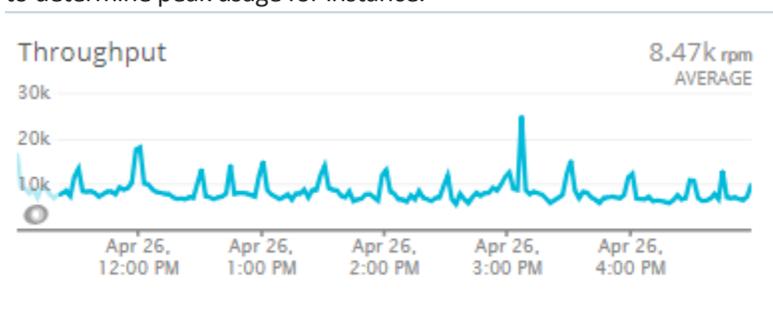
Average page per minute:
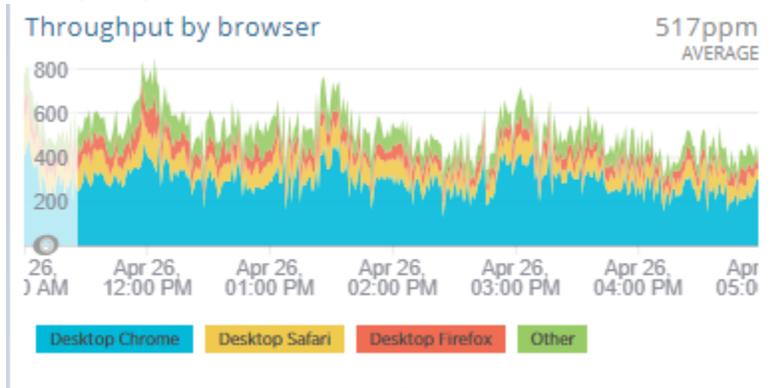


Graph #5: Apdex is a standard method for reporting and comparing the performance of the software application. The number is an indicator of percentages of web requests that complete in under two seconds. .99 means 99 percent of requests are completing in 2 seconds or less.
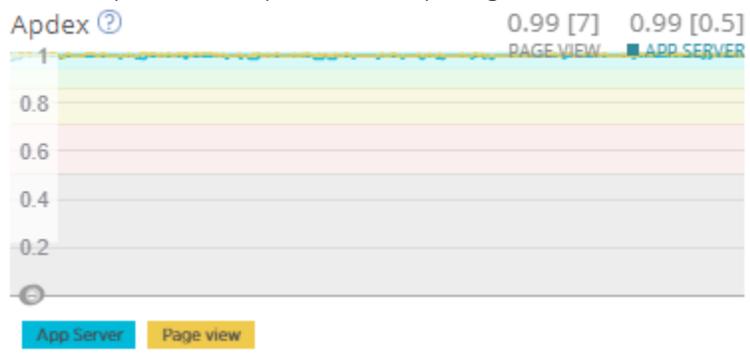


## Moving Forward

The single NDUS instance of Blackboard continues to be stable and delivering high service levels to end users. Blackboard changed its underlying technology after the stability issues experienced in the fall 2017 semester and the beginning of the spring 2018 semester. Since those changes, system performance and stability has been consistently stable.

A majority of NDUS institutions continue to support a single instance of Blackboard and the fiscal and operational efficiencies it brings to their institutions. Currently, six of the 11 institutions are operating in the new, single LMS. Pilot courses are underway and plans are in place to move DSU, DCB, MaSU, and MiSU into the LMS by the end of Spring 2019. Some institutions are new to Blackboard Learn and will require continued, and possibly additional, support and training to realize the capabilities of Blackboard.

That said, North Dakota State University and the University of North Dakota have stated very clearly that they do not want to participate in the single NDUS instance and would like their own instances of Blackboard Learn. Moreover, UND would like a decision on their request now, so that work could commence on a new instance in time for the start of the Spring 2019 semester.

While separate instances of Blackboard Learn would erode all fiscal and some of the operational efficiencies originally envisioned for this project, it is technically possible to do while retaining some of the advantages to the end user.

The original SBHE action from May 2016 required all NDUS institutions to move to a use the single, shared LMS instance. To allow some NDUS institutions to go on their own would require SBHE action that supersedes the previous board action.