Ensuring Effortless Growth for Harvard Reporting
QlikView Server Upgrade Opens the Door for New Features and Reports

No matter what it’s used for, old hardware and unsupported software provide a common dilemma for IT administrators that also has a direct effect on the end user: Perform the minimum possible to stabilize the environment, or take the opportunity to improve on the situation for the future? In the case of Harvard’s instance of business intelligence platform QlikView, teams from the Common Alumni Affairs Development System (CAADS), Human Resources, the Harvard Data Warehouse, (HDW), and the Cloud & DevOps program at Harvard University Information Technology (HUIT) collaborated to take the second path — with excellent results. In partnering to replace physical servers that were due for replacement, the teams also made the decision to move to the cloud, developing an architecture using Amazon Web Services (AWS) that not only meets current needs, but also provides an extensible platform that’s ready for forecasted growth of this important Harvard service.

The Problem
Multiple drivers resulted in a need to perform significant modernization of QlikView. First deployed in 2010 by the CAADS team as a business intelligence tool for developing data discovery and analytics applications solely for Alumni Affairs and Development, QlikView had since been adopted by the Human Resources and Analytics teams, and was now poised for explosive growth within the University. With an expectation for exponential growth of both data and users, it was clear a new, extensible solution for added capacity was needed quickly. Additionally, QlikView’s hardware was desperately in need of an upgrade — it was hosted on the same physical servers since its introduction five years earlier — and Microsoft’s July 2015 end-of-life for the underlying Windows Server 2003 OS only added to the urgency of the problem.

The Solution
In 2015, the Cloud & DevOps team partnered with the CAADS, HR, and HDW teams to develop and deploy a new QlikView environment using AWS. In addition to Harvard team members, an architect from QlikView’s own team came onsite during the process to provide expertise and make recommendations regarding architecture, file structures, configuration, and features. The Harvard teams sat together daily for weeks working on the necessary adjustments — including making upgrades to PIN authentication and designing a robust solution to ensure business continuity in the event of a failure. Issues were worked on in alignment with each other, allowing for quick resolution in support of the team’s end goal: making the architecture extensible in preparation for planned growth, while simultaneously building only what was currently required. This strategy had the twin benefits of enabling immediate cost savings while simultaneously preparing for growth with little effort — particularly in the event of user and data growth occurring more rapidly than anticipated.

The Result
QlikView migration and modernization have been a tremendous success. Users love the new portal — a result of upgrading QlikView software as part of the project — and report significantly faster response times than with the former on-premise solution. In addition, nightly data refreshes are not only faster (requiring between 25% and 50% less time) but also more reliable. Due to tighter integration with nightly data warehouse loads, HR applications are available up to two hours earlier each day. Partners are pleased that several improvements slated for the future (such as the PIN upgrade) were performed as part of the AWS move, and they are also enjoying a more stable version of QlikView and an improved disaster recovery plan. Financially, the move will result in an estimated $7,500 annual savings — even with a fourth environment having been created in the process. And perhaps most importantly, a siloed working environment has given way to a truly collaborative culture on this project: While addressing a growth issue like QlikView’s might in the past have become a conversation about technology limitations, our teams instead banded together in a lasting partnership devoted to building technology and solving problems.

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