



The Clark Construction Group, LLC



“Since rolling out Kahua, we have realized considerable productivity improvements through improved usability, better collaboration, seamless integration with our ERP system and other applications and a platform to develop and launch apps quickly.”

Steve Stankiewicz |
Applications Development Manager
Clark Construction Group

Background

Based in Bethesda, Md., Clark Construction Group, LLC, is one of the nation's most experienced and respected providers of construction services. With more than 4,000 employees and \$4 billion in annual revenue, Clark is consistently ranked among the largest general building and civil construction companies in the United States.

Clark Construction's diverse construction portfolio, specialized divisions and subsidiaries ensure that each project is matched with appropriate resources and expertise. Through technical skill, preconstruction know-how and self-performance capability, Clark Construction anticipates project challenges, develops solutions that meet clients' objectives and ultimately delivers award-winning projects. Since its early beginnings, Clark has been at the forefront of new technologies and evolving building trends. With this spirit of innovation, Clark was an early adopter of cloud-based collaborative project management systems in 1999.

Review of Systems and Processes

By 2001, Clark Construction had implemented an enterprise collaborative project management system, the leader in the category at the time, eventually managing over \$36 billion worth of work completely in the cloud. While the technology served it well at the time, Clark's vendor was ultimately acquired and product development and enhancements slowed dramatically.

"We were concerned, but to be honest, there really wasn't anything better on the market, and migrating to a competing system at that point would have been a lateral move at best," said



About Clark Construction

- Ranked 15th on ENR Top 400 Contractors
- Over 1,400 local and national awards for quality, craftsmanship, sustainability and safety

Project Objectives

- Reduce costs and improve productivity

Steve Stankiewicz, Application Development Manager.

In 2009, the economic downturn provided the perfect opportunity for Clark to look for ways to improve productivity so that it could emerge from the downturn with a jump on the competition.

“Whether it involved changing business processes, seeking better technologies or making different hires, nothing was off the table,” said Dave Golden, CIO of Clark Construction Group.

The Clark team embarked on a thorough review of all its systems and processes, identifying and documenting what it called “ideal” processes. When the team reviewed its incumbent project management system, the analysis revealed that the amount of time it was taking to execute its ideal processes and return actionable data was markedly inefficient and overly time consuming.

“Project management systems should enhance business processes and allow for quicker decision making, not be a bottleneck,” said Stankiewicz. This inefficiency was not only impacting Clark but also the project owners, subcontractors, architects and the rest of the project partners. To further compound the issue, the analysis also revealed that Clark's systems were rather inflexible and incapable of easily integrating with other applications, thus making it more difficult to access vital project data when needed.



A Solution for the Future

After completing the review of its systems and business processes, Clark set out to find a vendor that would address today's challenges with the flexibility to adapt as business needs change down the road. Clark reviewed several vendors and even considered building a solution internally, but the team ultimately selected Kahua. Unlike other systems, Kahua had several key differentiators that Clark found very compelling:



Cloud-Based Platform

Kahua was designed as a Platform-as-a-Service(PaaS), not just an application. Historically, developing apps was a rather tedious and timely process requiring an organization to set-up a database, user accounts and security, reporting, UI design, etc. With Kahua, all of those things already exist in the platform so when you're building an app, all focus is on the business process, forms and workflow, allowing for speedier app development. Additionally, Kahua's online marketplace, the kStore, contains a variety of apps that have already been built and tested, such as Design Review, Checklist and Value Engineering, to name just a few.



Ease of Use

Clark's end-users range from individuals right out of college to those who have been in the workforce for a while. One of Clark's key selection criteria was how intuitive the system was and how easy it would be for users to get acclimated. In order to ensure maximum return on investment, user adoption was key. In Kahua, Clark found a solution that was easy to use, easy to learn and easy to remember, resulting in improved productivity and reduced training and support costs.



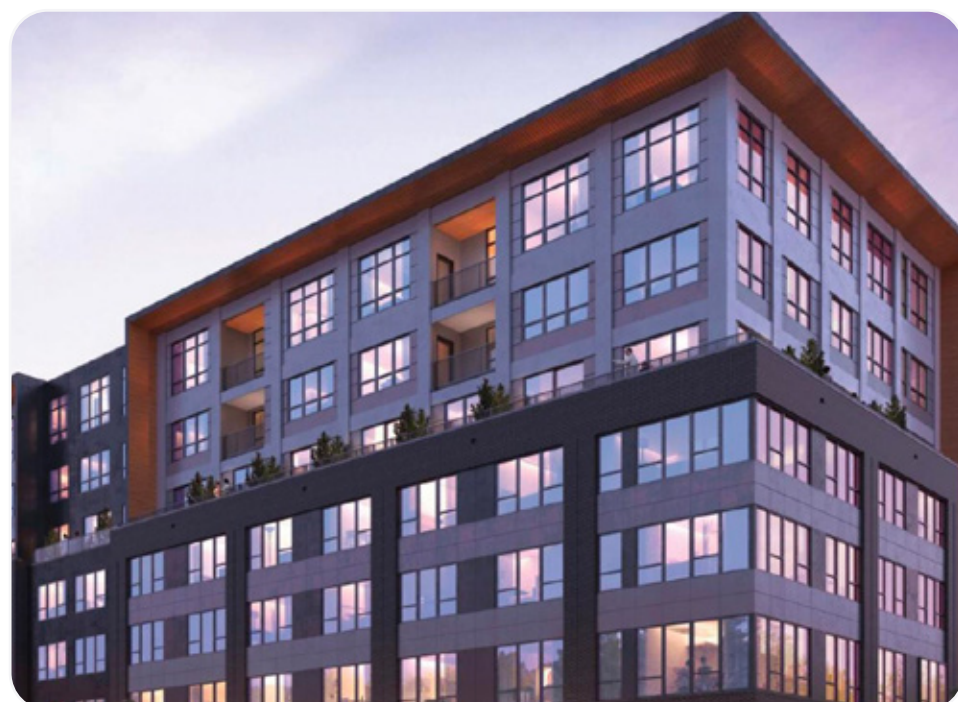
Collaboration without Compromise

One of the biggest shortcomings of Clark's legacy system was the hub-and-spoke architecture, which limited other project partners' means of collaboration and impacted productivity data ownership. Instead of a hub-and-spoke architecture, Kahua is designed as a hub-to-hub architecture. With hub-to-hub, each project partner has its own Kahua database, allowing everyone on the project to truly collaborate, share data and use workflow capabilities to assign and manage project tasks. In this model, each entity has its own system and project record.



Seamless Integration

Maintaining data in various systems is inefficient; when a project team member has to look up vital project data in multiple systems, it impacts productivity. So in addition to ensuring that its project partners were able to better 'integrate' through enhanced collaboration, Clark determined that productivity gains could be made by ensuring that its next-generation system could easily integrate with its ERP system and other third party applications. Since Kahua is built on open APIs, it easily interfaces with other systems.



Results

Because Clark had performed such a detailed analysis of its systems and processes, it had a very good baseline to track performance improvements. The more noteworthy and tangible improvements included:



Usability and Cost Reduction

In addition to positive feedback about the user interface and more intuitive nature of the system, Clark conducted a detailed analysis of the processes that were optimized in Kahua. In taking a Change Order from conception through RFP, proposal submission, approval and generation of subcontractor change orders, Clark determined it took significantly less time to complete this process. Similarly, Clark realized additional improvements for other vital processes like Submittals and RFIs. These efficiency gains came about as a result of the combination of Kahua's modern and intuitive user interface as well as the workflow automation capabilities. From a true cost savings perspective, these and other associated productivity gains will enable Clark to reduce on average one FTE per project.



Productivity Gains

In addition to the productivity gains resulting from a better user experience, Clark was also able to dramatically improve efficiencies for key processes like Daily Reports. By leveraging Kahua's workflow automation, Clark designed a two-part automation that would generate a daily report each night so that the superintendent could review first thing in the morning. This enabled the superintendent to review and remove any subcontractors no longer on the job and add any new ones expected onsite that day. At noon each day, the system sends task notifications to

all subcontractors to submit their daily reports via a simple form that captures information such as work descriptions, labor types and quantity. Upon submission of the subcontractors' reports, the system automatically compiles them into a master report for review and completion by the superintendent. Depending on the size of the project, this process saves Clark one to two hours per day and ensures that comprehensive daily reports are completed.



Integrate, Not Re-Create

Since Kahua already has a number of out-of-the-box integrations with a number of leading technologies, seamless integration is a reality and far less complicated than with Clark's previous systems. With Kahua's open API, Clark was able to integrate with its ERP system, as well as other third party applications such as Bluebeam and DocuSign. If users have the Bluebeam application installed on their PCs, they can click on any attached file in Kahua and immediately open the file in Bluebeam, mark it up and close it, which automatically saves the file back into Kahua when finished.



Rapid App Development

The rapid app development capabilities of the Kahua platform have enabled Clark to develop apps quickly and cost efficiently. The flexibility of the Kahua platform enables Clark to modify existing apps rather than re-create them. Using this approach, Clark was able to modify various apps to meet its specific requirements. Clark now uses this approach for submittals, RFIs, daily reports and change orders, resulting in workflow improvements.

Conclusion

Through the implementation of Kahua on all new projects, Clark Construction has realized considerable productivity gains through improved usability, streamlined and efficient process execution, seamless integration with its ERP system and other essential applications as well as a platform to develop and launch apps quickly. As further testament to the success of the project, Clark has deployed Kahua on over 50 projects valued at over \$5 billion. In November of 2014, Clark made a commitment to standardize and deploy Kahua on all new projects.

About Kahua

Kahua is changing the way that capital projects are delivered and managed. The Kahua Network is the world's leading collaborative network for real estate and construction project management. Kahua's collaborative project management solutions improve communication and performance throughout the entire lifecycle of your capital assets. Delivered as a secure, scalable Application Platform-as-a-Service (aPaaS), The Kahua Network enables users to easily share data, documents and workflows across all applications and projects. Kahua supports leading mobile devices and tablets, integrates with third party applications and numerous accounting systems, and enables customers and certified development partners to quickly modify existing applications or build custom applications that operate on The Kahua Network. To learn more, visit www.kahua.com.