appficiency

21ST Century Business Tools for the CONSTRUCTION INDUSTRY

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In an industry where, according to one survey, only 23% of CIOs have a clear vision and enterprise-wide strategy for technology, NetSuite ERP and Appficiency's Construction Solutions provide an end-to-end technology suite that helps firms eliminate manual processes, stop using spreadsheets, and save money on every project.

Whether they're developing new structures from the ground up, rehabbing existing commercial buildings or working on complex municipal projects that have long timelines, companies in the construction industry have to manage many different moving pieces to get these projects from concept to completion. They need tools that can not only help them manage their internal processes, but also support good communication and collaboration among business partners.

Construction is a sector that hasn't historically embraced technology.

A recent KPMG survey of CIOs in the construction and engineering field found that only 23% had a clear digital business vision and strategy across their enterprise (versus 32% for all other industries).

This white paper explores the key challenges that today's construction firms are facing and shows how NetSuite ERP and Appficiency's Construction Solutions provide an end-to-end technology suite that helps firms eliminate manual processes and spreadsheets, saving money on every project.

Slow to Adopt, but Ready for Change

Historically slow to adopt technology, the construction industry was hit hard by the COVID-19 crisis, with impacts ranging from suddenly-mothballed projects to labor shortages to a greater demands for worker health and safety on the jobsite. Combined, these factors pushed more companies to explore how technology can help them work better, smarter and safer.

"While many industries have been streamlined and improved by technological revolution, the construction space is characterized as more of an evolutionary industry where change typically happens gradually over time," EHS Today points out.

The industry's high levels of stratification also creates unique challenges for the general contractors, subcontractors, project management consultants, land developers, home builders and other entities that must work in sync in order to get projects over the finish line. Although some organizations may handle more than one aspect of a project (e.g., a developer that is also a home builder), for the most part the industry remains fragmented across myriad different roles and responsibilities.

To handle those responsibilities, most companies use a general ledger system (GL), with Sage or QuickBooks as their main business management tools. Popular add-ons include time entry, project tracking, payroll tools and Excel spreadsheets, the latter of which are frequently used for data-sharing across the organization and between project partners.

"Most of these companies are plucking data out of various systems and then using it to review project costing and other key data points," said Paul McDonagh, principal at Appficiency, a NetSuite Partner.

These companies do, however, realize that there are significant efficiencies to be gained by investing in technology. The subcontractor with less than $25 million in annual revenues may be less apt to adopt this tech-forward mindset, said McDonagh, but larger firms that have consolidated with other entities—or that are operating with private equity backing—do recognize the value in bringing their numerous different enterprise-level

systems onto a single, unified enterprise resource planning (ERP) platform.

Replacing People-Managed Processes

Without a unified technology solution, construction can't gauge the health of their businesses, manage projects effectively or predict future business needs. With multiple systems, platforms and spreadsheets to juggle on the internal operational front, these companies wind up with an unmanageable tangle of data that can't be optimized, used or shared with the right parties. "This is an industry that runs on a lot of people-managed processes," said McDonagh, "versus system-managed processes."

Customer billing is one area that's ripe for automation at the typical construction firm, where much manual effort goes into producing an invoice, sending it to the customer, and then tracking it through to final payment. Job costing is another manually-intensive process that, once automated, quickly reveals whether an undertaking will be profitable—or not.

"With their existing solutions and/or manual processes, construction companies can't get or provide the data fast enough to be able to make quick, accurate decisions," said McDonagh. "With a unified, cloud ERP system in place, the same companies can easily spot and react to cost overruns and detect other trends based on specific project categories within NetSuite."

Because construction projects take time to complete, changes to initial contracts are fairly common throughout the life of those projects. Where in a perfect world a contractor would sign and execute on a single contract, the reality is that owners and project leads usually request multiple changes along the way. In the absence of a unified, enterprise-wide system, construction firms have to manage and implement these changes manually, and across the myriad solutions (Excel, QuickBooks, etc.) that they're running on.

"Reviewing histories and then recording and accounting for these changes across the life of the project is difficult at best," said McDonagh. "Without good visibility over these alterations, contractors can wind up losing money on a project."

Appficiency's Construction Solution

Designed for construction firms with revenues in the $50 million to $200 million range, Appficiency's Construction Solutions is an end-to-end technology suite that's based on NetSuite's cloud ERP. In developing the solution, the NetSuite-centric Appficiency team—which has years of experience both working directly for the software provider and implementing its solution for a broad range of customers—wanted to cover all aspects of a construction firm's business. In doing so, it can leverage all that NetSuite has to offer while also adding additional components that directly address the challenges outlined in this white paper (and then some).

To help companies optimize and automate their project estimating activities, for example, Appficiency Construction Solutions incorporates functions that both create estimates and manage margin control—an important consideration in an industry that deals with thin margins and unpredictable raw material costs. The solution also facilitates the retrieval of bids from subcontractors, with those bids ultimately being used to create the final project bid.

Once a contractor is awarded a bid, it uses the software to develop final project costs, track orders for that project, determine percent calculations by task and manage revenue recognition. To develop Appficiency's Construction Solutions, McDonagh said the team examined the industry's key business process challenges. As a result, the platform is business process-oriented and includes vendor requests for quote (RFQs), estimates, bids, project planning, material job costing, change order management, revenue tracking/planning and billing.

"We took several different construction-focused solutions and plugged them directly into NetSuite ERP," said McDonagh, who formerly worked for NetSuite. "The end result is an end-to-end solution for the company that wants to take advantage of some or all of those capabilities, depending on their needs."

Managing Workloads and Leveraging New Opportunities

With an average implementation time of 6-8 months, Appficiency's Construction Solutions helps general contractors, subcontractors, developers, home builders and other organizations automate their internal business operations, gain access to valuable data and make better business decisions. No longer saddled by Excel spreadsheets and manual processes, companies can also speed up their operations in a way that helps them better manage their current workloads and leverage new opportunities.

"Timeliness and accuracy are both very important in construction," said McDonagh. "When companies can set up a system, establish the rules around it and enter transactions correctly, accuracy levels go up and the costs of business go down." Because the software platform handles many of the tasks that require a "hands on" manual approach, companies also gain major operational efficiencies as they allocate employees to more meaningful tasks.

Using the software's historical data, contractors can tell which projects they're best suited for and which ones they'd be better off skipping. For example, a company can determine whether it will be competitive or not, based on its track record on similar jobs.

Appficiency's Construction Solutions also helps companies understand where their projects stand at any given time, how much additional time they're taking to complete, or whether their customers are paying their invoices on time across specific job or cost categories. When problems arise in these areas, companies can quickly isolate the root cause of those issues, address them and use data to drive continuous process improvements.

Making the Move Now

With about $10 trillion being spent on construction-related goods and services worldwide every year, construction is one of the world's biggest areas of economic activity.The industry plays a strategic role in supporting economic development, but is also facing significant profitability challenges. Mounting cash flow pressures, margins eaten up by increased competition and meager labor-productivity growth over the past decades, for example, have all affected construction industry sustainability.

The good news is that construction innovation can help improve a company's long-term competitive advantage. By combining cloud ERP with industry-specific applications, construction firms can position themselves for success, eradicate their manual processes, save money, and enhance profitability on every project. As customer preferences continue to change and new industry disruptions emerge, the companies that make this move now will be best positioned to win in the future.