

BUSINESS GUIDE

Construction Firms Use Technology to Manage Complex, Multi-faceted Responsibilities





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By integrating a leading cloud enterprise resource planning (ERP) solution with industry-specific capabilities, construction firms can effectively manage their operations from initial bid to final payment—and all the steps in between.

When construction firms bid on new projects, they must keep costs low or risk missing out on key opportunities. For companies bidding on commercial, industrial and large-scale residential projects like apartment buildings, the competition is especially fierce. Consequently, many construction firms have kept technology investments to a minimum, often resorting to a combination of basic software solutions and manual processes to run their operations.

This frugal approach is slowly catching up with construction companies. Their caution with regard to technology has limited their operational visibility

and saddled them with poor financial management. And this has made it especially challenging to manage the complexities of a construction project, including resource allocation, coordinating contracts with subcontractors, ordering materials as prices fluctuate thanks to global demand, tariffs and more.

This business guide will explore the top challenges facing today's construction firms (both commercial and residential) and explain how a unified cloud enterprise resource planning solution combined with industry-specific capabilities are helping companies work with greater efficiency, visibility and agility in their respective corners of the construction market.

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Too Many Manual Processes and Spreadsheets

Construction is the largest industry in the world, making up [13% of global gross domestic product \(GDP\)](#). With just 1% percent annual productivity growth over the last two decades, construction faces unique challenges in an industry where time and cost overruns are the norm, and overall earnings before interest and taxes (EBIT) are about 5%.

Where other industries have turned to technology to help reduce costs, automate processes and gain a competitive edge, construction has largely opted out. According to a KPMG report, just 23% of construction and engineering organizations have an enterprise-wide vision and strategy for technology in place—a number that's 9% lower (on average) than other industries.

David Lasky, Managing Director at NetSuite Solutions Provider and BPO (business process outsourcing) Partner [ScaleNorth](#), said the industry's slow technology can be traced to the fact that every penny counts when bidding on a new project.

"Being able to use virtual reality (VR) goggles to conduct a low-voltage wiring session with a technical expert is a great idea, but how do you track the cost of the VR and fold it into a specific project?" Lasky asked. "And, how do you ultimately bill your customer for that investment?"

The answers to those questions are difficult to pin down for contractors that rely on manual systems, spreadsheets and basic software like QuickBooks Contractor Edition, both of which remain popular among companies with \$10 million to \$250 million in annual revenues.



Addressing Key Challenges

Increasing material costs, labor issues, new competition and thin profit margins are just some of the key challenges that today's construction companies face on a daily basis. They're also grappling with:

- **Complex projects with a lot of moving parts.** Today's projects are extremely complicated endeavors that require many different professionals—from engineers to architects to general contractors to subcontractors (to name a few) and shifting timelines as projects wait on approvals, delays and permitting. The process can be overwhelming and is especially onerous for a company that still relies on paper, disconnected software systems and phone calls to run its business. “For a construction firm, that underlying coordination coupled with subcontractor management has to be a well-orchestrated dance,” said Lasky, “with the frustration of having to coordinate a project with multiple entities that are always on the same page being the biggest pain point.”
- **Understanding the difference between revenue and cashflow.** Many construction firms don't discern between revenue (the money earned from the sale of products and services) and cash flow (the net amount of cash being transferred in and out of the firm). “A lot of companies get tripped up on that particular point, because recognition of revenue in construction is based on the percentage of project completion,” Lasky explained. “So, where a company may be killing it when it comes to

project completion timeframes, it may be falling behind financially because of the complexities with the invoicing process (which directly impacts actual cash flow).”

- **Long payment terms for subcontractors.** The HVAC or electrical contractor that's working for a larger, general contractor on a particular project may have to wait a while to get paid. That's because the general contractor is also waiting for its own bills to get paid before paying that HVAC or electrical contractor. “By the time the invoice is submitted, that subcontractor has to wait 45 days (give or take) to get paid,” said Lasky. “In certain circumstances, cash can get pretty tight.”
- **Poor materials management.** Making sure that all construction materials are accounted for, invoiced and paid for is an ongoing challenge for contractors that are working on a jobsite. “This is a complex piece of the puzzle to organize,” said Lasky. Along with managing the construction project, for example, contractors also have to coordinate material deliveries to the site, position equipment at that site and monitor their own assets throughout the life of the project. “NetSuite does a great job with materials management and accounting for projects,” said Lasky. “This functionality includes industry-specific nuances of vendor provided materials, prefabrication, warehousing, storage and consumables with different types of units of measure.”

- **Inability to do AIA™ invoicing.** AIA billing is a system created by the American Institute of Architects to standardize how contractors submit work-related invoices to architects. The formatting is complex and requires contractors to use the AIA invoice template or some other version that meets the organization's standards. "Many software packages that construction firms have in place don't even do AIA invoicing, so it has to be done offline or by hand," Lasky said. "When companies get to a certain level of volume invoicing, those offline processes get cumbersome and expensive to maintain."
- **Managing retainage.** Retainage, the money earned by a contractor or subcontractor for satisfactory work, but then held until the contract (or a specific milestone within that contract) is complete, is an assurance for the timely completion and quality of a contractor

or subcontractor's work. From the contractor's perspective, the money has been billed, but is not yet collectible revenue. Tracking retainage is difficult from an accounting standpoint and requires a robust financial platform that integrates with the company's project management system.

"NetSuite has a project management module that's solid from an accounting perspective, and that we complement with industry-specific retainage management capabilities."

David Lasky, Managing Director, NetSuite Solutions Provider and BPO Partner ScaleNorth



Driving More Successful Projects

ScaleNorth's [ScaleApp Construction for NetSuite](#) solution helps organizations drive successful projects, collaborate in real time, estimate project profitability and create revenue and cost estimates. It also allows companies to easily set up projects using project templates, track all financial metrics, and automate their subcontractor, work-in-progress and documentation management processes.

For its contractor clients, ScaleNorth built a connector that integrates NetSuite to its construction project management platform and that addresses issues like AIA invoicing, materials management and retainage. ScaleNorth also enhanced the ERP system's job costing function to align with the construction industry and has built applications that help improve construction firms' overall productivity.

As a NetSuite BPO Partner, [ScaleNorth](#) also takes on the responsibility of running the accounting functionality for a wide range of construction companies. This firsthand knowledge has helped

it build out a full suite of capabilities that augment the ERP system in a way that directly addresses construction firms' top challenges. Some of the solution's key features include:

- Job Cost
- Project Management
- AIA™ Invoice Calculation and Schedule of Values
- Retainage – Invoicing and Payables
- Change Orders
- Partial Payments
- Field Inspection and Management Integration with several SuiteApp options
- Document Management
- Integration with Inventory Management
- Create and Monitor Detailed Project Level Budgets
- Advanced Revenue Recognition
- Estimating
- Scheduling
- Integrated Marketing and Customer Relationship Management
- Integration with Payroll Systems for Prevailing Wage Compliance

A Single, Reliable View

As a former senior executive in the cell tower industry with significant construction operations, Lasky enlisted his wife, a general contractor to advise on the ScaleApp Construction for NetSuite solution.

“During my 10 years in the cell tower industry, I wasn’t able to find a complete solution for a company that was both an asset owner and that also constructed assets,” said Lasky, who recognized the void the in the market and worked with the team at ScaleNorth to fill it. “We took that knowledge and melded it together with our experience to come up with this construction bundle.”

Once in place, ScaleNorth’s ScaleApp Construction for NetSuite solution helps construction companies take the various components of their construction businesses, put those components into a single system and achieve visibility across projects, inventory, materials and subcontractor negotiations (or any other desired dimension). Armed with a single view of their operations, contractors can stop playing “spreadsheet wars” across the enterprise, eliminate manual data re-entry and replace their disparate software systems.

“Coupled with our plugin for construction, NetSuite allows contractors to manage all activities on a single platform. Owners, executives and investors get a 360-degree view of the entire business operation—something that’s just not possible with disconnected systems, spreadsheets and paper.”

David Lasky, Managing Director, NetSuite Solutions Provider and BPO Partner ScaleNorth

This consolidated view helps companies determine whether a project will be profitable (or not), identify financial challenges (i.e. clients that aren’t paying on time) and better manage their own assets.

Preparing Construction for Today's Needs—and Tomorrow's

As the construction industry continues to evolve and become more complex, the companies that make the move now to replace their aging, disparate systems will be best positioned to win profitable projects in the future. Those that opt out will find themselves behind the curve and struggling to catch up.

"Going forward, technology will continue to impact the dynamic of how projects are managed, organized and finished," said Lasky, who sees ERP as a key differentiator for companies that want to get ahead of the pack in the industry.

"NetSuite gives companies a platform that they'll be able to layer and integrate different pieces of technology into, including building information systems (BIMs), sensors and monitoring capabilities," said Lasky. "To get there, construction companies will need this base platform in place before technology fundamentally changes construction as we know it."





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