



Right Networks®

eBook

Accounting Tech Stack: How to Build and Benefit From Firm Apps, Software, Tools

Accounting Tech Stack: How to Build and Benefit From Firm Apps, Software, Tools

Without a doubt, information technology has significantly impacted every component of accounting firm production and automation. It goes without saying that the evolutionary adoption of individual applications and tools over the past few decades have primarily focused on specific tax, assurance, and accounting departmental automation.

The primary focus of owners traditionally has been on improving “billable” functions, often leaving administrative production as an afterthought to be handled by the “admin” team, which in many cases was understaffed and underfunded. As many internal administrative processes were viewed as overhead, a minimum amount of effort was focused upon them unless they had a specific impact on other production departments.

Firms must realize that this is changing as technological advancements are improving ALL business information systems and the tools being utilized to improve the firm's CAAS (Client Accounting and Advisory Services) practice are being applied within the firm as part of a comprehensive suite of integrated business applications referred to as the technology stack, or “tech stack” for short.

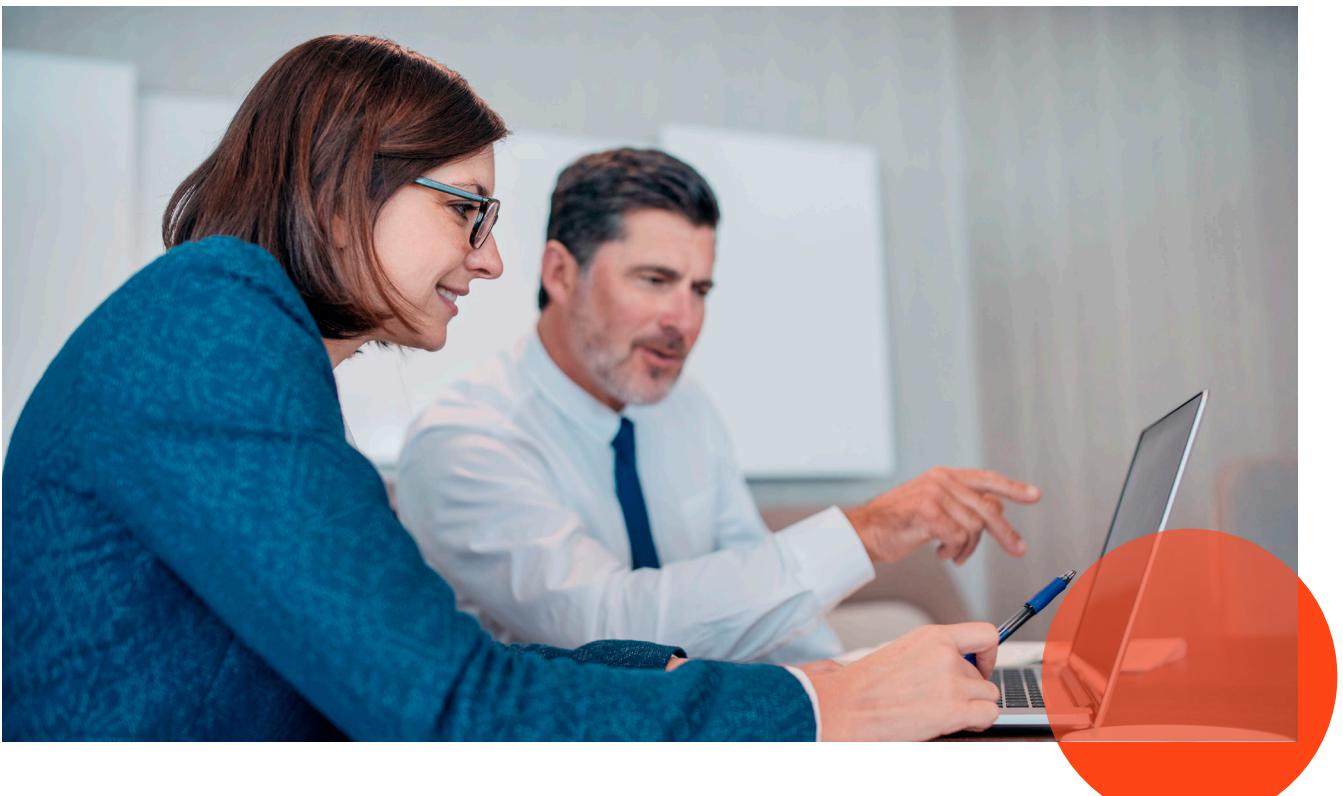
The accounting firm tech stack will not only connect all firm personnel to the firm's business information resources but extend that reach to client tech stacks as well, thereby building a comprehensive and collaborative environment that we feel will harken in the future of the profession.

Building a comprehensive firm tech stack begins with understanding the components of the individual tech stacks the firm already has in place, identifying opportunities for integrating applications in areas that have been underserved (administration), and building the tech stack on a technology infrastructure that will allow the firm to take advantage of future growth and technological innovation.

“Proactively working towards building a comprehensive accounting tech stack will provide your firm with a significant competitive advantage and should be an integral component of your firm's future strategic planning and discussions.”

In this **Right Networks “Accounting Firm Tech Stack” eBook** we will summarize the key components of the firm's current departmental ecosystem so the reader can understand how existing tech stacks connect to improve productivity. We will then draw from the recent development and expansion of firm CAAS tech stacks, focusing on the individual administrative components of internal accounting, human resources, and firm production, to optimize the firm's own internal tech stack. We will then discuss the IT infrastructure required to optimally support the firm/client tech stack and then close with how the melding of all of these components in a comprehensive business information system is critical to the future of our firms and the accounting profession.





Current Production Ecosystems

Tax and Assurance are the two most common production areas where firms build out their technology stack. Utilizing applications that natively integrate reduces duplicative entry and human error, both of which end up requiring reconciliation. In most firms, the significantly larger number of tax engagements versus assurance engagements drove firms to first focus on building toward an integrated tax suite connecting those components that improve efficiency versus utilizing traditional manual methods. In addition to the primary selection of a tax program, firms have integrated practice management (contacts), workflow and projects, portals for client document ingress, scanning and OCR (optical character recognition) tools for importing data into the tax program, tax research and forms, fixed assets, and document management for archival to make up the tech stack for tax production.

In many instances, early adopters of these various technologies found that the vendor-created application was insufficient and instead chose a “best of breed” approach, which moved them away from a single vendor tax suite concept. For example, according to the CPA Firm Management Association 2021 Digitally Driven Firm survey, the two most common portals and eSignature tools utilized by firms were **Citrix ShareFile/RightSignature** and **cPaperless SafeSend/Sign**.

These third-party applications integrated the delivery/signature components of the tax process more effectively for clients, so many firms standardized on those applications to optimize tax production. In addition, while applications such as **CCH Scan** and **AutoFlow** worked well with CCH tax programs for the organization of client tax source documents and importing of data from the most commonly recognized tax forms, other tax systems found “best of breed” applications such as **SurePrep 1040Scan** and **Drake Gruntworx** to be a more effective method of automating individual tax data ingress. All vendors are now copying and building in the capabilities of the best of breed applications into their own, so it is important to regularly review enhancements to determine when a switch to the integrated product is warranted.



With assurance usually having fewer engagements (and less assigned staff), their application suite was often required to utilize those tools selected by the tax department for their production which included the engagement binder, workflow, and portal. Audit teams learned to work around these applications (as many assurance staff also had shared tax responsibilities), but these tools were used out of convenience and not necessarily optimized to work with the firm's audit practice (with the exception of selecting the firm's audit approach/work programs, data extraction, and analytics applications).

The reality today is that each firm has a unique mix of client profiles, variety in types of returns and assurance engagements, different range of skill levels of personnel, and historical evolution of applications and practice growth that created the current production ecosystem in place today. The key to optimizing the firm's production ecosystem in the future is regularly reviewing the capabilities of all existing applications, monitoring new and evolving tools that better meet the firm's unique needs, and integrating new features and applications that are proven.

As technology evolution and capabilities are evolving at an increasingly faster pace, owners must realize that this re-evaluation of tools that are part of the firm's digital ecosystem will be an ongoing, continual process and that they will need to embrace these changes as a normal part of running an accounting and advisory practice.

Internal Accounting and Reporting

The component of the firm's administrative tech stack that most owners are most comfortable with is their own accounting and practice management systems. Medium-size and small firms most often select a practice management tool that integrates with their tax application until they outgrow that application and move up to a "best of breed" application (usually larger, multi-location firms). The accounting application initially selected for the firm's own books was often the one the owner/firm bookkeeper was comfortable with, and with the exception of updating to newer versions, this product seldom changed unless major growth warranted it.

"The heart of the business information ecosystem is the accounting application and the firm's (and client advisory) tech stack will be built by efficiently integrating other business applications and data into it."

Firm owners must understand that the heart of the firm's business information tech stack is the accounting application that the other business information components will integrate with to build out the tech stack. This integration will initially occur through the use of **application program interfaces (APIs)** that are built between the other tech stack applications (payables, receivables, payroll, expenses, etc.) and the accounting application.

For external applications that do not have an API, there are machine learning and data transfer tools that will format data to bring that information directly into the accounting product (i.e. using Transaction Pro Importer* to bring external data into QuickBooks). Firms must first evaluate what product will be effective not only for the firm, but specifically for utilization by clients as well. According to the 2021 CPAFMA Digitally Driven survey and the 2020 Accounting Firm Operation and Technology survey, **QuickBooks Desktop**, **QuickBooks Online**, **Sage Intacct** and **Xero** are consistently amongst the top four accounting applications firms select to build their firm and client tech stack around.

Each of these applications has a library of external applications that natively integrate such as payables, receivables, payroll, time and expense recording, customized reporting, etc. which are discussed later in this eBook. Internal administrative personnel should work closely with their CAAS personnel who have experience with their client tech stack applications to leverage their knowledge when selecting the firm's tech stack applications.

Accounting Tech Stack Application Libraries:

- Intuit QuickBooks Apps: apps.intuit.com
- Sage Intacct Marketplace: marketplace.intacct.com
- Xero App Marketplace: apps.xero.com/us



**Note: Transaction Pro Importer is wholly owned by Right Networks.*



It is recommended that both the firm and client tech stacks be built in the cloud to allow anytime access to the core database by any personnel properly authorized to do so. While **QuickBooks Online**, **Sage Intacct**, and **Xero** are natively written for the cloud, hosting **QuickBooks Desktop** with **Right Networks** provides the same cloud capabilities to Desktop, with the benefit that Desktop users get to continue to use the application they are already trained on and comfortable with along with the ancillary applications they already have integrated.

For internal accounting and practice management reporting, each of the accounting products listed above has standardized reporting capabilities and does require a level of training and expertise to develop reports within the applications. Due to the complexity of the application and/or the inability to generate a specific desired report, many firms have turned to third-party applications to develop reporting and dashboards internally, and the trend today is going towards firms utilizing the same application that is being touted by their CAAS practices. For **QuickBooks** this could be a product such as **Qvinci**, but for a more generalized use across different products, firms are moving towards applications such as **Microsoft Power BI** (Business Intelligence), **Tableau**, **Domo**, and **Fathom**, with the benefit of these latter tools being able to integrate more data resources and create customized dashboards, which are a critical component of the firm's internal and CAAS tech stack.

Once the accounting product has been selected, accounts payable is usually the first application to be integrated into the firm's tech stack as every firm (and client) has payables, and in our experience accounts payable is often one of the least automated processes found within the firm. Selecting a tool such as **Bill.com**, **Tipalti**, and **Stampli** allows for automated approval, payment, reminders, and integration of that information into the accounting product, so there is no re-keying of data.

Integration of accounts receivable applications into the accounting product is another important component of building the firm's tech stack, but because of the need for integration of payment entries with both the accounting application and the firm's practice management application, it usually is slated for implementation after human resources components (payroll, time entry, and expense reporting), which is discussed in the section to follow. When the firm is ready to tackle accounts receivable integration into the firm tech stack, the first place to look is within payment applications used by the CAAS team, such as **Stripe**, **Square**, **Paypal**, etc., or to specific accounting products that integrate with the firm's practice management application, such as **Affinipay CPACharge**, **QuickFee**, **Kotopay**, etc. which can be linked to within the firm's digital invoices or website.

Human Resources

Following payables, the next most likely candidates for integration into the firm's internal technology stack are the human resources components, including **payroll**, **time**, and **expense reporting**, which becomes increasingly complex as the size of the firm increases, as well as the filing of personnel records.

Firms should first evaluate payroll products that natively integrate with the firm's accounting product and can negotiate significant benefits such as processing discounts and HRIS (human resources information system) capabilities, particularly when utilizing the primary application selected by the CAAS practice. Most firms will utilize practice management for internal time keeping, so expanding the firm tech stack usually entails inquiring the practice management vendors about their mobile device applications or utilizing a robust remote access/cloud hosting solution to make time and expense entry available on mobile/remote devices.

Expense reporting and management can usually be accomplished within the firm's practice management application, but if the firm has extensive expense reporting requirements a standalone tool may be needed. Tools such as **Tallie**, **Expensify**, and **Concur** quickly scan and summarize receipts via a smartphone photo, manage the approval process, and can integrate with accounting or payables applications to streamline entry and reimbursement. Again, utilizing the tool selected by the CAAS practice allows the firm to take advantage of the knowledge and efficiency garnered by that team.

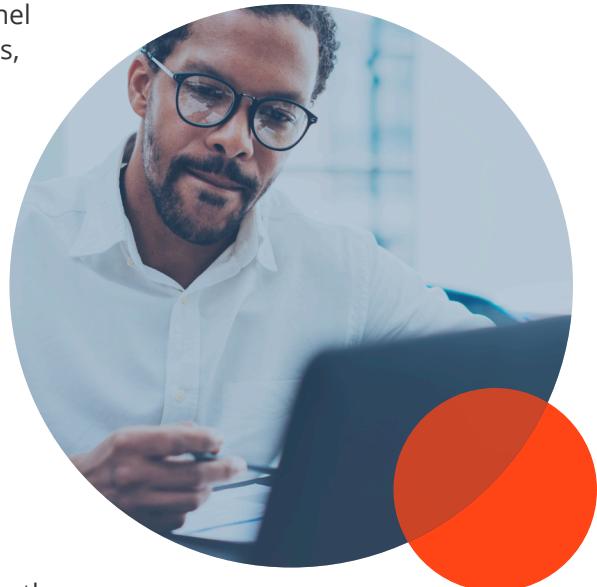
Other human resources needs that are unique to accounting firms include the tracking of **Continuing Professional Education** (CPE) and variable **Paid Time Off** (PTO). While these requirements can usually be managed within the firm's practice management application, it may be necessary to go to other applications due to the firm's unique needs.



CPE tracking, particularly for those firms that have personnel with multiple certifications having different reporting cycles, multiple states covered, and Yellow Book reporting requirements find that using a dedicated tool is more effective than practice management and can integrate the capturing of certificates as well as each States CPE reporting requirements. Tools such as **Thomson Learning**, **CCH CPE Link**, **Micron CE Manager**, and **Prolaera** have been selected by accounting firms as dedicated products and should be reviewed as potential candidates for the firm's tech stack.

Tracking PTO within accounting firms can be complex when firms grandfather in rules that allow for multiple categories (fixed/variable vacation, sick, personal, banked comp., etc.), which are often due to acquisitions, mergers, and legacy agreements that the firm has not standardized for all personnel (which is often evidenced by firms tracking the variations within a standalone spreadsheet). In most cases it is best to standardize the firm on fixed PTO, which can be tracked and managed directly within the firm's practice management application (so employees can look up their own time accrued and taken). If this is not possible, most of today's payroll applications have much more sophisticated PTO capabilities, which is a better solution than a dedicated spreadsheet, as the payroll portal allows the employee to look up PTO earned and utilized and the firms PTO manager to review and reconcile within payroll rather than a separate spreadsheet.

Personnel Records can be a tricky component to integrate into the firm's technology stack. If a firm utilizes an external payroll provider with a robust HRIS system integrated, there can be personnel file storage components that securely meet all HR requirements. We have found the external third-party providers' personnel file capabilities to be more secure than utilizing the firm's own document management system. HIPAA compliance and required separation of hiring documents (I-9: Employment Eligibility Verification) can be difficult to setup in a document management system as they may require additional encryption and passwords, where internal network administrators also have network access to all files. Payroll and other third-party providers are also expanding services to include both the management of recruiting documents and in particular, personnel evaluation capabilities and the associated workflow to further expand the firm's administrative tech stack.





Firmwide Workflow and Collaboration

Another significant component of the firm's internal tech stack is the management of client projects and engagements, which in smaller firms is often done within the "projects and due dates" components of the practice management application. As firms grow, they outstrip the capabilities of these tools, particularly when compared to the latest workflow tools, which have far surpassed the traditional projects capabilities in legacy practice management applications.

For medium and larger firms, tools such as **CCH XCM**, **CCH Workstream**, **Thomson FirmFlow**, **Doc-It Workflow**, and **iChannel Workflow** provide comprehensive firmwide project tracking capabilities that firms should prioritize within their own tech stack. For smaller firms, workflow solutions such as OfficeTools Professional, Karbon, Canopy and JetPack are comprehensive project management and tracking tools to be considered as a key component of those firm's internal tech stack.

Other firmwide applications that administration often oversees is the standardization of the firm's groupware/collaboration application, with the vast majority of accounting firms standardizing on **Microsoft 365** (formerly Office 365). Firms should no longer be hosting their own Exchange/Outlook servers or buying perpetual office licenses (Office 2019/2016) as they no longer make economic sense when compared to the annual subscription cost and capabilities of **Microsoft 365**.

In addition to including automatic security and feature updates, **Microsoft 365** includes additional applications that are important for individual productivity and collaboration (**Teams**, **Yammer**, **SharePoint**, **OneDrive**, **OneNote**, etc.), and most accounting application vendors are developing their tools to be optimized for the **Microsoft 365** suite. While Google also has a comprehensive suite of productivity applications, it has been our experience that the vast majority of accountants, accounting vendors, and business clients have standardized on the Microsoft products.

IT Infrastructure for Optimum Tech Stack Performance

In previous decades, firms built out their own network infrastructure by having servers onsite, managed by locally hired IT personnel that were responsible for updating all network and business applications, securing the network, and also being responsible for maintaining backups and having a disaster recovery response.

The reality, more often than not, was that applications were not updated in a timely manner, remote access worked inconsistently, support was inadequate particularly for new accounting applications, backups and disaster recovery were not being followed through with, and security training and remediation was at the bare minimum—all of which put the firm at significant risk.

These scenarios have driven firms to push more and more applications into the cloud and to hosting providers that can make non-cloud applications (i.e. CCH Engagement, QuickBooks, Lacerte, etc.) work effectively and consistently regardless of if the employee was working in the office, a remote client site or in their own home.

This requirement became obvious during the COVID crisis when firms were forced to have significant numbers of their personnel work remotely, and they found cloud applications were more consistent and reliable than those accessed through incapable remote access solutions that did not scale well with increased usage. Those firms whose applications were in the cloud, hosted, or had private cloud architectures found that their existing tech stack continued to perform the same as when they were in the office and at any time of day.

Firms in the cloud have also seen the economic benefits of having a fixed fee per user per month in managing their technology budget as they no longer have to project the cost of new servers, storage area networks, remote access and security, as well as the external expertise required to install and maintain the on-premises network. This fixed fee allowed firms to easily add users during busy times and for growth spurts such as those caused by mergers, as well as to reduce user counts when full staffing was not needed. Most importantly, building the firm's tech stack in the cloud has also provided those firms with enterprise-class skilled professionals providing a higher level of security, backup, and disaster recovery which the firm could never afford (or pay) on their own.



A Tech Stack Integrated Future

The future of the accounting profession is being dominated by discussions revolving around the evolution of advisory services as traditional accounting services are being disintermediated by technology. This disintermediation is occurring specifically because of the automation of business information systems built upon the tech stack that integrates other business applications with accounting products. Firms will need to develop and grow their CAAS tech stack to service client needs more effectively and will benefit from applying that knowledge to their firm's own tech stack with the added benefit of being a "user" to provide first-hand experience to their intellectual capital and marketing efforts.

Roman Kepczyk, CPA.CITP, CGMA is Director of Firm Technology Strategy for Right Networks and partners exclusively with accounting firms on production automation, application optimization and practice transformation. He has been consistently listed as one of INSIDE Public Accounting's Most Recommended Consultants, Accounting Today's Top 100 Most Influential People, and CPA Practice Advisor's Top Thought Leaders.

Right Networks does not guarantee the suitability or effectiveness of any of the applications listed in this eBook as firms have their own unique needs to consider before selection. The information has been presented based on external survey data and resources targeted towards the accounting profession.