Rarified Air

How Cloud Technology Will Drive Innovation at Law Firms

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It's been six years since Hurricane Sandy devasted portions of the Eastern seaboard, but Kenneth Jones, who was at Sedgwick LLP at the time, remembers the lessons well. "After the storm, we weren't able to get into Newark for a week or so," Jones said, adding that being shut out from the ability to fully service legal clients made him appreciate the need for flexibility. "Now, our feeling is, to provide the best possible client service, you have to have your data systems available from anywhere."

Jones, now chief technologist for litigation boutique firm Tanenbaum Keale LLP, explains that the firm has embraced cloud technology, which allows a number of the firm's lawyers and staff access to a level of depth beyond just email and Google docs. Some of the firm's lawyers are accessing documentation, research and each other in ways that Jones says he's never envisioned before. "Our people are able to be productive no matter where they are, and they don't have to literally be here in the office," Jones explains. "That's really, really important to us."

Jones and Tanenbaum Keale are not alone. Cloud technology has the potential to drive innovation at law firms at a pace never seen before, and it's making a difference in how firms build their teams and serve their clients. "On our cloud projects, project management and technology leadership is important, but without outstanding engineers with the skills, knowledge and initiative to research and recommend products at cloud services, many of these great ideas would never be implemented," Jones comments,

adding that at Tanenbaum Keale, the firm's technical efforts are spearheaded by its Director of Technology, Emmett Carey.

And while many legal service firms and their clients have utilized the cloud for secure storage, better technology management and the cost savings brought about by no longer having to purchase and manage servers, that's become table stakes now.

The innovative benefits that cloud technology makes possible for law firms is even more profound and moving quickly into even more futuristic and fantastic possibilities. By more fully infusing cloud technology with artificial intelligence, voice commands, new personal tech hardware and embedded cognitive services, the cloud can link a firm's technology to the rapidly advancing world of customer and professional networks through third-party apps while allowing lawyers and their support staff to create virtual offices where they can work remotely, yet collaboratively, with each other and with clients.

WORKING WITH ANYONE, FROM ANYWHERE

Certainly, remote access isn't anything new. Smart phones allow people to read their email, post to social media and access the Internet all with a small, hand-held device. What's changing in the cloud, however, is the size, complexity and accessibility that the somewhat archaic term "remote access" brings today.

Tanenbaum Keale uses one of the leading cloud providers to "further its technology vision or goals of our clients," as Jones describes. What that means in the real world is the ability to build remote working environments for disparate groups of employees, that have more depth and flexibility than traditional desktop virtualization programs.

Using the cloud in this way allows lawyers or legal managers to design a hosted workspace on a third-party cloud vendor, such as Amazon Web Services (AWS). Then, those workspaces can be customized depending on who will be working in the space and the matters to be worked on, Jones explains. "You can go in and set this up distinctly for your uses." The process allows almost unlimited customization, and you can pick basic

or advanced configurations, depending on the work to be done, and include whichever different configurations the applications may need, Jones says. "At the end of the day, employees will be able to access that platform through a desktop icon and that's how they get to the remote applications." Being able to work remotely in a fully formed virtual environment brings additional benefits of security so that, for example, employees are not downloading documents onto their home computers or their own hand-held devices, he says.

Jones adds that Tanenbaum Keale is moving gingerly on this, allowing a few select employees to have this ability within the cloud, but he and the firm are looking to increase that. "Our vision is to do it for everyone," he says, adding that the advantages of using the cloud in this way include taking all the material off-premises, off-loading the responsibility for managing or supporting technology, and easing firm leaders' minds if the next super-storm damages the office building. "Everything is totally in the cloud," he says. "You can support it from any place, people can get to it from any place. It's just a different way of addressing remote access."

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MANAGING CUSTOM APPS IN THE CLOUD

The creation and management of a law firm's "application portfolio" is quickly becoming one of the cloud's chief uses. These apps — the set of computer applications used to conduct the business of the firm — can be stored in the cloud, of course, but cloud technology can in fact offer so much more.

Within a law firm, for example, some cloud-stored applications are obvious — email, office suite, accounting/time entry software, document management systems, security software, for example — but there are a whole host of other apps, relating to business operations, client support, business development, public outreach and various other areas that also must be managed.

On average, about half of a law firm's portfolio of applications are in standard operations applications, about 15% in pre-packaged apps, and 10% in new business apps. That leaves about 25% in customized operations apps, which usually are the last apps a firm will send to the cloud, says Rick Weyenberg, an Azure Cloud Solutions Architect at Microsoft.

"I know these conversations on the journey to the cloud can be a little dry," says Weyenberg. "But it's a lot more fun once you get your hands on this and see the depth and breadth of what you can do from a service offering and capabilities standpoint — and that's where the epiphany comes in and you decide you need to do this tomorrow."

As firms construct their portfolio of operational apps, snapping them together like pieces of a puzzle, they have to be methodological and deliberative of how the pieces fit together to truly unlock the maximum value that the entire portfolio of operational apps represents, Weyenberg says. Using technologies like Microsoft's SharePoint paired with applications and cloud-based services can bring an entire new dimension to this process.

Once the application portfolio is hosted in the cloud, there is really no end to the potential cross-over interactions that can be initiated, allowing all parts of the firm's legal operations infrastructure to work together. "We're a pretty heavy cloud application place; we use iManage, hosted in the cloud, and obviously Office 365, our accounting system, is in the cloud – everything's in the cloud," says Jones. "We have no applications stored on-premises."

"SIRI, GET ME ALL SETTLED CASES WHERE …"

Combing cloud technology with artificial intelligence (AI) and machine learning has the potential to greatly speed innovation, especially around previously only dreamed-of developments such as voice commands and even wearable technology.

Indeed, the next generation of innovation, likely revolving around voice command that is compatible with your operations infrastructure and that's hosted in the cloud, is already looking to be an extraordinary development. If fully developed along the lines it's being envisioned, a user could just say, "Hey Alexa, I need the Wachovia, Wells Fargo and ABC company case files," and get access without ever having to leave his desk.

While this ease of access may be sound a bit futuristic, the technology is there; it's just a matter of a firm embedding its AI technology into the cloud and letting it interact with the operational applications that are hosted there. For instance, there is work currently going on to integrate IBM Watson's AI technology with Amazon's Alexa voice command system.

That combination could basically allow users to set up templates for Alexa to answer or retrieve legal-based questions and research requests by having Alexa pass the question or request on to Watson via an application programming interface (API). Then Watson could return the answer to Alexa, which then communicates that back to the user. Thus, by stringing those two technologies together users could actually get to the place where they can simply say, "Alexa, what's the statute of limitations for foreclosures in Texas?" and get the answer they need.

Add to that the continual evolution around tech hardware devices, especially hand-held or wearable mobile devices that allow for easy, full-range access from anywhere, and the lawyer of the future may one day be speaking into his watch, accessing all the casework research he needs from the cloud while working collaboratively in a virtual, cloud-hosted office with a dozen other lawyers across the globe.

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Indeed, this combination of the cloud, AI, voice command capabilities, cutting-edge hardware and other technologies has only scratched the surface of how the cloud can further push innovation in a law firm. For example, Thomson Reuters Elite innovation [launched a new analytics offering](#) called Data Insights, which draws on Microsoft Power BI, a powerful cloud-based technology.

Interestingly, some people may not realize the different permutations that can exist in a cloud-based system, such as when organizations store their data off-site on a third-party vendor's server. "There's a point where, is it a cloud or is it a co-location?" an innovation partner at a large law firm poses. "We have servers that are located off-premises, on a server rack somewhere, and some people might not consider that to be cloud storage." However, if you took the same architecture and put it into an AWS server farm,

then they'll say that's a cloud-based solution, he adds. "There may be a difference, but again I think that's the function of how you manage your enterprise architecture and how your IT department and your GC's office is looking at speed, security and cost."

That's why it's important to remember that this kind of techno-collaboration will require the cooperation of two major players in an organization — IT and the GC — who will need to communicate well around issues of cloud security and effectiveness. It's vital to cooperate on this level, the partner says, "because too many times the firm's loss prevention people get involved and they don't necessarily understand the mechanics of the cloud at a level that the IT folks do." Often, this results in additional layers of security being added, unnecessarily, until the system starts to get sluggish and basic performance starts suffering. "When that happens, people start complaining."

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LOOKING AT THE FUTURE THROUGH THE CLOUDS

While speed is obviously critical in a law firm's cloud strategy, it's really the ability for law firms to add to their technological prowess by more cheaply and easily pursuing innovation that makes a well-thought-out cloud strategy so essential. Simply put, that's the future of the cloud.

"If we wanted to launch a powerful project management platform, and I had to do that on-premises even with the help of the vendor, it can be an incredibly long, drawn-out, and painful process," explains the innovation partner. "It's going to be costly on top of that, and it may be months before you can flip the switch to get this running. If instead you opt for the cloud-based solution, in some cases you're up and running in two days."

Indeed, it's that rapid on-ramping of technology and innovation where the cloud really starts to make the critical difference for law firms that want to remain competitive and cutting-edge. "When the topic is innovation, you have to adapt fairly quickly to make sure that you're not falling behind," he says, adding that even "waiting around six months" before deploying a planned operational innovation may mean your firm has already fallen behind the curve again.

Tanenbaum Keale's Jones agrees. "Those law firms who are early adopters of emerging technology have a leg up in today's competitive marketplace," he says, adding however, that there is more to this than simply being an early adopter of something like artificial intelligence, blockchain, the cloud or other new offerings. "The best law firms will be using these — and other — tools as building blocks to assemble technology-based product offerings to assist clients with their business imperatives."

The process of using the latest legal technologies together — such as linking customized, cloud-based operations apps with voice command and remote access abilities — cultivates the type of next-gen "building blocks" that will allow law firms to differentiate themselves among their peers and offer clients a level of service far above their competition.

So far above, in fact, that it could be hosted in the cloud.

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