

Why aren't you in the cloud already?

By Andrew Powell, Chief Information Officer at Macfarlanes

Summary

Yes, this is another cloud article. But this one might be different to others you have read, because it looks at these topics from a law firm IT perspective, whilst analysing the cloud adoption plans of around 100 of the largest law firms in the US, UK and Europe.

It's all well and good to say that cloud is the way forward, but why is that? After decades of on-premise installations and firm-specific customisations, why are vendors now so keen to move their clients to cloud services, and why are so many law firms moving? Why do people ask about your cloud strategy? Why does it even matter, and do we all actually agree what the cloud is?

What is cloud?

As 'cloud' means many things, for the purposes of this article we have settled on the NIST definitions of infrastructure-, platform- and software-as-a-service, which you will find at the end of this article. Firms may of course operate hybrid models involving any or all of these approaches. Additionally, deployment may be private (where an instance is created for the exclusive use of one client) or public (where multiple clients share the same environment). It is often assumed that Infrastructure as a Service is private and Software as a Service is public, but that is not always the case - there are several examples of public (shared) IaaS in law firms, and also single-tenant (private) SaaS.

How big is the market?

The combined revenues of the Global 100 firms in 2020 totalled \$120bn (£90bn). If you estimate a 4% IT budget across that group, with 20% of that being spent on cloud services, you reach a figure of \$960m (£720m) per annum. There are of course arguments as to why the actual value might be far smaller than that, and the potential far larger, so run your own numbers and reach your own conclusion! By comparison, the analyst firm Canalys reports that the worldwide cloud services market grew by 35% in the first quarter of 2021 to \$41bn (£30bn) – if that growth was sustained for the whole year, it would lead to an annual figure of \$270bn (£200bn). AWS and Azure account for half of that market on their own.

What are the benefits?

There is no shortage of hype in this space. Despite that, there is plenty of potential. To what extent any of these apply will depend on the type of cloud you are looking at (IaaS/SaaS, public/private) and the relative complexity of a firm's entire estate.

- Infrastructure savings: less onsite equipment to manage, needing fewer specialist staff, and less (or no) office floorspace being used as datacentre.
- Cost savings: IaaS may be cheaper or more flexible than building it yourself on-premise, and multi-tenant public cloud may offer a lower price point through economies of scale, either directly or as the infrastructure beneath a vendor's SaaS offering.
- Time savings: public cloud and SaaS applications should offer reduced time to implement, and in the case of multi-tenanted SaaS, faster access to new features as the vendor has a single platform to upgrade. The ability to configure rather than totally customise may stop attempts to rewrite software which in turn should speed up deployment. Cloud can provide a path away from past customisations to immediately supportable solutions that can scale.
- Feature set: new entrants are increasingly cloud-only and many established providers have a cloud-first policy. If you want a vendor's latest product set, it is likely that you will need to look to their SaaS offering.
- Better user experience? In the case of SaaS, a single product set and frequent, smaller upgrades may allow more focused vendor support and the avoidance of monolithic upgrades that require months of planning and change management.
- Infosec: compared to the complexity of on-premise systems that have been developed over many years, can a dedicated cloud provider do a better job of cyber security than you? Due to the nature of SaaS service provision, it may be easier to prove with logs and monitoring that data has been effectively administered per the provisions of the client in terms of who has access, level of access, proof of access, and other evidence of compliance controls.

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Put simply, moving to the cloud will allow your firm to remain competitive. If not all, then at least the vast majority of software vendors are adopting a cloud first strategy which allows them to deliver improvements to their products to their customers much more quickly amongst a host of other benefits both for the vendor and the customer. As such many vendors are starting to only make improvements to their products available in their cloud versions. Therefore if you wish to provide your business with the very best technology, adoption of a cloud first strategy will become increasingly critical. The more important question is when to do it and the answer to that can be found for your firm by weighing up the capabilities of your chosen vendors, the regulatory and statutory position of the jurisdictions your firm operates in, the risk appetite of your firm and the views of your clients.
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Nathan Hayes, IT Director, Osborne Clarke.

Cloud Services have allowed firms to move their IT focus away from traditional processes primarily aimed at keeping the lights on, and to shift to having their IT resources focusing instead on delivering business transformation projects now built on the foundations of these Cloud solutions.

Andy Brown, CTO, Mobliciti.

And the downside?

Whilst there are numerous potential benefits, there are of course challenges in moving law firm IT services into the cloud. So what makes that decision difficult?

- Integration challenges: moving part of the firm's application stack can be testing, and SaaS services may not offer the same reporting options or customisations. In reality, those existing integrations built in-house over decades probably aren't all needed and modern APIs are likely more secure than whatever was cobbled together onsite, but the fact remains there is still some change to deal with.
- Alignment with large platform providers (Azure, AWS, Google Cloud): whilst they all offer multi-cloud/hybrid options and containerisation to accommodate workloads or datasets not suited to public cloud, is it better to align with one or spread services across multiple Cloud Services Providers (CSPs)? The logistics of moving services into the cloud may force a particular direction or at least affect the uptake of other cloud services. Your firm may choose one CSP. Your clients may require you use parts of another. And SaaS solutions you utilize may reside on a third provider's platform.
- Infosec: the demands of ISO27001 and SOC2, more prescriptive controls such as PCI DSS and Cyber Essentials, and client security audits all present hurdles that require a firm's CISO and CTO to be aligned – a vendor having CSA Star assurance may go some way to help. Contractual issues such as responsibility for data breach and data loss, notifications under GDPR and remedies for such issues may be difficult to resolve, especially where a vendor either excludes liability or offers a liability cap relative to the fees paid by the customer: this may not be appropriate for some law firm datasets. In 2019, Capital One suffered a hack of 100m credit card details residing in AWS and was fined \$80m. The OCC said in a statement that the fine was "based on the bank's failure to establish effective risk assessment processes" before it moved a major portion of its computer data to a cloud storage system, "and the bank's failure to correct the deficiencies in a timely manner."

- Regulatory and jurisdictional issues: how to comply with the breach notification regimes of regulators such as the Solicitors Regulation Authority or the European Union, or ensure that data stays in a particular region? Azure Germany is an isolated instance of Microsoft Azure, designed to help its customers comply with German data privacy regulations, but an international firm will have to think hard about where to locate a document management system. And that's before the data privacy concerns raised by United States v Microsoft Corp., or various government's apparent desires to look at your data via encryption backdoors or malware.

- Commercial considerations – whilst an annual fee might be preferable to upfront capex plus maintenance, does the service scale up and down, or only up? Do you have any control over renewals? A subscription that increases 5% per user per annum, at a firm that grows headcount by 5% per annum, will double in cost in nine years whilst the hosting costs go in the other direction. And, where a service can be scaled down, is someone responsible for the occasional review to ensure that the services are still being used, properly sized, and limited to the correct people?
- Concentration risk among the "Big Three" CSPs: whilst unlikely, a CSP outage (whether Big Three or intermediary) is possible and may not sit comfortably with the recovery time objectives (RTO) in your business continuity plans.

Credible and reputable Cloud Service Providers both attest and have teams dedicated to meeting and exceeding local/regional requirements. This service is liberating in that it helps firms comply with a notable part of the equation while freeing up people to ensure client specific administrative controls are met and sustained.

Jim McKenna, CIO at Fenwick.

Although our approach is cloud first - particularly for new technologies - we are often challenged by this primarily by ensuring our contractual terms reflect areas such as jurisdictional restrictions and meeting our client requirements in respect of cloud solutions. Having offices in 20+ countries there are many local regulatory differences that we have to align with and this isn't always widely understood by CSPs.

Karen Jacks, CTO at Bird and Bird.

ESG

Environmental, Social and Governance is in sharp focus in law firms and even more so following the COP26 conference in Glasgow. Can cloud computing help a firm reduce carbon emissions? A firm may be able to reduce energy consumption and air conditioning in its facilities by moving services away from on-premise and IaaS to SaaS cloud services, taking advantage of efficiencies brought about by a scale of operations that cannot be achieved by one firm alone. But if a firm keeps all its infrastructure running to support other applications whilst also taking on SaaS services, there is an overall increase in consumption and emissions, however efficient the SaaS vendor. There may well be potential benefits in this area, but a holistic approach is needed that incorporates minimising data storage and decommissioning old infrastructure.

Does your cloud service come with bottomless storage? Aside from the GDPR implications of that, it was reported recently that around 68% of data is never used again after it is created, and that the technology storing it is producing more CO2 than the airline industry.

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Regardless of where your data lives, be it in an IT cupboard or a data centre, it's consuming energy and producing emissions. All data has a carbon footprint and currently two thirds of the world's data isn't used, which is creating digital waste, every email, message and cat video has an impact. In addition, data centres are creating a carbon footprint that by 2030 will account for 8% of the world's energy usage.

This affects everyone, including the legal world. All organisations need to be aware that if they are storing data which they are not using, it is really just sitting around using up energy. This is completely unsustainable. Organisations need to have greater visibility over their data in order to make better decisions on what to do with it, and moving data to the Cloud is a step towards being more sustainable.

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Matt Watts, Chief Technology Evangelist at NetApp.

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We've really worked on opportunities to minimize the carbon footprint of our operations. For example sourcing renewable energy for our data centres, improving the efficiency of our multitenant architecture, data deduplication and software improvements that give us more throughput with less hardware. As a SaaS company serving a broad community of customers we enable collective carbon efficiencies that simply wouldn't be achieved if each of our customers were to try to solve these important cyber security and resilience problems on their own.

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Peter Bauer, CEO, Mimecast.

Where is the legal sector heading with cloud?

During the summer months, I invited firms in the UK, US and Europe to take part in some research around cloud adoption across a range of core law firm applications. There were 100 responses, from firms ranging in turnover from £18m to £1.8bn representing a combined IT budget in the region of £850m. My thanks to those who participated

There are two main findings. First, of those firms surveyed, the UK and European firms are slightly further down the path of cloud adoption compared to their US counterparts, but the gap is closing. And second, there has been a significant move towards cloud services in the last two years, no doubt fuelled in part by the challenges of the pandemic but assisted by Microsoft's licensing regime for enterprise software and the more granular approach taken by clients whose information security regime would have prevented law firms putting data in cloud services previously.

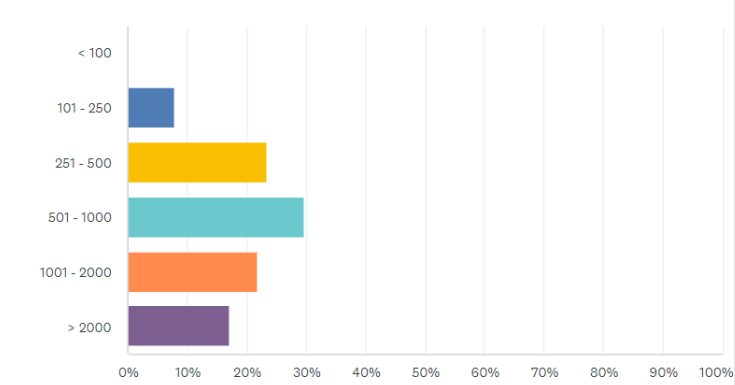
Looking on a service by service basis, some results are entirely predictable whilst others are more surprising. For the firms who participated in the research, Practice Management Systems are the least cloudy service, which probably comes as no surprise: sensitive data, SaaS options arriving to market relatively recently, and an average life span of around twenty years once installed, giving ample opportunity to customise and build bespoke integrations that don't easily port into a SaaS world. Document Management Systems on the other hand are showing a more rapid move towards SaaS. Of course it helps that the leading vendors both have a preference for SaaS over on-premise, and CIOs are all too aware of the effort required to feed and water a large on-premise DMS.

At the other end of the scale, several services have been largely SaaS based for some time now and show no sign of changing. These include email security, collaboration platforms, service desk and HR systems.

Results are shown overleaf. Each chart represents a different service offering, with the charts on the left representing UK and European firms, and US firms shown on the right. Within each chart, the top bar shows the situation pre-pandemic, the middle bar shows cloud adoption at the time of the survey (Summer 2021), and the bottom bar shows next year's plans.

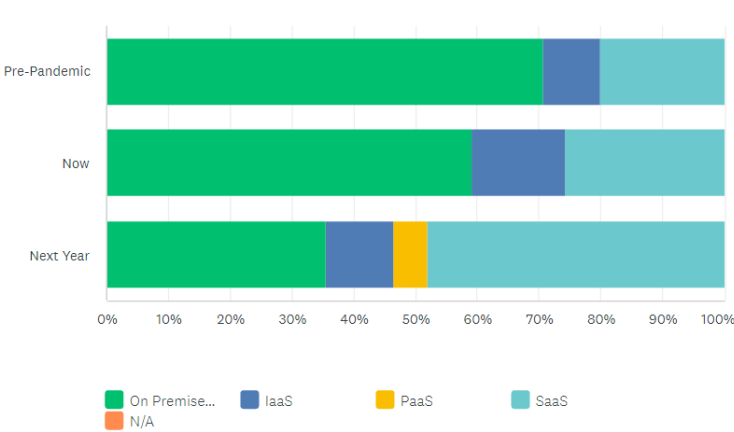
Approximate headcount

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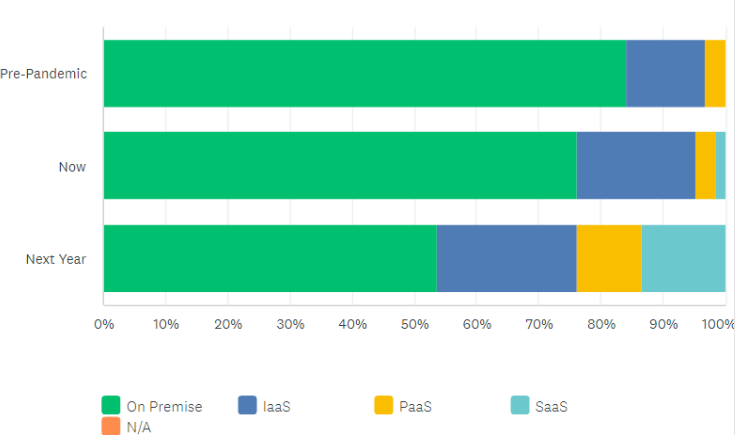
Document Management System (iManage, NetDocuments, etc)

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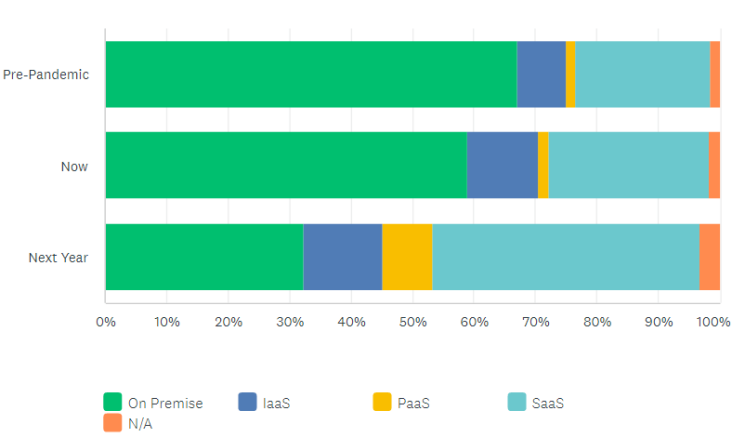
Practice Management System (Elite, Aderant, etc)

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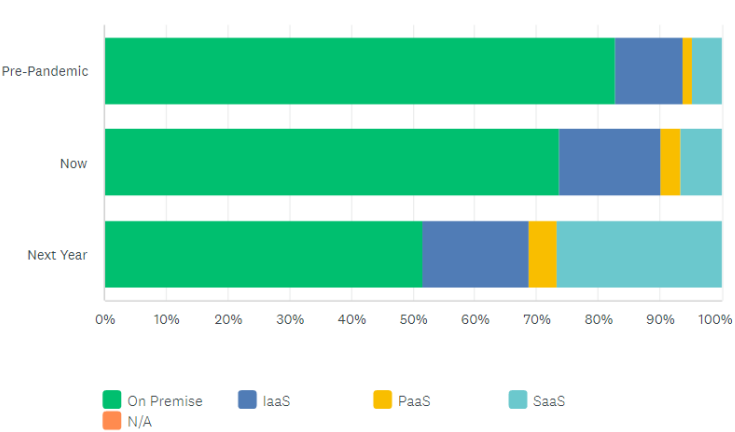
Time Recording (IntApp, Carpe Diem, etc)

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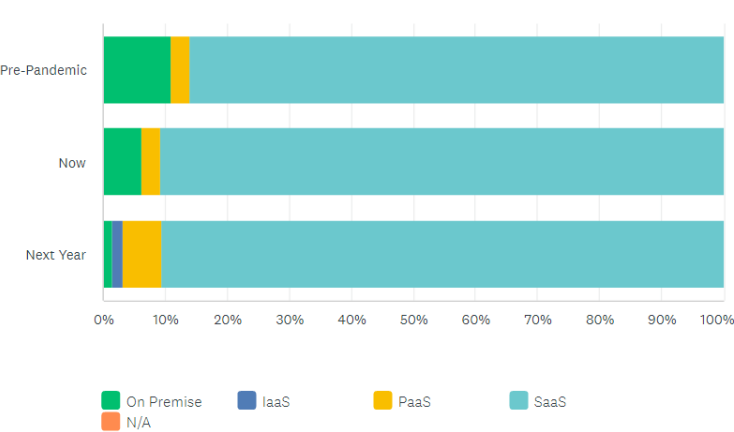
Client Matter Intake (IntApp, PMS, etc)

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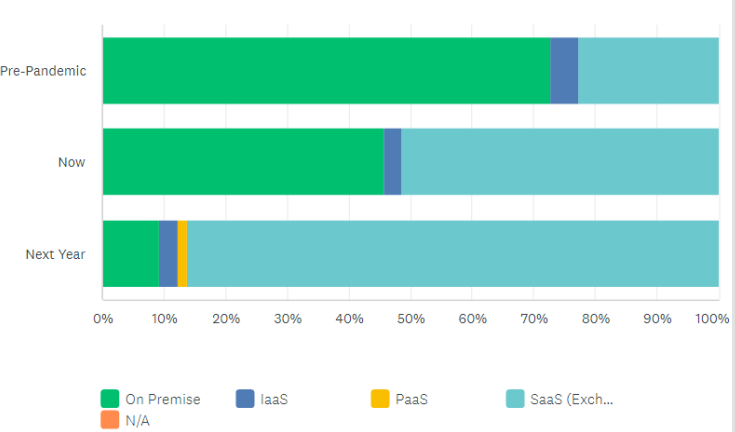
Email Security (Mimecast, Messagelabs, Mimesweeper, etc)

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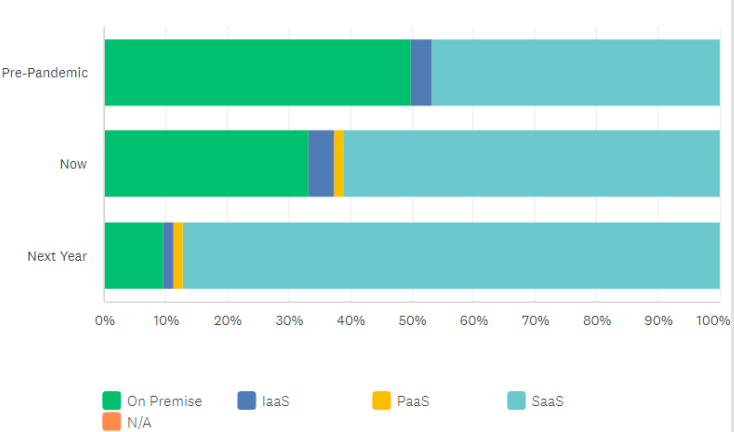
Email (Exchange, Exchange Online, etc)

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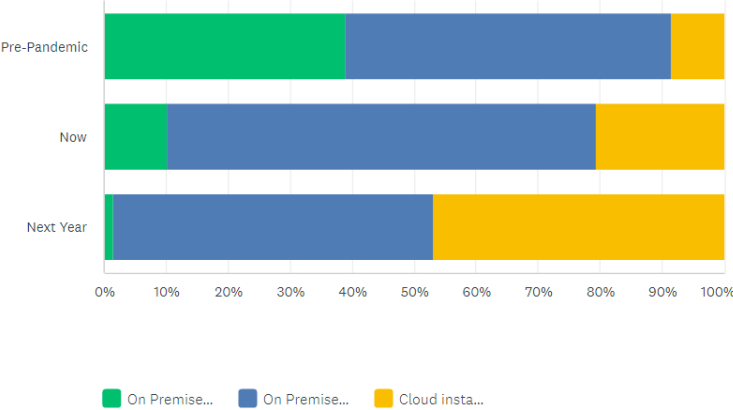
Mobile Device Management (Intune, MobileIron, BlackBerry, etc)

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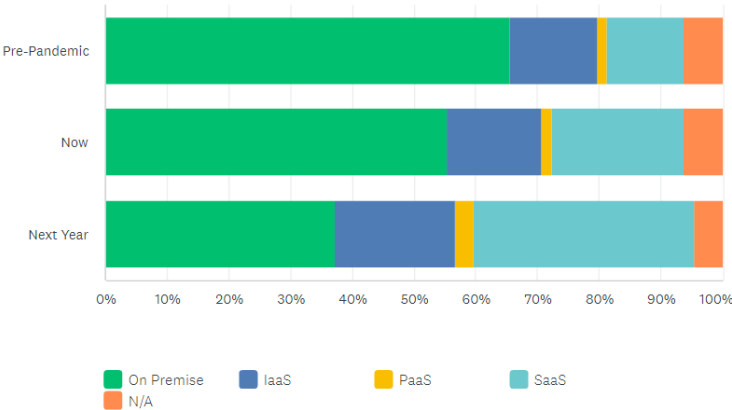
MS Office

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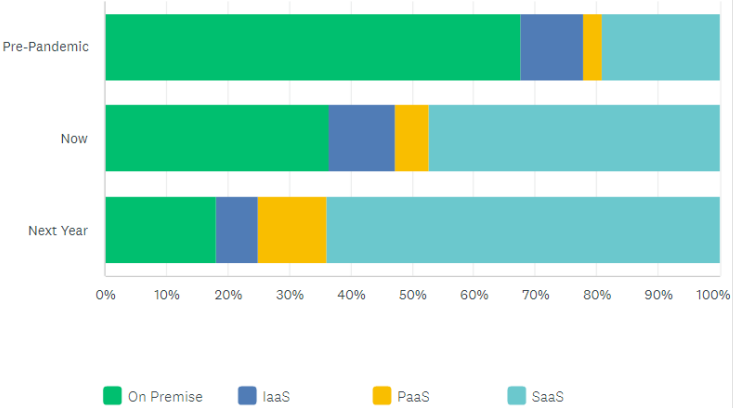
CRM (InterAction, BDP, OnePlace etc)

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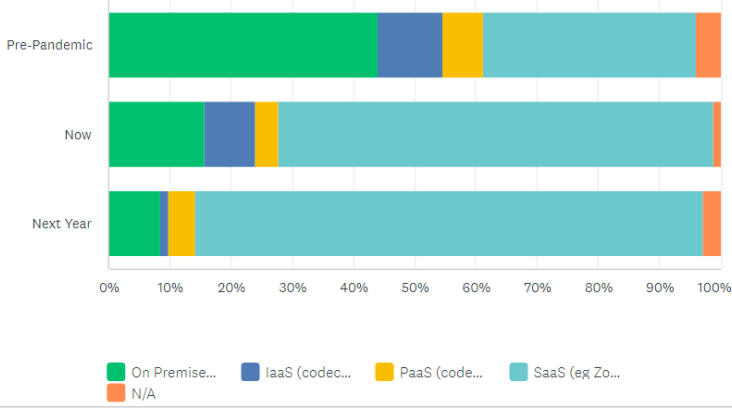
Telephone System (Cisco, Skype, Teams, Mitel etc)

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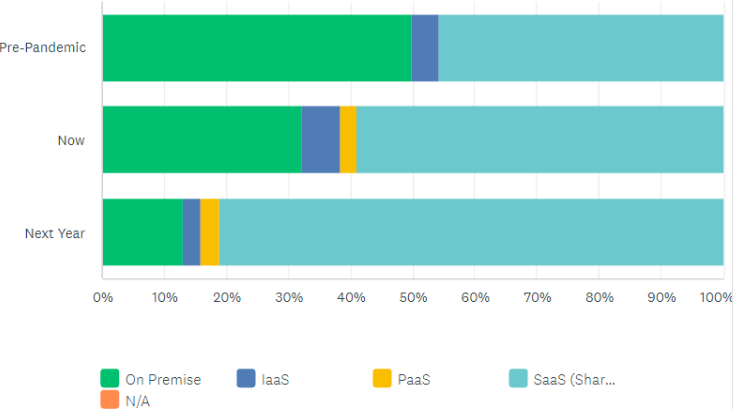
Video Conferencing / Collaboration (Cisco, Zoom, Teams etc)

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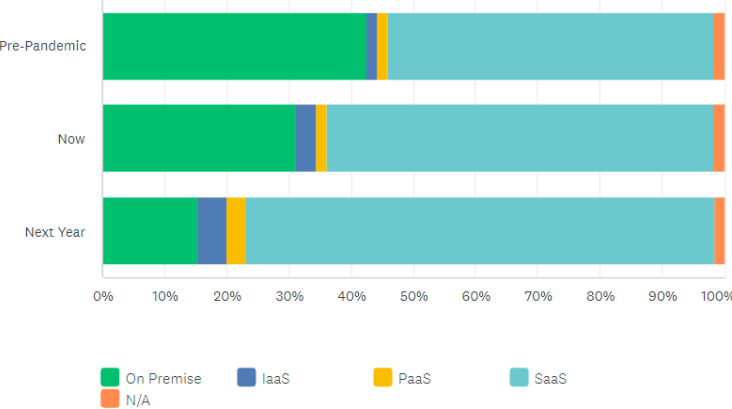
Intranet (SharePoint, HighQ, etc)

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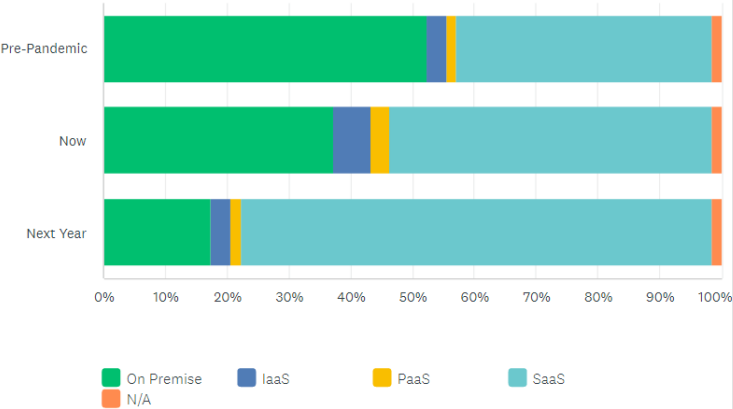
ServiceDesk (ServiceNow, Remedy, Freshdesk, etc)

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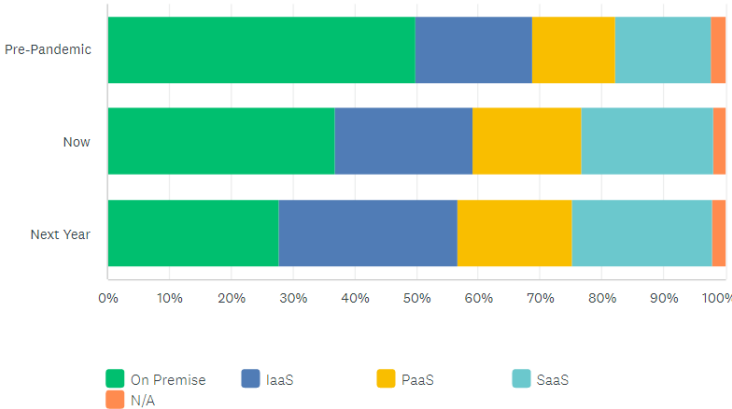
HR/Payroll (eg Cascade, Select, WorkDay, etc)

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Development and Test Systems

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Summary

Putting data in the cloud is easy. Managing it properly is harder, but achievable with talent, focus, and review. Keeping data secure in the cloud requires ongoing effort as the attack vectors continue to change, and some of that effort will be in up-front contract review (including the exit route) and ongoing audit rather than implementing controls yourself.

It appears that the majority of large law firms will be consuming a significant amount of cloud services by the end of 2022. Ultimately, the tipping point for migrating to the cloud will be different for each firm and, as the survey data showed, different on a service-by-service basis as well.

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A confluence of forces are driving law firms to the cloud. Among them are increased productivity and collaboration that drive robust improvements in remote working and client service. Key adoption drivers for modern cloud solutions also include providing the scalability to support business growth on demand, as well as advanced security to safeguard firm and client data in an increasingly complex threat landscape. Moving to the cloud removes the onus of managing technology infrastructure to enable legal professionals and their firms to focus on the business of law.

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Neil Araujo, CEO and co-founder, iManage

Jim McKenna, CIO at Fenwick, sums it up:

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There was a time when people said “if” they would go to the cloud. During the pandemic, that rapidly shifted to “when we move to the cloud”. Now, some are being asked “why aren’t we in the cloud?”. The cloud offers capacity, speed to solutions, reduces dependence upon hard to find on-prem talent, works across different platforms, and allows people to focus on business problems instead of maintenance. Safe and proper utilization of the cloud is an inevitability.

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About the Author

Andrew Powell is CIO at Macfarlanes, and co-chair of ILTA’s International Programming Team.

Further Reading

The annual ILTA Technology Survey looks at a broad range of technology trends across 400+ firms and is well worth a read for some broader law firm context when considering cloud adoption. The 2021 survey was released in November and is free of charge to participant firms or available to purchase from ILTA.

NIST Definitions

IaaS: The capability offered by the service provider allows a firm to provision processing, storage, networks, and other fundamental computing resources. The firm is able to deploy and run software of its choosing, which can include operating systems and applications.

PaaS: The capability offered by the service provider allows a firm to deploy onto the provider’s cloud infrastructure firm-created or acquired applications, created using programming languages, libraries, services, and tools supported by the provider.

SaaS: The capability offered by the service provider allows a firm to use the provider’s applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The firm does not manage or control the underlying cloud infrastructure.