How COVID Lifted and Shifted IT Priorities

BY TOMAS KUBICA & JYO SINHA

Overview

There is little doubt that technology has gained even more prominence in the post-pandemic world. Businesses have shifted their infrastructure and applications to the cloud; consumers have moved their day-to-day activities to the digital world; and with more data and activity online, cybersecurity and privacy have become even more critical. Information Technology (IT) has been raised to the top of board agendas; the roles of the CIO or CTO in organizations have gained further importance; and IT budgets have been prioritized. The adoption of digital technologies has advanced by several years, and many of these changes are here to stay.

We wanted to look more closely at what has been driving all this change, from current priorities in IT spending to where the focus might turn next. So we drew on our greatest resource — the experience and knowledge of our 140+ portfolio companies, with a total estimated IT spend north of $5 billion. In partnership with McKinsey & Company, we surveyed the IT decision-makers of these companies, whose range of size, maturity levels, and sectors, and span across the U.S., Europe, and Asia make their insights a valuable analog for the larger business community. We compared their results with pre-pandemic levels, as well as those of the wider market. Not only can this factset answer important questions about underlying trends, it can also be an invaluable tool for us to share with our portfolio companies to help them navigate decisions around vendor selection and major technology-driven transformations.

So what did we learn and what surprised us the most?

1 IT Spend is Up (Even When Budgets Are Tight)

Despite cost pressures from the pandemic, IT spend is on the rise. We saw 50% of our companies increasing their IT investments in 2020, while the rest remained mostly flat. In contrast, spending in the market as a whole declined by about 5% (Gartner, 2020).

The increased spend was driven by specific factors tied to the same seismic shifts of the pandemic — cloud transitions, work-from-home (WFH) capabilities, increasingly digital products and presence, and the cybersecurity needed to support it all. The investments in these areas have increased dramatically and have outweighed longer-term/less urgent projects that have been put on hold as priorities shifted and costs needed to be constrained.
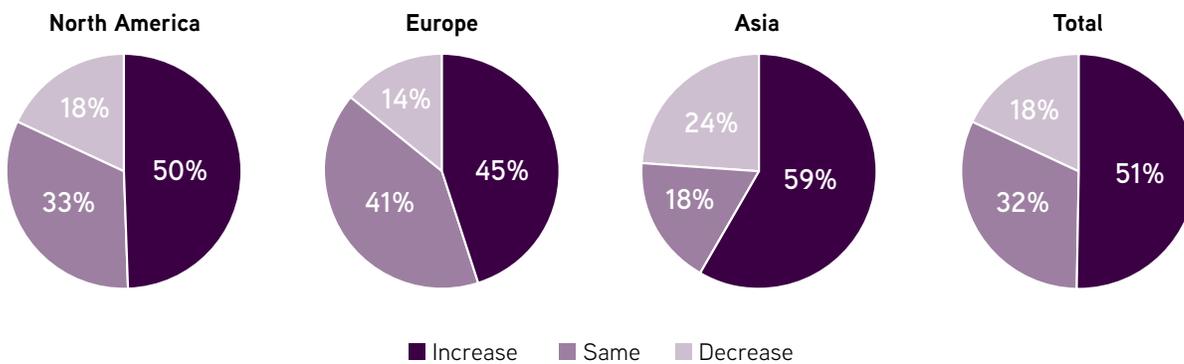
Asia saw the largest increase in budgets; from a sector perspective, the Financial Services sector has witnessed the largest pick-up.

Even where costs are constrained for our portfolio companies, other projects are clearly taking a backseat to IT. Ultimately, we think this puts them ahead of the curve.

Exhibit 1

~50% of Companies Increased Their Tech Spend As Compared To Previous Year

Change in IT spend[1]

North America	Europe	Asia	Total
50% / 33% / 18%	45% / 41% / 14%	59% / 18% / 24%	51% / 32% / 18%

■ Increase ■ Same ■ Decrease

1. Compared to previous years, how has company's technology budget/spend (OpEx + CapEx) changed?

2 Data Leads, as Priorities Shift

After years of Cloud and Cybersecurity dominating IT budgets and technology agendas, data and analytics have emerged as the top priority. The CIOs focus has expanded from 'making sure things work' to also delivering better business visibility and being more accountable for business outcomes. It is data insights that drive this tangible impact, providing the intelligence for better decision-making.

KKR has been on this journey internally too. We have hired data scientists in the U.S., Europe and Asia to support our diligence efforts for new investments as well as assist our portfolio companies. We have also harnessed big data across our organization by creating a large data lake to draw insights, spot trends, and identify opportunities across our strategies. Company scale will become increasingly important across sectors — not only because of operating leverage as in the past, but increasingly because of the access to and ability to leverage proprietary data.

We are still in the early innings of the data story; the current focus is on building the foundational tools that will allow companies to apply data science to a myriad of decisions made by gut historically.

Exhibit 2

Data and Analytics and Cybersecurity have been the Top IT Priorities for Portfolio Companies in 2020/2021

Top 3 IT priorities in 2020/2021[2]		Common priorities mentioned
Data and analytics	67%	• Improve data analytics/science and Business Intelligence solutions • Build data warehouses and create live dashboards
Cybersecurity	59%	• Modernize/formulate data security processes and policies • Deploy multi-factor authentication
IT strategy and roadmap	40%	• Create 2 to 3 year IT roadmap or defining strategic plan for IT • Ensure IT is scalable and right-sized
Infrastructure and architecture	34%	• Consolidate infrastructure and architecture
Automation	33%	• Robotic process automation (RPA) to support scale, reduce overhead • Develop and integrate APIs
Cloud and migration	32%	• Migrate from on-premise infrastructure to cloud
Organization and talent	17%	• Improve talent management and hire best talent
IT partnerships	5%	• Cultivate strong relationships with technology partners • Outsource ICT services

2. Please rank the Top 3 IT initiatives for your company in 2020/2021.
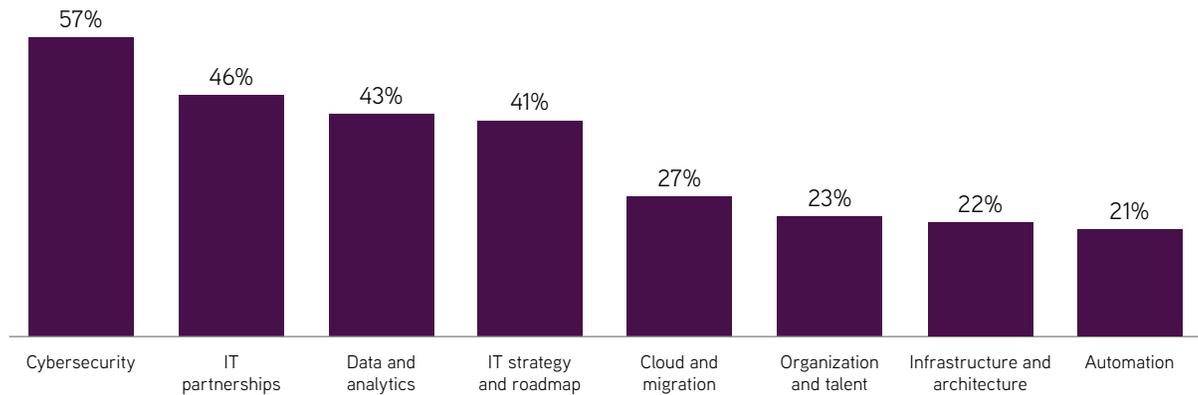
3 Cybersecurity Stays Critical

Cybersecurity is a close second when it comes to IT priorities and the kinds of support companies have looked to us for. The demand for cybersecurity best practices is driven by a proliferation of cybercrime combined with a complex and constantly evolving cybersecurity landscape; lack of in-house talent; Board level attention; and regulatory scrutiny. With WFH and move to cloud, the network/endpoint perimeter has enlarged and, in turn, so has the potential attack surface. Companies are looking for best practices from peers, insights on the key market trends (e.g. security in the cloud; multifactor authentication — highly relevant in the WFH world), and very specific recommendations on vendors.

To support our portfolio on cybersecurity and data privacy, KKR runs risk reviews for all of our portfolio companies globally. It is free from a cost perspective and each company gets a summary of findings with tailored recommendations for improving their cyber posture. We also periodically provide cybersecurity trainings and webinars, and encourage companies to enroll in KKR's proprietary cyber-insurance program. All of these efforts aim to improve the awareness and capabilities of our portfolio companies.

Exhibit 3

Cybersecurity and IT Partnerships Are Top Priorities Where Support Is Needed

Top 3 IT Topics where KKR support is needed[3] (% of companies)

57%	46%	43%	41%	27%	23%	22%	21%
Cybersecurity	IT partnerships	Data and analytics	IT strategy and roadmap	Cloud and migration	Organization and talent	Infrastructure and architecture	Automation

3. Please rank the Top 3 IT topics where your company would like additional support from KKR.

4 Cloud Adoption is Moving at Speed

Transition to cloud continues to accelerate. Smaller growth-oriented companies that we invest in through our growth funds are moving to the cloud more quickly or are fully cloud-native. Larger, more mature companies are catching up, transitioning from on-premise to private and eventually public cloud. We believe the enterprise world will remain hybrid for the foreseeable future, and interaction/connectivity between the clouds (e.g. in data, cybersecurity) will be critical.

Across the board, this is the first time we are seeing over 50% of the workloads within the portfolio in the cloud. As in the broader market, about half of our companies still use on-premise infrastructure, though the majority of companies have at least begun to shift to cloud. Regionally, Europe and Asia are ahead of the U.S. in cloud adoption, but with different dynamics. Europe leads with hybrid/private cloud (due to a certain amount of wariness around security/privacy), while Asia is leapfrogging with a higher share of public cloud adoption. This mirrors the broader market, where O'Reilly shows that up to a third of smaller companies host all their apps on the cloud, vs. 50% of larger corporations still hosting 75%+ of their applications on-premise (Swoyer, 2020). On a sector level, it was no surprise to see the Information Technology industry leading in cloud adoption, especially in public cloud.

The right mix of hybrid cloud environment allows companies to balance agility, reliability, cost and security elements.

Exhibit 4

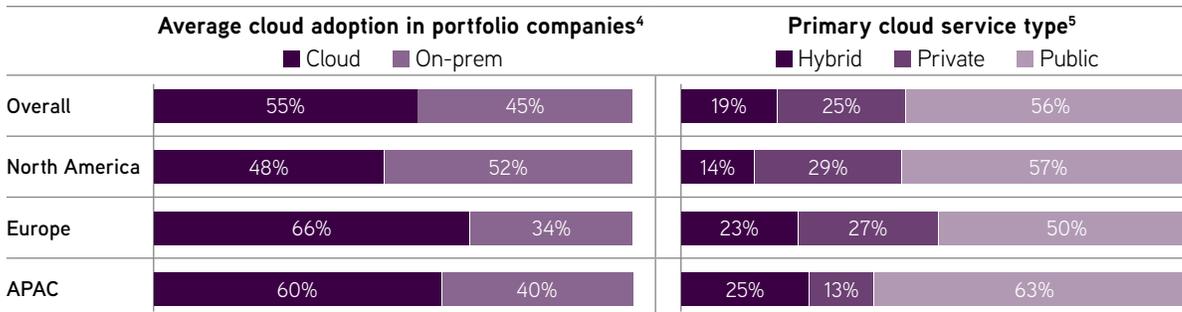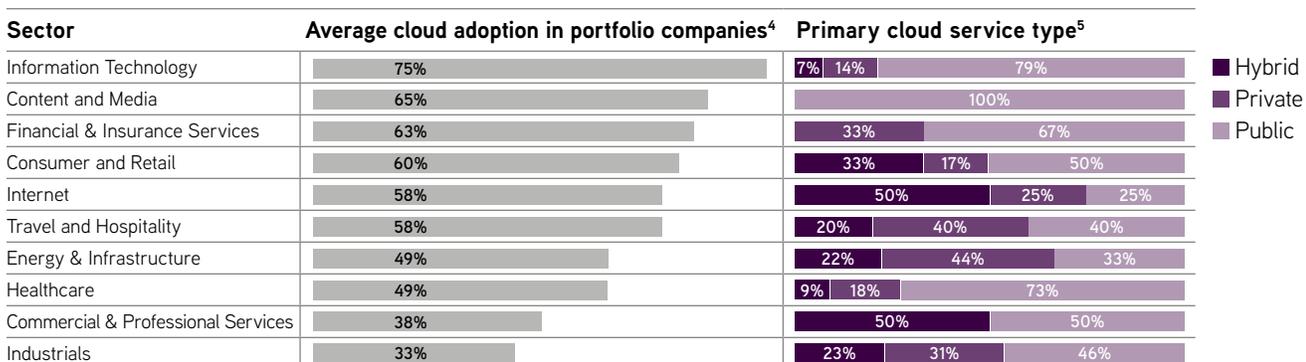**Cloud adoption overall is 55% with APAC companies having the highest adoption of public cloud**

	Average cloud adoption in portfolio companies[4]		Primary cloud service type[5]		
	■ Cloud	■ On-prem	■ Hybrid	■ Private	■ Public
Overall	55%	45%	19%	25%	56%
North America	48%	52%	14%	29%	57%
Europe	66%	34%	23%	27%	50%
APAC	60%	40%	25%	13%	63%

Exhibit 5

What is the distribution (in %) of workload that has moved to the cloud?

Sector	Average cloud adoption in portfolio companies[4]	Primary cloud service type[5]		
Information Technology	75%	7%	14%	79%
Content and Media	65%			100%
Financial & Insurance Services	63%	33%		67%
Consumer and Retail	60%	33%	17%	50%
Internet	58%	50%	25%	25%
Travel and Hospitality	58%	20%	40%	40%
Energy & Infrastructure	49%	22%	44%	33%
Healthcare	49%	9%	18%	73%
Commercial & Professional Services	38%	50%		50%
Industrials	33%	23%	31%	46%

■ Hybrid
■ Private
■ Public

4. What is the distribution (in %) of workload that has moved to the cloud.
5. Please select your company's primary cloud service type.

5 Vendor Selection Offers Unique Visibility

As part of the survey, we mapped the top vendors used by our portfolio companies across the application, infrastructure, and service provider stacks. This provides invaluable insights for peer-to-peer best practice sharing, diligence support, as well as vendor management. We found higher level of vendor concentrations in the infrastructure stack, with a larger fragmentation in the applications usage.

One surprising insight was the use of in-house solutions in some categories, even in places where there are common off-the-shelf solutions. In e-commerce, for example, our European companies tend to use in-house solutions more often, whereas U.S. companies tend to use Shopify — both approaches have some trade-offs around development/maintenance cost, innovation, and customization.

In looking at which tools will see an uptick in adoption in the next 12–18 months, for applications, companies cited contract management, procurement/sourcing, and strategic HR (esp. onboarding; talent management; e-learning — especially relevant in the WFH environment).
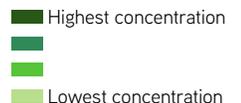
In the infrastructure stack, we saw demand for data integration/management (given data and analytics as a top priority, and data being fragmented across the hybrid cloud), Mobile device management (WFH), and Vulnerability management.

We pool this data to help construct the right technology partnerships and recommendations at a portfolio level. KKR portfolio companies in aggregate represent a meaningful commercial relationship for the major technology players and we have built strategic relationships with them to ensure we are optimizing our $5+ billion in spend on technology globally.

Exhibit 6

Vendor Summary / Overall Breakdown

Applications	Vendor concentration[6]	Infrastructure	Vendor concentration[6]	Service Providers	Vendor concentration[6]
Software Development	70%	Virtualization	91%	Hardware / Software Resellers	46%
CRM / Salesforce Automation	69%	Cloud Service	90%	Application Services	16%
eCommerce Platform	60%	Mobile Devices	89%	Infrastructure Services	10%
Application Development Stack	60%	Productivity	87%		
Planning and Forecasting	57%	Application Servers and Integration	79%		
Sales Content Management	55%	X86	79%		
BI and Data Analytics	53%	Document Management	78%		
Website and Content Management	52%	Runtime Environment	76%		
Procurement / eSourcing	51%	Unix	76%		
Onboarding	49%	Mainframe	71%		
Financial Reporting	47%	Container Orchestration	70%		
Financial ERP	44%	Database Platform and Management	65%		
Talent Management	43%	Conference and Chat	63%		
Tax / Treasury / Other	41%	Printing / Managed Print Services	63%		
ERP / WMS / TMS Platforms	40%	Personal Computing	62%		
Project Portfolio Management	40%	Network Hardware Providers	59%		
Time and Attendance Tracking	40%	Automation Server	51%		
Contract Management	39%	Help Desk / IT Service Management	50%		
Core HR and Payroll	36%	Application Operations	38%		
Marketing Automation	34%	Middleware / BPM	37%		
Recruiting	33%	Data Integration and Processing	36%		
eLearning (LMS)	27%	Network Service Providers	36%		
		Endpoint Protection	[–]%		
		Firewall	[–]%		
		Identity and Access Management	[–]%		
		Mobile Device Management	[–]%		
		VPN	[–]%		
		Vulnerability Management	[–]%		

■ Highest concentration
■ Lowest concentration

6. Market share of top 3 vendors.

Conclusion

Technology trends, vendor landscape, and companies' priorities continue to evolve rapidly. Collecting and sharing best practices helps our portfolio companies — and the broader business ecosystem — benefit from the latest developments. We are fascinated by the opportunities that technology brings to our businesses and everyday lives, and we look forward to engaging with business and tech leaders in harnessing the opportunity ahead of us.

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ABOUT KKR

Founded in 1976, KKR is a leading global investment firm that invests across multiple geographies, sectors and asset classes. In its tech investing, KKR partners with entrepreneurs to support their growth and build market-leading enterprises across a variety of segments within the Technology, Media and Telecom (TMT) sectors. Beyond access to capital, KKR offers the companies we partner with access to our global network, industry and operational expertise, M&A support, and insights from our global Private Equity portfolio, which has more than 140 current portfolio companies worldwide. Over the last four decades, KKR has invested over $30bn in TMT-related companies.

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