



Creating Technological Edge in Private Equity

Driving digital transformation
in PE portfolio companies



Rapid advances in digital technology are enabling forward-thinking private equity firms to accelerate paths to high valuations and faster exit strategies for their portfolio companies, delivering superior returns to investors.

The deployment of common, high-quality, industry-standard platforms and applications across portfolio companies is helping PE firms reduce costs and risks while exercising greater control and oversight, thus delivering stronger financial and operational discipline and performance.

PE firms that empower their CTOs to drive digital transformation at portfolio companies can accelerate this process. By harnessing digital technologies and cloud-based delivery to drive business value, CTOs at PE firms can play a wider role as strategic enablers in collaboration with general partners and portfolio company management.

Managed Service Providers also play a critical supporting role. Working in partnership with CTOs and COOs, MSPs can help to review available ideas and innovations, select tools and technologies, and liaise with vendors to realize business value through digital transformation.

In this paper, we examine market context, explore the opportunities afforded by digital technologies, and the roles of CTOs and MSPs in providing funds with a new edge at a time of heightened margin pressure and competition between funds.



Key takeaways

- The role of private equity company CTO is more important than ever.
- PE CTOs are leveraging digital transformation to reinvigorate portfolio company performance.
- Lack of IT investment has left portfolio companies with manual processes, weak controls, and compliance and cybersecurity risk.
- Hybrid and multi-cloud models enable integration between public cloud applications and customized legacy platforms.
- Cloud-based business intelligence and analytics tools are helping PE firms respond better to operational and financial issues.
- MSPs help firms combine technologies across portfolio companies without adding headcount.
- The value of MSPs extends beyond transformation projects to include ongoing support.
- At Linedata, we have seen a marked acceleration in cloud-based initiatives across private equity.



Industry context: Finding a new edge in a crowded market

Despite the severe economic impact of the COVID-19 pandemic, investment continues to flow strongly into the private equity sector. In its 2021 US Private Equity Outlook, Pitchbook predicts a record US\$330 billion in PE fundraising in 2021, with bigger deals and greater innovation around exit strategies.¹

These dynamics are encouraging. However, this flood of money can make it harder for private equity firms to add significant value to portfolio companies due to the impact of increased competition on valuations. In response, new tools and techniques must complement established skillsets and strategies to turbocharge efficiency and performance. Streamlining and rationalizing portfolio company technology systems is an area ripe for capitalization by forward-thinking investors.

While technological change is usually led by Chief Technology Officers, historically there has been relatively limited scope for CTOs at private equity funds to leverage transformative, game-changing technologies, compared with their peers elsewhere in the finance sector.

Increasingly, however, CTOs are playing a central role in the efforts of PE firms to drive new efficiencies at the portfolio company level by helping to maximize performance, accelerate exit timelines and deliver superior, differentiated returns to investors.

Further, by effectively managing relationships across the fund, its portfolio companies and MSP, the CTO's contribution to innovation becomes richer, as ideas and efficiencies are explored and shared across all stakeholders.

**Private equity
CTOs play a
central role in
helping PE firms
drive
efficiencies at
portfolio
companies.**



Pitchbook predicts
2021 PE fundraising
to hit a record

US\$330 billion



Challenges and risks: Existing IT capabilities of portfolio companies

Private equity firms have always used a variety of techniques to improve operational and financial performance at portfolio companies. With almost all industry sectors accelerating technology deployment to deliver new value propositions, PE firms are recognizing the importance of digital transformation to reinvigorate performance and drive revenue at portfolio companies.

There is of course no common starting point in terms of the existing infrastructure or future technology requirements of portfolio companies. For example, underperforming companies acquired by specialist distressed funds may have suffered through prior underinvestment in IT systems, resulting in technical debt and high levels of manual processing, with consequences for cost and efficiency. They may also be subject to risks in terms of weak financial and operational controls, cybersecurity, and compliance.

Such inefficiencies and risks increase the level of management needed from the parent fund. The need to manage multiple suppliers for similar services further heightens overhead costs.

But digital technology innovations, notably cloud-based delivery, are changing the equation. These have made it easier to deploy and manage applications and tools across a range of locations and sites without high levels of capital expenditure and internal resources. Plus, MSPs are making it possible to combine technologies across portfolio companies without adding to internal headcount.

The bottom line is that CTOs increasingly recognize both technology-based opportunities and business-driven imperatives to raise portfolio company technology platforms to the same standard now being implemented by the parent firms themselves.

Lack of IT investment can leave portfolio companies with manual processes, weak controls, and compliance and cybersecurity risk.



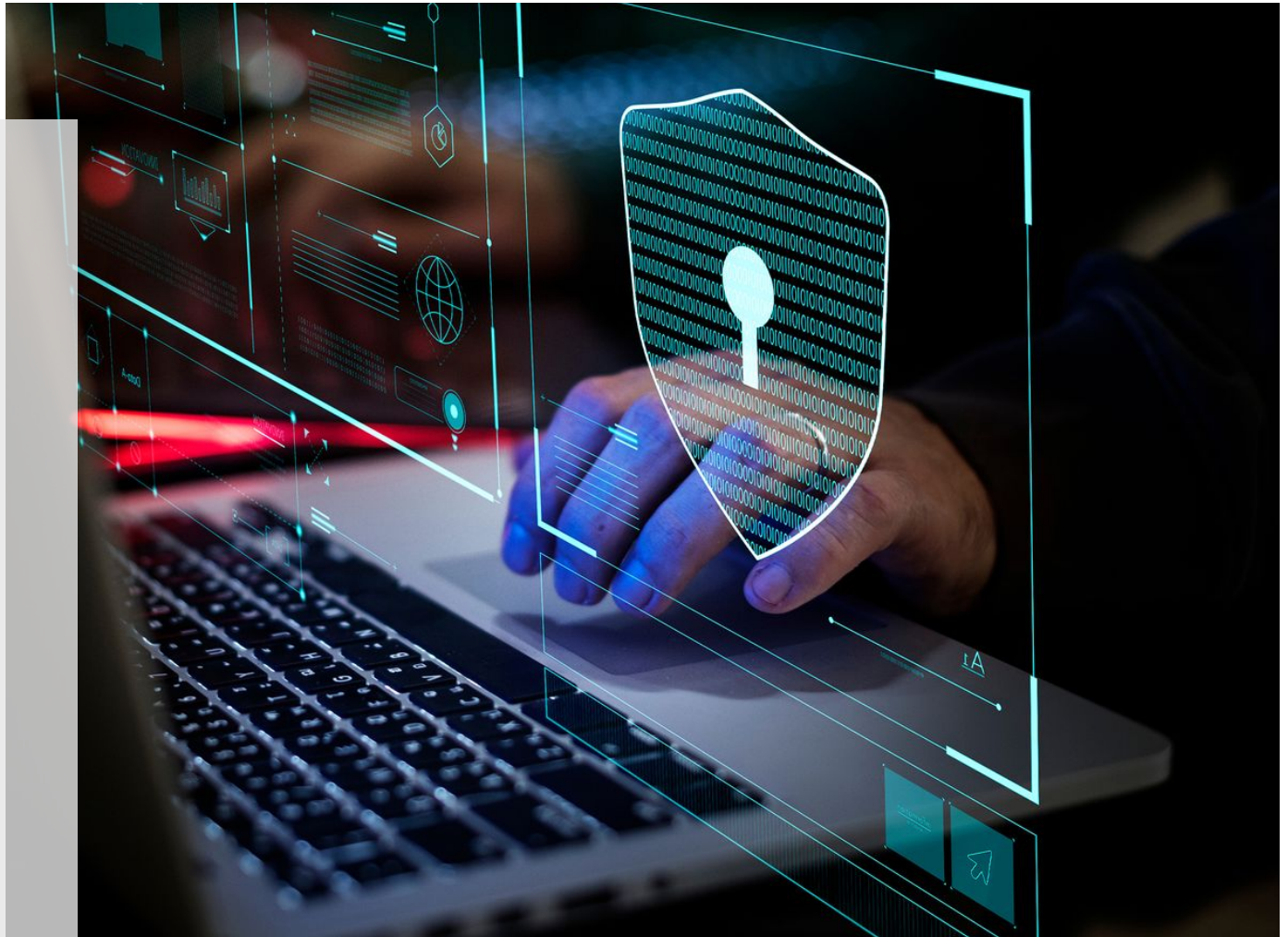
Cloud enables firms to deploy and manage technology across multiple sites without high levels of capital expenditure or internal resources.

The growing threat of cyberattacks

Private equity funds are among the financial institutions being targeted by sophisticated spear phishing attacks, including one that defrauded three funds in 2020.² Most threats are more basic, with almost all malware entering firms via email (according to Verizon) and a high percentage of attacks being made through system vulnerabilities for which patches exist but have not been implemented.³ This is a concern for private equity firms purchasing and/or owning small-to-medium sized firms which may not have invested adequately in information security.

Although the finance industry is most frequently targeted for attack, the scale of the problem has grown dramatically across all sectors. Almost two-thirds of respondents to a Dell/Forrester Consulting survey reported a breach in the last 12 months.⁴ According to Interpol, the threat has only intensified in 2020, with cybercriminals using a full range of techniques to exploit the Covid-19 pandemic, including phishing, malware, and malicious domains.⁵

As such, investment in information security is a necessary protection of business value. According to IBM's latest study, the average cost of a major data breach in 2020 is \$3.8 million globally, rising to \$8.6 million in the US.⁶



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Growing influence of recent digital technology innovation

Adoption of cloud computing, APIs, artificial intelligence, and other aspects of the app-centric digital technology revolution first made their mark in lightly regulated, consumer-facing industries. As entertainment, travel and hospitality services were increasingly booked or consumed in real time via interactive and responsive user interfaces, wholesale financial markets in general, and private equity in particular, have been cautious followers.

The growing maturity, scalability, and resilience of the services built on these technologies have made them increasingly relevant and indeed compelling. Across sectors, the cloud is helping firms scale capacity up and down in response to demand and making it easier to test, deploy and adopt new services, while providing access to data storage and analytics capabilities.

Further, hybrid and multi-cloud capabilities provide the ability to combine public cloud capabilities with customized, in-house solutions. As such, it has become increasingly attractive for PE firms to integrate legacy platforms with the cloud and accommodate bespoke needs around speed, security, and privacy. For such projects, correct planning and execution is key, and seeking out the right help from MSPs is critical to success.

Private equity has been a relatively late adopter of digital technology but appears to be making up for lost time. In a recent survey, 84% of PE executives told PwC that digitizing portfolio companies would accelerate the realization of their equity story and thus decrease holding periods.⁷



In our Technology Services business, we have seen a marked acceleration of cloud-based initiatives across private equity. In parallel, funds are looking to drive value creation by effecting the digital transformation and technology consolidation of portfolio companies by deploying a combination of big data analytics, artificial intelligence, the internet of things, increased connectivity and mobility, and robust cybersecurity.

Hybrid and multi-cloud models enable integration between public cloud applications and customized legacy platforms.



84%
of PE executives said digitizing portfolio companies decreases holding periods.



82%
had invested in digital transformation at their firm or portfolio companies.



75%
said digital transformation can improve exit prospects and return levels.

Choosing the right cloud model

Depending on priorities, funds can choose between public, private and hybrid cloud models, which offer differing options regarding security and connectivity while maintaining segregation where necessary. The CTO can leverage the MSP's expertise to make the most suitable choice to fit the fund's priorities and circumstances.

We see several different drivers and dynamics in the market, with public cloud often but not always playing a central role. In many cases, optimized implementation of Office 365 is a strong starting point for CTOs to develop a coordinated technology strategy.

When a private equity fund looks to migrate a portfolio company to a cloud-based technology environment, it may also consolidate and optimize its own capabilities with its chosen MSP. Cost reductions can accrue through system and service provider consolidation, centralizing ongoing maintenance, support, and development with a single provider, and gaining operational performance and management oversight benefits.



Case Study

Hybrid cloud: enabling growth for a global private equity player

Linedata's client is a rapidly expanding boutique private equity firm with multiple offices in major financial centers. With a technology refresh looming, the CTO decided to adopt a 'hybrid' cloud model: public and private cloud, underpinned by managed services.

Following a thorough review, the firm selected Linedata to lead its transformation project. Key selling points were the Linedata team's deep functional knowledge of the PE industry, legal and compliance expertise (including data management across multiple jurisdictions), and ability to design and deliver a best-in-class solution from a global technology toolkit.

In partnership with the fund's CTO, Linedata developed a strategic roadmap, designed a multi-cloud SaaS solution, and performed a migration that mitigated risk and minimized potential disruption to daily business. Office 365, Microsoft Azure, Citrix, and Mimecast were implemented to deliver an intuitive user experience while respecting complex data privacy and storage requirements. Data analytics and financial reporting were significantly streamlined, and the firm is enjoying significant technology savings and economies of scale.

Optimized Office 365 implementation is a strong starting point for CTOs to develop a coordinated technology strategy.

MSPs can help CTOs make the best choice between public, private and hybrid cloud models to fit their fund's requirements.

Role of technology in improving performance of portfolio companies

Centralizing and consolidating technology platforms across portfolio companies offers significant scope for cost and risk reduction, and performance enhancement. PE firms are increasingly reliant on advanced data analytics to make investment decisions and optimize performance and returns.

But there is considerable room for improvement. According to EY's Global Divestment Study 2020, 73% of PE respondents faced challenges in understanding how technology impacts the value of portfolio companies. And 80% said consistently using data-driven analytics to drive decision-making is a challenge when conducting portfolio reviews.

For private equity firms looking to support the business growth of portfolio companies in a common industry sector, the cloud offers the opportunity for multiple entities to store and manage data and access diverse services via a single solution, typically supplied and managed by an MSP. In addition to being flexible and highly cost-effective compared to on-premise implementations, cloud-based services support higher levels of automation, security, and connectivity across companies and provide a centralized source of business intelligence to the fund.



In our Technology Services business, we have seen a marked acceleration of cloud-based initiatives across private equity. In parallel, funds are looking to drive value creation by effecting the digital transformation and technology consolidation of portfolio companies by deploying a combination of big data analytics, artificial intelligence, the internet of things, increased connectivity and mobility, and robust cybersecurity.


PE firms are employing digital transformation to reinvigorate portfolio company performance.



72%
of PE firms leveraged analytics for pre-sale preparations in their most recent sales.



61%
captured operational efficiencies around technology.



73%
faced challenges in understanding how technology portfolio company value.

The power of business intelligence and analytics

Deploying business intelligence and analytics tools across portfolio companies is helping PE firms achieve faster and more effective responses to operational and financial issues. Tools such as Microsoft's Power BI or Tableau make it easier to consolidate and analyze data sets with a view to revealing new insights into business operations.

In the retail sector, this might include assessing and optimizing cash positions by using AI to monitor discounts offered on portfolio company websites (i.e. by scraping pricing data from webpages), benchmarking normal vs increased offer levels, and alerting the parent automatically if a threshold is breached. Digitalization can also support and track customer satisfaction or facilitate omni-channel sales and personalized marketing.

More broadly, implementing automated financial reporting solutions across portfolio companies can provide transparency to the PE parent, without the tension that can accompany traditional practices. Further, the rapid, automated analysis of financial data can allow private equity fund managers to judge the feasibility and likely profitability of new products and business models.

Case Study

Portfolio technology consolidation and optimization program

Linedata's client is a private equity firm with multiple portfolio companies at varying levels of IT maturity and stages of value creation. Its leadership wanted to centralize its technology to protect its investment and mitigate risk while delivering a scalable, optimized, secure IT infrastructure.

The project began with digital transformation at one of the firm's portfolio companies, which has offices in five states. Linedata-led public cloud deployment and AI Ops automated much of the IT implementation, speeding time to effectiveness while reducing cost and the training burden for the company's workforce. Replacing the antiquated technology stack has enabled automation of the firm's AI/ML analysis and reporting while reducing its cybersecurity risk.

As an MSP, Linedata's technology experts have mapped out a half-million dollars in savings over a five-year period for this one portfolio company. Additional technology consolidation and digital transformation is underway across the fund's other portfolio firms to deliver similar returns, while reducing technical debt and providing cost, performance, scalability, security, and data analytics benefits.

For PE firms managing portfolio companies in a common industry sector, cloud enables centralized data storage, management, and services access.

Cloud-based business intelligence and analytics tools at portfolio companies are helping PE firms respond better to operational and financial issues.



Overcoming practical challenges through partnership

Digital technologies have come a long way in the past decade, with cloud service provision reaching a high degree of maturity and sophistication, catering for custom needs, while offering robust levels of security, compliance, and scalability.

Yet despite cost and flexibility advantages over on-premise installation, practical challenges remain. Even defining and implementing a common strategy across an evolving range of portfolio companies can be a complex task, given different starting points and priorities.

Much of the opportunity to coordinate and consolidate technologies centers on access to diverse, high-quality services and capabilities via public cloud infrastructures. The precise requirements and objectives of the fund must shape the choice between public, private and hybrid cloud options, as well as the selection of public cloud providers.

For many, a key priority is optimization of Office 365 capabilities, primarily for file storage and sharing, and communication (e.g. email, telephone and instant messaging). But for firms with very time-sensitive requirements – for example, the exchange or acknowledgement of contracts – guaranteed service levels may be required. This could lead to the choice of a private rather than a public cloud solution, or use of dedicated servers, accessed via Microsoft Azure. Others might choose Amazon Web Services as their primary public cloud service provider due to its strength around supporting specialist in-house applications.



While certainly a key enabler, public cloud services are not the only route for consolidating and optimizing technology infrastructure. Flexibility and long-term thinking are critical to the success of any portfolio-wide technology strategy, not least because future acquisitions may have differing requirements.

With all of this to manage, even the most well-resourced CTOs are likely to need third-party support from an experienced MSP to realize their strategic vision. The value of MSPs extends past the transformation project to include ongoing support and maintenance. Managed service providers are primed to react to evolving and urgent requirements across a wide range of clients and sites more so than internal technology teams.

Optimization of Office 365 capabilities is a key priority for many firms.

MSPs enable firms to combine technologies across portfolio companies without adding internal headcount.



The CTO as visionary leader

Private equity business models have always sought to extract value from portfolio companies by investing capital for revenue growth, while using operational efficiency expertise to streamline operations and improve the bottom line. The centralization and optimization of technology infrastructures across portfolio companies – to increase automation and oversight and reduce costs and risks – is a logical extension of this model.

In this context, the role of private equity company CTO is more important than ever. Not only can CTOs help drive differentiation and outperformance at a time of intensifying competition for private equity funds, but their leadership can also equip portfolio companies to thrive in a business environment reshaped by a global pandemic.

By reviewing and transforming operations and infrastructures now and potentially spreading cost across multiple entities, PE funds will be well-placed to drive portfolio company performance in a highly digitized market. The scalability of today's solutions offers the ability to achieve savings, reduce risks and enhance performance rapidly, ultimately facilitating earlier exits and delivering more fruitful returns.

The CTO is well-placed to drive this change but may wish to do so in partnership. MSPs such as Linedata Technology Services provide technology solutions that combine a deep understanding of the specific needs of private equity firms and their portfolio companies with robust project management skills, flexible hosting, customized software development and 24/7/365 support.

By selecting, managing, and monitoring applications and systems across portfolio companies, we can help CTOs and leadership teams achieve constant, cost-effective access to a robust but dynamic technology infrastructure. This will provide a platform for you to grow your portfolio companies and allow fund management to focus on business priorities.

The role of private equity company CTO is more important than ever.

CTOs can help drive outperformance while equipping portfolio companies to thrive post-pandemic.

The value of MSPs extends beyond transformation projects to include ongoing support and maintenance.



Jed Gardner was recently appointed to lead digital transformation at Linedata. Previously he led Linedata's Technology Services business which provides Cloud, Cybersecurity and Managed Services for private equity firms, hedge funds, and asset managers. In this role he oversaw digital transformation projects at several leading private equity firms and their portfolio companies.

Jed's passion is architecting leading-edge technical solutions for the investment community and bringing innovative technology and service offerings to the IT services market. His 16-year career in IT infrastructure and cloud technologies has focused on technical compliance in financial and legal services, including eight years guiding global service teams and IT outsourcing businesses.

Global solutions from private equity and technology experts

At Linedata Global Services, we provide the financial services industry with the tools, processes, and resources to scale their business while enhancing quality and competitive edge. Our finance and technology professionals complement or augment your resources, providing expert advice, business process co-sourcing, IT managed services, cybersecurity, analytics, and next-generation technology solutions that help you drive change, control costs, and manage risk. Choose the tailored solution that fits your needs.

About Linedata

With 20 years' experience and 700+ clients in 50 countries, Linedata's 1100 employees in 20 offices provide global humanized technology solutions and services for the asset management and credit industries that help its clients evolve and operate at the highest levels.

www.linedata.com/technologyservices

Endnotes and sources

- 1 [2021 US Private Equity Outlook – Pitchbook \(December 2020\)](#)
- 2 [New Microsoft Hack Hits Private Equity Firms In Million Dollar Heist: Here's How It Happened](#)
- 3 [2019 Data Breach Investigations Report – Verizon](#)
- 4 [BIOS Security – The Next Frontier for Endpoint Protection](#)
- 5 [INTERPOL report shows alarming rate of cyberattacks during COVID-19](#)
- 6 [Cost of a Data Breach Report 2020](#)
- 7 [Private Equity Trend Report 2020: Bull or Bear – PwC](#)