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Why the evolving healthcare services and technology market matters

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Why the evolving healthcare services and technology market matters

The healthcare services and technology market is growing rapidly, which creates opportunities, risks, and structural questions for companies in the sector and those in the broader healthcare value chain.

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Services and technology have become the fastest-growing profit pool in the healthcare industry over the past five years, a trend driven by the significant value creation potential of technology-based and -enabled innovations. Major technological advances (e.g., interoperability, advanced analytics, machine learning, digitization, the Internet of Things) have found numerous applications in healthcare—and present important opportunities to address the half a trillion dollars of annual spending resulting from low productivity and waste.

To date, most healthcare services and technology companies have focused on managing medical costs and quality (e.g., through population health management) or on increasing effectiveness and efficiency in administrative functions (e.g., revenue cycle management). In recent years, these companies have delivered billions of dollars in savings, thereby helping to address healthcare cost trends. In return, they have been rewarded by growing profits. In 2016, the companies earned an aggregate EBITDA of approximately $35 billion,[1] rivaling other major segments of the healthcare economy (e.g., payers, pharmacy benefit managers, and distributors). For the past five years, aggregate EBITDA has grown faster among healthcare services and technology companies (at about 7% per annum) than among traditional payers and providers.

Given that the available headroom for improvement in healthcare is more than $500 billion, the future growth potential of the healthcare services and technology market is substantial.[2] For example, large-scale platform players could emerge to create frictionless markets for healthcare products and services. These players could also become ecosystem integrators—they would integrate a range of different healthcare products and services—so that consumers (patients and their family members) could better manage their own healthcare.

In response to this potential, venture capital and private equity investors alone deployed at least $60 billion into healthcare services from 2012 to 2017. This figure excludes the internal investments made by industry participants, such as payers and technology firms. As a result, the true amount invested is likely even higher.

In this paper, we provide an overview of the healthcare services and technology landscape and profit pool. We then explore four key characteristics of companies that are achieving success in the market. We conclude with two sets of five tests—one for healthcare services and technology companies and one for their customers—that their leaders can use to gauge how prepared and well positioned they are for the future.

[1] To define the size of the healthcare services and technology market, we built upon the "service vendor" market definition described in the McKinsey white paper by Singhal S et al entitled "The future of healthcare: Finding the opportunities that lie beneath the uncertainty" (January 2018) by adding "enabling services" (e.g., analytics, consulting, software, and platforms) to it. As a result, the size of the services value pool rose from ~$20 billion to ~$35 billion in 2016 EBITDA.

[2] Singhal S, Coe E. The next imperatives for US healthcare. McKinsey white paper. November 2016.

The market landscape: A snapshot of the present and future

The healthcare services and technology market consists of a wide range of companies that can be grouped into eight categories, as the market map in Exhibit 1 shows. Together, these companies had approximately $35 billion in EBITDA in 2016. In Exhibit 2, the size of each rectangle reflects the relative share of total healthcare services and technology market EBITDA accrued by each category.

We developed the market map by considering all organizations that serve payers and providers. We then excluded companies in

EXHIBIT 1 **Market map for healthcare services and technology firms**

Business services

Core administrative services	Logistics and supply chain services	Payment services	Clinical solutions and HCV services	Broker services
Enrollment and billing	Supply chain management	Enterprise payments	Medical cost management	Traditional brokers
Member and patient services	Logistics	Consumer payments and medical financing	Specialty carve-out solutions	Broker consulting
Claims, G&A, and credentialing	Biomedical engineering	Healthcare savings and financial accounts	Network management	Private exchanges
Quality management	Provider facility management	Payment integrity and subrogation	Provider enablement	
		Revenue cycle management	Clinical information systems (services only)	
		Risk adjustment	Health and wellness administration	

Consulting services

Business consulting	Clinical, consumer engagement, and digital consulting	Analytics and actuarial consulting
Operations, procurement, and supply chain consulting	Technology consulting	

Data, analytics, and information services

Analytical infrastructure	Analytics services
Data, reporting, and transparency services	Benchmarking solutions

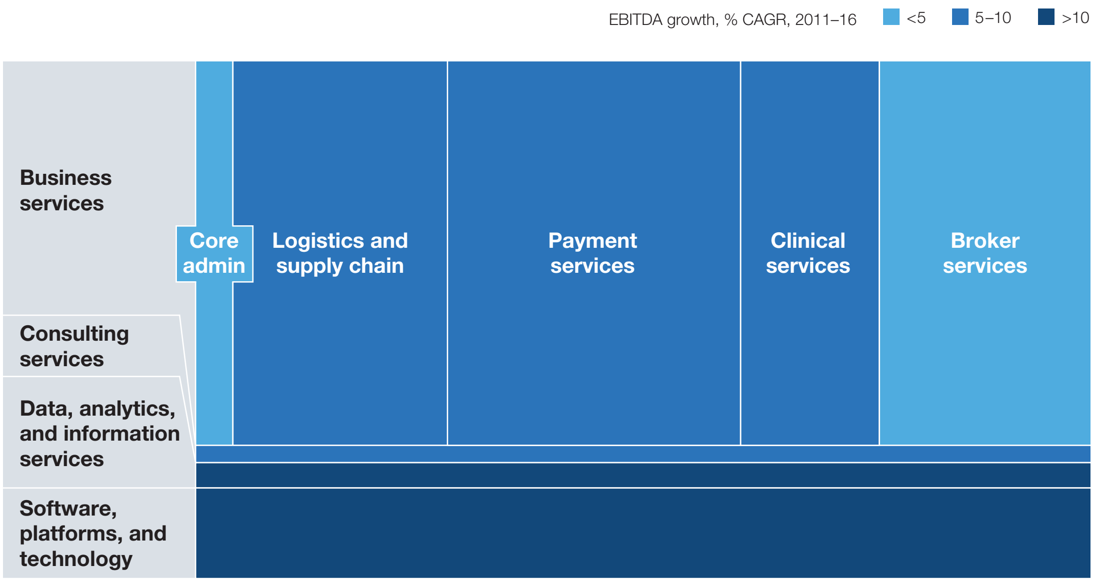
Software, platforms, and technology

Core payer administrative software	Care and population health management software	Revenue cycle management software
Health information exchanges/ Electronic data interchange	Consumer engagement software	Clinical decision support software
	Clinical information systems software	Digital health (including consumer wearables)

G&A, general and administrative expense; HCV, healthcare value.

EXHIBIT 2 **Relative share of 2016 outsourced EBITDA accrued by each category**

US healthcare services and technology market had an aggregate 2016 EBITDA of ~$35 billion



The size of each box reflects the percentage of the healthcare services and technology market's total 2016 EBITDA (~$35 billion) accounted for by each segment

CAGR, compound annual growth rate; EBITDA, earnings before interest, taxes, depreciation, and amortization.

Sources: The data underlying this analysis came from a wide range of sources, including regulatory findings (e.g., SEC reports), external surveys (e.g., US National Health Expenditures), external industry financial reports, and McKinsey analysis

other parts of the healthcare value chain (i.e., companies that take on insurance risk in the traditional sense, provide clinical care, manufacture medical products or pharmaceuticals, or are intermediaries), as well as companies whose offerings were relatively "generic"—they can be used in a wide range of industries. (Data servers and customer relationship management software are examples of a generic offering. See the sidebar on p. 4 for more details.) Service functions performed by payers and providers in-house were also excluded from our modeling—only outsourced spending was considered.

Within our market map, we then segmented the offerings into four groups. The largest of these, business services, includes the core processes in healthcare that are supported by vendors. The other three segments can be considered "enabling" services: consulting services; data, analytics, and information services; and the software, platforms, and technology that enable the business services.

We expect that total EBITDA in the healthcare services and technology market has the potential to increase from $35 billion in 2016 to close to $50 billion in 2021

(Exhibit 3).[3] These figures suggest a compound annual growth rate (CAGR) of approximately 7%, continuing the trajectory these players have experienced in recent years. It is not unreasonable to assume that several of the leading healthcare services and technology companies could have earnings above $1 billion per annum within the next decade. Should this occur, the companies could have valuations rivaling those of some payers and providers. Consider this example as a proxy for the market's potential: eviCore, a clinical solutions and healthcare value services firm, was valued at $3.6 billion (an 18x EBITDA multiple) in its recent sale to Express Scripts.[4]

Our models indicate that different segments of the healthcare services and technology market are growing—and will continue to grow—at different rates. Newer, technology-enabled service areas are likely to have rapid growth, whereas the more traditional service sectors will probably experience growth in line with the rest of the healthcare industry.

Data, analytics, and information services (including reporting services and benchmarking services) are likely to continue to have the fastest growth (albeit from a small current base). We forecast an EBITDA CAGR of 16% to 18% for this segment over the next five years, driven by increasing business demand for analytics services (both as a table-stakes capability and potential competitive advantage).

Software, platforms, and technology are also expected to have rapid growth (10% to 12% EBITDA CAGR over the next five years). These services are also likely to increase in importance, given that many processes are becoming more standardized and enabled by artificial intelligence, robotic process automation, machine learning, etc. As these changes occur, the lines between software, platforms, and technology services are likely to blur, creating the potential for large players to create an ecosystem of services.

Clinical solutions and healthcare value services, such as medical cost and population

[3]The data underlying these estimates came from a wide range of sources, including regulatory findings (e.g., Securities and Exchange Commission reports), external surveys (e.g., US National Health Expenditures), external industry financial reports, and McKinsey analysis.

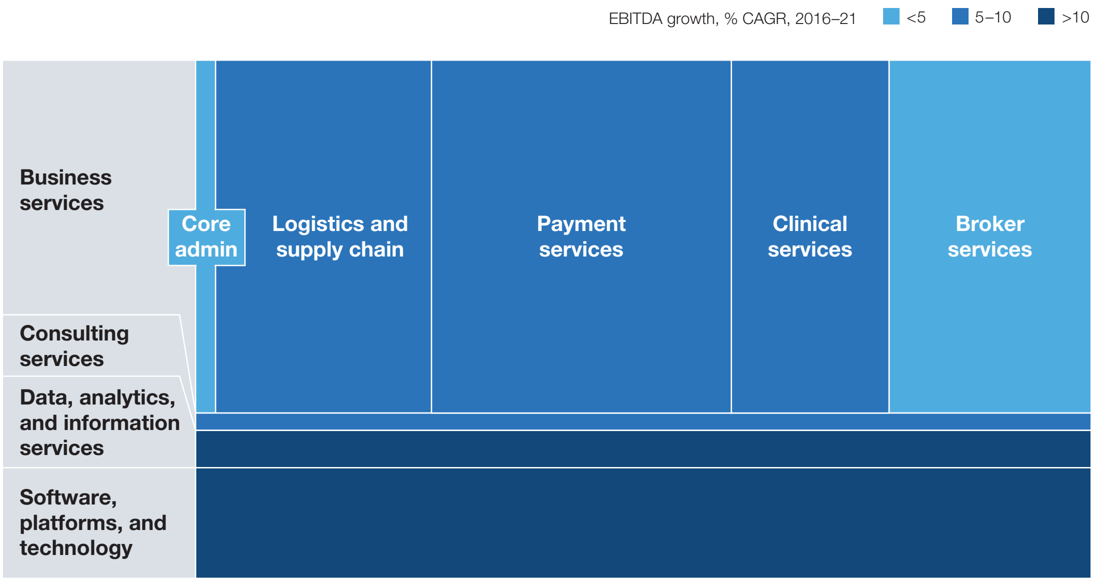
[4]Express Scripts to acquire eviCore Healthcare; accelerates company's shift to patient benefit management. Express Script press release. October 8, 2017.

Extended view of the vendor services market

Many of the services and technologies that payers and providers purchase from vendors are products that can be used with minimal or no adaptation in a wide range of industries. In addition to data servers and customer relationship management software, examples of such generic services and products include computers and IT infrastructure, HR and finance software, package implementation services, and corporate center support services (e.g., for real estate). We estimate that the companies supplying such generic products generate more than $10 billion in EBITDA annually through their sales to payers and providers—a substantial pool that presents opportunities for numerous players.

EXHIBIT 3 **Projected share of 2021 outsourced EBITDA accrued by each category**

US healthcare services and technology market aggregate 2021 EBITDA could reach ~$50 billion



The size of each box reflects the percentage of the healthcare services and technology market's total 2021 EBITDA (~$50 billion) accounted for by each segment

CAGR, compound annual growth rate; EBITDA, earnings before interest, taxes, depreciation, and amortization.

Sources: The data underlying this analysis came from a wide range of sources, including regulatory findings (e.g., SEC reports), external surveys (e.g., US National Health Expenditures), external industry financial reports, and McKinsey analysis

health management solutions, are also likely to grow rapidly due to cost concerns. Data-enabled decision making in both clinical and business processes are expected to make bending the medical cost trend possible. We estimate that EBITDA growth in this segment could have a 7% to 9% CAGR.

Consulting services are also expected to grow relatively rapidly (7% to 9% EBITDA CAGR), driven by the overall growth of the healthcare services and technology market. However, analytics consulting is likely to grow well in excess of this rate because of the overall growth in analytics.

Broker services are becoming increasingly commoditized but are still expected to show growth in line with overall medical cost inflation.

Logistics and supply chain services (including biomedical engineering and provider facility management) is another traditional service that is expected to grow in line with medical cost inflation.

Payment services are also expected to grow. The demand for these services is increasing, driven by the rise of high-deductible health plans and the expansion of patients' responsibility for payment. Consumer payments will probably be one of the fastest-growing segments. Payment integrity and revenue cycle management services are also likely to grow given the increasing complexity of, and massive shifts in, the healthcare payment system (including the rise of value-based care and narrow networks, as well as product proliferation). Payers and providers are increasingly partnering with healthcare services and technology firms to deliver a seamless transaction experience for their customers. However, some areas within this segment are experiencing commoditization (e.g., automation of healthcare savings accounts). Our analysis suggests that the payments services segment overall (including areas such as payment integrity and B2B and consumer payments) is likely to grow at a 5% to 7% EBITDA CAGR.

Core administrative services (e.g., member enrollment and billing, and provider services) is unlikely to see much growth—and thus profit pools are likely to remain relatively flat—for two reasons. First, given the competitive and increasingly commoditized nature of this segment, we anticipate that prices will decline because of automation and digitization. Second, some of these services could increasingly be replaced by software and analytics. It is possible, however, that some of the revenue decline will be offset by industry consolidation, which we anticipate will occur in this segment because scale will be needed to drive efficiency.

Characteristics of successful healthcare services and technology companies

We have observed that successful healthcare services and technology companies have a few common characteristics: First, they are willing to take on risk and share accountability for outcomes. Second, the companies display a real willingness to make investments and have developed the capabilities needed to maximize the value of those investments so they can stay ahead of the rapidly changing healthcare environment. Third, successful companies have been able to translate capabilities and learnings across the value chain, enabling them to serve increasingly integrated players.

We expect that these characteristics will push the companies toward integrated platforms—however, a successful platform player has yet to emerge, even though profit pools are aggregating across the top players.

Risk and accountability for business outcomes

Successful healthcare services and technology firms are moving beyond traditional fee-for-service business models and taking on risk for delivering outcomes. In the clinical solutions and healthcare value services segment, for example, companies such as eviCore, AIM Specialty Health, naviHealth, CareCentrix, and myNexus have begun underwriting outcomes.[5] These organizations generally contract with payers on a capitated basis, through shared savings, or in fee arrangements with performance guarantees.

[5] eviCore and AIM provide services in a number of areas, including radiology, sleep apnea, specialty drug management, and medical oncology. naviHealth specializes in post-acute care management. CareCentrix specializes in post-acute care. myNexus specializes in reducing readmissions through remote patient monitoring.

Some vendors that offer a suite of services may also take on outcome risk (e.g., when they bundle products like risk analytics, population health management analytics, and medical benefits management). Similarly, many payment services companies are contracting with clients on a contingency basis, retaining a proportion of the value they create.

In short, successful healthcare services and technology companies are increasingly basing their business models on having "skin in the game" with their customers. This approach shows confidence in the services delivered and helps reduce the risk for customers considering purchasing these services. As a result, we expect to see the move toward shared accountability continue.

Investments and capabilities to address market needs

The healthcare industry is experiencing rapid change resulting from evolving consumer and employer demands, regulatory requirements, and technological disruption, as well as the rapid evolution in technologies. Traditional healthcare organizations have generally struggled to keep pace with this change—many have been unable to develop the capabilities, acquire the talent, and transform their organizations at the pace required.

In addition, traditional healthcare companies have not deployed capital at the rate needed to stay ahead of the curve. For example, while payers' IT spending is typically between 20% and 30% of their administrative budget, less than 10% of that spending contributes to true "change-the-business" R&D investments.[6] In contrast, healthcare services and technology companies are investing heavily in research and development. For example, we estimate that the top six payment integrity companies invest an aggregate $200 million to $300 million per annum on R&D (e.g., building intellectual property) and have achieved multiple orders of savings as a result.[7]

In addition, successful healthcare services and technology companies have developed the capabilities needed to maximize the value of these investments and stay ahead of the curve:

- **Continuous innovation.** These companies are moving faster in terms of capability building, sales, and execution. They recognize that the lion's share of growth will go to those that can more rapidly deliver and improve value-creating solutions.

- **Talent advantages.** The companies have demonstrated their ability to attract and retain talent, particularly in such areas as analytics, software solutions, and technology services.

- **Specialization.** The companies (or specific business units within them) are tailoring their value propositions and structures to serve specific client needs. Software vendors such as McKesson/Change Healthcare and Cerner, for example, are thriving on their ability to meet complex customization requirements.

- **Flexible deployment models.** By leveraging a combination of technology and people, the companies have developed a range of different deployment models that meet the unique requirements of their clients.

[6] Estimate is based on focused interviews, discussions with industry executives, financial statements, and industry reports.
[7] Estimate is based on outside estimates of the top six payment integrity firms serving payers.

Ability to play across an increasingly blurring value chain

The healthcare value chain continues to evolve. In recent years, the top 10 payers and providers have all integrated vertically—by our estimates, vertical integration represented as much as 50% of all healthcare deal activity in 2016 and 2017—and they are all trying to extend their capabilities into other service areas.[8] Prominent examples include CVS's plan to purchase Aetna for $69 billion,[9] Optum's bid to acquire DaVita Medical Group for $4.9 billion,[10] and Cigna's recent move to buy Express Scripts for $67 billion.[11] This trend is expected to continue, given the companies' desire to create more value for customers and patients, as well as respond to the possibility of new entrants, including companies outside the healthcare space (e.g., technology players).

As the value chain blurs, successful services and technology companies have been able to design solutions and products that address a more comprehensive set of their customers' needs. Optum, Change Healthcare, and Cognizant are three examples of companies that have taken advantage of their cross-market experience (see the sidebar on p. 9). These companies have been able to leverage the lessons they learn to benefit clients in many different market segments.

Striving to build integrated platforms

Healthcare has, historically, been a local business. However, as capabilities become increasingly important, so does scale. Currently, the industry lacks integrated, cross-cutting platforms that would allow participants to interact, similar to those in other industries (e.g., Amazon for retail, Kayak for travel). Unsurprisingly, many companies are attempting to fill this void, but it is unclear who will emerge as the winner. It is also possible that multiple winners may arise because there are several areas where an integrated platform solution could be useful:

- Clinical integration and population health
- Primary care (e.g., integrated non-acute care, health and wellness services)
- Consumer-led "connected health"[12]
- Infrastructure (e.g., services wrapped around a cloud platform)
- Administrative services (for both payers and providers)

Currently, the closest healthcare comes to platforms is the ability that companies like Cerner and EPIC have to deliver electronic health records (EHRs). However, today's EHRs are not true platforms, since providers are the primary participants in the data exchange, which is often not available to other players (e.g., consumers). Platforms enable multi-sided business models and help generate network efforts for the participants. The current breed of EHRs are closer to being systems of record that primarily benefit providers than systems of engagement or intelligence capable of serving multiple stakeholder needs. However, if greater interoperability can be established, patient privacy protected, and the underlying systems redesigned, EHRs could emerge as powerful platforms. Building these platforms will require a fundamentally different view of current systems and processes, a change that could be driven by existing players or disruptors from other industries.

[8] Approximated based on deal count from McKinsey's M&A database.
[9] CVS Health to acquire Aetna: Combination to provide consumers with a better experience, reduced costs and improved access to health care experts in homes and communities across the nation. CVS Health press release. December 3, 2017.
[10] DaVita Medical Group to join Optum. UnitedHealth press release. December 6, 2017.
[11] Cigna to acquire Express Scripts for $67 billion. Cigna press release. March 8, 2018.
[12] Connected health refers to networked devices to promote health and wellness, as well as the connectivity and analytics needed to exploit data from these devices.

The evolution of revenue cycle management: A case study

The revenue cycle management (RCM) processes of the future will likely be highly integrated with core finance operations and yield improved payments. RCM vendors are competing with electronic health record (EHR) companies and others to capture growth by becoming the sole end-to-end vendor for their provider clients. As a result, the traditional “boundaries” among these companies are blurring:

- RCM vendors are expanding to new customer segments by offering revenue and payment integrity services to payers and pharmacies. Change Healthcare, for example, is bundling consulting services with tech offerings, providing an exchange-to-exchange offering for customers that prefer to keep staff in-house.

- EHR vendors are building compelling offerings in the RCM space and already have a position of strength, given their installed base and integrated clinical and financial workflows. Cerner, for example, is using its expertise in clinical processes and making investments to integrate the payments workflow.

- Vertical integrators are translating expertise to new markets (e.g., by applying expertise in practice management to population health management). Athena, which began by offering practice management services, is now expanding to serve accountable care organizations.

- New solutions are addressing multiple niche areas. Financial platforms such as Simplee, for example, are linking patient portals, financial planning services, and payment reminders into a single solution.

Tests to measure readiness for the future

As the fast-growing healthcare services and technology market evolves, both the companies in this market and traditional players in the healthcare value chain must test themselves against five critical questions:

Tests for healthcare services and technology companies

1. **Granularity of growth.** Have you aligned your organization’s growth strategy with the appropriate segments of the healthcare services and technology market, recognizing that different subsegments will grow at significantly different rates and require unique capabilities? What bets for a winning product-market value proposition does your strategy depend on?

2. **Business model.** Who are, or will be, the end-customers paying for your services? What benefits do they accrue? What return can they expect? How might timing and other considerations affect the value? How does this align with their

buying factors? Are you able to share risk for delivering the desired outcomes with your customers?

3. **Platform strategy.** Have you developed a winning platform strategy in areas that would enable you to capitalize on growth trends? How will you use this strategy to increase your customer base 10- or even 100-fold? What is your plan to achieve this growth in an increasingly crowded space?

4. **Organization and talent strategy.** How do you plan to acquire and retain specialized talent by differentiating yourself from competitors (e.g., by working on the next game-changing technology)? Are capabilities in place to expand and operate in an "agile mode" across your various business functions, especially in those areas where you may have to compensate for capability gaps in your customers or partners?

5. **Insights-driven culture.** Does your organization nurture an insights-driven culture? Are you able to effectively use your data and analytics to drive greater customer intimacy, performance, and market focus?

Tests for traditional healthcare players

1. **Business strategy and architecture.** How will your business strategy capitalize on the expected areas of high growth in the healthcare services and technology market? Do you have a clear sense of the specific capabilities required to achieve your strategy? Do you have a service-oriented business architecture to help you best extract value and deliver your intended value proposition?

2. **Build vs. buy framework.** What segments of the healthcare services and technology ecosystem will you play in to fuel your growth? Where will you build internally—and where will you curate external solutions? How might you set up "buy to build" approaches? When considering new arrangements with healthcare services and technology companies, do you have a clear framework that considers business outcomes and return on investment (ROI)?

3. **Partner/alliance management expertise.** Does your organization have the expertise to contract with and manage alliances and strategic partnerships? Are you able to implement these contracts in a strategic value-added fashion (e.g., by setting up contracts with ownership stakes through internal corporate equity, developing a maximum-ROI view of external options, or keeping a map of industry dynamics)?

4. **Operating capabilities.** Do you have the technical capabilities and architecture needed to integrate vendors fluidly, ensuring that partner solutions are seamlessly harmonized? Does this blueprint enable your organization to maintain control over the customer experience and deliver frictionless service? Is it easy for your organization to "plug and play" with external service providers (e.g., by developing external application programming interfaces, creating channels to your data, or improving the security of external connections)?

5. **Risk management.** Have you developed robust risk management mechanisms to ensure that business continuity, compliance, and operational risks are addressed as vendors take greater responsibility for delivering outcomes within a highly interconnected ecosystem?

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As the US healthcare system seeks ever greater innovation to harness the potential presented by technology in solving many critical issues, the importance of services and technology businesses will continue to grow. The profit pool in this rapidly growing, dynamic market presents exciting opportunities, significant risks, and long-term structural questions for both those who are building businesses in this sector today and those in the broader healthcare value chain they serve.

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