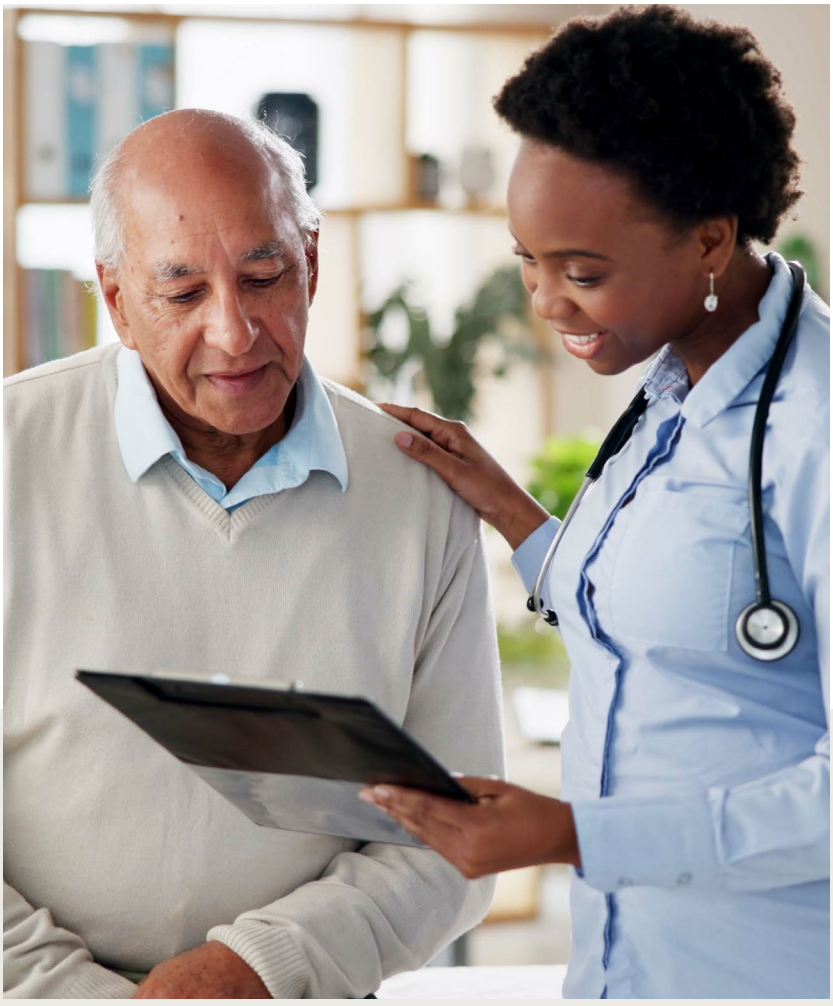
Accelerating Epic migration

Strategy, security and financial governance on Azure



WHITEPAPER

De-risking the move and delivering ROI faster

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Executive summary

This guide provides CIOs with a strategic roadmap for migrating Epic EHR systems to Microsoft Azure. It addresses key drivers—cost, scalability and compliance—while outlining FinOps best practices, risk mitigation strategies and cloud acceleration tools.

Whether you're building a business case or planning execution, this resource equips you to lead with confidence.

Introduction

The shift to cloud-based electronic health records (EHRs) is accelerating, with more healthcare organizations migrating their Epic EHRs to Microsoft Azure to improve scalability, security and cost efficiency. While cloud adoption is no longer a question of 'if,' but 'when and how,' many CIOs remain concerned about migration complexity, regulatory compliance and cost. Moving a mission-critical system like Epic requires careful planning to avoid performance disruptions, cost overruns or security vulnerabilities.

This guide is designed to help CIOs at mid-market healthcare organizations understand the 'why', 'what', and 'how' of Epic to Azure migration. We'll explore key drivers behind this transition, including financial considerations under a FinOps framework, common migration challenges, and best practices for planning and execution.

> By breaking down the migration process into clear, actionable steps, we provide a roadmap for CIOs looking to modernize their IT infrastructure without compromising clinical workflows.

Finally, we'll highlight strategies to accelerate migration timelines while reducing risk. From automated cost governance to prebuilt Epic blueprints, tools are available to streamline cloud adoption and optimize performance. Whether you're in the early stages of cloud strategy development or actively planning an Epic migration, this guide will provide the insights needed to make informed decisions and drive successful outcomes.

Why migrate?

Migrating Epic to Microsoft Azure is not just about IT modernization—it's about **unlocking business flexibility, financial efficiency and innovation capacity** that aligns with broader healthcare transformation goals. It improves reliability and scalability,[1] ensuring your EHR can meet growing demand without performance hiccups. Cloud agility also accelerates innovation; placing Epic in Azure unlocks integration with advanced tools (analytics, AI) that on-premises setups struggle to support. Security has become a driver for cloud adoption: modern cloud platforms now meet strict healthcare compliance, turning cybersecurity from a concern into a motivating factor. Industry data reflect this shift—78% of healthcare organizations have completed or are in the process of migrating to the cloud.[2] KLAS Research finds that providers moving Epic to the public cloud are primarily looking for "better reliability, stronger security and long-term cost savings," along with unique cloud features unavailable on-prem.

Ultimately, migrating Epic to the cloud is a strategic business decision. It unlocks the flexibility to scale, the agility to innovate, and the financial efficiency to reinvest in patient care. For leaders focused on delivering resilient, human-centered care amid regulatory complexity and operational pressure, Epic on Azure isn't just a tech upgrade—it's a foundation for transformation.[3]

COST PREDICTABILITY AND EFFICIENCY

- Pay-as-you-go model aligns IT spending with business demand
- Reduces significant capital investments in hardware and facilities

BUSINESS AGILITY AND SPEED TO INNOVATION

- Accelerates deployment cycles for new features and capabilities
- Enables experimentation with new digital health tools

RESILIENCE AND BUSINESS CONTINUITY

- Improves disaster recovery and high availability
- Reduces the risk of care disruption and cyber threats

WORKFORCE AND FACILITY OPTIMIZATION

- Supports distributed clinical and administrative teams
- Minimizes need for costly on-site data centers

IMPROVED PATIENT AND PROVIDER EXPERIENCE

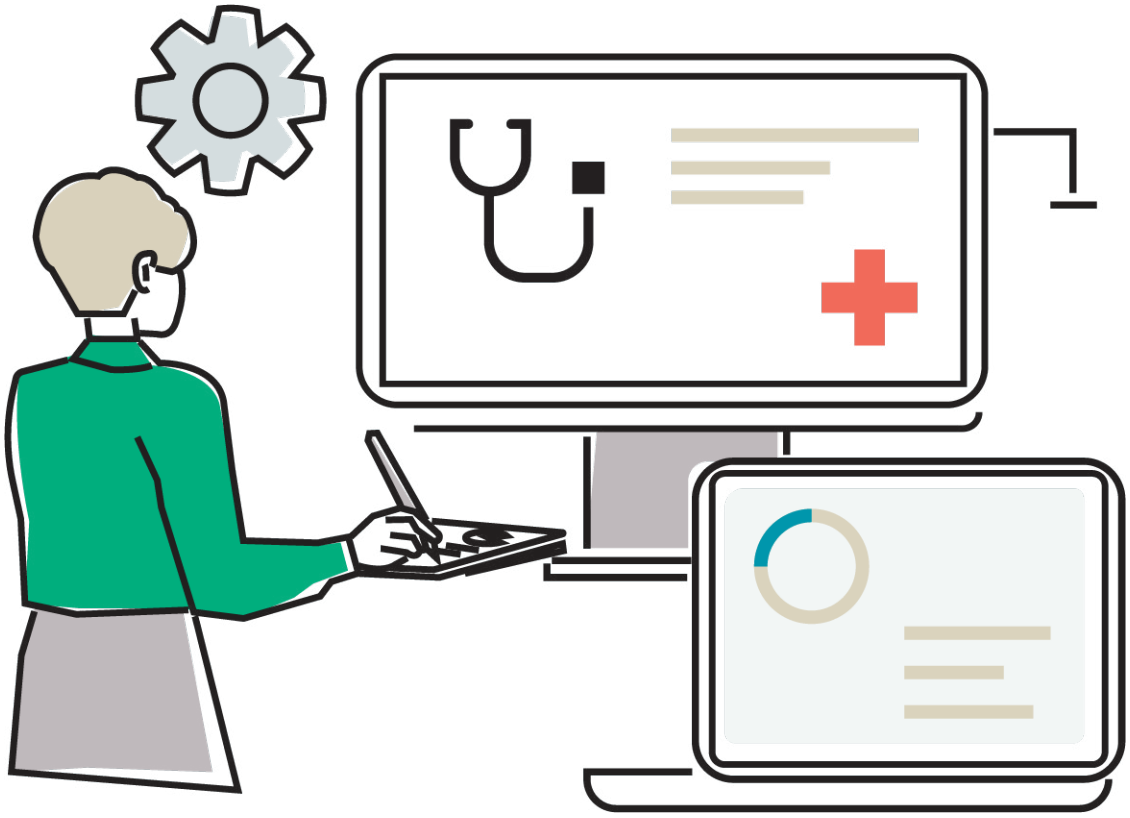
- Supports whole-person care and patient engagement strategies
- Reduces clinician friction points with EHR interface

1 https://healthtechmagazine.net/article/2024/02/epic-and-microsoft-azure-how-ensure-successful-cloud-migration#:~:text=

2 https://healthtechmagazine.net/article/2024/02/how-healthcare-can-use-cloud-its-fullest-potential?utm_source=chatgpt.com

3 https://engage.klasresearch.com/blog/epic-in-the-public-cloud-a-glimpse-into-aws-microsoft-azures-performance/5681/#:~:text=Over%20the%20past%20few%20years%2C,only%20available%20in%20the%20cloud

Powering payer transformation with Epic on Azure

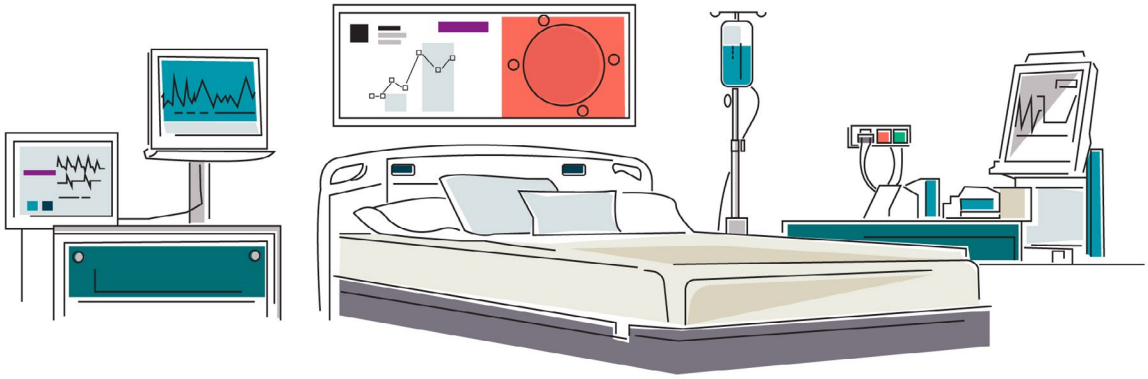


As adoption of Epic Tapestry and the Epic Payer Platform grows, health plans are increasingly migrating these mission-critical systems to Azure—not only for scalability and compliance, but to unlock the full potential of integrated, real-time clinical and claims data. UST supports payers through this journey with a holistic approach that extends far beyond infrastructure.

Our teams activate downstream functions such as HEDIS and Stars reporting, cost-of-care analytics, care gap closure, and risk adjustment by harmonizing Epic data within secure Azure environments. We help payers bridge the gap between IT modernization and business value by aligning data strategy with operational goals—whether optimizing member outcomes or improving medical economics.

UST also enables clients to achieve the Epic Blue Ribbon designation, ensuring that cloud migration, data interoperability and care management capabilities meet the highest standards. Through our outcomes-based model, we position payers to fully leverage Epic's capabilities, driving measurable improvements in quality, utilization and regulatory performance.

Costing and FinOps considerations



Moving Epic to Azure changes your financial model from heavy capital expenditures to a more flexible operational spend. This OpEx model can eliminate large upfront hardware investments and let you "pay for what you use." However, cloud costs must be managed proactively—"some organizations find cloud EHR expenses end up as high or slightly higher than on-prem initially".[4] FinOps, the fusion of finance and engineering, is crucial here.[5] A FinOps approach brings governance and transparency to cloud spend, involving IT and finance teams to monitor usage and optimize costs continuously.

Without such discipline, cloud bills can surprise you; companies can overspend by as much as 70% due to a lack of cost control.[6]

FinOps practices help forecast expenses, set budgets and avoid cloud "sprawl," ensuring you capture the cloud's promised cost-efficiency. This includes optimizing Azure contracts, e.g., using reserved instances or hybrid licensing for SQL/Windows, rightsizing VM capacity, and shutting down idle environments. Over time, effective cloud financial management yields savings: eliminating data center overhead, leveraging auto-scaling (no more over-provisioning for peak), and reducing IT support costs. CIOs should also weigh licensing implications, verifying how your Epic and third-party software licenses apply in Azure. With upfront planning, CapEx vs. OpEx trade-offs can be modeled to show stakeholders the long-term ROI.

> The bottom line is to treat cloud economics as a continuous process.

Utilize FinOps to align cloud spend with the value delivered, enabling you to migrate Epic while enhancing your financial health and IT agility.

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4 Becker's Hospital Review https://www.beckershospitalreview.com/healthcare-information-technology/ehrs/amazon-vs-microsoft-cloud-with-epic-6-notes/#:~:text=,as%20infrastructure%20and%20IT%20staffing

5 https://www.finops.org/introduction/what-is-finops/#:~:text=FinOps%20is%20an%20operational%20framework,%2C%20finance%2C%20and%20business%20teams.

6 https://www.gartner.com/en/documents/4001072

Planning and team considerations

A successful Epic migration begins with a well-defined roadmap, developed through careful evaluation and strategic planning. An expert consultant will start by helping you assess your existing Epic infrastructure, third-party integrations and co-traveler applications. While there may be 20–30 systems migrating alongside Epic, large organizations often have dozens more integrations—such as HL7 interfaces and APIs with external partners—that also need to be mapped and evaluated.

The consultant will work with your team to identify which integrations require testing, where that testing should occur, and what dependencies or regulatory considerations must be addressed—often resolving half the complexity upfront.

A phased migration approach is typically recommended, starting with non-production environments to reduce risk and ensure readiness before the final cutover to production.

The consultant can also guide you in assembling a cross-functional team that includes cloud architects, Epic application analysts, security and compliance leads, clinical leadership, and finance stakeholders—ensuring alignment across both operational and technical dimensions.

> Engaging clinical stakeholders ensures that workflow needs and go-live timing are accounted for–migrating an EHR is as much a clinical project as an IT project.

Evaluate your team's cloud skill sets and readiness. Running Epic on Azure requires cloud engineering expertise (e.g., Azure networking, AD, Azure Monitor) and a deep understanding of Epic. This blend is rarely present in-house. A recent KLAS study noted a significant skills gap: 75% of orgs relied on third-party cloud consultants to plan and execute their Epic cloud migrations.[7] You may consider training your staff on Azure or partnering with a firm experienced in Epic-on-cloud deployments. Many Epic to Azure consultants advise drawing on a partner's planning expertise because moving an EHR of this complexity isn't a typical lift-and-shift. Ensure any partner has deep Epic knowledge, not just cloud savvy; understanding the nuances of Epic's database (e.g., Caché/Iris), interfaces, and upgrade cycles is critical.[8]

Throughout the planning process, IT and business leadership should be aligned to ensure effective collaboration and seamless integration. Set clear success criteria (e.g., target cutover date, performance benchmarks, budget limits). Establish governance for decision-making and risk management. Simulating or testing the migration on non-production systems is wise to validate your plan. Also, prepare your help desk and end-users (clinicians) for any changes (such as new remote access procedures or slight interface differences). With a robust roadmap, engaged stakeholders, and the right expertise on board, you can mitigate risks and ensure that everyone, from the C-suite to frontline clinicians, is aligned.

7 KLAS Research, Epic in the Public Cloud 2024

8 https://blog.cloudticity.com/epic-on-azure-challenges#:~:text=Problem%20is%2C%20Epic%20is%20arguably,the%20necessary%20expertise%20in%20house

Common challenges in Epic to Azure migrations

Migrating a mission-critical EHR system like Epic to cloud is a complex undertaking, especially when it comes to compliance and data privacy. CIOs must ensure that HIPAA and, in many cases, HITRUST requirements are upheld throughout the entire migration journey. While Azure offers a strong foundation—it holds HITRUST certification and is HIPAA-ready—the responsibility for proper configuration ultimately lies with the organization.

That's where the right partner makes all the difference. An experienced consultant can help you design a secure, compliant environment from day one, so you're not navigating this alone. From identifying compliance gaps to implementing necessary safeguards and audit controls, the right guidance can accelerate your timeline, reduce risk and give your stakeholders peace of mind at every stage of the migration.

Security, governance, operational readiness, business continuity and disaster recovery all require proactive strategies.

While early cloud adopters have encountered integration challenges, these experiences have highlighted the importance of thoughtful planning and robust connectivity.[9] With the right network architecture, including considerations for latency, VPN and ExpressRoute, reliability can be confidently engineered from the start.

Mapping and inventorying all interfaces, along with a well-orchestrated cutover plan, ensures continuity and minimizes disruption. While the Epic ecosystem can be complex due to its distributed architecture and numerous integration points, it also presents an opportunity. Organizations that invest in thorough testing, including data validation and failover simulations, set the stage for a smooth migration and uninterrupted patient care.

Security and governance concerns also loom large. Cloud security operates on a shared model; Azure secures the underlying infrastructure, but you are responsible for securing your apps and data. Misconfigurations can introduce vulnerabilities. CIOs should invest in cloud security architecture reviews, utilize Azure's native security services (firewall, threat detection and Security center), and consider engaging a third-party security assessment to ensure safety. User access management is another area to reconsider; integrating Azure AD for user single sign-on and enabling robust identity management will fortify access to Epic. Operational governance: define clear policies on who can spin up cloud resources, how you'll monitor usage, and how to handle incident response in a hybrid cloud scenario.

Finally, organizational change management is a soft challenge that can't be overlooked. Longtime IT staff may resist the shift to the cloud and be concerned about acquiring new skills or facing job changes. Clinical users might fear downtime or unfamiliar system behavior. Proactive change management—communicating the reasoning and benefits of migration, training staff on new processes, and having a solid back-out plan—will help maintain confidence. Many providers have learned that setting realistic expectations is key; cloud migration won't magically solve every IT issue overnight. There may be initial cost spikes or periods of performance tuning. By acknowledging challenges such as compliance, integration, security and cultural resistance upfront, you can develop effective mitigation strategies for each of these areas. Lessons from peers (via HIMSS, user groups, etc.) reveal that with careful planning and the proper support, these challenges are all surmountable, as evidenced by the growing number of health systems successfully running Epic in the cloud today.

9 https://www.beckershospitalreview.com/healthcare-information-technology/ehrs/amazon-vs-microsoft-cloud-with-epic-6-notes/#:~:text=3,key%20challenges

Migration accelerators for rapid deployment

Adopting a migration accelerator can significantly speed up your Epic to Azure project while reducing risk.[10] The UST PACE Epic to Azure Accelerator is one example, offering a templated, battle-tested approach in three key areas:

PREDICT AND CONTROL CLOUD COSTS

This accelerator embeds **FinOps-driven cost governance** from day one. This means having tools and processes in place to monitor Azure usage in real-time, enforce budgets and prevent cost overruns. FinOps best practices give stakeholders visibility into cloud spend and ensure you're "only paying for what you need, when you need it." Automated alerts, dashboards and periodic cost optimization reviews are included to keep finances on track. By establishing cost controls upfront, CIOs can proceed confidently, knowing that cloud spend remains predictable and aligned with budgets, and that projected OpEx savings will be realized. (Essentially, the accelerator bakes in the financial rigor discussed above, so your team isn't learning FinOps on the fly.)

ACCELERATE DEPLOYMENTS WITH PREBUILT BLUEPRINTS

UST PACE provides predefined Epic architecture blueprints and agentic AI-powered automation scripts to fast-track your Azure setup. Rather than building everything from scratch, you can deploy a proven reference architecture (VMs, storage, networking, security configurations) tailored for Epic. Microsoft Azure offers blueprint templates to speed up the creation of compliant environments, and UST's solution leverages similar infrastructure-as-code principles. This means you can go from zero to a working Epic environment in the cloud rapidly, often in weeks instead of months. Repeatable templates ensure consistency (each environment adheres to Epic's specs and best practices). For example, healthcare organizations migrating Epic to Azure reported deployment time reductions of over 40%, with some fully deploying their cloud-based Epic environment in as little as four months thanks to automation and cloud-native tooling.[11] Faster deployment not only cuts the timeline but also reduces human error.

The importance of Epic co-travelers in data center to cloud migration

While Epic is the most mission-critical application in a hospital's IT ecosystem, it exists within a broader landscape of over 500 applications that typically reside in the on-premise data center. During a Data Center to Cloud migration, understanding how Epic interacts with its "co-travelers"—such as lab systems, PACS, imaging, billing platforms, integration engines and ancillary clinical tools—is critical. While 99% of these applications can be rehosted with minimal refactoring, Epic demands a differentiated approach due to its high availability requirements, distributed architecture, and deep integration with clinical operations. A failure to migrate Epic and its adjacent systems in a coordinated way can disrupt workflows, create data silos or compromise patient care.

The UST PACE strategy addresses this by treating Epic as a keystone workload within a broader cloud migration framework—mapping dependencies, automating infrastructure provisioning, and sequencing application transitions to ensure resilience, compliance and continuity. This enterprise-aligned approach transforms traditional data center exits into strategic cloud enablement programs—where Epic, its ecosystem, and the organization's digital backbone move together, securely and at speed.

Your team can then focus on testing and data migration rather than manually configuring cloud resources. In short, an accelerator provides a "launchpad"—a fully governed landing zone—so you hit the ground running in Azure with infrastructure ready and waiting.

10 https://azure.microsoft.com/en-us/blog/microsoft-releases-automation-for-hipaa-hitrust-compliance/#:~:text=I%20am%20excited%20to%20share,compliance%20guidance%20and%20deployment%20scripts

11 https://info.microsoft.com/ww-landing-forrester-tei-epic-on-azure.html?lcid=en-us&culture=en-us&country=us

Putting it all together

Migrating Epic to Azure is a strategic move that offers long-term benefits but requires thoughtful execution. A successful migration strategy involves aligning IT, finance and clinical leadership, ensuring predictable and optimized cloud costs, and addressing compliance and security concerns from the outset.

Taking a phased approach—starting with non-production environments, testing integrations and establishing governance frameworks—reduces disruption and ensures a smooth transition. Building the right mix of in-house and external expertise is also crucial, as Epic's complexity demands knowledge specific to the cloud and EHR. With the right roadmap in place, healthcare organizations can transition Epic to Azure in a manner that enhances efficiency, strengthens security and delivers tangible financial value.

Epic-to-Azure migration checklist

STRATEGIC ALIGNMENT

- Align IT, finance and clinical leadership
- Define shared goals for agility, cost and resilience
- Build a cross-functional governance structure

ROADMAP AND PHASES

- Start with non-production environments
- Test each integration early in the migration process to avoid surprises later
- Establish phased timelines to minimize disruption

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SKILLS AND PARTNER STRATEGY

- Assess internal expertise in Epic and Azure
- Fill gaps with specialized external partners
- Create knowledge transfer plans for sustainability

CLOUD COST OPTIMIZATION

- Apply FinOps principles for predictable spending
- Right-size compute and storage from Day 1
- Monitor and adjust usage with cloud-native tools

SUCCESS METRICS AND GOVERNANCE

- Define KPIs for performance, cost, and user experience
- Review metrics regularly with executive stakeholders
- Adapt governance as the cloud environment matures

Moving forward

Migrating Epic to Azure isn't just about moving workloads to the cloud—it's about transforming healthcare IT to be more agile, cost-effective and resilient. With careful planning, a focus on FinOps, and a strategic approach to security and governance, organizations can modernize their infrastructure without disrupting patient care.

As more healthcare providers embrace cloud-based EHRs, those who take a structured approach to migration will be best positioned for success. By leveraging best practices, aligning key stakeholders, and utilizing cloud-native tools, CIOs can confidently lead their organizations into the future of healthcare IT.

Ready to accelerate your Epic to Azure journey?

UST offers advisory workshops, readiness assessments and full-stack implementation support to guide your migration with confidence.

Get in touch with an expert.

Together, we build for boundless impact

Since 1999, UST has partnered with the world's leading companies to create a powerful impact through transformation. Powered by technology, inspired by people, and guided by its purpose, UST collaborates with clients from design to operation. The company's digital solutions, proprietary platforms, engineering, R&D, products, and innovation ecosystem transform core challenges into disruptive, impactful solutions. With deep industry expertise and a future-ready mindset, UST infuses innovation and agility into its clients' organizations, delivering measurable value and lasting positive change for them, their customers, and communities worldwide. Together with 30,000+ employees in more than 30 countries, UST builds for boundless impact, touching billions of lives in the process.

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