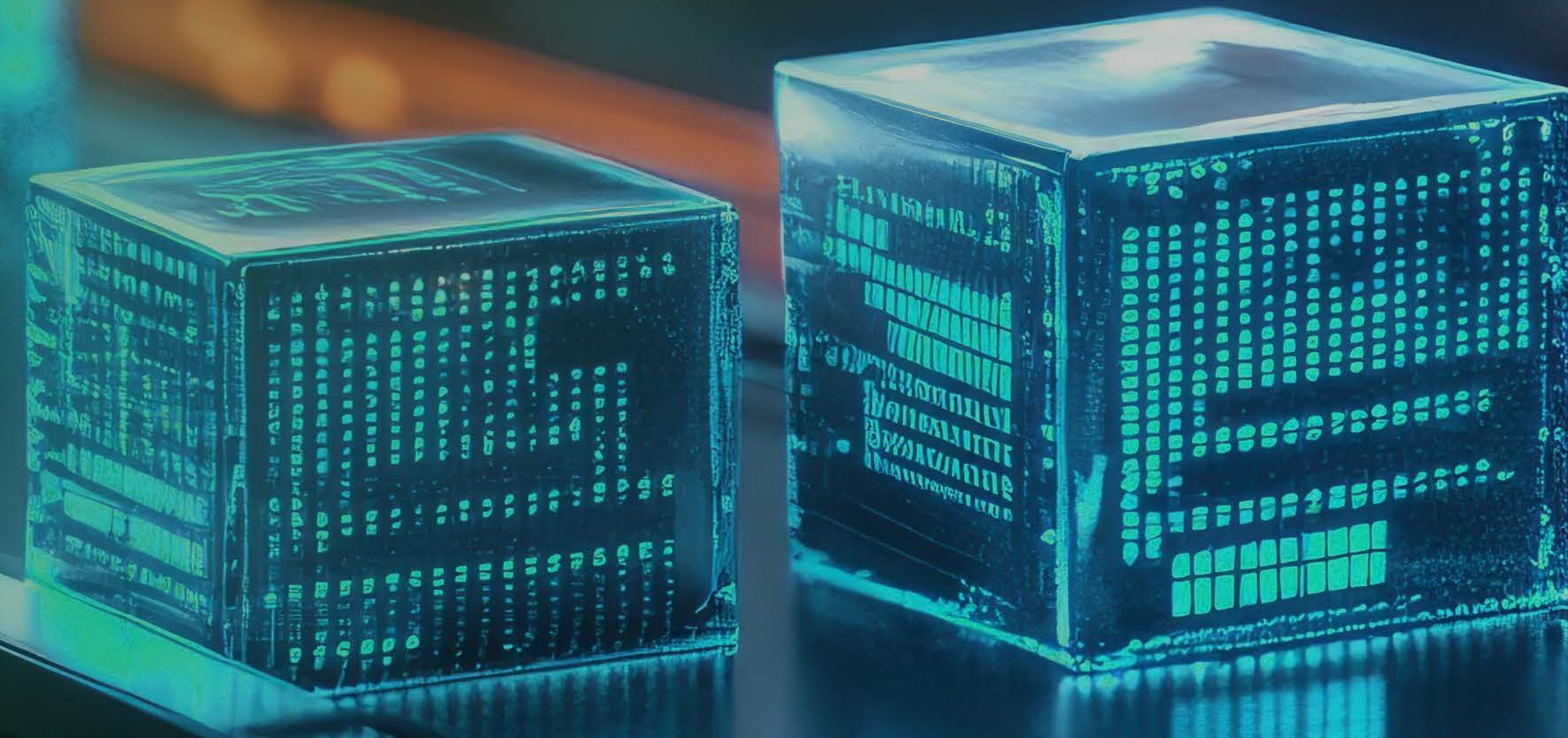


BENCHMARK STUDY

Unlocking value in Level 4 serialization solutions



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Executive Summary

Pharmaceutical companies face significant challenges with Level 4 (L4) traceability solutions, including complex system integration, manual rework inefficiencies and burdensome validation processes. These obstacles hinder compliance, disrupt operations and drive up total cost of ownership (TCO).

This benchmark report reveals that companies are actively seeking innovative solutions that prioritize compliance reliability, streamline data exchange and simplify master data management.



The report highlights an urgent demand for solutions that deliver seamless integration, reduce operational burdens and provide transparent, cost-effective alternatives to existing systems—empowering companies with practical, user-friendly innovations.

Introduction

Pharmaceutical trading partners—including manufacturers, CMOs/CPOs, wholesalers and dispensers—require Level 4 (L4) serialization solutions to meet regulatory requirements, combat counterfeiting and enhance supply chain visibility.

Contract Pharma surveyed over 100 pharmaceutical organizations of different sizes, geographic locations and product portfolios using various L4 solutions. This report provides valuable insights into the current state of the L4 market by examining the experiences and priorities of these companies.

Objectives



Identify key trends and challenges in the L4 solutions market.

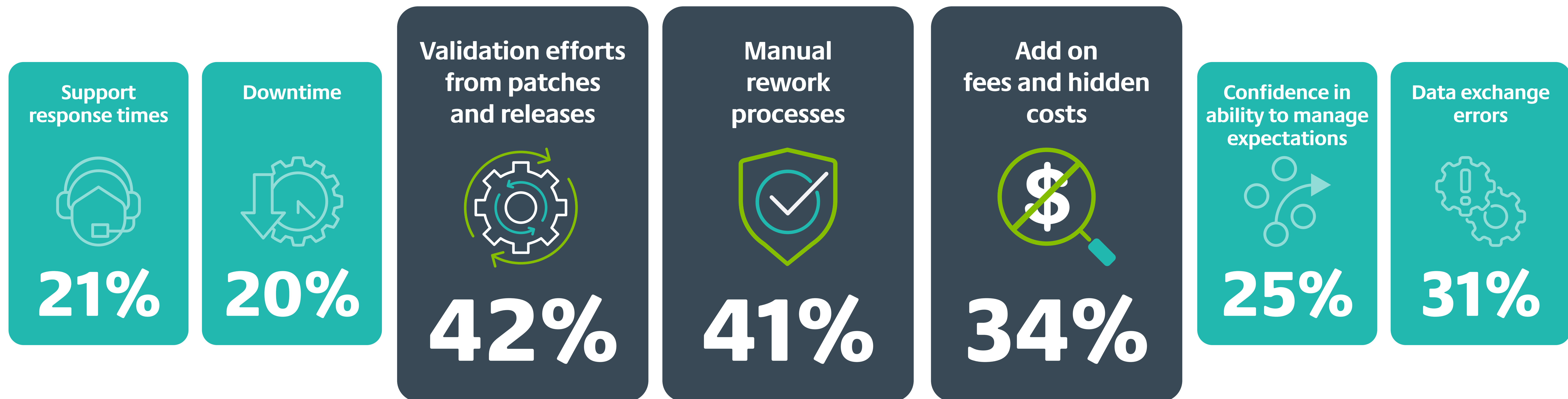


Understand industry priorities and expectations.

Dissatisfaction Drivers

The survey revealed significant dissatisfaction among pharmaceutical companies with their current L4 solutions. When asked to select their **current pain points**, dissatisfaction stems primarily from:

- **Validation Burdens:** 42% of respondents expressed frustration with the extensive validation required for patches and releases. This highlights the need for solutions that minimize disruption and streamline the update process.
- **Manual Rework Processes:** 41% of respondents cited manual rework processes as a major pain point. Existing solutions often require significant manual intervention, leading to inefficiencies and increased operational costs.
- **Hidden Costs:** 34% of respondents were dissatisfied with add-on fees and hidden costs associated with their L4 solutions. This highlights the importance of transparent pricing and predictable cost structures.



Source: Contract Pharma's Track and Trace Solution Survey, January 2025

Respondents rated the following aspects of their L4 solutions lowest in terms of satisfaction:

Integration with Systems: With a weighted average score of 1.94 (out of 5), integration with existing systems emerged as a significant challenge.

Vendor Support: Receiving a weighted average score of 2.02, vendor support was another area of concern.

If you have an L4 solution in place, how satisfied are you with the following aspects?

	Not At All Satisfied	Somewhat Satisfied	Very Satisfied	Weighted Average
Overall Performance	13	86	27	2.11
Integration with Existing Systems	23	90	15	1.94
Ease of Use	13	90	24	2.09
Vendor Support	22	81	24	2.02

Source: Contract Pharma's Track and Trace Solution Survey, January 2025

User Priorities

When evaluating L4 solutions, pharmaceutical companies prioritize the following as the **top three features**:

Compliance
Reliability

81%



of respondents identified compliance reliability as a top priority.

Seamless Data
Exchange

61%



of respondents emphasized the need for seamless data exchange capabilities.

Simplified Master
Data Management

52%



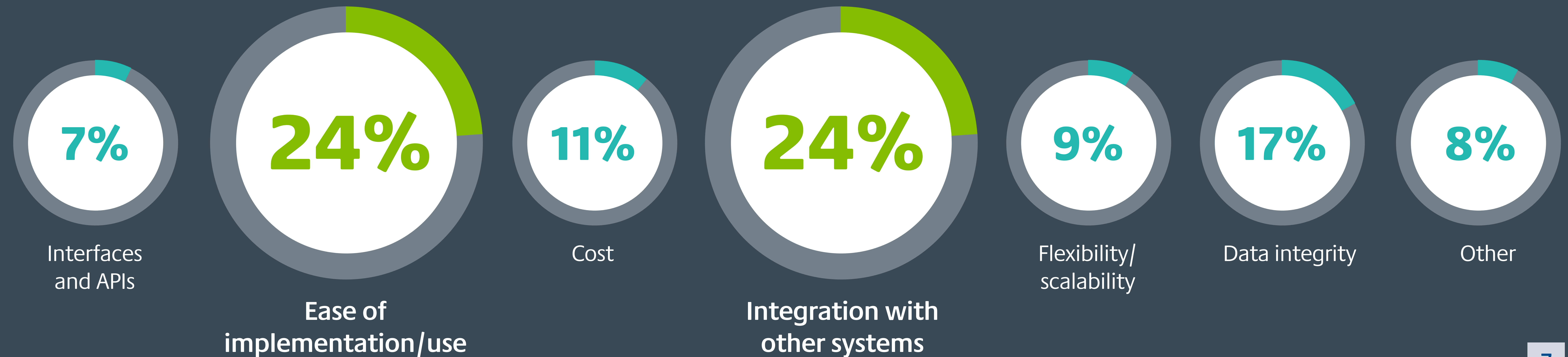
of respondents prioritized solutions that simplify master data management.

Source: Contract Pharma's *Track and Trace Solution Survey*, January 2025

When asked to identify the most critical factors influencing their L4 vendor selection respondents chose:

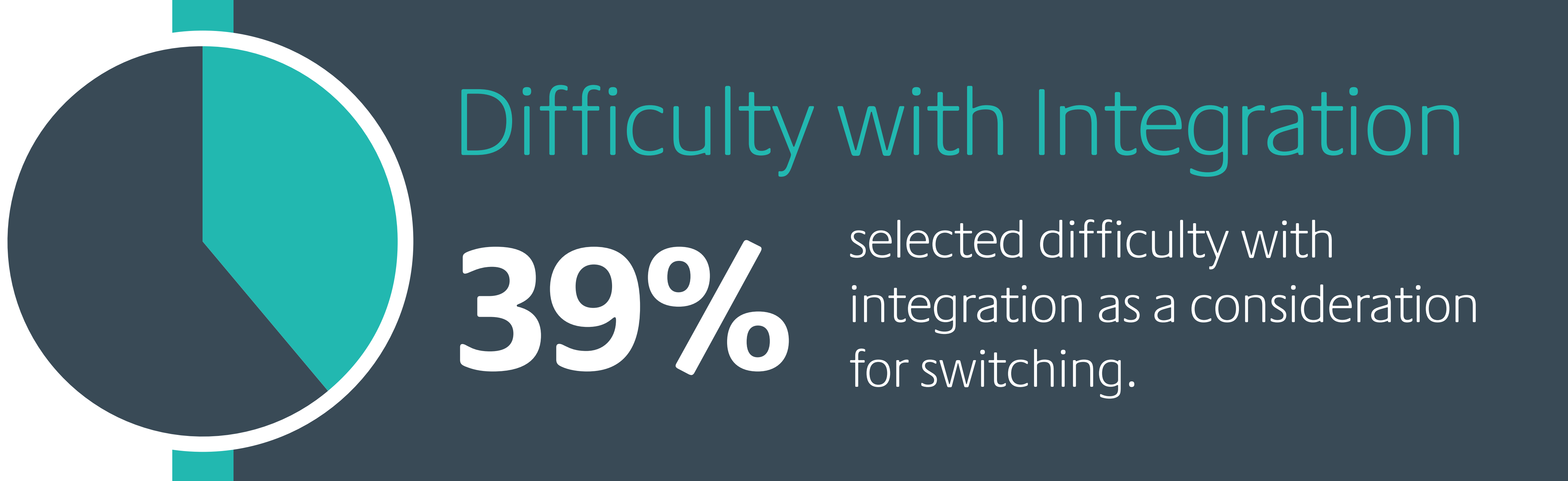
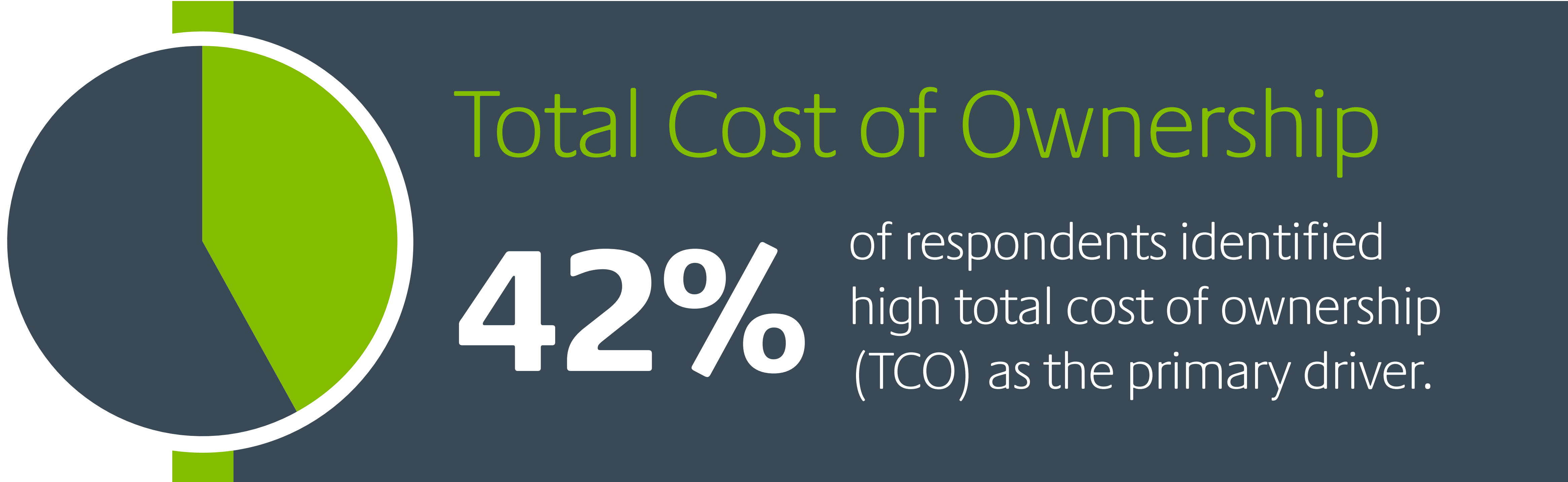
- **Ease of Implementation/Use:** 24% of respondents ranked ease of implementation and use as the most critical factor.
- **Integration with Systems:** 24% of respondents prioritized integration with existing systems as the key selection factor.

Which factor is most important for you when selecting a Level 4 solution vendor?

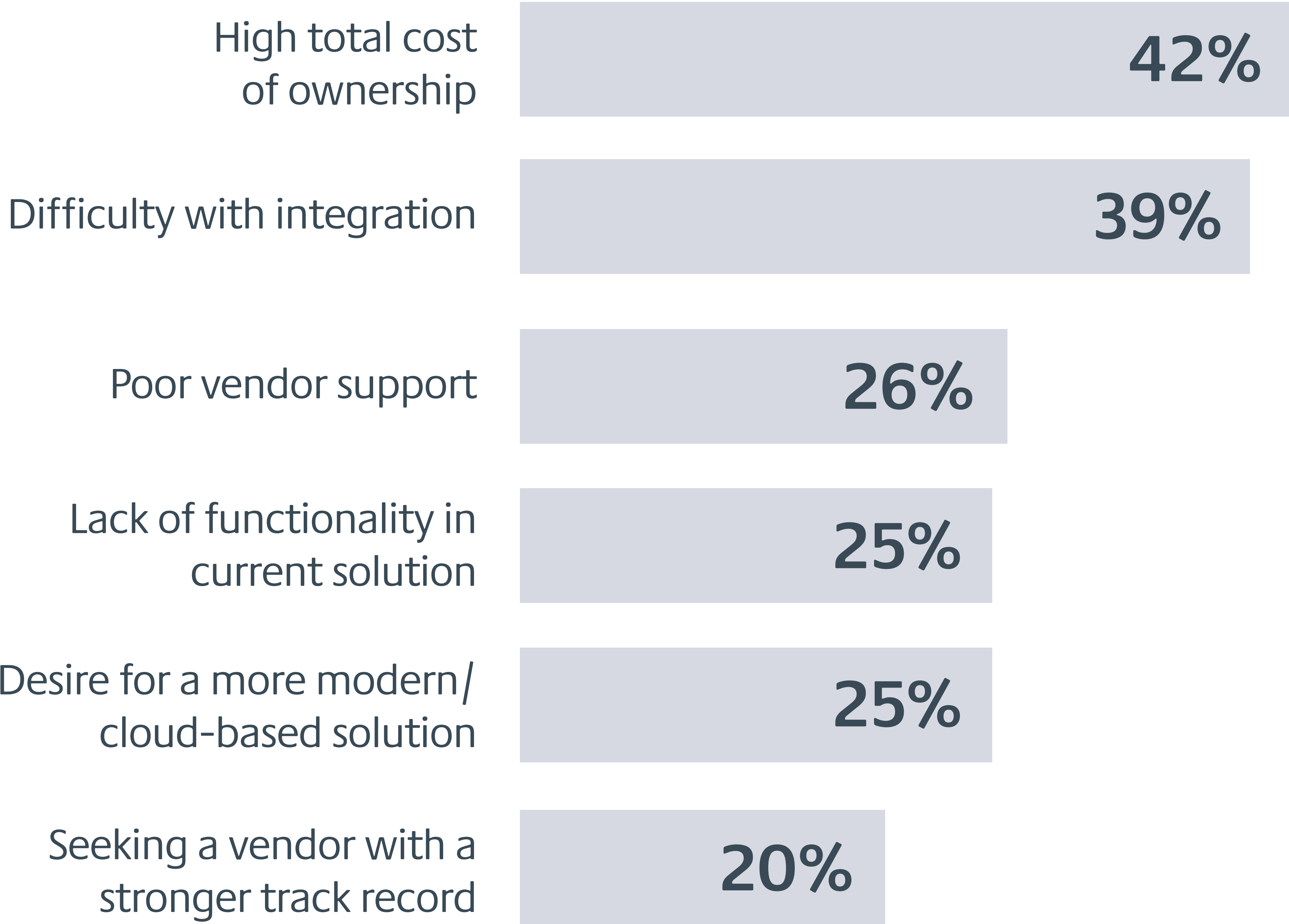


Top Reasons to Switch

When asked the primary reasons for switching their current L4 provider, pharmaceutical companies selected the following:



If you are considering switching L4 vendors, what are your primary reasons?



Source: Contract Pharma's *Track and Trace Solution Survey*, January 2025

Implications

This report highlights an urgent need for innovative, customer-centric L4 serialization solutions that empower companies to enhance efficiency, reduce costs and maintain regulatory compliance.



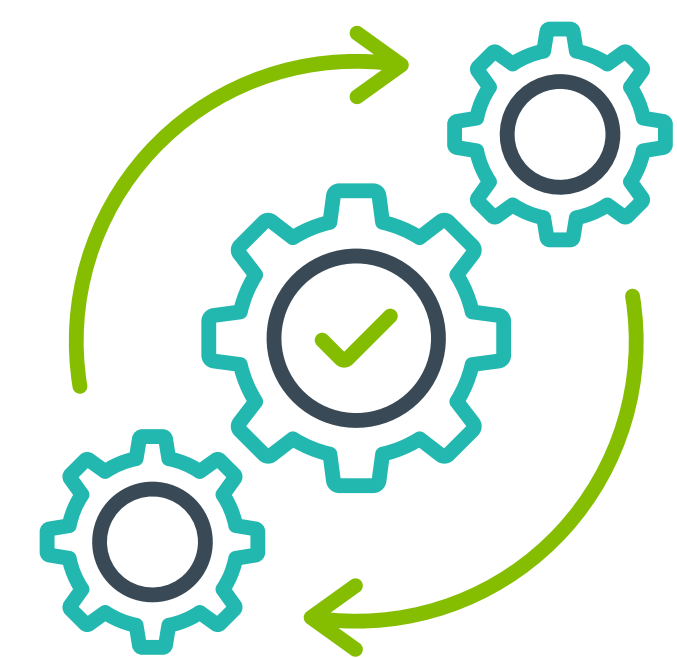
Focus on **reducing operational burdens**

The prevalence of manual rework and complex validation processes highlights the need for solutions that streamline workflows and automate time-consuming tasks, enabling greater efficiency and cost savings.



Growing demand for **transparent and cost-effective pricing models**

With high TCO and hidden fees cited as major pain points, the industry requires solutions that provide clear pricing structures and demonstrate long-term value.



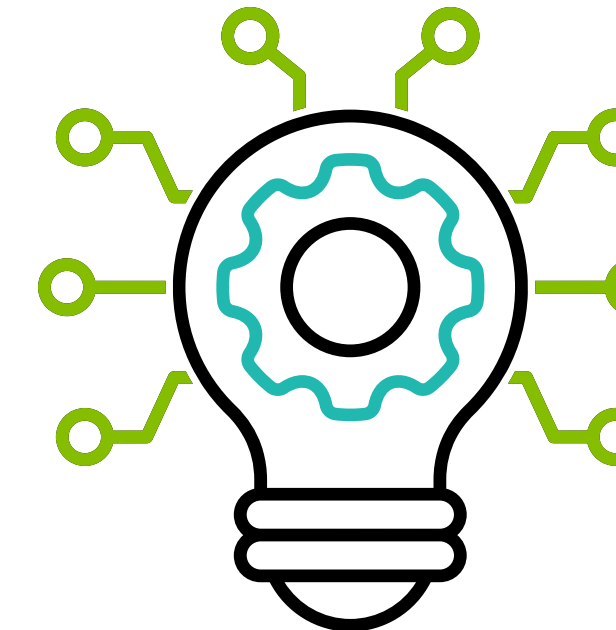
Emphasis on **seamless integration**

Poor integration with existing systems limits operational effectiveness and data exchange. Solutions must enable strong interoperability to support supply chain visibility and collaboration across stakeholders.



Critical role of **reliable customer support**

Vendors that fail to provide responsive and effective support risk losing business. Companies need partners who can resolve issues promptly and maintain operational continuity.



Opportunities for **innovation and modernization**

The dissatisfaction with current systems, coupled with a desire for modern, cloud-based solutions, signals a need for providers to innovate and offer scalable, future-proof technologies.



Compliance reliability as a non-negotiable priority

As regulatory requirements grow increasingly complex, solutions must prioritize robust compliance capabilities to ensure customers remain in line with global mandates.

Conclusion

This report exposes critical challenges in the L4 serialization market and underscores a clear opportunity for solutions that address pharmaceutical companies' most pressing pain points. Manufacturers and trading partners demand systems that streamline operations, enhance compliance and simplify integration—all while reducing costs.

The message is clear: Innovation, transparency and customer centricity are no longer optional—they are essential. Now is the time for solution providers to step up, delivering game-changing L4 systems that empower pharmaceutical companies to thrive in an increasingly complex regulatory and supply chain environment.

Trusted L4 traceability and seamless connectivity

Systech brings 40 years of expertise innovating for life sciences and is proud to be the trusted solution provider for hundreds of customers worldwide—including 80% of the top 20 global pharmaceutical companies.

Our proven [UniTrace® L4 solution](#) offers unique advantages to help address your current pain points quickly: Cost-effective connectivity, efficient collaboration, real-time data exchange and rapid implementation. It **streamlines compliance, simplifies exception management** and provides **robust rework operations** along with **mobile flexibility**... all while offering **low TCO** and a **high customer satisfaction** rating.

“Thanks to Systech, our products are processed and distributed faster, allowing us to minimize supply delay penalties, which is crucial in our industry.”

– Senior Manager of Technology,
Virtual Pharmaceutical Manufacturer

“UniTrace makes it faster, easier and more reliable to connect with our customers.”

– CEO, Contract Packaging Organization

“As a full stack L1-L5 provider, Systech leverages its solution to streamline data from all sites and handles rework using a simple, cloud-based tool with no adverse impact on production.”

– SVP, Contract Packaging Organization



Identify. Trace. Trust.

Traceability and serialization solutions to drive efficiency, achieve compliance and protect your brand.

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