VALUE STREAM THINKING: DEVOPS AND BEYOND

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softserve

Change is never easy, but today's digital economy requires businesses to reinvent the way they operate. If companies don't act quickly to create and maintain value for customers across all touchpoints, a decline in market share is inevitable. As the pace of technology continues to accelerate, companies that fail to innovate will fall behind.

So how will companies of the future maintain relevance? How will they keep the customer's perspective central to their operations, ensuring value is always being created?

At SoftServe, we believe value stream thinking (VST)—a classic concept, but more relevant now than ever—is essential to remain competitive in the digital economy.

What is a value stream?

Put simply, whenever a market demand exists, there is potential to create value.

A value stream is comprised of the activities required to meet demand, or more specifically, what it takes to create and deliver a valuable product or service to the customer. The concept reads simple enough, yet companies in today's complex landscape continue to suffer from silos and hierarchies, primarily at a technology level, but also at organizational levels.

In a world of fragmented attention spans, coupled with fierce competition for positive engagement and memorable experiences, many companies lose sight of their ultimate goal: to provide value for the customer, on her terms.
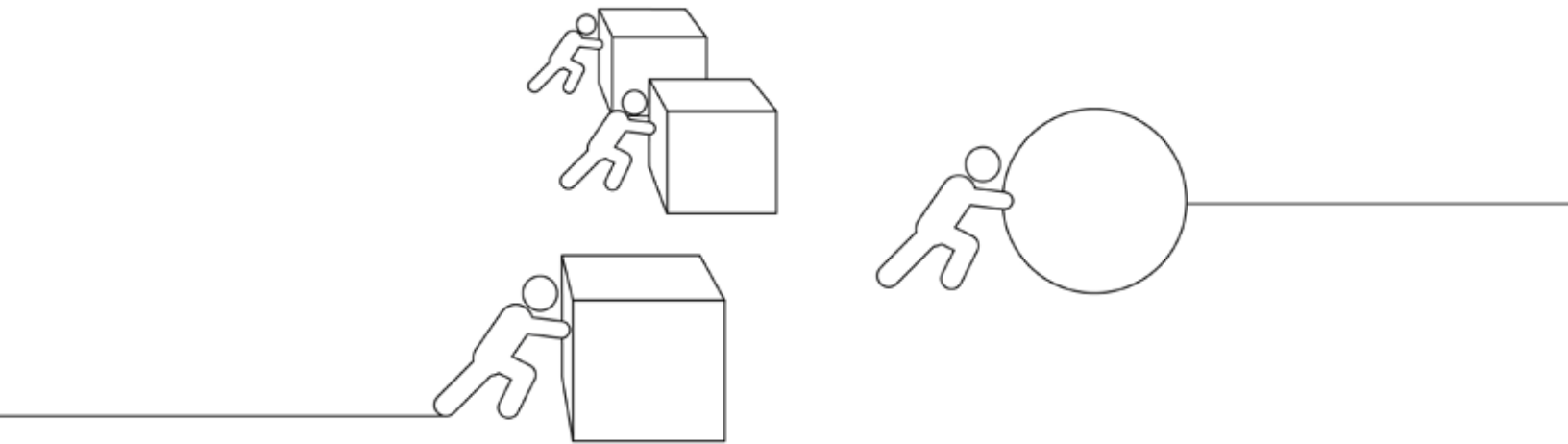
Value stream thinking in action

What does it look like when VST is applied to software development?

The best examples are those that improve efficiency and eliminate waste, resulting in better communication and superior value propositions. Establishing a chain process in which value is added at each step is paramount—while conversely, an inferior approach can cause value to be lost rapidly. In software engineering, **DevOps** is a prime example of effectively applied value stream thinking.

The DevOps movement drives agile collaboration between two pillars of the software creation process—development and operations—making their interaction seamless. DevOps provides a combination of tools and practices that facilitate successful communication between these often-disparate teams, accelerating solution delivery, minimizing downtime, increasing time to innovate, while minimizing complexity and reducing costs.

DevOps also supports implementing changes incrementally throughout the entire development and testing process. The ability to retrieve feedback from the end-user and include requested changes in a timely fashion creates added value. Time is the most valuable resource in the ever-accelerating software industry, and a difference of one week in delivery can be the difference between being an innovation leader or a laggard.

Let's take a closer look at two case studies where value stream thinking was put into practice within healthcare and financial services.

Value stream thinking is useful in foreseeing the challenges faced by participants in today's **healthcare** ecosystems. From the inability to successfully share each other's data to processing delays, the healthcare industry is replete with easily identifiable instances of value opportunities missed, lost, or destroyed—all contributing to rising costs. When patient data from exams, imaging, and wearable devices like pace trackers, blood pressure meters, and smart scales are shared throughout the healthcare ecosystem, all members benefit through the collaborative interconnectedness.

Value stream thinking can be leveraged to improve outcome reporting as well. For example, **Outcomes Based Healthcare** (OBH) partnered with SoftServe to create a mobile solution that dramatically improves patient reported outcomes (PRO) via continuous and passive smart phone monitoring. The project was broken down into multiple phases including investigation, application architecture, development & user interface (UI), integration, and testing. The app itself was built using an iterative 'agile scrum' methodology.

Yet another example of value stream thinking in practice is within the **financial services** industry and development of blockchain solutions. What if the objective was to build the world's first invoice exchange platform to serve private investors, banks, and alternative financial bodies—while speeding the turnover of capital by enabling the selling of assets before their maturity date? We delivered exactly that for our client by optimizing the use of distributed ledger technology (DLT) to augment invoice trading, while empowering anyone with the opportunity to easily trade invoices or other assets—securely, transparently, and simply.
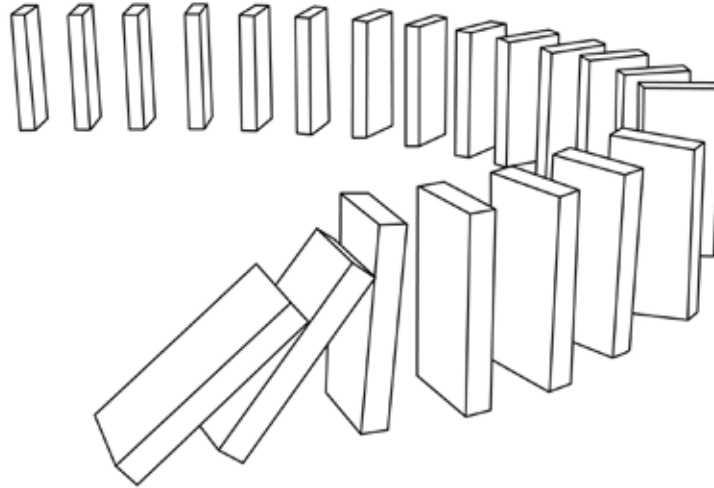
Value stream thinking as prevention

Imagine a retailer successfully grows its online presence. The company has thousands of loyal customers who enjoy the ease of making online purchases, frequent promotions, swift home delivery, high quality customer service, convenient product review submissions, and useful financing options.

Suddenly, a cyberattack compromises customers' online payment data and disrupts the company's entire value stream. The company's hard-earned reputation is damaged, customers are frustrated, and financial losses are inevitable.

Obviously, the hackers are to blame, but the real culprits are buried in the retailer's legacy IT systems, which impeded the implementation of stronger security features. Had the retailer analyzed its supply chain from a value stream perspective, it may have discovered—long before the attack occurred—that vulnerabilities in the value stream were accidents waiting to happen.

Principles of value stream thinking

Every industry has its own version of an ideal value stream. However, regardless of industry, the core principles of applying value streams remain the same—efficiency, the elimination of repetitive steps, simplification, interoperability between different parts in the value creation chain, and adaptability to changes in the value stream.

Successfully applying value stream thinking to an existing process includes mapping each step to visualize the connections between moving parts and to scrutinize how they interact. This requires an openness across groups, and an open dialogue between them, are essential to ultimately producing value for the customer through improved experiences, and the removal of bottlenecks and friction.

Of course, in an ideal world, value stream thinking and detailed technology discussions are present from the beginning of the business or solution design process. After all, proactive thinking always wins against a reactive approach.

The effort to maximize value additions and minimize value losses creates a disciplined way of analyzing and improving complex processes, regardless of industry or sector. These optimizations promote the universal objective of delivering the best possible value proposition to an end-user—which is crucial in the new, just-in-time, digital economy.
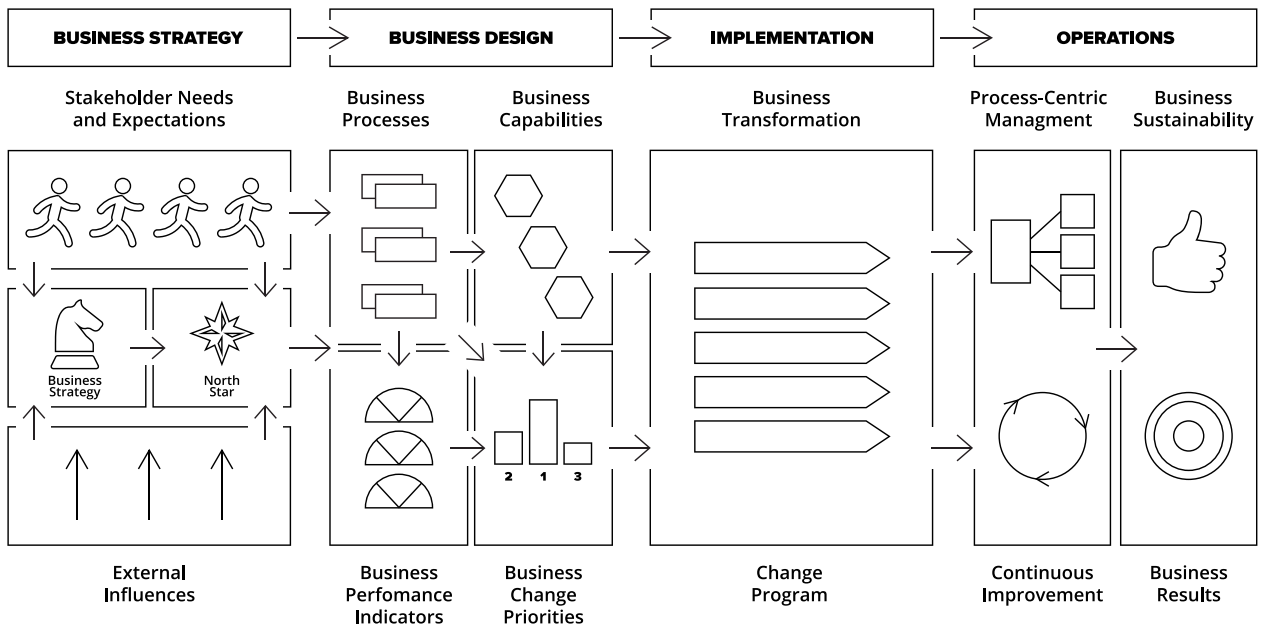
Technology is the cornerstone

Efficiency, the elimination of repetitive steps, simplification, interoperability, and adaptability to change must be present in order to achieve maximum value creation.

Critical questions in value stream thinking include:

• What can be done to optimize a process?
• What can be added or eliminated to ensure that value is obvious and accessible to the end-user?
• Does technology need to be changed?
• Should personnel training be increased?
• Can new value be unlocked by looking at data from a different angle?

At the business architecture level, technology needs to be imagined, shaped, and applied to protect and bring together value stream components.

Companies that learn to adapt and continually evolve to meet the changing demands of the market will continue to thrive. SoftServe works with our clients to deliver measurable value stream improvements, while building solutions that are flexible, adaptable, and ultimately make an impact on the growth of the business.

Contact SoftServe today and take your value stream thinking to the next level.

ABOUT US

SoftServe is a global digital authority and consulting company, operating at the cutting edge of technology. We reveal, transform, accelerate, and optimize the way large enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation – from generating compelling new ideas, to developing and implementing transformational products and services. Our work and client experience is built on a foundation of empathetic, human-focused experience design that ensures continuity from concept to release.

Ultimately, we empower businesses to re-identify their differentiation, accelerate market position, and vigorously compete in today's digital, global economy.

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