Agility is fundamental to business success. But there's an obstacle organizations need to overcome: the unsustainable burden of traditional IT maintenance.

While maintenance is business-critical — without it, organizations couldn't function — a reactive approach is hampering their ability to innovate and move quickly to meet the needs of customers and the market.

This is what we call the agility paradox: when the work of maintaining business systems and services ironically hampers organizations, leading to escalating technical debt, increased IT costs and, ultimately, less agility.

According to McKinsey research, tech debt accounts for about 40 percent of IT balance sheets and companies pay an additional 10 to 20 percent to addtBTScrc ipercent to adc ipercent tburden B
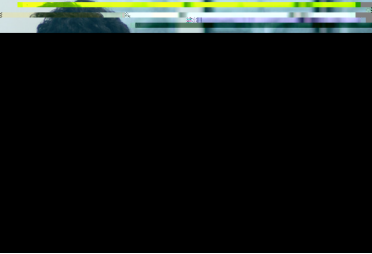
On average, over 50% of IT budgets go towards addressing tech debt issues and almost half of developer time is wasted on just keeping the lights on.

The problem with traditional IT maintenance

Traditional IT maintenance creates a hidden burden that stifles innovation and erodes profitability.

Specifically, there are three significant ways that traditional maintenance hurts organizations:

Traditional maintenance is characterized by patching issues after they arise. This creates code kludges and introduces fragility to system infrastructures. Over time, these kludges accumulate, which makes maintenance increasingly difficult and reduces time and resources for innovation and strategic initiatives that can drive growth. According to an annual Foundry survey, more than four out of five organizations have been impacted by tech debt over the past 12 months and tech debt ranked as the number three challenge to digital transformation in 2023.

3   The cost conundrum

Reactive maintenance often leads to resources being inefficiently allocated, as teams chase new problems in a piecemeal fashion. Similarly, technical debt can cause system downtime and performance issues which will certainly hurt revenue and even damage customer relationships.

In short, adopting a proactive, preventative approach to maintenance can have a commercial impact as significant as a marketing campaign or new product.

It's time organizations view maintenance as a growth driver, not a cost center.

EvolvOps: A proactive revolution for IT operations

To do that, a new approach to maintenance is needed. This is where EvolvOps comes in. It treats maintenance as an enabler of growth and adaptability — shifting the focus from 'application maintenance' to 'digital ecosystem sustainability and evolution' – in two steps:

Firstly, it tackles many of the high cognitive-load, repetitive challenges of maintaining, supporting and evolving digital assets by utilizing the large language models (LLMs).

Secondly, it utilizes the existing and invaluable knowledge from within enterprises, created over their digital transformation journeys, to learn from their past experiences and inform the future decisions.

As a result, EvolveOps distinguishes itself from existing software maintenance practices with three key components:

Algorithmic prediction and prevention: Machine learning can identify anomalies and patterns by analyzing large amounts of data, helping teams to predict system and software issues before they escalate. It could, for instance, alert teams to an imminent server overload before it causes an outage — not only cutting maintenance costs, but also minimizing downtime.

Automated resolution: We have the tools at our disposal to put an end to lengthy troubleshooting processes: leveraging tools and platforms that enable automated analysis and self-healing capabilities that speed up resolution times and reduce demands on engineering resources.

Continuous optimization: Maintenance shouldn't be occasional, something that's only done after a failure — with the right tools, it's possible to continuously monitor and optimize systems to not only improve system resilience, but also to ensure performance and cost efficiency.

The benefits of such an approach are substantial. It could transform businesses, both saving money and helping organizations unlock opportunitiesm bt1 8 -2.534.aly.

Broadly, the benefits are:

Reduced technical debt and improved system health

2 Faster time-to-market and increased business agility

Minimizing the amount of time teams spend on maintenance challenges opens up more time to work on value-adding activities and, what's more, delivering innovative, growth driving new features faster.

3 Lower IT costs

Continuous optimization can make systems more efficient in terms of how resources are consumed, while automation and proactive maintenance can help make engineering teams more effective.

An accounting software company achieved substantial cost savings — reducing expenses by 10% in the first year and projecting up to 40% over the next two to three years — following a comprehensive assessment by Thoughtworks. By creating a three-year financial model, Thoughtworks demonstrated how operational optimization, automation, and training could steadily lower service costs. This approach contrasted sharply with an internal support team, which would have seen costs rise annually due to increased resource demands.

A motivated and engaged engineering team

Organizations struggling with technical debt also struggle to engage and retain engineering talent. Replacing an employee can cost six to nine months of their salary.

Based on the median engineering salary and the average churn rate for IT employees at large enterprises, an engineering organization with 100 employees could be spending $1M to $1.5M annually to replace their talent.

By focusing on retention strategies, such as managing and

How we do it

Thoughtworks is well-placed to help organizations leverage the benefits of EvolvOps. Our engineering heritage — we helped develop practices and approaches that today define the way the world thinks about building quality software — combined with our expertise in data and AI means we can bring cutting-edge technology and operational excellence to bear on maintenance challenges.

Here are the core facets of how we think EvolvOps can be done effectively:

Application lifecycle management: It's essential to see EvolvOps as something that encompasses the entire application lifecycle from development to maintenance

Monitoring and observability: System visibility needs to be constant, not something done following an incident. Leveraging the best monitoring and observability tools available can bring transparency to complex systems

Comprehensive support informed by site reliability engineering practices.

At Thoughtworks, we not only do these activitiic

Thoughtworks' DAMO™ Managed Services should be viewed as a "product-as-a-service" offering. The product is a fluid ecosystem of AIOps applications and accelerators. These applications include Thoughtworks own, co-built with partners and off-the shelf products. They evolve as the market changes and are configured to the specific environment needs, ensuring the best fit over time. The service is our end-to-end process focused on evolving the client technology ecosystem – EvolvOps. These two co

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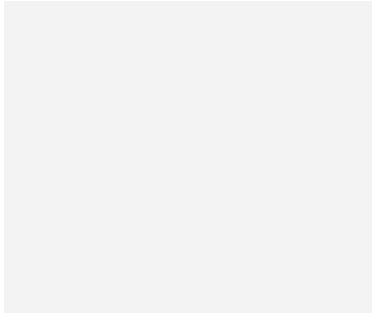
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Thoughtworks is a global technology consultancy
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to drive digital innovation. We are over 10,500
Thoughtworkers strong across 48 offices in
19 countries. For 30+ years, we've delivered
extraordinary impact together with our clients
by helping them solve complex business problems
with technology as