



The Great EDA Migration

New survey reveals event-driven architecture
is a priority, despite 'early days' of adoption

solace.

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Foreword

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The appetite for real-time data sharing as a means of coping with constantly changing landscapes is increasing.

Businesses are under unprecedented pressure. A constantly changing environment, with its share of shifting customer demands, pushes them into adapting and innovating. For many, EDA has already proven its value, the benefits by far outweigh the costs, and they are on the way to implementing EDA across a variety of use cases.

Whatever their level of maturity, organizations know they must face some common challenges, which center around education, skills, and efficiency. Crucially, IT already knows the possibilities of EDA: now is the time to prove the value to the bottom line and bring business leadership onboard.

About This Survey

Solace's survey on event-driven architecture (EDA) sheds light on how organizations are striving to incorporate real-time data and EDA into their enterprise landscape.

Methodology

Solace surveyed 840 respondents in roles ranging from C-Suite to IT architecture, with independent research firm Coleman Parkes. The survey took place in August 2021, in 9 countries in Europe, North America, Australia, and Asia-Pacific.

It's Time for Real-Time

To understand EDA, one must first understand what an event is. An event is anything that occurs within an enterprise or its ecosystem of customers and partners. In the context of EDA, an event represents a change in state, like a sensor signaling a change in temperature, a field changing in a database, a bank deposit being completed, a checkout button being clicked in an e-commerce app, etc. These can be system level events or business events. All are valid events.

In a world that increasingly hinges on speed of information, organizations need to know when each event happens, as it happens.

From the click of an order to a shipping container's journey across the world, event information has never been more crucial for businesses. **It is no surprise that 85% of organizations globally have turned to EDA.**

Organizations adopting EDA say their priority is to improve application responsiveness, cited by 46% of respondents, followed by improving customer experiences, 44%.

The next highest-ranking priorities are using EDA to respond to events and changes in real-time and to improve application resiliency and availability.

What is so great about EDA?

EDA ensures when an event occurs, information about that event is sent to all the systems and people who need it. To get there, information about events needs to efficiently move from producers to subscribers, across many disparate endpoints. If they don't get there? Connected "things" can't connect, critical applications and systems may fail, and people across the company can't react to situations that need their attention.

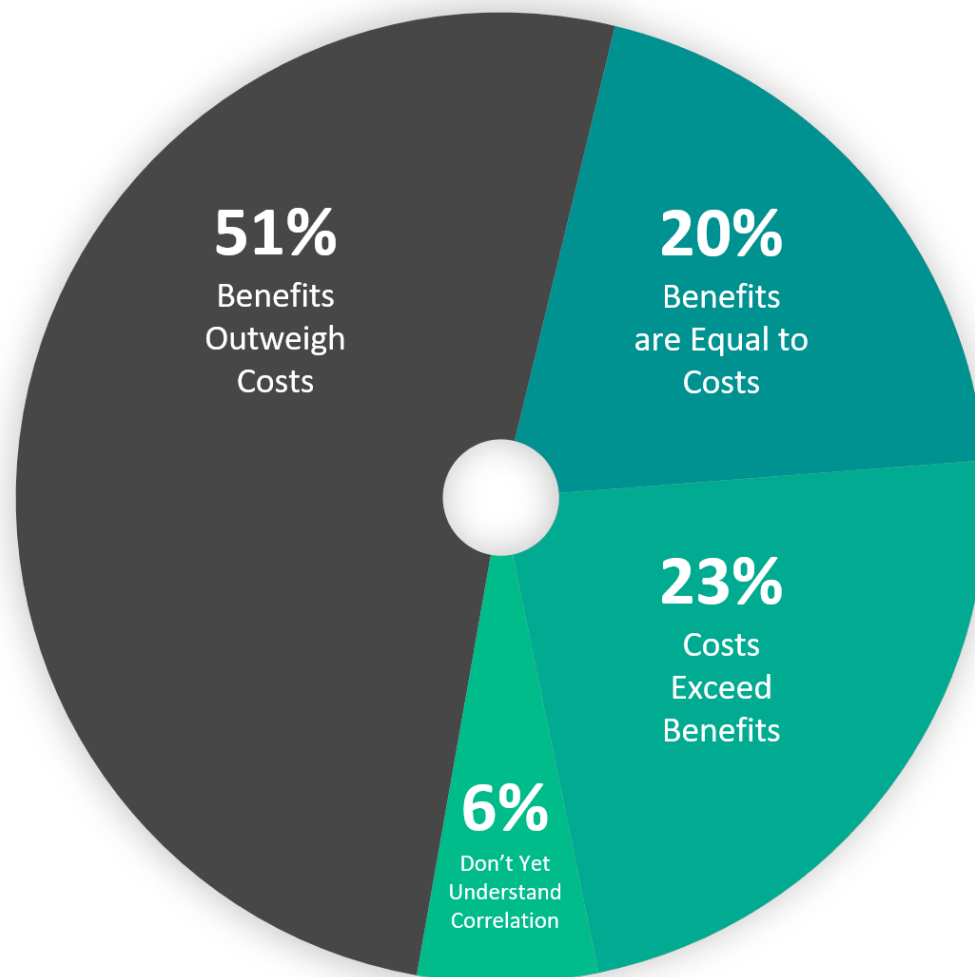
Right choice, right time: Costs vs. Benefits of EDA

The business landscape is in a constant state of flux driven by events. Looking at the advantages of event-driven distribution, 71% see benefits outweighing the costs, or at least equaling them, yet almost a quarter of all respondents, 23%, are not in a position to direct resources to implement EDA.

Across the globe, over half of organizations have enthusiastically bought into the benefits of EDA. The UK (79%), Canada (79%) and France (73%) are the first ones to admit that the benefits outweigh or equal the costs.

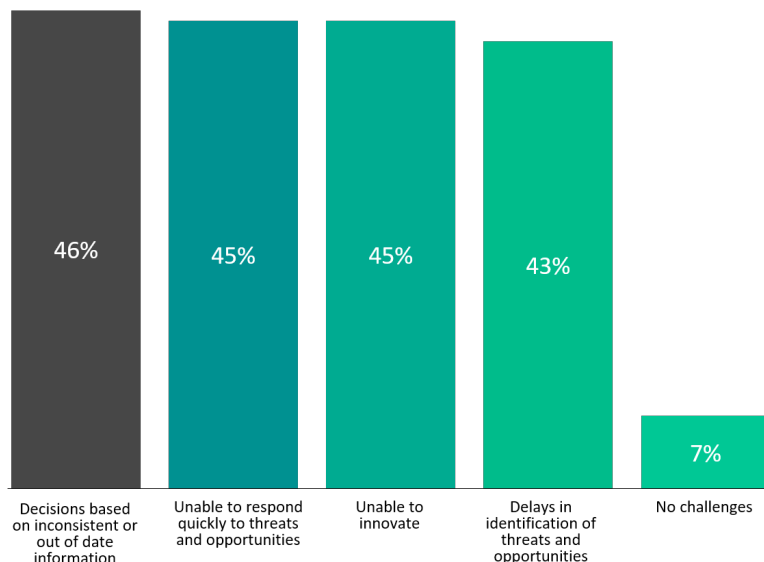
Sector-wise, government and public sector was the industry that struggled most to understand how the costs and benefits correlate (13%), over double the global figure of 6%. Perhaps as a result of wholesale innovation due to COVID-19, life sciences stood out for its enthusiasm in adopting EDA, with 58% of respondents believing benefits outweigh the costs.

Belief About Cost vs Benefits of EDA



What do Businesses Stand to Lose Without EDA?

Organizations know EDA can help sharpen the competitive edge. Beyond the inherent advantages of adopting EDA, businesses are equally keen to avoid the negative effects of lacking real-time event-driven data distribution.



Organizations know that without accurate, up to date information they can't make smart decisions; when data is inconsistent, or out of date, decisions become poorer. This is key for 46% of respondents.

In second place, **45% believe their organization would be less able to detect and react to threats and opportunities as they emerge,** exposing themselves to unnecessary risks, and miss out on potential big breaks.

From an industry perspective, the financial services sector is especially concerned with the issue of detecting and reacting to threats in a timely manner, 57%.

The transportation and logistics and retail sectors are chiefly concerned with how lack of real-time data can lead to decisions made on inconsistent or outdated information, at 46% and 44%, respectively.

The life sciences, 13%, and government & public sector, 16%, on the other hand, were the first to point out that they have no challenges as a result of lack of real-time data, well over the global figure of 7%.

How Can EDA Help Today?

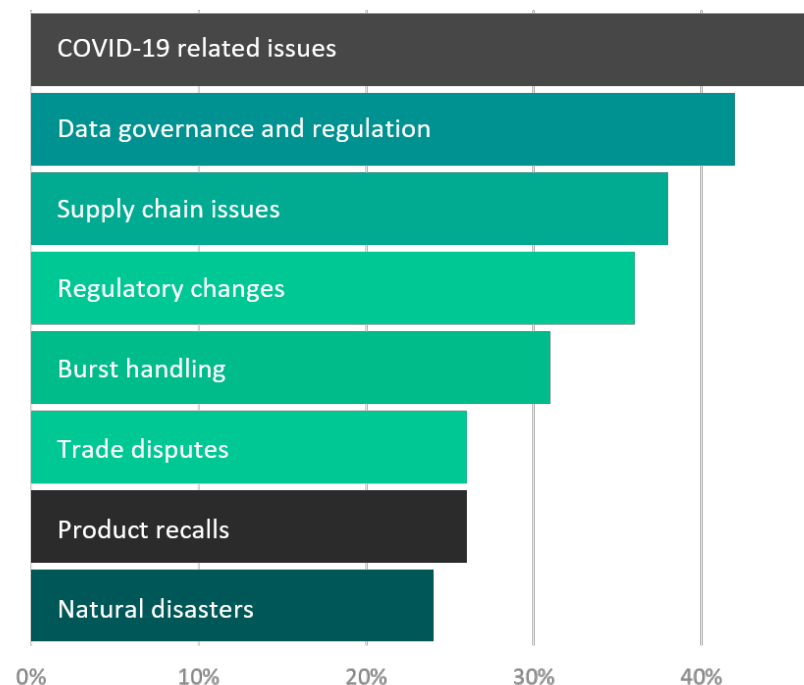
Many organizations know how real-time data sharing can help. With EDA as the foundation, they are able to tackle the disruptions thrown in their path, while also keeping up innovation to cope with newly rising demands of their business.

62% of businesses see real-time data distribution as beneficial for over 4 in 10 business operations.

EDA was especially important regarding COVID-19-related issues, such as travel regulations and airport handling, according to 47%. **In North America, data governance and regulation is the area standing to be most aided by real-time data sharing**, 50%, given the lack of an overarching data law in the US, which increases businesses' need to be able to react to local regulations.

When looking at industries, many sectors were keen to use EDA to combat issues brought on by COVID-19. For instance, creating more flexible supply chains to cope with lockdowns, and keeping employees safe with effective track-and-trace systems. This was cited by 57% of financial services companies, 53% of retail and CPG organizations, 47% in the transportation and logistics sector, and 46% in the government, technology, telecom and media sectors.

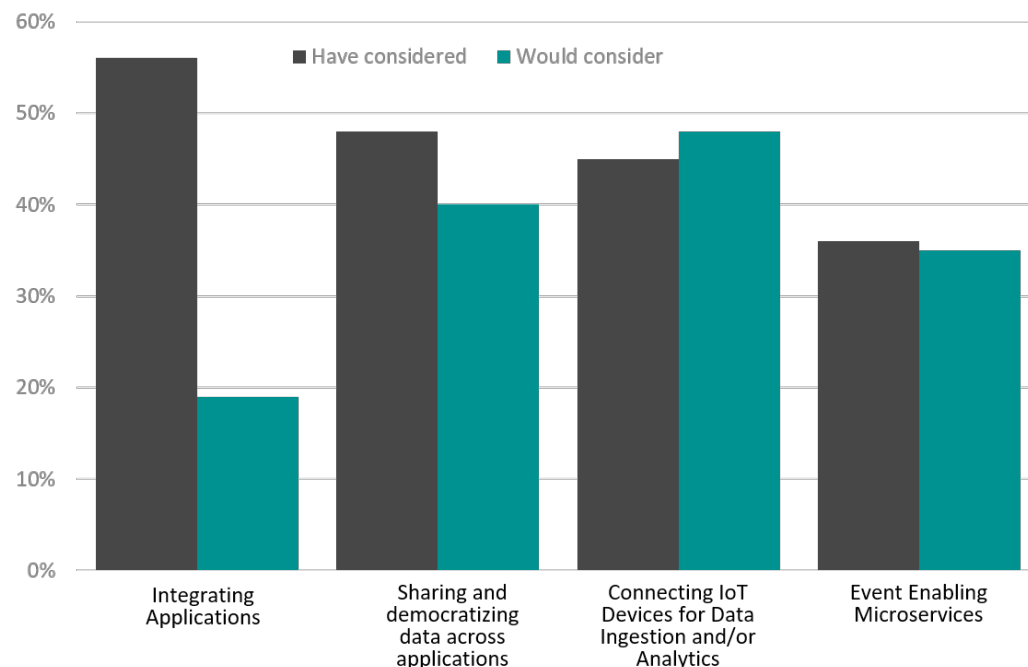
Areas Where EDA is Beneficial



EDA Plans For Today and Tomorrow

There are two main reasons businesses are looking to invest in EDA: its real-time capabilities, which allows them to react faster and more efficiently to a fast-paced business environment; and its decoupled nature, which grants the ability to easily adapt to unanticipated disruptions. In the face of this dual imperative of handling disruption and innovating at speed to stay afloat, EDA enables the resiliency businesses need.

According to this study, the three most common applications of real-time data are: application integration (56%), data sharing across applications (48%), and connecting IoT devices for data ingestion and/or analytics (45%). These are all crucial as organizations face new demands such as sales spikes, burst handling, hybrid working, and need to develop new services to keep their customers happy. However, businesses' ambitions do not stop at these use cases: 94% of respondents stated they would consider applying EDA to further ones.



Where do we go from here?

Asked what other use cases they would consider in the future or would spark future interest: Rising to the top of the list, connecting IoT devices for data ingestion and analytics was cited by 48%. This is especially relevant to financial services, manufacturing and gaming businesses; being the most forward-leaning sectors in this study, 50% are exploring the possibilities of EDA. Others, like telecom, media and technology, follow closely behind in stating the importance of data sharing and democratization, 46%, while some, like retail, place the development of distributed applications as another priority, 45%.

The EDA Maturity Curve: Adoption Surges Forward

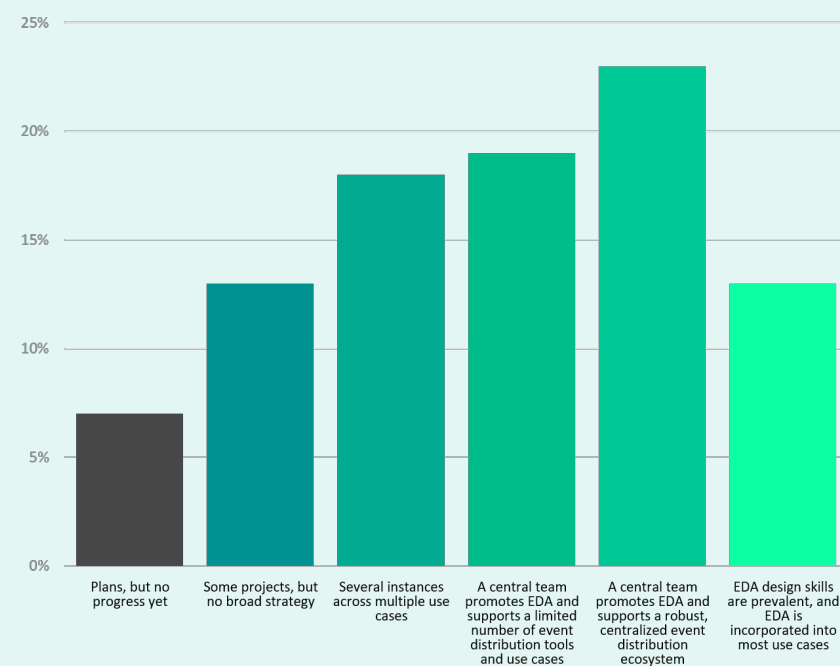
For the vast majority of global businesses, 72%, EDA is in widespread use, albeit at different levels of maturity.

The largest proportion, 23%, has already adopted EDA, with a central team promoting it, supporting a centralized event store/ecosystem, and often integrating it with API initiatives. The fact that the largest proportion is at such an advanced level shows a growing wave of early adopters, with the rest following close: 19% have a central team promoting EDA and support a number of event distribution tools and use cases, while 18% already have several instances of EDA across multiple use cases.

Just 13% have reached the peak of EDA adoption, where skills are prevalent and EDA is applied throughout the organization to most use cases. Conversely, 8% have no plans to look into EDA, while 7% do have plans but have made no progress yet.

At the forefront of the adoption wave, the survey finds several sectors leading the surge. More than a quarter, 27%, of financial services, telecom, and media and technology organizations have a central team promoting EDA within the organization.

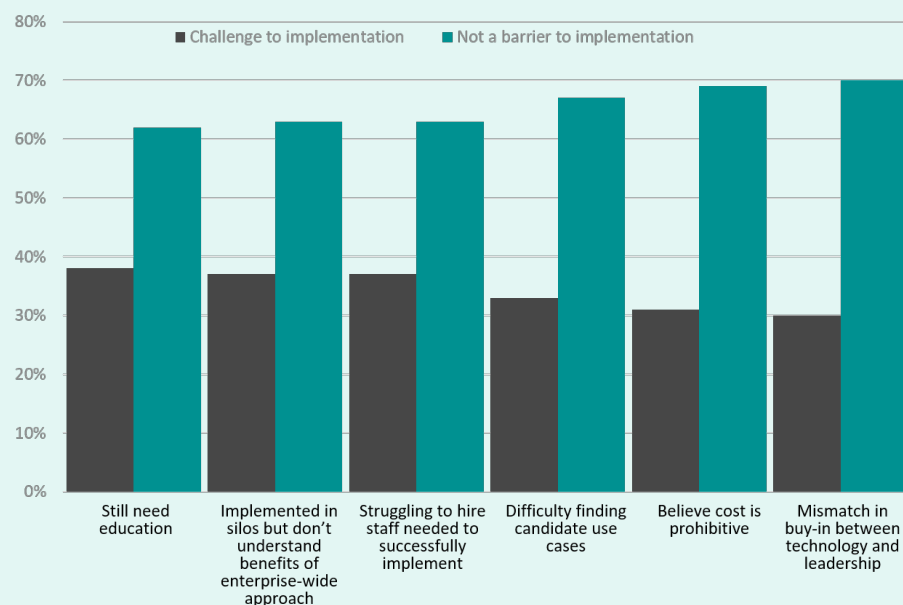
State of EDA Implementation



Pressing On Despite Challenges

Progress in the EDA space is undeniable. Organizations are seeing their peers move towards full implementation of EDA, and they know they need to cover that distance or risk losing their competitive edge. They point at a number of challenges they must face on the way to achieving their goal.

The majority of organizations, 75%, cite the lack of adequate technology to implement EDA as a roadblock, while others, 59%, say they haven't yet identified the right tools and vendors to meet their needs.



One of the most critical hurdles is educating the company on the benefits of EDA, cited by 38%. Looking at the size of the company, by number of employees, the study found medium organizations, with 501 to 1,000 employees, were the leading cohort that desired education on how EDA can solve their specific problems, 41%. Meanwhile, the largest companies, who may have only deployed EDA tactically, most struggle to understand the benefits of applying EDA enterprise-wide, 39%.

When considering how to implement EDA, 37% feel they need to hire more talent with the necessary skills to guarantee success. Less than a third, 31%, point to cost as the main issue.

Finally, a common challenge across the board is the mismatch in buy-in between the business and IT departments, affecting three in 10 organizations. This affects a uniform number of respondents across company sizes, except in the case of organizations with between 1,000 and 5,000 employees, where it is a struggle for 38% of respondents.

With the benefits of EDA accepted by tech-savvy staff, the next step is to convince the wider business.

IT Needs to Explain EDA Benefits to the Business

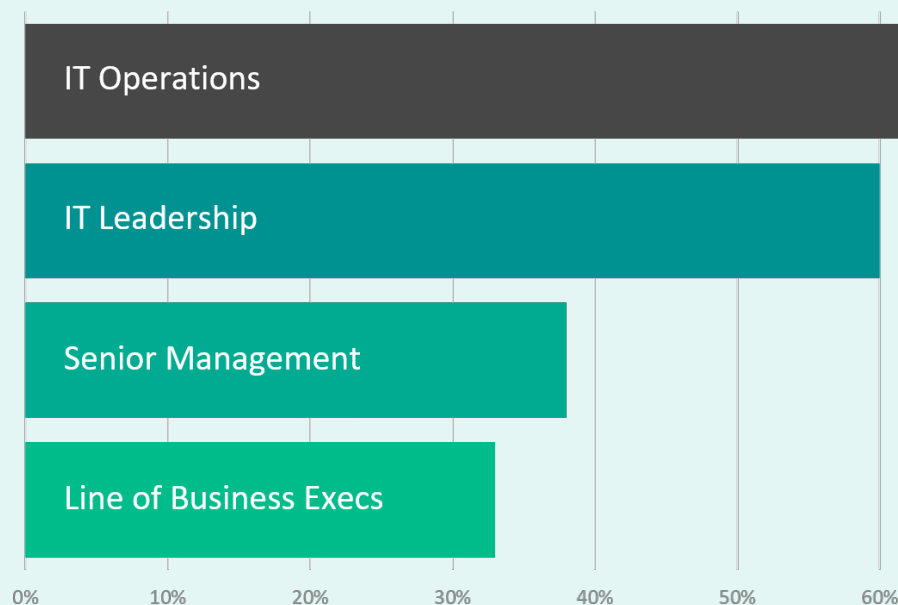
For EDA to succeed, it needs buy-in across the business. On the IT side, 61% already appreciate the value of real-time event-driven data distribution, pointing at an appetite for EDA. This is to be expected as IT jobs are the ones to be immediately aided and streamlined by EDA.

This number, however, drops off to just 35% when looking at business roles, where decision makers might have a harder time connecting the technology with the bottom line.

On the IT side EDA is well understood: 62% of IT operations and 60% of IT leadership appreciate the value of real-time data, while in the business line the largest proportion, 38%, is senior and executive management, followed by 32% of line of business executives.

This disconnect means the business value of EDA is getting lost in translation between IT and business. It's now more crucial than ever to articulate how an enterprise's bottom line can benefit from EDA.

Understanding of Benefits of EDA, by Role



The 5 Keys to EDA Migration

Once an organization has bought into the benefits of EDA, there are five keys to successfully implementing it.

The most frequently cited key to implementing EDA, 75%, was identifying the right technology.

Along those same lines, the second most common response, 59%, was identifying the right partner to help them implement their chosen platform and tools.

The next most commonly cited keys to successful EDA migration were organizational in nature: 38% identified the need to educate stakeholders across their organization about the benefits of enterprise-wide EDA, and 37% said hiring the right skills for implementation was key.

Almost a third of respondents, 31%, said finding a cost-effective solution is a key to embarking on their EDA journey.

- 1 Identify the right technology
- 2 Identify the right partner
- 3 Evangelize the benefits of EDA
- 4 Source the necessary skills
- 5 Identify cost-effective solutions

About Solace

Solace helps enterprises become modern and real-time by giving them everything they need to make their business operations and customer interactions event-driven. With PubSub+ Platform, the market's first and only event management platform, the company provides a comprehensive way to create, document, discover and stream events from where they are produced to where they need to be consumed – securely, reliably, quickly, and guaranteed.

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