

Nine Use Cases Solved With Enterprise Architecture



WHITE PAPER

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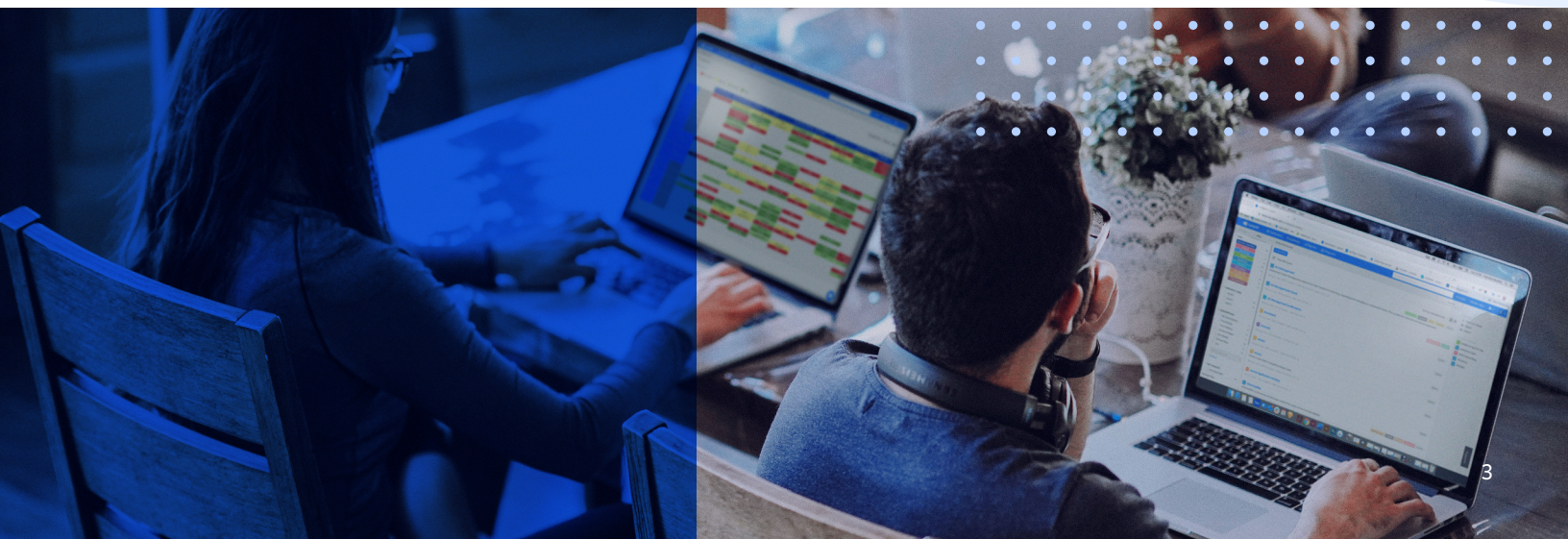
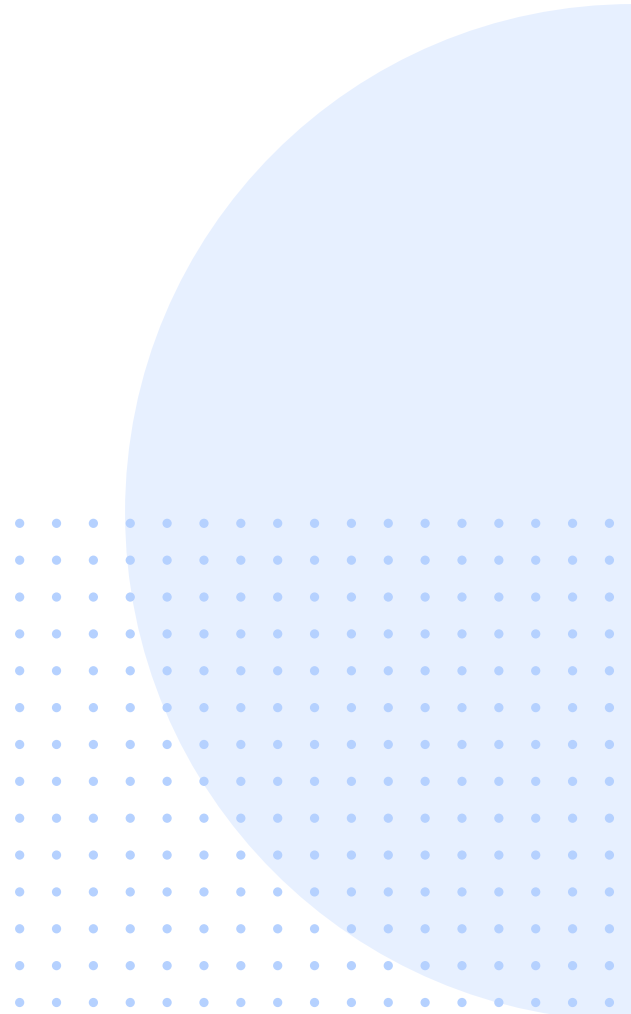
Introduction

What value proposition does enterprise architecture (EA) deliver upon? In the not-so-distant past, the demand for enterprise architects was on the decline. To say that trend has shifted would be a drastic understatement.

Digital transformation spawned by emerging technologies has caused business models to change, and revitalized EA as essential function for companies of all sizes, in all industries.

According to KPMG's most recent CIO Survey, technology teams are facing skill shortages at an all-time high. Of the more than 3,600 respondents to the global survey, enterprise architecture was listed at the fourth-most-difficult position to hire for. We anticipate the demand for EA talent to continue rising for the foreseeable future.

With sound enterprise architecture management (EAM), organizations can build a holistic view of their strategy, processes, information, and IT assets to support efficient and secure operations across all business units. This white paper will explain three key areas where enterprise architects add value and examine nine of the most commonly solved use cases.



Three Ways Enterprise Architects Add Value

Enterprise architects are a critical intermediary between business and IT leadership. Their roles have become extraordinarily important as operating models are more complex and data-driven than at any time in history. Through understanding the current state of company-wide processes, enterprise architects are able to predict future business challenges and deliver the information required to overcome them, while simultaneously identifying opportunities for growth.



Enabling growth

Companies need to innovate rapidly to stay competitive. Many organizations struggle to adopt newer technology like microservices, IoT, or [cloud migration](#), or to implement the lean, DevOps methodologies needed to keep pace in today's digital world. These trends can bring considerable value by speeding up time to market, creating new revenue streams, reducing costs, and improving agility. Enterprise architects are in the best position to help their companies navigate digital transformation – which, if done properly, can lead to tremendous growth opportunities.



Reducing complexity

As organizations experience organic and inorganic growth, IT landscapes can become unmanageable, fast. This results in duplicate systems, inconsistent data, and the reliance on patchwork integrations. Enterprise architects can tackle overcomplexity head-on by providing a roadmap for streamlining IT environments, which directly contributes to reducing costs.



Ensuring compliance

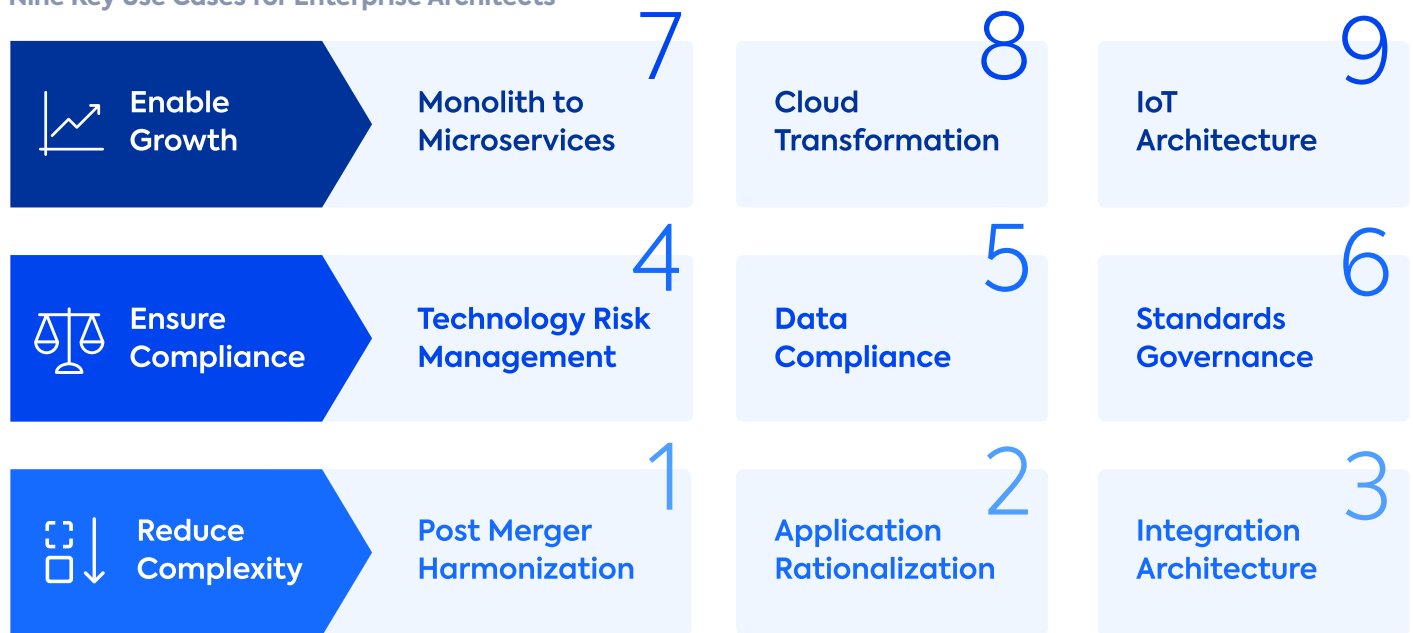
Enterprise architects are integral in maintaining their company's compliance with financial and government regulatory bodies. Take, for example, the European Union's General Data Protection Regulation (GDPR). This regulation imposes unprecedented rules on the management of the personal data. The GDPR proposes severe penalties for noncompliance – up to €20 million or 4% of the global annual turnover for the preceding financial year. Enterprise architects can clearly demonstrate GDPR compliance by ensuring all pertinent data is gathered and presented in a well-organized manner.

Nine Use Cases

Of course, not every business needs an enterprise architect on staff. EA is best served in large corporations with highly complex IT environments and business model that lacks synergies across its capabilities. In this section, we'll examine nine of the most common use cases where an enterprise architect fits best.

Figure 1

Nine Key Use Cases for Enterprise Architects



Source: LeanIX GmbH

1. Post-Merger Harmonization

Overview of use case

Mergers and acquisitions often fail or go on to consume unintended resources because the organizations involved are either incapable of successfully integrating, or unable to anticipate required synergies. From an IT perspective, the challenges are vast. Multiple companies have to unify and transform their technologies without interrupting day-to-day business.

How EA and LeanIX can help

No two corporate unions are the same. Sometimes, a large company acquires a smaller one; other times, the merger takes place between similarly sized organizations. The aim can be to break into new geographic markets, gain technical capabilities, or

a myriad of other competitive reasons. In any scenario, enterprise architecture plays a crucial role in making the IT integration successful. LeanIX Enterprise Architecture Management helps consolidate locations and rationalize applications and provides the foundation for selecting the best applications for a shared IT landscape. This allows organizations to utilize synergies, realize savings, and strategically align their business going forward. Creating harmony between two IT departments contributes to the long-term success of a merger.

Business capabilities and user groups

One of the core views of enterprise architecture is a business capability matrix. Business capabilities are core elements that structure a company according

to its activities.

During a merger, business capability maps define activities that need to be fulfilled independent of processes and organizations. These maps assign applications to user groups and business capabilities, even if the organizational structures and procedures of the two companies are very different. This overarching view of applications and their contributing business value makes it possible to assess redundancies and gaps in IT support from both a functional and technical perspective.

Record initial state of IT landscapes

During a merger or acquisition, recording the initial state of both IT landscapes is critical. LeanIX helps you to answer essential structural questions, like:

- What systems of record does each company have?
- Where is master data stored?
- What are the locations of each supporting data

center?

Use built-in tools such as LeanIX Surveys, to gather all of this information and save it in the repository. LeanIX software serves as a single source of truth that is strong, referenceable, and easily accessible.

Assess different target application landscapes

Enterprise architects plan the optimum target landscape. Should one IT landscape be absorbed? Should we cherry-pick the top-performing applications of both companies? To support this decision, LeanIX runs an elaborate analysis of the functional and technical fit of each application. Enterprise architects can then propose a best-fit solution from concrete data.

LeanIX customer, Helvetia, was able to reduce redundancies and realize substantial savings in their merger with Nationale Suisse. In its half-year report, Helvetia reported IT as a major contributor to these savings. The establishment of transparency was a crucial first step toward doing so. Today, the LeanIX inventory serves as the single source of truth that strategic IT management decisions are based upon.



Figure 2
Best Practices to Define Business Capability Maps
[Download your free poster](#)

Source: LeanIX GmbH

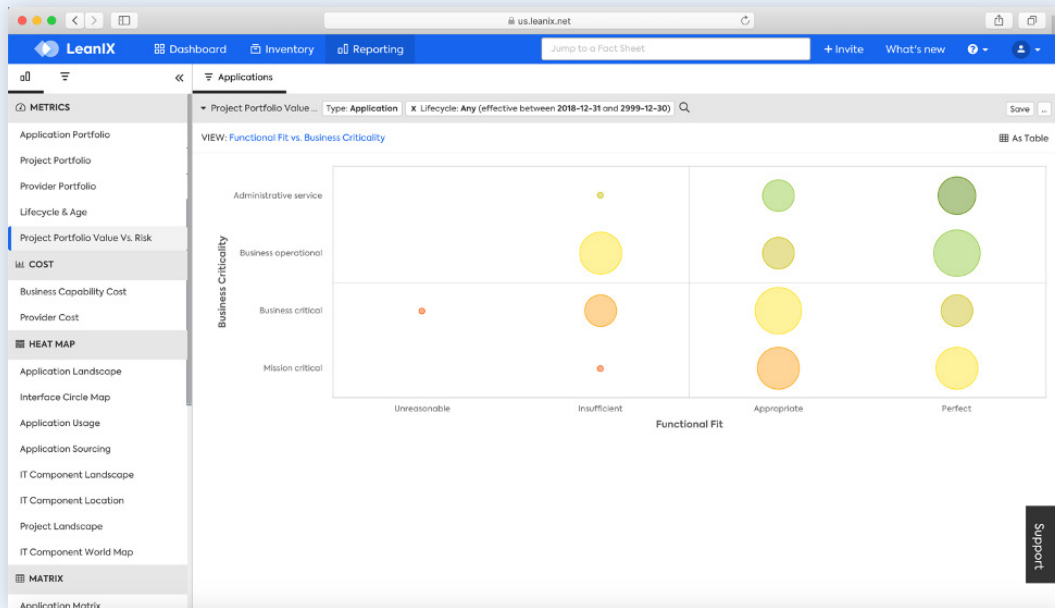


Figure 3
Application Portfolio
View by Business
Criticality and
Functional Fit

Source: LeanIX GmbH

2. Application Rationalization

Overview of use case

With business personnel focused on driving economic growth, support for aligning the IT landscape often gets overlooked. Consequently, various applications are often introduced at different points in time when requested by different teams. What the business side fails to notice is that having an IT landscape full of applications with overlapping functionality, varying lifecycles, and redundant technologies often results in significant integration issues and company-wide inefficiencies. Running a complex, rigid IT ecosystem increases IT spend by hundreds of millions of dollars, while directly decreasing the quality of service and satisfaction of those who rely on it.

LeanIX internal research indicates that large enterprises (with >€1 billion annual revenue) have an average of 650 applications deployed at one time. The largest 10% of companies average a staggering 3400 applications running simultaneously. The lion's share of many IT budgets is spent on operating legacy systems and managing applications – many of which are not mission critical. To stay abreast of current innovative trends, provide first-class customer service, reduce cost,

and scale globally, enterprises benefit from having a thoroughly rationalized application landscape. While application rationalization endeavors require an initial investment, the savings greatly outweigh the costs.

How EA and LeanIX can help

First, enterprise architects can capture all key information about all deployed applications and load them into the LeanIX software. From this organized view of the entire inventory of applications and their direct business value, enterprise architects can set the scope of the application rationalization project and prioritize it, e.g., starting with a specific core process or one entire business unit, depending upon the operating model of their company.

From there, they can use the LeanIX application matrix and application rationalization surveys to quickly assess the usefulness of applications and make data-driven recommendations on which applications to tolerate, invest in, migrate, or eliminate. Finally, enterprise architects will have the information to plan a roadmap to implement the rationalization project through consecutive decommissioning projects.

Fast facts about potential savings from application rationalization:

40%
reduction in new application queries

80%
time saved in new app queries

25
retired systems per year

\$660,570
avoided cost for redundant applications

Source: [The Total Economic Impact of the LeanIX Enterprise Architecture Suite](#), a commissioned study conducted by Forrester Consulting, November 2019

The below report shows the LeanIX Application Matrix, a great way to start any redundancy analysis.

Case Study:

Over the years, NORMA Group, a recognized leader in engineered joining technology solutions, has acquired more than 13 companies with no standard IT integration plan for their IT landscape. As a result, their application landscape grew more complex and redundant. The management board of NORMA Group decided to harmonize business and technology on a global scale to set the stage for future growth. After loading all of their application data into LeanIX, NORMA realized that they had incredible redundancies within their IT landscape.

NORMA is standardizing their global portfolio and has consolidated ERP solutions. Application rationalization has uncovered savings potential to the tune of millions of euros. NORMA Group credits its quick results to the ease of use and guided implementation from LeanIX.

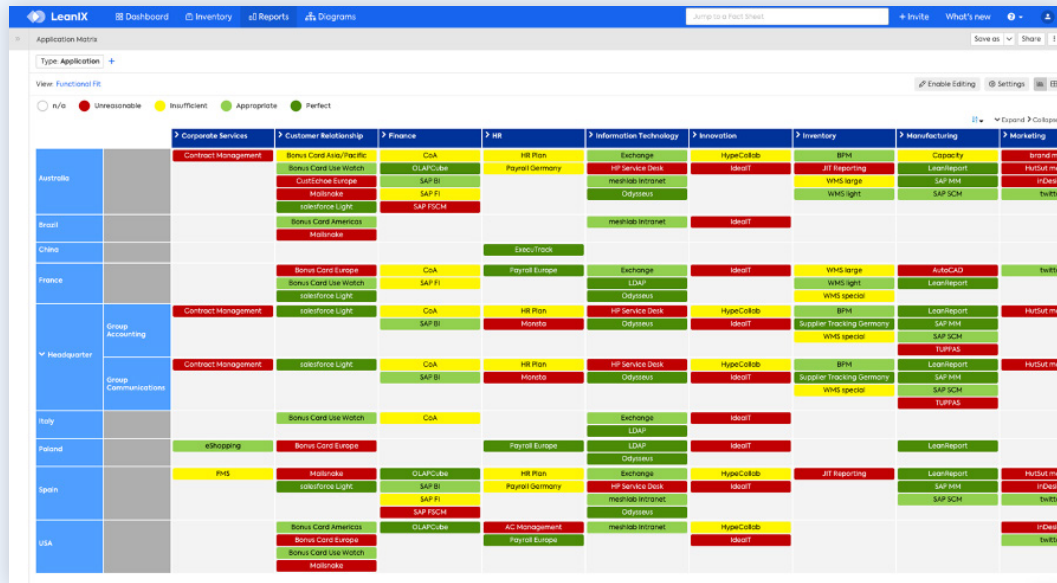


Figure 4
Application Matrix Report by Functional Fit

Source: LeanIX GmbH

3. Integration Architecture

Overview of use case

As valuable applications rarely live in isolation, integration architecture is key. Sometimes applications are custom-built, some run on their off-the-shelf configurations, and others have a combination of both. This creates a tricky situation for those responsible for integration. Applications provide the most value whenever they are working together to produce seamless solutions, and every business capabilities' requirements are different. eCommerce shops need to integrate directly with inventory systems; calendars need to be synced to HR applications, marketing applications should sync to the CRM, and so on.

By definition, enterprise integration involves multiple applications running on multiple platforms in different locations, making the term “simple integration” an oxymoron. Common industry data suggests that 70% of all integration projects fail. Most of these failures are not due to the software itself or technical difficulties. Instead, they occur due to management issues, constantly changing applications, unclear standards, and unclear accountability.

How EA and LeanIX can help

With LeanIX software, enterprise architects can document integrations between applications, data flows, and interface technologies. This helps to kickstart integration projects, improving decision making and, as a result, maximizing efficiencies. Enterprise architects have a unique cross-company view, which puts them in the best position to advise teams on the proper design and implementation of application integrations. The majority of scenarios involve varying types of unifications including information portals, data replication, shared business functions, or a service-oriented architecture.

Enterprise architects can introduce centralized infrastructure like an Enterprise Service Bus (ESB), where a standardized interface eases the burden of system integration and minimizes the chore of dealing with frequent, local changes. An effective EA team is necessary to govern the optimized use of IT and other stakeholders, to make the most out of budgeted resources. LeanIX helps enterprise architects manage these integration standards.

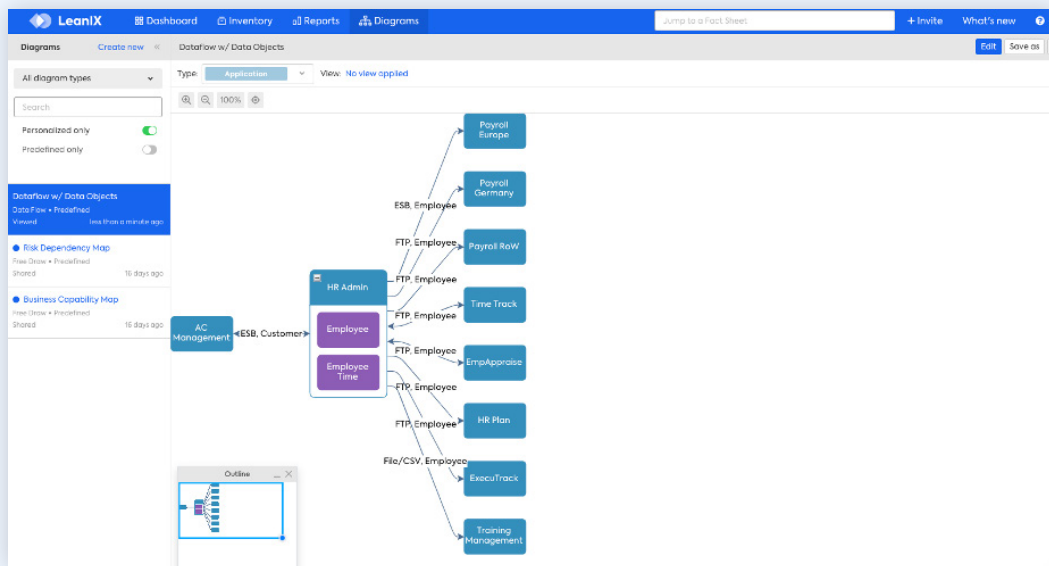
Business applications generally focus on a specific functional area, such as Customer Relationship Management (CRM), Finance, Human Resources, etc. Successful enterprise integration must streamline communication between computer systems, business units, and IT departments. In a fully integrated enterprise, each component becomes part of an overall flow of applications and services

EAs using LeanIX has helped customers:

- Reduce cost by uncovering data and interface consolidation opportunities. Every point-to-point interface eliminated has the potential to save thousands of dollars through lowering maintenance costs or identifying points of failure.
- Reduce risk through better data management and stronger security.
- Increase agility by accelerating projects and advising on the integration architecture patterns best suited to specific criteria.

On the next page, Figure 5 shows an overview of a data flow between multiple applications.





Source: LeanIX GmbH

Figure 5
Dataflow Model with
Data Objects by
Application

4. Technology Risk Management

Overview of use case

Across all industries, organizations rely on technology to successfully run their operations. Cyber risk, inherent with any technology, comes in many forms, across innumerable sources. IT outages, legacy applications, and their supporting infrastructure are among the most common, yet most preventable situations that lead to data breaches. The average global cost of a security incident is \$3.92 million, according to the most recent Cost of a Data Breach study conducted by the Ponemon Institute. That number skyrockets to \$8.19 million per breach for companies in the United States. Between financial and reputational damages, the fallout of a cyber incident can be extremely difficult to recover from.

The six risks of obsolete technology:

1. The inability to support business
2. Higher complexity
3. Security vulnerabilities
4. Compliance issues
5. Lack of skill and support from vendors
6. Lower IT flexibility

The world's 20 largest technology vendors alone provide over a million different technology products, and their components change daily. New versions need to be monitored as lifecycle information changes and certain components require upgrades. Every day, 2,500 technology products change their information. This is entirely too much data to keep track of manually.

How EA and LeanIX can help

Technology risk management is a broad, complex topic that cannot be solved by manual data maintenance – no matter how great your team is. With the help of LeanIX, enterprise architects can quickly source current product information across technologies. This information is essential when assessing the risk of application landscapes, as well as to plan, manage, and retire technology components in a smart way.

LeanIX teamed up with Flexera, creators of Technopedia, the most complete and authoritative enterprise IT data worldwide, to provide a comprehensive repository of technology data. Technopedia automatically updates the information of over a million products, spanning more than 50 million market data points. This up-to-date information feeds directly into LeanIX and presents your organization with high quality data about your technology inventory. Access to current data prohibits disconnected information silos, lack of integration, and incomplete data about technology.

Efficient technology risk management with LeanIX

LeanIX provides smart matching algorithms to cleanse existing data sets. This enables your company to quick-start the process of identifying obsolete technology. Custom reports help you to highlight applications that are outdated or risky, and visualize affected data flows. The LeanIX platform combines all the critical information about every technology object in one place.

Top TRM Questions Answered by LeanIX

- Does the app need tech upgrades to ensure ongoing support of business requirements?
- What is the lifecycle of this application?
- What are the applications' response times?
- Are response times good or bad compared to other applications?
- Did the application have more or less outages year-over-year?
- Is the system prone to incidents?
- How many users would be affected by a potential outage?
- What impact would an application outage have on revenues?
- Are we meeting regulatory or compliance requirements?
- Is the technology risk stagnating business growth?

All these questions can help you rate the technical fit of applications on a four-star scale based on easy to understand definitions.

5. Data Compliance

Overview of use case

Staying compliant is costly, but fees for noncompliance are even higher. Take GDPR, for example. Under this regulation, any company that processes the personal data of EU citizens will have to comply with GDPR regardless of their location. The GDPR has numerous advantages due to the standardization it entails, but for many businesses, it has presented a drastic change in how they approach data management.

How EA and LeanIX can help

The key to compliance, whether it be GDPR or any of the most [common security regulations](#), is having a clear overview of your organization's data. Your organization will need to know which data is collected, how it is processed, where it is stored, and how to quickly access the data to make key changes. Collecting this information can be a daunting and time-consuming task, and you may not have all of the information that you need.

Enterprise architects are in an ideal role to demonstrate compliance. With the help of LeanIX, you can easily establish stakeholders within the company, identify which data is personal data, detect and assess risk, define checks, and implement measures to ensure continued compliance.

Use the LeanIX Survey feature to answer key compliance questions such as:

- Who is responsible for the processing of personal data?
- Which applications are using this data?
- Is any personal data processed by at-risk applications?

After identifying responsible stakeholders, a quick questionnaire will provide you with the information required to demonstrate compliance for each application.

Following the steps laid out by LeanIX will prepare you for mandatory assessments from GDPR or other regulatory bodies. Figure 6, on the next page, presents a sample IT security survey within LeanIX.

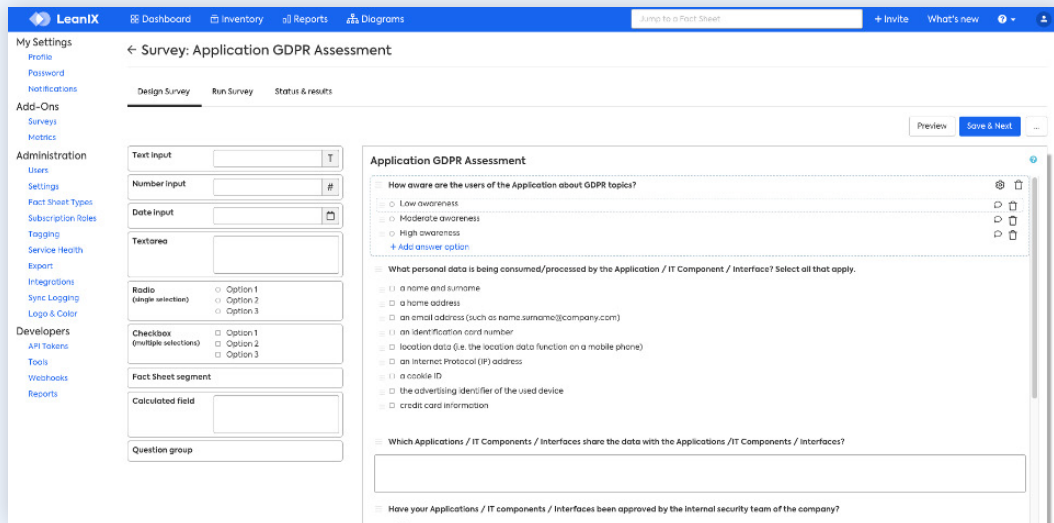


Figure 6
GDPR Compliance &
Security Survey

Source: LeanIX GmbH

6. Standards Governance

Overview of use case

The use of standardized information technology in large corporations has measurable benefits: reduced training time, lower support and maintenance costs, better bargaining power with a smaller number of vendors, and enhanced communication.

Standardization often goes hand in hand with centralization, the process of giving your IT department more control over purchases of hardware and software, as every new piece of software equipment you add to your IT arsenal can require installation, maintenance, staff training, repair, patches, upgrades, etc.

Standardization can have its drawbacks as well, as technologies change very quickly, and processes need to be updated when technology is updated. To stave off killing innovation, companies also use alternative concepts, like radical agility. Radical agility, a term coined by LeanIX customer, Zalando, is an architectural concept that builds on a service-oriented architecture. This method allows engineers to get work done while management gets out of the way. The radical agility approach is based on three pillars: autonomy, mastery,

and purpose, all bound by organizational trust rather than command and control. Being open and adaptive to new technologies is crucial to both your organization's mission and its ability to operate efficiently. Similarly, being flexible when it comes to individual preferences — whether it is working on a specific platform or using a particular spam filter — can help employees work better and encourage creativity.

For these reasons, it is important to adopt a standardization policy that fits your situation and needs. How can enterprises improve good governance while staying agile simultaneously? LeanIX can steer you in the right direction.

How EA and LeanIX can help

With LeanIX, you can document your technology standards in a transparent and efficient manner. First, it is important to create company-wide standards and make them accessible. Then, identify the use of non-standard technologies. Find out why these technologies have an exception. From there, plan standardization guidelines that best fit your company.

LeanIX enables you to note important information for each technology in an organized manner:

- Create IT Component Fact Sheets for every standard with a defined lifecycle, and add a “standard” tag.
- Set a successor in the case of outdated technology.
- Define a Tag Group for all with a necessary standard status (e.g., leading technology, exceptional use, sunset).
- Add a “Standard” Status Tag to each standard IT Component Fact Sheet
- Create a Technology Stack for the whole list of standards (e.g., databases, application servers, methods).
- With LeanIX integrations with ITSM providers, like ServiceNow, enterprise architects can make sure that only standard technologies that are overseen by the EA are deployed.

We also support the concept of a radical agility architecture. For the concept of radical agility to work, standardized interfaces are needed.

7. Monolith to Microservices

Overview of use case

Rapidly accelerating digitalization is forcing many businesses to rethink their architectures. To meet the constantly growing expectations of tech-savvy customers, companies must ensure that their products are available on all digital channels as quickly as possible.

Over time, monoliths develop very complex structures that make it difficult to perform timely changes. Moreover, scaling cannot be limited to individual parts but must be applied to the entire application. One way to reduce throughput times is to introduce a microservices architecture in software development.

Microservices break down monoliths, which allows for rapid changes and short release times along with high scalability and autonomous teams. Companies that use microservices deploy new software releases five times faster than those that do not use microservices. Regardless, companies that have adopted microservices still have the same hurdles as companies that have not adopted them when it comes to legacy issues and missing information.

How EA and LeanIX can help

In a microservices organization, state-of-the-art EAM can create more added value than ever. Although it is not always easy for companies to introduce microservices, there are excellent reasons to do so. In the not-too-distant future, every organization, no matter the industry or sector, will become a software company. LeanIX forms the link between individual teams and technologies, and provides a holistic view of projects’ impact to operations. All employees can get up-to-date access to information on the IT landscape in their personal context, which is a basic requirement if a microservices architecture is to work.

LeanIX supports microservices architectures by allowing all key information to be stored in a single source of truth. This lets stakeholders better understand critical dependencies across microservices with regard to how certain IT components support various applications. By automating the transfer of critical information, and storing that data in a central repository, LeanIX empowers faster development cycles.

8. Cloud Transformation

Overview of use case

Cloud technology has paved the way for new service-driven business models that drive value. Cloud computing has many benefits including cost-savings, efficiency improvements, shortened development cycles, faster time to market, and the ability to scale with demand. Enterprises can also dramatically improve asset utilization, reduce operational expenses, and redefine IT staff relationships after moving to the cloud.

Cloud has become a key determinant of IT and business strategy. However, complex business landscapes and rapidly changing infrastructure pose a serious obstacle to mastering cloud transformation.

To successfully move to the cloud, major organizational, operational, and technical modifications are required. Numerous constraints influence cloud adoption along the way, including budget limits, need of exponential scale, growing complexity in corporate policies and external regulations. Enterprise architects need to be able to implement a roadmap from legacy infrastructure to cloud.

How can EA and LeanIX help?

LeanIX software helps you govern and improve your cloud initiatives by providing an automated, comprehensive view of multi-cloud environments at enterprise scale.

For a successful cloud transformation, a wide variety of factors should be considered: current and future capabilities, the application portfolio strategy, operational and organizational questions related to people and processes, as well as cost metrics. These complexities must be fully understood in order to mitigate risks and maintain compliance across cloud deployments. LeanIX helps by providing a 360-degree view into cloud architecture and integrating with leading cloud providers to automate the import of data.

With the help of the LeanIX Continuous Transformation Platform, enterprise architects can define target capabilities, decide which applications will move to the cloud, and which applications should remain on-premise.

9. IoT Architecture

Overview of use case

While the world finds space in their personal lives and homes for smart accessories, enterprise architects should look into how the Internet of Things (IoT) can benefit their organizations. IoT brings shorter times to market, provides real-time Big Data insights, enables new services and business models, and reduces cost. There are also significant challenges facing the IoT, from security and privacy risks, to a lack of standard oversight and the complexity of integration.

How EA and LeanIX can help

In this digital age, progressive companies are looking for ways to mitigate risk, not to avoid it altogether. Enterprise architecture can directly contribute to an IoT roadmap by managing risks while creating clear alignment between business and IT. LeanIX empowers EA through mapping relevant business capabilities, streamlining application rationalization, ensuring the proper interoperability of applications, managing projects, and compiling data to shape future business decisions.

With LeanIX, enterprise architects can:

- ✓ Identify the current applications supporting the IoT capabilities.
- ✓ Detect gaps in the application support.
- ✓ Evaluate the quality of capability support based on defined criteria.
- ✓ Develop requirements for existing applications.
- ✓ Spot the need for enhancements or new applications.

Summary

Digital transformation is here to stay, and the need for enterprise architects to manage the complexities corporate IT will only continue to rise. Tools like Excel and PowerPoint, though initially attractive, pale in comparison with using a specialized EAM tool to oversee today's technology landscape.

LeanIX solves the most common use cases associated with enterprise architecture and brings measurable value to organizations across all industries. We have helped enterprises gain transparency in their application landscape, save millions in cost, and avoid costly compliance penalties.

FREE DEMO

**Learn what LeanIX can do for you.
Schedule a personalized demo with our
expert team today.**

Schedule a Demo! →

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