

# Best Practices for **Accelerating** **Business Value** from **Application** **Modernization**

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# Executive summary

Application modernization is the process of updating and transforming legacy software and systems. It is a strategic practice which leverages current technologies and infrastructure to enable businesses to better meet their industry and organizational standards. Outdated application inventories can lead to increased project risks and technical debt. Often, this process requires re-architecting, re-platforming, or rebuilding existing applications.

The rising use of generative AI and cloud computing has served as a motivator for many businesses to look more closely at their own IT portfolio. The goal is to create more flexible, scalable, and efficient systems that can better adapt to market needs. A well-developed architecture practice not only helps support these changes but is a necessary part of mitigating risks and maximizing impact.

Application modernization facilitates the development of more responsive and adaptable IT environments, allowing companies to better meet customer expectations, streamline operations, and accelerate digital transformation. This transformation can lead to cost savings through more efficient resource utilization and reduced maintenance requirements, thereby driving innovation and ensuring long-term sustainability in an increasingly technology-driven world.



# Key Drivers of Application Modernization



## Mitigate risk

Reduce vulnerabilities and compliance issues associated with outdated technology.



## Boost efficiency

Streamline operations and processes through automation and modern application structures.



## Increase agility

Enable faster response to market demands with scalable and flexible technology solutions.



## Enhance innovation

Lay the foundation for ongoing innovation by adopting advanced technologies that support new business models and services.

# Delivering Business Value with Application Modernization

- **Increased operational efficiency:** Automating manual processes, reducing bottlenecks, and improving workflow efficiency can all be achieved with the right application modernization. These lead to more streamlined operations, minimizing cost, and maximizing effectiveness.
- **Enhanced customer experience:** More modern applications can offer personalized and user-friendly engagement with customers. For example, highly trained and personalized AI chatbots can answer user questions quickly and efficiently, providing a better user-experience with your customers.
- **Scalability and flexibility:** More modern application portfolios, including cloud-based solutions, enable business to scale to meet demand. Access to better computing resources can allow a more flexible pathway to scaling without significant upfront infrastructure investment.
- **Improved security and compliance:** Modernization often involves updating security protocols and ensuring that applications meet current regulatory standards. This not only protects against data breaches and cyber threats but also builds trust with customers and partners by demonstrating a commitment to data privacy and security.
- **Future-proofing:** A more forward-looking approach ensures that businesses are prepared for future technological disruptions, securing their long-term success.



# Now Is the Time for Application Modernization: Here's Why

According to IBM, the potential benefits of application modernization include:

- 15–35% savings on infrastructure year-over-year
- 30–50% lower application maintenance and running costs
- 74% lower costs on hardware, software and staff
- 10% improvement in application operational efficiency
- 14% boost in annual revenue

Organizations are already realizing these benefits and the trends are clear, according to Gartner®:

- 46% of organizations are increasing their spend on application modernization
- 47% are decreasing investments in legacy infrastructure and data center technologies, illustrating the transition to modern technology platforms



Application modernization isn't simply a trend; it's the mandate for every IT organization."

- CIO.com





# Key Steps to Accelerate Business Value

## STEP 1

### Data collection and validation

This first step is to get an understanding of the current state so that you can plan the path forward. For example, performing a gap analysis between the current state and the target architecture will help to create a roadmap between the two.

## STEP 2

### Define organizational modernization

How is “modern” defined by the business? Many organizations will use industry-standard methods which can help quantify differences between an underdeveloped application and a modern one. Specific standards of reference will support decision-making and lead to higher quality analytics. It’s recommended that these decisions be documented, typically in your enterprise architecture (EA) repository, for easy reference.

‘Technical fit’ is an industry-standard attribute that documents how well a component is aligned with the technology strategy of the organization (Range: 1 [low] - 5 [high]). For example, this could relate to technology reference models, roadmaps and/or vendor dependency strategies.



### STEP 3

#### Apply the standard to the application catalog

With an organizational standard of “modern” defined, the real work can begin. Each application must be assessed according to the standard. Analyzing the application catalog and applying the modernization standard of reference to each object can be a difficult and long process. However, using stakeholder engagement tools like intake forms or assessment surveys, as well as tool-based data gathering and intelligence, can expedite the task.

The objective is to assign each application a modernization score, be it ‘technical fit’ or otherwise, to establish an accurate baseline of the current portfolio. This provides clarity on the catalog’s current versus target architecture, enabling EA teams to strategize transition plans toward the desired future state.

### STEP 4

#### Socialize content

Developing good views to target modernization is essential to addressing stakeholder concerns. This can be done in tandem with data collection and applying modernization standards to the catalog. Imbedding views to surface application modernization and sharing this content will be essential to assessing the overall application repository. Using products that can dynamically update with changing scores and highlight inefficiencies is crucial to empowering stakeholder decisions. Businesses can accurately assign resources if they can easily and correctly identify modernization patterns in their data.

A well-designed EA platform, like OrbusInfinity, can provide several methods to keep stakeholders informed of the current-state architecture. PowerBI dashboards with technical fit heatmapping, customized Visio templates highlighting applications in need of modernization, and dynamic views to illustrate the impact of outdated applications all serve as tools in the EA team’s arsenal.



# Typical Stakeholders in Application Modernization

## IT portfolio managers and directors:

Prioritizing overall strategy, they focus on aligning application modernization with the broader IT portfolio roadmap and using insights from the application catalog to define the future state architecture for the organization.

## Application architects:

Concerned with accurately capturing and integrating application information, they maintain the application portfolio, filling in essential data points and applying the organization's modernization standard. This role is pivotal in the creation of transition architectures.

## Executive sponsors/stakeholders (CTO, CIO):

These key players determine the organization's modernization standard, be it technical fit or otherwise, ensuring modernization efforts align with overarching business objectives, and using analysis to empower decision-making.

# Required Data and Insights

**Application catalog:** Comprehensive list of the organization's applications and the main database from which application modernization is performed. The catalog should include sufficient attribute information to perform further analysis, like technical fit and business fit.

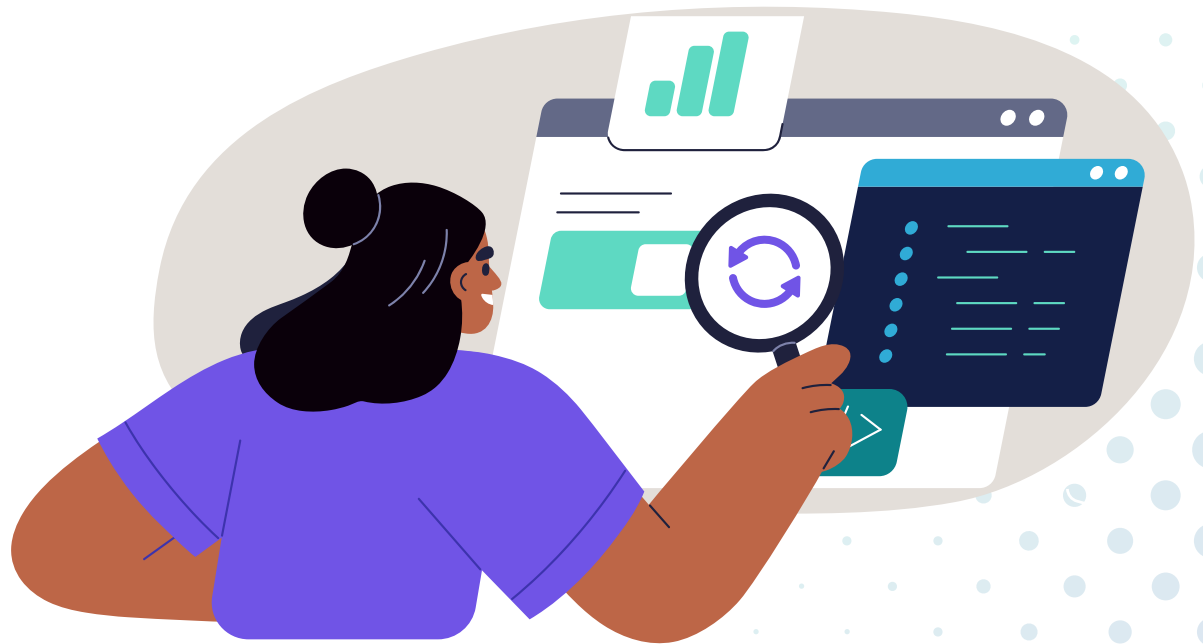
**Technical fit:** A measure of how well the component is aligned with the technology strategy of the organization. For example, this could relate to technology reference models, roadmaps and/or vendor dependency strategies. Baseline state. Range: 1 [low] - 5 [high].

**Business fit:** A measure of how well the component supports business requirements and processes. Baseline state. Range: 1[low] - 5 [high].

**Capability model:** Comprehensive list of the business's capabilities. These will be connected to the application catalog and used to identify low-modernization applications that are impacting overall business competencies.

**Process objects:** A sequence of tasks that describe how a business outcome is achieved. These are typically classified in a hierarchy and used to identify specific processes in which an application is involved.

**Organization objects:** A unit of a business's organizational structure, normally existing as part of a hierarchy. Used to identify where an application is used within the business.

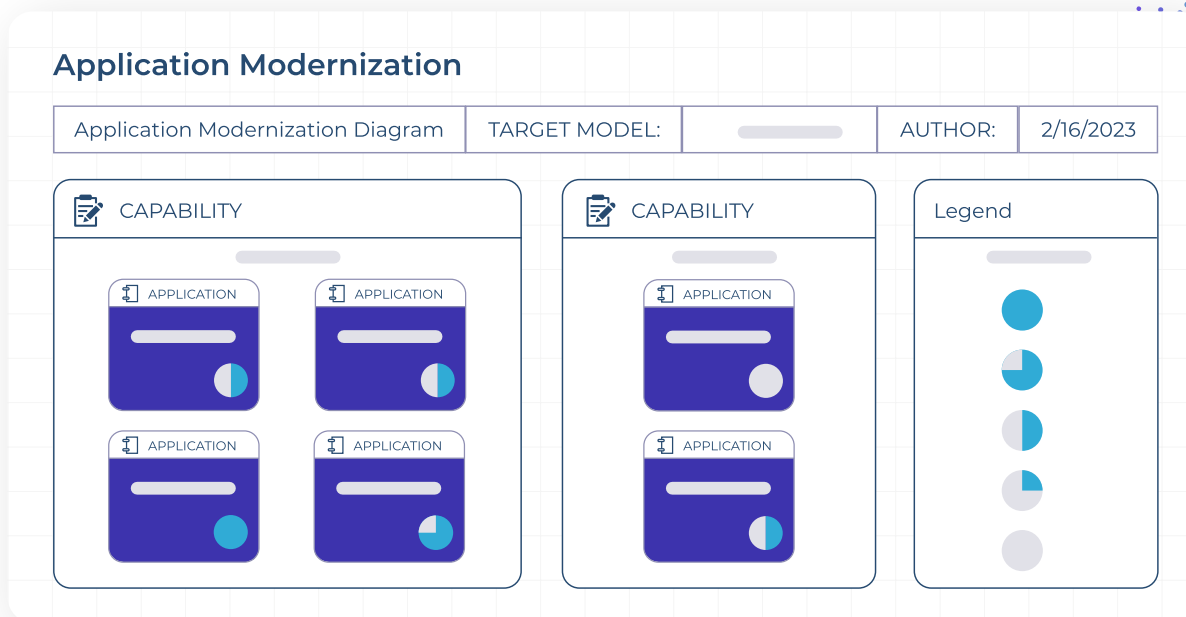


# Using EA Platforms to Solve Common Application Modernization Challenges

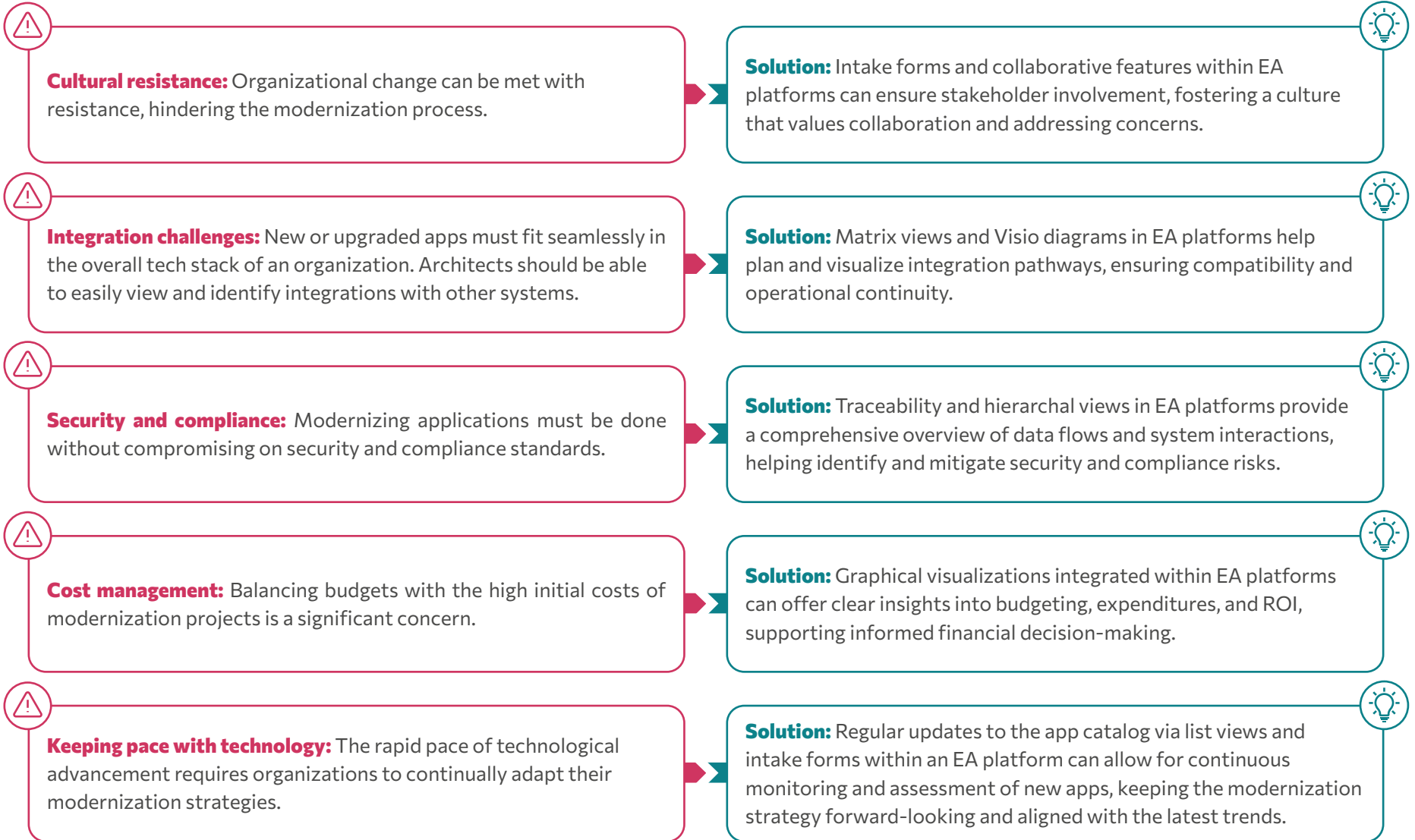
Application modernization challenges can range from complex system dependencies to the need for cloud computing. However, many of these difficulties can be addressed with an effective EA platform.

They provide an overview of an organization's IT landscape through a governed repository, helping stakeholders to identify redundancies, dependencies, and potential bottlenecks in existing systems. By storing and surfacing attributes, data flow, and object information, EA platforms help execute modernization projects and ensure alignment with business objectives.

They also facilitate adherence to best practices in security and compliance, documenting governance, and ensuring that modernized applications meet the latest standards. They equip organizations with the necessary resources to navigate the complexities of application modernization, turning challenges into opportunities for growth and innovation.



# Using EA Platforms to Solve Common Application Modernization Challenges



# Delivering Value from EA Platform Outputs

## Application portfolio surveys

Guided assessments of current application catalogs that ask targeted questions regarding technical fit, business fit, and other attribute information can better engage stakeholders.

### Application Name \*

Select an option

✓ Fit for Purpose - How well does the application support the business?

- ☐ 1 (Poor)
- ☐ 2 (Below Average)
- ☐ 3 (Average)
- ☐ 4 (Good)
- ☐ 5 (Very Good)

✓ Performance - How do you rate the performance of the application?

- ☐ 1 (Poor)
- ☐ 2 (Below Average)
- ☐ 3 (Average)
- ☐ 4 (Good)
- ☐ 5 (Very Good)

## Application portfolio modernization views

Views that outline applications' TIME scoring, cost summary, and related business concepts help surface important data insights.

### Application Portfolio

✓	Name	Description	Owner	Deployment Model	Business Fit	Technical Fit	Sustainability Score

## Modernization diagramming templates

Built-in heat maps for technical fit can enable architects to surface modernization information within application diagrams.

### Application Scoring

2.68  
Average Technical Fit

3.29  
Average Business Fit

361  
Application Count

3.54  
Average Sustainability

Lifecycle Status

All

Select a Capability

All

Capability

Sales & Service

Banking

Total

Sustainability Score

1.00

5.00

Deployment Model

All

Application Category

All

Link Name

Total Cost

Sustainability Score

# Manage IT investments, Optimize Business Outcomes

Application modernization is essential for transforming legacy systems into agile, efficient, and secure IT environments. Addressing key business drivers such as risk mitigation, operational efficiency, and innovation ensures that companies remain competitive in a rapidly evolving technological landscape.

Leveraging advanced tools and methodologies allows organizations to streamline operations, enhance customer experiences, and achieve scalability. This approach not only meets current business needs but also lays a solid foundation for future growth and technological adaptation.

Only OrbusInfinity supplies world-class EA, Business Process Management (BPM), Strategic Portfolio Management (SPM), and Governance, Risk and Compliance (GRC) capabilities in one tool. OrbusInfinity was built to help IT and business teams collaboratively build architectures that support adaptability, as well as compliance and data security. It offers data visualizations that enable confident decision-making and reduces the overhead of change through business process and capability mapping.

Enhance your organization's ability to make informed decisions about technology investments with a centralized view of IT assets, associated costs, and alignment with business goals.





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Orbus Software is a leading global provider of enterprise transformation solutions. We aim to empower customers with a strategic decision-making platform to successfully manage complex change. Our OrbusInfinity platform enables leaders to deliver business objectives, innovate faster, and ensure enterprise resiliency, while supporting them to make more informed, responsible, and sustainable business decisions.

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