Modernizing Legacy Applications
Building a Roadmap for Success

According to Gartner, 90% of today's applications may become outdated or end-of-life by 2025, primarily due to insufficient funding for modernization efforts. Technical debt, which consumes around 40% of enterprise IT budgets, significantly impacts an organization's ability to innovate, maintain security, and adapt to market demands. The "State of CIO 2022" report by CIO Magazine highlights the rising importance of modernizing infrastructure and applications, reflecting the critical challenges posed by legacy systems.

While legacy applications have served organizations for years, they now fall short of the expectations of tech-savvy users who seek seamless interactions. These shortcomings can drive users to competitors who provide a superior experience. Adopting modern and dependable applications is crucial for long-term success and fortified security.

The Impending Threats to Legacy Apps

As technology advances and new systems are implemented, these outdated legacy applications struggle to integrate and communicate effectively. This lack of interoperability can obstruct an organization's ability to stay competitive and adapt to shifting market demands.

In this era of rampant data breaches and cyberattacks, the vulnerabilities of legacy applications can be exploited by hackers, leaving users exposed to potential breaches. It is crucial that organizations take proactive steps to mitigate these risks and ensure the safety of valuable data.

According to Wipro's State of Cybersecurity Report 2023:

35%
of organizations' 3rd party vendors reported a cybersecurity breach in the past year.

63%
of organizations face talent shortages that hinder IT security efforts.

65%
of organizations find vulnerability scanning difficult.

Legacy applications pose challenges in finding talent to actively monitor, maintain, and support them. This leads to operational disruptions and delays in resolving critical issues, making them difficult to patch and a continuous cybersecurity concern for the IT team. Here are a few challenges and modernization solutions for managing legacy applications:

Challenges Faced by Legacy Applications	Modernization Solutions
Endanger financial well-being of organizations	Allocate sufficient funding for modernization efforts
Impact user experience	Prioritize user-centric design and seamless interactions
Require extensive resources and maintenance	Implement automation and streamline processes for efficient application maintenance
Compromise customer and employee experiences	Enhance security measures and ensure data privacy
Erode overall organizational productivity	Adopt modern and dependable applications to improve efficiency and productivity

Reluctance Towards App Modernization

Modernized applications are more secure, scalable, and flexible. They are also easier to maintain and update.

wipro:

According to vFunction research from 2022, app modernization projects are costly and time-consuming, averaging over $1.5 million and lasting 16 months. Factors that contribute to these costs are:

Influencing Factors	Things to Consider	Ask Yourself
Underestimating the complexity and cost of the project	App modernization projects involve multiple teams and technologies, making it challenging to coordinate and make accurate estimates.	Do you understand the dependencies of your app management estate?
Lack of skill, planning, preparation, and tools	Inadequate planning and preparation lead to unforeseen problems and delays.	When was the last time you reviewed your IT team's qualifications and skills in relation to your application estate?
Communication and expectation management challenges	Complex projects with uncertainty make communication and expectation management difficult.	Have you communicated and managed expectations with stakeholders throughout the app modernization process?
Resistance to change	Some stakeholders may resist change, hindering the implementation of new technologies and processes.	Have your stakeholders mapped your supporters and detractors for any large-scale app modernization project?

Benefits of Modernization

Despite the challenges, app modernization is essential for organizations to stay ahead. Modernized applications are more secure, scalable, and flexible. They are also easier to maintain and update. IDC predicts most legacy applications be updated by 2024, leading to several benefits:

Enhanced customer experience: Modernized applications offer new features, improved performance, and reliability.	**Cost reduction:** Modernized applications enhance operational efficiency, reducing manual intervention and technical debt.	**Increased agility:** Modernized applications enable organizations to be more agile and responsive to change.
Streamlined data and governance: Modernized applications improve data management and governance efficiency.	**Enhanced cybersecurity:** Modernized applications use the latest security technologies to safeguard data against unauthorized access, attacks, and theft.	**Hybrid solutions:** Modernization combines preservation of critical components with functionality enhancement.

Improved employee experience (EX): Modernized applications boost employee productivity and collaboration while reducing the risk of employee burnout.

Charting the Course Towards Modernization

Modernization is not a luxury; it is a strategic necessity for organizations to stay competitive and meet customer expectations. Here is a framework to help IT teams start the application modernization journey:

STEP 01

Review and understand the existing application estate. Start by identifying which user groups are using which applications, understanding how they are using them, quantifying the costs involved, identifying legacy category applications, documenting the necessary IT skills, and recognizing the risks.

Gartner's "7 Rs of App Modernization"

01 **Replacing**

02 **Retaining**

03 **Retiring**

04 **Rehosting**

05 **Replatforming**

06 **Rewriting**

07 **Refactoring**

Gartner's "7 Rs of App Modernization" framework helps assess the business impact of each legacy app and determine the right course of action for replacement, maintenance, or case-by-case management. By assessing the 7 Rs, organizations gain a roadmap for revitalizing their application landscape.

STEP 02

Set objectives and formulate a robust strategy. Consider which apps are vital for employees and customers. Objectives must focus not only on user experience but also on the financial and technological aspects.

STEP 03

Standardize the application management model for resilience and agility. Embrace automation and new ways of working within IT teams, including knowledge management and sharing.

STEP 04

Identify legacy apps that can be eliminssssated or automated. Streamline basic user requests such as password resets and workflow errors and automate basic reporting across the legacy estate, encompassing performance, user data, reporting, and dashboards.

STEP 05

Address security and governance concerns in a phased approach. Incorporate budget allocation, risk management, resource planning, and clear business cases to reduce technical debt, enhance operational efficiency, and strengthen security infrastructure.

STEP 06

Put a robust governance model in place. Monitor the legacy landscape, identify potential gaps and measure the impact of inaction and have thresholds and contingency plans in place.

By modernizing one application at a time, organizations can learn from their mistakes, strengthen their governance models and uncover the hidden costs of outdated systems, such as inefficiencies, decreased productivity, and poor user experiences.

Future Readiness in Application Modernization

Effective application management goes beyond just reviewing your applications estate and deciding to allocate a budget to maintain and monitor. In order to ensure long-term sustainability and maintenance, IT teams must keep app modernization efforts up to date and also enable them to evolve with the changing times. Key actions IT teams need to undertake in relation to application modernization include:

01

Foster agility
Promote an agile approach, employing a step-by-step strategy for a smoother transition and enhanced user experience.

02

Seek direct feedback
Go beyond SLAs and actively gather feedback from employees and customers before, during, and after changes to drive app improvements.

03

Tackle technical debt
Continuously invest in modern tools and skilled professionals to reduce technical debt.

06

Maintain transparent communication
Keep stakeholders informed and address their concerns throughout the app modernization process.

05

Utilize the right tools and tech
Leverage appropriate tools and technologies to streamline app modernization projects.

04

Foster innovation culture
Cultivate an environment of innovation to facilitate quick adoption of new technologies and processes.

07

Prioritize training
Invest in employee training for effective use of new technologies and processes.

Wipro Case Study

Modernizing the Application Landscape for a Global Tech Giant

A multinational computer technology company with a global presence and over $90 billion in annual revenue embarked on a journey to become future-ready. They aimed to modernize their application landscape and transition essential applications to a cloud-native and microservices-based architecture. To support this transformation, Wipro established a modern DevOps environment, implemented continuous integration, designed a development pipeline, and improved application hosting. Through Wipro's engagement, the client successfully achieved their vision, resulting in improved availability, scalability, and enhanced performance of critical applications.

Read the full case study here

Final Thoughts

Managing legacy applications and technical debt is not one-size-fits-all; it's about innovation, access to the right skills, and the ability to scale maintenance and management operations. Embracing application modernization is not merely a choice but a necessity to ensure an organization's potential for growth and innovation.

Key Takeaways for Modernizing Legacy Applications:

Here are suggested next steps to help IT teams start on their application modernization journey:

01

Assess and prioritize legacy applications
Evaluate your existing application portfolio to understand maintenance costs and security risks. Use frameworks like Gartner's "7 Rs of App Modernization" to categorize applications and guide decision-making.

02

Engage employees for user-centric transformation
Collaborate with employees to understand the challenges they face with legacy applications. Align modernization projects with user feedback to ensure a seamless transition and ongoing improvement.

03

Align modernization efforts with the customer journey
Evaluate your customer journey to identify areas where modernization can enhance user satisfaction. Develop a well-defined business case and a shared vision to ensure modernization projects contribute to your organization's success.

By starting with these first three steps, organizations can proactively address the challenges associated with legacy applications, reduce technical debt, and improve operational efficiency while meeting the expectations of both users and customers.

Find out more about [Wipro's Application Modernization services here](#)

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