



Do what matters

# Legacy ERP: Holding you back from Generative AI?

Why now is the time to modernize  
and migrate legacy ERP to cloud





**Traditional legacy enterprise resource planning (ERP) systems often struggle to meet the demands of today's business environment, in particular their inability to integrate the Generative AI-driven capabilities that are transforming ERP in many organizations. This short paper examines why these outdated systems restrict flexibility and prevent companies from adopting advanced AI features.**

**This paper will help business leaders to evaluate the strategic transition towards AI-enabled ERP, providing more context for this shift and its implications for efficiency and competitiveness. This is especially relevant as many legacy on-premise ERP systems approach end of life, such as SAP ECC, which will be unsupported from 2027.**

## **Why Generative AI matters for ERP**

Generative AI is a branch of artificial intelligence, built on Large Language Models (LLMs) with deep learning features. Combined with natural language capabilities and the ability to analyse and understand context, generative AI Applications can create novel and practical business content, such as text, audio, video and automated processes, based on existing data. Generative AI has the potential to transform many industries and domains, by enabling new levels of efficiency, creativity, personalization and innovation.

Modern ERP systems embedded with generative AI do more than automate — they transform business processes. AI-enhanced ERP systems streamline operations by automating routine tasks like data entry, data matching and trend analysis, which speeds up activities and reduces errors for more reliable results. These systems also leverage vast data for intelligent decision-making, enhancing accuracy in areas such as financial planning, inventory management and supply chain forecasting. Additionally, AI-driven ERP systems can adapt quickly to market changes and new technologies, boosting agility and supporting continuous innovation to maintain a competitive edge.

However, to fully harness the power of generative AI, businesses need to have a robust and flexible data infrastructure that can support the data-intensive and compute-intensive nature of generative AI models. Unfortunately, many organizations still rely on legacy on-prem systems that are outdated, siloed and incompatible with the requirements of generative AI.



# How Legacy ERP systems fail to support generative AI

ERP systems are comprehensive software applications that integrate and automate many business processes, including accounting, inventory, production, sales, and human resources. These systems truly “run” the business — they’re essential for the efficient and effective management of any organization, as they provide a centralized and consistent view of business data and operations, facilitating coordination and collaboration across departments.

ERP systems support better decision-making, cost reduction, quality improvement and customer satisfaction. However, many organizations are hindered by outdated legacy ERP systems that are siloed and incompatible with contemporary business demands and technological advancements.

Many legacy ERP systems, initially developed decades ago, have not kept pace with evolving business needs and technological advancements. These systems face several significant limitations that impede the adoption of AI-enabled capabilities:



## Lack of scalability

Legacy ERP systems often rely on monolithic architectures that are inherently rigid. They limit the ability to adapt to the fluctuating demands of modern business operations. AI-enabled solutions require environments capable of dynamically scaling to manage diverse workloads and large data volumes. Legacy ERP systems are constrained by outdated hardware, software and infrastructures and lack scalability and flexibility.



## Lack of data quality and accessibility

Legacy ERP systems typically operate on proprietary standards and formats that hinder interoperability and complicate analysis across different systems. They struggle to communicate or exchange data with other systems, complicating the integration of data from varied sources. AI systems thrive on high-quality, readily accessible data, but legacy ERPs often contain isolated data silos that are inconsistent and prone to errors.



## Lack of innovation and integration

AI technology is rapidly evolving, requiring ERP systems that can swiftly adapt and integrate with new tools and technologies. Legacy ERP systems frequently lag in this area, lacking the agility to seamlessly incorporate the latest innovations or to connect effectively with other platforms and tools. This not only hampers their current operational efficiency but also limits their potential to support AI and other technology advancements.

These barriers underscore the urgent need for businesses to transition from legacy ERP systems to more advanced, AI-compatible platforms, which are designed to overcome these challenges and enhance business agility and intelligence.

## Is your ERP ready for what's next?

Consider the following questions to decide if it might be time to upgrade to a more modern solution:

### 1. Can your current ERP scale efficiently

Does your ERP handle increased workloads or downscale easily during slower periods without significant manual intervention or cost?

### 2. Has your ERP system inherited decades of customization?

Does the sophistication of your system make it complex to maintain and difficult to simplify for agility gains?

### 3. Is your ERP system interoperable with modern platforms?

Can your ERP seamlessly exchange and integrate data with other systems and tools you currently use, such as CRM systems, business intelligence tools, or new software applications?

### 4. Does your ERP support advanced security and compliance needs?

Are you confident in your ERP's ability to protect sensitive data and ensure compliance with current regulations like GDPR? Does it include features like threat detection and data loss prevention?

### 5. Are you able to leverage AI and machine learning capabilities?

Can your ERP system use AI to provide predictive analytics, automated workflows, and enhanced decision-making?

### 6. How customizable and flexible is your ERP?

Can you tailor your ERP to meet specific business needs without extensive custom coding or costly IT projects? Does it offer both cloud-based and on-premises deployment options?

### 7. Does your ERP system facilitate real-time data access and analysis?

Can you access and analyze data in real-time to make informed decisions quickly, or are you stuck waiting for batch processes to complete?

### 8. Is your ERP system causing delays or inefficiencies?

Are there specific business processes or functions that are slower or less efficient because they're constrained by your ERP capabilities?

### 9. Do you face high maintenance and upgrade costs?

Are the costs of maintaining and updating your ERP system significant, especially when compared to the potential benefits of a newer system?

### 10. Is your ERP provider still actively supporting and updating the system?

Are you still receiving updates and security patches, or has the system reached its end of life, or is support due to cease in the near future?



## Dynamics 365 ERP: A modern solution

Dynamics 365 Finance and Operations is an AI-powered, cloud-based platform that effectively addresses the shortcomings of legacy ERP systems, offering advanced capabilities to businesses looking to enhance their operational efficiency:



**Scalability:** Dynamics 365 is built on cloud infrastructure that provides the flexibility to scale resources based on business demands. This ensures that businesses can adapt quickly to changes without the need for significant infrastructure investments.



**Interoperability:** Designed for high interoperability, Dynamics 365 uses open standards to facilitate seamless data exchange and integration with other systems. It integrates natively with Microsoft products such as Office 365, Microsoft Teams, and Power BI, thereby enhancing productivity and collaboration.



**Advanced security and compliance:** Dynamics 365 incorporates the newest security features to ensure data protection and compliance with global standards. These features include threat detection, data loss prevention, and robust compliance tools that help businesses safeguard data.



**AI-enhanced capabilities:** As an AI-powered ERP platform, Dynamics 365 uses artificial intelligence to provide advanced analytics, predictive insights, and automated processes, which enhance decision-making and operational efficiency.



**Customization and flexibility:** Extensive customization options allow businesses to tailor Dynamics 365 to their specific needs. With support for both cloud and on-premises deployments, Dynamics 365 provides the flexibility to choose the best setup for your specific IT and business requirements.

## What's next for your ERP?

Organizations that are still relying on legacy ERP systems are missing out on the many benefits and advantages of modern ERP solutions. Soon, you will have to choose between upgrading to your current vendor's cloud solution (something akin to a full reimplementation), or leveraging this window of opportunity to jump into simplification and process harmonization on the most modern, cloud native and AI enabled ERP platform.

Dynamics 365 ERP is a powerful, flexible and scalable solution that can help organizations overcome the limitations of legacy ERP and unlock the full potential of their business.







## Why Avanade?

Avanade has spent nearly a decade partnering with Microsoft to help clients use AI to achieve things never possible before. Now, Avanade's privileged access to the development of Microsoft's Copilot solutions, combined with our long-standing experience of how to make the most of your existing Microsoft investments, enable us to help you more quickly ready your people, processes and platforms for AI and to responsibly scale AI to unlock more value and growth and transform your business.

**Only Avanade is the #1 strategic partner for Microsoft technologies, with more than 90 Microsoft Partner of the Year awards including 18 wins as Microsoft SI Partner of the Year. Our expertise, resources and credentials include:**

- 6,500+ Dynamics 365 experts with 7,000+ Microsoft certifications
- #1 worldwide in Dynamics certifications
- 70 Dynamics 365 Delivery Centers in 20 countries
- Avanade's expertise, together with the technology of Microsoft and the industry experience of Accenture, create a unique and powerful combination.
- Avanade named a Leader in the [The Forrester Wave™: Microsoft Business Applications Services, Q1 202](#)
- Avanade and Accenture named a Leader in the [Everest Group PEAK Matrix®: Microsoft Dynamics 365 2023](#)

To learn more, connect with an expert for guidance on your [Cloud ERP readiness](#) today.



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