

# Intelligent Architecture: **The Foundation for AI Success**



# Introduction

Artificial intelligence (AI) is heralded as the most transformative technology of our time, promising to revolutionize how organizations operate, compete, and deliver value. Yet, the reality for most enterprises is sobering: 95% of IT-driven AI initiatives fail to deliver measurable business impact, despite [\\$30–40 billion](#) in enterprise investment<sup>1\*</sup>. This striking statistic is not just a cautionary tale – it is a wake-up call for CIOs who are now under immense pressure to deliver tangible results from AI that drive competitiveness, productivity, and financial performance.

The root cause of this high failure rate is rarely the technology itself. Instead, it stems from a lack of alignment across leaders, a mismatch between AI projects and core business objectives, insufficient governance, and the inability to integrate AI into the fabric of enterprise data, processes, and applications. Too often, organizations treat AI as a series of disconnected experiments – pilots that never scale, “science projects” that never deliver value, and tools that create more confusion than clarity. This leads to wasted resources, lost momentum, and growing skepticism about AI’s true value.

# There is a Path to AI Success

The difference between organizations that struggle and those that thrive is not the size of their budget or the sophistication of their algorithms, but rather several key factors, including whether they take an intelligent architecture approach. This next-generation framework for enterprise architecture (EA) is designed specifically for the demands of AI transformation. It enables a dual approach to AI initiatives, allowing organizations to apply EA discipline to AI initiatives (ensuring alignment, governance, and integration) while simultaneously leveraging AI to make EA itself more intelligent, automated, and strategic. This two-sided framework, which is powered by an AI-optimized EA platform, provides the foundation needed to move from experimental AI pilots to scalable, value-driven implementations. In addition, intelligent architecture (IA) improves the organization's ability to identify critical AI projects and execute a holistic AI strategy.

**This paper outlines critical steps CIOs must take to establish an IA and improve AI success, whether their AI initiatives are 1. just starting and, therefore, focused on driving enablement and adoption, or 2. established and, therefore, focusing on driving enterprise scale.**

## KEY TAKEAWAY

...by employing a purpose-built intelligent architecture framework that introduces a new level of automation, integration and real-time insight.

# Opportunities and Risks for CIOs

The application of AI represents a tremendous opportunity for CIOs to increase their impact on business success and to further strengthen and elevate their strategic role within the enterprise. With AI, CIOs are uniquely positioned to drive innovation, unlock new efficiencies, and deliver measurable business outcomes that elevate the entire organization. By leading the charge on AI enablement and adoption, CIOs can move beyond traditional IT management and become architects of business strategy.

However, this opportunity comes with tangible risks. CIOs are under pressure to deliver the value of AI and to do so quickly. They must, therefore, balance the need for speed with the planning and thoughtful management needed to reduce those risks. Rushing AI initiatives without the right foundation can lead to costly missteps and loss of control. **One of the most pressing risks is the rise of “shadow AI” – where departments or individuals deploy AI tools outside the oversight of IT.** This not only undermines the authority of IT and the CIO, but also introduces serious risks, including data leakage, compliance failures, and reputational damage. One example of the risks that can arise from poorly formed AI initiatives is [Amazon's Just Walk Out](#) cashier-less checkout technology. Amazon had to pull back the tech from US grocery stores after failing to deliver reliable results, resulting in significant negative press, loss of consumer trust, and hundreds of millions of dollars of investment.<sup>ii</sup> [Major AI failures can erode public trust](#) by at least 20% and drop company value by up to 50%.<sup>iii</sup>

## To seize the opportunity and avoid the pitfalls

CIOs need the right tools and frameworks to enable rapid, safe, and value-driven AI adoption. Success with AI requires more than enabling adoption; it demands a focus on high-impact applications that drive business outcomes, not just research projects or technology experiments. **AI is not the goal – business outcomes are.** Organizations that fail to prioritize and govern their AI initiatives risk falling into the same trap as the 95% whose pilots never deliver value.



Major AI failures can erode public trust by at least 20% and drop company value by up to 50% after severe incidents.

PwC. (2025). Quantifying the value of Responsible AI | PwC.

### Action items for CIOs:

- **For companies focused on driving AI enablement and adoption**
  - Take ownership of your AI strategy and prevent shadow AI from taking root
  - Identify and prioritize high-impact, business-aligned AI use cases
- **For companies focused on driving enterprise scale for AI**
  - Build governance and architecture to enable safe, scalable, and value-driven AI adoption



# Success Pillars of AI

**Three foundational pillars are essential for CIOs aiming to deliver AI success rapidly and at scale.**

## 1. Intelligent Architecture: The Foundation for AI Success

AI has evolved from a novel technical capability to a core enterprise asset. To harness its full potential, organizations must move beyond traditional EA and adopt an IA.

IA represents a fundamental shift in how organizations approach AI adoption. It encompasses two complementary initiatives:

1. Applying EA discipline to AI initiatives to ensure they are strategically aligned, properly governed, and integrated into the enterprise, and
2. Leveraging AI to make the EA function itself more intelligent, automated, and strategic.

**Together, these initiatives address both the 95% AI failure rate and the need for EA to evolve beyond manual processes.**

### Apply EA discipline to AI initiatives

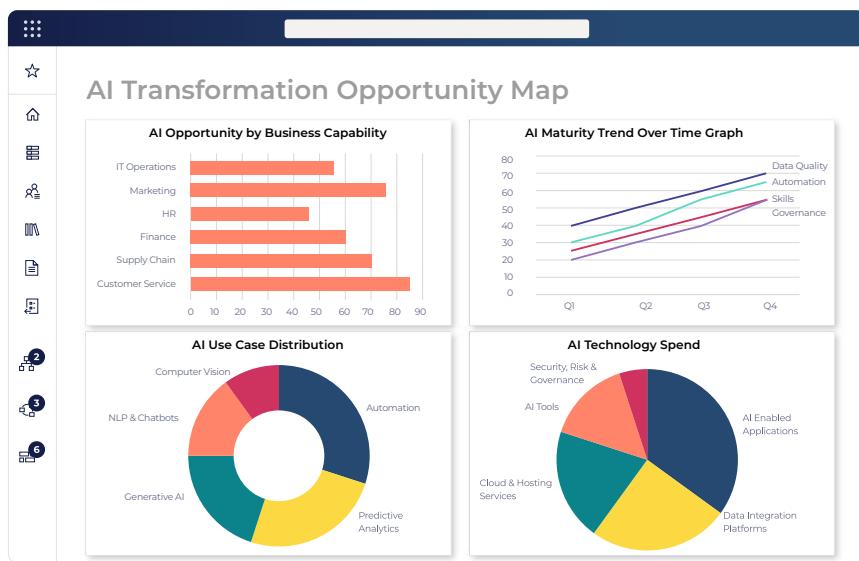
A critical element of AI success is to treat AI like any other enterprise capability. As an enterprise capability, AI should be subject to the same rigorous architectural discipline used for ERP systems, data platforms, and cloud infrastructure. This is where most organizations fail: they treat AI as something fundamentally different that requires entirely new approaches, when in reality, EA provides exactly the systematic framework needed to make AI successful.

EA provides the structure to ensure AI initiatives align with business strategy, integrate seamlessly with existing systems and processes, and deliver measurable value. By applying proven EA principles to AI, organizations can:

- Ensure AI initiatives align with business strategy and deliver measurable value
- Integrate AI seamlessly with existing data, processes, and applications
- Establish proper governance frameworks to manage risk and ensure compliance
- Move beyond experimental pilots to scalable, enterprise-wide implementations that drive real business outcomes
- Track ROI and business outcomes systematically

## Leveraging AI to increase speed and reach of EA

Traditional EA platforms focus on long-term planning, governance, and the alignment of IT with business strategy. Even as modern EA platforms have become more agile and iterative, they still largely rely on manual processes for discovery, documentation, and governance. While these platforms provide visibility and control, they often struggle to keep pace with the complexity and speed of AI-driven change, especially changes involving agentic AI systems.



An IA framework relies on an EA platform designed for the demands of AI transformation and leveraging AI to add speed and reach to the EA capability itself. It introduces a new level of automation, integration, and real-time insight that traditional and even modern EA platforms cannot match. Key differentiators include:

**Automated discovery of applications using AI:** IA uses AI and other means to continuously scan the enterprise landscape to identify applications that are deployed, where AI is being deployed, and where AI could add value. This benefits the organization by providing up-to-date transparency and allowing IT to react to changes in real time.

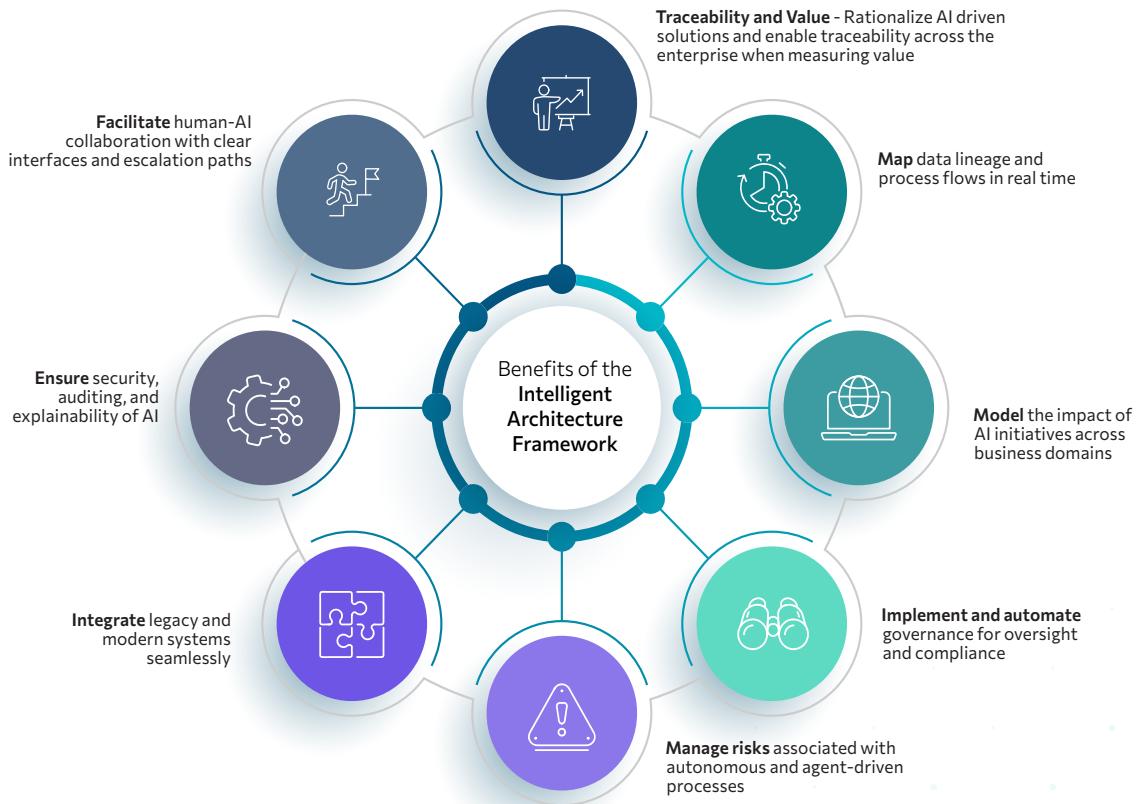
**Automated governance and risk monitoring:** IA uses automation and IT to enforce a holistic, risk-based assessment framework. It automatically scores risks and allocates controls; embeds design-time governance through approved technologies, reference patterns and guardrails; and continuously monitors the risk, value, control maturity, and effectiveness of AI processes. AI-driven EA can democratize the planning and governance processes, extending the reach of EA principles to a far wider audience.

**Integrated business architecture:** By tightly coupling business and IT architecture, Intelligent Architecture enables organizations to co-create AI strategy with business stakeholders, measure and monitor the business value of every AI project, and ensure alignment with strategic goals.

**Simulation capabilities:** Increasingly, Intelligent Architecture is enabling organizations to use AI to define the business and IT strategy itself. By creating a living, digital replica of the enterprise (a Digital Twin of an Organization, or DTO), IA enables leaders to simulate the impact of AI-driven changes before they are implemented – de-risking innovation and accelerating value realization.

## Benefits of the intelligent architecture framework

As organizations adopt increasingly complex, autonomous, and agentic AI systems, the limitations of traditional EA becomes clear. The IA framework enables organizations to:



## 2. Discover the Critical Use Cases

Not all AI initiatives are created equal. Many organizations waste resources on research-oriented projects that do not transform the business. The key is to identify and prioritize high-impact use cases that drive real value. These include:

**Process automation:** Streamlining repetitive tasks and workflows

**Insight generation:** Leveraging big and fast data for predictive analytics and real-time recommendations

**Strategic and operational decision support:** Providing forward-looking intelligence to enhance decision-making

**Pattern recognition:** Detecting and responding to complex patterns in unstructured data such as images, audio, and text

Departments may move quickly with AI pilots, but without a logical, governed approach, shadow AI can spiral out of control. Successful organizations use their Intelligent Architecture to identify, prioritize, and track high-value AI use cases, ensuring alignment with business objectives and measurable outcomes.

### 3. Embed AI Across People, Platforms, and Products

For AI to deliver its full potential, it must be thoughtfully embedded across the enterprise:

**Empowering people:** Use AI to automate tedious tasks, freeing employees for higher-value work. Provide training and change management to drive adoption and ensure AI works for people.

**Enhancing platforms:** Integrate AI into core business platforms (ERP, CRM, HR, etc.) for real-time insights and automation. Ensure platforms are flexible, modular, and secure.

**Elevating products:** Embed AI in products to deliver new customer value, such as personalization and predictive features. Apply the right guardrails for ethical use, content quality, and risk management.

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Enterprise architecture has always been the blueprint for change. With AI, it becomes a living system – adaptive, automated, and capable of guiding the business in real time.”

— Steve Fulton, CEO, Orbus Software



#### Key considerations for CIOs:

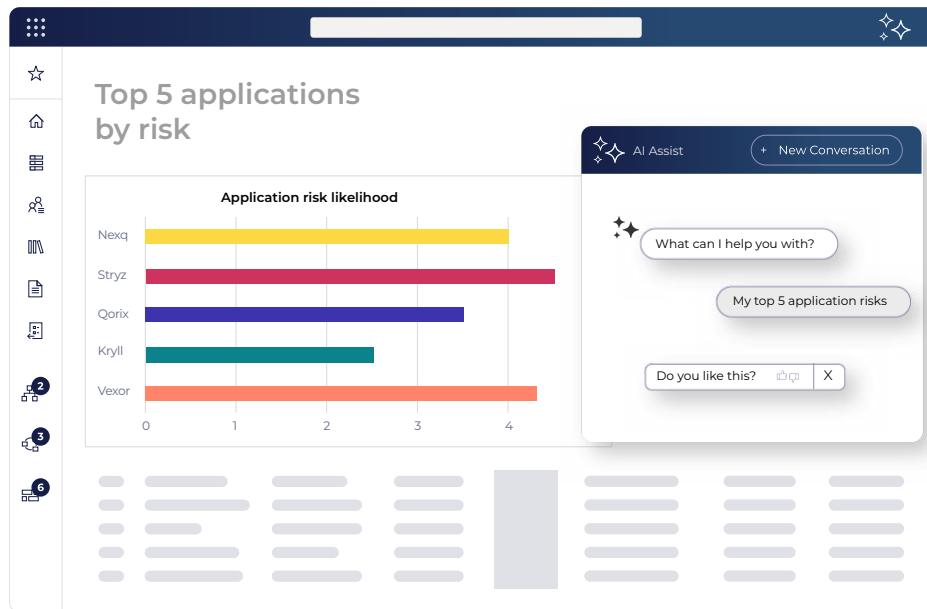
- For companies focused on driving AI enablement and adoption
  - How will AI impact your people, and how will you support them?
- For companies focused on driving enterprise scale for AI
  - Which platforms need to be AI-enabled, and how will you ensure integration and security?
  - How will you embed AI in products while maintaining quality, ethics, and compliance?

A holistic AI strategy – covering people, platforms, and products—supported by Intelligent Architecture, is essential for monitoring, measuring, and optimizing AI's impact across the enterprise. A clear view of relevant information.

# Building Your Intelligent Architecture with OrbusInfinity

OrbusInfinity®, which is recognized by Gartner®, Forrester®, and other third parties as a leading EA platform, is an essential element of an IA approach to AI. The platform provides the capabilities and frameworks required to model, govern, and optimize AI at scale, including:

- AI-enabled functions to enhance the productivity of enterprise architects
  - **Natural Language Assistant:** Offers conversational, context-aware support, such as summarizing repository content, generating natural language queries, navigating views, and making role-based recommendations to accelerate modeling, analysis, and decision-making. This assistant not only makes architects more productive, it also can improve organizational efficiency by democratizing enterprise architecture data beyond the core architecture team.
  - **OrbusInfinity Flow (an Integration Platform as a Service, iPaaS):** Embeds AI steps in deterministic workflows and exposes them using the Model Context Protocol (MCP), enabling seamless orchestration of tasks and real-time data exchange between OrbusInfinity and third-party applications, including collaboration tools.
  - **Reference Model Generation:** Automatically creates architecture reference models, logical models, and standardized taxonomies (e.g., business capability hierarchies, value streams, data models), providing rapid, industry-adapted baselines for EA work.
  - **AI Charts:** Instantly generates charts and dashboards from natural language prompts, including auto-generated database queries and formatting, democratizing access to architecture and performance insights for all users.



- Agentic AI capabilities to automate tasks and assist enterprise architects
  - **Agent Library:** Intelligent agents that automate EA tasks, generate contextual recommendations, and provide page or repository summarization—enabling both technical and non-technical users to access and act on architecture insights.

- **AI Workflows:** Automates complex EA processes such as object mapping, object description generation, AI discovery, triaging, and solution architecture baselining—supported by multi-agent orchestration for high productivity and data quality.
- **Integrations-as-Agents:** Exposes and triggers integrations to third-party applications and data sources via the AI Assistant by exposing OrbusInfinity Flow endpoints via MCP.

Hundreds of leading companies in financial services, insurance, healthcare, government, and other industries rely on OrbusInfinity for their enterprise architecture planning and execution. For government agencies, the company offers OrbusInfinity Government, which is FedRAMP authorized and listed on the FedRAMP Marketplace.

## The Strategic Value of OrbusInfinity

For CIOs seeking to maintain control over AI adoption and deliver meaningful business results, applying enterprise architecture discipline to AI initiatives is essential. OrbusInfinity provides the tools needed to embed governance, structure, and transparency into every stage of AI deployment, ensuring that innovation is both rapid, well-managed, and scalable.

CIOs using OrbusInfinity can turn architecture into a true driver of competitive advantage by leveraging the platform to:

- **Apply EA discipline to AI initiatives:** Use automated workflows and reference models to ensure every AI project is aligned with business strategy, properly governed, and integrated with existing systems.
- **Maintain visibility and control:** Leverage AI-powered discovery and semantic search to identify and monitor AI assets, risks, and dependencies across the organization.
- **Improve compliance and risk management:** Automate classification and tracking of AI-related risks and controls, supporting proactive compliance and reducing exposure.
- **Enable cross-functional collaboration:** Provide business stakeholders with accessible architecture insights and planning tools, fostering alignment and shared ownership of AI outcomes.
- **Add speed to their organization:** Use agents, multi-agent orchestration, and integration capabilities to automate the EA function and extend EA capabilities beyond their core architecture team.

By using OrbusInfinity to manage AI initiatives, CIOs can maintain strategic control over AI, drive needle-moving results, and ensure that every initiative is both innovative and accountable.



# Expert Guidance and Insights from Slalom and Orbus

Since 2020, Slalom and Orbus have partnered to help government and commercial organizations reimagine and rebuild complex business processes and EA capabilities. Today, the companies offer the strategic guidance, EA frameworks, and technology foundation needed to help CIOs apply EA principles to AI and succeed with IA. Slalom drives adaptive organizations, helping clients deploy AI agents and achieve operational efficiencies through a people-centric, impact-focused approach. Orbus enables businesses to build a tailored, IA with the award-winning OrbusInfinity EA platform. Together, Slalom and Orbus are committed to partnering with you on your AI journey – enabling change, driving results, and supporting long-term value.

**Ready to move from AI pilot purgatory to real business value?** Get started on your journey to high-impact, high ROI AI with Slalom and Orbus by contacting Orbus. Visit [www.orbussoftware.com](http://www.orbussoftware.com) for more information on the OrbusInfinity platform.



## John Joseph, VP Product Marketing, Orbus

John is the VP of Product Marketing for Orbus Software. He is a hands-on SaaS marketing leader with deep product marketing and demand generation expertise, he builds GTM foundations, opens new markets, launches products, elevates brand profile, expands globally, and activates new channels. Often the first marketer in the door, he scales teams and systems fast – driving 50%+ sales growth and helping companies become category leaders.



## M. Hans Delly, Managing Director, Slalom

M. Hans Delly is the Global Lead of Slalom's Technology Strategy & Advisory capability and business, shaping how technology enables growth, differentiation, and enterprise transformation at scale. He works with executive leaders to align strategy, talent, and execution, translating bold ambition into measurable business outcomes through technology-driven, industry-relevant solutions. Recognized for connecting vision to execution, Hans drives change by helping organizations navigate complexity and build resilient platforms that sustain competitive advantage.

#### Source:

i MIT NANDA Initiative. (2025). The GenAI Divide: State of AI in Business 2025. Fortune summary: <https://fortune.com/2025/08/18/mit-report-95-percent-generative-ai-pilots-at-companies-failing-cfo/>.

ii Fast Company. (2025). The hidden data problem killing enterprise AI projects - Fast Company.

iii PwC. (2025). Quantifying the value of Responsible AI | PwC.

#### ABOUT ORBUS SOFTWARE

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.

**Find out how OrbusInfinity can benefit your business**

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