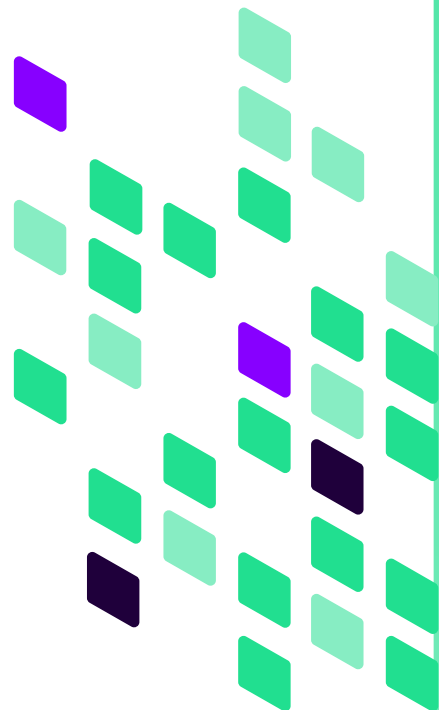




Prompt Engineering for Enterprise Architects: **The Conversational AI Playbook**

September 2025 Edition



Foreword

Enterprise Architecture has always been about zooming out to the bigger picture. Connecting strategy to execution, technology to business outcomes. But the pace of change today is unlike anything we've faced before. AI is rewriting the rules of how we gather insights, make decisions, and deliver value.

We're at an inflection point. Those who learn to lean in and harness AI (not as a novelty, but as a practical sparring partner) will be able to translate months of analysis into minutes, and shape strategies with unprecedented clarity and data-backed decision intelligence.

This white paper is a hands-on guide for doing just that. It's designed to help Enterprise Architects, CIOs, and strategy leaders use EA strategies and data-driven architecture with AI through skillful prompt engineering. Inside, you'll find real-world use cases, ready-to-use prompts, and practical advice for embedding conversational AI into the way you work.

The future of EA is intelligent, connected, and conversational. My hope is that this guide will help you take the first steps toward that future and inspire you to keep experimenting, refining, and sharing your own breakthroughs.

Let's lead the change, together.

Erik Bakstad
CEO at Ardoq



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Introduction

The Age of AI in Enterprise Architecture

As GenAI moves from novelty to necessity, EAs are uniquely positioned to drive its meaningful application across the enterprise. Whether you're streamlining stakeholder communication, accelerating roadmap planning, or extracting insight from technical documents, prompt engineering is a powerful new tool in the EA toolkit.

This guide is designed to help you apply AI in a practical way. It uses prompts that mirror how you already work and delivers measurable speed and clarity in your day-to-day decisions. It is platform agnostic and ready to use.

While some advanced teams are exploring contextual engineering and system-level architectures, this guide focuses on more immediate, introductory opportunities. It is designed to help EAs apply prompt engineering to quick-win use cases to unlock faster clarity, stronger alignment, and real impact in the work they are already doing.

The right prompt turns AI from a novelty into an earnest intern. For time and resource-strapped EA teams, effective prompt engineering is becoming essential. It is not a side quest, but a core part of how architects turn complexity into clarity for themselves and their organizations.

Why Does Prompt Engineering Matter for EAs?

Most prompt guides currently available are built for developers, sales, or marketers, where outputs are often concrete and transactional. Architecture is different. Enterprise Architects work in ambiguity, navigating trade-offs, aligning business and technology, and asking questions that rarely have a single right answer.

To get meaningful value from GenAI, EAs need to frame prompts with context such as business domains, constraints, and goals. They must also ask for structured, reasoned outputs that reflect the complexity of their decisions. A superficial question leads to shallow insights. A well-crafted one can surface deep patterns, challenge assumptions, and unlock faster clarity.

As one architect put it: “Where developers want code, architects want clarity. Many use AI to generate content, but architects use it to reason through complexity.” [\[source\]](#)

We are also entering a “**zero-click**” world where leaders expect instant answers, not endless slide decks. Thanks to conversational AI, they want to be able to ask questions like “Which systems pose the highest risk?” and get a clear, actionable response on the spot. Gartner calls this the rise of “meta-tools” that make EA insights accessible to everyone, not just architects. For EAs, this means one thing: **prompting is now a core skill**. In this world, EAs who master conversational AI can make their expertise accessible across the enterprise, not just for other architects, but for all decision-makers. If you want your knowledge to drive decisions at the speed of thought, you need to speak AI's language.

Having direct, secure access to live data is a baseline expectation for an EA platform serving the modern enterprise. Leading EAs are leveraging much more to enhance their value to the business and need platforms that offer the latest capabilities to support this experimentation and evolution of approach. For example, Ardoq has introduced an AI Gateway using the Model Context Protocol (MCP), a secure bridge that lets AI assistants directly query the architecture model in plain English. With such tools, an EA or even a CIO could ask, “What's the downstream impact of removing Salesforce?” and get a structured answer drawn from real architecture data. This playbook will show not only what prompts to use for common EA scenarios, but how to pair them with your data to drive tangible outcomes.

We're at a turning point. Those who quickly master prompt engineering will be able to reduce months of analysis to minutes and translate complexity into action. This playbook helps Enterprise Architects, CIOs, and strategy leaders apply GenAI with precision to move faster, think strategically, and deliver measurable impact. The skills you build today will define your effectiveness tomorrow.

Let's dive in.

Prompt Engineering 101 for Enterprise Architects

Before diving into use cases and templates, let's cover the basics of effective prompting as they apply to enterprise architecture.

How LLMs “Think”: Large Language Models such as ChatGPT, Claude, or Gemini do not store or retrieve facts in the way a traditional database would. Instead, they predict the next most likely word based on the patterns they have learned from massive datasets. This makes them highly effective at synthesizing information and generating coherent text, but they rely entirely on the context you provide.

For Enterprise Architects, this means prompts must be clear, grounded in real organizational data, and structured with intent. When questions are vague or too open-ended, responses can be inaccurate or entirely fabricated. This is known as hallucination. The quality of the output depends heavily on the clarity and completeness of the prompt.

Prompting Best Practices: To apply AI effectively in an architectural context, keep these five principles in mind.

1. Ground Prompts in Context

Include the relevant business domain, scope, goals, and known constraints. For example, recommendations will vary depending on whether you are referencing a bank's IT portfolio or a retail landscape. Without this context, AI will generalize or default to irrelevant assumptions.

2. Be Explicit About the Outcome You Want

Clarify whether you need a list of options, a ranked recommendation with rationale, or a structured risk assessment. Define the output format when possible. For instance, consider requesting tables, bullet points, or narrative summaries to enhance precision and usability.

3. Prompt for Reasoning and Trade-Offs

Architectural decisions are rarely binary. Ask the AI to outline multiple options, explain its reasoning, and highlight pros and cons. This enables you to explore the design space and evaluate alternatives, rather than receive a single default response.

4. Treat Prompting As Iterative

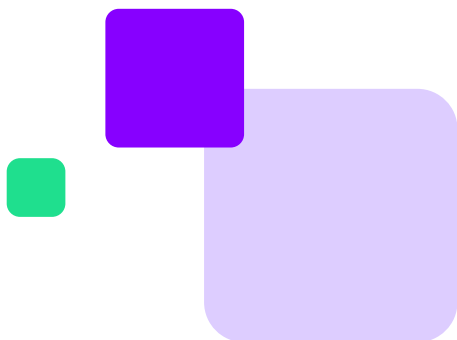
LLMs rarely provide the perfect answer on the first attempt, especially for complex, domain-specific queries. Expect to refine your prompts, build on prior outputs, and drill down into details. Effective prompting should be treated as a dialogue, not a one-off transaction.

5. Retain Final Judgment

AI can accelerate your thinking, but it cannot replace your architectural standards, organizational priorities, or professional accountability. Use it as a strategic assistant that supports your analysis, not as the final authority.

By applying these principles, AI becomes a practical tool for accelerating clarity and improving decision-making. The next section introduces real-world EA scenarios with ready-to-use prompt templates. Each one outlines when and how to use it, what information to include, what kind of output to expect, and how to refine results for greater impact.

(Note: The prompts can be used with your AI of choice, whether OpenAI's ChatGPT, Anthropic's Claude, Google's models, etc. We'll also highlight how using Ardoq can enhance many of these prompts by providing real-time architecture data.)



Core EA Use Cases and Prompt Templates

This chapter focuses on **six high-impact use cases** that reflect common challenges faced by enterprise architects. These scenarios are drawn from patterns we see across our customer base, and are designed to be broadly relevant to EA teams working across industries and maturity levels.

Use Case #1: Application Rationalization

For an EA looking to move from reactive reporting to proactive portfolio management, this workflow is a game-changer in smarter IT cost management.

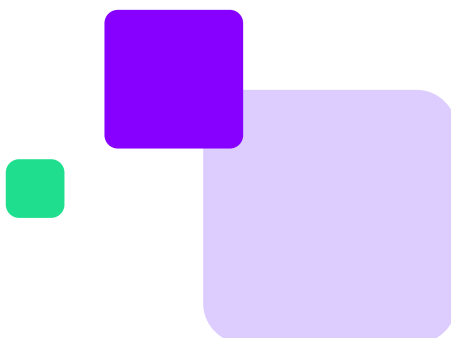
WHAT: Identify redundant, underused, or costly applications in the portfolio for consolidation or retirement.

WHY: Reduce IT spend, eliminate duplicative functionality, and free up budget for innovation. This is often a quick win for cost cutting and simplifying the IT landscape.

WHO: Enterprise Architects, IT Portfolio Managers, CIOs, and Transformation Leads who need to trim the application portfolio and communicate decisions to stakeholders.

Why Move to an AI-Assisted Way of Working?

Rationalizing applications means looking through loads of data. What apps you have, how much they cost, how often they're used, and whether they're still valuable. Normally, this takes **weeks of digging through spreadsheets**. But with the right AI prompt, you can feed in that data and quickly get a clear list of which apps to keep, retire, or combine. It's like having an assistant scan your entire portfolio and say, "Here's where you're wasting money, and here's what to do about it." This saves time and helps you **make smarter decisions, faster**.



Prompt 1

Accelerate Application Portfolio Triage

Goal:

Quickly triage an application list to spot potential redundancies or retirement candidates. Start small, validate the approach, then scale to the full portfolio.

Context:

Connect MCP Server or export a short list of applications you know well. Export basic attributes such as owner, cost, usage, and criticality. Run the prompt, then review the AI's reasoning against your own knowledge. Once you're confident, expand to a larger set of apps. To improve the quality of recommendations, add more attributes over time (e.g., business capability mapping, integration data, technical lifecycle stage, or compliance requirements). Ardoq makes this easier by keeping these attributes connected in one place.

The Prompt (for the AI):

"You are an enterprise architect reviewing our application portfolio. Here is a table of applications with their business capabilities, annual cost, usage frequency, and criticality. Analyze this data and recommend which applications should be considered for rationalization or decommissioning, and why. Provide the output as a table with columns for Application, Recommendation (retain, retire, migrate), Reason, and Risk Level."

Expected Output:

The AI should produce a table of recommendations with clear reasoning. This gives you a starting point for further analysis. For example:

Application	Recommendation	Reason	Risk Level (Impact)
App A	Retire	Low usage, high cost	Low (isolated system)
App B	Retain/Migrate	Critical system, but legacy tech – plan upgrade	High (core business process)
App C	Retire	Duplicate functionality with App B	Medium (needs data migration)

How to Refine:

If the output feels too shallow, add more context into the prompt. For example:

- "Include which business capabilities or processes each app supports."
- "Consider dependencies and downstream systems before making recommendations."

Ardoq's help articles on [Application Rationalization](#) provide detailed criteria and rationale you can copy into prompts to improve reasoning quality. This ensures AI outputs are grounded in industry best practice, not just surface-level patterns.

Prompt 2

Get a Stakeholder-Ready Executive Summary for Rationalization

Goal:

Summarize the rationalization plan for executive stakeholders (CIO, CFO, etc.) in a concise, persuasive way. Use this prompt after you have identified candidates to prepare high-level talking points or slide content.

Context:

Use the output of your rationalization analysis, either by using Prompt 1 and refining the output or the result of your own analysis. This analysis should include a list of target apps to retire or consolidate, with key facts such as savings and impact. If using Ardoq, you might already have a report or tags on apps marked for retirement along with cost-saving estimates.

The Prompt (for the AI):

*"You are preparing a brief for the CIO on our application rationalization. **Based on the following list of applications and the rationalization recommendations** (provide the list or summary from Prompt 1), draft an executive summary. For each targeted application, give 2-3 bullet points highlighting: what the recommendation is, the key business benefit (such as cost saving or risk reduction), and the next step (e.g., timeline or action owner). Use clear, professional language suitable for a board-level presentation."*

Expected Output:

The AI should produce a series of bullet points, grouped by application. These bullets are executive-ready, focusing on savings, risk, and action, which is what leaders care about. For example:

App A:

Retire – Eliminating this redundant system will save ~\$50k annually; No critical dependencies identified, minimizing business impact. Next: Decommission by Q4 after migrating remaining data.

App B:

Migrate (Modernize) – Legacy core system that poses increasing risk; Moving to a supported platform will reduce outage risk and improve scalability. Next: Initiate replacement project planning (target Q1 kickoff).

How to Refine:

If the tone or details aren't correct, you should adjust the prompt. For instance: "Make the tone more formal and remove any technical jargon." Or: "Add one bullet explaining what happens if we don't take this action, to underscore urgency." This can make the output more compelling and persuasive. Lastly, once you have the draft, prompt the AI: "What might a skeptical CFO push back on in this summary?"

Prompt 3

Challenge the Plan (Devil's Advocate)

Goal:

Avoid blind spots by stress-testing your rationalization plan. Use this prompt to have the AI generate counterarguments or risks for retiring a given application - essentially playing devil's advocate. This ensures you're prepared to address objections and mitigation strategies when finalizing recommendations.

Context:

Select an application you are planning to retire or consolidate. Gather any available context on it, e.g., whether it's tied to a specific process, has a user base, etc. In Ardoq, you can pull up dependency maps or integration info for this app to feed the AI more insight into what depends on the given application.

The Prompt (for the AI):

"As an enterprise architecture assistant, list the top 3 reasons we might regret retiring [App X] (for example, hidden dependencies, stakeholder resistance, compliance issues). For each reason, suggest how we could mitigate that risk if we proceed with decommissioning."

Expected Output:

A list of potential pitfalls and mitigations. For example:

- 1. Unseen Dependencies** - App X might be feeding data to an undocumented downstream HR system. Mitigation: Conduct a thorough impact analysis using application dependency data (e.g., from Ardoq) before retiring, or run parallel systems for a transition period.
- 2. Compliance Requirements** - App X retains historical data needed for regulatory compliance. Mitigation: Archive the data in a read-only repository or migrate it to compliant storage before decommissioning.
- 3. User Resistance** - Some departments rely on App X's unique features. Mitigation: Engage those users early, provide an alternative solution or workarounds, and include them in testing the replacement.

This output helps you preempt the "Yes, but—" questions from stakeholders by having answers ready. It brings a balanced perspective to your plan and demonstrates that you are effectively preempting risks and broader operational concerns beyond just cost.

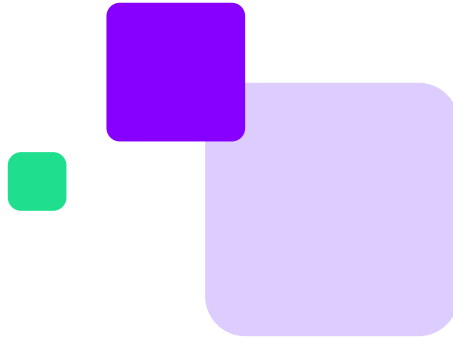
How to Refine:

If the AI misses a known concern, you can prompt further: "What about data migration concerns? Include any data loss risks in the reasons." Or ask for more mitigation ideas if the suggestions are too high-level. The goal is to flesh out a robust risk plan around the rationalization decision.

Bonus: How Ardoq Powers Smarter App Rationalization

Rationalizing apps works best when your application portfolio's data is current and connected. With Ardoq, you can feed your live application inventory straight into AI prompts. For example, Ardoq's MCP integration lets you include app costs, owners, and usage details so the AI can base its answers on real, up-to-date information. You can even ask questions like "Which apps should we eliminate and why?" and get grounded, auditable answers using Ardoq's metadata. The result is faster, fact-based decisions you can stand behind.





Use Case #2: Business Capability Mapping

For EAs needing to clarify how strategy, processes, and applications intersect, this use case reveals interdependencies with speed and precision.

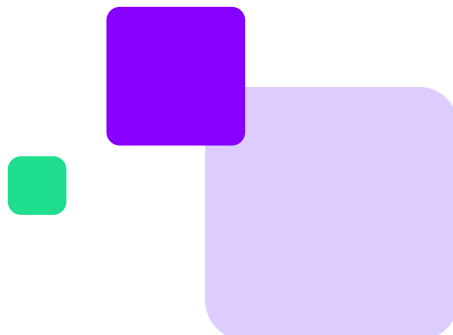
WHAT: Map business capabilities to systems, processes, or value streams. Understand how well your IT supports what the business needs to do, often via a capability model, to identify gaps or overlaps in capability support.

WHY: Ensure strategic alignment and spot areas where investment is needed (capability gaps) or where multiple systems support the same capability (potential rationalization). Capability mapping is key for communicating IT's role in business terms and planning transformation roadmaps.

WHO: Enterprise Architects and Strategy Leads, Business Architecture teams, CIOs driving business-IT alignment, and any EA tasked with creating capability models or heatmaps.

Why Move to an AI-Assisted Way of Working?

Creating and analyzing a capability map is tricky. You're trying to connect strategy, business goals, applications, and sometimes even processes all at once. Thankfully, AI can help simplify things. Give it a list of capabilities and the systems that support them, and it can quickly show you where you have gaps (capabilities with little or no support) or overlaps (too many systems doing the same job). It can also turn technical info into a clear story that's easy to share with stakeholders. In short, AI helps you make sense of the mess and spot where to invest, consolidate, or improve.



Prompt 4

Analyze Capability Coverage

Goal:

Quickly assess how well business capabilities are supported by IT systems, and spot gaps or overlaps. Start by letting AI help build the capability-to-application mapping, then refine the analysis.

Context:

Creating capability-to-application connections manually is often time-consuming. AI can speed this up. Begin with a list of applications (with descriptions and owners) and a capability model. Ask AI to suggest which applications likely support which capabilities, then validate a small set you know well. Once the mappings look reasonable, expand to the broader portfolio. Ardoq can supply the structured capability model and application catalog, which makes this process faster and easier.

The Prompt (for the AI):

“You are an enterprise architect. Here is a list of business capabilities and a list of applications with their descriptions. Suggest an initial mapping of which applications support which capabilities. Highlight any capabilities with no mapped applications.”

Refine with additional prompting:

“Using this capability-to-application mapping, analyze coverage. For each capability, state whether it is well-supported, under-supported, or over-supported, and why. Present the findings in a table with columns for Capability, Support Level, Reason, and any gaps or redundancies.”

Expected Output:

The AI should produce a table such as:

Capability	Support Level	Reason	Gap/Redundancy
Customer Onboarding	Well-supported	Covered by CRM and legacy tool, though legacy could be retired	Redundancy
Data Analytics	Over-supported	Four separate tools providing similar analytics across departments	Redundancy
Mobile Sales	Under-supported	No mobile app, reps rely on desktop CRM through browser	Gap

This highlights where capabilities are missing proper IT support and where too many systems are doing the same job.

How to Refine:

If the output is too generic, add more attributes into the prompt:

- “Include business criticality and maturity ratings, and prioritize high-criticality capabilities.”
- “List the specific overlapping systems for each redundant capability.”
- “Recommend which system should be retained as primary when multiple exist.”

Pro Tip: Ardoq’s help articles on [Capability Modeling](#) include detailed rationale that can be pasted into your prompts to improve the AI’s reasoning.

Prompt 5

Check Strategic Alignment

Goal:

Check if IT initiatives and systems are aligned to strategic business capabilities or if there are important capabilities with little investment. This prompt helps bridge the gap between high-level strategy and the IT landscape.

Context:

You'll need two pieces of input:

- The organization's strategic priorities or key business capabilities (e.g., top 5 capabilities that are critical for the 3-5 year strategy)
- The list of current projects or major systems mapped to those capabilities. In Ardoq, you might use a Strategy-to-Capability map or Portfolio dashboard that links initiatives to capabilities.

The Prompt (for the AI):

*"Act as an Enterprise Architecture advisor. Our company's strategy emphasizes the following capabilities: [provide list of strategic capabilities/objectives]. **Here is a list of current IT projects and systems with the capabilities they support** (provide mapping if available). Identify any strategic capabilities that appear to be **under-invested** (i.e., few or no projects/systems supporting them) and any areas where we might be **over-investing** in lower-priority capabilities. Provide recommendations for realigning investment, e.g., if Capability X is critical but under-supported, suggest increasing focus there."*

Expected Output:

The AI might produce an analysis similar to the following:

Capability: Real-Time Analytics (Strategic Priority)

Only one minor project (upgrading reporting database) supports this. **Under-invested.**

Recommendation: Initiate a dedicated analytics platform project or re-prioritize resources to this capability, as it's key to a data-driven strategy.

Capability: Legacy System Maintenance

(Not a stated strategic priority). Three ongoing projects are focused on maintaining legacy systems. **Potential Over-investment.**

Recommendation: Reevaluate these projects; consider whether funds can be shifted to more strategic modernization efforts, or if legacy maintenance can be minimized.

Capability: Customer Experience (Strategic Priority)

Multiple systems (CRM, Mobile App, Web Portal) are already in place; the current roadmap has two more projects.

Well-invested, but ensure projects are coordinated to avoid duplication.

This output highlights misalignment, such as a critical capability lacking attention or non-strategic work consuming too much budget. It directly ties architecture to business strategy, which is gold for EAs to demonstrate their value to the organization.

How to Refine:

If needed, prompt it for more nuance: "Also flag any strategic capability where many initiatives exist but they might be duplicative (multiple projects tackling the same capability in siloed ways)." Or, if the output doesn't consider capability maturity: "Assume Capability X is currently weak (low maturity), adjust recommendations to emphasize improving it." Essentially, tailor the analysis to the specific needs of your strategic context.

Prompt 6

Shape a Capability Heatmap Narrative

Goal:

Transform a capability maturity or health assessment into a meaningful story or report for leadership. Often, EAs will produce a capability heatmap in the form of a colored chart showing which capabilities are strong or weak. This prompt helps with quickly generating narrative insights from that data and the “why it matters” behind the colors.

Context:

A list of capabilities with their respective maturity levels, performance score, or a rating such as a Red/Yellow/Green status. You might also include owners or related KPIs. For example, Capability A - Green (well supported, KPI X at target); Capability B - Red (gaps in systems, KPI Y below target), etc. Such data could come from an Ardoq capability model assessment or a consulting report.

The Prompt (for the AI):

*“You are an Enterprise Architect reviewing our capability assessment. **Here are the business capabilities with their current maturity ratings and notes** (provide a list of capabilities with status and any notes). Write an analysis highlighting: which capabilities are strongest and why (what’s contributing to their success), which are weakest, and the impact of those gaps on the business, and any patterns or root causes (e.g., all weak capabilities belong to a certain business unit or rely on a particular outdated system). Conclude with recommended focus areas for improvement.”*

Expected Output:

A well-structured analysis in paragraph form, possibly with bullet points for recommendations. For example:

*“Our capability assessment reveals a bifurcated landscape. **Customer Engagement and Data Management** capabilities are rated Green. They benefit from modern platforms and dedicated teams, resulting in high customer satisfaction and reliable insights. In contrast, **Supply Chain Optimization and Workforce Planning** are Red, indicating significant gaps. These weaknesses stem from legacy tools and fragmented processes, causing inefficiencies (e.g., manual workarounds in supply chain planning) that impact cost and agility.*

Notably, the weaker capabilities all fall within Operations, suggesting that this domain lacked investment in the last IT cycle. This pattern points to a need for rebalancing our transformation roadmap.

***Recommendations:** Prioritize Supply Chain Optimization in the next budgeting cycle (e.g., implement an integrated planning system) and initiate a project to modernize HR planning tools for Workforce Planning. Maintaining strengths in Customer Engagement and Data Management is also key. Continue funding analytics improvements to keep Data Management world-class.”*

Such a narrative turns the raw heatmap data into actionable intelligence for executives. It explains what is wrong, why it matters, and sets up where the business needs to focus next.

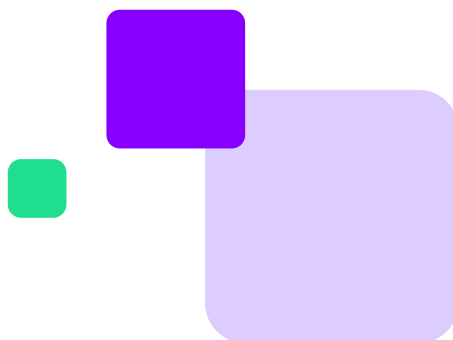
How to Refine:

If the output lacks clear linkage to business impact, you could add: “Emphasize the business outcome of each weak capability (e.g., how do Supply Chain gaps affect revenue or efficiency?).” Or if too verbose, ask for a bulleted summary of key points. Adjust style and depth as needed for your audience.

Bonus: Why Model Capabilities With Ardoq

Ardoq’s platform excels at **business capability modeling** and even offers AI assistance to build these models faster. By having a living capability map in Ardoq, you can easily pull real-time data (such as which systems link to which capabilities, capability health scores, etc.) into your prompts. Ardoq’s new AI features can draft value streams and auto-link capabilities from context, which you can then refine with prompting. The result: EAs can maintain alignment between strategy and IT dynamically, using AI to continuously gauge and communicate how well IT supports the business.





Use Case #3: IT Cost and Value Analysis

For an EA looking to speed up the transformation of raw cost data into data-driven narratives that will guide and focus decisions.

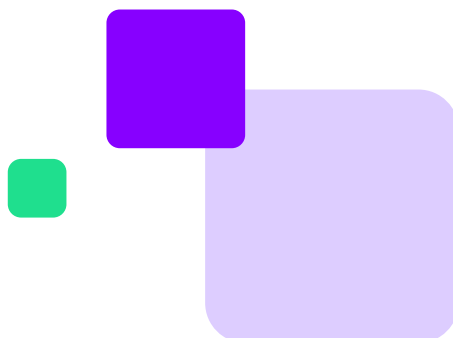
WHAT: Analyze IT costs in the context of business value, identifying high-cost areas that may not be delivering commensurate value, opportunities to optimize spend, and understanding cost distribution (by capability, department, etc.). This can include application total cost of ownership analysis, project cost/benefit analysis, and budget prioritization.

WHY: Especially in tight economic times, CIOs and EAs need to ensure IT spend is optimized. Beyond cutting costs, it's about redirecting funds to high-value activities. Having clarity on cost vs. value helps justify budgets and identify quick wins in reducing waste, such as retiring expensive systems with low usage or overlapping licenses.

WHO: CIOs, Enterprise Architects involved in portfolio management or financial governance, IT Finance teams, and strategy leaders during planning cycles.

Why Move to an AI-Assisted Way of Working?

Digging through IT spend data is time-consuming, and turning those numbers into clear decisions isn't easy. AI can't replace your CFO, but it can quickly scan cost and usage data to spot outliers, like systems that cost a lot but aren't used much. It can even suggest ways to cut costs, like swapping a custom tool for a SaaS alternative. Think of it as an on-call analyst that turns spreadsheets into insights. It can also help you explain the story behind the numbers, showing where your IT budget is going and where it might make sense to adjust. This sets you and your stakeholders up for having smarter, more focused cost discussions.



Prompt 7

Detect Cost Outliers

Goal:

Find the applications or services that are disproportionately costly relative to their usage or business importance. This prompt helps flag candidates for cost optimization (renegotiation, rearchitecting, or elimination).

Context:

You'll need a list of applications (or IT services) with their annual costs and at least one indicator of value or usage. For example, Application X - \$1M/year, 200 users, Business Criticality = Low. Ideally, data from Ardoq or your CMDB would include cost, number of users or transactions, and a criticality or business value score for each application.

The Prompt (for the AI):

*"You are an IT portfolio analyst. Here is a table of applications with their annual operating cost, number of active users, and business criticality (High/Med/Low) (insert table). Identify any **cost outliers** such as applications that have **very high cost but low usage or low business value**. For each outlier, provide a brief insight into why it's notable and a suggestion (such as investigate, optimize, or replace). Also, flag any apps that are low cost but extremely high value (to ensure they continue to be supported)."*

Expected Output:

The AI should produce a list highlighting outliers. For example:

App A: \$950k/year, 50 users, Low criticality - High cost, low usage.

Insight: This internal tool has a huge annual cost but a niche user base; likely a candidate for replacement or consolidation.

Suggestion: Investigate why the cost is high (perhaps an outdated enterprise license); consider moving to a smaller SaaS solution or retiring if not needed.

App B: \$100k/year, 10,000 users, High criticality - Low cost, high value.

Insight: Extremely cost-efficient application (maybe a shared service) with broad impact.

Suggestion: Ensure continued investment and support, as it provides great value for cost.

App C: \$1.5M/year, 300 users, Medium criticality - Disproportionate cost per user.

Insight: Costs are significant (possibly due to infrastructure or licensing) for a moderate user count.

Suggestion: Explore optimization (e.g., cloud cost tuning or license rightsizing) to reduce cost per user, or assess if usage can grow to justify cost.

This creates a focused list for cost optimization efforts. The AI has essentially helped prepare a quick value-for-money analysis.

How to Refine:

If the results aren't granular enough, you could ask: "Calculate cost per user for each application and highlight the top 10% highest cost-per-user apps." Or if you also have revenue or business value numbers: "Consider any available ROI metrics. Highlight apps with cost far exceeding their direct business value." Tailor the prompt to the aspects of cost that matter (license costs, cloud infra, etc.). If you provide those additional details, the AI can use them to refine the analysis.

Prompt 8

Get Insight Into IT Spend by Capability or Business Unit

Goal:

Provide a breakdown of IT spending in business terms, such as by capability, business function, or department, to see where IT resources are concentrated versus where the business priorities lie. This is useful for leading conversations about alignment and efficiency.

Context:

You need to have costs mapped to different business areas. This could mean a list of applications associated business capabilities for each application or owning department, as well as application cost. In Ardoq, if applications are tagged by capability or business unit, you can roll up the costs accordingly. Assemble a summary such as: Capability A - Total IT Cost \$X (from these five apps); Capability B - \$Y, etc.

The Prompt (for the AI):

*"Take the following IT spend distribution by business capability (or department) and analyze it: [insert list: Capability X - \$A million, Capability Y - \$B million, ... etc.]. Which capabilities have the **highest IT spend**, and are we **over- or under-investing** based on their importance? Identify any capability that comprises a surprisingly large share of cost and explain possible reasons (e.g., complex legacy systems driving cost). Also, point out if any critical capability has relatively low spend (potential under-investment). Provide recommendations for rebalance if needed."*

Expected Output:

The AI should produce the following insights:

Top Spend Areas: Customer Management accounts for 30% of IT spend (\$3M), largely due to the CRM and related systems. This is a high-priority capability, but spend is also high. Ensure this investment is delivering proportional value (e.g., high customer lifetime value). Another major area is Supply Chain at 25% (\$2.5M), driven by an aging ERP system. Costs here are high, possibly indicating inefficiency or technical debt.

Potential Overinvestment: The Internal Reporting capability is 15% of spend (\$1.5M) despite being a lower priority function; multiple analytics tools and data warehouses contribute to this. There may be an opportunity to consolidate reporting platforms and cut costs.

Potential Underinvestment: Digital Marketing is only 5% of IT spend, yet it's strategically important for growth. This low spend could mean the capability is underserved (e.g., limited marketing automation tools), possibly impeding marketing innovation.

Recommendation: Review the ROI from Customer Management spend to ensure efficiency. Investigate the Supply Chain ERP for optimization or modernization to reduce cost. Redirect some investment from Reporting (after consolidation) to bolster Digital Marketing tools, aligning spend with strategic importance.

This kind of commentary helps justify budget shifts in business terms. It shows stakeholders where money is going and proposes shifts to better align with the business' strategy.

How to Refine:

If you have benchmarks or external data, you could add: "Benchmark our spend distribution against industry averages (if known) and identify variances." Or if the AI is too generic, ask for specifics: "Name the top 1-2 cost drivers (systems or projects) in each high-cost capability." That way, the output becomes even more actionable (e.g., "ERP in Supply Chain costs X, contributes Y% of total IT spend").

Prompt 9

Draft a Cost Optimization Plan

Goal:

Generate a preliminary set of cost-saving ideas and their impact, which you can then refine. Think of it as an AI-assisted brainstorming of how to reduce IT costs while minimizing business impact.

Context:

Provide context like: total IT budget, any cost reduction target, and known constraints (for instance, “no layoffs” or “maintain customer-facing service levels”). You might also input known expensive areas from the results of Prompt 7 or 8. For example, “We spend \$50M on IT annually, with major costs in infrastructure and licensing. Goal: find ~\$5M in savings. Constraints: avoid impacting revenue-generating systems.”

The Prompt (for the AI):

*“You are a FinOps expert assisting an enterprise architect. **Given our IT budget and cost breakdown** (describe key points or high-cost areas) **and a mandate to cut 10% of costs**, propose a cost optimization plan. Include 3-5 specific initiatives, each with an estimated saving and a note on impact. Prioritize initiatives that reduce waste or tackle low-value spend (e.g., decommissioning unused applications, consolidating vendors, optimizing cloud resources) over those that cut critical capabilities. Present the plan as a list of initiatives with savings and impact.”*

Expected Output:

The AI should produce something like:

- 1. Application Rationalization:** Retire or consolidate 10% of low-utilization applications (e.g., legacy or duplicate tools). Estimated Savings: \$2M (license and support costs). Impact: Low impact on business if carefully chosen; improves efficiency.
- 2. Cloud Cost Optimization:** Rightsize cloud resources and eliminate idle instances (especially in non-prod environments). Estimated Savings: \$1M (20% of current cloud spend). Impact: Minimal if governance is in place; use cloud monitoring tools to ensure no major performance hits.
- 3. Vendor Contract Renegotiation:** Review top software licenses (CRM, ERP) for excess seats or features. Estimated Savings: \$0.5-1M through contract optimization. Impact: Low, assuming usage is trimmed to actual need.
- 4. Freeze Low-Value Projects:** Pause or cancel initiatives that do not align with strategic priorities (could free up contractor and tool costs). Estimated Savings: \$0.5M by stopping non-essential work. Impact: Medium. Ensure stakeholder agreement on what is ‘low-value’ to avoid surprises.
- 5. Legacy Infrastructure Modernization:** Migrate expensive on-prem systems to more cost-effective cloud or SaaS alternatives (target one high-cost legacy system). Estimated Savings: \$1M (over a few years). Impact: Medium. Requires initial investment and careful migration, but yields long-term savings and agility.

Summed up, these initiatives might meet or exceed the \$5M target. The output also provides rationale and notes on impact, which is helpful for discussions with finance and leadership.

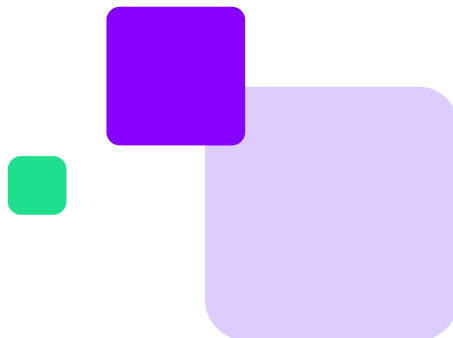
How to Refine:

You can ask the AI to adjust the focus: “Give more creative ideas around operations or staffing costs.” Or “Rank these initiatives by quickest return.” If the suggestions are too generic, provide more specific details from your environment and ask for tailored solutions. The AI can even draft an executive summary of this plan if you ask: “Now summarize the above into a one-paragraph statement for the CIO.”

Bonus: Using Ardoq for Cost Analysis

When your cost data lives in Ardoq and you connect it to MCP, AI becomes much more useful. You can ask questions like “Which apps are high-cost and low-criticality?” and get answers instantly, pulled from your live data, without any need to build additional spreadsheets. Ardoq dashboards also show costs by capability or business unit, giving you context to feed directly into prompts. The result is faster, more accurate cost analysis you can trust. By combining Ardoq with prompt engineering, EAs can uncover savings opportunities and back them up with real data.





Use Case #4: Technology Risk and Compliance Assessment

For EAs tasked with exposing risk and compliance gaps, this use case delivers clear, defensible outputs to support control and remediation.

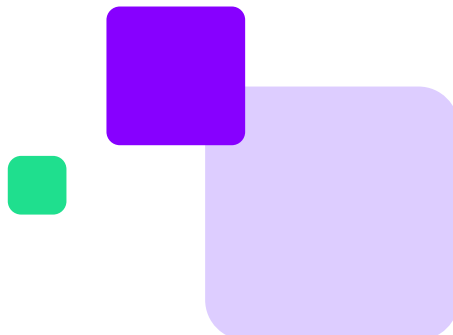
WHAT: Identify and assess technology-related risks in the architecture landscape. This includes things like aging technology (e.g., end-of-life software, unsupported systems), single points of failure, security vulnerabilities, and compliance gaps (e.g., missing controls or data privacy issues). It often overlaps with IT risk management and governance processes.

WHY: Proactively managing tech risk prevents costly incidents and ensures compliance with regulations. EAs often coordinate with security and compliance teams to remediate risks in systems architecture. By surfacing risks early and tying them to business impact, enterprise architects can guide smarter investments in risk mitigation and avoid nasty surprises like a critical system failure or costly audit finding.

WHO: Enterprise Architects, Technology Risk Officers, CISOs and their teams, IT Compliance/Governance roles, and any EA involved in portfolio risk reviews or audit preparation.

Why Move to an AI-Assisted Way of Working?

Risk analysis involves a lot of data in different places, like what tech you're using, which versions, known security gaps, and which systems fall under which regulations. Typically, it takes ages to pull all that together. With AI, you can ask a simple question like "Which apps are using outdated databases?" or "Which systems hold personal data but aren't encrypted?" and get answers fast. It also helps explain risks in clear language for reports, like "This system is high-risk because..." Think of it as a nonstop risk analyst, scanning your IT setup and flagging issues before they become problems.



Prompt 10

Scan for Technology Obsolescence

Goal:

Find technologies in your environment that are outdated or near end-of-life, which pose operational or security risks. Use this to generate a list of tech components that need upgrades or replacement.

Context:

An inventory of applications or infrastructure with their key tech stack info: e.g., operating system, database, major frameworks, version numbers, and, if possible, the end-of-life (EOL) dates or support status. In Ardoq, you might have a report of all software versions in use. If not, even a list like “App A - runs on Windows Server 2012; App B - uses Oracle 19c DB; App C - built on AngularJS”, etc., will do.

The Prompt (for the AI):

*“You are an IT risk analyst. **Here is a list of systems with the technologies and versions they use** (provide inventory data). Identify any components that are **outdated or nearing end-of-life support**, and explain the risk briefly (e.g., security vulnerabilities, lack of vendor support). Prioritize the list by severity (e.g., obsolete core system is the highest risk). If known, suggest the modern equivalent or upgrade path (e.g., upgrade Windows version or migrate off a legacy framework).”*

Expected Output:

The output flags obsolete tech and gives reasoning. It creates an actionable tech debt “hit list” ranked by urgency.

App A - Windows Server 2012: *EOL in October 2023*

Risk: No security patches are currently available, leaving the system vulnerable to exploits; compliance risk for any data on this server.

Action: High priority to upgrade to Windows Server 2019 or 2022.

App B - Oracle 19c: *Supported but entering extended support soon.*

Risk: Increasing maintenance costs and reduced update frequency; plan for upgrade to newer LTS version or cloud-managed database to ensure long-term support.

App C - AngularJS front-end: *Framework is obsolete (EOL), succeeded by Angular (modern).*

Risk: No updates or community support, potential incompatibility with modern browsers; developers are hard to find for old tech.

Action: Rewrite front-end with Angular 14+ or an alternative modern framework within 1-2 years.

App D - Custom COBOL service: *Runs on mainframe, legacy code.*

Risk: Knowledge concentration risk due to the rarity of COBOL developers, high maintenance cost.

Action: Investigate refactoring or re-platforming as part of modernization strategy.

How to Refine:

If the list is too generic, ensure you provided enough detail. You can also ask: “Include any known CVEs or security issues for each obsolete component if possible.” (The AI might not have specific CVEs unless provided, but it could generalize, e.g. “unpatched OS has known exploits.”) Or: “Focus on items that impact critical systems first.” This ensures the analysis is risk-aligned, not just listing every old component, but those that matter most.

Prompt 11

Summarize Security Posture

Goal:

Summarize the security posture of the application portfolio and highlight high-risk applications (e.g., those handling sensitive data without proper controls, or known to have vulnerabilities). This is useful when preparing reports for risk committees or planning security investments.

Context:

Input needed might include which applications are customer-facing or handle sensitive data, any known security ratings or incidents, and vulnerability scan results if available. Even high-level evaluations on vulnerabilities such as “App X has five high-severity findings open” can provide useful context. If using Ardoq, you might have a field for data classification per application (Public, Internal, Confidential, etc.) and perhaps integration with security tools that mark which systems are high risk.

The Prompt (for the AI):

*“You are a CISO’s assistant reviewing our application portfolio security. **Here is an overview of each application, including any known risk factors** (e.g., data sensitivity, recent vulnerability scan results, criticality): (provide list). Identify which applications should be considered **high risk** from a security perspective and why. Highlight factors like handling of sensitive personal data, internet-facing without MFA, outdated libraries, or past breaches. Then suggest high-level mitigation priorities such as which ones to address first and how (patch, add controls, etc.).”*

Expected Output:

You should receive a bulleted list or a short paragraph per flagged app, for example:

App X: High-Risk. Handles sensitive customer PII and financial data; currently lacks multi-factor authentication and has several unpatched vulnerabilities from the previous scan.

Why it’s risky: An attacker breach here could expose confidential data and incur compliance penalties.

Mitigation Priority: Very High. Plan: Implement MFA and critical patches within the next quarter; perform a security audit.

App Y: Medium-Risk. Internal HR system with personal data. Not external-facing, but uses an older encryption protocol for data at rest.

Risk: Insider threat or data leak due to weak encryption.

Mitigation: Medium priority. Schedule upgrade of encryption and tighten access controls.

App Z: High-Risk. Public-facing web app, critical to operations. Up-to-date on patches, but single sign-on is not implemented, and users often reuse passwords.

Risk: Account compromise could disrupt service.

Mitigation: High priority to integrate with corporate SSO and enhance monitoring.

Others might be Low-Risk if they do not handle sensitive data and are properly controlled. These should be noted as well.)

This provides a clear risk heatmap of your apps and actionable next steps. It’s essentially an AI draft of a section in a risk assessment report, saving substantial manual collation.

How to Refine:

If certain details are missing such as the AI missing something you know, you can prompt: “Also mention compliance impact (like GDPR or SOX) if relevant for each high-risk app.” Or: “Provide the output sorted by risk level, highest first, and limit to top 5 apps for brevity.” Adjust it to suit the report or decision meeting you might be preparing for.

Prompt 12

Analyze Compliance Gaps

Goal:

Check architecture for any areas not meeting specific regulatory or compliance requirements (e.g., missing disaster recovery plans, lack of data retention policy, etc.). This prompt is useful if your organization has specific standards, such as “all critical systems must have a recovery time < X”, and you want to identify gaps, their implications for risk, and propose a possible remediation plan.

Context:

List out known compliance requirements or policies alongside the current status for each system if you have it. For example: “Policy: All customer data must be encrypted at rest - System A: Yes (encrypted), System B: No (unencrypted DB)”, or “Requirement: PCI DSS for systems processing credit cards - App C: Compliant, App D: Not assessed.” If you don’t have a structured list, you can describe a few key policies and which parts of the estate they might affect.

The Prompt (for the AI):

*“Act as an IT governance analyst. Our policies/standards include: (provide list of policies and standards). **Here is the current state of select systems relative to these policies** (provide information on system statuses, e.g., which systems are compliant or not). Identify any **compliance gaps or risks**, which systems are out of compliance or potentially non-compliant with these standards. Explain the implications (e.g., risk of fines, operational risk) and suggest what remediation is needed (for example, implement encryption, improve monitoring, formalize an architecture review process for changes, etc.).”*

Expected Output:

The result should be a structured checklist of where you stand against key compliance items, which is extremely helpful for audit prep or risk meetings.

Encryption at Rest (Policy: All sensitive data must be encrypted)

Gap: System B is not encrypting its database of customer info.

Implication: Violates internal policy and possibly GDPR/CPRA requirements, putting customer data at risk if breached.

Remediation: Enable encryption or migrate data to an encrypted store; target completion ASAP to avoid audit findings.

Disaster Recovery (Policy: Critical systems RTO < 4 hours)

Gap: System D (core billing) has no tested DR plan; estimated RTO ~24 hours currently.

Implication: Doesn’t meet business continuity requirements; prolonged outage possible in a disaster, financial and reputational impact.

Remediation: Develop and test a DR solution (e.g., active-passive failover) for System D; classify it as high priority in IT roadmap.

PCI Compliance

Gap: System X processes credit card payments but hasn’t undergone a PCI DSS compliance check.

Implication: Potential non-compliance with industry standards; could lead to penalties or required compensating controls.

Remediation: Conduct a PCI compliance audit for System X; apply required security measures (network segmentation, logging, etc.) as needed to certify compliance.

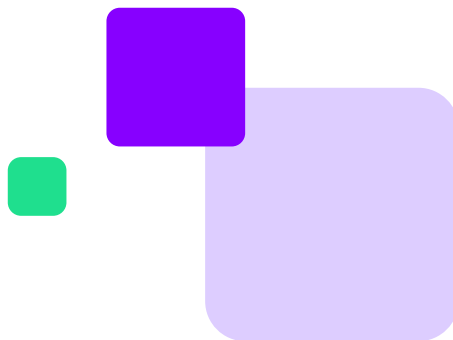
How to Refine:

If you have many policies, you might limit the scope: “Focus on the highest-risk compliance areas (data privacy, continuity, and financial reporting).” Conversely, if you need more, ask: “Include any best-practice gaps even if not formal policy (like lack of cloud cost governance if that’s a risk).” The AI can incorporate general IT governance aspects if prompted.

Bonus: How Ardoq Helps With Risk and Compliance

Keeping risk and compliance data up to date is hard. Ardoq makes it easier by storing everything in one place, including tech stacks, data classifications, control status, and more. With AI, you can ask questions like “Which high-criticality apps are on unsupported tech?” or “Which systems hold customer data, and are they encrypted?” and get instant answers from your live Ardoq data. Thanks to Ardoq’s MCP integration, those queries stay secure, respect user permissions, and never change your data. The result is real-time, reliable compliance monitoring in plain language.





Use Case #5: M&A Integration and Due Diligence

For EAs leading due diligence and integration efforts, this use case helps assess acquisition targets and define post-merger roadmaps.

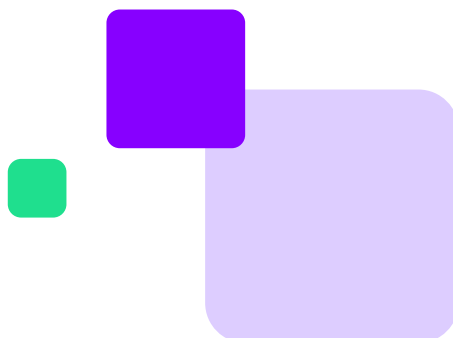
WHAT: Evaluate and plan the integration of two companies' technology landscapes during a merger or acquisition. This involves comparing application portfolios, identifying overlapping capabilities and systems, and planning how to consolidate or integrate architecture post-merger. It also covers due diligence: assessing the technology risks and costs of a target company before an acquisition.

WHY: In M&A, technology can be either an enabler or a roadblock for realizing synergies. Quickly identifying redundancies (e.g., both companies have similar CRM systems) can highlight cost-saving opportunities. Conversely, understanding integration challenges (like misaligned data models or fragile legacy systems) helps avoid costly surprises post-merger. EAs play a crucial role in creating the IT integration plan that supports the business merger goals, as well as assessing the "tech health" of acquisition targets.

WHO: Enterprise Architects, IT leaders involved in M&A planning, CIOs, and corporate development teams (for due diligence). Often, EAs will collaborate with business integration managers during an M&A.

Why Move to an AI-Assisted Way of Working?

M&A timelines are tight. You need to understand the other company's IT setup fast. AI can help by comparing two sets of data and quickly spotting overlaps, gaps, or potential issues. For example, you can give it both application lists and ask where systems do the same thing, or where integration might be tricky, such as one company using SaaS and the other relying on on-prem tools. AI can also help draft reports, such as a tech risk summary or an integration plan for executives. It takes on the heavy lifting, so you can focus on what matters: making smart, timely decisions.



Prompt 13

Identify Portfolio Overlaps

Goal:

Identify overlapping systems or capabilities between the two companies' application portfolios. This helps spot redundancy, opportunities for consolidation, or areas where each company has unique strengths.

Context:

You need two sets of data: Company A's application inventory and Company B's inventory, including these details for each system: name, purpose or business capability served, and, if available, key tech platform. Simplify it to a list of "System - purpose" for each company if needed. For example: Company A: Salesforce - CRM, Oracle ERP - Finance, etc.; Company B: Dynamics CRM - CRM, SAP ERP - Finance, etc.

The Prompt (for the AI):

*"You are assisting in an IT merger. Here are two lists of applications from Company A and Company B, with their primary business function (provide the lists). Analyze them to find **overlaps** such as areas where both companies have similar systems serving the same function. For each overlap, list the systems (A's vs B's) and note any quick comparison (e.g., one is more modern or widely used than the other). Also, highlight any critical capability that only one company has a system for (unique strengths). Output a summary of overlaps and unique systems."*

Expected Output:

The AI might produce something like:

Customer Relationship Management (CRM): Company A uses **Salesforce**, Company B uses **Dynamics CRM**.
Overlap: Both provide core CRM functionality. Note: Salesforce (A) is cloud-based and widely adopted internally; Dynamics (B) is on-prem and moderately used.
Integration Consideration: Select one as the standard post-merger. Salesforce seems more scalable.

Finance ERP: Company A - **Oracle E-Business Suite**, Company B - **SAP S/4HANA**.
Overlap: Both handle finance and accounting. Note: Different platforms; consolidation will be complex.
Consider: Keeping one for all or maintaining separate systems if the integration cost is too high in the short term.

Analytics/BI: Company A - **Tableau**, Company B - **Power BI**.
Overlap: Both provide enterprise BI dashboards. Note: Power BI (B) is tightly integrated with the Microsoft stack used by B; A's Tableau as a standalone.
Consider: Standardizing to one tool to reduce license costs.

Unique (A): Company A has a **Custom Logistics Management System** (no equivalent in B).
Strength: This could be leveraged across the combined company to improve logistics, if B can adopt it.

Unique (B): Company B has a **Machine Learning Data Lake** setup (no equivalent in A).
Strength: B's advanced analytics infrastructure might be a valuable asset to integrate and extend to A's business.

This output gives a clear roadmap of where to focus integration decisions. Overlaps indicate potential rationalization opportunities, and unique systems show what new capabilities each side gains.

How to Refine:

If the output is too superficial, you can prompt the AI to consider scale or quality: "Also indicate for each overlap which system seems more up-to-date or better supported." and provide it with the additional information needed to make the evaluation. If you have data on usage or costs of those systems, include it for richer analysis. For example, "Company A's Salesforce has 200 users, B's Dynamics has 50 users", the AI could then note which is more widely adopted.

Prompt 14

Assess M&A Integration Risks

Goal:

Highlight potential risks or challenges in integrating the two IT landscapes. This could include technical incompatibilities, major differences in technology strategy, or areas requiring significant effort, such as data migration.

Context:

Provide a summary of each company's IT environment and any key concerns that are already known. For instance, "Company A is 80% cloud, using modern SaaS for most functions; Company B is mostly on-prem with custom legacy systems. Company A has standardized data models in a data warehouse; Company B has siloed databases per app." You can list a few such points, plus additional concerns you already suspect.

The Prompt (for the AI):

*"As an Enterprise Architect evaluating a merger, **consider the two company profiles** (describe key aspects of each IT landscape). **Identify the top 5 integration challenges or risks** we are likely to face. For each, explain why it's an issue and what the impact could be (e.g., timeline delays, cost, lost data, security issues). Also, if possible, suggest a mitigation or approach to address each risk in the integration plan."*

Expected Output:

You will likely get a numbered list of risks which helps stakeholders understand that integration is not just plug-and-play; there are real challenges to plan for. It also shows that you're proactively thinking of solutions.

- 1. Cloud vs On-Prem Mismatch:** Company A's systems are largely cloud-based, while Company B runs on-premise legacy systems. Risk: Integration will be complicated by different hosting environments and may require significant data pipeline setup and network/security adjustments. Cloud vs on-prem differences could slow down data integration and user access unification. Mitigation: Early planning for hybrid cloud connectivity, consider migrating some B systems to the cloud or using integration middleware to bridge environments.
- 2. Duplicate Applications & Data Reconciliation:** Both companies have overlapping CRMs and ERPs (as identified). Risk: Merging these will involve complex data migration and reconciliation of customer and finance data. Potential data loss or inconsistency if not carefully handled. Mitigation: Assign a dedicated data migration team; consider phased approach (e.g., keep one system read-only for a period) and a robust data cleaning and mapping process.
- 3. Inconsistent Data Models:** Company A uses a centralized data warehouse with defined schemas; Company B's data is siloed. Risk: Key business entities (customer IDs, product codes) might not align, leading to confusion and integration errors. Mitigation: Conduct a data model mapping exercise early; develop a unified data dictionary for the combined entity; use master data management tools to reconcile differences.
- 4. Legacy Technology Risk:** Company B's reliance on a few, very old systems (e.g., a homegrown COBOL app) could hinder integration. Risk: These systems may not easily interface with modern tools and could become bottlenecks. There is also a risk of knowledge loss. Mitigation: Plan for encapsulation (wrap legacy in APIs) as a short-term fix; in the long term, consider accelerating the replacement of that legacy system post-merger.
- 5. Security & Compliance Alignment:** The two companies have different security standards (A uses SSO and strict IAM; B has more basic access controls). Risk: During integration, gaps could lead to security vulnerabilities or compliance breaches (e.g., if sensitive data from A flows into a less secure environment in B). Mitigation: Implement common security baseline on Day 1 (extend A's IAM to B's users or vice versa); perform security audit of cross-company connections; unify compliance policies for data handling early on.

How to Refine:

If there are particular areas of concern, for example, you suspect culture or team differences might affect IT integration, you can include that context and ask the AI to consider it. Or ask for categorization: "Group these risks by category (technology, data, process, security)." For executive presentations, you might then take these and create a risk heatmap or mitigation plan.

Prompt 15

Develop a Narrative for Post-Merger IT Roadmap

Goal:

Draft a high-level roadmap or vision for the combined IT landscape after the merger, to communicate to stakeholders. Essentially, present a concise narrative that answers: “What will our architecture look like 12-24 months post-merger and how will we get there?”

Context:

Provide the key objectives of the merger from a business perspective (e.g., reduce duplicate systems by 50%, unify customer experience, enter new markets) and any decisions already made about IT (e.g., “We will consolidate these core systems.” or “We will operate in parallel for 6 months, then integrate.”). If none is decided yet, you can describe an assumed direction.

The Prompt (for the AI):

*“You are an Enterprise Architect tasked with presenting the **IT integration roadmap** for the merged company. **Our goals:** (Provide list of goals). **Assumptions/decisions:** (Provide list of decisions, conditions, or direction). Draft a narrative that outlines the key phases of integration (e.g., Day 1, first 100 days, first year), the target state architecture vision (what our IT landscape will look like once integrated), and the strategic benefits that will result (e.g., cost savings, new capabilities, agility). This should be written in a confident, forward-looking tone for an executive audience.”*

Expected Output:

The result should read like the following:

Day 1 Post-Merger: Minimal changes to avoid disruption. Both companies’ systems run in parallel. We establish integration teams and quick wins (e.g., unified messaging and directory access for all employees).

First 100 Days: We launch key integration projects. For example, we will begin migrating Company B’s sales processes into Company A’s Salesforce CRM, creating a single view of customers. We’ll also connect our data warehouses to start building a consolidated analytics platform, allowing cross-sell opportunities to surface.

Year 1 Target State: We plan to consolidate from 2 ERPs to 1, decommissioning redundant finance systems by Q4 to realize cost synergies. Our target state architecture will feature a unified front-office: one CRM, one e-commerce platform, and a harmonized set of core platforms for Finance and HR. Legacy systems identified (e.g., B’s COBOL system) will be containerized or migrated to modern platforms, reducing risk.

Benefits: By the end of the first year, the combined company will have eliminated approximately 30% of duplicate applications, saving an estimated \$X million in licensing and support. More importantly, we’ll gain new capabilities as Company B’s data lake integrated with A’s analytics tools will give us advanced AI-driven insights. IT will be more agile and scalable, using cloud infrastructure across both former companies. This sets the foundation for future growth, with a flexible architecture that can quickly integrate new acquisitions or technologies.

Beyond Year 1: We will continue to optimize, focusing on user experience harmonization and retiring remaining redundant systems. The architecture function will monitor and guide this evolution to ensure we meet our synergy targets and maintain business continuity throughout.”

This paints a clear picture of integration with a timeline and rationale, which is exactly what executives and integration leads will want to see.

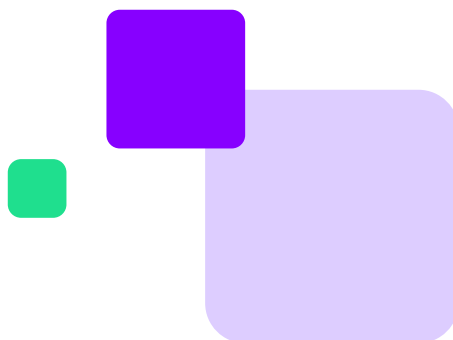
How to Refine:

Ensure the AI has the right tone. You can say “make it motivational” or “keep it concise and factual” depending on your style. If it glosses over specifics you think are important, prompt it: “Mention explicitly the consolidation of CRM and ERP, as those are important items.” Or “Highlight the cost savings figure in the final paragraph.” Essentially, treat it like a draft that you can tweak via additional instructions.

Bonus: Why Ardoq Is Built for M&A

Successful M&A requires deep analysis of two sets of architecture data. Ardoq can be a lifesaver here, allowing you to import and analyze the acquired company’s architecture to spot overlaps. Ardoq lets you create scenarios to represent future state or transition state architectures in isolation, without overwriting the current (as-is) data. It offers you a dynamic data modeling platform, while prompt engineering provides additional analysis and storytelling. Together, they make M&A planning faster, clearer, and more effective.





Use Case #6: Cloud Transformation Planning

For EAs planning cloud migration, this use case supports risk-aware, cost-effective strategies that align with business priorities.

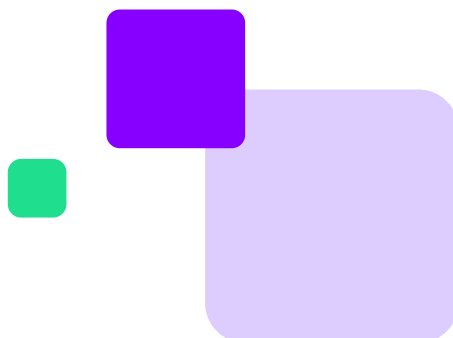
WHAT: Plan and execute the migration of applications and infrastructure to the cloud, public or hybrid. This includes assessing which applications are suitable for moving and the optimal order of migration, determining target cloud architectures (rehost, refactor, etc.), and managing the overall cloud transition roadmap.

WHY: Cloud migration is a strategic priority for many enterprises to increase agility, scalability, and potentially reduce costs. However, it's complex; not all systems are cloud-ready, and moving too fast can risk stability. EAs need to create a balanced plan that achieves cloud benefits while mitigating migration risks. Key outcomes include reduced on-prem footprint, modernized apps, and new capabilities, such as on-demand scaling and global deployment.

WHO: Enterprise Architects and Cloud Architects, CIOs overseeing digital transformation, IT Infrastructure managers, and application owners involved in modernization.

Why Move to an AI-Assisted Way of Working?

Planning a move to the cloud means looking at every app, how it's built, what it connects to, how critical it is, and what it costs. AI can look at all of that in one go and suggest the best path for each one. It can flag quick wins you can lift-and-shift easily, as well as apps that need rework or should stay on-prem for now. It can even help sketch out rollout plans or call out risks like data size or latency issues. Think of it as having an extra cloud consultant who helps you spot what to move, when, and how, without missing the tricky stuff.



Prompt 16

Assess Cloud Readiness

Goal:

Categorize applications by their cloud migration readiness and suggested approach (e.g., rehost/lift-and-shift, refactor, replace, or retain on-prem). Use this to get a quick portfolio-level overview.

Context:

A list of applications with key info influencing cloud readiness, such as technology stack, any known cloud blockers (e.g., tightly coupled to on-prem hardware, latency sensitive), compliance requirements, and current usage patterns. For example: App X - .NET 5 web app, on VMware, no known blockers; App Y - Mainframe COBOL, requires low latency to factory machines; App Z - vendor SaaS (already cloud). If you have done a Technology Assessment Matrix (TAM) or similar, include those attributes also.

The Prompt (for the AI):

*"You are a cloud migration advisor. **Here is a list of our applications with their characteristics and constraints** (provide condensed list). For each, assess its **cloud migration readiness** and recommend a migration strategy among: **Rehost** (lift-and-shift to cloud as is), **Refactor** (needs some re-architecting for cloud, e.g., break monolith or change database), **Replace** (swap out with SaaS or cloud-native solution), or **Retain** (keep on-prem for now). Present the output as a table or list with **Application**, **Recommended Strategy**, and a **one-line rationale**."*

Expected Output:

Here is an example of the expected output:

Application	Migration Strategy	Rationale
App X (Customer Portal)	Rehost to cloud VM	Modern tech stack, no hardware ties – can lift-and-shift easily to Azure/AWS. Minimal changes expected.
App Y (Factory Control)	Retain (for now)	Mainframe COBOL with real-time machine links. Cloud latency could disrupt operations; needs redesign or edge strategy before moving.
App Z (Sales SaaS)	Already Cloud (No action)	Already a SaaS solution (vendor-hosted). Ensure integration points are cloud-optimized, otherwise, no migration is needed.
App W (Internal App)	Refactor to cloud-native	Java applications with heavy stateful design; can move to the cloud, but should be refactored to use cloud DB and stateless instances for scalability.
App Q (HR System)	Replace with SaaS	Legacy HR on-prem system; rather than migrate as-is, it's better to replace this with a modern cloud SaaS (e.g., Workday) for more functionality.

This lays out a high-level game plan for each app. It helps stakeholders see that not everything is a simple lift-and-shift and that some will stay put for valid reasons.

How to Refine:

If the AI lacks detail, you might need to give more context or ask for a specific format: "Provide the rationale in terms of risk/effort vs benefit." If you want a summary count: "Also summarize how many apps fall into each category." This could yield a convenient overview: "Out of 50 apps, 20 should be rehosted, 10 need refactoring, 5 are due to be replaced, 15 should be retained."

Prompt 17

Plan Migration Waves

Goal:

Propose an order or grouping for migrating applications in waves, for example, Wave 1 (quick wins), Wave 2 (moderate), Wave 3 (complex/late). This helps structure the timeline of a cloud program.

Context:

Leverage the output of Prompt 16 or similar analysis. Quick wins are usually low complexity, high-value apps that can migrate easily. Complex ones are those that need refactoring or have high business risk. Provide any known timeline constraints (e.g., "We aim to migrate X% in year 1:").

The Prompt (for the AI):

*"We have classified our applications by migration strategy (rehost, refactor, etc.). Now help us **plan migration waves**. We want to start with quick wins and low-risk moves, and tackle complex ones later (or in parallel with proper prep). Propose 3-4 migration waves, including which types of apps go in each. Consider dependencies also. For example, if App A depends on App B, they should be in the same wave. Output a plan like: Wave 1 - description and which apps; Wave 2 - ... etc., with reasoning. Additionally, note any prerequisite tasks (setup cloud landing zone in Wave 0, train teams, etc.). The output should show a logical progression, balancing risk and reward."*

Expected Output:

Wave 1 - Quick Wins (Quarter 1-2): Migrate all straightforward rehost candidates that have minimal dependencies. Apps: Customer Portal (App X), Reporting Service, and minor internal tools.

Reason: These have low integration complexity, and users will see improved performance quickly. Establishes cloud foundations (network/VPN, etc.) early with low risk.

Wave 2 - Moderate Complexity (Quarter 3-4): Tackle apps that require some refactoring but are medium priority. Apps: Internal App W (refactor to cloud-native), Analytics Platform (needs minor redesign for cloud storage).

Reason: Use lessons from Wave 1 to handle these. They need more testing due to code changes, but bring significant value once in the cloud (e.g., improve scalability for analytics).

Wave 3 - Strategic Replacements (Next year): Plan and execute replacements of legacy systems. Apps: HR System (replace with Workday SaaS), possibly ERP module migration.

Reason: These are high-impact changes involving new platforms; they will take longer (procurement, data migration), so they should be scheduled after initial cloud experience is gained.

Wave 4 - Complex/Remain (Parallel or Later): Handle remaining complex cases and those retained. Apps: Factory Control (remain on-prem or consider specialized edge solution in future), Mainframe apps (start modernization plan).

Reason: These may remain on-prem for an extended time; separate track to gradually modernize or contain their impact (e.g., integrate with cloud via APIs).

How to Refine:

If dependencies are critical, ensure the AI knows: "App Z cannot move until App Y is moved," etc., and ask it to reflect that. If you have a target timeline, prompt it with the relevant information: "We want roughly 50% apps in the cloud by the end of the year. Ensure the plan reflects that pace." The AI can adjust wave composition accordingly and advise on feasibility.

Prompt 18

Create Cloud Benefit Projections

Goal:

Articulate the expected benefits, costs, and risks of the cloud migration in a way that stakeholders can grasp. This prompt helps create a balanced view of why the company is undertaking the cloud journey which is useful for business cases or all-hands announcements.

Context:

Provide any quantifiable goals (e.g., “expect 20% infrastructure cost reduction over 3 years, improved deployment frequency from monthly to daily, etc.”) or qualitative goals (e.g., better disaster recovery, global reach). Also note costs/investments required if relevant (e.g., “\$X million investment in cloud infrastructure and training”).

The Prompt (for the AI):

*“Act as an enterprise architect preparing the business case for cloud transformation. **Our initiative’s expected benefits:** (list of predicted cost savings, agility, new capabilities). **Planned investments:** (mention costs, e.g., training, cloud fees in transition). Draft a clear summary of the benefits of moving to the cloud, including both tangible (cost, performance) and intangible (innovation, flexibility). Note the main risks or investments required to show we’ve considered them. This should be written for senior leadership, focusing on strategic value.”*

Expected Output:

You should get a persuasive yet realistic summary:

“Migrating to the cloud will position our IT to support the business far more effectively. In tangible terms, we anticipate saving approximately 15-20% on infrastructure costs over the next three years by eliminating on-prem data center expenses and optimizing resource usage (paying only for what we use). Performance and reliability will improve. For instance, our customer portal will benefit from auto-scaling to handle peak loads, reducing downtime risk. We also unlock faster delivery: teams can leverage cloud devops tools to cut deployment cycles from quarterly to weekly, meaning faster time-to-market for new features.

Beyond cost and speed, **agility and innovation** are key gains. Cloud platforms give us access to advanced services (AI/ML, IoT, data analytics) that can be experimented with at low cost, spurring digital innovation. Geographically, our services can be made accessible with lower latency to new regions, supporting global expansion plans.

This will involve the following investments and risks: an upfront cost of ~\$5M for migration efforts and training our staff on cloud technologies. We also must manage risks around security and change management, ensuring data is secure in the cloud and our team is prepared to operate in a new model. To address this, we’ve allocated resources for cloud security architecture and comprehensive training.

In summary, this transformation is expected to not only reduce IT cost in the long run, but also to increase our business agility, resilience, and capacity for innovation. This will enable the company’s growth strategy with a modern, scalable technology foundation.”

This kind of narrative helps win support by clearly stating benefits while showing you’ve considered the challenges.

How to Refine:

If you want a bullet-point list of benefits instead of a narrative, you can request that or prompt it to emphasize specific areas: “Highlight the disaster recovery improvement as a key benefit.” Or “Add a statistic about how many minutes of downtime we’ll save.” Adjust to align with your stakeholders’ key priorities (e.g., cost when it comes to finance, growth when addressing the CEO, etc).

Bonus: Why Ardoq Makes Cloud Migration Planning Easier

With Ardoq, you always have a real-time view of which apps are cloud-ready, their dependencies, and their migration status. Use this data in your AI prompts to refine your plan as things evolve and queue the next candidates for migration. Ardoq also pulls in data from cloud discovery tools, so AI has the full picture when making recommendations. Together, Ardoq and AI give you a smart, flexible, and always up-to-date [cloud migration plan](#), plus the ability to generate reports or tweak your roadmap on the fly.



Advanced Prompt Techniques for EA

Once you're confident with foundational prompts, these advanced techniques can help unlock deeper insights and more precise outputs.

1. Break It Into Steps

Don't ask the AI to do everything at once. Start with a simple question, then build on it.

Example:

- *"List all systems supporting Capability X"*
- Then: *"What are the integration points for each one?"*
- Then: *"What breaks if one of these goes down?"*

This makes the AI's answers clearer and more useful.

2. Add Extra Information

Sometimes the AI needs more context. You can feed it relevant portions of a policy document or architecture standard and say: *"Based on this, evaluate the new design."*

You can also let AI work with additional files, such as spreadsheets or JSON exports, to run quick checks. Ardoq's Model Context Protocol (MCP) integration does this automatically by giving the AI your architecture data so it can reason with facts, not guesses.

3. Ask It to Check Its Work

AI isn't perfect, but you can prompt it to find gaps or errors in its own answers.

Example: *"What assumptions are you making in this plan?"*

You can also compare its answers to your internal standards:

"Does this risk assessment match our policies?"

Think of the AI as a junior analyst—you will still **need to double-check** its work.

4. Adjust the Tone

Sometimes it's not what the AI says, but how it says it. You can ask it to write for a specific audience:

- *"Make this executive-friendly."*
- *"Use our EA report format."*
- *"Be confident in your recommendation."*
- *"Keep it soft and suggestive."*

Small tweaks like these will help your output land better.

Using these techniques, AI becomes more than a Q&A tool, it becomes a **thinking partner**. Just make sure you are guiding it and validating what it gives you.

Building an AI-Enabled EA Practice

Applying AI at the individual level can accelerate insight and impact. Embedding it across the EA function unlocks far greater potential. Here's how to establish a safe, scalable, and effective AI practice in your organization:

1. Upskill Your Team

Not everyone will be an AI expert on day one, and that's okay. **Start small**, run training sessions, share what works, and build a "prompt cookbook" with examples from real use cases.

Encourage people to begin with low-risk tasks, like drafting documentation, and work their way up. Some teams **assign an "AI champion"** to guide others and share best practices. The goal is simple: make AI a regular part of the EA toolkit, like whiteboards or spreadsheets.

2. Add AI Into Your Workflow

Look for natural places in your existing EA process where AI can help.

Examples:

- During portfolio reviews, *use prompts* to spot cost outliers.
- In solution reviews, *ask AI to draft* alternative designs.
- After updating your Ardoq model, *run a rationalization prompt* to find new opportunities.

Don't treat AI as a one-off experiment. **Build it into your standard way of working.**

3. Keep It Safe and Governed

Data Privacy:

Never feed sensitive or personal data into public AI tools without safeguards. Anonymize or summarize where needed. Ardoq's MCP helps by giving AI secure, read-only access to your data within your environment.

Quality Control:

AI can be wrong. Always review outputs before sharing or acting on them. Treat AI suggestions like a first draft. Have a *second pair of eyes* review important prompts or results.

Be Transparent:

If AI helped shape a recommendation, say so. It builds trust and *shows your team is using modern tools wisely*.

4. Track Success

To prove AI is helping, track what changes. Examples of success metrics:

- **Time saved** on common tasks
- **Faster answers** to leadership questions
- **More scenarios** tested during planning
- **Higher engagement** with Ardoq data

Capture both hard numbers and soft wins like positive stakeholder feedback.

5. Build a Culture of Sharing

Make prompting a team sport and create a shared library of useful prompts. This could live in Confluence, Notion, or your preferred internal knowledge hub platform.

Running challenges like *"Best Prompt of the Month"* can help keep things fun and fresh. It's also important to tap the wider community too—Ardoq's user groups and forums are great places to swap ideas. Bringing AI into your EA practice is not just a tech decision. It's a team transformation.

Invest in skills, bake it into your process, keep it safe, measure the impact, and share what works.

That's how you can turn AI into a real force multiplier for your architecture team.

What's Next for AI and Enterprise Architecture?

As we wrap up this playbook, let's look ahead. The use of AI in Enterprise Architecture is just getting started, and prompt engineering is only the first step.

AI Will Become Part of the EA Team

Right now, we write prompts and review AI outputs ourselves. In the near future, AI agents will work alongside us. Imagine a chatbot that says: "I found two apps doing the same thing. Want me to draft a rationalization plan?"

That's where we're headed, and tools like Ardoq are already moving in this direction, with features that let you query your architecture model using natural language and even simulate changes. Soon, stakeholders will expect to ask enterprise questions and get instant answers. Architects will focus on validating and fine-tuning those answers.

Prompting Will Evolve

As AI models get more advanced and potentially specialized for EA, they'll need less context. But the ability to ask the right questions will remain essential.

You might move from writing prompts to designing AI workflows or using visual tools to build prompt chains. Prompting will become more about shaping how AI supports your decisions, not just generating quick answers.

Standards Like MCP Will Spread

Protocols like MCP will likely become more common. More EA tools will connect with AI, making it easier to use your data without extra prep.

Security and access control will be key, and we can expect better safeguards around what AI can see and use. Eventually, AI might even explain its reasoning more clearly, helping you trust its suggestions.

Architects Will Take on New Roles

EAs won't just manage architecture, they'll help guide how AI is used to shape it. You might:

- Curate and share prompt libraries
- Fine-tune AI models with company data
- Act as an AI coach for your team

In short, you'll help turn AI into a trusted advisor for your organization.

What's Next from Ardoq?

Ardoq is investing heavily in AI. Right now, we already offer tools like AI-assisted modeling and the AI Gateway (MCP). Soon, you may see:

- Strategy bots that recommend future states
- Real-time impact analysis
- Anomaly detection in architecture
- Community-shared prompt packs

Ardoq's goal is to make EA intelligent, connected, and conversational.

Final Thought

EAs who embrace AI will lead the next era of architecture. They'll spend less time on grunt work and more time driving smart decisions. They'll bridge strategy and execution faster than ever.

Start using the prompts and tips in this playbook, and you're already ahead. Keep experimenting, keep refining, and share what works.

***We're building the future of EA together
—with AI as a partner.***

Want to Learn More?

- Share your favorite prompts and learn from others.
- Join us, online or in person, to hear from expert EAs: [Upcoming Events and Webinars](#)
- Ask for a demo of Ardoq's AI capabilities: [Get in Touch](#)