

FREE PLAYBOOK · 2026 EDITION

The Enterprise AI Solution Architect Playbook

From Solution Architect to AI Solution Architect.

Market intelligence, AI skills and architecture decisions: a practical roadmap for experienced Solution Architects.

By AgileFever · Updated October 2026 · Sources cited

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THE ROADMAP AT A GLANCE

STAGE 01

AI Foundations

LLMs, GenAI, app patterns

STAGE 02

AI Architecture

RAG, knowledge, integration

STAGE 03

Agentic AI

Agents, tools, orchestration

STAGE 04

Production AI

Security, evaluation, cost

STAGE 05

Prove the Capability

Projects, decisions, portfolio

01 · THE SHIFT

Solution Architecture Is Changing

AI is not simply another technology added to the architecture stack. It introduces new decisions around models, data, RAG, agents, tools, security, governance, evaluation, cost and observability.

Traditional Solution Architect

- Cloud architecture
- Application architecture
- APIs & integration
- Databases
- Security
- Scalability
- Cost optimization

AI-Ready Solution Architect

- AI + cloud architecture
- LLM application architecture
- RAG & knowledge systems
- Agentic AI & tool integration
- AI security & governance
- AI evaluation & observability
- Inference cost & scalability

AI can accelerate

- Architecture research
- Documentation
- Diagram creation
- Technology comparison
- Initial design options
- Requirements analysis

The architect still owns

- Architecture decisions
- Business and technical trade-offs
- Risk
- Security decisions
- Cost decisions
- Enterprise constraints
- Production accountability

"The role is not disappearing. **The architecture problem is expanding.**"

02 · THE MARKET

Is Becoming AI-Ready Worth the Investment?

U.S. SOLUTION ARCHITECT SALARY

\$128,986/year

Average as of September 1, 2026.
25th–75th percentile: \$120,240–
\$141,653. 90th percentile: \$153,186.

Salary.com, September 2026

INDIA SOLUTION ARCHITECT SALARY

₹25 lakh/year

Average base pay, plus ₹2 lakh/year
average additional pay. Several 10–15+
year architects report ₹27–₹46
lakh/year total.

Glassdoor India, September 2026 · self-
reported

U.S. AI HIRING

~90,000

U.S. job postings mentioned Agentic
AI skills in 2025, up more than 280%
from 2024. 2.6% of all postings
mentioned AI skills, up 55%.

Stanford AI Index 2026 / Lightcast

INDIA AI HIRING

381,846

Projected AI job postings in 2026, up
32% from 290,256 in 2025, shifting
toward production AI and scalable
deployment.

foundit Insights Tracker, January 2026

What this means. AI hiring data does not equal Solution Architect hiring. But it shows where architecture demand is being created: AI integration, enterprise systems, production deployment, security, governance and scale.

03 · THE AI ARCHITECTURE STACK

What Should an AI Solution Architect Actually Understand?

Not every AI tool. Understand what each layer enables, what problem it solves, what trade-offs it creates, and

where it belongs in the architecture.

01 Foundation Models	LLMs · Model selection · Inference · Model trade-offs	e.g. Azure AI Foundry, AWS Bedrock, Google Cloud, Claude, compared on cost, latency, data residency and lock-in
02 AI Applications	Prompting · Structured outputs · AI application patterns	e.g. generating architecture documents and RFP responses from requirements
03 Enterprise Knowledge	RAG · Embeddings · Vector databases · Knowledge systems	e.g. chunking, embedding model choice, hybrid search and re-ranking
04 Agentic AI	Agents · Tool calling · Planning · Orchestration · Multi-step workflows	e.g. LangGraph, CrewAI, AutoGen, Semantic Kernel; MCP and A2A; human-in-the-loop
05 Enterprise Integration	APIs · CRM · ERP · Databases · Business systems	e.g. adding RAG and agents to monoliths, wrapping legacy APIs
06 Production	Security · Governance · Evaluation · Observability · Cost · Scalability	e.g. prompt-injection defenses, guardrails, eval harnesses, token economics, model tiering

04 · THE SKILL GAP

What Changes From Traditional SA to AI Solution Architect?

You already have	Extend it to
Cloud architecture	AI + cloud architecture
API integration	AI tools + agent integration
Data architecture	RAG + knowledge architecture
Application architecture	AI application architecture
Security	AI security + governance
Scalability	Inference + AI workload scalability
Monitoring	AI evaluation + observability
Cost optimization	Model + token + infrastructure economics
Requirements	AI use-case qualification
System design	AI system + agent architecture

5 Mistakes Solution Architects Make With AI

- 01 Starting with the model instead of the problem
- 02 Using RAG as the answer to every enterprise knowledge problem
- 03 Adding agents where deterministic workflows are enough
- 04 Designing for a successful POC instead of production
- 05 Treating security, evaluation, cost and governance as later-stage concerns

Your advantage. You already understand enterprise constraints, integration, security, trade-offs, scalability, stakeholders and production. AI adds a new layer. It does not erase the architecture experience underneath it.

05 · THE ARCHITECTURE CHALLENGE

Can You Design an Enterprise AI System?

The scenario

A global enterprise wants an AI assistant that can:

- Answer questions from internal company knowledge
- Retrieve information from approved sources
- Access CRM and ERP systems
- Execute selected business actions
- Respect employee permissions
- Provide traceable responses
- Operate securely at enterprise scale

Which architecture would you choose? Pick one to see the reasoning.

A Traditional Application

B RAG

C AI Agent

D RAG + Agent + Enterprise Tools

The Architect's Decision Framework

- 01 **Qualify the use case.** What business outcome are we solving?
- 02 **Determine the AI requirement.** Does the problem actually require AI?
- 03 **Assess the data.** What information does the system need?
- 04 **Choose the architecture.** Traditional application, RAG, workflow, agent or combination?
- 05 **Design the integration.** What enterprise systems must the AI access?
- 06 **Design the controls.** Authentication, authorization, data protection and governance.
- 07 **Design for production.** Evaluation, monitoring, failure handling, latency, cost and scale.

Requirement	Best fit
Retrieve enterprise knowledge	RAG
Follow predictable business steps	Workflow
Dynamically choose tools/actions	Agent
Strict deterministic logic	Traditional application
Knowledge + actions	RAG + agent/tool integration

The principle. Use the simplest architecture that reliably solves the business problem. More AI does not automatically mean better architecture.

06 · THE ROADMAP

From Experienced Solution Architect to AI Solution Architect

Work through the stages in order. Each one ends with something you can do, not just something you know.

STAGE 01 · UNDERSTAND AI Foundations	LLMs · GenAI · AI application patterns	You can: explain what a model can and cannot do, and compare platforms on cost, latency and data residency.
STAGE 02 · LEARN AI Architecture	RAG · Knowledge systems · AI integration · Architecture patterns	You can: design a retrieval pipeline and decide when RAG is the wrong answer.
STAGE 03 · LEARN Agentic AI	Agents · Tool calling · Orchestration · Enterprise workflows	You can: choose between a workflow and an agent, and place human-in-the-loop control points.
STAGE 04 · MASTER Production AI	Security · Governance · Evaluation · Observability · Cost · Scalability	You can: threat-model an agentic system, forecast inference cost, and define how output is evaluated.
STAGE 05 · BUILD Prove the Capability	Enterprise AI architecture projects · Architecture decision documents · Production-ready designs · AI architecture portfolio	You can: defend a full architecture package to engineering, security and business stakeholders.

Self-check: can you confidently answer these?

0 of 10

- ☐ When should we use RAG?
- ☐ When should we use an agent?
- ☐ When should we avoid AI entirely?
- ☐ How do we evaluate AI output?
- ☐ How do we secure enterprise data?
- ☐ How do we control inference cost?
- ☐ How do we design for failure?
- ☐ How do we move from POC to production?
- ☐ How do we integrate AI with existing enterprise systems?
- ☐ Can I defend the architecture decision to engineering, security and business stakeholders?

THE NEXT STEP

You already know how to design enterprise systems. Now learn how to design the systems enterprises are building next.

AI & Agentic AI for Solution Architects: design, integrate, secure, evaluate, scale and operationalize.

Explore the Program

Not ready? Join a Free Masterclass

Sources. Salary.com, Solution Architect Salary, U.S., September 1, 2026 · Glassdoor, Solutions Architect Salary, India, September 2026 · Stanford AI Index 2026 / Lightcast, AI skills and U.S. labor-market data · foundit Insights Tracker, India AI Hiring Trends, 2025–2026.