

Tooling & Integration



GenAI Tooling & Integration Guide

Architecting Enterprise-Ready
GenAI Solutions

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Enterprise GenAI Solutions Overview

- Understanding essential GenAI tools and platforms for scalability
- Exploring architectural patterns for integration and security
- Comparing leading GenAI platforms and orchestration methods
- Implementing robust security and compliance measures
- Best practices for seamless GenAI adoption in enterprises



Purpose

- Outline key tools, platforms, and architectural patterns
- Vendor-neutral perspective referencing UiPath, Azure, AWS, Power Platform
- Aim: Accelerate scalable GenAI adoption in enterprise environments

GenAI Technology Stack – LLMs

Provider	Model Names	Hosting Type	Specialization	Notes
OpenAI	GPT-3.5, GPT-4	Cloud	General-purpose	English, Multilingual
Azure OpenAI	GPT Enterprise	Cloud (MS-hosted)	Enterprise-ready	Microsoft ecosystem
AWS Bedrock	Claude, Stability AI, Titan	Cloud (AWS)	Plug-and-play	API-first
Google Vertex AI	PaLM 2, Gemini	Cloud	Search & Analytics	Google ecosystem
Meta	LLaMA 2, LLaMA 3 (7B, 70B)	Open-source	Multitask NLP	Research & enterprise
Mistral AI	Mistral 7B, Mixtral 8x7B	Open-source	MoE architecture	Compact & efficient
TII UAE	Falcon 40B, 180B	Open-source	Arabic & English NLP	Developed in UAE
Anthropic	Claude 3 (Opus, Sonnet, Haiku)	Cloud	Safety-first AI	AWS Bedrock, Claude.ai
Cohere	Command R+, Command R	Cloud	Retrieval-focused	Enterprise search
MosaicML	MPT-7B, MPT-30B	Open-source	Customizable	Owned by Databricks
AI21 Labs	Jurassic-2 (Mid, Large, Ultra)	Cloud	Reasoning & Summarization	API-based
xAI	Grok-1	Cloud	Conversational AI	Integrated with X (Twitter)
Alibaba Cloud	Tongyi Qianwen	Cloud	Multilingual	Chinese NLP
Baidu	ERNIE 4.0	Cloud	Chinese NLP	Competes with GPT-4
Yandex	YaLM 100B	Open-source	Russian NLP	Large-scale language model
Nous Research	Nous-Hermes, Nous-Capybara	Open-source	Finetuned reasoning	Instruction-tuned
EleutherAI	GPT-J, GPT-NeoX, Pythia	Open-source	General-purpose	Research-oriented
Open Assistant	Open-Assistant LLaMA	Open-source	Chat-style AI	Community-driven
Reka AI	Reka Core, Reka Flash	Cloud	Multilingual reasoning	Emerging LLM provider

Prompt Engineering Tools

Tool	Description	Key Features	Type
LangChain	Python/JS framework for LLM chains	Templates, chaining, memory, agents	Open-source
PromptFlow	Microsoft's visual tool for LLM workflows	Chaining, Azure OpenAI integration	Microsoft / Azure
Semantic Kernel	Orchestration SDK for semantic functions	Skill definition, memory, planner	Microsoft / OSS
Flowise	Visual LangChain builder	Drag-and-drop UI, agents, vector search	Open-source
PromptLayer	Prompt logging and tracking	Versioning, metrics, prompt monitoring	API-first
PromptHub	Prompt version control and repository	Collaboration, versioning	SaaS
PromptTools	CLI and local web UI	Prompt testing, multi-model comparison	Open-source
Promptable	Team-based prompt development	UI-driven, experimentation	Commercial
Reka Prompt Studio	LLM assistant workflow builder	Memory, context, UX design	Enterprise
Eden AI Prompt Studio	Prompt testing across providers	Multi-LLM support	Commercial
ChainForge	Prompt experiment tool	A/B testing, chain creation	Research / Academic
DSPy	Declarative LLM pipeline framework	Auto prompt optimization	Stanford / OSS
AutoGen	Multi-agent framework by Microsoft	Agent collaboration, reasoning	Microsoft
PromptOps	Prompt lifecycle management	Governance, monitoring, deployments	Enterprise
TruLens	Prompt evaluation & feedback loop	Human + model feedback, LangChain support	Open-source
LlamaIndex	Data indexing for context-aware prompts	Document retrieval, memory injection	Open-source
Colang	Declarative scripting language for agents	Context management, agent state control	Cohere

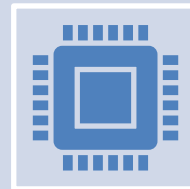
Model Orchestration & Output



Orchestration:
RAG (Retrieval-
Augmented
Generation)



Vector Stores:
FAISS, Pinecone,
Weaviate, Azure
Cognitive Search



Output
Processing:
Validation,
API/Bot/Form
integration

Integration Platforms



UiPath: GenAI activities,
Document Understanding +
LLMs



Power Platform: Power
Automate + Azure OpenAI



AWS: Step Functions +
Bedrock



REST/GraphQL APIs
Integration with: SharePoint,
Salesforce, SAP, ServiceNow

Architecture Patterns



LLM API integration via
middleware



RAG with grounding
layer



Role-based access
control + audit



Human-in-loop for
critical flows



Model containerization:
Kubernetes,
SageMaker, Azure ML

Tool Comparison

Platform	Model Access	Security	Ecosystem Fit	Notes
Azure OpenAI	GPT 3.5 / 4	High	Microsoft Stack	Built-in access controls
AWS Bedrock	Claude / Titan	High	AWS-native	No fine-tuning needed
UiPath	GPT, Azure GPT	High	RPA/DU Integration	Prompt designer available
Power Platform	Azure GPT	Medium	O365, Teams	Citizen dev ready
LangChain	Custom / Open Source	Custom	Python / JavaScript	Custom chaining pipelines

Security & Compliance

- Prompt token limits & validation
- Prompt-response logging for traceability
- Anonymization of PII/PHI
- Secure API key management
- Content moderation with AI filters

Key Recommendations



Align LLM platform choice with compliance/data policies



Use orchestration tools like LangChain for workflows



Integrate with CRM, DMS, and automation platforms



Enable monitoring, feedback loops & retraining

Closing Slide

- Ready to Build Scalable GenAI Solutions?
- Connect to discuss tailored GenAI implementation for your enterprise
- Contact: Anup Upadhyay | Intelligent Automation Leader

