Unleashing the power: scaling AI-enabled automation with Microsoft

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Introduction

In an era where companies face relentless pressures from inefficiencies, stagnation, and an ever-shifting marketplace, finding the right solution becomes paramount. Microsoft Power Platform, with its seamless integration of AI and Intelligent Automation, is crafted to meet these challenges head-on. By understanding and leveraging this dynamic platform, businesses can unlock new opportunities, optimize processes, and drive innovation to thrive in today's complex landscape.

Power Platform is a suite of tools that enables businesses to leverage data, build digital products and create automated workflows powered by low-code and AI. The platform consists of Power BI, Power Apps, Power Pages, Power Automate, and Power Virtual Agents; it offers a holistic approach to data management, application development and chatbot deployment through seamless integration with its array of Azure products.

Thought leaders across global EY organization believe that Intelligent Automation is undergoing evolutionary change to meet the full scope of business imperatives. Application suites like Power Platform that bring together an orchestrated set of technologies facilitate a smooth transition from first-generation, RPA-centric to second-generation, integrated-automation-centric offerings aligning with market demand for Technology@speed, Humans@center, and Innovation@scale.

One of the key differentiators for Microsoft is the company's relationship with OpenAI and inclusion of its Generative AI offering within the Azure suite of products. This continues to enhance Microsoft's, value proposition by empowering the transition to third generation, AI-enabled automation.

In this white paper, we will examine the features and functionalities of Power Platform to address the frequently asked question of "When should Microsoft be considered as the primary platform for automation?" Additionally, we will walk through key considerations and guardrails to enable scaling, and finally, explore how integration with Generative AI can facilitate digital transformation.

When to consider Microsoft as the primary platform for automation

Organizations with matured Intelligence Automation Center of Excellence (CoEs) and those that want to set up and scale automation efforts are posed with the question of whether Power Platform is the right choice for their business. Power Platform caters well to businesses that have already integrated Microsoft technologies in their ecosystems or are looking for cost-effective alternatives to traditional bot licenses. By providing a comprehensive range of capabilities, Power Platform allows businesses to optimize their use of data across multiple devices while enhancing the security and maturity of AI applications.

Power Platform is particularly well-suited for clients prioritizing citizen development and aiming for seamless integration across their enterprise. Its low-code approach empowers team members without extensive technical expertise to harness the platform's full potential, thereby fostering a data-driven culture within the organization. Furthermore, Power Platform's compatibility with various devices – including desktops, tablets, and handheld gadgets – allows for efficient collaboration among remote teams through cloud-based systems and other applications. A notable advantage of the platform is its robust risk management and governance mechanisms, especially when dealing with AI. The platform enables the IT to incorporate organizational security and governance protocols through features like locked environment creation, the ability to define data loss protection policies, and leveraging the secure communication provided by Azure global network backbone.

By facilitating AI decision-making processes and scripted dialogue for user interactions through Microsoft Copilot, it ensures that outputs remain consistent and in line with business objectives. The structured governance and advanced risk and compliance management features ensure that as citizen developers engage with AI capabilities, the results align with organizational standards and client expectations. Furthermore, Power Platform's seamless validation mechanisms ensure rigorous checking of user inputs, leading to dependable and standardized client-facing responses.

Firms undergoing significant application and system upgrades can also benefit from adopting Power Platform, as it can digitize and automate many repetitive tasks that often burden employees during such transitions. The platform's ability to consolidate powerful analytics, design, development, and automation tools eliminates the need for separate software licensing and maintenance while reducing overall costs. Moreover, Power Platform's AI capabilities enables tapping into the full potential of AI from predictive analysis with Power BI, smartbots with Power Virtual Assistant, and robotic process automation with Power Automate – further solidifying its position as an optimal choice for a wide range of business needs. Power Automate Process Mining also ties analytics efforts together by analyzing a wide range of business processes, extending a bridge between empirical process insights and actionable automations. This lays a roadmap that organizations can navigate as they automate and streamline these processes, avoiding the clutter and operational hiccups that classical discovery alone can encounter.

In summary, Power Platform stands out as an ideal choice for organizations with matured Intelligence Automation CoEs and those looking to scale their automation efforts. To help the clients assess their infrastructure preparedness, *the IT maturity and readiness analysis framework* enables a thorough evaluation of existing infrastructure, capabilities, and organizational alignment. This evaluation empowers businesses to make informed decisions regarding the adoption and implementation of Power Platform to drive their automation initiatives effectively.

Why Microsoft's capability with Generative AI is a game-changer

The fusion of Generative AI models with Power Platform transforms the way enterprises approach automation by allowing them to harness advanced technologies for streamlined operations, reduced costs, and improved productivity. Through previous implementations, *global EY organization brings an agile methodology and architecture templates* to accelerate the integration of Generative AI capabilities within the automation framework. This approach means that businesses can quickly leverage the power of GPT-3, GPT-3.5, GPT-4, and other Generative AI models to perform complex tasks, such as content generation, semantic search, classification, and image creation.

Microsoft's partnership with OpenAI has advanced the service offerings within Azure and has enhanced the potential of Generative AI applications. The native connectivity between Power Platform and Azure functions via the HTTP action simplifies the utilization of GPT models within the automation framework. Additionally, the integration of Microsoft's AI Builder with Azure OpenAI Service allows easy consumption via Power Platform, reducing barriers to enterprise-wide adoption. These integration levers also provide data protection through Azure's robust security features, including data encryption in transit, role-based access control, transport layer security (TLS/SSL), and network security. Below are a few links that outline Microsoft's approach to data, privacy, and security for Azure OpenAI. These resources offer insights into how data provided to train the models gets processed, used, and stored, exemplifying a transparent process. This transparency aligns with regulatory compliance and fosters confidence with clients and partners, reflecting Microsoft's steadfast commitment to responsible AI development and ethical deployment.

[Data, privacy, and security for Azure OpenAI Service – Azure AI services | Microsoft Learn](#)

[Microsoft Responsible AI | Microsoft AI](#)

As Microsoft's Generative AI capabilities, such as Copilot, are expected to drive groundbreaking innovations in the field of Intelligent Automation, businesses can optimize productivity while maintaining compliance and safeguarding sensitive information. By utilizing Microsoft Copilot, enterprises can streamline configuration processes and build automations and front-end applications more efficiently. Copilot leverages the Microsoft Azure OpenAI Service, utilizing Large Language Models (LLMs), Microsoft Graph, and business data for personalized task recommendations within Dynamics 365 and Power Platform applications.

| Microsoft 365 Copilot	Dynamics 365 Copilot	Copilot in Power Platform	GitHub Copilot
Works alongside you in the apps you use every day	Turbocharge your workforce with a copilot for every job role	Imagine it, describe it, and Power Platform builds it	Increase developer productivity to accelerate innovation

We have numerous success stories that exemplify implementation of OpenAI solutions to enhance the efficiency of existing Microsoft service offerings. One notable example is the enhancement of an existing Chatbot at a major Agriscience client to include the ability to ingest PDF documents. We achieved this by seamlessly integrating the current Azure Bot Framework with Form Recognizer, enabling the utilization of comprehensive document intelligence and Natural Language Processing (NLP) capabilities powered by Azure OpenAI (GPT 3.5/4 LLMs)

Component View
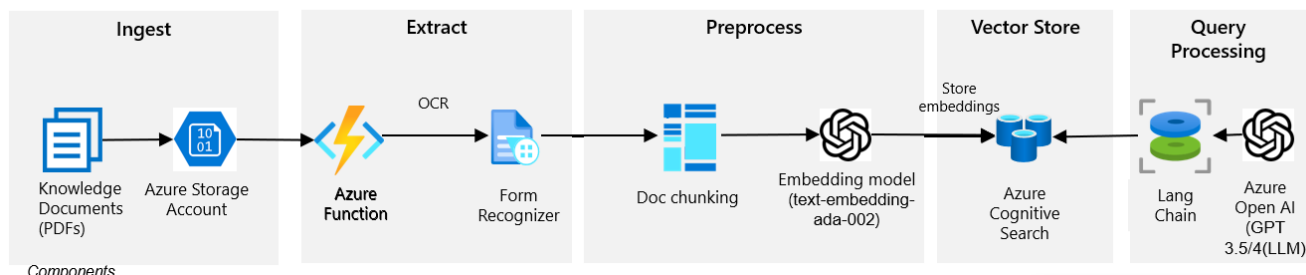
Source: Microsoft Azure Documentation

High-level architecture for integrating Azure OpenAI with Azure Bot framework

Another such accomplishment was at a major automotive client, where we deployed a call-center assistant Bot to streamline call summarization. This demonstrates how the integration of various Microsoft services can enable the development of an optimal solution. Within the Azure framework, this solution combines multiple service offerings, such as Azure Speech-to-Text and Azure Machine Learning and integrates with an RPA platform. The Bot utilizes Azure Speech-to-Text for accurate transcription of calls received by the customer center. These call transcripts are then summarized using a trained Azure Machine Learning model. The resulting call summaries are seamlessly entered into a ticketing system via an RPA solution. Call agents can edit the notes, which are used to iteratively retrain the AI model, enhancing its language understanding and summary generation capabilities continuously. This solution not only saves agents' valuable time and enhances customer service but also facilitates the digitization of customer calls, providing invaluable insights for improving operational efficiency. With Azure's native data security measures in place,

customer information remains encrypted and is handled securely, ensuring compliance with privacy regulations, and maintaining data privacy and confidentiality.
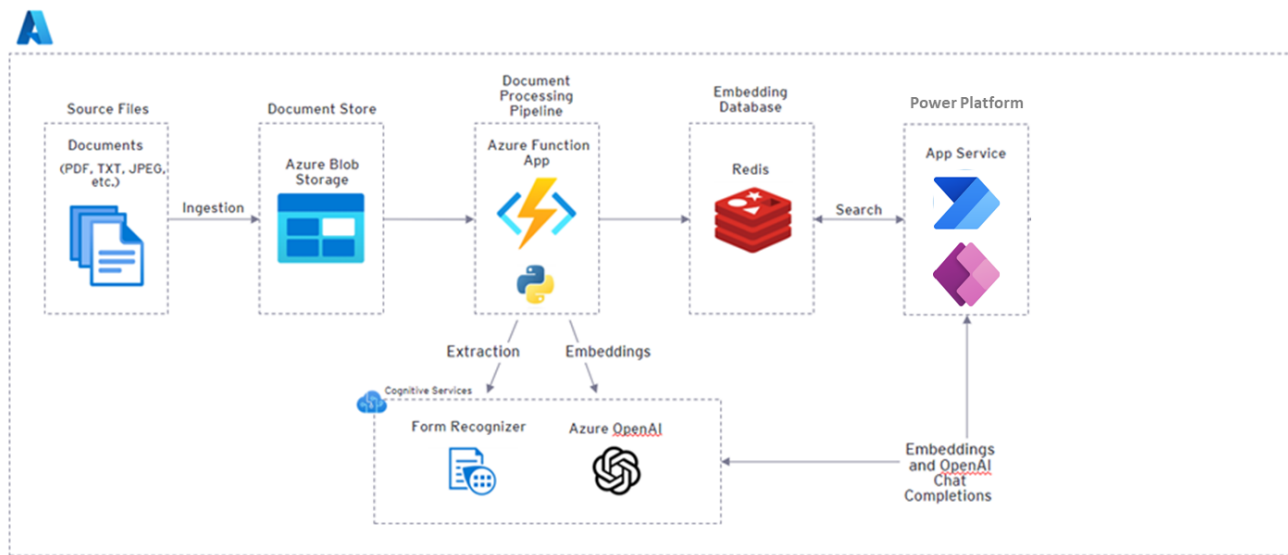
Source: Microsoft Azure Documentation

Sample technical architecture to integrate Azure OpenAI service with Azure and Power Platform suite of technology

What companies need to get right when scaling automation with Microsoft — and how our global EY organization can help

As businesses strive to scale their automation initiatives, their focus should center on creating efficient and sustainable solutions. Attending to key considerations such as governance, security and compliance is crucial to achieve seamless integration and facilitate growth. This section delves into the fundamental components that require attention when scaling automation using Microsoft technologies. The *Risk and Control Matrix*, coupled with an *IT Readiness framework*, helps empower clients to thoroughly assess potential risks, supporting the establishment of an effective Security and Governance framework. This framework acts as a guardrail to maintain and enhance system resilience against unexpected changes.

First and foremost, sustainable scaling requires the implementation of data safeguarding and access control mechanisms to mitigate unauthorized access and data breach risks. This involves establishing role-based access control powered by Azure Security Groups to guarantee segregation of duty across environments. Securing credentials within Azure Key Vault adds an additional layer of protection, achieving secure integration across Microsoft's suite of products. Furthermore, it is imperative to identify data loss protection policies so that an organization can control the use of connectors as the automation capability and demand scales across multiple business units. *The* *tried and tested methodology* tries to ensure that clients are provided with the appropriate resources to implement and adhere to the security standards throughout their automation journey.

A robust environment strategy is essential for successfully implementing solutions across a Center of Excellence (CoE). An environment strategy that aligns with an organization's SDLC definition enables Power Platform to fit within an organization's technology framework. A well-defined environment segregation and deployment strategy ensures changes and enhancements are implemented with desired version control while minimizing risks and maintaining the integrity of applications and data.

Resource and environment management/governance becomes crucial in creating a well-managed system that bridges IT and development. Global EY teams have developed a *stringent monitoring framework* to add transparency into environments, license types and connectors, Power Automate flows, and Power Apps within an organization's tenant. Periodic monitoring is a robust defense mechanism and a deterrent against unmonitored or rogue environment setups. This tool plays a vital role in monitoring capacity analytics, identifying high-consumption environments, and setting notifications for capacity thresholds. It also helps manage the number of licenses by closely tracking their utilization. By implementing these accelerators, organizations can optimize their resource utilization and maintain the smooth functioning of the Power Platform tenant.

An EY US team harnessed the above governance framework to craft a Power Platform infrastructure strategy for a leading client in the Technology, Media, and Telecommunications (TMT) sector. In the initial phase of the three-month implementation program, the team conducted a thorough assessment of the client's IT readiness, revealing a widespread utilization of Power Platform technology across over 300 environments comprising a variety of Power Automate and Power App solutions. Collaborating closely with the client's InfoSec team, they tailored a risk and control matrix to align with enterprise IT standards.

To centralize Intelligent Automation capabilities within a Center of Excellence, they assisted in shaping an environment strategy aimed at minimizing the number of environments through access controls while fostering standardized citizen development. They also collated a list of design and coding standards for Power Automate and Power Apps and recommended a code review tollgate before solution deployment. Addressing Power Platform licensing, they aided in creating a monitoring mechanism for license utilization and helped with effective resource management. To strengthen the segregation of duties, they collaborated with the client's InfoSec team, defining security role profiles for various stakeholders within the Center of Excellence.

To prepare for future automation needs, they worked with the client's Azure team to establish a secure Azure Key Vault and custom connectors to facilitate encrypted data flow between Power Platform and Azure Key Vault. They finally brought this security and governance framework to life by deploying an "Application Lifecycle Management" solution within Power Apps, activating the controls generated throughout the process. These collective efforts enabled the client to confidently streamline Power Platform services, fostering a standardized model for the production deployment of Intelligent Automation solutions.

Conclusion

In conclusion, the powerful combination of Microsoft Power Platform, encapsulating groundbreaking capability of Generative AI along with a suite of holistic solutions, offers businesses a compelling proposition for automation and innovation. By integrating diverse technologies under one umbrella, Power Platform stands as a unified, multifaceted framework that can meet a wide range of business needs, streamline operations, and nurture the creative deployment of AI across the enterprise. By harnessing global EY resources, organizations can embark on a transformative automation journey with Microsoft, effectively tackling scaling challenges through prudent security and governance measures. This progressive approach is poised to propel enterprises toward success in an ever-evolving digital and competitive landscape.
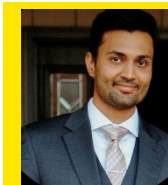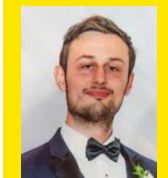
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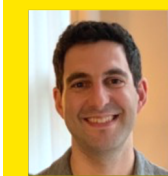
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