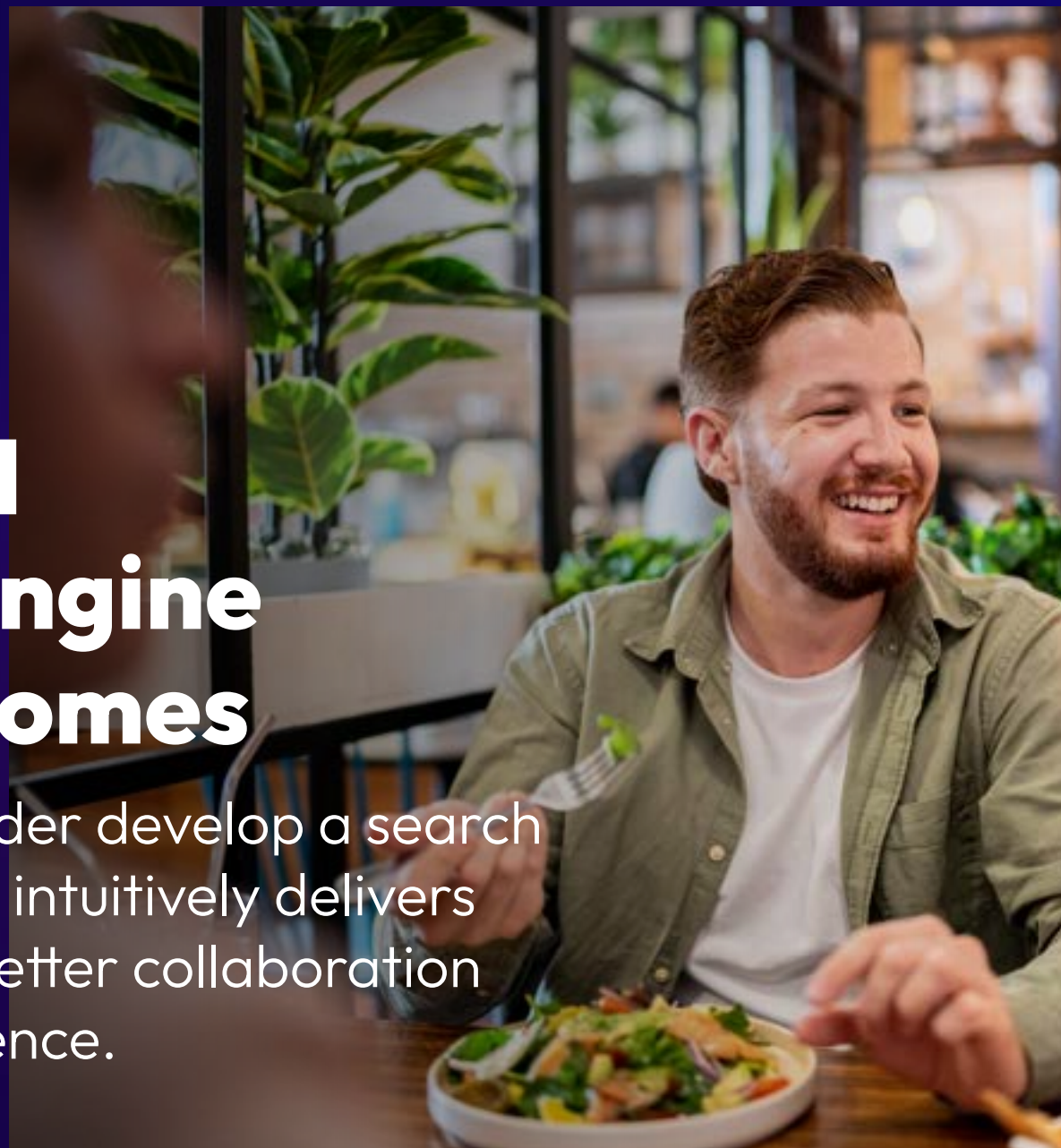
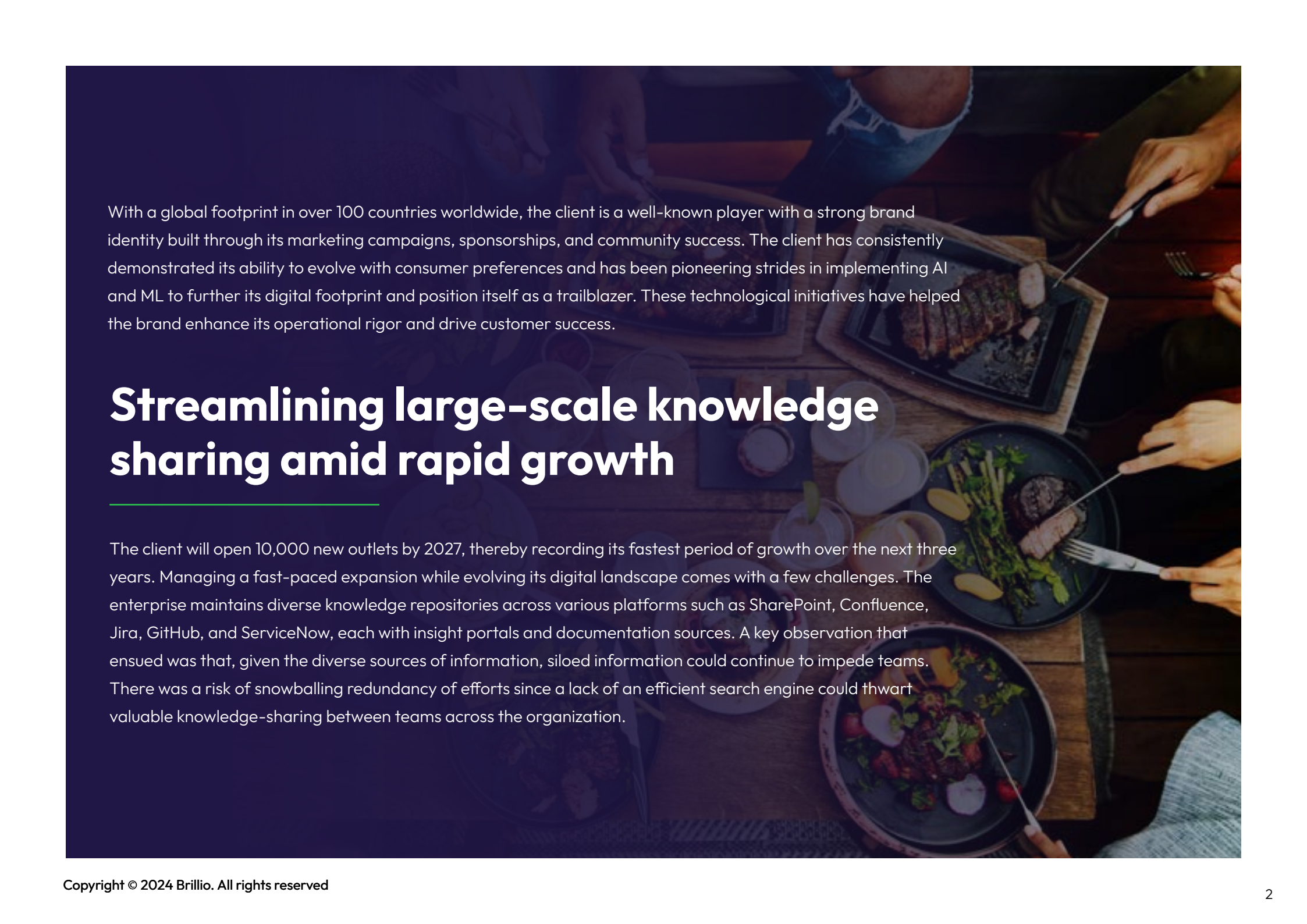




GenAI-powered unified search engine boosts ROI outcomes

Helping a global industry leader develop a search engine on Google Cloud that intuitively delivers localized results and drives better collaboration for an improved user experience.





With a global footprint in over 100 countries worldwide, the client is a well-known player with a strong brand identity built through its marketing campaigns, sponsorships, and community success. The client has consistently demonstrated its ability to evolve with consumer preferences and has been pioneering strides in implementing AI and ML to further its digital footprint and position itself as a trailblazer. These technological initiatives have helped the brand enhance its operational rigor and drive customer success.

Streamlining large-scale knowledge sharing amid rapid growth

The client will open 10,000 new outlets by 2027, thereby recording its fastest period of growth over the next three years. Managing a fast-paced expansion while evolving its digital landscape comes with a few challenges. The enterprise maintains diverse knowledge repositories across various platforms such as SharePoint, Confluence, Jira, GitHub, and ServiceNow, each with insight portals and documentation sources. A key observation that ensued was that, given the diverse sources of information, siloed information could continue to impede teams. There was a risk of snowballing redundancy of efforts since a lack of an efficient search engine could thwart valuable knowledge-sharing between teams across the organization.



Why Brillio stood out as the ideal collaborator for this endeavor

Our proven expertise in digital technologies such as GenAI and advanced analytics, customer-centricity, and meticulous market research helped us persevere in driving exponential value for the client. This engagement included brainstorming, impact studies, robust surveys, and other strategic enablers before we proceeded to implement the initial phase of the search engine for the client.

Serving the enterprise's knowledge-sharing needs with a single, connected search interface

Deploying an intelligent search engine powered by GenAI will allow users to access and retrieve information seamlessly. We accounted for over 10 of the client's large-scale and complex data sources across the enterprise through this interface. GenAI-powered responses ensured insightful summaries, analysis, and creative text formats, increasing the user experience.

We had to answer several key questions, including how the search engine would be regarding the interface and user experience, what features it should provide, and the benefits it could bring after deployment.

Exploring critical elements of the unified search engine

The unified search engine offers a streamlined search experience with a single search bar, allowing users to input queries once and retrieve highly relevant results from all connected data sources simultaneously. It has advanced search functionalities such as filtering results by specific data sources, date ranges, and keywords while displaying real-time results as data updates in connected sources.

The generator response feature complements user search by automatically generating concise summaries of complex search results, extracting key insights and trends from large datasets, and offering customizable templates to configure different response formats for various data sources or user roles. This combination enhances efficiency and decision-making by simplifying information retrieval and analysis.

Multilingual support enhances accessibility and inclusivity by providing a localized interface that translates the user interface into different languages, catering to a diverse user base. It also enables multilingual search, allowing users to input queries in their preferred language and retrieve results from sources with matching languages. Additionally, cross-lingual search and analysis capabilities leverage machine translation technologies to perform searches and analysis across content in different languages.

The interface further improves usability with an intuitive design, search suggestions, and auto-completion features, along with visual aids and interactive elements for enhanced data visualization and user engagement. The added advanced functionalities, such as a mobile application, natural language processing, and machine learning capabilities, enable a deep understanding of user intent and context to deliver more relevant results and responses and facilitate continuous learning, improving search accuracy and generator response quality based on user interactions. These functionalities ensure a seamless and efficient user experience, enabling users to navigate and utilize the search engine's capabilities effectively.

Crafting custom connectors to integrate data sources into Google Cloud Platform (GCP)

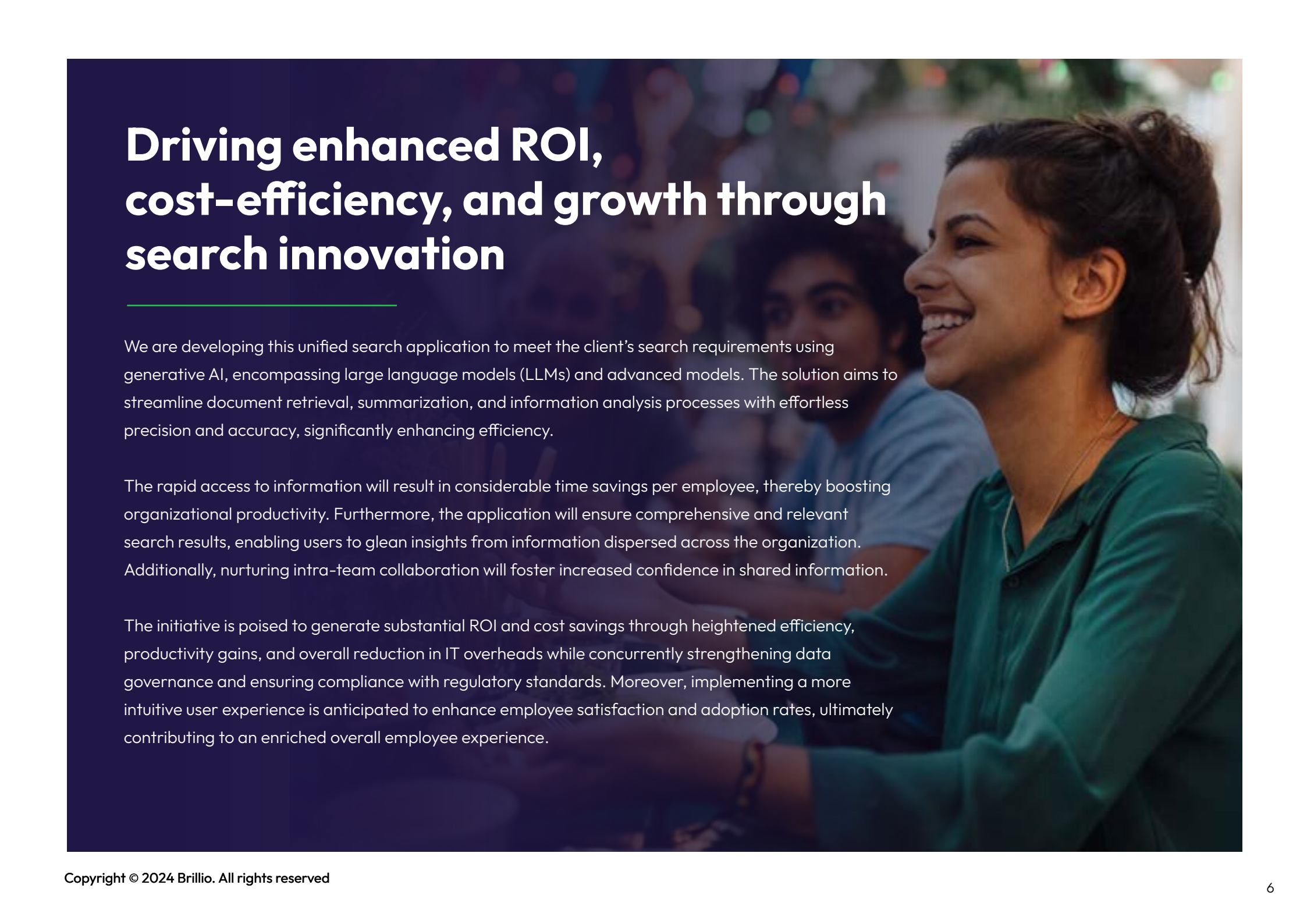
To navigate the complexities of this endeavor, thorough testing of multiple connectors to each data source is imperative, particularly when integrating with the chosen cloud platform, in this case, GCP. For instance, consider the integration with a knowledge base/document repository like Confluence. This integration involves harnessing GCP services such as Google Cloud Storage (GCS) to store extracted data in HTML format. Furthermore, using Google Cloud Functions or Google Kubernetes Engine (GKE) can optimize the processing and analysis of the extracted data, ensuring scalability and efficiency throughout the operation.

This custom connector boasts several key features aimed at enhancing data integration processes. Firstly, resilience is prioritized by implementing robust error-handling mechanisms and retry strategies, mitigating potential failures

during data extraction and transfer. Leveraging GCP services, the connector is also designed for scalability, dynamically adjusting to workload demands to ensure optimal performance and resource utilization.

Moreover, the connector emphasizes speed and latency optimization, achieved through optimized API requests and efficient data transfer mechanisms, thereby minimizing latency and maximizing data retrieval speed from Confluence. Furthermore, it simplifies user interactions by abstracting complexities associated with interacting with Confluence APIs and GCP services, providing a streamlined and user-friendly interface for data integration tasks. These features collectively contribute to an efficient and seamless integration process, empowering users to leverage data from Confluence within the GCP environment effectively.

The connector optimizes resource usage and reduces operational costs by offering serverless or containerized deployment options on GCP.



Driving enhanced ROI, cost-efficiency, and growth through search innovation

We are developing this unified search application to meet the client's search requirements using generative AI, encompassing large language models (LLMs) and advanced models. The solution aims to streamline document retrieval, summarization, and information analysis processes with effortless precision and accuracy, significantly enhancing efficiency.

The rapid access to information will result in considerable time savings per employee, thereby boosting organizational productivity. Furthermore, the application will ensure comprehensive and relevant search results, enabling users to glean insights from information dispersed across the organization. Additionally, nurturing intra-team collaboration will foster increased confidence in shared information.

The initiative is poised to generate substantial ROI and cost savings through heightened efficiency, productivity gains, and overall reduction in IT overheads while concurrently strengthening data governance and ensuring compliance with regulatory standards. Moreover, implementing a more intuitive user experience is anticipated to enhance employee satisfaction and adoption rates, ultimately contributing to an enriched overall employee experience.



ABOUT BRILLIO

At Brillio, our customers are at the heart of everything we do. We were founded on the philosophy that to be great at something, you need to be unreasonably focused. That's why we are relentless about delivering the technology-enabled solutions our customers need to thrive in today's digital economy. Simply put, we help our customers accelerate what matters to their business by leveraging our expertise in agile engineering to bring human-centric products to market at warp speed. Born in the digital age, we embrace the four superpowers of technology, enabling our customers to not only improve their current performance but to rethink their business in entirely new ways. Headquartered in Silicon Valley, Brillio has exceptional employees worldwide and is trusted by hundreds of Fortune 2000 organizations across the globe.



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