

— **Knowledge Brief** —
Quadrant Knowledge Solutions

Sopra Steria Is a Leader in SPARK Matrix:
Artificial Intelligence Services, 2024



An Excerpt from Quadrant Knowledge Solutions
“SPARK Matrix™: Artificial Intelligence Services, 2024”

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According to Quadrant Knowledge Solutions, “AI services encompass the entire lifecycle of AI solutions, from strategic planning and design to development, deployment, and ongoing support. It provides on-demand access to pre-built AI tools and cloud platforms to build custom models. AI Service vendor’s expertise lies in AI strategy and consulting, where they collaborate closely with organizations to identify high-impact AI use cases, assess the feasibility of AI solutions, and develop strategic roadmaps that align with the company’s business objectives. This involves a deep understanding of the organization’s domain, data assets, and technological capabilities to ensure the successful adoption and integration of AI technologies. AI services also assist businesses with implementing these strategies, including change management and integration with existing workflows.”

In the early stages, AI services primarily focused on exploratory projects and proof-of-concept initiatives, aiming to demonstrate the potential of AI technologies in solving specific business challenges. However, as the maturity of AI technologies grew and success stories emerged, the demand for AI services surged, with organizations recognizing the transformative power of AI in driving efficiency, innovation, and competitive advantage. AI services vendors played a pivotal role in helping organizations navigate the complexities of AI adoption and providing the expertise, tools, and infrastructure necessary to harness the true value of AI.

Today, AI services form the backbone of AI development, providing the tools and capabilities necessary to create intelligent systems. It has become necessary for organizations seeking to harness the power of AI to drive innovation, enhance efficiency, and achieve strategic objectives. These services encompass a comprehensive suite of offerings ranging from embedding AI technology components into business scenarios to AI-generated insights of the processes. They manage end-to-end AI services for both business operations and IT management, including data modernization services, data platform management, and managed services for data governance, security, privacy, and compliance. AI Services provide organizations with expert guidance and tailored solutions to leverage AI effectively. These services encompass various stages, from needs assessment to data readiness and infrastructure evaluation, ensuring that organizations are equipped with the necessary insights and capabilities to embark on AI initiatives.

At the core of AI services is the integration of AI technology components and AI-generated insights into business decisions and processes. This involves leveraging end-to-end advanced algorithms and computational processes to mimic human intelligence, performing tasks that traditionally require human cognition. AI Services encompass a wide range of activities, including AI solution design, data engineering, software engineering, algorithm and model development, system integration and hardware engineering. These activities are essential for developing robust AI solutions that meet the unique needs and requirements of organizations across various industries. By embedding AI technology components, such as machine learning (ML) models, natural language processing (NLP) algorithms, and computer vision systems into business operations, organizations can automate repetitive tasks, extract valuable insights from data, and make data-driven decisions with greater accuracy and efficiency.

In addition to embedding AI technology components, AI services manage end-to-end services for both business operations and IT management. This includes overseeing the entire lifecycle of AI solutions, from strategic planning and development to deployment, maintenance, and optimization. By managing end-to-end AI services, organizations can ensure the successful implementation and integration of AI technologies into their existing systems and workflows, maximizing the value derived from AI investments and driving sustainable operational improvements.

One key aspect of AI services is data modernization services, which involve modernizing and optimizing data infrastructure and processes to support AI initiatives. This includes data platform management, which encompasses the management of end-to-end data platforms, from source integration management to data pipeline management and API management for data consumers. By modernizing data platforms, organizations can streamline data ingestion, processing, and analysis, enabling faster and more accurate insights of the data.

AI services offer end-to-end service from assessing, planning, developing, deploying, and maintaining AI solutions. This involves conducting comprehensive assessments to identify AI use cases and develop strategic roadmaps, planning and designing AI solutions tailored to meet specific business needs, developing, and deploying AI models and algorithms, and providing ongoing maintenance and support to ensure the continued success of AI initiatives. By offering end-to-end service, AI services enable organizations to leverage AI technologies effectively and achieve tangible business outcomes.

The future of AI services is poised for exponential growth, driven by technological advances and an increasing understanding of AI's potential applications. Emerging technologies such as quantum computing, effective computing, and AI in edge computing promise to expand the capabilities and applications of AI services further. However, ethical considerations and regulatory frameworks are becoming increasingly important as AI services become more pervasive, emphasizing the need for responsible development and deployment.

AI services play a crucial role in helping organizations harness the power of AI to drive innovation, enhance efficiency, and achieve strategic objectives. By embedding AI technology components into business decisions and processes, managing end-to-end AI services for both business operations and IT management, providing data modernization services, offering managed services for data governance, security, privacy, and compliance, and offering end-to-end service from assessing, planning, developing, deploying, and maintaining AI solutions, AI services enable organizations to maximize the value of AI investments and drive sustainable operational improvements.

Artificial Intelligence Service Vendors' Critical Offerings

- **Data Engineering and Management:** Collecting, preprocessing, and structuring data to enable effective AI model training and deployment.
- **AI Strategy and Consulting:** Helping organizations identify AI use cases, assess feasibility, and develop roadmaps aligned with business goals.
- **AI Infrastructure Setup:** Provisioning and configuring the necessary hardware and software infrastructure to support AI workloads, including cloud-based AI platforms.
- **Governance and Ethics:** Establishing frameworks and practices to ensure responsible, transparent, and ethical use of AI technologies.
- **Training and Enablement:** Providing training and support to help organizations build internal AI capabilities and foster a data-driven culture.
- **Testing and Validation:** Conducting thorough testing and validation of AI models and applications to ensure accuracy, reliability, and robustness.
- **AI Application Development:** Building end-to-end AI-powered applications and integrating AI capabilities into existing software systems.
- **AI Model Development:** Designing, training, and tuning AI models using ML algorithms, deep learning architectures, and other AI techniques.
- **CoE:** Centralized team focusing on advanced AI capabilities, promoting best practices, and guiding AI strategy and initiatives across the organization.
- **Professional Services:** Delivering of consulting services by experienced AI practitioners to help organizations implement custom AI solutions and drive strategic transformation.
- **Lifecycle Management:** Managing end-to-end lifecycle of AI solutions, ensuring relevancy, performance, and security over time while minimizing risk and maximizing ROI.

Key Trends of Artificial Intelligence Services

Partnership Ecosystem: A strong partnership ecosystem in AI services adds value by augmenting skills, expanding market reach, capitalizing on collaborations, managing risks, shortening time-to-market, enhancing reputation, enabling collective learning, ensuring regulatory compliance, and promoting socially conscious AI development. Vendors offering AI services provide active collaboration which drives quality, growth, and success in today's AI landscape.

AI Governance: AI Service vendors emphasize on AI Governance as businesses are paying more attention to ethical issues, privacy concerns, cybersecurity risks, and regulations related to AI adoption. The factors like attention to ethical AI without bias or harm, data privacy and security, explainability for AI model reasoning drive this trend. AI service providers offer AI governance services along with primary AI solutions, committing to ethical and responsible AI projects. Common offerings include policy framing, risk detection, controlling implementation, supervision, documentation, and recurrent evaluations.

Generative AI: AI service vendors are heavily investing in the research and development of Generative AI technologies. They are collaborating closely with academic institutions and industry partners to explore new architectures, training methods, and applications for Generative AI. Staying ahead of this trend allows vendors to consistently improve their AI services, offering state-of-the-art solutions to their customers. Additionally, by utilizing pre-trained models and fine-tuning them for specific domains, AI service vendors empower organizations to automate content creation, enhance creative processes, and generate synthetic data for training other AI models.

Multimodal AI: In the realm of Multimodal AI, service vendors are focusing on developing AI models that can understand and process multiple data modalities simultaneously. By combining text, speech, images, and video data, these vendors aim to provide more comprehensive and contextually aware AI services. They leverage transfer learning techniques to enable knowledge sharing across modalities, resulting in more robust and accurate AI models. AI Service vendor helps organizations to build end-to-end AI applications that can handle diverse unstructured data, such as vision-language models for image search and captioning, speech-to-text conversion, and multimodal virtual assistants.

Consulting: AI consulting is a growing trend in the AI service market. As companies see the potential of AI but lack the knowledge to use it effectively, AI consultants are stepping in to help. These consultants help businesses understand how AI can solve their problems, develop a plan to implement AI, and ensure responsible use of the technology. This bridge between AI's potential and real-world application is empowering businesses to leverage AI effectively.

Market Direction of Artificial Intelligence Services

The future of AI services presents a dynamic landscape, marked by several emerging trends poised to redefine industry practices. Among these trends is the rising adoption of explainable AI, driven by the imperative for transparent and accountable decision-making processes. As organizations seek to comprehend and trust AI algorithms, the demand for explainable AI solutions will increase, providing clear insights into the inner workings of AI models.

Additionally, the integration of AI with edge computing environment stands out as a pivotal development, enabling real-time data processing and decision-making at the network's edge. This convergence enhances the efficiency and responsiveness of AI applications, particularly in scenarios where low latency and bandwidth constraints are paramount considerations. Moreover, there is a rapidly increasing emphasis on AI-driven sustainability solutions, leveraging AI's predictive capabilities and data analytics to optimize resource utilization, minimize waste, and mitigate environmental impact. This focus underscores the transformative potential of AI in promoting sustainable practices across diverse industries.

Furthermore, the future trajectory of AI services is characterized by an emphasis on industry-specific applications, tailoring AI solutions to address sector-specific challenges and opportunities. This tailored approach enables organizations to unlock new value and foster innovation in critical domains such as healthcare, finance, manufacturing, and more.

As AI technologies continue to advance, propelled by innovations in generative AI, hardware, software, and ethical frameworks, the momentum for AI services is poised to accelerate. With enterprises increasingly recognizing AI's indispensable role in digital strategy and planning, coupled with significant investment commitments, the future outlook for AI services remains both optimistic and dynamic.

Quadrant Knowledge Solutions' SPARK Matrix: Artificial Intelligence Services, 2024 research includes a detailed analysis of the global market regarding short-term and long-term growth opportunities, emerging service trends, market trends, and future market outlook. The study provides a comprehensive market forecast analysis of the global market in various geographical regions and the overall

market adoption rate as well. This research provides strategic information for technology vendors to better understand the existing market, support their growth strategies, and for users to evaluate different vendors' capabilities, competitive differentiation, and market position.

The research includes detailed competition analysis and vendor evaluation with the proprietary SPARK Matrix analysis. SPARK Matrix includes the ranking and positioning of leading Artificial Intelligence Services vendors with a global impact. The SPARK Matrix includes an analysis of vendors, including Accenture, Atos, Capgemini, CGI, Coforge, Cognizant, Delloite, DMI, EPAM, EXL, EY, Genpact, Globant, Happiest minds, HCL Technologies, IBM, Infosys, KPMG, Kyndryl, LTIMindtree, Mphasis, PwC, Quantiphi, Sopra Steria, Stefanini, TCS, Tech Mahindra, UST, Virtusa, Wipro, Zensar.

SPARK Matrix™: Strategic Performance Assessment and Ranking

[Quadrant Knowledge Solutions](#) conducted an in-depth analysis of the major Artificial Intelligence Services vendors by evaluating their service portfolio, market presence, and customer value proposition. The Artificial Intelligence services market research provides competitive analysis and a ranking of the leading vendors in the form of a proprietary SPARK Matrix™. SPARK Matrix analysis provides a snapshot of key market participants and a visual representation of market participants. It provides strategic insights on how each vendor ranks related to their competitors based on their respective service excellence and customer impact parameters. The evaluation is based on primary research, including expert interviews, analysis of use cases, and Quadrant’s internal analysis of the overall Artificial Intelligence Services Market.

According to the SPARK Matrix analysis of the global Artificial Intelligence services market, “Sopra Steria, with robust functionalities of its Artificial Intelligence services market, has secured strong ratings across the performance parameters of service excellence and customer impact and has been positioned amongst the leaders in the 2024 SPARK Matrix of the Artificial Intelligence services market.”

Technology Excellence	Weightage	Customer Impact	Weightage
Sophistication of Service Capability	25%	Product Strategy & Performance	20%
Data Integration & Governance	15%	Market Presence	20%
Support for Departmental Collaboration	10%	Proven Record	15%
Extent of Knowledge Base	15%	Ease of Deployment & Use	15%
Scalability	5%	Customer Service Excellence	15%
Technology Vision & Roadmap	5%	Unique Value Proposition	15%
Customer Support & Training Resources	5%		
Relevant Experience & Expertise of Workforce	5%		
Partner Ecosystem	5%		
Competitive Differentiation Strategy	10%		

Evaluation Criteria: Technology Excellence

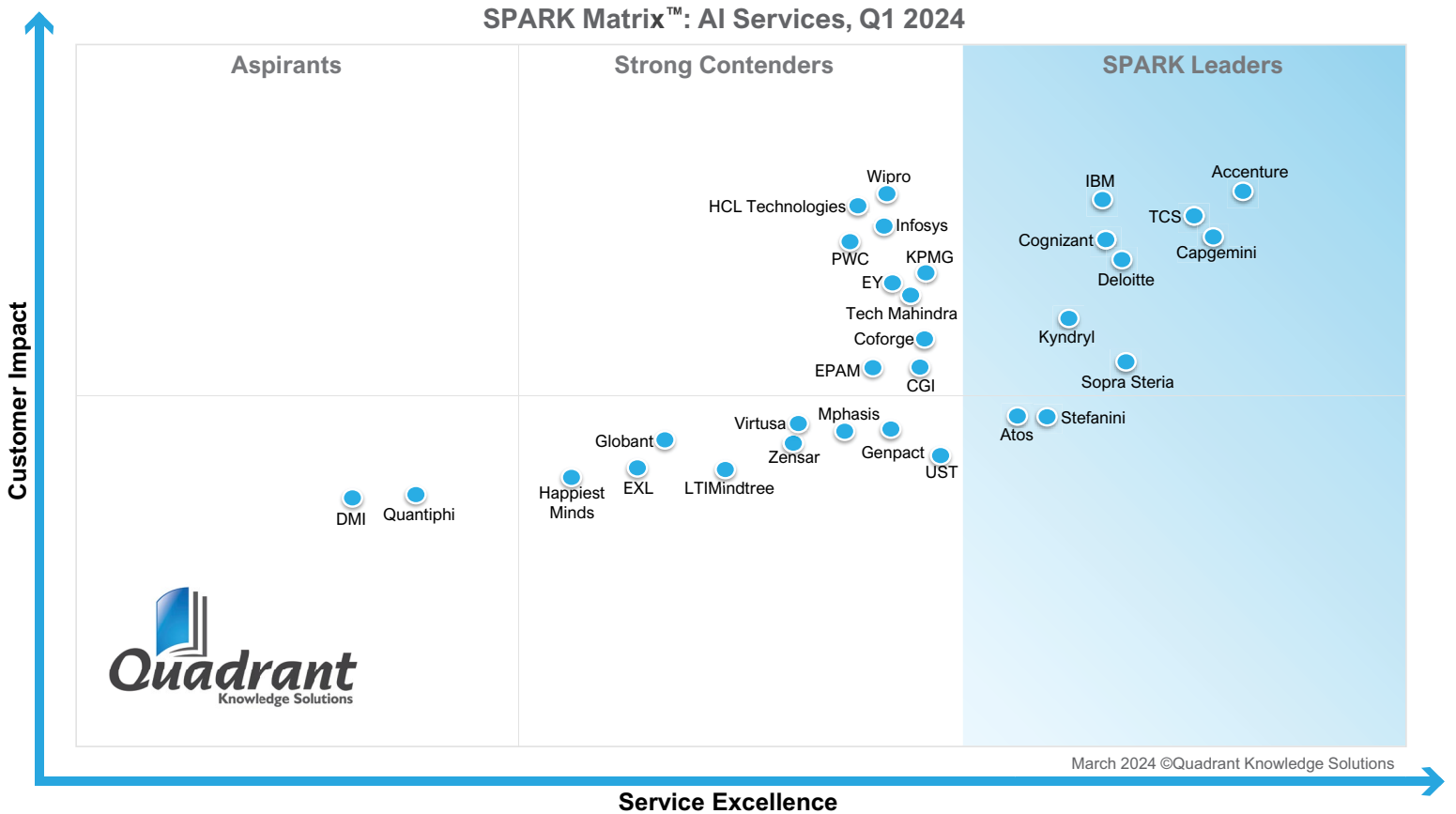
- **Sophistication of Service Capability:** The ability of AI services to perform complex tasks, adapt to changing conditions, and optimize performance including advanced features such as machine learning, natural language processing, computer vision, robotics, and predictive analytics.
- **Data Integration & Governance:** The ability to integrate and manage data from multiple sources while maintaining standards for accuracy, completeness, security, and compliance.
- **Support for Departmental Collaboration:** The capacity to facilitate cross-departmental communication, coordination, and information sharing within a business.
- **Extent of Knowledge Base:** The breadth and depth of domain-specific knowledge and learning which enables businesses to make informed decisions based on relevant contextual factors.
- **Scalability:** The degree to which AI services can adapt to varying levels of demand without compromising performance, reliability, or user satisfaction.
- **Technology Vision & Roadmap:** A strategic plan detailing how AI services will evolve over time, including new feature releases, product enhancements, and emerging technological trends.
- **Customer Support & Training Resources:** Availability of human assistance (e.g., chatbots, helpdesks), educational materials, tutorial videos, FAQ sections, and other tools designed to assist customers in maximizing the value.
- **Relevant Experience & Expertise of Workforce:** The collective skills, competencies, qualifications, backgrounds, and experiences maintained by developers, engineers, consultants, and project managers.
- **Partner Ecosystem:** An interconnected network of third-party vendors, suppliers, resellers, distributors, system integrators, software development kits (SDKs), APIs, and platforms that augment AI services' core functionality and expand their market potential.

- **Competitive Differentiation Strategy:** An approach adopted by providers aimed at distinguishing themselves from rivals through innovative pricing models, exclusive partnerships, bespoke industry applications, intellectual property protections, or proprietary algorithms.

Evaluation Criteria: Technology Excellence

- **Product Strategy & Performance:** Evaluation of multiple aspects of product strategy and performance in terms of product availability, price to performance ratio, excellence in GTM strategy, and other product-specific parameters.
- **Market Presence:** The ability to demonstrate revenue, client base, and market growth along with a presence in various geographical regions and industry verticals.
- **Proven Record:** Evaluation of the existing client base from SMB, mid-market and large enterprise segment, growth rate, and analysis of the customer case studies.
- **Ease of Deployment & Use:** The ability to provide superior deployment experience to clients supporting flexible deployment or demonstrate superior purchase, implementation, and usage experience. Additionally, vendors' products are analyzed to offer a user-friendly UI and ownership experience.
- **Customer Service Excellence:** The ability to demonstrate vendors capability to provide a range of professional services from consulting, training, and support. Additionally, the company's service partner strategy or system integration capability across geographical regions is also considered.
- **Unique Value Proposition:** The ability to demonstrate unique differentiators driven by ongoing industry trends, industry convergence, technology innovation, and such others.

Figure: 2024 SPARK Matrix™
 (Strategic Performance Assessment and Ranking)
 Artificial Intelligence Services Market



Sopra Steria in the Global Artificial Intelligence Services Market

Founded in 1968 and headquartered in Paris, France, Sopra Steria is a software company that offers consulting & digital services and software development to its customers globally and helps them to drive digital transformation to obtain tangible and sustainable benefits. Sopra Steria provides a modular range of services, including digital innovation factory, enabling companies to support the changing needs of governance, innovation, human resources, technologies, and operations. The other services offered by Sopra Steria include consulting, AI, technology services, systems integration, software, business process services, infrastructure management, and cybersecurity.

Analyst Perspective:

Following is the analysis of Sopra Steria's capabilities in the Artificial Intelligence services market:

- Sopra Steria focuses on the integration of generative AI technologies throughout its operations, spanning customer projects and internal functions. This strategic approach aims to unlock innovative possibilities and support efficiency across the organization, encompassing areas like software engineering and daily workflows. The company applies AI to streamline development processes, enhance code quality, and improve productivity for software engineers. Sopra Steria also engages with the leading hyperscale cloud providers, including Google, Amazon, Microsoft, and IBM, to leverage their machine learning services, search capabilities, and augmented generation methods, thereby maximizing insights and opportunities within the AI landscape.
- Sopra Steria's AI services business operates through Centres of Excellence (CoEs), which are specialized teams comprising AI experts, MLOps specialists, data scientists, and engineers focused on language models and classical NLP. The company has an R&D-focused subgroup, located in Asia, dedicated to AI technology research and emerging application solutions, and consisting of several experts within Sopra Steria's workforce capable of handling AI projects. The company supports products from major hyperscalers like Microsoft, Google, AWS, and IBM, along with local partnerships with start-ups for speech management, call center automation, and collaborations with data

science and technology firms like Dataku, Datarobot, Databricks, and others, as well as European LLM providers such as Aleph Alpha and Mistral.ai.

- Sopra Steria offers NAlxus, an enterprise virtual assistant leveraging Natural Language Processing (NLP) and Generative AI expertise to enhance customer experience. NAlxus understands and responds to queries across various channels like messaging platforms and voice interfaces, ensuring consistent engagement. It empowers businesses to create tailored virtual assistants easily, without technical expertise, addressing specific needs efficiently. NAlxus incorporates AI-powered analytics, providing insights into user interactions and performance metrics. These analytics enable data-driven decisions to optimize performance continually. Additionally, NAlxus supports multilingual capabilities, ensuring inclusivity by understanding and responding to queries in multiple languages.
- Sopra Steria, through its InnerData platform, streamlines the deployment of large language models (LLMs) and AI programs. The platform features a marketplace for developers to deposit APIs and source code, enhancing collaboration and development processes. Data scientists can efficiently test and call LLM models hosted on this multi-cloud platform with an integrated JupyterLab environment. Additionally, Sopra Steria Next, the company's consulting arm, offers a strategic approach to tackle deployment challenges within clients' information systems, focusing on customer excellence by addressing the identification and resolution of business use case obstacles that have historically impeded the adoption of AI technologies.
- Sopra Steria prioritizes ethical and regulatory compliance in AI development and deployment, ensuring adherence to standards like the European AI act. This commitment builds trust with stakeholders and mitigates risks. The company also showcases its AI solutions across diverse domains with projects like Compliance AI and RUBA that streamline regulatory processes. Clarify AI utilizes knowledge graph technology to automate complex regulatory information extraction. Internally, tools such as Cedric and Synergy AI assist consultants and sales teams in accessing resources and generating tailored offerings. Data Enricher demonstrates automation in article generation through AI algorithms.
- Some of the key differentiators offered by Sopra Steria include innovative ai solutions, deep understanding of linguistic nuances, inclusivity, and accessibility. However, the company distinguishes itself by prioritizing

inclusivity and accessibility through innovative solutions such as its virtual assistant technology specifically tailored to accommodate diverse sign languages. By drawing on its extensive expertise in linguistic nuances and leveraging advanced AI capabilities, Sopra Steria leads the way in integrating French and Quebec Sign Language (LSF/LSQ) into its virtual assistant platform, with potential expansions to encompass other sign languages such as American Sign Language (ASL). This forward-thinking initiative underscores Sopra Steria's commitment to meeting the needs of individuals with hearing impairments, ensuring that its virtual assistants can effectively engage with users across a spectrum of communication preferences. This approach sets a new benchmark for inclusive technology solutions within the industry.

- The company caters to a variety of use cases across diverse industries. In the financial sector, it utilizes anomaly detection, fraud detection, and social media scraping to combat financial crimes. To enhance customer service, it offers call centre automation with conversational assistants. Its healthcare solutions use machine learning for diagnosis prediction, drug shortage prediction, and incident prediction, while in the supply chain sector, it employs machine learning platforms, simulators, and optimization techniques for resource planning, flow supervision, and performance optimization. Additionally, it offers solutions for stock prediction and PLM enhancement in the financial and product development domains.
- In terms of geographical presence, Sopra Steria has a major presence in the European Union. The company holds a customer base across several industry verticals, including energy & utilities, insurance & social, government, retail, telecommunication, media, entertainment, and transport with a strong focus on defence and security, airline, and financial services.
- In terms of roadmap, Sopra Steria will focus on generative AI tools, prioritizing customer feedback for modification. Sopra Steria is involved in delivering Microsoft Github Copilot to all its developers (up to 10 000 FTEs) by the end of the year. Thus, Sopra Steria can accompany and give return on experience to its privileged customers. Through a public testing instance, selected customers can preview and provide valuable insights before full release, ensuring alignment with customer needs. The company will introduce generative AI tools in stages so that it can broaden customer understanding of its capabilities beyond traditional approaches like ChatGPT. By July 2024, a full operator system powered by generative AI is planned for launch, enabling

operators to swiftly respond to inquiries with suggested answers and access relevant processes from a knowledge base. Additionally, a scripting assistant will allow users to customize virtual assistant behavior and configuration, enhancing the user experience.