Kaleido Intelligence

Kaleido Intelligence Connectivity CHAMPION Vendor 2025

A KALEIDO VENDOR HUB BRIEF : ESIM & CMP

SORACOM

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About this Brief

The Kaleido Vendor Hub provides the industry's most thorough assessment of connectivity vendors' product offerings.

Kaleido's Vendor Hub Report offers the industry's most comprehensive evaluation of connectivity vendors, analysing their product strengths, strategic roadmaps, and competitive positioning. Updated annually, the report is the result of over 500 hours of primary and secondary research conducted across five months, ensuring a thorough and unbiased assessment.

The 2024 edition features an expanded scope, assessing 39 vendors across three key product and service categories: CMP (Connectivity Management Platform), eSIM connectivity, and eSIM RSP (Remote SIM Provisioning). Each vendor receives category-specific scores and detailed profiles, providing clear insights for competitive benchmarking and market positioning.

Kaleido's methodology focuses on evaluating vendors' product excellence, innovation, problem-solving capabilities, and alignment with current and future market needs. This approach ensures fair comparisons and an impartial analysis, enabling businesses to make informed decisions based on vendor performance.

CMP & Cellular IoT Trends & Outlook

The end of 2023 saw the cellular IoT market reach 3.1 billion connections, with global numbers boosted by continued strong demand in China. In the latter market, some 2.3 billion connections were reported, with nearly 500 million connections added across the year. Overall, cellular IoT connections grew by 24% year-over-year. By the end of 2024, connections are expected to reach 3.6 billion globally, representing 16% growth year-over-year. CAGR between 2024 and 2030 is forecast to register at 11%, with global cellular IoT connections reaching 6.7 billion in that year. That said, most regions save for East Asia & Pacific are expected to register CAGRs of over 15% during the forecast period. According to Kaleido's survey data, the market for cellular IoT is showing increasing maturity, with higher-than-ever adoption among enterprises, in addition to increasingly sophisticated requirements from end-customers.

Cellular IoT Connections in Millions, 2023–2030

Year	Value
2023	2,455.8
2024	2,854.6
2025	3,209.9
2026	515.3 / 3,551.3
2027	432.8 / 616.4 / 3,863.9
2028	523.5 / 728.8 / 4,060.4
2029	627.7 / 855.8 / 4,267.3
2030	746.2 / 987.1 / 4,481.4

Legend: Latin America & Caribbean, North America, Europe & Central Asia, South Asia, East Asia & Pacific, Middle East & North Africa, Sub-Saharan Africa
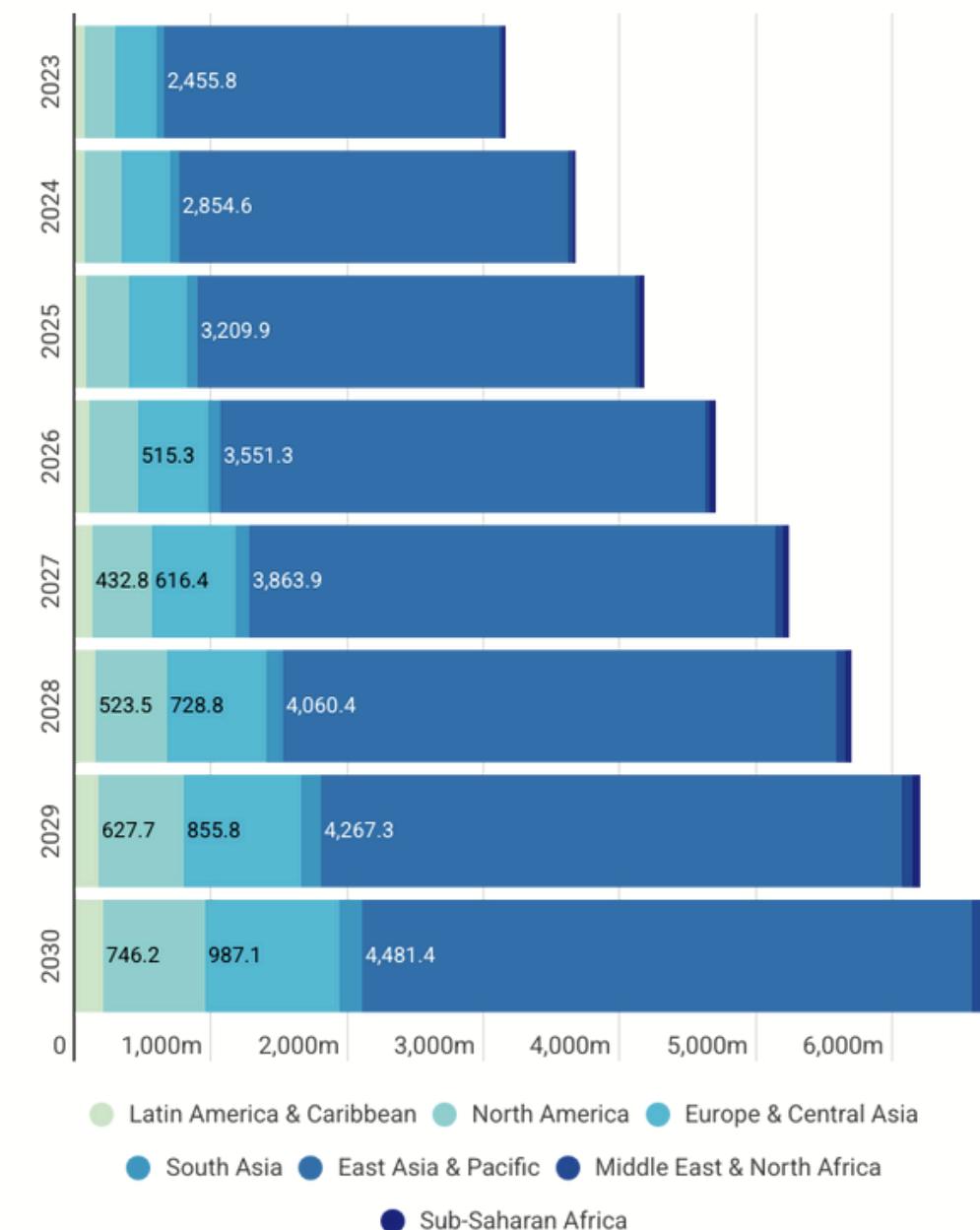
Nevertheless, the economic background impacting IoT does not appear completely positive. In China, economic slowdown has not been significantly tempered by fiscal stimulus, while a second Trump term in the US presidency will almost certainly see new measures from the US to impose tariffs, causing further complications for China. Kaleido has little doubt that demand for cellular IoT in the country will continue, but believes that some slowdown in overall growth is to be expected over the coming years. In other geographical areas, factors such as the conflicts in Ukraine and Gaza continue to play a role, with future outcomes in both zones continuing to be uncertain. Continued tensions inevitably impact shipping and logistics, as well as the availability of raw materials, with any further escalation likely to have an impact on future IoT growth.

Despite this mixed future, several interesting trends have been underlined as a result of Kaleido's latest research into the CMP market during 2024. It is certainly the case that nearly all players that Kaleido directly engaged with during the study have placed a strong emphasis on development of either new features of their platforms, or their infrastructure, in order to meet changing market demands. This is undoubtedly encouraging, given Kaleido's own observations of increasing customer sophistication and complexity on the market.

Abstraction of complexity is perhaps an apt phrase for some of the ongoing work among providers, in the context of multi-operator connectivity sourcing. Several CMP providers have recognised the need for single pane-of-glass management for their customers, although the level to which this has been achieved through their efforts is highly variable.

CMP & Cellular IoT Trends & Outlook

This work suggests a broader market recognition that even the largest MNO providers cannot 'go it alone;' interestingly, similar observations can be made at the wholesale level where an increasing number of large MNOs have partnered with other CSPs to support end-customer international connectivity requirements. Meanwhile, Kaleido observed several interesting capabilities among providers where configuration of traditionally-complex solutions has been simplified through innovation, which indicates that the 'long tail' of enterprise IoT customers are increasingly sophisticated in their requirements now too.

Security and transparency are emerging trends within the CMP space. To varying degrees, several providers have implemented network layer security tooling for customers, with ML/AI utilised as a key supporting technology to identify anomalous behaviour. Meanwhile, observable metrics in the context of CMP utilisation, either via the GUI or the API, are viewed as increasingly important features of transparency and overall solution security.

For better or for worse, the industry cannot escape the excitement surrounding AI. Several providers now make use of generative AI capabilities in the realm of customer service, software development, trend observation and optimisation, as well as overall solution business intelligence. Although implementation is at an early phase, results are impressive, particularly in the case of customer service. However, given the cost of model training and deployment, monetisation remains as an overall concern, with customer appetite for AI as part of a cross-sell opportunity largely untested at present.

CO2Meter has established itself as one of the most trusted and reliable leaders in the gas detection industry. The company provides technologies track and monitor everything from carbon dioxide and oxygen to carbon monoxide, ammonia, methane, nitrogen, argon, and other gases. CO2Meter also offer fixed-gas safety systems, gas data loggers, and accessories to help make that data accessible and actionable.

While CO2Meter's stack is built on a robust AWS backend, the company nonetheless faced challenges when it came to integrating the broad range of IoT devices that their various solutions need to support. Managing software and certificates for large fleets – particularly with most deployed devices being in the possession of end-users - can be complicated, and each new customer only adds to that complexity.

Turning to Soracom, the company found a global connectivity solution, built on AWS infrastructure, that included a robust suite of backend tools designed to help secure and provision connected devices at a scale that works for a business with global reach.

CO2Meter now takes advantage of Soracom's Beam and Krypton services – TLS encryption proxy and device provisioning services that provide both secure connectivity and device management with direct integration to AWS IoT Core. CO2Meter further deploys the Soracom Harvest data management tool to help monitor and track usage down to the specific SIM. This capability has proven essential to the success of development and data management for their prototype devices.

By applying Soracom's data management controls and efficient setup, CO2Meter has been able to reduce data usage for its devices by around 30%, resulting in significant cost savings. Meanwhile, using the Soracom SIM and device authentication service (Krypton) to automate the device provisioning process has reduced setup time from about 5 minutes per device to less than one minute.

These additions have allowed CO2Meter to introduce new devices, expand its operations, and emerge as a global leader in sensor technologies.

Gas Detection and Sensor Monitoring

Case
- Custom-built gas monitoring systems
- Remote monitoring and data reporting

Primary Challenges
- Provisioning and credentialing large fleets of deployed devices
- Direct integration to the AWS IoT core
- SIM-Specific data tracking and management

Solution
- Automated Device Provisioning with Soracom Krypton
  - Setup time reduced from 5 mins to less than 1 min
- TLS offloading with Soracom Beam
  - 30% data overhead reduction and significant cost saving
- Data management with Soracom Harvest
  - Efficient tracking of usage and successful prototyping
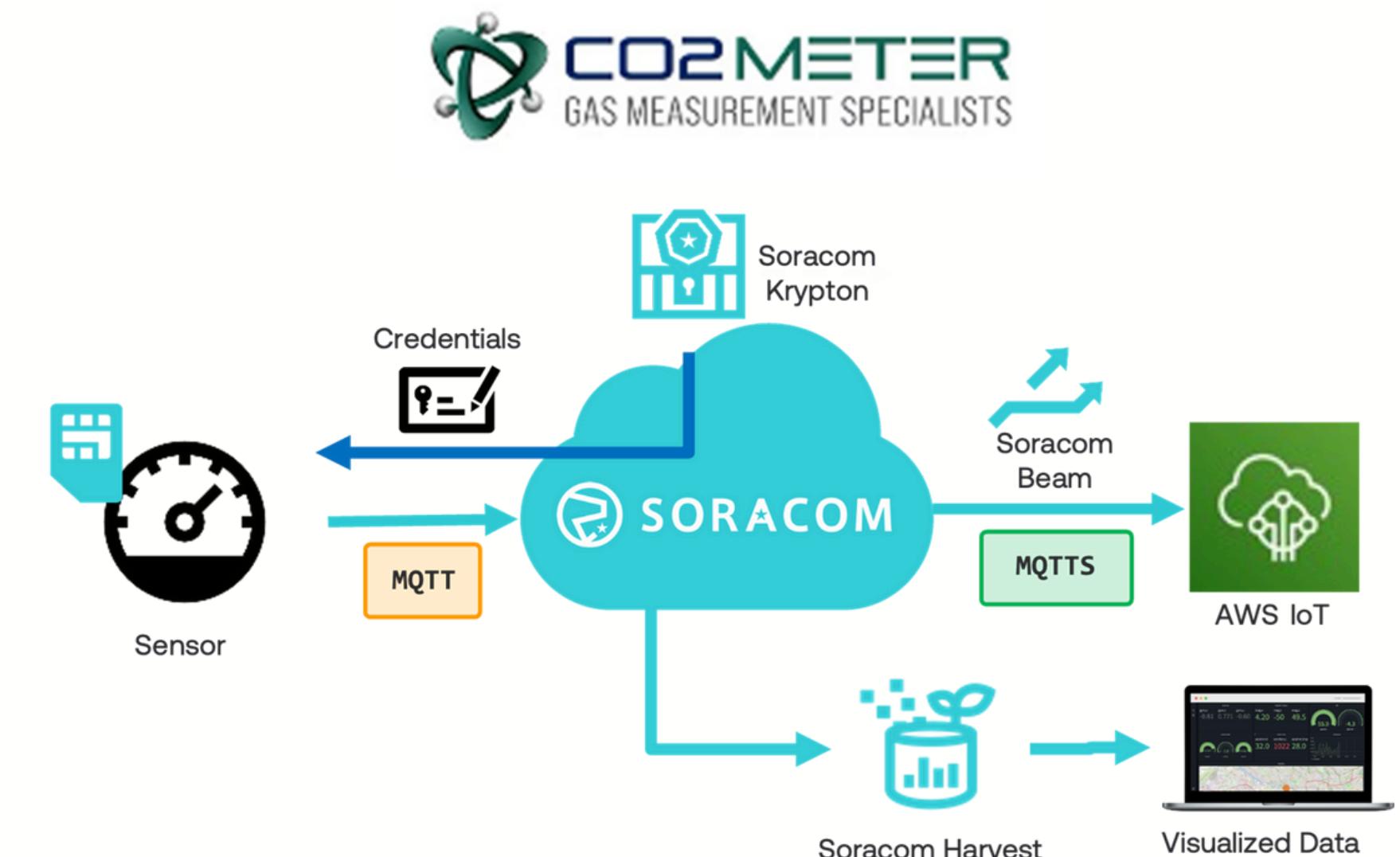
Kaleido Connectivity Vendor Hub 2025: Connectivity Management Platform

Kaleido Score Summary for Connectivity Management Platform, Soracom: 12.3/15
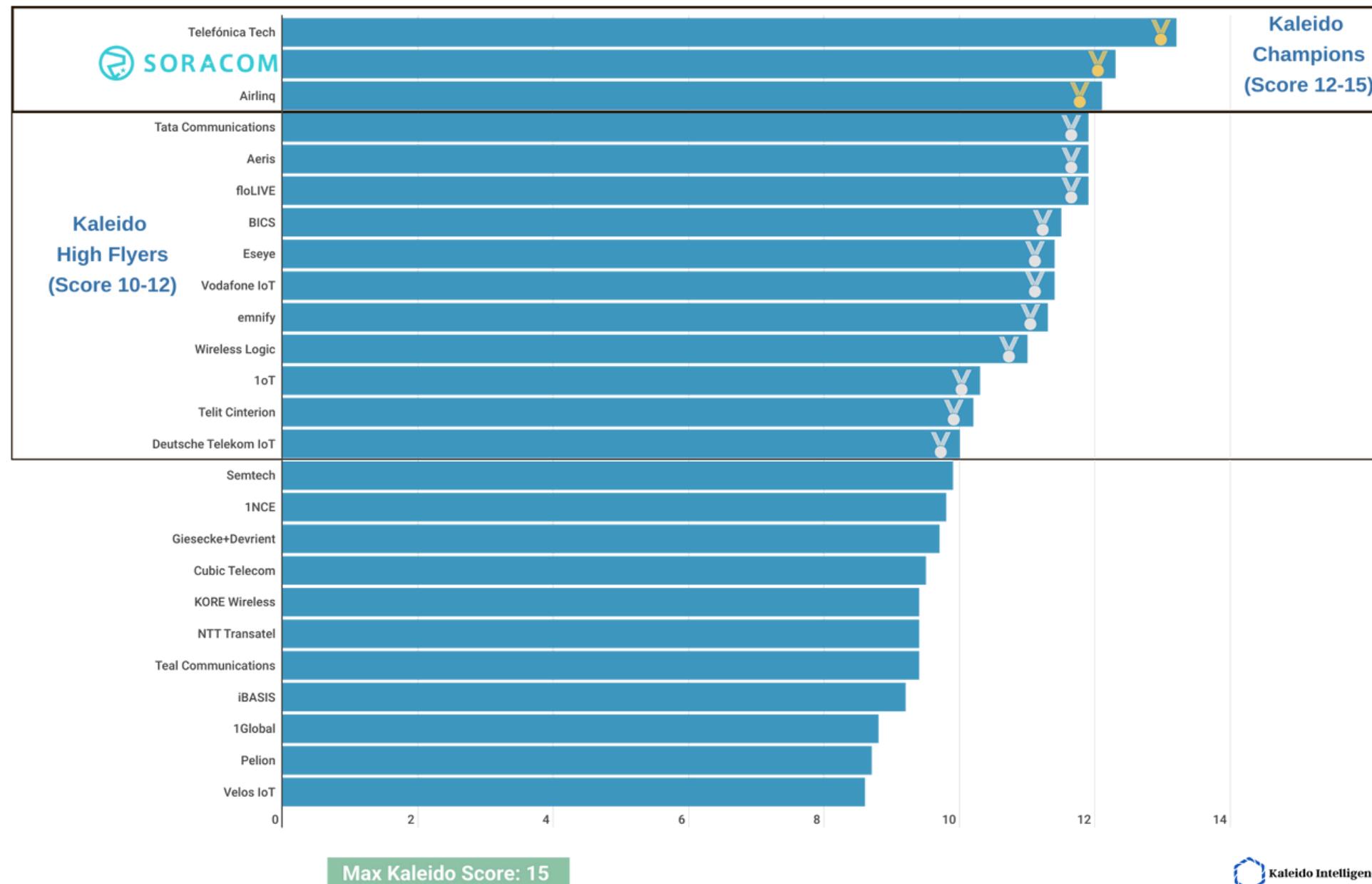
"Kaleido champions demonstrate leading product range and the highest quality of service to enable operator success"

Source: Kaleido Intelligence Connectivity Vendor Hub 2025

Kaleido Intelligence

CHAMPION
Connectivity Management
Platform Vendor

"Kaleido Champions demonstrate leading product range and the highest quality of service to enable operator success"

SORACOM

Kaleido Intelligence Vendor Hub | January 2025

Kaleido Connectivity Vendor Hub 2025
CMP Score Summary

Kaleido Intelligence

"Soracom continues to focus on delivering innovation into the market, with a range of new services introduced over the past year. In this context, the company has focused heavily on generative AI. For example. its Soracom Flux product enables customers to build analytics capabilities from several data sources, using generative AI to analyse and output data based on natural language prompts. This type of approach extends into connectivity management itself, with Soracom Query Intelligence enabling customers to receive analysis over their SIM estates using natural language prompts. Core network infrastructure is decoupled from service and logic state data, enabling, for example, session management state recovery if a core network component fails."
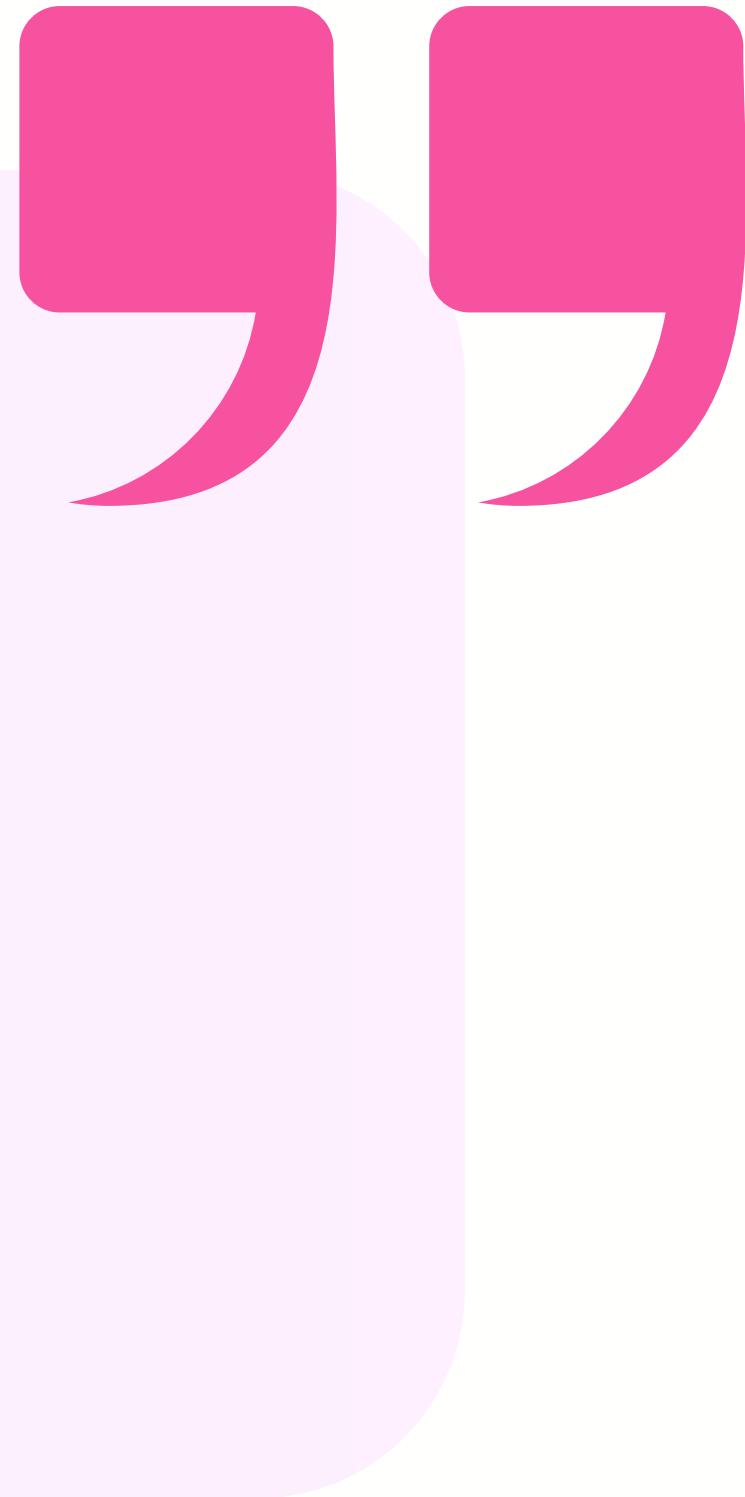
Soracom is an IoT service provider focused on connectivity management, simplified cloud integration and virtual private networking solutions. It was acquired by KDDI in 2017, with the latter notably using Soracom's CMP for its Global IoT Access service. Additional investment was received in 2021 through a partnership including existing investors in addition to new investment from Sony, Hitachi, Secom, Sourcenext, Nippon Gas and World Innovation Lab.

Soracom has found success in verticals such as consumer electronics, agriculture, POS, and healthcare as well as energy and utilities, and counts several large global enterprises among its customers. It has developed an API-first approach to connectivity management, with the baseline platform supported through a wide range of modules extending into analytics, device management and cloud connectors, to name a few.

The overall solution is supplemented by Soracom's SIM and connectivity offering, which provides customers with connectivity in over 180 countries via agreements with 360 global operators. The SIM is available in almost any physical form-factor, including eUICC and iSIM.

Soracom counts around 7 million connections under management, with the majority using cellular connectivity. Remaining connections are supported through SIGFOX radios. Customer feedback gathered during Kaleido's primary research phase was particularly positive in the context of both customer service, in addition to the ability of the company to identify and address any issues with connectivity.

Soracom's solutions have been developed from the ground up as cloud-native, API-first products which, in turn, has allowed it to develop a layer of resilience that is currently challenging to implement in traditional data centre or even virtualised instance deployments. In this context, core network infrastructure is decoupled from service and logic state data, enabling, for example, session management state recovery if a core network component fails. This is supported by auto-scaling services for core network infrastructure instances and interfaces, providing an enhanced level of resilience for connectivity availability at the network and platform level. Through this approach, the company has been able to maintain 99.99% availability over the past 3 years. The company as deployed an AI/ML powered tool that monitors across its infrastructure, CMP and network connectivity, and alerting relevant personnel when outlier metrics are detected and alerts are generated.

Low latency requirements are supported by breakouts located in several countries across Asia Pacific, North America, and Europe. The company supports connectivity management for a range of different technologies, including cellular, Wi-Fi, LoRa, SIGFOX, Ethernet and satellite connectivity, with the company now offering NTN-based satellite connectivity to qualified customers via a partnership with Skylo. Single pane of glass management of connections across various technologies is available across cellular, SIGFOX, satellite and, on a limited basis, for LoRa devices.

Soracom continues to focus on delivering innovation into the market, with a range of new services introduced over the past year. In this context, the company has focused heavily on generative AI. For example. its Soracom Flux product enables customers to build analytics capabilities from several data sources, using generative AI to analyse and output data based on natural language prompts.

Soracom: Profile Analysis

This type of approach extends into connectivity management itself, with Soracom Query Intelligence enabling customers to receive analysis over their SIM estates using natural language prompts. Here, the solution is unique in that the system displays the associated SQL query that it has built, as well as providing a text-based explanation how how the query is constructed. Finally, generative AI is being utilised as part of the company's customer service offering, with an AI bot able to draw from product documentation and knowledge basis to offer first-line customer service.

Soracom has developed an array of services that can be deployed alongside the baseline Soracom Air CMP for connectivity management. Here, packet capture solutions can be deployed to inspect network traffic across one or more devices for either diagnostics or security purposes, with the potential of using virtual private gateways alongside deep packet inspection to route traffic to external security solutions tools.

External systems, in case they detect any threats, are able to use the Soracom API to execute actions, such as suspending or blocking SIMs from the network. For simpler diagnostics use cases, a tool is provided that allows customers to determine if the source of any issue is related to the device or the network or if there is a server issue.

Further VAS offerings are found in the form of business intelligence capabilities, with services ranging from relatively simple data collection and presentation via its Soracom Harvest tool, to more advanced capabilities delivered through Soracom Lagoon. The former service can be enhanced through Soracom Harvest Intelligence, which leverages generative AI to offer analysis on any observed trends or anomalies, and serves as a powerful tool for less technical customers. Meanwhile, the latter service - allows customers to configure additional alerts and triggers that are not available in the baseline product, such as geofencing.

Diagnostics are enhanced via the company's Peek service, which acts as a packet capture tool without the additional burden of setting up specific mirrors or servers to inspect traffic. Here, abnormal behaviour can be analysed, including connectivity behaviour and applications, in addition to understanding which particular services or destinations are consuming data. Finally, Peek enables customers to perform an audit of devices to understand if any data is being sent to unauthorised destinations, and block such activity if needed.

Soracom has supported eSIM for several years and is notable for the proportion of the SIM-managed base accounted for by eSIM that exceeds other providers by some margin. eSIM take-up is presently highest in European and Asian markets . Meanwhile, the company has established a number of partnerships with OEMs to deliver connectivity solutions.

Both SGP.22 (with a new UI and API launched for user-driven OTA profile downloads over the past year) and SGP.02 specification types are supported by the company, although no milestones were reported by the company in regard to development towards SGP.32 support. A number of different plans are available for connectivity, ranging from those specialised for coverage across Asia-Pacific, Europe, US and Latin America.

Additionally, plans are available for LPWAN use cases, such as LTE-M and NB-IoT. Notably for US, Japan, and Brazilian markets, the company has secured permanent roaming access via local IMSI ranges donated by partners. In total, the company is able to draw from a robust library of IMSIs through various agreements to deliver local, global and regional connectivity. Nonetheless, in some markets where regulations demand a local service provider presence, locally manufactured SIM, or restrict cross-border data flow, coverage on a roaming basis is restricted to temporary roaming applications.

Kaleido Vendor Hub Methodology

The Kaleido Vendor Hub provides the industry's most thorough assessment of CMP vendors' product offerings.

Kaleido's approach to competitive analysis ensures that all vendors have an equal opportunity to showcase their technical proficiency and ingenuity. This approach enables operators to understand vendor positioning based on service offering strengths and innovation rather than relying on existing popularity.

Kaleido's method entails categorising vendors based on their product excellence, recognising each company's distinct market positioning, problem-solving skills, innovative prowess, and their ability to align with current market needs and future demands.

Kaleido conducted the following process to achieve this:

- Kaleido's comprehensive research involved both primary and secondary methods, aiming to gain insights into the positioning of companies within the connectivity sector. This encompassed interviews with numerous well-established vendors and wholesale service providers. The approach incorporated research, interviews, product inquiries, and demonstrations to ascertain the vital attributes of these players, including their corporate and market positioning, technical product and service offerings, market presence, key advantages, and potential avenues for future development.
- Companies were extended invitations to participate in responding to pertinent questionnaires pertaining to product categories. In addition, telephone interviews were conducted to request and consolidate information regarding their product offerings and capabilities.

Kaleido Vendor Hub Methodology

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- In the absence of specific input from these vendors, we rely on publicly accessible information found in whitepapers, press releases, partner interviews and case studies available on the vendor's website. This ensured a more up to date understanding of their offerings and capabilities.

- Further to service provider interviews, Kaleido conducts interviews with ecosystem players in addition to large-scale enterprise surveys on an ongoing basis to determine their needs and requirements. This enabled us to better understand the strengths with real-world needs as perceived by both service providers as well as customers, especially from a technical perspective.

- Our goal is to ensure a comprehensive and well-informed evaluation, seeking to leave no gaps or missing details in our assessments. This meticulous process is essential for developing an opinion that is consistently supported by a widely accepted and comprehensive market research methodology. It is crucial to underscore that our commitment lies in providing the most accurate and well-rounded insights to facilitate informed decision-making for all stakeholders involved. It is important to note that Kaleido does not endorse any operator, vendor, or service mentioned in this research and market study.

About Kaleido Intelligence

Kaleido Intelligence is a specialist consulting and market research firm with a proven track record delivering telecom research at the highest level. We enable the worlds leading MNOs, MVNOs and Service Providers with detailed, authoritative insights that inform business success.

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Get in touch with the Kaleido team for more information on the methodology, scoring criteria list and research sources or to request a sample.
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