Ovum Decision Matrix: Selecting a Customer Analytics Solution for Telcos, 2015–16

Summary

Catalyst

Telcos' quest for a competitive edge in a rapidly changing market means that they need to improve the experience delivered to current customers, acquire new customers, and enhance new revenue streams based on existing services. Consequently, there is also a business demand for systems that provide actionable insights on customers' behavior and activities, especially in real time, to deliver on these ambitions. However, to achieve these objectives, telcos must use all data sets relating to customers' interactions with the telco, and the services they consume. For these reasons, analytics solutions are changing; they are moving away from the siloed analytics approach to deliver analytics offerings that use data from multiple data sources across the business. As expected, the competitive landscape is evolving, with NEPs, SIs, and software vendors focusing on the opportunity in telecoms, to offer their solutions.

In view of these factors, Ovum has produced this Ovum Decision Matrix to identify how the leading customer analytics vendors stack up against each other in terms of their technology, execution of strategy, and market impact.

Ovum view

The telecoms industry is fast realizing the value of the data that they hold and how it can enhance their operations in marketing and care. In recent surveys conducted by Ovum with senior telco executives (*Ovum ICT Enterprise Insights 2014 – 15* and *Telecoms Customer Analytics Survey 2015*), we identified the importance of customer analytics tools to provide insights that support marketing and care operations. To generate the required insights, telcos have to move away from data sets siloed by business unit or technology and move toward combining data sets from network and customer-related data sources across the business. Analytics based on the combination of these two types of data sets generate deeper and richer insights on what the customer is buying as well as how their activities on the network influence their overall experience and vice versa. Given these insights, telcos can proactively respond to customer needs in a way that brings satisfaction to the customer.

Vendor solutions analyzed during this research reveal the relative strength of each offering in meeting telcos' requirements. While some are focused on meeting the demands of a single business unit (i.e. marketing or care) using data from multiple data sources, others are looking to serve both. A large proportion of these solutions are based on big data, with analytics performed in a way that allows for the generation of a comprehensive view of the customer. Overall, our research shows that the pure analytics vendors are doing better than the telecoms-focused players in terms of technology and market impact.

In Ovum's view, it is vendors that can combine strong analytics capabilities with telecoms expertise to serve both units that bring the most value to the telco. Other factors include the maturity and completeness of analytics offering. These vendors are able to pull data from CRM, B/OSS systems and network systems; analyze the data using advanced analytics tools; and operate in offline mode or in real time to generate customer insights relevant to both marketing and care. The ability to deliver these capabilities using prepackaged analytics applications developed with the specific needs of each

unit is the core differentiator. Non-IT or data science users within these business units can utilize the insights as quickly as possible to serve their operational needs. Services will also play a critical role in ensuring that telcos get ta quick return on their investments for these tools.

Key findings

- Investment in customer analytics solutions is essential to telcos' achieving and maintaining improved customer experience. As a result, vendors must develop their analytics functions to enable the use of combined data sets from multiple data sources that provide actionable customer insights.

- There are a slew of customer analytics applications delivering marketing use cases, but very few are focused on care use cases. This seems like a missed opportunity, as the customer insights that are fed into the marketing systems which enrich outbound offers can also be fed to customer care to deliver proactive care. Vendors such as Amdocs, Ericsson, Guavus, IBM, and NetCracker analyzed in this research address this point.

- The most compelling vendor offers combine analytics tools with strong telecoms expertise and a track record in services. In addition the tool should be easy to use for the non-IT specialists in the marketing and care departments.

- Ovum has identified three companies as market leaders: IBM is the overall market leader, followed by SAS and NetCracker. This group has a rounded offer using structured and unstructured data sources from network and customer systems. They have long experience in analytics and complementary service capabilities

- Amdocs, Comviva, Ericsson, Flytxt, Guavus, and HP are the market challengers, and come from a range of backgrounds. Each vendor comes to the market with unique capabilities, and while they support marketing and/or care use cases, in combination with their strong telecoms background, they lack the depth of analytics capabilities demonstrated by the market leaders.

- AsiaInfo and Pontis are the market followers. Both vendors are considered niche, with a limited number of use cases deployed in the market.

- Big data and big-data analytics are at the heart of vendors' development strategies. These features enable not just the analysis of unstructured data sets such as social media but the ability to analyze very large data sets generated from consumption of data services.

Vendor solution selection

Inclusion criteria

Ovum defines a customer analytics solution as a solution that contains a set of tools that can use data related to customers' entire life-cycle journey with a telco, from acquisition to management to retention, and network-related data. Apart from providing the basic business intelligence and analysis functions such as reporting and monitoring, these tools have to provide advanced analytics capabilities such as data mining and predictive analytics and, in more advanced cases, prescriptive analytics. Finally, these solutions need to deliver these analytics insights either directly to existing business systems such as care and marketing platforms or to prepackaged applications that are designed specific to the telecoms vertical.

The following inclusion criteria had to be satisfied by the participating vendors:

- The vendor's solution must be in commercial use, and have at least one operational telco customer.
- The vendor's customer analytics solution needs to provide prepackaged applications developed specifically to the telecoms industry.
- The vendor's solution needs to leverage data from multiple data sources either using a portfolio of telco data adapters or leveraging data held in telcos' big-data platforms.
- The solution must also have a significant level of brand awareness among telcos. This assessment is based on market impact and recognition within the telecoms industry and among peers.

Exclusion criteria

The criteria for the exclusion of vendor solution in this decision matrix are as follows:

- Vendors that deliver analytics platforms without prepackaged applications that are specific to the telecoms industry were excluded from this research.
- Vendors that provide analytics capabilities using a single data source to provide customer insights.
- Our list of vendor solutions is not exhaustive. Some vendors we approached were unable to provide us with the required information during the project timeline.

Methodology

Technology assessment

For the technology assessment, Ovum has focused on a set of criteria we consider most critical to telcos for their customer analytics investment. The following functionalities below form the core source of differentiation of vendor offerings:

- **Fulfillment of core telecoms business user requirement:** For this criterion, we have assessed the vendor solution's ability to provide features such as support for existing business workflows; to extract data from business systems such as CRM, BSS, and OSS systems; and to integrate with existing business systems to provide analytics insights that drive actionable decisions.
- **Prepackaged analytics applications:** We have looked at the suite of applications each vendor provides for both marketing and customer care use cases for telecoms specifically. The ease of use of these applications provided by each vendor was also assessed based on the business user's experience.
- **Advanced analytics:** To what extent does the solution support advanced analytics capabilities such as predictive analytics, data mining, text analytics, speech analytics, cross-channel analytics, and complex event processing?
- **Data sourcing:** To what extent is the vendor's analytics solution able to access and analyze structured and unstructured data to provide customer insights?
- **Foundational BI tools:** We have assessed the vendor's support for reporting, monitoring, querying, and basic analysis functions.

- **Mobile BI**: Does the vendor's solution provide support for the access of analytics applications using mobile devices?

- **Administration and system management:** We have assessed how easy it is for the telco's IT unit to monitor and manage the customer analytics implementation (such as user management, query management, upgrade management, system monitoring, and so forth).

Execution

In this dimension, Ovum has reviewed the capability of the solution in the following key areas of strategy execution:

- **Maturity:** The current status of each vendor's customer analytics solution and its future road map are assessed. The more established analytics vendors gained the highest scores even though they could be considered as not having core telecoms expertise possessed by vendors with a broader portfolio of telco-specific platforms.

- **Interoperability:** For this criterion we assessed how easily the customer analytics solution can integrate with other best-of-breed telco operational systems, such as CRM, BSS, and OSS.

- **Innovation:** Innovation demonstrated by each vendor can be a key differentiator in the value that a telecoms enterprise achieves from its customer analytics solution. In this criterion, we have assessed the level of innovation demonstrated in the vendor's product(s), its business alignment, and its strategy.

- **Deployment:** This criterion includes speed of deployment (for varying number of users), the extent to which each vendor satisfies a generic set of service-level agreements, and the support features provided for each solution deployment.

- **Scalability:** Criteria such as the solution's ability to support a growing number of users and the features provided to support the scaling up or scaling down of solution were assessed here.

- **Telecoms fit:** The alignment of the solution for the telecoms vertical is assessed.

- **Partner ecosystem:** The vendor's partner ecosystem is assessed, taking into account the number and strength of technology partners as well as reseller partners.

- **Professional services:** The vendor's portfolio of professional services such as solution implementation, consulting, systems integration, training, and managed services provided to telco customers are examined.

- **Sales model:** The number of direct and indirect sales channels that the vendor can access when selling to the market is analyzed.

Market impact

The global market impact of a solution is assessed. Market impact is measured across five categories, each of which has a maximum score of 10 and is weighted in favor of the market leader:

- **Revenues obtained from customer analytics solutions:** Each solution's global customer analytics revenues is calculated as a percentage of the market leader's revenue. This percentage is then multiplied by 10 and rounded to the nearest integer value.

- **Telecoms revenues obtained from customer analytics solutions:** Ovum estimates each vendor's revenues in the customer analytics space from the telecoms industry. These

revenues are calculated as a percentage of the highest telecoms revenues reported, multiplied by 10, and then rounded to the nearest integer value.

- **Telecoms installed base:** The total installed base of each vendor's solution within telecoms is obtained and a weighted score is calculated as a percentage of the largest install base quoted by all participating vendors, multiplied by 10, and then rounded to the nearest integer value.

- **Geographical penetration:** Ovum determines the number of countries in which the vendor has a presence. This number is calculated as a percentage of the market leaders' geographic reach, multiplied by 10, and then rounded to the nearest integer value.

- **Total investment:** Each vendor is awarded a score based on an estimate of the value of total investment committed to the development of the customer analytics solutions. The value is calculated as a percentage of the market leader's investment, multiplied by 10, and then rounded to the nearest integer value.

Ovum ratings

- **Market leader:** This category represents the leading solutions that we believe are worthy of a place on most technology selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best-of-breed.

- **Market challenger:** The solutions in this category have a good market positioning and are selling and marketing the product well. The products offer competitive functionality and good price-performance proposition, and should be considered as part of the technology selection.

- **Market follower:** Solutions in this category are typically aimed at meeting the requirements of a particular telco department. As a tier-one offering, they should be explored as part of the technology selection.

Market and solution analysis

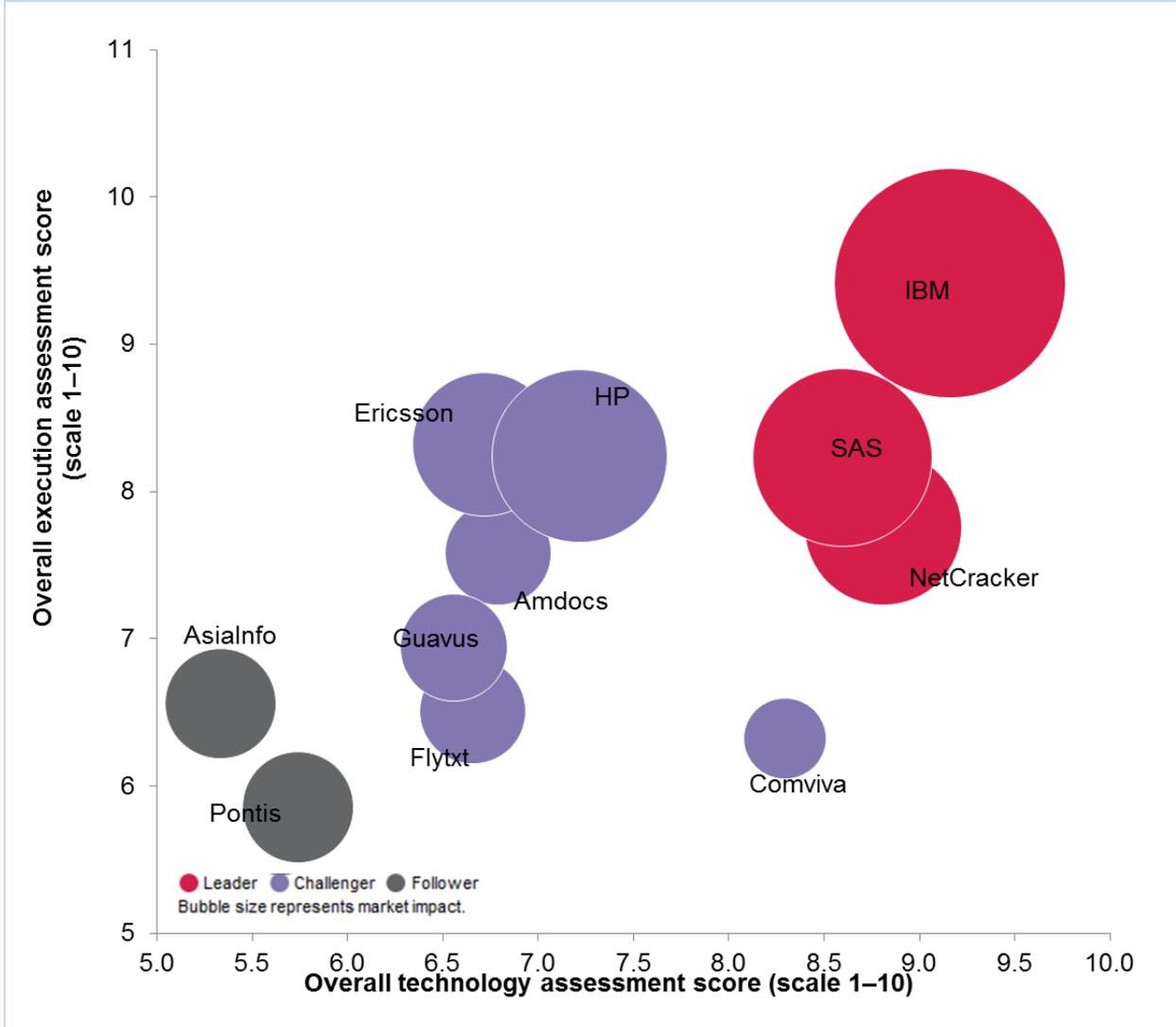## Ovum Decision Matrix: Customer analytics solutions for telcos, 2015–2016

Investment in customer analytics is critical to telcos looking to grow their revenues and improve the service experience delivered to their customers. Meeting these objectives will require vendors to not only provide a strong analytics portfolio but satisfy a broad array of factors, including the degree to which the solution is able to use all of the telco's data about its customers and so meet the telco's business and operational needs. Figures 1 and 2 below represent Ovum's view of the overall technology strength, market impact, and execution ability of the key customer analytics vendors that were selected for assessment in this report.

Figure 1: Ovum Decision Matrix: Customer analytics solutions for telcos, 2015–16
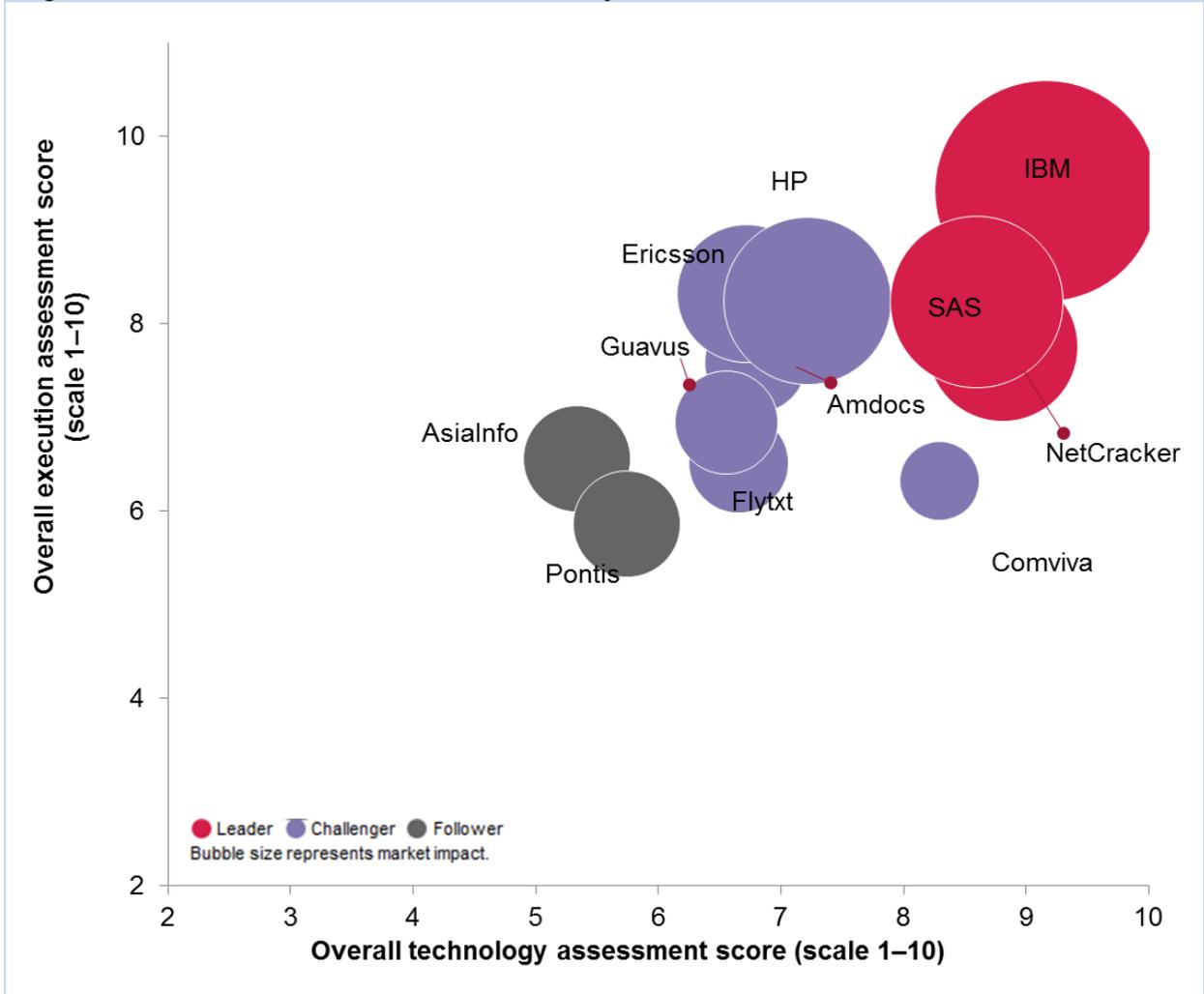
Source: Ovum

Figure 2: Expanded view of Ovum Decision Matrix: Customer analytics solutions for telcos, 2015–16

Source: Ovum

Table 1: Ovum Decision Matrix: Customer analytics for telcos, 2015–16
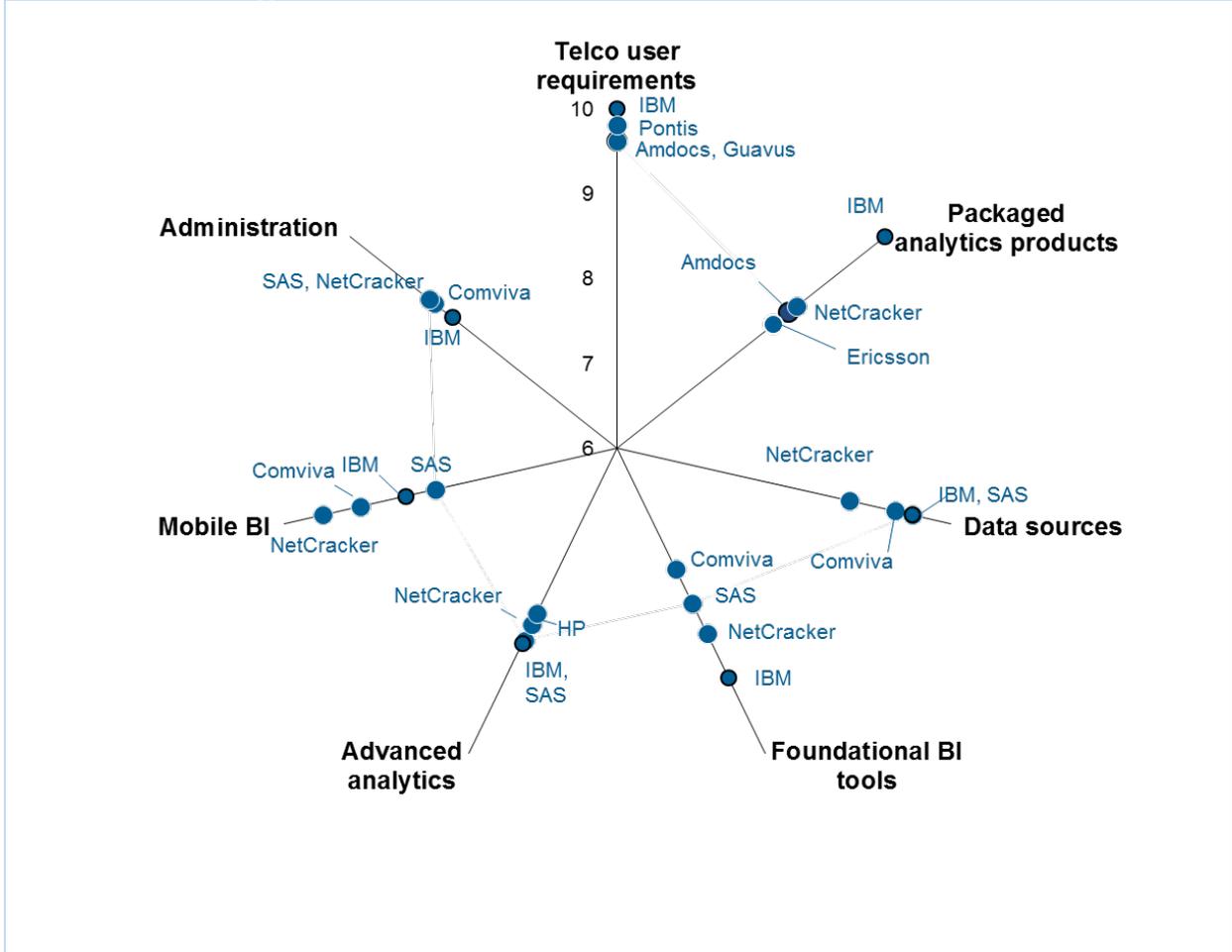
Market leaders	Market challengers	Market followers
IBM	Amdocs	AsiaInfo
NetCracker	Comviva	Pontis
SAS	Ericsson	
	Flytxt	
	Guavus	
	HP	

Source: Ovum

Market leaders

Market leaders: technology

Figure 3: Ovum Decision Matrix: Customer analytics solutions for telcos, 2015–16 – Market leaders – technology

Source: Ovum

Market leaders: execution

Figure 4: Ovum Decision Matrix: Customer analytics solutions for telcos, 2015–16 – Market leaders – execution
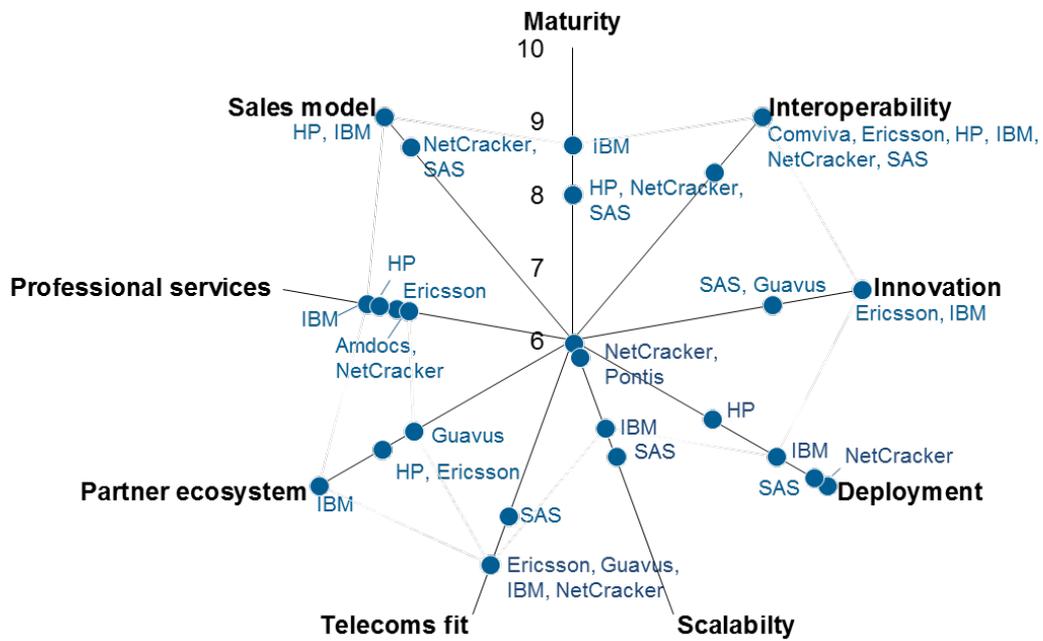
Source: Ovum

Vendor analysis

Guavus (Ovum recommendation: Challenger)

Figure 11: Guavus radar diagrams
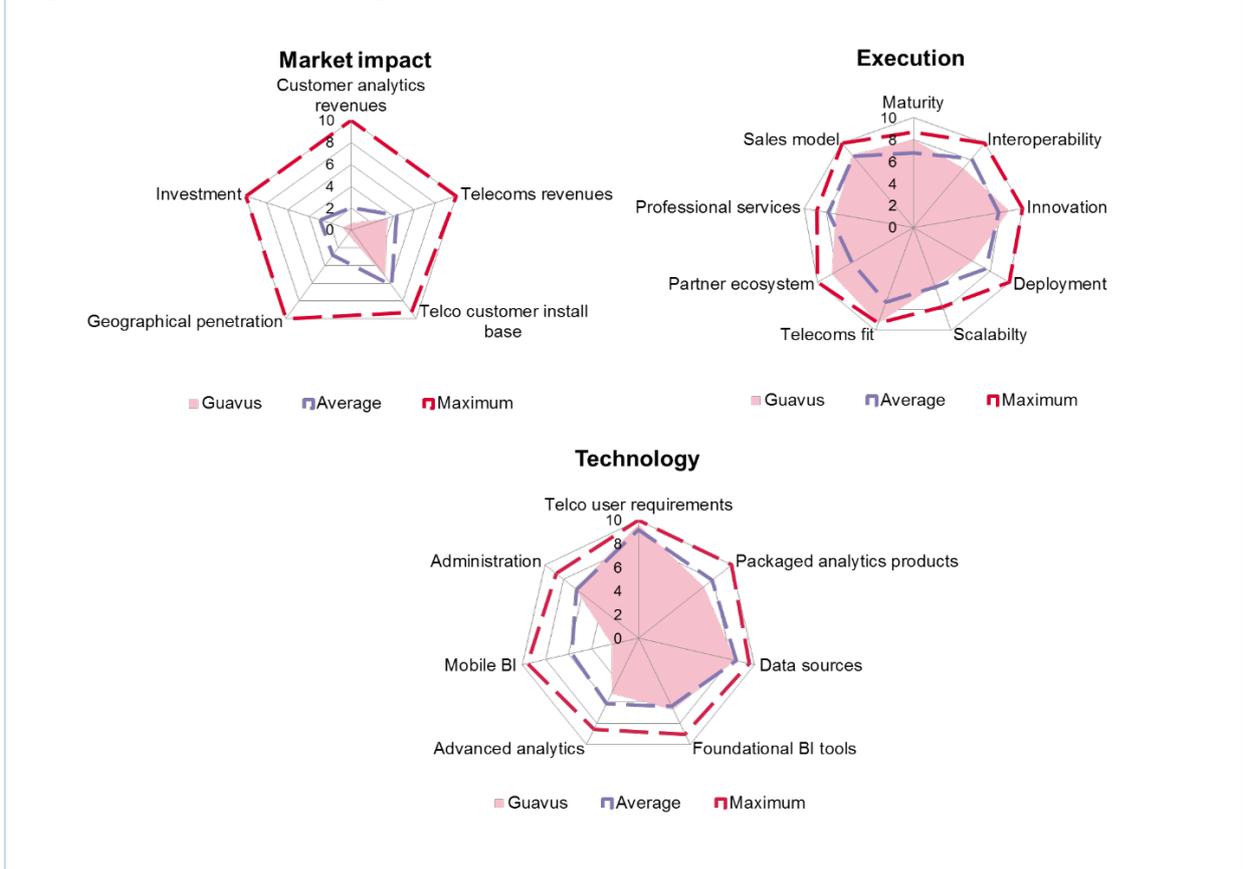
Source: Ovum

Ovum assessment

Based in San Mateo, CA, Guavus is a private company that provides deep analytics capabilities via its operational intelligence platform, the Reflex Platform. Reflex correlates and integrates streaming data such as catalog and sensor data with data stored in big-data lakes and traditional data warehouses, to provide data patterns at both network and customer levels. The Reflex platform performs baselining, anomaly detection, and root-cause analysis to generate insights that are fed to a suite of prepackaged analytics applications. Other business systems can consume the analytics results via the Reflex API. Included in the suite of applications are Care Reflex Service Reflex and Marketing Reflex, which deliver on marketing and customer care use cases.

In terms of its technology assessment, Guavus received its highest score for its ability to meet telco business requirements and use data from customer data systems such as billing and CRM and combine them with network data to drive its customer analytics functions. The Reflex platform, developed using Guavus' intellectual property and open-source technology, accesses both structured data, such as cell-site data, device data, and network-performance data; and unstructured data, such as machine or sensor data and website information. The platform also has the ability to work with

structured data sets obtained from social-media listening tools to enrich analytics insights generated and telcos' customer-experience strategies. The platform's core differentiation is its "analyze first, store later" approach to analytics, which means that the platform performs computations on incoming data and delivers insights as they occur, instead of after the fact. Consequently, telcos can respond more quickly to changes in the network and reduce the cost associated with storing large volumes of unprocessed data. However, the decision to store historic data is based on the telco's preference.

Looking at the vendor's portfolio of applications, the Marketing Reflex application provides customer segmentation and profiling data based on over 400 customer attributes; these can be consumed through the Reflex API by third-party systems such as CRM and campaign management systems. The Care Reflex application uses insights generated from real-time customer behavior and network information to deliver proactive care for technical and billing-related customer enquiries.

Guavus' execution strategy is impressive given its size, and it has developed its analytics capabilities alongside its telecoms use cases. The company's proposition has proved attractive enough to attract an additional $30m in VC funding in the past two months. The company's partner ecosystem consists of: system integrators in the IT and telecoms spaces, such as Accenture, Deloitte, Ericsson, and Infosys; and technology partners such as Cisco and Samsung. It also works with the open-source community to enhance its product functions. Its road map is clearly defined with a view to addressing broad set of objectives with defined timelines. However, as a venture-capital-backed company, the extent to which it can achieve its development and business goals could be limited.

Its market impact scores were just around the average mark. It returned impressive revenue performance figures, with most of its deployments with top-tier telcos in North America. This emphasizes its strong play in the region but highlights its limited visibility in other regions. By extending its scope of analytics offerings to IoT, the vendor could see new wins in the coming years.

Recommendation: market challenger

Telcos should consider Guavus when shortlisting customer analytics vendors. It has a strong analytics portfolio with the ability to generate real-time actionable insights on customer activities. Given the depth of its analytics capabilities and its use of open-source tools for the analysis of big data, we expect to see the vendor extend its portfolio of use cases for its marketing and care/CEM portfolio. The vendor needs to direct investments into strengthening its position in the speech and social media analytics space, its services capabilities as well as extending its current market reach

Appendix

Methodology

Vendor positioning is based on the analysis of a number of sub-criteria for each of three primary criteria: technology, execution, and market impact. A breakdown of each vendor's scores across each dimension is provided within each vendor profile. Based on the combined scoring, Ovum evaluates the top vendors that telcos should shortlist, consider, or explore in a customer analytics solution selection process.

This assessment is based on the following methodology:

- Based on our initial assessment of the customer analytics solutions market for telcos, we invited a number of vendors to respond to a detailed RFI that asked them to provide data and supporting documentation around three primary criteria: market impact, customer analytics technology, and execution.

- In addition to the RFI responses, Ovum invited vendors to provide solution briefings and product demonstrations.

- Analysis of the three primary criteria was based on a scoring assessment exercise undertaken for a number of sub-criteria. For each response within the RFI that aligned to the respective sub-criteria, Ovum rated vendors on a scale of 0–10 based on a consistent set of best practice standards or benchmarks defined by Ovum. We then aggregated these to provide a score for each of the three primary criteria.

Further reading

C-Level Insights on Telcos' Use of Customer Analytics Tools, IT0012-000125 (June 2015)

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Ovum Consulting

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