

Ovum Decision Matrix: Selecting a Customer Engagement Platform, 2018–19

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Summary

Catalyst

In descending order of importance, the top three drivers of digital transformation initiatives are growth, operating efficiency, and cost reduction, confirmed by Ovum's *ICT Enterprise Insights 2017/18 – Global: ICT Drivers and Technology* report. It is little wonder that customer experience comes out on top in both public and private sectors, given the numerous transformation initiatives toward improving customer experience and delivering against customers' rising expectations. It holds the promise of growth and, if well executed, greater operational efficiency at lower cost. Yet the same research found that more than half of the 4,798 enterprises are struggling to make progress, and fewer than one in 10 believed it had achieved its CX goals.

A common barrier is the prevalence of organizational silos that plague far too many companies. This has been reinforced in part by line-of-business buying decisions and the absence of a coherent customer strategy to drive cross-enterprise collaboration in the pursuit of a common goal.

The tide is turning, however. CEOs increasingly are taking center stage in their digital transformation objectives, as they recognize the growing and expanding power of the customer and the pressing need to focus the energies of the enterprise on the creation and delivery of positive experiences in innovation and throughout every interaction. A coherent and unified approach to customers must be enabled by processes designed from the customer's perspective and supported by technology that allows for fluid and intelligent orchestration of the customer experience. Traditional CRM systems failed to deliver on this promise, but the market is seeing the emergence of a new enterprise category of systems and software – the customer engagement platform (CEP). This platform addresses the challenge of connecting and enabling systematic customer engagement across the enterprise and in any channel customers choose to use.

Ovum defines a CEP as a platform that enables an enterprise to coordinate and intelligently orchestrate all customer engagement activities across its value chain in a way that delivers a symbiotic set of outcomes: superior experience for customers and profitable growth, improved operational efficiency, and lower costs for businesses.

In this report, we evaluate the feature capabilities, strength in execution, and market impact of 10 CEPs.

Ovum view

Broadly, vendors are converging on this emerging category from one of two starting points:

- The more advanced CRM vendors are developing capabilities to support customer interaction orchestration and engagement, evolving their front-office transactional support capabilities – systems of record – into genuine systems of engagement.
- Other vendors with a strong customer intelligence and analytics background are developing capabilities to extract customer data from source systems and interaction traffic to trigger the right action in support of customers throughout their myriad customer journeys.

To succeed as a CEP, customer data from a variety of sources – transactional information from various systems inside an organization, and contextual information sourced from live interactions and

third-party data providers – must be cleaned, synthesized, and made available for immediate use at the point of interaction. Artificial intelligence, in the shape of machine learning (ML), is in evidence in each of these platforms to varying degrees of sophistication. Most use ML and predictive analytics to augment the employee by, for example, recommending next best actions and the right moment to execute them or providing guidance on priorities. As these platforms become more sophisticated, the outputs from one or a collection of ML algorithms provide inputs to other algorithms to trigger an action or to generate a broader insight into patterns of customer behavior. This provides a more adaptive environment where complete interaction journeys and end-to-end processes are supported each step of the way by relevant content or recommendations to help customers complete their journeys and fulfill their intent.

Customer journey mapping (CJM) is a useful starting point to determine the most common interaction journeys associated with specific processes, such as onboarding a new digital service subscriber, completing a mortgage application, making an insurance claim, or requesting a quotation for a complex product with an array of potential configurations. CJM is a good starting point to create cross-departmental collaboration focused on how customers might execute their journeys, but at best it is a proxy for reality. Codifying the results based on assumptions made may work for some customers, but it may also deter others who find the experience frustrating or too controlling.

Customer engagement platforms help solve this orchestration challenge and are an essential mechanism for consistently delivering a positive customer experience, if adopted wisely and subject to a genuine enterprise-wide customer orientation.

The CEPs included in this report, to a greater or lesser extent, deliver a holistic enterprise-wide perspective to orchestrate relevant content or guidance and to trigger the most relevant action at every customer touchpoint, irrespective of where the journey starts and ends. Being able to visualize interaction traffic and identify where the customer experience is suboptimal provides the chief customer officer, customer experience designers, and cross-departmental teams with real insight into improvement priorities. This also enables enterprises to sense behavioral change and adapt accordingly, maintaining customer relevance and loyalty.

In a B2C omnichannel customer engagement environment, the interaction permutations are endless, and behaviors and expectations are always evolving. Rules-based approaches cannot cope with this level of complexity and behavioral volatility. This is where advanced machine learning and automation capabilities are critical, assuming they ingest sufficient quality and quantity of customer data.

Care must be taken in selecting a CEP

For this report, Ovum has set a high bar and challenging criteria that must be met for inclusion, to focus on those vendors able to deliver an integrated and credible platform proposition. Many vendors offer point solutions that might serve individual departments well but do not add up as a CEP. Just as organizational silos destroy customer experiences, vendor product silos perpetuate departmental silos. Beware of vendor solutions that purport to be CEPs but in truth are tied to one or two functional areas. An internet search will reveal a list of at least 50, but dig beneath the surface, and most of those on the list are add-ons to marketing automation systems or customer service applications.

Business model will impact the rankings

Each CEP has unique strengths and, as this is an emerging category in the dynamic environment of customer engagement, some weaknesses. When selecting a CEP, consideration must also be given to the underlying business model of the enterprise. Although there are many common requirements

across sectors and industries, there are also specific demands that must be met in support of different business models. A B2B environment, for example, will typically require more human-to-human interaction, especially when customers are buying complex products, services, or solutions. What this means is that some CEPs are better suited to different business models, and the Ovum Interactive Decision Matrix (a spreadsheet-based tool accompanying this report) enables enterprises to weight different attributes to reflect their business models and will generate a different short list than would be the case with a B2C or B2B2C business model. Rankings will therefore change to reflect these different criteria.

Existing IT systems landscape will also be a factor

Enterprises may take different paths to achieve an enterprise-wide customer engagement orchestration capability. They might choose to build on their existing IT systems and opt for one of the emerging CEP vendors with an analytics background, or they may turn to one of the CEP vendors with a CRM heritage, especially if they have fragmented CRM systems and wish to consolidate and simultaneously build a platform for the future. The Ovum Interactive Decision Matrix tool will help them develop the appropriate short list to inform these choices.

Whatever the current situation, enterprise decision-makers will find this report helpful in determining their route to an effective customer engagement platform for the enterprise. This is a dynamic market, and this report represents a snapshot in time. We can expect more vendors to emerge in 2019 and beyond, and the relative positions outlined in this report to be fluid.

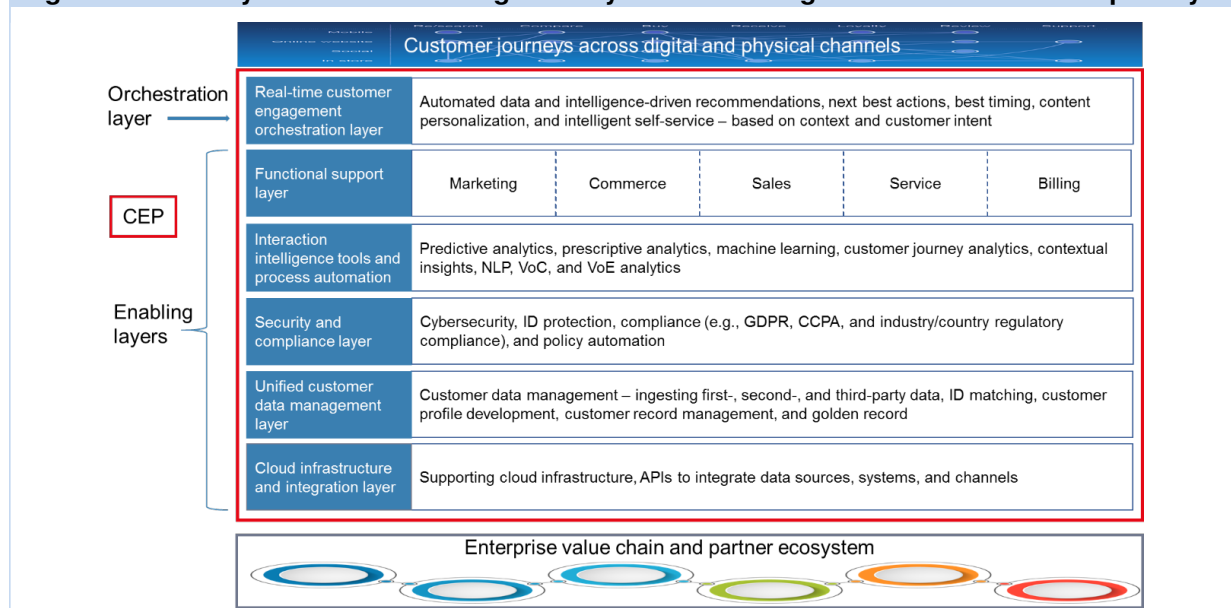
Key findings

- Six critical layers define the CEP.
- For a CEP to be effective, everyone in the enterprise must commit to the customer.
- The four leaders are enabling tighter cross-enterprise collaboration and integration with intelligent orchestration of customer data and responses.
- The four challengers are improving integration components by expanding available APIs and improving machine learning capabilities.
- The two emerging vendors must advance omnichannel orchestration to support dynamic management of responses.

Vendor solution selection

Inclusion criteria

To qualify for inclusion in this report, vendors' CEPs must include at least four of the five enabling "layers" of features outlined below, and every vendor must be able to support the critical real-time customer engagement orchestration layer at the top of the list below, which builds on the enabling layers to provide this capability (see Figure 1):

Figure 1: Anatomy of a CEP – six integrated layers culminating in the orchestration capability

Source: Ovum

Explanation of the six layers of the CEP

The ability to orchestrate the customer experience in real time depends on five enabling "layers" culminating in the orchestration layer. These layers are illustrative, and the configuration of vendor CEPs will differ.

- **Real-time customer engagement orchestration layer:** Connects all interactions and data and delivers personalized content or next best action through every touchpoint. In B2C environments, this is often an individual consumer, whereas in B2B, a decision-making unit comprising different individuals and roles throughout the buying cycle, sometimes over many months, may be involved.
- **Functional support layer:** For CEPs to be effective, they must either provide direct functional support for customer-facing business units (CRM heritage vendors) or provide real-time input in support (customer intelligence and analytics heritage vendors). This includes support for marketing, sales, service, and, depending on the nature of the business, commerce and subscription billing to support subscription businesses, which can include the emerging product-as-a-service business model, where products are rented, not owned. The CEP vendor may partner with other vendors to support this capability, but it must be integrated to support real-time customer interactions and provide essential functional support to employees interacting with the customer.
- **Interaction intelligence tools and process automation layer:** This layer includes intelligent tools (predictive and behavioral analytics, machine learning, natural language processing, robotic process automation, virtual assistants, etc.) to analyze, predict, and contextualize the data and infer customer intent. It also provides the automation capabilities to trigger a relevant response at the exact moment the customer interacts.
- **Security and compliance layer:** This layer provides the security and governance measures and business tools necessary to protect sensitive customer data, particularly important in

multitenant environments, and ensure compliance with any local, regional, or industry-specific regulations. Examples of regional and local regulations include the EU's General Data Protection Regulation and the California Consumer Privacy Act of 2018.

- **Unified customer data management layer:** The unified customer data management layer brings together, either virtually or in a single data store, existing transactional and contextual interaction data, third-party data sources, big data, and IoT data, where relevant. It monitors and synthesizes the data to create unified customer profiles, essential for effective personalization or relevant and timely actions. Data quality is critical to fuel real-time intelligent orchestration capabilities.
- **The cloud infrastructure and integration layer:** Given the speed of change, a cloud-based platform provides the optimum environment for customer engagement platforms. This may be a combination of SaaS and PaaS. The ability to integrate with existing enterprise applications, typically via APIs, is also essential to enrich the customer profile data and to trigger activities in adjacent systems – for example, fulfillment or supply systems.

Exclusion criteria

An internet search on CEPs will uncover a long list of potential vendor platforms; however, on closer inspection many of these have a very narrow remit, such as support for marketing communications or contact center agents. These narrow-purpose CEPs are excluded because they do not address the fundamental purpose of enabling an enterprise to deliver a positive customer experience across all customer journeys, which may have implications throughout the value chain – from demand to fulfillment and supply, onboarding, use or ownership, and ongoing support. Vendors of CRM systems of record have also been excluded as they lack the proactive and orchestrated customer engagement capabilities.

Market and solution analysis

Ovum Decision Matrix: Customer Engagement Platforms, 2018–19

The customer engagement platform category is an emerging market, consisting of both mature vendors, typically from a CRM heritage, and new entrants, often with a customer analytics and automation background. Across the six foundational layers that make up CEPs, real-time orchestration and management is the critical layer enabling enterprises to deliver a consistently positive customer experience across their value chains. Most of the vendors support customer journeys across any channel through intelligent, timely, and contextually relevant orchestration of the customer experience. They support this either through their own platform features or through third-party system integrations.

Intelligent orchestration of the customer experience is a strategic necessity

Customer experience is a core concern to many enterprises across all industries and sectors, and we are seeing an emerging pattern of evolution in the objectives, from a toe-in-the-water focus on cost reduction to a revenue focus, as businesses seek to sell more, and on to a genuine customer-centric focus on the customer's desired outcomes. Enterprises fixated on the first two objectives may

continue to adopt point solutions, department by department, but those that recognize the primacy of the customer will seek platforms that enable them to deliver a coherent and orchestrated customer experience, irrespective of the department or channels the customer touches. They will focus their collective and collaborative efforts on helping customers achieve their desired outcomes, and they will be rewarded with less churn and higher growth as a result. A customer engagement platform is, for these forward-looking enterprises, a strategic necessity.

Machine learning sophistication varies by CEP vendor

In the orchestration layer, machine learning is the most nascent area, with many vendors reporting their machine learning use cases are specific to a functional area, such as sales, marketing, or service. While this is a good start and generates some localized value, it is not sufficient nor as sophisticated as an array of connected machine learning algorithms able to support end-to-end and continuous journeys spanning multiple touchpoints and front-office and back-office departments.

Today, Pegasystems and Oracle have exhibited the most advanced and connected capabilities, but both Salesforce and SAP are hot on their heels, and we anticipate that in 2019, their cross-cloud connected machine learning capabilities will have largely caught up. The market challengers in this report, led by Adobe and SugarCRM, are likely to follow close behind, and in turn, the emerging players (Bpm'online and NGDATA) are expected to evolve rapidly.

Machine learning and data management are interdependent

To map context, machine learning algorithms require highly structured and clean data to identify behavioral patterns across devices and channels. This highlights the importance of the data management layer of CEPs and the critical nature of providing data cleaning, deduplication, and data mapping tools. However, a handful of CEPs either do not provide these capabilities or offer them through a third party. Providing machine learning to trigger relevant responses and offering data management capabilities are mutually dependent.

The enabling layers provide the foundation for intelligent customer engagement orchestration

From a technology perspective, Ovum has assessed each vendor across the six feature layers outlined in the vendor inclusion section above, and vendors come with different heritages – CRM or a customer intelligence and automation background. The CRM vendors have some advantages in the functional support layer and some, such as Adobe, Oracle, Salesforce, and SAP, have expanded their portfolios to include commerce applications. Having a broader footprint does not in itself create CEP leadership, and while non-CRM vendors appear to have a disadvantage in the functional layer, the greatest weight has been given to the ability to orchestrate the customer experience at the orchestration and intelligence and process automation layers.

Enterprises must judge for themselves the relative importance of the functional layer, and the Ovum Interactive Decision Matrix tool will allow them to do that, by adjusting the weightings to suit their own circumstances.

For a CEP to be effective, everyone in the enterprise must commit to the customer

In the late 1990s, CRM held the promise of solving all customer-related problems. At best, CRM became a useful component of a broader customer engagement capability when integrated with a

cohort of front- and back-office systems. The most advanced CRM vendors, included in this report, recognized these limitations several years ago and have evolved their CRM solutions into systems of engagement. The other vendors in this report from the analytics background have developed a strong capability to act as the orchestration layer in an enterprise.

Whichever route enterprises take, to achieve a successful outcome for their customers and organizations, they should follow these principles and recommendations:

- **Commit to the customer across the enterprise.** This means the CEO and leadership team must articulate and communicate a genuine desire to center the enterprise and its value chain on the customer.
- **Establish a cross-functional team.** Business domain experts and IT architects must collaborate as a team united by a common goal to fulfill the customer commitment. Agile teams will speed up development and create an adaptive mind-set (see *A Customer-Adaptive Architectural Approach for Digital Business Transformation* for examples).
- **Design from the customer back.** Gain insight into the current quality of the customer experience, sourcing data from customer and employee feedback. CJM provides a good start to highlight the more obvious and common customer journeys and to identify sources of friction. Above all, insights gained help reveal current weaknesses or practices that cause friction.
- **Organizational coherence is essential.** People, processes, and systems must create a coherent organizational value creation and delivery capability; silos destroy value.
- **Unify customer data.** Customer data is typically fragmented across systems and departments in most enterprises. It must be unified, cleaned, and made available in real time to feed machine learning and support personalization of the customer experience.
- **Select a customer engagement platform.** A CEP will orchestrate interaction content, guidance, next best actions, and timing of those actions, based on the customer's context and derived from live interactions, behavioral patterns, and historical and third-party data.
- **Avoid technology silos.** Multiple AI tools sourced for specific departmental use cases will only perpetuate organizational silos.
- **Reach out to Ovum's customer engagement team.** They can provide additional guidance or explain the conclusions in this report.
- **Use the Ovum Forecaster tool for strategic input into planning.** This covers a wide variety of forecasts, including service provider markets, consumer, IT markets, enterprise verticals, service provider technologies, and IoT.

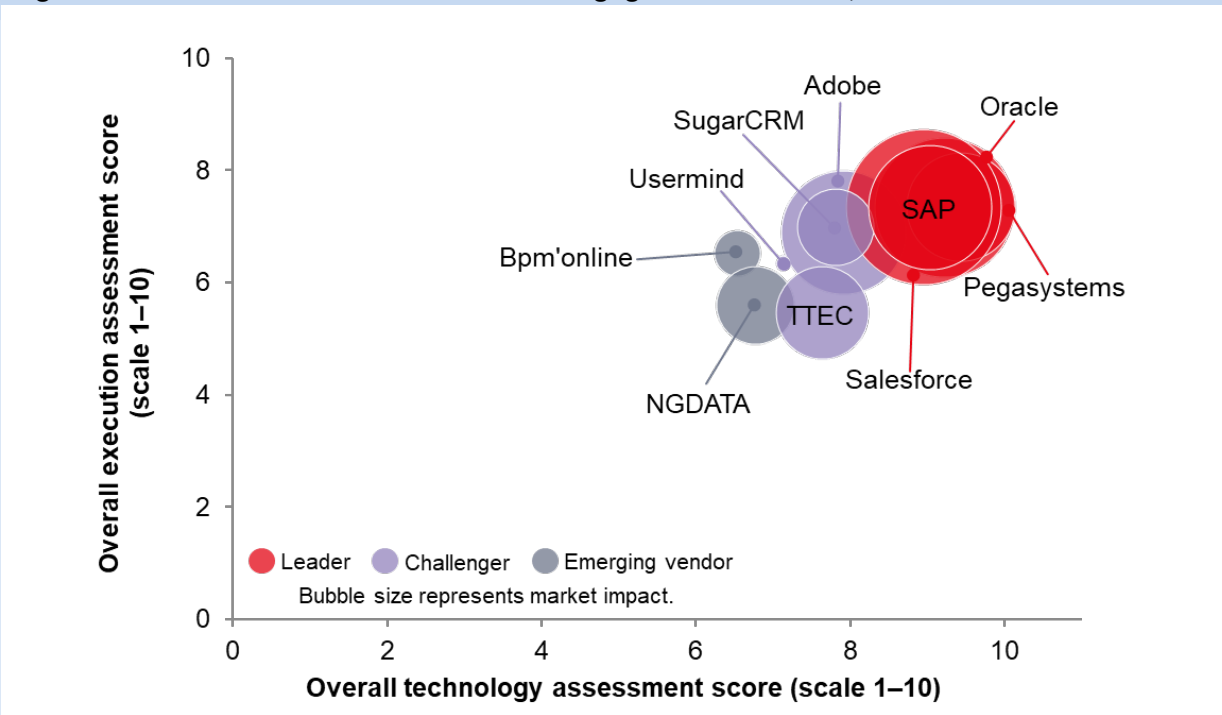
To navigate, survive, and thrive in this increasingly complex and volatile landscape, forward-looking enterprises will transform into intelligent enterprises capable of using data, people, and enterprise assets in unique ways that have previously never been possible. Organizations that reach this level of sophistication are positioned to be the dominant force in the coming years.

The fundamental challenge is how to be persistently relevant to the customers you wish to attract, retain, and generate growth from. Digital transformation must be a process of continuous adaptation. The trigger point must be the customer, and adaptation must be a core competence. Selecting the right CEP and strategic vendor partner is a positive step toward becoming a customer-adaptive

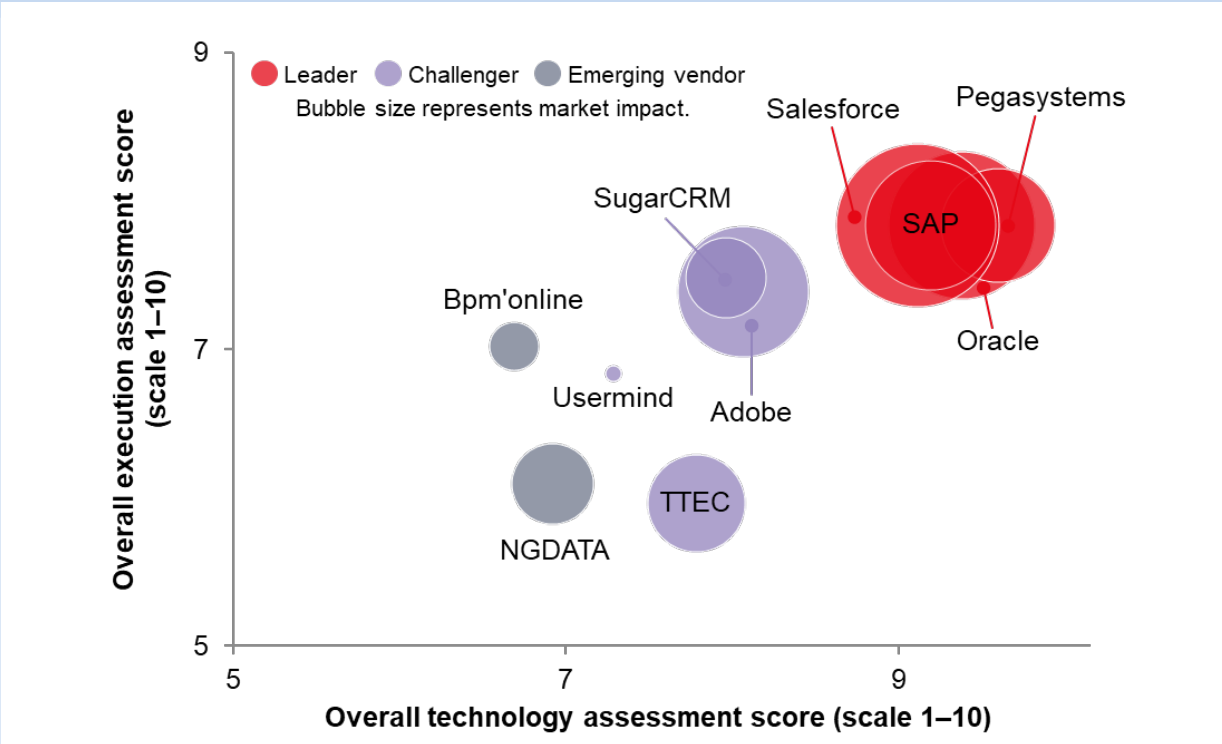
enterprise that can thrive no matter how turbulent market environments become and be in sync with customers' ever rising expectations.

Figure 2 demonstrates the CEPs clustered together in the full-scale Ovum Decision Matrix for technology (x-axis), execution (y-axis), and market impact (size of bubble). This shows the quality of the solutions reviewed, in that they are effective Tier-1 customer engagement platforms.

Figure 2: Ovum Decision Matrix: Customer Engagement Platforms, 2018–19



Source: Ovum

Figure 3: Expanded view of Ovum Decision Matrix: Customer Engagement Platforms, 2018–19

Source: Ovum

In the expanded version in Figure 2, the heavy clustering in the leader's pack illustrates the intensively competitive nature of this market.

Table 1: Ovum Decision Matrix: Customer Engagement Platforms, 2018–19

Market leaders	Market challengers	Emerging vendors
Oracle	Adobe	Bpm'online
Pegasystems	SugarCRM	NGDATA
Salesforce	TTEC	
SAP	Usermind	

Source: Ovum

Market leaders: vendor solutions

Oracle

Oracle's cloud development teams collaborate extensively to ensure that both front- and back-office applications are harmonized to deliver on the Oracle vision of the connected digital enterprise. This collaboration also extends to Oracle Adaptive Intelligent Apps, which not only provide in-application support but are connected to support end-to-end processes across the value chain. Designed to connect intelligence across functional pillars, outputs from one set of Adaptive Intelligent Apps can become smart inputs to other Adaptive Intelligent Apps across end-to-end processes, to deliver up-to-

the-minute insights and trigger actions across CX, ERP, and HCM. For example, across CX Marketing and Sales, AI-driven smart outputs from marketing orchestration processes can become smart inputs to lead optimization processes.

Pegasystems

The Customer Decision Hub, at the heart of the unified platform, acts as the orchestration brain supported by a broad range of connected machine learning algorithms in marketing, sales, and service functions, which constantly monitor behavioral patterns exhibited by customers. This allows Pega Infinity to predict not only the next best action but also the next best moment to make an offer or to engage with the customer at the optimum time. AI can also be used to support desired outcomes. Outcomes can be defined, and AI can be used to identify the best route to achieving them. Its multilayer architecture allows for standardization across the enterprise, and where exceptions are required due to local regulations, for example, these can be accommodated without interfering with the integrity of the core system.

Salesforce

Salesforce Customer Success Platform's ability to connect all six of its clouds to the underlying Salesforce Platform gives it strong positioning in the CEP category, but each of Salesforce's clouds has its own leader with accountability for development and financial results. While collectively the Salesforce Customer Success Platform provides a rich environment as a CEP, more needs to be done to support customer journeys that touch multiple departments in a business and multiple Salesforce clouds. While its data management platform allows for very good analysis of interaction traffic and Einstein can make targeting recommendations to optimize communications, a chief customer experience officer needs to have sight of all interaction journeys. Salesforce is working on this with some customer pilots, and we can expect this gap to be closed in the 2019 timeframe.

SAP

SAP C/4HANA is an integrated customer experience platform derived from the former SAP Hybris Customer Engagement and Commerce portfolio. It consists of five clouds that can be integrated with SAP S/4HANA, which creates a seamless connection between the front office and back-office applications, the spine of the Intelligent Enterprise. The SAP Sales Cloud has recently been augmented with the acquisition of CallidusCloud, which provides configure, price, and quote (CPQ); sales performance management; and a learning environment to share best practices. The SAP Service Cloud has also been augmented through the acquisition of Coresystems, a Swiss field service platform company that also supports crowd service, where enterprises extend their field service through independent field service personnel. It embeds machine learning to automate scheduling and the provision of field service personnel in an Uber-like manner, based on location, availability, and relevant expertise.

Market challengers: vendor solutions

Adobe

Adobe's large ecosystem of partners, its acquisition of commerce platform Magento, its deep connection with creative firms, its ability to improve content creation, and its ability to centralize workflow and create unified customer profiles positions it strongly in the CEP category. However, its cross-function capabilities are provided through third parties, and B2B functionality to support billing CPQ, service, field service, and sales force automation are supported through third parties. It needs

to broaden its appeal and targeting beyond the CMO. Its acquisition of Magento should help. As the technology becomes more widely recognized outside of the marketing realm and adopted by a greater variety of leadership across the C-suite, Adobe will begin to play a more pivotal role in the cross-enterprise digital transformation in many organizations.

SugarCRM

Sugar's open and unified architecture allows for a high degree of flexibility and ensures that sales, service, and marketing can work seamlessly together. Its transparent pricing policy also encourages adoption and offers one of the lowest subscription costs compared with an equivalent system from other vendors. It is primarily a B2B vendor and its use of AI and curation of third-party data have been focused on surfacing relationship intelligence to optimize person-to-person interactions. More commerce platform partnerships are needed to support customer journeys in commerce, and Sugar is not well suited to the more complex and dynamic omnichannel management challenge encountered by B2C organizations, especially in retail. To move the needle on its ranking, Sugar needs to advance its omnichannel orchestration capabilities.

TTEC

TTEC's Humanify Technology Platforms deliver interconnected omnichannel technology integrating voice, chat, email, SMS, co-browse, social, and video within the customer experience. Delivering on investments in six products – omnichannel solution, service to sales, interactive VA (Humanify Digital Worker Factory), Humanify Insights, Humanify @home, and advanced growth analytics – TTEC went from having four distinct business units to two business units, engage and digital. But the company's early progress in embedding machine learning across all functions and lack of commerce support places TTEC as a challenger.

Usermind

Usermind essentially connects the dots on the processes that get locked up by logic and data and are siloed by applications and teams. It controls all business logic, customer data, and process outcome analytics from one place by mapping the data between them, building workflows, automating end-to-end processes, and connecting data across applications. However, availability of APIs is limited, and functional support for B2B and B2C commerce, as well as CPQ and field service capabilities, is available only through prebuilt out-of-the-box integration to third-party products but not offered as part of the standard unified platform. In an age when companies are looking to enable unified commerce and where service is happening outside the walls of the contact center, the ability to offer these features on a single, integrated platform, is essential to staying competitive and for long-term growth.

Emerging vendors

Bpm'online

Functional support for marketing, sales, and service is supported by a unified business process management foundation with the BPM Studio. This allows organizations to develop customer engagement processes that can straddle all customer-facing departments and, through Visual Studio, are easy to visualize and configure. This low-code approach, supported by templates for specific industry scenarios, facilitates rapid adaptation without the need for software engineers. However, BPM lacks real-time AI-assisted omnichannel orchestration to support dynamic orchestration and automation of responses. Also, inferred customer intent and the ability to dynamically respond in context are not yet there. To be a credible CEP and to break out of the traditional CRM paradigm,

Bpm'online must address these weaknesses. This will be essential if it is to succeed in the large-enterprise market, where increased scale and greater complexity are the norm.

NGDATA

The company's AI-powered CDP (Customer Data Platform) unifies data and is built to handle multiple data types from a large set of external sources, so customers are always identified, no matter the channel they are using. Its ability to analyze the customer experience; track trends, goals, and benchmarks; present the findings in a visualized dashboard; and provide orchestration actions across channels will become table stakes for enterprises competing on customer experience. Its ability as a CDP to collect data from repeat customers or an anonymous visitor positions it among the CEP players that mostly identify known customers. This capability helps build robust single views of customers and accounts for all unidentified data points. Recent investments in AI strongly position it for future growth and sustainability. NGDATA's recent investments to establish an AI research lab in Singapore and expand its AI development team, as well as develop AI data prep, position the company as a strong player to watch in the CEP category.

Market leaders

Market leaders: technology

A complete list of the CEP vendors and rankings is included in Table 2. The market leaders from a technology perspective occupy the first four places. The market challengers occupy the next four places, with the emerging vendors in the last two spots.

It must be noted that any CEP vendor making it on to this list has already reached the high qualification bar set by Ovum.

Table 2: Vendor CEP ranking: technology

Vendor	CEP name	Rank
Pegasystems	Pega Infinity	1
Oracle	Oracle CX Cloud Suite	2
Salesforce	Salesforce Customer Success Platform	3 (tied)
SAP	SAP C/4HANA	3 (tied)
Adobe	Adobe Experience Cloud	5
SugarCRM	Sugar	6
TTEC	Humanify Technology Platforms	7
Usermind	Customer Engagement Hub	8
NGDATA	CDP	9
Bpm'online	Bpm'online	10

Source: Ovum

All the leaders achieved high scores across the six categories or layers shown in Figure 1.

Pega Infinity has the highest combined score across all technology categories and is ranked first for its CEP

Pega Infinity, despite not having a commerce solution of its own, was judged to be the leader of the CEPs from a technology perspective and came out on top in two critical layers: real-time orchestration and management, and underlying intelligence and process automation. It is followed closely by Oracle CX Cloud Suite, with Salesforce Customer Success Platform and SAP C/4HANA tied for third place.

Of the challengers, Usermind exhibited one of the highest scores for its orchestration capabilities, and Adobe scored well in the functional support, intelligence and automation, and customer data management layers.

Analysis of leadership rankings by individual technology layer

The following analysis looks at each layer of the CEP in turn.

Oracle and Pegasystems provide the most advanced orchestration capabilities

In the all-important real-time orchestration and management layer, Oracle CX Cloud Suite and Pega Infinity achieved the highest scores, as both vendors (Oracle and Pegasystems) have realized a high degree of intelligence connectivity across their platforms, which is essential in delivering a connected customer experience and being able to dynamically deliver relevance at each interaction.

The Salesforce Customer Success Platform and SAP C/4HANA are close behind, and both achieved the same score. Both platforms provide excellent machine learning support for users, but cross-

application connectivity is still a work in progress; Ovum expects both vendors to provide this by 2019, based on their development roadmaps.

In functional support, Oracle, Salesforce, and SAP are top given the breadth of their application portfolios

Oracle CX Cloud Suite, Salesforce Customer Success Platform, and SAP C/4HANA cover all application areas well, including commerce, which Pega Infinity does not include, although it integrates with multiple commerce platforms.

Pegasystems leads in intelligence and process automation

Pega Infinity brings together Pegasystems' advanced BPM capabilities, robotic process automation, and the most advanced embedded AI capabilities. The Customer Decision Hub monitors all interactions, and the underlying tools contribute to its advanced orchestration capabilities. Oracle CX Cloud Suite comes in second with its connected Adaptive Intelligent Apps capabilities, and Salesforce Customer Success Platform and SAP C/4HANA follow close behind.

Each of the leaders reinforces security and compliance

Each of the four leaders has clearly made security and compliance a top priority in their platforms. Pega Infinity achieved the highest scores, followed closely by Oracle CX Cloud Suite, Salesforce Customer Success Platform, and SAP C/4HANA.

Each of the leaders scores well on customer data management

The leaders' CEP platforms all provide excellent customer data management capabilities, including tools for monitoring and improving ingested customer data, identity management, and the ability to synthesize both transactional and contextual customer information to feed their orchestration and personalization capabilities.

With cloud platforms, it is a matter of choice

Each of the leaders provides both a SaaS and PaaS environment, but apart from Salesforce, the other leaders can also support private and hybrid models to suit some enterprises that require them.

Market leaders: execution

Each of the leaders provides a scalable platform to support 100,000+ users

On the market execution dimension, there was nothing to separate the four leaders, each of which scored maximum points on scalability above 100,000 users.

A modern platform architecture to promote agile innovation and differentiation

The ability to innovate is important to long-term growth and sustainability. Each of the leaders offers a modern platform architecture, including support for DevOps and a low-code/no-code PaaS environment to enable enterprises to extend applications and create further differentiation.

The leaders provide support for all business models

Each of the leaders provides support for B2B, B2C, B2B2C, and G2C business models.

Each of the leaders provides fast CEP deployment

Each of the vendors provides a fully automated development-to-production cycle, as well as DevOps support. The challenge for all, however, will be in the integration of data sources outside the CEP, from adjacent systems of record and third-party data, and the management of quality.

Third-party integration will increase speed to deployment and enhance orchestration

Finally, interoperability is a quality of increasing importance in the customer engagement arena, as the mandate to simplify end-to-end processes, standardize, and improve operational efficiency becomes more widespread. The ability of all the vendors to fully integrate into best-of-breed open sourced third-party applications should afford them speed of deployment and enhanced orchestration. They also all offer full integration with support for real-time engagement, an essential capability of a CEP.

Market leaders: market impact

Salesforce's ubiquity gives it a potential advantage in the CEP category

In terms of market presence, Salesforce came out on top and is present in all industries and across a broad range of enterprise sizes, from small all the way to large global enterprises. However, since Oracle and SAP have greatly enhanced their cloud capabilities and focused their development efforts on the customer engagement and experience space, they have substantially increased their market footprints. While Salesforce became the undisputed leader in CRM, the emerging CEP category is up for grabs. Pegasystems has remained focused on the top 2,000+ global enterprise market and, since it migrated its applications to the cloud, is now growing more rapidly.

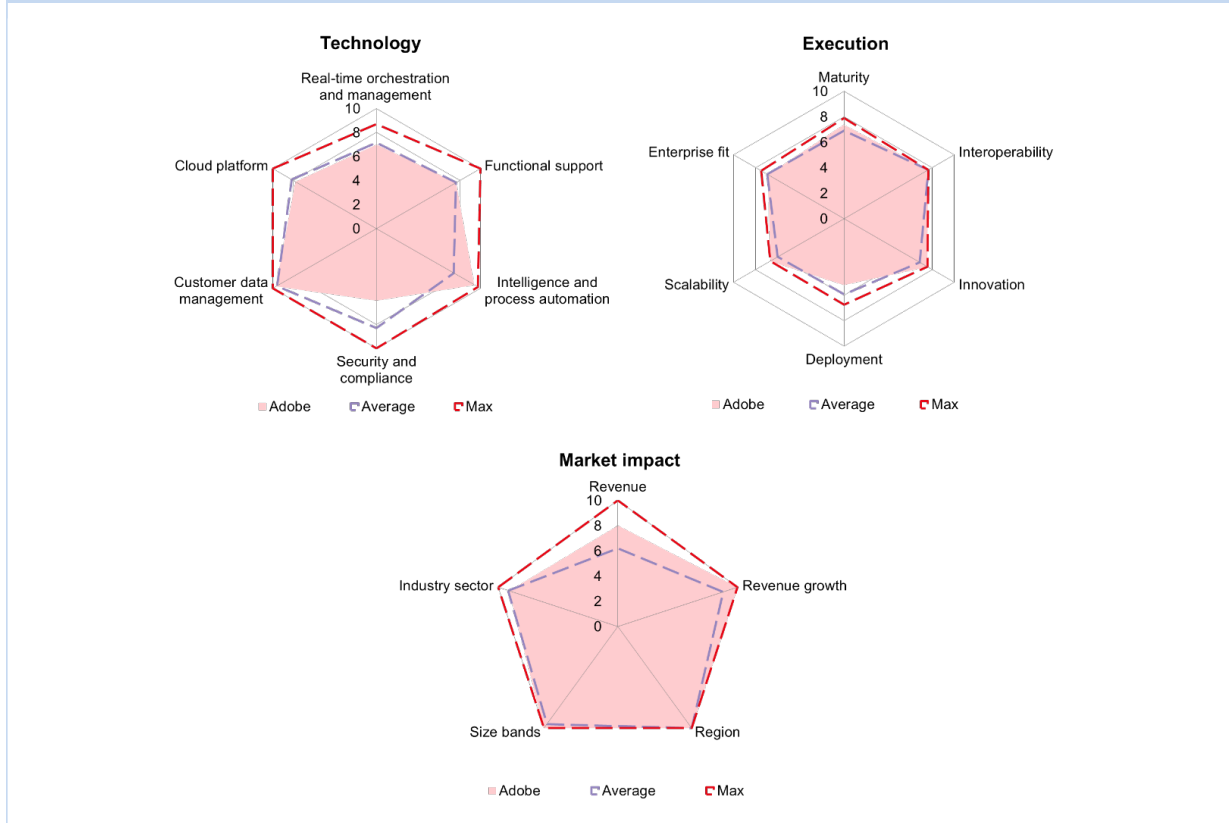
The shift from point solution, line-of-business acquisition of functional capability to a strategic platform for customer engagement and digital transformation has significantly raised the bar. It also creates a vulnerability to existing subscriptions, if enterprises explore alternative CEP vendor offerings, rather than opt to standardize on existing CRM technologies. Where multiple CRM instances exist, scattered across different departments or subsidiary organizations, the risk of churn is likely to be greatest.

Over the next two years, Ovum expects competition to intensify, and that includes the challengers and emerging vendors, with Adobe Experience Cloud leading the challenger charge, especially in B2C environments, while Sugar expands its B2B footprint and enhances its CEP credentials.

Vendor analysis

Adobe (Ovum recommendation: Challenger)

Figure 4: Adobe Experience Cloud radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Magento acquisition adds transactional element to customer engagement mix

Adobe's acquisition of Magento Commerce, which was completed in June 2018, signaled a strategic intent by Adobe to forge a customer engagement platform. The acquisition of Magento adds a transactional element to the customer engagement mix, setting the stage for a fully immersed experience in both the B2B and B2C realm. The Magento Platform, now part of the Adobe Experience Cloud and called Magento Commerce Cloud, brings together digital commerce, order management, and predictive intelligence to enable shopping experiences that scale for businesses of any size. The offering closes the loop on a marketer's ability to complete end-to-end digital transactions and therefore thrusts Adobe into the high-growth CEP opportunity, where the battle for the leadership position is up for grabs.

Large ecosystem of partners creates ease and flexibility

Adobe's existing ecosystem of 3,000 global partners for Adobe Experience Cloud, including Adobe Exchange and Adobe Partner Program, as well as the growing development community through

Adobe I/O, provides greater access to the development teams, expanded functionality through apps and extensions, and improved connection with sales and marketing.

Additionally, the Magento Platform is built on scalable technology supported by a community of more than 300,000 developers. The Magento partner ecosystem provides thousands of prebuilt extensions, including payment, shipping, tax, and logistics. This level of flexibility enables businesses to quickly ramp and iterate their commerce experience with their changing business needs.

Centralized workflow and unified profiles enable intelligent orchestration

Also integral to the efficacy of a customer engagement platform is the ability to intelligently orchestrate content, offers, and other interactions across channels and devices and throughout the enterprise. The platform's centralized workflow for campaign orchestration gives it a commanding position in offering orchestration capabilities. Additionally, because Adobe Cloud Platform centralizes and standardizes customer data and content across the enterprise, empowering a unified customer profile, it enables real-time personalized experiences across every channel via the Adobe Experience Cloud for the delivery of the right message at the right time based on persistent data such as past behaviors or contextual data.

Quick implementation timeline creates an advantage

Adobe Experience Cloud can be implemented in one to three months for both medium- and large-scale businesses. Additionally, Adobe's new enablement program, Experience League, provides training materials, guided support, and a community of experts to help customers get the most out of Adobe Experience Cloud. With other vendors in the category reporting implementations of six months or more, this is a clear advantage.

A change management program focuses on transforming the culture

Often, vendors focus on training for their technologies but ignore the cultural transformation that needs to happen to lay the groundwork. Adobe's business consulting team, Adobe Customer Solutions, offers a change management program focused on preparing, organizing, and activating against necessary changes required for the transformation involved in an experience technology implementation and successful program.

Weaknesses

Adobe offers cross-functional capabilities through third-party providers

The Adobe Experience Cloud leads in enabling marketing functionality; however, features to support billing CPQ, service, field service, and sales force automation are supported by third parties. For instance, it is not a direct sales force automation offering, but the company supports sales force automation vendors, workflows, and integrations through its partner ecosystem.

No current plans for industry-specific data models

Adobe does not have industry-specific data models for Adobe Cloud Platform but expects systems integrators will build verticalized data models on top of the platform. Adobe has stated that adding a customer's own taxonomy to the platform is very straightforward. In addition, Adobe Experience Cloud has several industry-specific templated applications, including retail, government, media and entertainment, manufacturing/B2B, financial service, and education.

Key B2B functionality is lacking

In terms of orchestration, while Adobe enables a consolidated view of all customer interactions at the customer account level, with detailed drill-down capabilities to view specific individual interactions, it does not support other key B2B functionality, like providing workflows for end-to-end processes that directly impact the P&L account, such as quote to cash. Also, renewals and subscription-based business cannot be supported with customer success management capabilities. However, many aspects of account-based marketing (ABM) can be achieved via standard functionality provided, allowing B2B customers to be successful using the solution. Additionally, the acquisition of Magento will add strength from a commerce perspective and help Adobe gain inroads.

Opportunities

Adobe must communicate its story to a wider audience

Adobe needs to position itself more forcefully and broadly. It must communicate the wider transformational story to CTOs, COOs, CXOs, and even leadership in service and support organizations who are playing an increasingly prominent role in their organizations' own digital transformations. It also needs to let its many marketing customers realize that, with Experience Cloud and as illustrated by the Magento Commerce acquisition, Adobe can also play a more strategic and transformative role beyond the confines of the marketing department.

Adding cross-functional capabilities must be a priority

Additionally, it must widen its marketing lens and think strategically about delivering more cross-functional capabilities. Adding its own features to the platform to enable cross-functional support for service, field service, and sales rather than through third-party providers would serve as strategic move that will sustain Adobe competitively in the long term.

Magento Commerce acquisition will further Microsoft relationship

The acquisition of Magento may further the relationship Adobe has with Microsoft as Microsoft is missing an e-commerce piece to its customer engagement platform.

Benefits to growing early-access customers to shape BI journeys

Some advanced companies are building their own data lakes to alleviate data silos and normalize data, so Adobe would benefit from continuing to grow the number of early-access customers with Adobe Cloud Platform to help shape their business intelligence journeys.

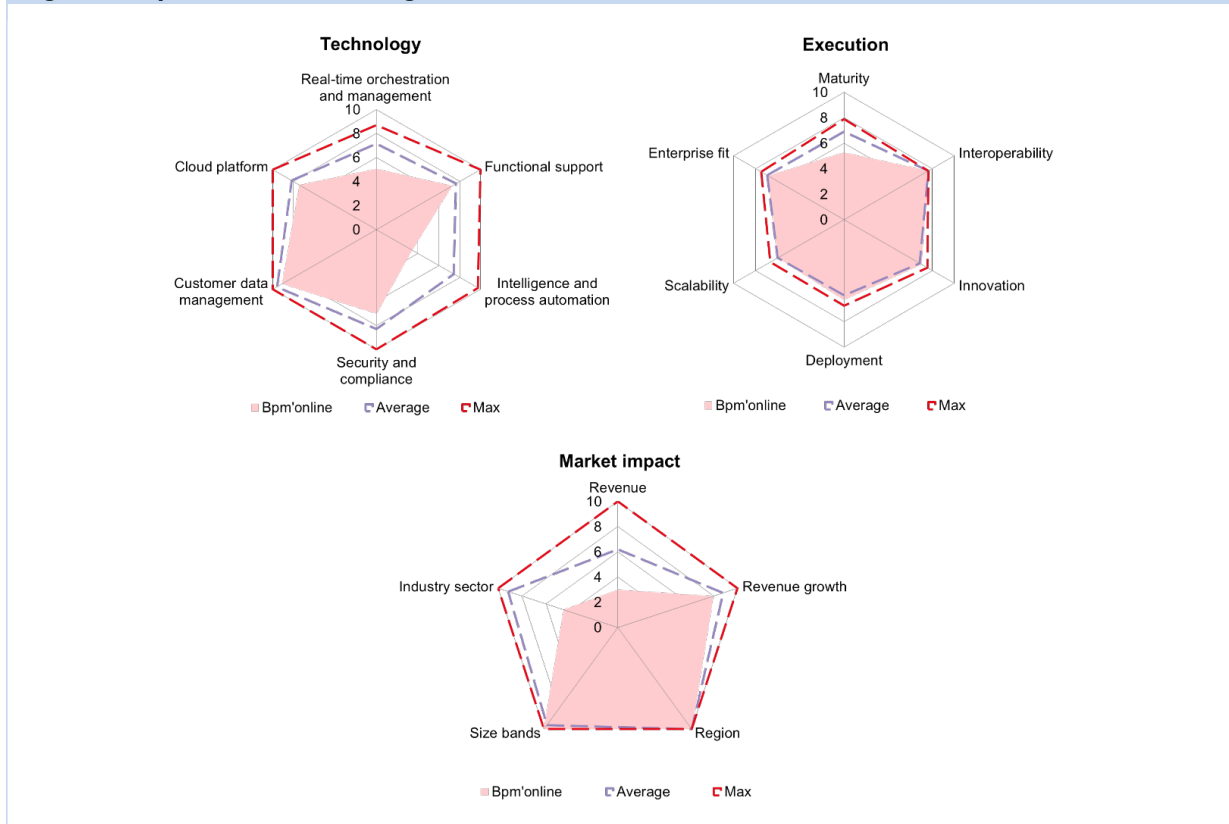
Threats

Lack of functional support puts company at a disadvantage

Competitors such as Oracle have worked diligently over the past year to stitch together offerings from acquisitions to achieve end-to-end unification and adaptability. Although Adobe Experience Manager follows a best-of-breed strategy by integrating with any commerce solution, Adobe's lack of solutions for functional areas of customer support and field service puts the company at a disadvantage, especially against vendors like Pegasystems whose multidimensional architecture allows for standardization and adaptability across the enterprise.

Bpm'online (Ovum recommendation: Emerging vendor)

Figure 5: Bpm'online radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Bpm'online, a highly configurable unified platform with strengths in BPM

Functional support for marketing, sales, and service is supported by a unified BPM foundation with the Bpm'online studio. This allows organizations to develop customer engagement processes that can straddle all customer-facing departments and, through a BPMN-based process engine, are easy to visualize and configure. This low-code approach, supported by templates for specific industry scenarios, facilitates rapid adaptation, without the need for software engineers.

The three functional areas directly supported by Bpm'online are

- Bpm'online marketing – multichannel marketing automation that can be aligned to customer journeys
- Bpm'online sales – sales force automation that works seamlessly with marketing to ensure timely follow-up of leads once they have reached a scoring threshold
- Bpm'online service – to provide customer care via an agent desktop.

Machine learning support is provided for each functional area and provides a recommendation engine for next best action. Analytics and automated customer feedback provide insight into online behaviors to inform customer experience design teams. Current use cases include

- customer churn management
- lead scoring based on probability to buy
- product recommendations
- customer segmentation and audience recommendations
- next best actions for sales and service agents
- case categorization to route inquiries to the most relevant agent.

Its burgeoning Bpm'online marketplace provides access to templates and app extensions covering a broad array of functional areas.

Weaknesses

Lacks real-time AI assisted omnichannel orchestration

The use of machine learning algorithms is a relatively recent innovation at Bpm'online (2016). ML provides recommendations to users in marketing, sales, and service. More uses cases are being progressively released, but today ML does not yet support real-time orchestration and automation of responses, although business logic can be applied internally in Bpm'online through the machine learning section to trigger actions or content based on rules applied. Inferred customer intent and the ability to dynamically respond in context are not yet there. To be a credible CEP and to break out of the traditional CRM paradigm, Bpm'online must address these weaknesses. This will be essential if it is to succeed in the large-enterprise market, where increased scale and greater complexity are the norm.

Opportunities

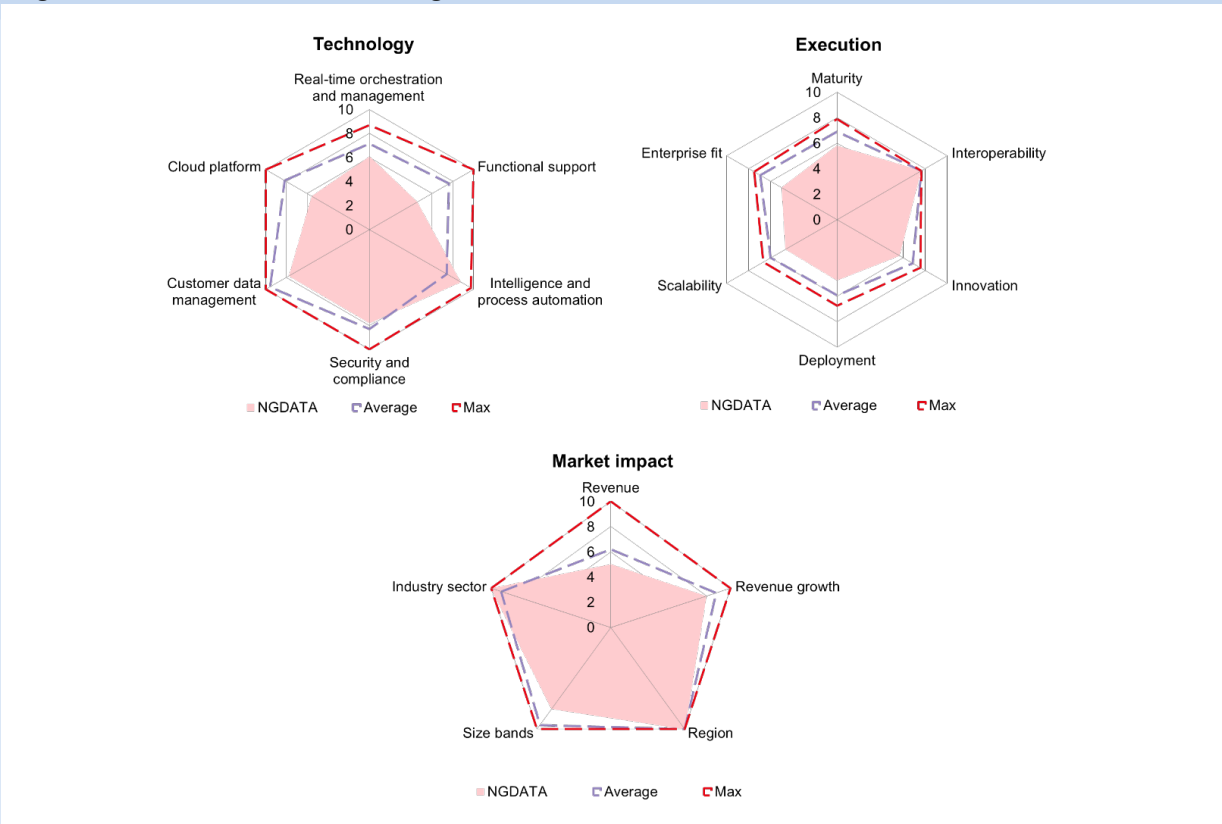
Bpm'online has seen most of its growth in the midmarket environment in both B2B and B2C companies. Industry templates are also available to support rapid deployment. Industries in the medium- and large-enterprise market, where it has seen success, include financial services, manufacturing, media, pharma, professional services, public sector, real estate, retail, telecoms, and transportation.

Threats

The other vendors in this report are potential competitors. In the midmarket, key competitors will be other CRM vendors such as Oracle NetSuite, SugarCRM, and those in this report with a strong CRM heritage, such as Oracle, SAP, and Salesforce.

NGDATA (Ovum recommendation: Emerging vendor)

Figure 6: NGDATA CDP radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

NGDATA unifies data from all sources and handles multiple data types

As more and more data-driven organizations look to unify data, NGDATA's most notable strength will serve as its competitive differentiator. Its AI-powered Customer Data Platform unifies data and is built to handle multiple data types from a large set of external sources, so customers are always identified, no matter the channel they are using. Its ability to analyze the customer experience; track trends, goals, and benchmarks; and present the findings in a visualized dashboard will become table stakes for enterprises competing on customer experience.

Its ability as a CDP to collect data from repeat customers or an anonymous visitor uniquely positions it among the CEP players that mostly identify known customers. This capability helps build robust single views of customers and accounts for all unidentified data points. Customers, therefore, are always identified, no matter the channel they are using, so data never gets duplicated.

The NGDATA CDP also supports the management of "Group DNA," which allows users to group customer profiles into organizations such as companies, accounts, or households. Group DNA can have its own metrics, which can be derived from group members' DNA, and vice versa. With these base constructs, ABM scenarios can be implemented.

Investments in AI strongly position it for future growth and sustainability

The company has also invested in AI-driven data preparation, which reduces setup effort. Prebuilt modules for complex processes such as identity management eliminate custom development and simplify tuning to make the data ready for use. Additionally, NGDATA has also recently made significant investments to establish an AI research lab in Singapore and expand its AI development team.

Weaknesses

Shortfall of industries could deter long-term relationships with emerging markets

NGDATA caters to several industries; however, healthcare, life sciences, and the public sector are lacking. In a marketplace that is ramping up customer engagement services to these markets, NGDATA would benefit from adding them to its portfolio.

Microsoft Azure missing from cloud offerings

While NGDATA runs on two third-party cloud infrastructures – Amazon Web Services and Google Cloud – it does not run on Microsoft Azure. Offering cloud choice is intrinsic to the idea of becoming model driven.

Lack of UI for GDPR consent is not feasible

With GDPR, it is imperative to obtain explicit consent from consumers to use their data and to manage customers' profiles and preferences. Providing minimum viable product or no support at all for GDPR consent management is not viable. Competitive features require customizable, out-of-the-box workflows that present consent requests for permission-based activities, automatically trigger requests to renew consent, and then offer customers the ability to manage their profiles, permissions, and preferences through self-service or through a customer preferences center. Although NGDATA offers comprehensive support for GDPR consent management and consent-respecting and purpose-scope data processing, it does not provide the UI for customers to register consent.

Opportunities

Machine learning-based data discovery will make big data manageable

Machine learning-based data asset discovery, visibility, and preparation solutions ensure that no relevant or useful data remains hidden or obscure. These capabilities will ultimately help enterprise customers transform big data into fit-for-purpose data sets that help compartmentalize data and better understand granular data sets in larger master data management efforts.

Recent capital will assist with global expansion

NGDATA underwent a \$19m Series C investment round led by HPE Growth Capital. NGDATA's existing investors, such as Idinvest Partners, Pamica, SmartFin Capital, Capricorn Ventures, and Nausicaa Ventures, co-invested to further accelerate NGDATA's global growth. The capital will help with the company's expansion plan, which has already led to the acquisitions of Dutch smart video producing company Rednun, Belgian data management and analytics consultancy firm Enqio, and data analytics and management consultancy Eccella.

Key industries served

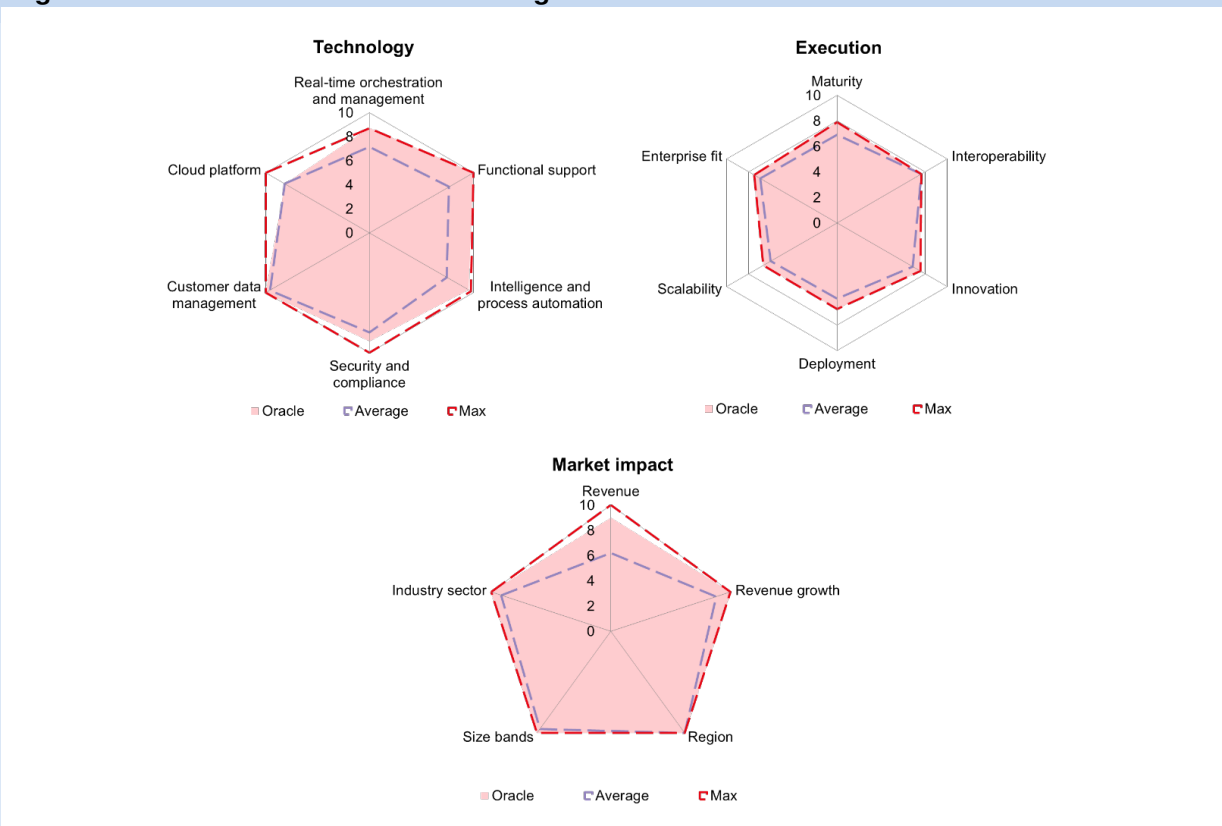
NGDATA sells to a healthy range of industries, with financial services and telecoms representing the largest client sectors at 45% and 20%, respectively. Other sectors include energy and utilities, manufacturing, retail and wholesale, and travel, transportation, and logistics. The company offers industry templates for all sectors served.

Threats

Other vendors in this report are battling hard to establish leadership in this category and have moved ahead in their ability to intelligently orchestrate customer experiences. The major threats will come predictably from Oracle, Pegasystems (in large global enterprises), Salesforce, and SAP. Given the importance of face-to-face relationships in B2B markets, competition may also come from SugarCRM, and Adobe is likely to be, as a marketing component or in partnership with Microsoft for the other traditional CRM functions. We can also expect additional vendors to converge on this opportunity as they evolve their CEP capabilities. Additionally, some vendors are expected to acquire AI vendors to fill gaps in their portfolios.

Oracle (Ovum recommendation: Leader)

Figure 7: Oracle CX Cloud Suite radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Oracle leverages its traditional strengths and tightly integrates its CX Cloud Suite

Oracle has greatly evolved its former CRM capabilities through both acquisition of key components and its organically developed technologies to create a modern, unified customer engagement platform for the enterprise. It has strengths in every layer, from cloud infrastructure and its highly secure autonomous database, through to the orchestration layer supported by embedded machine learning throughout all applications (via Oracle Adaptive Intelligent Apps) and between them, to deliver an unbroken customer journey. Oracle Autonomous Integration Cloud now includes Integration Cloud

Service, Process Cloud Service, and Virtual Box Cloud Service, all combined into one product. The underlying design principle is to connect data and content, from which clients can derive "connected intelligence" and their customers a highly personalized and connected experience. Oracle also offers an extensive catalog of curated third-party data through its Oracle Data Cloud offering.

The key functional components of the tightly integrated Oracle CX Cloud Suite Cloud platform are as follows:

- **Marketing and loyalty:** Marketing automation and orchestration capabilities are available with Oracle Marketing Cloud, which is an integrated portfolio of applications for both B2B (Eloqua) and B2C (Responsys) marketers to drive sales and strengthen brand and customer loyalty. Oracle can address the entire marketing lifecycle, from customer acquisition (BlueKai) to retention and to testing and content personalization across channels and devices (Maxymiser). Importantly, Oracle also offers an analytics solution (Infinity) that harnesses big data and works in real time to collect, process, and deliver actionable customer intelligence. Uniquely among CEP vendors, Oracle also provides a loyalty scheme management capability through Oracle Loyalty Cloud.
- **Sales and CPQ:** Oracle CX Cloud Suite offers a comprehensive ecosystem of sales tools, via Oracle Sales Cloud, that can be extended to include a sophisticated configure, price, and quote capability through Oracle CPQ Cloud. Oracle Sales Cloud also includes sales force automation, performance management (Sales Performance Management), and a solution for managing partners (Partner Relationship Management). For high-touch and strategic B2B accounts where it is important that key account teams can respond rapidly to any issue, there is Oracle Engagement Cloud, combining a full set of sales force automation capabilities with customer service in the same solution.
- **Service:** Customer service is central to customer engagement. Oracle has a sophisticated solution in Oracle Service Cloud that allows engagement across both assisted and self-service channels. It enables customer service via web, email, phone, mobile, and social channels, and service can be enhanced with the use of Virtual Assistant, Proactive Chat, Guided Interactions, and Co-Browse. Oracle Field Service Cloud includes advanced routing and scheduling, mobility, and team collaboration capabilities that are a part of the Service Cloud offering. Again, service functionality is also incorporated as part of Oracle Engagement Cloud.
- **Commerce:** Oracle CX Cloud Suite offers B2C and B2B commerce capabilities via Oracle Commerce Cloud. The solution includes a customizable, out-of-the-box responsive storefront with a comprehensive set of native features such as responsive design, experience management, promotions, A/B testing, and product recommendations.
- **Data:** Data is required to create a good customer experience. Also part of the CX Suite, Oracle Customer Data Management Cloud consolidates account and contact data originating from multiple sources, including mobile and social, and then deduplicates the data to ensure an accurate customer profile.

Oracle also provides a central hub for content management through Oracle Content and Experience Cloud. Oracle CX has eight dedicated industry variants, more than any other vendor.

Multi-cloud collaboration to forge deeper engagement for the connected enterprise

Oracle's cloud development teams collaborate extensively to ensure that both front-office and back-office applications are harmonized to deliver on the Oracle vision of the connected digital enterprise. This is greatly aided by having the application development teams under a single leader – Steve Miranda, EVP of Oracle applications product development – who has explicitly fostered cross-team collaboration.

This collaboration also extends to the Oracle Adaptive Intelligent Apps, which not only provide in-application support but are connected to support end-to-end processes across the value chain. Oracle AI Apps use cases deliver intelligent, surfaced outcomes that are exposed as industry-standard REST APIs. AI Apps' smart outcomes are exposed natively through the Oracle Cloud application suite or can be connected to any third-party application, whether in the cloud or on-premises.

Designed with the intent to connect intelligence across functional pillars, Oracle AI Apps smart outcomes become smart inputs to other AI Apps-driven processes to continually deliver up-to-the-minute actions and insights across CX, ERP, and HCM. For example, across CX Marketing and Sales, AI-driven smart outputs from marketing orchestration processes can become smart inputs to lead optimization processes or recommended next best actions. Or ERP financial and project management data can feed HCM systems to intelligently source and model the best project teams that meet financial and other business goals.

The data driving Oracle AI Apps comes from a massive investment made by Oracle in Oracle Data Cloud, which is culmination of BlueKai, Datalogix, AddThis, Crosswise, Moat, and Grapeshot. Oracle Data Cloud gives customers not only better access to their first-party data but access to 5 billion global IDs, \$3tn in consumer transactions, and more than 1,500 data partners – all through a single system.

Weaknesses

Customer journey management and feedback for continuous improvement

Omnichannel customer engagement design requires continuous feedback for continuous improvement. While Oracle has a unified analytics offering across CX that synthesizes master data, transactional, operational, sensor behavioral, and external data sources, it lacks a comprehensive visualization capability to monitor interaction traffic to identify barriers to a positive customer experience. This would be beneficial to customer experience designers, enabling them to identify high-impact improvement opportunities. While Oracle provides a useful customer journey mapping methodology, it has not yet been codified to enable CX designers to monitor interaction traffic and continually optimize the experience based on actual results. This would be of particular value in consumer-driven markets, and a "customer journey" dashboard is something that is on the immediate roadmap for Oracle Marketing Cloud. It will be supported by a common customer data model that exists today and will be critical to the development of journey mapping technology.

Opportunities

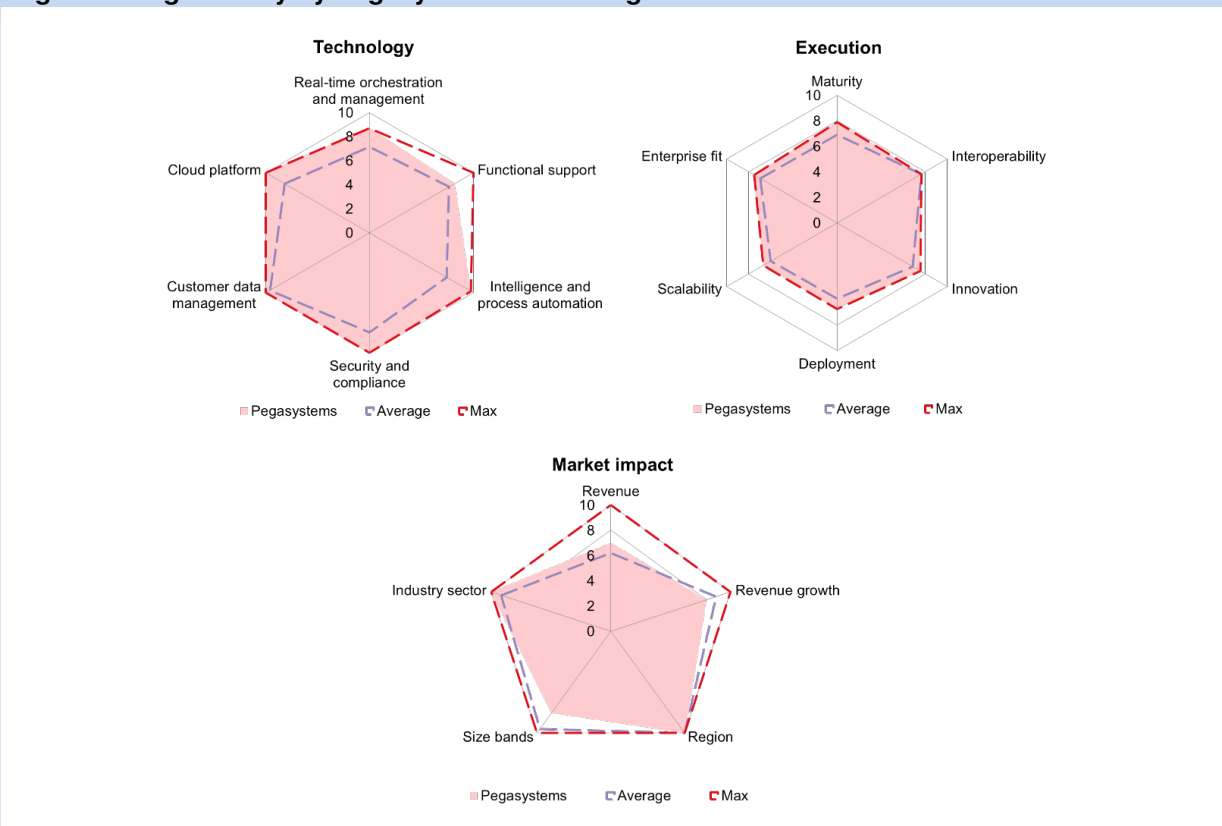
Oracle Cloud CX Suite is a highly credible platform suited to large enterprises in a broad variety of B2B, B2B2C, B2C, and G2C environments. Key industries supported with industry-specific data models include automotive, communications, consumer goods and retail, education and research, financial services, healthcare, high tech, industrial manufacturing, and public sector. Oracle has also developed a bundled suite for midsize businesses under the name CX Cloud for Midsize.

Threats

The other leading vendors in this report are battling hard to establish leadership in customer-driven digital business transformation. The major threats will come predictably from Pegasystems (in large global enterprises), SAP, and Salesforce, and also Bpm'online (SME), SugarCRM (B2B), and Adobe, now that it has a commerce component to its platform. Other vendors in this report, but not from a CRM heritage, are also competing for the same customers. We can expect additional vendors to converge on this opportunity as they raise their sights on customer-driven business transformation and flesh out their CEP capabilities.

Pegasystems (Ovum recommendation: Leader)

Figure 8: Pega Infinity by Pegasystems radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Pega Infinity unites customer engagement and process automation to create a unified digital transformation platform

The underlying guiding philosophy behind Pega Infinity is to create a future-proof and adaptive platform for continuous transformation. The approach with Pega Infinity is to take a customer journey-centric approach to customer engagement, where each journey can be designed as a case with its own lifecycle and focused on customer outcomes rather than just tasks. Pegasystems' strong BPM heritage combines with its advanced CRM capabilities, creating a customer engagement platform that

is adaptive and can sit above legacy systems to orchestrate back-office fulfillment capabilities triggered by customer interaction.

The platform is particularly well suited for large and complex international organizations that are trying to standardize and allow for regional or country localization.

AI and RPA are embedded throughout the platform

The Customer Decision Hub, at the heart of the unified platform, acts as the orchestration brain, supported by a wealth of machine learning algorithms in marketing, sales, and service functions, which constantly monitor behavioral patterns exhibited by customers. This allows Pega Infinity to predict not only the next best action but also the next best moment to make an offer or to engage with the customer at the optimum time. AI can also be used to support desired outcomes. Marketers, for example, can set acquisition or churn rates, and the embedded AI, which continuously learns from results, can select the audience to test out new campaign ideas and, based on results, is self-optimizing.

The "situational layer cake" facilitates standardization yet accommodates exceptions

The multidimensional architecture, which Pegasystems call the situational layer cake, allows for standardization across the enterprise; exceptions required due to local regulations, for example, can be accommodated without interfering with the integrity of the core system. For large international companies driving best-in-class standards but allowing for local exceptions when required, this architectural advantage of Pega Infinity will be welcomed.

Cloud choice for large enterprises and tools for developers

Pega Infinity can be hosted on AWS, Azure, Google Cloud, and/or Pivotal to suit the needs or policies of each enterprise. The platform is also designed for rapid Agile development and includes a raft of supporting tools such as the Admin Studio to support DevOps and continuous release; App Studio for developing apps for further differentiation; Diagnostic Cloud to monitor and optimize how the platform is being used; Pega Catalyst, a design thinking approach to develop customer journey support, specific to roles and personas, with data interfaces via REST APIs to connect to adjacent systems; and a low-code/no-code approach where code is automatically written to support small process design changes.

Mounting evidence suggests Pega Infinity is being used as a digital transformation platform

Several major financial services, including JPMorgan Chase, Commonwealth Bank of Australia, and Genworth Financial, are using Pega Infinity as a strategic customer engagement platform. Liberty Global, the world's largest cable company, has standardized on the Pega platform and is sharing the development of new capabilities for general adoption in Germany, the UK, and Austria.

Weaknesses

No native commerce capability

Pegasystems has no native commerce platform; however, it can easily integrate with third-party commerce platforms as well as a host of back-office systems to orchestrate the customer experience.

Limited presence in midmarket or retail

Two years ago, Pegasystems announced a midmarket initiative in the US. This sales team continues to target the Global 2000 but seems to be having more success in the higher end of the midmarket tier. Smaller enterprises may want to look elsewhere. Pegasystems has minimal presence in retail,

although it could perform the role of digital transformation catalyst and integrate with adjacent retail systems.

Opportunities

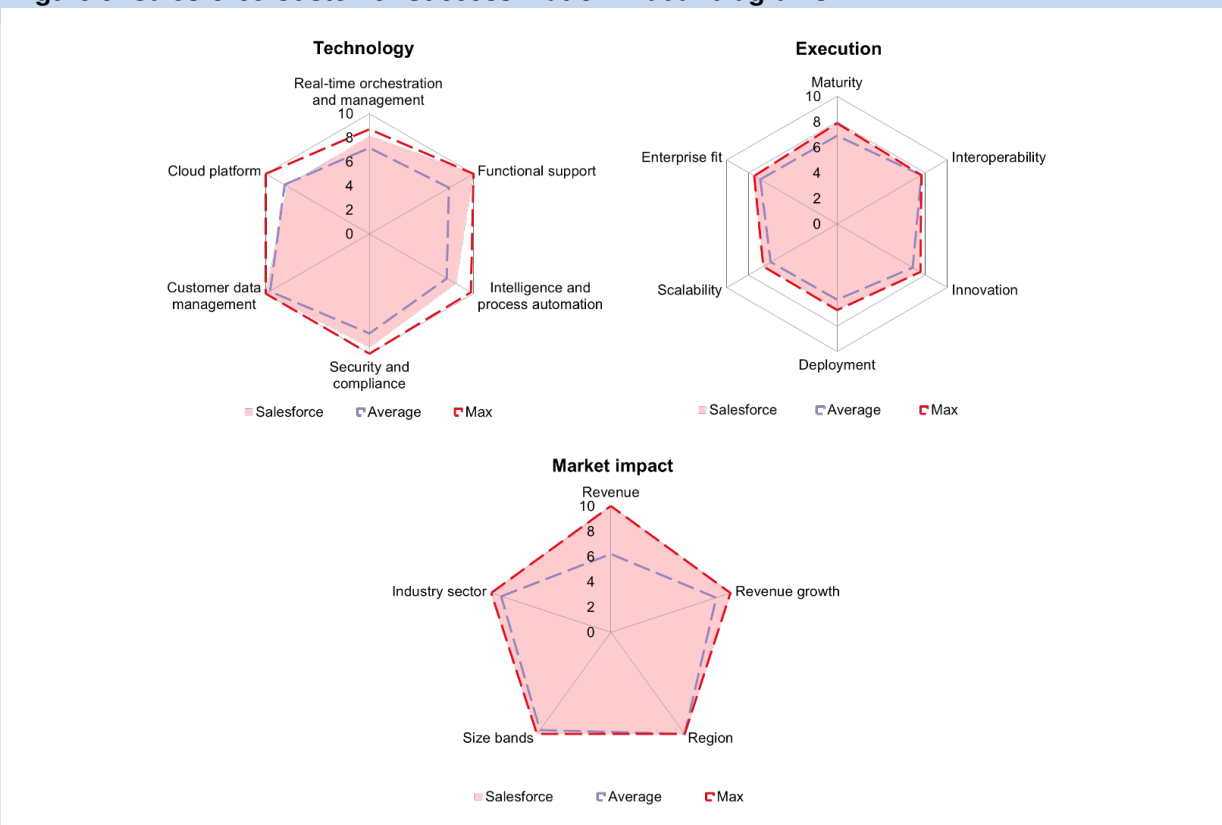
Ovum ICT Enterprise Insights research for 2017 reported that around 80% of large enterprises are still in the early stages of their digital transformation journeys. One major barrier is a fragmented legacy environment, and this provides a good opportunity for Pega Infinity, by becoming the digital transformation layer. Key industries supported include communications, financial services, healthcare and life sciences, manufacturing, public sector, and technology.

Threats

The other vendors in this report are potential competitors, with the most obvious being Oracle, SAP, and Salesforce among the CRM heritage vendors. Adobe, with its marketing automation heritage, may provide competition in marketing departments, although Pega and Adobe are integrated at several large organizations. Even so, as an avowed digital transformation platform specialist, co-existence is more likely. Bpm'online has a strong BPM/CRM heritage but typically in much smaller organizations and is less of a threat. The other vendors in this report may co-exist rather than compete directly with Pega.

Salesforce (Ovum recommendation: Leader)

Figure 9: Salesforce Customer Success Platform radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Greatest market penetration in CRM, expanded capabilities, and broad ecosystem

Salesforce won the battle for CRM leadership in terms of volumes of customers and is well positioned to stake a leadership claim in the more advanced customer engagement platform space, if it can convince companies that its Customer Success Platform offers a coherent and integrated platform for omnichannel customer engagement and can serve as a catalyst for digital transformation across the enterprise. The early signs look promising as Salesforce is increasingly involved in more strategic transformation projects where the CEO is the key sponsor. Major enterprises in a range of industries, such as ABB, Adidas, Ducati, Embraer, Michelin Tires, and the state of Colorado, have standardized on the Salesforce Customer Success Platform as they seek to enhance their customer engagement capabilities.

Salesforce has greatly enhanced its solution portfolio through acquisition to include commerce (B2B through CloudCraze, acquired in March 2018, and B2C through Demandware, acquired in July 2016). From a digital transformation perspective, the acquisition of MuleSoft (May 2018) massively enhances Salesforce's transformation credentials. Now part of Integration Cloud, MuleSoft's Anypoint Platform connects any application and data source and creates an application network. Another part of Integration Cloud, code-named Salesforce 360, is in pilot with customers; it unifies and reconciles customer data across clouds and is an essential element in a CEP.

The Salesforce Customer Success Platform consists of the following clouds:

- Marketing Cloud, including DMP (from the Krux acquisition in December 2016)
- Commerce Cloud
- Service Cloud (including field service through Field Service Lightning)
- Community Cloud
- Sales Cloud (including CPQ following the acquisition of SteelBrick, February 2016)
- Collaboration Cloud (following the acquisition of Quip, August 2016)

All are connected to the underlying Salesforce Platform that most notably includes Einstein AI; Lightning; Einstein Analytics; Salesforce IoT; Heroku, Salesforce's PaaS for developing customized app extensions; the AppExchange, where thousands of extensions can be acquired; and Trailhead, its collaborative learning platform for skills development and rapid onboarding.

Salesforce also offers industry variants for financial services, public sector, healthcare, and nonprofit organizations, with Financial Services Cloud, Government Cloud, Health Cloud, and, in June 2018, Nonprofit Cloud.

Democratizing AI to enable the nontechnical to take advantage of Einstein

Salesforce has done more to democratize machine learning than probably any other vendor. While there are out-of-the box predictive analytics and recommendation engines for specific departmental use cases (examples include sales propensity analytics, sales coaching recommendations, engagement scoring and attribution for marketing, and virtual assistant for service agents), with myEinstein, nontechnical businesspeople can drag and drop to create their own analyses and predictions.

The exponential value in the Einstein platform will be unlocked for customers that combine Einstein Discovery, which discovers relevant patterns in a data set without having to build the sophisticated data models required by traditional business analysis tools, with Einstein Prediction Builder (in pilot), which allows business users to create AI models on any object in Salesforce to predict business outcomes like churn or lifetime value. This combination helps identify dependencies and relationships between data from any source, feed them into Einstein Builder and Prediction Builder, and yield ML results that drive business value.

Weaknesses

Salesforce needs a cross-cloud customer experience focus

Each of Salesforce's Clouds has its own leader with accountability for development and financial results. While collectively the Salesforce Customer Success Platform provides a rich environment as a CEP, more needs to be done to support customer journeys that touch multiple departments in a business and multiple Salesforce clouds. While its DMP allows for very good analysis of interaction traffic and Einstein can make targeting recommendations to optimize communications, a chief customer experience officer needs to have sight of all interaction journeys, including those that touch the back office, and use these insights to enhance omnichannel engagement. Salesforce 360, in pilot with customers, builds a customer 360-degree view across clouds and will provide native point-and-click tools to orchestrate cross-channel experiences.

A strategic role for MuleSoft and Integration Cloud

MuleSoft will play an important role in developing this holistic omnichannel view, and in discussions with Salesforce, cross-cloud collaboration is a top priority development area and a key reason for the MuleSoft acquisition to drive connected customer experiences. API-led connectivity will unlock otherwise siloed data, increase agility, and allow customers to create cross-channel experiences. These APIs will be consumed by the Salesforce platform and apps for employees (sales, service, analytics, and custom apps) and for consumer-facing apps (commerce, marketing, and custom apps).

This shift from a sales-driven philosophy to customer experience orchestration, spanning multiple clouds, is welcome. Along with the developments outlined above, it will improve Salesforce's CEP credentials.

Opportunities

Digital transformation is a top agenda item for CEOs, and while progress has been made on the back-office and supply side of many businesses, mostly to reduce costs and increase operational efficiency, the thorniest challenge is how to generate growth. This is driving the "beyond CRM" CEP category. Increasingly, CEOs are not just taking a passive interest in customer engagement but are taking up the reins from line-of-business (LOB) heads, as growth is inextricably tied up with the customer. This marks a shift from tactical LOB-driven purchases to a more joined-up and adaptive architectural approach to ensure organizational coherence. This will open up the opportunities for vendors like Salesforce that have the capabilities to support genuine customer-focused digital business transformations.

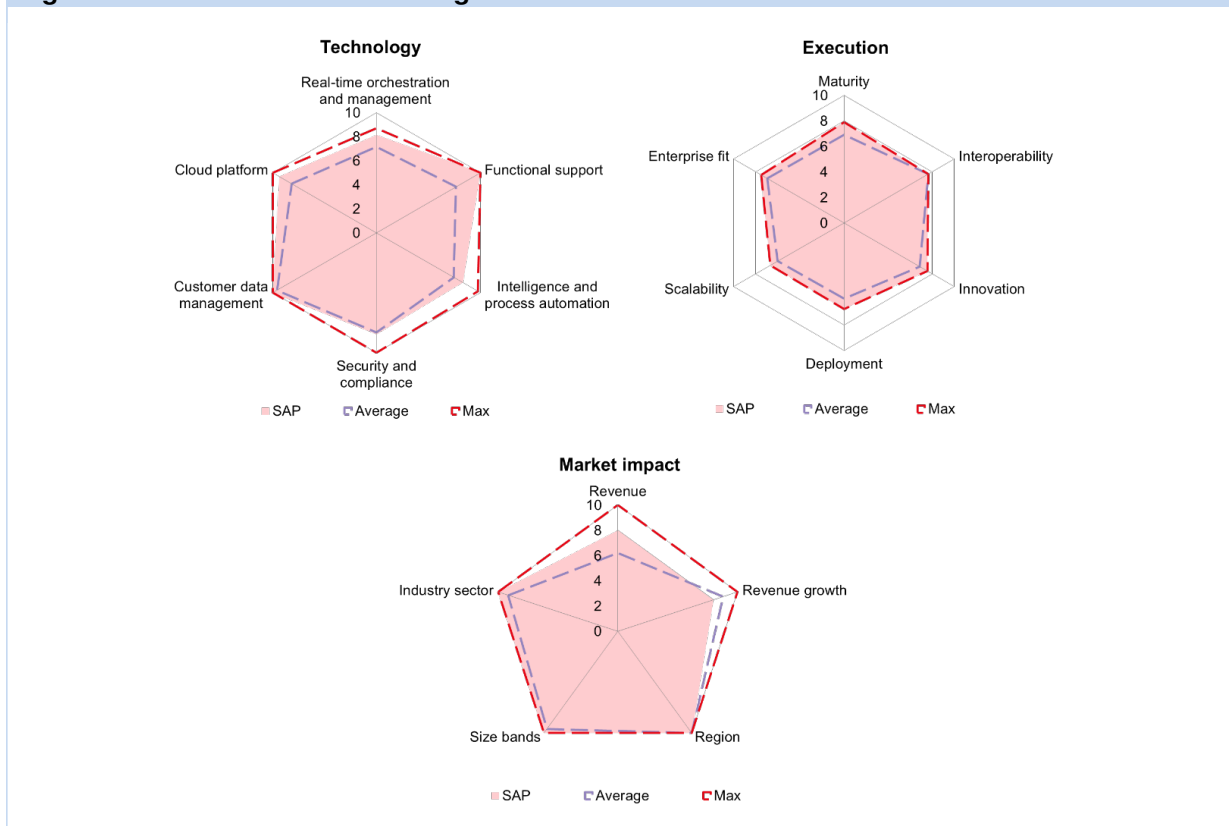
From an industry perspective, Salesforce is ubiquitous, helped greatly by its massive partner ecosystem and the AppExchange. It has also developed industry-specific variants: Financial Services Cloud for retail banking, Health Cloud, Government Cloud, and Nonprofit Cloud.

Threats

The other leading vendors in this report are battling hard to establish leadership in customer-driven digital business transformation. The major threats will come from Oracle, Pegasystems (in large global enterprises), and also Bpm'online (SME), SugarCRM (B2B), and Adobe, now that it has a commerce component to its platform. Others included in this report, but not from a CRM heritage, are also competing for the same customers. We can expect additional vendors to converge on this opportunity as they evolve their CEP capabilities. Some CRM vendors not included in this report have stated that they are heading in this direction but are not credible competitors today.

SAP (Ovum recommendation: Leader)

Figure 10: SAP C/4HANA radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

SAP C/4HANA is a key component of SAP's Intelligent Enterprise aspiration

SAP's C/4HANA announcement at Sapphire Now in June 2018 is a clear statement of intent to deliver modern solutions and a positive customer experience and act as the catalyst for what SAP refers to as the Intelligent Enterprise. This is SAP's rallying cry and an ambitious moonshot. SAP C/4HANA is the catalyst for the Intelligent Enterprise

The SAP Cloud Platform, with the in-memory SAP HANA database at its core, is the glue that unites the SAP portfolio, from SAP S/4HANA (ERP) to SAP C/4HANA (customer experience) and solutions such as SAP Ariba, SAP SuccessFactors (HR), SAP Fieldglass (contingent workforce), and SAP

Concur (travel expenses). Each of these solutions has a role to play in delivering the idea of the Intelligent Enterprise, with S/4HANA and C/4HANA being the most critical solutions to connect the enterprise value chain to the customer to create a demand chain.

SAP C/4HANA is an integrated customer experience platform derived from the formerly branded SAP Hybris customer engagement and commerce portfolio and consists of five clouds:

- SAP Sales Cloud
- SAP Commerce Cloud
- SAP Marketing Cloud
- SAP Service Cloud
- SAP Customer Data Cloud

They can be bought separately and are integrated with SAP S/4HANA, which creates a seamless connection between the front office and back-office applications, the spine of the Intelligent Enterprise.

The SAP Sales Cloud has recently been augmented with the acquisition of CallidusCloud, which provides CPQ and sales performance management and a learning environment to share best practices (see "SAP acquires Callidus Software to strengthen its customer engagement capabilities in B2B").

The SAP Service Cloud has also been augmented through the acquisition of Coresystems, a Swiss field service platform company that also supports crowd service, where enterprises extend their field service through independent field service personnel. Like the SAP C/4HANA suite, it embeds machine learning to automate scheduling and the provision of field service personnel in an Uber-like manner, based on location, availability, and relevant expertise.

SAP's heritage is both a strength and a weakness

SAP's industry expertise and 25,000-person strong Digital Business Services workforce, which has a deep design thinking and agile approach and a common unified SAP Cloud Platform with the in-memory SAP HANA database at its core, make it well equipped to deliver on its promise of the Intelligent Enterprise. Success in the customer engagement field requires enterprise-wide coherence and a systematic and fluid approach to deliver on customer expectations. SAP can deliver that with its unified CEP and open integration via APIs to third-party legacy systems. Its much improved UX, courtesy of Fiori, and empathetic design thinking, with in-app embedded machine learning intelligence to augment the user, will also play an important part in successful delivery and adoption.

Weaknesses

SAP needs a market makeover and is still perceived as "the ERP" company

With C/4HANA and the vendor's strategic intent to deliver on the promise of the Intelligent Enterprise, SAP has a more inspiring message beyond Run Simple, which implied complexity reduction and efficiency. However, it failed to match Salesforce's growth in the CRM category, and it is still often perceived as an ERP vendor. Shrewd acquisitions, notably Hybris Commerce and more recently its enhancements in SAP Marketing Cloud to reinforce trust (Gigya), SAP Sales Cloud (CallidusCloud), and SAP Service Cloud (Coresystems), have significantly improved the potential of the CEP.

That said, SAP must market its capabilities far more consistently to overcome preconceptions that it is fundamentally an ERP company. SAP must harness its flagship referenceable accounts to

demonstrate buy-in to the Intelligent Enterprise philosophy and the increased value of using the unified SAP C/4HANA suite as a platform for intelligent and adaptive customer engagement.

Opportunities

Digital transformation is a top agenda item for CEOs, and while progress has been made on the back office and supply side of many businesses, mostly to reduce costs and increase operational efficiency, the thorniest challenge is how to generate growth. This is driving the "beyond CRM" CEP category. Increasingly, CEOs are not just taking an interest in customer engagement but are taking up the reins from LOB heads, as growth is inextricably tied up with the customer. This marks a shift from tactical LOB-driven purchases to a more coherent and adaptive architectural approach to ensure organizational coherence. This opens up the opportunities for vendors like SAP that have the capabilities to support genuine customer-focused digital business transformations. SAP's Intelligent Enterprise vision should resonate, especially with SAP S/4HANA customers.

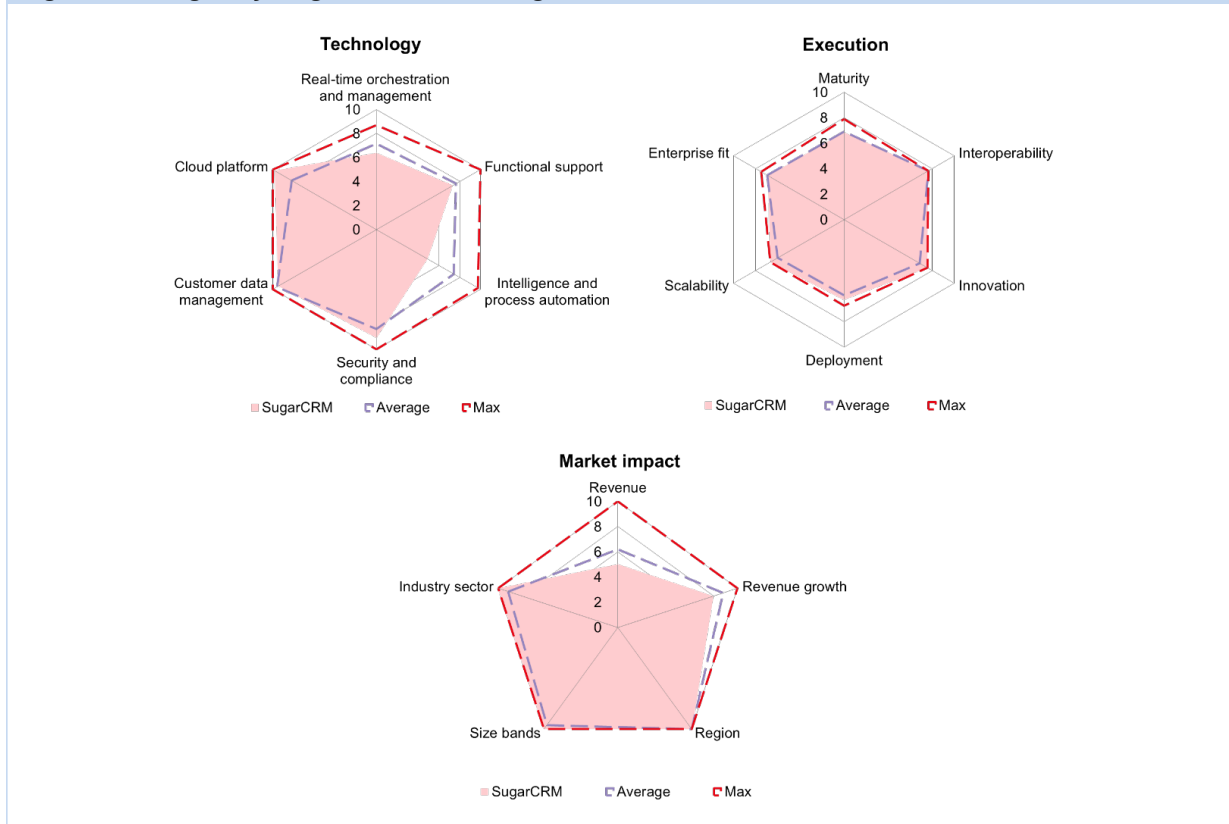
SAP has always been a B2B powerhouse, and since it acquired Hybris Commerce in 2013, it has greatly enhanced its B2C credentials. Financial services, insurance, telecoms, and public sector environments are also supported.

Threats

The other leading vendors in this report are battling hard to establish leadership in customer-driven digital business transformation. The major threats will come predictably from Oracle, Pegasystems (in large global enterprises), and Salesforce, and Bpm'online (SME), SugarCRM (B2B), and Adobe, now that it has a commerce component to its platform. Other vendors included in this report, but not from a CRM heritage, are also competing for the same customers. We can also expect additional vendors to converge on this opportunity as they flesh out their CEP capabilities. Some CRM vendors not included in this report have already signaled their intentions to compete in this space.

SugarCRM (Ovum recommendation: Challenger)

Figure 11: Sugar by SugarCRM radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Open and flexible, low subscription costs, and dedicated to B2B

Although the vendor has some customers in other markets, it is dedicated to B2B. Its open and unified architecture allows for a high degree of flexibility and ensures that sales, service, and marketing can work seamlessly together. Its transparent pricing policy also encourages adoption and offers one of the lowest subscription costs compared with an equivalent system from other vendors.

IBM as customer and partner has helped SugarCRM penetrate the large-enterprise market

IBM is SugarCRM's largest customer with some 80,000 seats and is migrating to SugarCRM's OnDemand premium cloud in line with SugarCRM's "cloud-first" vision. Its partnership with IBM has also brought IBM Watson's cognitive computing capabilities, and offers potential for increasing the value of Sugar by delivering insights to help enterprises understand behavioral patterns of their customers and optimize the customer experience. IBM's marketing automation solutions Unica and Silverpop are also available from the SugarExchange.

SugarCRM adds AI and third-party data to the mix to augment the employee and customer context

In 2017, SugarCRM took its first steps into the AI domain with Hint, its proprietary machine learning capability. In line with the long-held philosophy of CEO Larry Augustin and CTO and co-founder Clint

Oram, Hint is designed around uses cases that help employees in their specific sales, service, or marketing roles, with a focus on relationship intelligence. The impact of this can be quite dramatic, especially in sales. The time taken to prepare for a sales meeting is greatly reduced, as Hint identifies relevant company profile data or recent news items and surfaces these in a side panel, which can be added to the company record with a single click. Hint also provides in-context guidance to increase the productivity of sales, marketing, and service. More use cases are being developed all the time, but the underlying focus is to foster deeper bonds with business customers.

Third-party data sets curated by SugarCRM are available to augment customer profile data and provide additional intelligence.

Weaknesses

More partnerships are needed to support customer journeys in commerce

Sugar is not well suited to the more complex and dynamic omnichannel management challenge encountered by B2C organizations, especially retail. Commerce is becoming increasingly part of the customer journey in B2B markets, and while Sugar is already capable of integrating with IBM WebSphere Commerce through its existing strategic partnership, it must also broaden its appeal through similar partnerships with leading commerce platforms, especially those also focused on B2B.

Omnichannel orchestration needs more than Hint

Hint is great for supporting employees in their respective marketing, sales, or service roles, but it is not yet sufficiently advanced to handle the complexity, variety, and dynamic nature of omnichannel customer engagement. If the default is to partner with IBM Watson for this, a more concerted co-marketing effort is required to bring the joint capability to the attention of enterprises that are struggling with omnichannel. SugarCRM could also offer more value to B2B organizations by strengthening its ABM capabilities and applying Hint to surface insights into the activities of key personnel and influencers within individual accounts.

Opportunities

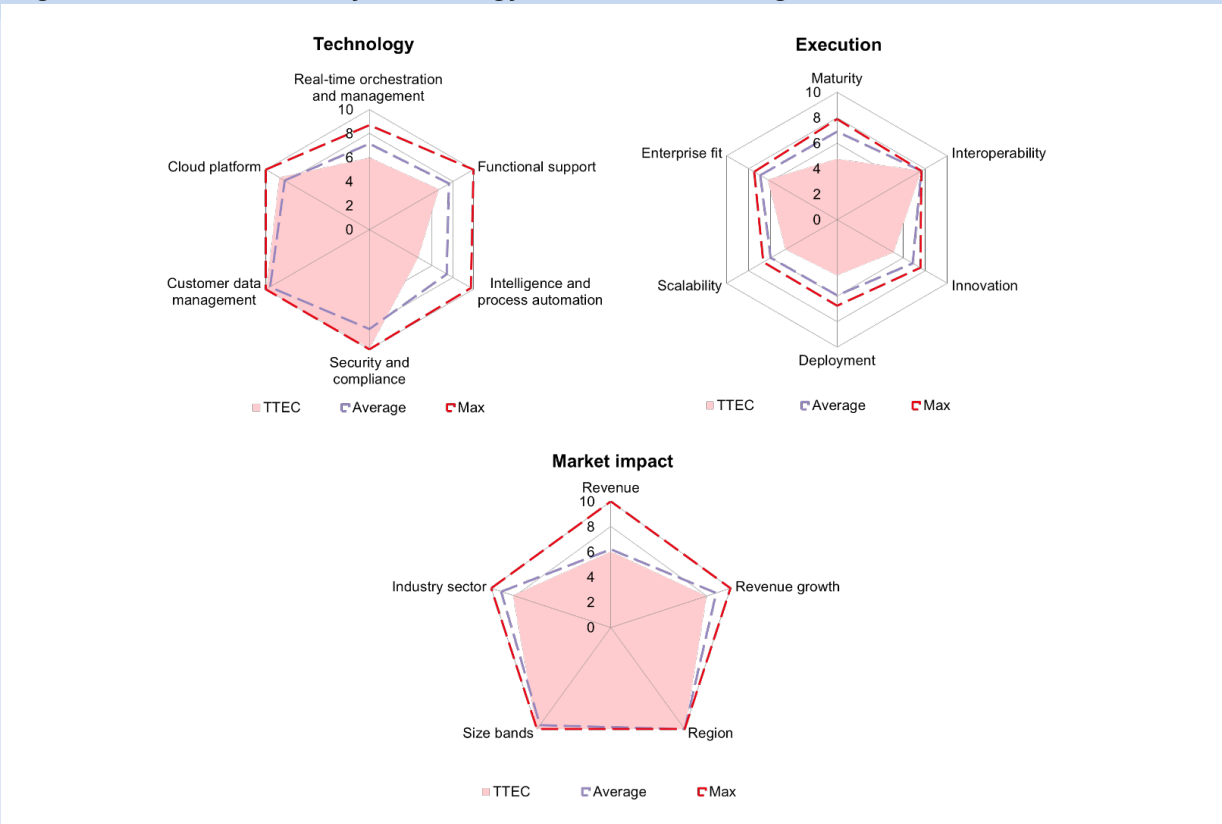
SugarCRM provides a good CEP for the midmarket and large B2B enterprises. It could enhance opportunities among large enterprises in B2B that want to establish direct-to-consumer relationships by a more proactive go-to-market partnership with IBM, which, through Watson Commerce, combines the key elements of AI and commerce. This could also serve as the blueprint for partnerships with other B2B commerce platform vendors. Key industries that Sugar supports include business services, financial services, commercial banking, credit unions, insurance, manufacturing, and wealth management.

Threats

The other leading vendors in this report are battling hard to establish leadership in customer-driven digital business transformation. The major threats will come predictably from Oracle, Pegasystems (in large global enterprises), Oracle NetSuite, Salesforce, and Bpm'online (SME). Given the importance of face-to-face relationships in B2B markets, competition from Adobe is likely to be as a marketing component or in partnership with Microsoft for the other traditional CRM functions. The danger is that if SugarCRM sticks with the traditional triumvirate of sales, service, and marketing and does not proactively exploit the commerce opportunity via strategic partnerships, it may find itself marginalized to the more traditional B2B environment and miss out on the growth in B2B commerce.

TTEC (Ovum recommendation: Challenger)

Figure 12: TTEC's Humanify Technology Platforms radar diagrams



Source: Ovum

Ovum SWOT assessment

Strengths

Humanify Technology Platforms enable robust omnichannel capabilities

TTEC has shifted direction over the past year, from leading with a multichannel approach to employing an omnichannel one and broadening its addressable market in the process. With Humanify Customer Engagement as a Service, the company shifted to a business outcome orientation.

As part of Humanify Customer Engagement as a Service, Humanify Technology Platforms deliver seamless omnichannel technology integrating voice, chat, email, SMS, co-browsing, social, and video within the customer experience. Delivering on investments in these six products – omnichannel, service to sales, interactive VA (Humanify Digital Worker Factory), Humanify Insights Platform, Humanify @home, and advanced growth analytics – TTEC moved from four distinct business units to two centers of excellence: TTEC Engage and TTEC Digital. Together they enable robust omnichannel capabilities that combine fluid data and insights with seamless touchpoint/channel interoperability to provide frictionless performance and continuity.

The platforms are offered as both dedicated and multitenant in the cloud, and from a delivery perspective, Humanify Technology Platforms enable a single integrated CX technology approach by aggregating interaction channels into a single interface with the ability to apply AI, knowledge

management, CRM productivity applications, and journey orchestration. Advanced dashboarding provides a single aggregated view of customers.

TTEC recognizes AI as a growth area

Because TTEC also recognizes AI and machine learning as a growth area, the company is focusing on the introduction of AI-enabled technologies, including Intelligent Virtual Assistant and advanced analytics, in partnership with best-of-breed technology providers. The company is going to market with bots and developing a comprehensive AI strategy that entails building bespoke AI platforms, training the bots, and then putting them in the right positions to make them more productive. TTEC utilizes machine learning across customer-facing processes and in employee-driven activities. From advanced machine learning in sales and marketing, service to sales next best offer, to QA/QM, RPA, and operational analytics, and internal bots, TTEC reportedly has embedded machine learning throughout its business. TTEC is working to integrate these motions into a connected ecosystem driven off its centralized data lake and intelligence engine.

Weaknesses

Previous platforms poorly aligned to mainstream IT architectures

TTEC reports that its previous platforms have not aligned well with mainstream IT architectures and roadmaps and that, although the user experience is engaging and modern across some modules of the solution, it is not consistent with all. With the company's go-forward strategic focus on the unified Humanify Customer Engagement as a Service offering and updates driven by an integrated, company-wide technology roadmap, improvements in the infrastructure and user experience are ongoing.

Lacking some industry-focused solutions set templates

TTEC also lacks solution set templates for a range of industries, including life sciences, manufacturing, media and entertainment, professional services, and the public sector. The company's proprietary technology is in use in the healthcare sector and includes aspects of the bConnected platform, acquired as part of the company's Connexions acquisition from Optum in 2017. Similarly, clients in the automation and retail industries frequently use the journey orchestration capabilities of Humanify, so the company does offer subject-matter expertise in those verticals. The company's capabilities in omnichannel and AI are applicable across a broad set of industries.

TTEC must continuously add capabilities like commerce to its platform

Although TTEC has made significant investments in repositioning itself to become a transformative customer experience leader rather than a traditional BPO provider, it is still not enough for long-term competitive advantage against customer engagement platform leaders that continuously evolve their solutions or acquire companies to broaden their offerings. For example, Adobe's acquisition of Magento adds a transactional element to the mix and raised the bar on Adobe delivering a fully immersive and personalized experience in both B2B and B2C.

Offers support for fewer than eight languages

As businesses become increasingly global, vendors in the category are ramping up their multilingual support capabilities. Although TTEC's technology supports fewer than eight languages, the platform is flexible and is regularly being updated to include additional languages, including Portuguese. The company's platform offering would benefit from increasing its language offerings.

Opportunities

A connected data ecosystem will enable real-time exchange

Much of TTEC's functional support, namely sales force automation, commerce, and marketing automation, is provided through prebuilt out-of-the-box integrations to third-party products. This qualifies Humanify Customer Engagement as a Service more as an integrated platform than a "single platform" built from a single database from the ground up. TTEC is working to integrate all these motions into a connected ecosystem driven off a centralized data lake and intelligence engine. This will enable more real-time, accurate exchange of data with an integrated platform between applications.

Serves a wide mix of industries

TTEC serves a wide range of sectors, with tailored expertise in the automotive, communications, healthcare, financial services, government, logistics, media and entertainment, retail, technology, travel, and transportation industries.

Threats

Minimal presence in EMEA and LATAM

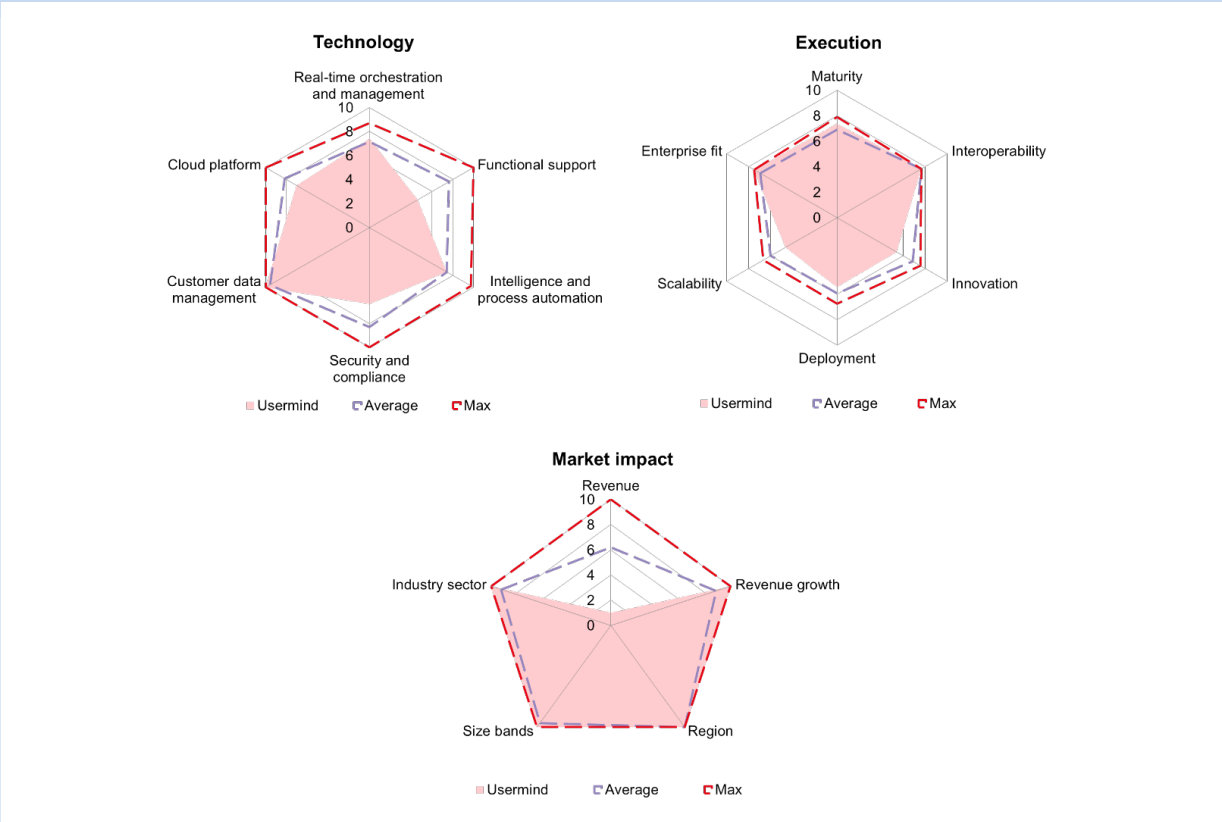
Latin America is emerging as a new battleground for global technology giants to invest in a range of companies. With only 9% revenue from Latin America and 4% in EMEA, TTEC should consider focusing on these regions as key growth markets. Seeing that leaders in this category have a greater presence in those markets, TTEC's minimal presence may pose a competitive threat.

Battle for CEP dominance

Other vendors in this report are battling hard to establish leadership in customer-driven digital business transformation. The major threats will come from Oracle, Pegasystems (in large global enterprises), Salesforce, and Bpm'online (SME). Given the importance of face-to-face relationships in B2B markets, competition from Adobe is likely to be as a marketing component or in partnership with Microsoft (with whom TTEC is partnering for aspects of the Humanify platform) for other traditional CRM functions. We can also expect additional vendors to converge on this opportunity as they evolve their CEP capabilities. Additionally, some vendors are expected to acquire AI vendors to fill gaps in their portfolios.

Usermind (Ovum recommendation: Challenger)

Figure 13: Usermind Customer Engagement Hub radar diagrams



Source: Ovum

Ovum SWOT Assessment

Strengths

Customer data and process outcome analytics are controlled from a single place

Seattle-based Usermind laid the foundational groundwork for its Customer Engagement Hub (CEH) by spending three years designing journeys and measuring them for clients. Consequently, the centerpiece of the Usermind CEH platform focuses on four areas: data integration, mapping the data across the systems, omnichannel orchestration across heterogeneous systems, and journey analytics. Usermind essentially connects the dots on the processes that get locked up by logic and data that are siloed by applications and teams. It controls all business logic, customer data, and process outcome analytics from one place by mapping the data between them, building workflows, automating end-to-end processes, and connecting data across applications.

Deploying bidirectional syncing, Usermind continually refreshes metadata as its clients' systems and underlying schemas change. In addition, Usermind executes actions that modify data and trigger workflows in clients' systems. This data is available in Amazon Aurora, so clients can push it to their own data warehouses and analyze it in Usermind or through their preferred data visualization technologies, such as Tableau, Power BI, MicroStrategy, or Looker. Usermind has OEM'd Tableau within the product, so users can build custom Tableau dashboards inside the Usermind web application. With Usermind, there are no limits to the volume of data loaded. Usermind then defines

key entities like customers and partners across all of a client's connected systems, as well as associate CRM records with other systems of customer data and real-time clickstreams.

Machine learning supports end-to-end processes

Next best action models were rules-based, but Usermind recently developed machine learning-based models so clients can opt to take a hybrid approach. Machine learning supports end-to-end processes that may span several departments (including back-office billing and logistics/fulfillment). The system automates complex follow-up actions and prioritizes and triggers a list of actions employees can take based on the specific sets of rules for each customer.

Analytics are extended through Tableau via a single graphical interface

Usermind analytics are a combination of OEM Tableau and custom D3 controls. Usermind can extend the analytics through Tableau as well. The visual analytics from the customer journeys are displayed in a single, graphical interface so clients can understand where their customers are converting, engaging, or falling out of the process. Clients can also obtain insight into how different types of engagements impact business outcomes.

Usermind integrates with customers' entire stack

Although functional support for B2B and B2C commerce, as well as CPQ and field service capabilities, is available only through prebuilt out-of-the-box integration to third-party products and not offered as part of the standard unified platform, Usermind views this as a core differentiator. Usermind's philosophy is to connect and orchestrate journeys across best-of-breed solutions. As such, Usermind integrates with its customers' entire stack through various means: out-of-the-box APIs to more modern systems, generic adapters to connect old systems/databases, webhook, flat file ingestion, and an SDK enabling customers/partners to build their own integrations.

Weaknesses

Limited APIs and longer implementations for enterprise deployments could hinder the brand in the long term

The availability of APIs and SDKs is limited. As the realization that unlocking data happens more quickly through built-in integration of APIs, enterprise customers that are not in a position to rip and replace legacy systems look for API-led connectivity to rapidly expose enterprise data.

Opportunities

A focus on machine learning and customer journey mapping tools will strongly position Usermind

Usermind is working on building out additional machine learning capabilities for this year. Also, its ability to offer customer journey mapping tools is a unique differentiator in the category.

Supports a mix of industries

Although Usermind is capable of supporting journeys in every industry, the company does not offer out-of-the-box solutions for each one. Key growth industries such as healthcare and telecoms are not supported but should be considered. Usermind supports these industries: manufacturing; media and entertainment; professional services; retail, wholesale, and distribution; and travel, transportation, and logistics.

Threats

Leading vendors in the category will create fierce competition

Other vendors in this report are battling hard to establish leadership in customer engagement. The major threats will come predictably from Oracle, Pegasystems (in large global enterprises), Salesforce, and Bpm'online (SME). Given the importance of face-to-face relationships in B2B markets, competition from Adobe is likely to be as a marketing component or in partnership with Microsoft for the other traditional CRM functions. We can also expect additional vendors to converge on this opportunity as they evolve their CEP capabilities. Additionally, some vendors are expected to acquire AI vendors to fill gaps in their portfolios.

Appendix

Methodology

Technology/service assessment

For this assessment dimension, Ovum identified a series of features and functionality that would provide differentiation between the leading solutions in the marketplace. We included 150 features covering the six feature layers outlined in the inclusion criteria, making this one of the most comprehensive evaluations completed by any analyst firm.

The criteria groups identified for CEP evaluations are as follows:

- real-time orchestration capabilities
- functional support across marketing, commerce, sales, service, and billing
- interaction intelligence tools and robotic process automation
- security and compliance
- customer data management
- cloud platforms and APIs

Execution

In this dimension, Ovum analysts review the capability of the solution around the following key areas:

- **Maturity:** The stage that the product/service is at in the maturity lifecycle is assessed here, relating to the maturity of the overall technology/service area.
- **Interoperability:** In this element, Ovum assesses how easily the solution/service can be integrated into the organization's operations relative to the demand for integration for the project.
- **Innovation:** Innovation can be a key differentiator in the value that an enterprise achieves from a software or services implementation.
- **Deployment:** Referring to a combination of assessed criteria and points of information, Ovum analysts provide details on various deployment issues, including time, industries, services, and support.
- **Scalability:** Points of information are provided to show the scalability of the solution across different scenarios.

- **Enterprise fit:** In this dimension, the alignment of the solution is assessed and the potential ROI period is identified.

Market impact

The global market impact of a solution is assessed in this dimension. Market impact is measured across five categories, each of which has a maximum score of 10.

- revenues
- revenue growth
- geographical penetration
- vertical penetration
- size-band coverage

Ovum ratings

- **Market leader:** This category represents the leading solutions that we believe are worthy of a place on most technology selection short lists. 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.
- **Emerging vendor:** Solutions in this category are typically aimed at meeting the requirements of a particular kind of customer. As a Tier-1 offering, they should be explored as part of the technology selection.

Ovum Interactive Decision Matrix

To access the CEP technology area Ovum Interactive Decision Matrix, an online interactive tool providing you with the technology features that Ovum believes are crucial differentiators for leading solutions in this area, please see the Ovum Interactive Decision Matrix tool on the Ovum Knowledge Center.

Further reading

2018 Trends to Watch: Customer Engagement, IT0020-000321 (September 2017)

2018 Trends to Watch: Customer Relationship Management, IT0020-000320, (September 2017)

A Customer-Adaptive Architectural Approach for Digital Business Transformation, INT001-000040, (April 2018)

ICT Enterprise Insights 2017/18 Global: ICT Drivers and Technology Priorities, PT0099-000002 (September 2017)

"SAP acquires Callidus Software to strengthen its customer engagement capabilities in B2B," INT001-000024 (February 2018)

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