Contact center infrastructure is a mature market, yet one in which many dynamic forces are affecting purchase and deployment decisions in evolving ways in order to improve customer engagement. Application leaders should evaluate vendors' technology and their ability to deliver in relevant regions.

**Market Definition/Description**

Gartner defines contact center infrastructure (CCI) as the products (equipment, software and services) needed to operate call centers for telephony support, and contact centers for multichannel support. A third deployment option for CCI is as a core component of customer engagement centers (CECs), in which functionality is tightly integrated with CRM and social media channels to give a "single view of the customer" across all touchpoints. This type of infrastructure is used by customer and employee service and support centers, inbound and outbound telemarketing services, help desk services, government-operated support centers, and other types of structured communications operations.

Contact center interactions can be people-assisted or automated self-service, using web chat or interactive voice response (IVR) and speech recognition technologies, for example. They can also be a combination of assisted service and self-service. Channels for interaction use both live agents and messaging technology, and include voice, web, email, instant messaging, web chat, social media, video and mobile applications. Although there can be significant technology overlap between the CCI market and the CRM CEC market, the CCI market has three unique characteristics:

- Solutions in the CCI market are often an extension of a unified communications (UC) technology portfolio. Although these solutions can route multichannel interactions, voice and telephony tend to play an important role.
- Although CCI solutions include tools for integrating with CRM and other enterprise software packages, they do not typically include this functionality in their own solution stack.
- Voice and data network performance and cost issues are often key elements in the design of architecture and solutions.
In contrast, CEC solutions are most frequently an extension of CRM platforms' case management and problem resolution capabilities. While these solutions also route multichannel interactions, they tend to focus on channels other than voice, and they support a strong focus on using existing customer data to optimize interactions based on the customer's apparent desired outcome. These differences are significant in that they tend to result in separate decision processes driven by different decision makers within organizations. There is, furthermore, currently little overlap between the vendors appearing in the present Magic Quadrant and those in the "Magic Quadrant for the CRM Customer Engagement Center." Over time, we expect the two solution sets to merge, but that merger is still several years off.

Contact centers require a wide range of functions, architectures, features and services to be effective. Two architectural approaches that are common include integrated best-of-breed components and all-in-one bundled suites; either of these approaches can be delivered on-premises or as cloud-based solutions.

CCI includes a wide range of related technologies, some of which are central to vendors' offerings and some integrated through OEM or partnership relationships with best-of-breed providers.

Technology areas can include:

- **Voice routing technologies**
  - Telephony infrastructure
  - IVR and voice portals for self-service applications, including speech-enabled self-service
  - Outbound dialing/proactive contact
  - Virtual routing applications for multisite and work-at-home scenarios

- **Digital channel routing technologies**
  - Multimedia contact routing and prioritization engines with real-time and historical reporting
  - Computer-telephony integration/web services interfaces — including tools for integration with CRM software
  - Presence tools
  - Email response management
  - Web chat
  - SMS
  - Collaborative browsing
  - Social media
  - Live and prerecorded video
  - Workflow routing and management
- Mobile customer service applications
- Knowledge-based self-service
- Sentiment analysis

**Workforce engagement management (WEM) technologies**
- Workforce management scheduling tools
- Session recording and quality monitoring, including speech analytics
- Data mart and analytics systems

Increasingly, contact center managers prefer to purchase much, or all, of their CCI from a single source as a bundle — in the pursuit of easier and enduring integration, cradle-to-grave integrated reporting and analytics, and easier system management. Therefore, leading CCI vendors offering complete portfolios of solutions, composed of their own products and those of partners and other strategic suppliers, are being favored.

Single-tenant, hosted/managed, private cloud contact center services and multitenant contact center as a service (CCaaS) offerings have entered the mainstream in many market segments. Although this Magic Quadrant focuses on premises-based CCI offerings, a vendor’s ability to offer viable private cloud and CCaaS services to customers who may wish to eventually migrate to such services positively affects its score on the Completeness of Vision axis. However, a vendor that exhibits a very strong shift in business strategy — to make private cloud and/or CCaaS its primary offering, and to de-emphasize its premises-based solution — may receive a lower score for Completeness of Vision than previously. For more in-depth coverage of CCaaS services, please refer to "Magic Quadrant for Contact Center as a Service, North America" and "Magic Quadrant for Contact Center as a Service, Western Europe."
Magic Quadrant

Figure 1. Magic Quadrant for Contact Center Infrastructure, Worldwide

Vendor Strengths and Cautions

Aspect Software
Aspect Software, a U.S.-based, privately held company, is owned predominantly by Guggenheim Partners, GSO Partners and MidOcean Partners. The company is in the process of recasting itself
as a "cloud first" vendor, offering hosted and/or managed private cloud services as well as its Aspect Via CCaaS service. However, it continues to generate a significant portion of its license revenue from its premises-based Unified IP platform. Unified IP offers a unified multimedia contact center application suite for midsize and large implementations, including several best-of-breed applications.

Organizations should consider Aspect when there is a need to integrate with multiple IP PBX telephony environments, or when they want to "decouple" the timing of their contact center and telephony investment decisions.

**Strengths**

- Aspect provides well-integrated, best-of-breed functionality in a variety of contributing contact center technology areas, including IVR, mobile customer service and web self-service, WEM and outbound dialer.
- Aspect's ability to integrate with a wide variety of third-party telephony and UC solutions enables it to support customers that want to consolidate their contact center technology while maintaining a decentralized approach to other communications technologies.
- Aspect is good at delivering solutions to companies that require their systems to be customized in order to address business-specific needs, including companies that require global coverage for sales and support.

**Cautions**

- It is unclear how well Aspect will be able to continue to aggressively fund the development and support of its premises-based contact center offerings and cloud offerings in the future. Its installed base and derived service revenue (Aspect's largest source of income) are in decline.
- Aspect's sales of premises-based solutions are in decline as the company shifts to a cloud-first business approach. This may lead to a reduced focus on developing and supporting its on-premises offerings.
- Some Gartner clients consider that Aspect lacks relevance in a market which is moving from call and contact centers to CECs. Aspect has, however, made progress in recent years in developing its offerings to keep in line with current market trends.

**Avaya**

Avaya is a U.S.-based public company. Avaya's core offering is the Avaya Oceana platform, adding advanced multichannel functionality to its Avaya Aura Call Center Elite (AACCE) voice platform and, eventually, to Avaya Aura Contact Center (AACC) and third-party automatic call distribution (ACD) solutions. The Oceana platform includes Oceanalytics for advanced multichannel reporting and customer journey mapping, and the Oceana Workspaces browser-based multichannel agent desktop interface.
Avaya continues to offer and support its existing multiple contact center platforms, each of which is aimed at a different part of the market. AACCE is for large enterprises with a voice-centric customer engagement strategy; AACC, and the Avaya Contact Center Select variant for Avaya IP Office, for midsize multichannel enterprises; Avaya IP Office Contact Center is for small and midsize businesses (SMBs). Evolution paths to Oceana are available for existing Avaya customers.

Organizations of all sizes with sophisticated call-handling or multichannel requirements should consider Avaya’s contact center offerings, which include several best-of-breed applications for contact center environments.

Strengths

- Avaya has strong brand recognition with large and midsize corporate organizations for CCI. Its strong global footprint, including service provider/system integrator (SP/SI) partners, helps it to address the needs of most types of organization.
- Avaya’s Oceana multichannel contact center platform offers full digital channel support, context, attribute-based routing, and real-time and historical reporting and analytics. This platform consolidates Avaya's previously fragmented approach to delivering multichannel contact center functionality.
- The Avaya Breeze platform (with Avaya Engagement Designer), Zang cloud communications platform and applications "as a service," and Avaya Snap-ins and Snapp Store marketplace, enable developers to quickly create unique communications-enabled contact center applications and workflows for within and beyond the enterprise.

Cautions

- Avaya has multiple overlapping product offerings, the rationalization of which creates uncertainties for customers and prospects considering upgrades or new investments in existing platforms. Customers and prospects should ask to see development roadmaps for Avaya solutions that extend through the expected life of that investment.
- Avaya is in the early stages of incorporating its newly acquired CCaaS offering. At the time of writing, this does not include support for the company’s Oceana functionality. This creates discontinuities for companies wanting to pursue a hybrid on-premises and CCaaS deployment.
- A number of Gartner clients continue to express dissatisfaction with Avaya’s ability to implement and support contact center solutions, although Avaya has made recent investments and organizational changes in an effort to address this. The issue is, potentially, exacerbated by Avaya’s channel partners moving toward being multivendor — thereby challenging their continued excellence in supporting Avaya’s portfolio.

Cisco

Cisco is a U.S.-based public company. Its contact center offerings lead with Packaged Contact Center Enterprise (PCCE), targeting implementations of up to 2,000 seats. Unified Contact Center Express is for small and midsize contact centers with fewer than 400 agents and Unified Contact
Center Enterprise (UCCE) is for large enterprises and those requiring advanced functionality. A cloud-based variant of CCE is also available through select channel partners on Cisco’s Hosted Collaboration Solution platform. The recent acquisition of BroadSoft complements Spark Care (Cisco’s customer support capability within the company’s Spark workstream collaboration offering) with CC-One, a larger, more robust cloud-based contact center platform hosted by Cisco.

Organizations that favor an end-to-end network, telephony, UC and contact center solution from a single vendor should consider Cisco’s contact center offerings, especially those companies with advanced and scalable contact center requirements.

**Strengths**

- Cisco has strong finances, corporate brand recognition and a robust global network of channel partners. As a result, it is frequently shortlisted by organizations looking to replace or consolidate legacy contact center investments.

- The acquisition of BroadSoft, and with it the CC-One CCaaS platform, positions Cisco strongly in both infrastructure and communications services. The two vendors have a complementary ecosystem of partners.

- Cisco is strengthening its proposition around multichannel and outbound communication — with deeper integration to CRM applications, through its Finesse desktop, and its extension into vertical desktop applications starting with healthcare.

**Cautions**

- Cisco relies largely on partners to deliver contributing contact center functionalities such as WEM and knowledge management — at a time when the industry is witnessing consolidation in these areas. Acquisition of partners by competitors could result in disruption to existing partnerships and portfolio management.

- Organizations committed to using Microsoft’s Skype for Business as a UC platform do not have a practical path for integration with a Cisco-based contact center platform.

- Discussions with users of Gartner’s client inquiry service, together with evidence from Gartner Peer Insights, indicate that Cisco’s UCCE and PCCE platforms rate well for product capabilities, but less well for pricing and contract flexibility and for management and integration capabilities.

**Enghouse Interactive**

Enghouse Interactive is a division of Enghouse Systems, a public company based in Canada. The company has refocused its sales and development efforts into two primary contact center offerings. Communications Center (CC) targets small and midsize contact centers, either on-premises or delivered through a hosted managed service, especially for integration with a number of PBXs (including with Skype for Business). This solution is sold exclusively through channel partners. The second offer, Contact Center: Service Provider (CCSP) is a cloud-based multitenant platform aimed at service providers that offer CCaaS solutions. In addition, Contact Center: Enterprise (CCE)
targets high-end enterprise premises-based contact center environments and virtualized cloud environments. While CCE is still sold and supported for specific opportunities with requirements for enterprise scale or high resiliency, the company will reduce the sales focus on it in future.

Enghouse owns four other discrete but related technology providers: Trio Enterprise, Voxtron, Reitek and Presence Technology.

Consider Enghouse CC when looking for a multichannel contact center solution for fewer than 500 agents and where you need to tightly integrate with a Microsoft Skype for Business Server infrastructure.

Strengths

- Enghouse Interactive’s parent company, Enghouse Systems, is committed to a strategy for growth through acquisition. This supports growth in Enghouse Interactive and the addition of a broader contact center portfolio, including speech analytics and WEM.
- Enghouse has clarified its go-to-market plan for its core contact center offerings, which should make it easier for organizations to identify the most appropriate solution for their needs.
- Enghouse’s channel partners have a large installed base for integrations of CC with Microsoft’s Skype for Business infrastructure, which is useful for organizations looking for reference examples for a planned integration.

Cautions

- The narrowed sales focus for CCE raises concerns that R&D and support may be at risk in the long term.
- The Enghouse CC architecture relies heavily on integration with its competitors' IP PBX platforms for delivery of voice to the desktop. Although this enables contact center migration across PBXs, the approach can be less palatable for those looking to obtain both CCI and UC from a single provider.
- Enghouse pursues an acquisition strategy in order to promote organizational growth. The acquisition of smaller, discrete players can provide value-added components for the portfolio, but may create uncertainty in the development roadmap for these offerings as they compete in a market increasingly dominated by larger vendors.

Genesys

Genesys is a privately held company based in the U.S. and with major private equity investment from Permira and Hellman & Friedman. Genesys has three primary offerings in this market.

- PureEngage is offered on-premises or as a private cloud platform and supports contact centers with hundreds or thousands of agents, particularly those with complex customization requirements.
- PureConnect is offered on-premises or as multi-instance CCaaS, supporting contact centers operating up to several hundred agents, particularly for customers with moderately complex needs who value a tightly integrated all-in-one platform.
- PureCloud is a microservices-based, multitenant
CCaaS offering, typically operating with contact centers of up to 250 agents for customers who value cloud-based, easy-to-deploy functionality and require only basic customization.

Consider Genesys for contact center solutions that span a variety of levels of complexity and scalability, including those that require significant customization to deliver differentiated customer service.

Strengths

- Genesys has a well-defined approach for decoupling contact center applications from telephony infrastructure across a wide range of contact center sizes, levels of complexity and degrees of customization.
- The company’s acquisition of Altocloud will enhance its portfolio with machine learning capabilities for predictive engagements based on customer journey analytics.
- Genesys PureConnect and PureCloud provide a common set of application development, management and reporting tools across a range of applications. These all-in-one offerings resonate strongly with decision makers in SMBs.

Cautions

- The lack of a consistent code base across the Genesys product lines makes it challenging for small or midsize customers that are facing rapid expansion in size and complexity in order to evolve and grow their investment.
- Some Gartner clients report frustrations about the skills levels of the Genesys resources providing support for its PureConnect and PureCloud offerings.
- The increases in software and support costs for PureEngage, and support costs for PureConnect, will increase the total cost of ownership of these Genesys solutions — especially where Genesys is challenged with providing high-quality support either directly or through the channel.

Huawei

Huawei is a privately held company based in China, with shares held primarily by the company’s employees. Huawei’s eSpace contact centers run on the following series of platforms. The Soft ACD UAP9600 and UAP6600 platforms are for large enterprise and communications service provider (CSP) environments. The eSpace U2980 platform, with software-based media gateway controller and media resource platform, is for enterprises. The eSpace U2980 platform is packaged as an all-in-one contact center appliance offering for small and midsize contact centers. The Contact Center Express (CCE) solution is for contact centers with fewer than 50 agents. The Cloud Enterprise Communications Platform 6.0 (EC6.0) is for private clouds, public clouds, and hybrid clouds supporting convergence and collaboration between multiple services.
Huawei also provides specialized APIs to enable its partners to integrate with industry-specific applications, including those supporting the high-end finance and "safe city" vertical markets.

Price-sensitive CSPs, enterprises and government agencies, particularly those in Asia/Pacific (especially China) and emerging economies, should consider Huawei when looking for cost-effective solutions.

**Strengths**

- Huawei offers a broad range of enterprise communications solutions, including contact centers, data networking and UC. This can be attractive to companies wishing to consolidate their communications investments with a single vendor.
- Huawei has a strong contact center presence in China. It continues to grow its presence in other markets in Asia/Pacific, as well as in Latin America and Eastern Europe.
- Huawei is growing its CCaaS business aggressively in China, leveraging the same system code base that is used for its premises-based platform. This uniformity makes it easier for customers and prospects to deploy hybrid on-premises and CCaaS solutions.

**Cautions**

- Although Huawei is expanding globally, it considers the North American market to be a low priority from a sales and marketing perspective, due to geopolitical setbacks in the U.S. It has also had limited success in growing its presence with end-user organizations in Western Europe. This makes it difficult for Huawei to support the needs of many global enterprises.
- Huawei lacks strong brand recognition for its enterprise contact center offerings outside its core market of China.
- Huawei supports basic routing functionality for digital channels such as email, web chat and SMS, but requires partners to add advanced functionality (such as automatic responses, suggested responses and supervisor review) before sending. This adds to the complexity of both deploying and supporting these functions.

**Mitel**

Mitel is a public company based in Canada. In September of 2017, Mitel acquired ShoreTel, adding the Enterprise Contact Center offer to the Mitel portfolio. This portfolio of premises-based solutions for enterprises is largely focused around two platforms. These are MiContact Center Business, a prepackaged application set for the midmarket, and MiContact Center Enterprise, which supports a broad suite of applications for enterprises with up to 30,000 concurrent agents. Mitel also supports three CCaaS offerings, including an OEM CCaaS offering aimed at large or multichannel environments.

Consider Mitel's MiContact Center Business when integrating with a Mitel UC offering or when evaluating integration with Microsoft Skype for Business Server.
Strengths

- Mitel’s acquisition of ShoreTel creates a larger provider in the unified communications and contact center market to compete more effectively against smaller vendors in the contact center business. It also gives it a broader platform from which to sell contact center solutions.

- Organizations committed to Skype for Business Server for UC are able to consider Mitel’s MiContact Center Business Edition as a contact center solution.

- Mitel has shown success in selling to the healthcare, local government, community banking and retail sectors.

Cautions

- The increased focus on MiContact Center Business as the flagship customer premises option comes at the cost of decreasing its emphasis on enterprise contact center solutions.

- Although Mitel can be regarded as a global player, it has not aggressively targeted new market opportunities for its acquired products. Organizations outside Mitel’s core markets may struggle to find relevant customer references and local channel partner skills to support Mitel’s solutions.

- Mitel’s API approach to the extensibility of its MiContact Center solutions, announced last year, was seen as a promising development; however, CloudLink for the contact center space won’t be delivered until 4Q18 at the earliest.

NEC

NEC is a public company based in Japan. Its flagship multimedia contact center offering is UNIVERGE Contact Center, which supports customers ranging from SMBs to companies with thousands of contact center agents.

Enterprises with an existing NEC telephony system, those using big data in their contact centers, and those seeking an all-in-one solution for UC and collaboration and contact centers should consider NEC.

Strengths

- NEC can provide differentiating industry-specific solutions in vertical markets such as hospitality, healthcare, education and government.

- NEC has a large global installed base of telephony and UC customers to which it can sell its contact center platform.

- UNIVERGE Contact Center can draw on NEC’s strength in data and speech analytics for functionality such as agent scripting, automated responses for digital interactions and advanced quality management.
Cautions

- NEC has low brand recognition in the North American and Western European contact center markets. Because of this, NEC is often not invited to participate in contact center RFP engagements in these key markets.
- NEC sells its contact center offerings primarily to organizations that already have significant NEC telephony environments. Gartner sees limited results from NEC’s attempts to broaden the appeal of its contact center solutions and displace other vendors.
- NEC relies largely on partners to deliver important contact center functionalities — such as workforce management, quality assurance and knowledge management — at a time when the industry is witnessing consolidation in these areas. Acquisitions by competitors could result in disruption to its partnerships and portfolio management.

SAP

SAP is a public company based in Germany. SAP Contact Center is positioned within the SAP Hybris Customer Engagement and Commerce (CEC) business unit and delivers omnichannel customer engagement integrated with SAP’s business application and SAP Cloud Platform offerings.

SAP Contact Center is more suitable for organizations committed to the SAP suite of business applications and SAP Hybris Cloud for Customer offerings than it is for organizations looking for a stand-alone, multichannel contact center suite.

*Please note: SAP chose not to participate in this year’s Magic Quadrant research process. We have, therefore, used other sources of information, including Gartner Peer Insights and discussions with users of Gartner’s client inquiry service, to draw our conclusions.*

Strengths

- SAP is a recognized global brand with a strong commitment to enterprise software. This includes the field of omnichannel customer engagement, of which contact center software is a core component.
- Positioning its contact center platform as an element of SAP Hybris Service Engagement Center strengthens SAP’s proposition for customer service within the broader portfolio of enterprise software.
- SAP Contact Center is a scalable suite with multitenant properties provided by "Virtual Units." This aligns it well with SAP’s portfolio of customer service applications based on the SAP Cloud Platform.

Cautions

- SAP has strengthened its marketing commitment to the contact center portfolio as part of the SAP Hybris CEC business unit. However, SAP has shown limited commitment to promoting its
contact center solution as an alternative to solutions from larger vendors such as Avaya, Cisco and Genesys.

- Tight integration with SAP Hybris Cloud for Customer and SAP Hybris Service Engagement Center, for an omnichannel customer experience, makes SAP Contact Center a less attractive proposition for organizations not committed to SAP’s customer service applications.

- SAP relies largely on partners to deliver important contact center functionalities, such as workforce engagement, dialer and knowledge management (via a separate division of SAP), at a time when the industry is witnessing consolidation in these areas. Acquisitions by competitors could result in disruption to partnerships and portfolio management.

Vocalcom

Vocalcom, which is based in France, is a privately owned company with Apax Partners as the majority shareholder. Vocalcom uses a common software platform to power its Cloud Contact Center, Vocalcom Cloud Contact Center for Salesforce, Vocalcom Virtual Contact Center (VCC) and Vocalcom Virtual Contact Center for Avaya solutions.

Vocalcom’s contact center suite solutions are offered primarily as cloud-based offerings, but can also be deployed on-premises and with perpetual-license terms. Vocalcom’s Cloud Contact Center solutions can be deployed in Amazon’s Elastic Compute Cloud (EC2) or Salesforce’s Force.com cloud infrastructures.

Organizations looking for platform-independent multichannel solutions with integration to Salesforce should consider Vocalcom’s suite of contact center software.

Strengths

- Vocalcom’s Cloud Contact Center approach has enabled it to expand into new markets by using flexible third-party infrastructure as a service (IaaS), specifically Amazon EC2 and Salesforce’s Force.com.

- Limited feedback from Peer Insights and client inquiry indicates that VCC has strong product capabilities, especially in multichannel and scalability. VCC’s overall architecture, management tools and support for open standards are also rated highly.

- Vocalcom’s history of offering solutions to outsourcers on a utility license basis positions it well to offer organizations flexible, consumption-based licensing for its on-premises, private cloud and public cloud solutions.

Cautions

- Vocalcom is challenged to achieve brand recognition among competitors with larger sales and marketing budgets.

- Vocalcom is struggling to establish a presence in North America. This will limit its appeal to organizations with requirements in this region, including global organizations.
Vocalcom relies on partners to deliver workforce management functionality at a time when the industry is witnessing consolidation in the area of workforce engagement. Acquisitions by competitors could result in disruption to existing partnerships and portfolio management.

ZTE
ZTE, which is based in China, is a public company. Its Next Generation Call Center (NGCC) suite supports highly scalable multimedia contact center capabilities, with strong support for both inbound and outbound operations in cloud- and premises-based configurations. ZTE’s offerings include the AnyService@ZXNGCC multimedia unified contact center product, which is based on its ZXMSQ10 SoftACD switch and system, or its AnyService@ZXNGCC all-IP-based contact center switching solution. It also offers the ZXQ20 appliance-based all-in-one contact center solution for small and midsize contact centers.

Consider ZTE’s NGCC suite for deployments in China and emerging economies, particularly when the requirement is for price-competitive solutions that scale to thousands of agents (for example, in CSPs and contact center business process outsourcing environments).

Strengths
- ZTE’s NGCC suite is well-suited for CSPs needing to provide multitenant virtual contact center services for enterprise customers, especially those in the call center service outsourcing business.
- ZTE’s NGCC suite can be deployed as an all-software solution running on a next-generation-network softswitch or an IP Multimedia Subsystem (IMS) network for greater efficiency in CSP environments.
- ZTE is good at selling solutions to CSPs in China and many emerging economies.

Cautions
- ZTE lacks brand recognition for enterprise contact center sales outside China.
- ZTE lacks a broad base of enterprise-focused channel partners or CSP partners with a strong understanding of the best practices used in contact center environments.
- Although ZTE is expanding globally, it does not have a contact center business presence in North America and has had limited success in growing its presence with end-user organizations in Western Europe. This makes it difficult for ZTE to support the needs of many global enterprises.

Vendors Added and Dropped
We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor’s appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we
have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

**Added**
None

**Dropped**
Unify did not meet the inclusion criteria for premises-based contact center product and service revenue.

**Inclusion and Exclusion Criteria**
To be included in this Magic Quadrant, solution providers had to demonstrate all of the following capabilities:

- Premises-based contact center product and service revenue in excess of $45 million in the calendar year 2017.
- Evidence of sales, marketing and operational presence in a minimum of three of the following geographical regions: Asia/Pacific, Eastern Europe, Japan, Latin America, the Middle East and Africa, North America, and Western Europe. We required evidence that vendors operated sales offices in those regions and were actively selling contact center solutions in those regions; they could not just sell solutions in one region for delivery in the other regions. We also required vendors to have a multiple-language web presence. Vendors could meet these requirements directly and/or through channel partners.
- Significant market share in the geographic markets specified above.
- Sufficient sales and operational presence to support market objectives.
- Demonstrable solutions in a minimum of five of the CCI technology areas defined in the Market Definition/Description section of this document.
- Ability to generate significant interest by leading client market segments.

**Evaluation Criteria**

**Ability to Execute**

Gartner analysts evaluate CCI technology providers based on the breadth, quality and overall maturity of their applications, customer support capabilities, and ability to deliver solutions that enable contact center operations in the formal contact centers of midsize or large enterprises.
Ultimately, CCI technology providers are judged on their ability to capitalize on their vision and their success in doing so.

### Table 1. Ability to Execute Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product or Service</td>
<td>High</td>
</tr>
<tr>
<td>Overall Viability</td>
<td>High</td>
</tr>
<tr>
<td>Sales Execution/Pricing</td>
<td>Medium</td>
</tr>
<tr>
<td>Market Responsiveness/Record</td>
<td>Medium</td>
</tr>
<tr>
<td>Marketing Execution</td>
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</tr>
<tr>
<td>Customer Experience</td>
<td>Medium</td>
</tr>
<tr>
<td>Operations</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Source: Gartner (May 2018)

**Completeness of Vision**

Gartner analysts evaluate CCI technology providers based on their ability to convincingly articulate logical statements about current and future market directions, innovations, customer needs and competitive forces, and how well these map to Gartner’s overall understanding of the market. Ultimately, CCI technology providers are evaluated on their understanding of how market forces can be exploited to create opportunities for them and their clients.
Table 2. Completeness of Vision Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
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<tbody>
<tr>
<td>Market Understanding</td>
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<tr>
<td>Marketing Strategy</td>
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<tr>
<td>Sales Strategy</td>
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</tr>
<tr>
<td>Offering (Product) Strategy</td>
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<tr>
<td>Business Model</td>
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<td>Vertical/Industry Strategy</td>
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<tr>
<td>Innovation</td>
<td>Medium</td>
</tr>
<tr>
<td>Geographic Strategy</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Source: Gartner (May 2018)

Quadrant Descriptions

Leaders

Leaders are highly viable vendors with broad portfolios, significant market share, broad geographic coverage, a clear vision of how contact center needs will evolve and a proven track record of delivering contact center solutions. They are well-positioned with their current product portfolio and likely to continue delivering leading products. Leaders do not necessarily offer a best-of-breed solution for every customer requirement. Overall, however, their products are strong and often have some exceptional capabilities. These vendors also provide solutions that pose a relatively low risk of deployment failure.

Challengers

Challengers are vendors with strong market capabilities and good solutions for specific markets. Overall, however, their products lack the breadth and depth of those in the Leaders quadrant. Challengers do not always communicate a clear vision of how the contact center market is evolving, and they are often less innovative or advanced than Leaders. Challengers often excel at selling contact center functionality to their existing PBX and IP telephony customers.

Visionaries

Visionaries demonstrate a clear understanding of the contact center market and provide key innovations that point to the market's future. However, they typically lack the ability to influence a large portion of the market. Also, they may not yet have expanded their sales and support...
capabilities on a regional basis, or do not yet have the funding to execute with the same capabilities as the Leaders.

Niche Players
Niche Players offer contact center products that focus on a segment of the market or a subset of its functionality. Customers aligned with the focus of a Niche Player may find its offerings to be a good fit for their needs.

Context
CCI is a mature market, yet one in which multiple dynamic forces are affecting purchase and deployment decisions in evolving ways; these forces include:

- **Decoupling of CCI from telephony/UC.** CCI purchases have traditionally been closely linked to a company’s chosen telephony vendor. However, these purchase decisions have increasingly been decoupled in recent years. One factor driving the decoupling of CCI from telephony infrastructure is that, as companies increasingly tie their telephony decisions to their broader UC strategies, they often want their CCI purchases to offer them flexibility of deployment. This is particularly so if their UC strategy draws them away from their existing telephony vendor. A prime example of this is seen when companies plan to evolve their UC strategies to focus on Microsoft Skype for Business. Microsoft does not currently offer its own robust CCI solution. Because of this, contact center decision makers and planners may opt to select a CCI solution from a company whose enterprise communications application business is not heavily tied to an enterprise telephony or UC product line.

- **Adoption of CCaaS.** A second significant force for change in the CCI market is the increasing propensity of CCI decision makers to consider, and often select, CCaaS offerings as a replacement for premises-based solutions. In many cases, the CCI vendors that also have UC offerings lack mature CCaaS offerings, and Gartner clients often feel compelled to change vendors in order to access CCaaS services that are more mature. In some cases, this decision is driven by the aforementioned desire to decouple a company’s CCI and telephony/UC decisions. In other cases, it is driven by other factors, including: the desire to switch from a capital expenditure acquisition model to an operating expenditure model, and the potential for a lower total cost of ownership. Also, a desire to focus investments and staffing on core business products and services; the need to scale license usage up and down to match seasonal staffing demands; and/or the need for more rapid deployment.

- **Shift to a holistic view of customer engagement.** The contact center market is evolving from a focus on discrete, one-off customer interactions using a variety of communications channel silos to a more integrated and holistic view of customer activities and workflows. This evolution comes in response to the understanding that a customer may engage in a variety of different activities in the course of completing a customer journey. This focus on context-aware, multichannel (including web self-service and social media), reactive and proactive interactions is shaping the evolution of contact centers into CECs. This change in focus is still in its early phases in terms of adoption and, at present, there is more vendor hype than actual customer
service transformation. However, as phone-based customer service now shares popularity with other communications channels, many mainstream technology adopters are at least planning to orchestrate their various customer interaction channels more effectively by moving to a more convenient, cohesive and consistent customer experience.

- **Drive toward multichannel engagement.** The drive to develop the contact center into a customer-experience-centric CEC is injecting additional dynamics into the contact center market. Companies are altering their evaluation and selection of vendors to provide nonvoice channels (email, web chat, video chat, social and so on) to their customer service environments. During the past five to 10 years, many enterprises have looked to either their CRM vendors or best-of-breed specialists to provide these customer interaction channels. However, voice-based interactions continue to make up a significant portion of interactions in contact centers. As such, as companies look to evolve their customer support to become more customer-centric across all interaction channels, some are recognizing the benefits of acquiring both their voice and nonvoice channels as a package from a single vendor. Very few CRM vendors support phone-based assisted customer service. Benefits include the use of a consistent business rule management capability for routing, queuing and escalating interactions across channels, enabling a company to prioritize the handling of the best customers regardless of customers’ chosen channels. Obtaining all interaction applications from a single vendor also makes it easier for companies to manage reporting and staffing across channels, rather than having to integrate operational performance data across separate systems.

- **Integration of natural-language understanding, artificial intelligence and chatbots.** Virtually all vendors profiled in this document, as well as many others in the industry, are making investments in developing solutions using emerging technologies in the areas of natural-language understanding, artificial intelligence and chatbots. They are achieving this by using their own intellectual property, or partnering to leverage technology from third-party vendors. Potential applications of these technologies include enhanced customer self-service across a variety of channels, enhanced contact routing decisions, improved accuracy in agent scripting and suggested responses, and agent quality scoring, among others. Although there is considerable market hype regarding this emerging market dynamic, solutions are still in the very early adopter phase.

- **Integration of workforce optimization and engagement capabilities.** The integration of workforce optimization (WFO) and customer service WEM capabilities under the umbrella of contact center application suites is further along the evolution path toward a greater breadth of capabilities than is the integration of nonvoice channels. WFO solutions have traditionally been purchased as “point” solutions in the WFO application stack (for example, from separate WFMs, recording, quality assurance, analytics and e-learning vendors) or from vendors offering integrated WFO suites. WEM solutions represent an evolution of WFO technologies, seeking to improve both the customer experience and loyalty by making agent resources more engaged in delivering differentiated experiences to the customers they interact with. In recent years, a number of leading CCI vendors have added functionality to their application suites that can now rival the offerings of WFO and WEM specialists, at least for companies needing midlevel functionality. In some cases, these CCI vendors now rival the WFO and WEM specialists in delivering high-end capabilities. It should be noted, however, that even those CCI vendors that
have incorporated WFO and WEM capabilities into their application suites will also support tight
integrations with the WFO and WEM specialists. This is because most of the installed base
requires support for these integrations.

- **Addition of knowledge management and interaction orchestration capabilities.** Many of
the leading "traditional" contact center vendors are adding knowledge management capabilities
(for enhanced multichannel self-service) and interaction orchestration capabilities to their
application suites. The latter enables users to make better use of customer context information
from multiple enterprise data sources and to support customer journeys across interaction
channels. Although these enhanced suites are still in the early stages of adoption, they are
beginning to pose a challenge to the more common decision to obtain the nonvoice channels
from CRM vendors or best-of-breed specialists.

**Market Overview**

The global CCI market is mature, with vendors often expanding what they can offer through the
acquisition of other vendors. This can be done as a "tuck-in" acquisition to enhance existing feature
sets. For example, since the last publication of this document, Genesys has acquired Silver Lining
Solutions to enhance its WEM functionality, and acquired Altocloud to enhance its customer journey
management capabilities. This can also be done to make major product line expansions, particularly
into the CCaaS market. Examples include Cisco’s acquisition of BroadSoft, Avaya's acquisition of
Spoken Communications and Mitel's acquisition of ShoreTel — all of which have happened since
the last publication of this document.

A number of CCI vendors are experiencing a decline in sales of their premises-based solutions as
midmarket customers, and a small but growing number of large and very large customers, show an
increased preference for CCaaS solutions. Several CCI vendors have established initiatives in recent
years to evolve their business models from primarily providing on-premises solutions, to providing
CCaaS and/or private cloud solutions as their lead offering. At the same, some other vendors have
opted to shift their sales and marketing strategy away from targeting large enterprise accounts,
where competition is fierce. Instead, these vendors are now targeting primarily small to midsize
contact centers where there is more open competition.

Artificial intelligence (AI) is a hot topic in contact centers, as it is in most industries. The concept of
AI for contact centers is not new, and our vendor survey/RFI for this Magic Quadrant (and the
associated Critical Capabilities report) included questions about the maturity of services that include
AI. Conversational speech for customer voice interfaces has been used successfully for
approximately 10 years (see "Market Guide for Virtual Customer Assistants"). Our survey suggests
that, currently, most of the focus on AI is at an early developmental stage, in relation to supporting
chatbots and introducing automation to web chat — in much the same way it was introduced to
voice calls. Although AI developments are promising, it is too early to regard this technology as a
leading contributor to CCaaS technology.

The subject of customer interaction desktops has also attracted a notable increase in client
inquiries. A "single view of the customer" through multiple digital channels is something that most
organizations recognize would improve the customer experience. However, with multiple
touchpoints for customer contact across disparate application platforms, it is difficult to achieve this single view without a significant development effort by the customer service organization. Many CCI providers are demonstrating a customer interaction desktop capability designed to augment a CRM capability. This development is designed to provide a more immediate solution to the problem of disparate digital channels — as long as the customer service center routes all the digital channels into the CCI provider. There is demand for this capability, and developments look promising, but we expect it will be another nine to 12 months before services materialize.

### Acronym Key and Glossary Terms

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACD</td>
<td>automatic call distribution</td>
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<tr>
<td>CCaaS</td>
<td>contact center as a service</td>
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<td>CCI</td>
<td>contact center infrastructure</td>
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<td>CEC</td>
<td>customer engagement center</td>
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<td>CSP</td>
<td>communications service provider</td>
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<td>IVR</td>
<td>interactive voice response</td>
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<td>SMB</td>
<td>small and midsize business</td>
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<td>SP/SI</td>
<td>service provider/system integrator</td>
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<td>UC</td>
<td>unified communications</td>
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<td>WEM</td>
<td>workforce engagement management</td>
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### Gartner Recommended Reading

*Some documents may not be available as part of your current Gartner subscription.*

- "How Markets and Vendors Are Evaluated in Gartner Magic Quadrants"
- "Magic Quadrant for the CRM Customer Engagement Center"
- "Magic Quadrant for Unified Communications"
- "Hype Cycle for Contact Center Infrastructure, 2017"
- "Hype Cycle for CRM Customer Service and Customer Engagement, 2017"
- "Market Guide for Communications Platform as a Service"
- "Market Guide for Virtual Customer Assistants"

Evidence
Vendor evaluations were based on a variety of inputs, including: Gartner client inquiry trends, Gartner Peer Insights vendor ratings from customers, vendor presentations, and vendor responses to Gartner's vendor questionnaire/RFI for this Magic Quadrant and the associated upcoming Critical Capabilities report.

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor’s capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor’s history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization’s message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.
Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.