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Market Insight

2016 Global Contact Center Systems Buyers Guide

Choosing a Vendor for Omnichannel Transformation

Contents

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Executive Summary—The Competitive Landscape at a Glance

This guide examines the global contact center systems market.

Primary trends to consider include the following:

- While global investment in contact center infrastructure is still growing, there are important regional differences. Expectations for omnichannel service delivery are increasing in North America and EMEA. Other regions are responding to diminished resources, currency devaluations, and stressed IT budgets by prioritizing cost containment and measures to improve productivity and operational efficiencies (Brazil, which accounts for over 50% of the total contact center systems market in Latin America, is an obvious example).

- As niche cloud providers have continued to gain traction, system suppliers with an on-premise focus have sought to keep pace by introducing cloud and hybrid-based options.

- Global expansion has been a priority for many top providers.

For Frost & Sullivan, the result of these interrelated trends is that the competitive realities of a decade ago no longer hold true. As cloud suppliers push an increasingly globalized market into the future, customer engagement itself is being disrupted by new business models.

Introduction

In 2016, innovation is a critical business driver in the contact center systems industry. To compete and ultimately thrive, providers must be able to help their enterprise clients improve the Customer Experience.

In 2014, the global contact center systems market declined 4.2% from the previous year as companies refreshed older ACDs and IVR systems with cloud alternatives. On the other hand, the APO segment, which is comprised of QM, WFM, and analytics, had modest gains of 0.1%, 5.4%, and 5.3%, respectively. However, globally, Frost & Sullivan forecasts the purchase of new APO products to increase at a CAGR of 2.5%, and within that analytics solutions growing at a CAGR of 6.8% between 2014 and 2019, as companies seek to access information that can help them improve the Customer Experience.

The Study

This study is based on extensive primary and secondary research and is divided into 2 sections.

Market Trends section provides analyst commentary on the most important forces affecting the global contact center system market. Given the maturity of the market, Frost & Sullivan expects that these trends will extend well into 2020.

Company Profiles section highlights and assesses the capabilities of the top-performing global contact center system providers. The list is not all-inclusive—Frost & Sullivan chose vendors for the strength of their vision and ability to execute, and those with relatively complete contact center solutions or particularly compelling suites focused in areas such as APO. In addition, this year's guide includes a Companies to Watch section, which includes providers that impact the contact center landscape with offerings tailored for integration into other vendor offerings or customer deployments. Solution providers are listed in alphabetical order.

List of Abbreviations

Accounts Receivable Management (ARM)

Agent Performance Optimization (APO)

Asia-Pacific (APAC)

Automatic Call Distribution (ACD)

Business Process Outsourcing (BPO)

Dialed Number Identification Service (DNIS)

Europe, Middle East, and Africa (EMEA)

Extensible Markup Language (XML)

First Call Resolution (FCR)

Information Technology (IT)

Interactive Voice Response (IVR)

Internet of Things (IoT)

Internet Protocol (IP)

Key Performance Indicators (KPI)

Medium- to Large-sized Enterprises (MLE)

Net Promoter Score (NPS)

Original Equipment Manufacturer (OEM)

Payment Card Industry (PCI)

Private Branch Exchange (PBX)

Quality Monitoring (QM)

Research and Development (R&D)

Return on Investment (ROI)

Session Initiation Protocol (SIP)

Short Message Service (SMS)

Skype for Business (SfB)

Small to Medium-sized Businesses (SMB)

Software as a Service (SaaS)

Software Development Kit (SDK)

Support Interaction Optimization (SIO)

System Integrator (SI)

Time-Division Multiplexing (TDM)

Total Cost of Ownership (TCO)

Unified Communications (UC)

Value-added Reseller (VAR)

Voice of the Customer (VoC)

Voice over Internet Protocol (VoIP)

Web Real-Time Communication (WebRTC)

Workforce Management (WFM)

Workforce Optimization (WFO)

Market Trends

Move to the Cloud

While cloud deployments did indeed overtake premise-based systems installments a year earlier than most predicted, cloud hasn't become the runaway train that some thought it would be. System sales are flat overall and declining in some categories and regions, but in reality the installed base of contact center systems is so large, it's fair to say that there is enough opportunity to go around for on-premise solutions — hosted or cloud — and some of the cloud hype has died down.

Often, cloud is a means to an end, such as enabling emerging channels faster than otherwise would happen, but it is not a do-or-die decision. In fact, we are seeing far more interest in hybrid deployments than in the past 2 years as companies trial the cloud or use it for some aspects of their infrastructure while riding out the investment they already have in on-premise systems. In some cases, we have seen companies go back to premise from cloud.

Global is Important

The need to expand globally and gain market share is a driver of industry consolidation and partnering. North American-based companies in particular have acquired the assets and customers of resellers in regions where they previously had minimal footprints. Recently too, non-US companies facing well entrenched US suppliers have used acquisitions to gain a foothold in North America.

Consider Interactive Intelligence's acquisitions of German reseller Agori Communications, Australian/New Zealand-based contact center provider CallTimes Solutions, South American-based reseller ATIO, and Netherlands-based reseller Brightware. In addition, consider Aspect's acquisition of Latin American contact center provider Corsidian, and Genesys's acquisition of WFO provider Voran Technologia in Brazil and CanaPlus Consulting in Singapore. Finally, Enghouse, known for its savvy acquisition strategy, acquired UC and contact center provider ANDTEK GmbH in Germany, as well as Reitek S.p.A in Italy, a company known for its omnichannel contact center solutions.

But the aforementioned movement to the cloud has been another driver of acquisitions; numerous companies with cloud-based offerings have been snapped up to provide cloud expertise or round out contact center suites. Examples of this trend include Shoretel's acquisition of M5 Networks (hosted communications); Aspect's acquisition of Voxeo (self-service); and Genesys's acquisition of Angel, Echopass, Soundbite, and Utopy (cloud-based offerings). Moreover, Enghouse acquired Zeacom (provider of SfB-based, formerly Lync, contact centers), and IT Sonix out of Germany (contact center solutions).

However, whether system or cloud-based, many of the best-of-breed solo providers of single applications also have been acquired to fill out global contact center portfolios or build suites of analytics products. Recent examples include Avaya acquiring Aurix in 2011 (speech analytics) and Knoahsoft (WFO), and NICE acquiring Nexidia and VPI (analytics and WFO offerings).

Global brands also have participated in the mergers and acquisitions trend, with contact centers as a part. For example, in 2011, NTT acquired Dimension Data, one of the premier global SIs. The marriage left Dimension Data as a stand-alone organization governed by NTT, and has enabled both entities to extend their global reach and capabilities. In 2014, Dimension Data acquired NexTira One and Nexus, the latter adding over 600 employees and increasing Dimension Data's US presence by 40%. In addition, in 2013, Mitel acquired Aastra, absorbing a portfolio of contact center products and expanding its global reach. Most recently, Atos acquired Unify, and Finland-based Nokia acquired Alcatel-Lucent, which itself was made up of a patchwork of global brands.

Multichannel is Mature

Multichannel delivery in Customer Engagement has been a reality since the mid-1990s, when email and chat joined voice and IVR as commonly used channels. Most companies today offer at least 5 channels of customer interaction, even if the quality of customer service is unequal across channels.

Omnichannel is Here to Stay

Frost & Sullivan defines omnichannel in the contact center space as "ensuring a consistent, high-quality Customer Experience regardless of how and where a customer chooses to interact with an organization, and no matter the purpose. It ensures that data and context from initial contact carries over to subsequent channels, reducing customer effort, improving the customer interaction, and enabling the business to tailor the customer journey."

At its core, omnichannel is multichannel by design, not by accident. Omnichannel customer care is not just about integrating siloed channels, but bringing the organization itself together to support channel integration, as far too often disparate interaction channels have been championed and implemented by groups in and outside the contact center without an overarching plan as to how they should work together. This is particularly true for emerging digital channels, such as social media and the Web, where interaction with customers can spring up without any connection with the contact center.

The good news is that customers are driving the omnichannel imperative. In fact, in Dimension Data's 19th annual Contact Centre Benchmarking Report, released in April 2016, 1,320 companies were surveyed as to their usage, challenges, and plans for their contact centers. When asked what the top 3 trends were that are affecting contact centers today, omnichannel strategies (connected customer journeys) was the number-one issue with 49.1% of respondents placing it first. The survey also found that only 22.4% of respondents reported that their contact centers were fully integrated today and 58.1% said they were partially integrated, yet in 2 years the percentages are expected to change to 17.9% who say they will be partially integrated and a whopping 74.6% who expect channels to be fully integrated. This obviously presents challenges and opportunities for contact center system providers.

Customer Experience is the Center of the Omnichannel Universe

Omnichannel is about enabling a seamless customer journey, thereby improving the Customer Experience. The opportunity for solution providers is not just in upgrading and replacing an aging installed base, but in using that opportunity to change the way service is provided to customers. This is being achieved in a number of ways:

- Integrating disparate channels and data silos

- Adding core functionality such as advanced proactive outbound contact capability

- Adding enhanced self-service capabilities to satisfy changing consumer preferences

Meantime, solutions aim to:
- Provide proactive customer service that is "informed" by real-time data

- Personalize the Customer Experience

- Predict customer behavior to change offers and provide service in real time

- Add other sources of data to better understand the customer

- Provide real-time guidance capabilities for agents in complex customer support scenarios

- Improve agent performance

The 2016 Contact Centre Benchmarking report referenced earlier concurs: 82.5% of respondents recognized Customer Experience as a key differentiator, and 77.5% recognized it as the most important performance measurement. And the adoption of analytics is at an all-time high and continues to grow in all areas, from APO and customer interaction analytics to the inclusion of more non-traditional sources such as Big Data. Analytics registered as the most important trend to influence the contact center in the next 5 years (50.2% of respondents), yet currently 79.4% have no big picture view of what is happening in this regard, and only 36.4% can track a customer journey that spans multiple channels. This provides real opportunity for analytics providers.

Digital Transformation is on Its Way

We are at an interesting inflection point in the contact center industry. The next wave of digital transformation is here. True digital transformation will mean integrating digital channels of customer engagement from across and outside the enterprise (such as third-party suppliers, supply chain participants, or other partners) to positively impact the Customer Experience. Digital transformation in pursuit of the omnichannel dream can be as simple as seamlessly tracking and responding to feedback on social media, to adding value to an application by combining data from multiple sources in the name of personalization. On a more complex level, digital transformation can mean disrupting the way a business or an industry operates, such as what Uber and Lyft have done to disrupt the transportation industry.

Key Considerations

With key industry trends as context, Frost & Sullivan offers the following analysis of the top vendors in the contact center systems space. Some offer a complete array of contact center functionality, while others focus on just one or a few segments. Because this is an on-premise contact center systems buyers guide, Frost & Sullivan has indicated which providers also offer hosted and hybrid versions of their solutions. Other considerations that differentiate vendors include longevity and experience, global reach, vertical market specialties, and strength of the business.

Company Profiles

Alcatel-Lucent Enterprise (ALE)

Company Background and Current Performance

ALE is a leading provider of enterprise communications and networking solutions and services, from the office to the cloud, marketed under the ALE brand. The company is headquartered in Paris, with more than 2,700 employees operating in over 100 countries. With communications, networking, and cloud solutions for business of all sizes, its team of technology experts, service professionals, and more than 2,900 partners serves more than 830,000 customers worldwide, tailoring and adapting solutions and services to local requirements. The company strives to provide tangible business outcomes through personalized, connected experiences for customers and end users.

For several years, Genesys was part of ALE; the companies jointly developed and marketed key components of their portfolios, but in 2012 Genesys emerged as a private company. In 2014, ALE began to differentiate its offerings from the Genesys Suite 8 as the OpenTouch Customer Service brand.

Portfolio Description and Analysis

ALE recently simplified its portfolio with 2 core offerings:

Alcatel-Lucent OpenTouch Contact Center Standard Edition (OTCC) is a basic contact center offering bundled with the OpenTouch platform for MLEs.

Alcatel-Lucent OpenTouch Customer Service (OTCS) is a multimedia contact center solution that is available in different packages based on customer need. The solution is modular, built off a single code base that enables customers to add features or capacity through a license key. All packages support full multichannel customer contact and UC capabilities with support for all media, and a unified agent desktop. OTCS can be sold as a single node system supporting up to 600 concurrent agents, and can be linked in a multi-site configuration. OTCS also is centrally managed and provides end-to-end integration between the contact center and the greater enterprise.

- **OTCS Prime** is a full-service solution that supports several thousand agents. It is targeted at environments requiring a high level of customization, large enterprise accounts, and multinational corporations. It makes use of any media including chat, email, voice, SMS, and social media, and supports embedded workflow task management. It also is fully integrated with other ALE communications solutions, such as OpenTouch Suite for MLE.

- **OTCS Origin** is a pre-packaged, all-in-one multimedia customer contact solution targeted at the mid-market (100-300 agents). It is focused on ease of use and includes visual configuration and unified management. ALE's original mid-market offer was based on Genesys Compact Edition. Going forward, it is OTCS Origin.

- **OTCS Plug-in** is a software plug-in that transforms the voice contact center into a multimedia contact center solution. It also allows for tight integration with other business processes.

- **OTCS Cloud** is a contact center-as-a-service offering with a pay-as-you-use model. It is available as a full or hybrid cloud deployment.

OTCS comes from a partnership with Altitude Software. The offerings also provide connectors to numerous third-party partner applications, including those from Nuance, Teleopti, Verint, Oracle (Siebel), and SAP. It supports integrations with Avaya, Cisco, Asterisk, SfB, and Unify.

Sales Model

ALE provides a single code base platform that allows it to target different markets according to specific needs and price points. For example, the Origin product typically is sold to customers with voice-only needs, basic IVR and outbound, such as telesales environments. At the high end, the platform provides for high customization, such as integration with back office operations, or the addition of more advanced channels such as social media.

For the mid-market, the solution has simplified ordering, visual configuration tools, and automated installation, with minimal training required to deploy or use. ALE also provides a managed services offering for carriers.

Strengths	Concerns
ALE offers fully featured contact center solutions with flexible application and deployment options.	ALE's large installed base of close to 1 million agents is at risk of competitive takeover as the company transitions customers to its newer OTCS offerings.
The OTCS desktop is designed to support agents, supervisors, and business users outside of the contact center. As such, supervisors and agents can take advantage of UC capabilities such as presence and instant messaging for contact with each other or outside the contact center.	
ALE has a strong professional services organization to support its channel partners and customers in implementing and managing contact center solutions.	

Customer Recommendations

Best Fit

- A broad feature set provides a compelling offering to businesses looking for a comprehensive cloud communications solution including more advanced capabilities such as presence, mobility, Web collaboration, and video.

Caution

- ALE's large installed base of close to 1 million agents is at risk of competitive takeover as the company transitions customers to its newer OTCS offerings.

Altitude Software

Company Background and Current Performance

Altitude Software is a privately held company headquartered in Lisbon, Portugal. It has over 300 employees in offices in 16 countries, including the United Kingdom, Belgium, France, Spain, Sweden, Germany, United Arab Emirates, Israel, Canada, Mexico, Brazil, Colombia, Argentina, India, and Philippines, and presence in over 80 countries servicing 1,100 customers. Over 300,000 contact center agents and supervisors use the company's solutions.

The company has expertise in the BPO, financial services, retail, telecommunications, and transportation markets, and in particular in providing outbound solutions in debt collection and telemarketing. In 2015, the company continued to expand its presence in Mexico with the addition of another office and Services Center of Excellence in Mexico City.

Portfolio Description and Analysis

Altitude Software provides a single platform for unified customer interaction solutions. The company also offers an IP telephony switch and SIP ACD server, and uses Asterisk open standards in its contact center and IP/SIP solutions. Solutions include:

uCI

Altitude developed uCI from the ground up as an all-in-one suite of call center solutions. This has resulted in a solid and integrated product available on-premise and in the cloud. It includes multichannel inbound routing, IVR voice portal, and outbound dialing, including proactive customer contact and video contact center capabilities.

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Altitude uCI is scalable from 15 to 5,000 agents and can support them in branch offices and home locations. Features include:

- Performance management

- QM

- WFM

- Real-time analytics

- Real-time outbound campaign management

- Fast campaign creation

- Advanced contact management

- Unified Desktop

- Unified design studio for multi/omnichannel development

- Outbound dialing; predictive, power and preview dialing

- Proactive customer service (using Altitude Voice Portal)

- WFO (using Altitude Unified Desktop)

- Real-time decisioning (using Altitude Management Portal)

- Mobility

- Voice biometrics

- Augmented reality

- Intelligent routing

- Business intelligence

- Virtual Assistant

- Smart segmentation

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vBox

Altitude offers the vBox SIP server and IP ACD on-premise solution. It contains:

- Contact center and enterprise call, email, SMS/text, and IP video routing

- Contact recording

- Click-to-call

- Least cost routing

- Embedded softphones (optional)

- Coaching

Altitude uCI provides its customers with a choice between cloud and on-premise deployment. It is switch-agnostic and its solutions can ride on at least a dozen other vendors' infrastructures including ALE, Avaya, Cisco, and SfB. These features allow Altitude customers to migrate functions from other vendors' platforms to uCI, and from uCI on-premise to the cloud and vice-versa. The switch-agnostic feature of uCI positions Altitude well in a changing marketplace that has a large base of legacy on-premise ACDs. The improving business climate is sparking merger and acquisition activity, resulting in companies having to integrate multiple offices and contact centers. Altitude uCI can ensure a consistently high level of contact handling without having to "rip and replace" existing switches.

Over 50% of the company's new customers in 2014 were acquired because of its innovative services, such as its "door-to-door" mobile application, which helps the company perform external interactions with customers. The application also offers monitoring and reporting capabilities, It and simplifies the administration process for employees in the field while providing a real-time link to the company's systems so that information is always up to date, and contact center managers can see instant updates.

Altitude has had fair success in implementing digital channels, particularly social media, and is working toward the future impact of the IoT and digital transformation on customer support, positioning contact centers as a piece of collaborative work between different solutions, Web sites, mobile applications, and face-to-face interactions. From a data perspective, the company is progressively integrating W3C's CEDDL (Customer Experience Digital Data Layer) 1.0 standardization work in its data model, to move Altitude uCI toward a unified pattern for Customer Experience description. This unification will allow it to take advantage of Big Data (all Customer Experience information available internally and externally) and algorithms (internal or external), enabling personalized and homogenous experiences to customers inside and outside the contact center.

An example of this is the work Altitude has done in the connected car market, which is accelerating globally and is driven by several trends such as telematics, navigation, and smartphone integration. Looking to proactively develop solutions that satisfy customer needs through a co-creation model, Altitude entered the car tracking segment in 2014.

The company developed functionality to address the need for communication between a communication satellite and an automobile by maintaining continuous communication via a machine-to-machine concept. In Latin America, one customer that is a partner of General Motors has tracking technology embedded in its cars. This technology consists of a real-time device that communicates with the satellite so that services can be delivered. A cell phone chip is inserted into a device inside the car. Every few seconds the satellite communicates with the device to ensure that it is working. If at some point the device is not working, the customer's system starts Altitude's outbound dialer, which calls the chip inside the device and reboots it. Additionally, each vehicle contains a red and a yellow "Mayday" button. The yellow button starts a process whereby Altitude automatically contacts the number which had been registered for that car to understand the customer's issue. The red button starts the same process, but also initiates communication with monitoring structures such as the police.

Sales and Services Model

Altitude delivers its solutions through a global partner network of over 160 partners, including VARs, SIs, and consultants. These include local partners and global SIs such as NextiraOne, Atos Origin, Teledata, Orange Business Services, Wipro Infotech, Mantis Informatics, Mellon Technologies, and Fujitsu Services.

The company also strives to integrate with leading third-party contact center solutions providers, in areas such as WFM, QM, and speech technologies. These partners include ALE, Avaya, Cisco, Microsoft, Oracle, and SAP, for example, and it also works with other third-party suppliers such as IBM, HP, NICE, Teleopti, Verint, and Nuance.

The company has its strongest foothold in the EMEA and Latin American markets, with growing presence in the North America and APAC regions.

Altitude's business model has made the company efficient in service delivery. The company's as-a-service offerings were launched more than 10 years ago, followed by a cloud business model roughly 4 years ago. In provides pre- and post-implementation support and has 5 service centers: in Dubai, Madrid, Lisbon, Mexico City, and São Paulo. In particular it has 60 professional services personnel in Brazil in an advisory role to assist in understanding customers' legacy system, ecosystem, and business requirements, as well as an operational advisory group that supports post-implementation project management.

In addition, Altitude offers Altitude Operation Services, which allows the company to take the lead on a customer's control desk if the customer desires.

Strengths	Concerns
Altitude has a good understanding of the needs of cash-strapped markets, such as Brazil. The company's goals to optimize processes, increase productivity, and reduce costs have helped it develop solutions that are attractive to those markets. For instance, the company introduced video contact centers into the Brazilian financial services market with great success, serving a major bank with 59 video workstations for customer service in 20 branches and 29 totems in 27 branches.	Altitude has a minimal presence in the North American market, where most of its global competitors are based, and needs to establish more brand awareness in that region.
Altitude appreciates the influential Digital Transformation Mega Trend in customer engagement. For instance, it created an IoT strategy and a set of applications for car tracking to monitor car conditions, and proactively connect with customers in case of malfunction.	
Altitude's unified desktop and agent scripting permit it to offer an alternative to incumbent vendor solutions without having to replace the entire system.	
Altitude uCI seamlessly integrates mobile applications with the contact center. For example, Altitude Door-to-Door is a mobile application that helps field service employees with customer interactions and administration.	

Customer Recommendations

Best Fit

- Altitude uCI provides a comprehensive and versatile all-in-one core contact center solution that will meet most contact center requirements. A modular design and open standards in uCI allow customers to add and integrate other vendors' best-of-breed voice and non-voice applications to cover any gaps to meet their business needs.

- Altitude Software's uCI and vBox solutions offer a compelling value proposition that merits having them on the short list for consideration with other contact center routing and dialing systems and platforms. Organizations should take advantage of the Altitude cloud option and test uCI side-by-side with their existing premise and cloud solutions, and against other potential vendors' cloud applications.

Caution

- Altitude's still limited exposure in North America makes it more difficult to gain traction against incumbent solution providers. Companies should ask for North American references.

Aspect Software

Company Background and Current Performance

Aspect Software is a global provider of customer interaction management, UC, WFO, and back-office solutions. Founded in 1973, the company is privately held, with majority ownership through Golden Gate Capital and Oak Investment Partners. It maintains headquarters, in Chelmsford, MA, and Phoenix, AZ. As a pioneer in developing contact center capabilities, Aspect has shown a continuous history of innovation, starting with the industry's first intelligent ACD in 1973, the first WFM product in 1980, and the first outbound dialing system in 1981.

The company has 1,800 employees worldwide. It handles more than 100 million daily interactions, and its solutions empower 1.4 million agents in more than 70 countries. Customers include 59 Fortune 100 companies, 4 of the top 5 commercial banks, and 6 of the top 10 general merchandisers.

After decades of success, the company saw a decline in revenue in 2010 and 2011, and increased competition from legacy vendors and new providers — particularly in the cloud. In 2012, Aspect went through a complete strategy refresh and management restructuring, infusing new life into all key areas of the business. Aspect created the position of chief marketing officer, and replaced the CEO, chief financial officer, chief information officer, and others. In 2012 and the first part of 2013 changes happened in all areas of the business, driven by a strategy of "Convert, Retain, and Grow." The company moved away from emphasis on UC, focusing on the contact center as core to the company's strategy.

The company reinvigorated its entire product line, completely rewriting the code of its product base. Aspect completed 100% benchmarking and regression testing on the product, using thousands of test cases and over 12,000 hours of run-time. The release included over 80 customer-requested enhancements, and bolstered the capability of its already industry-leading outbound dialing capabilities and inbound routing. This release, code-named "Tiger Shark," was rebranded as Unified IP 7.1 (UIP) and launched in 2012, sending the company on a trajectory of renewed growth and optimism. Despite such rigorous testing, it also introduced a number of initiatives to improve quality and the UIP feature set in the releases that followed. The company introduced scrum development, tighter defect classifications, and a heavy focus on test automation. Customers are now experiencing the highest levels of quality in Aspect history.

Aspect hasn't looked back, introducing more features and the addition of cloud-based offerings. The company offers the full range of multi- and omnichannel customer contact and WFO solutions, available on-premise, hosted, cloud, or as SaaS deployments. This strategy has netted Aspect strong organic growth, rapid conversion of the installed base to its core UIP platform, and a vigorous attach rate for WFM.

The turnaround, depth of functionality, and new additions to its portfolio are resonating with customers. In 2015, its bookings increased 21%, its qualified pipeline more than doubled, and it is seeing adoption of multiple products in the majority of deals. In addition, the project it introduced to benchmark and, consequently, improve service is paying off. An independent audit of service and support shows that the company is now 5 times faster at resolving issues and 3 times faster than the technology industry average, with 70% more cases closed than before.

Portfolio Description and Analysis

Aspect's architecture has evolved from disparate systems to a common platform that delivers the full breadth of contact center functionality, designed and managed by one operational interface. On the systems side, its flagship Aspect UIP is a dedicated (or on-demand), omnichannel platform that is enterprise-grade and targeted at the Fortune 1000 or enterprises with more than 250 seats. Aspect WFO is a fully featured product that includes back-office optimization.

In addition, Aspect has a wide range of cloud-based offerings. The Aspect Cloud is a global network of data centers, communicating over a high-reliability and secure network, including secure HTTP, built-in firewalls, multifactor authentication, unique security credentials, private subnets, and other security features.

Both of Aspect's cloud-optimized solution suites, UIP 7.3 and WFO 8 and their ancillary solutions, are available globally as Aspect Hosted and Aspect Managed Service offerings. Zipwire is an instant-on offering that allows businesses to flex up and down in capacity with no capital expenditure, no IT, and no risk. It offers pay-as-you go pricing and a 100% uptime service-level agreement. Aspect also provides cloud-based solutions for BPOs through its affiliate agreement with LiveVox.

Aspect Unified IP

Aspect's UIP platform is a complete multimedia contact center suite of applications geared to MLEs. It consists of strong applications for call and multimedia routing, IVR/voice portal, outbound dialing, WFO, and interactive text. The suite includes common application development, management, and reporting tools for all applications. It includes:

- **Aspect EQ WFO Suite,** a complete WFO solution that the company refreshed with a new user interface, based on advice from national user experience design firms, which makes use of icons, configurable widgets, and customizable dashboards. The user interface is consistent across all modules, works on common browsers (Internet Explorer, Safari, Firefox, Chrome), and has the same form factor for desktops, laptops, tablets, and smartphones. Modules include:

  - WFM
  - QM
  - Performance management
  - Speech and desktop analytics
  - Coaching and eLearning
  - Recording
  - Surveys
  - Back office optimization

- **Aspect Social,** which uses social media as a customer care channel. The product is a private label for Aspect, driven by Social Dynamics, which is part of Lithium.

- **Aspect Mobile Extensions,** which allows supervisors and agents to view intraday performance and agent productivity through UIP real-time statistics on mobile devices.

- **Aspect Mentor,** which is a real-time speech analytics application that monitors voice with speech detection across the contact center and automatically sends guidance notifications and intelligent response alerts, based on detected or omitted speech, to agents and supervisors.

Aspect WFM Cloud

Aspect WFM Cloud offers all of Aspect's traditional on-premise WFM functionality hosted in the Aspect Cloud, Aspect's global network of data centers. It is also pre-integrated with Zipwire, Aspect's full-cloud contact center solution.

IVR

Aspect acquired Voxeo in 2013. Voxeo's products integrate with Aspect's contact center products, as well as others, and include:

- **Prophecy 14 IVR Platform,** a fully featured, voice portal platform that also does inbound and outbound interactions, call recording, conferencing, and social media support.

- **Voxeo CXP 15,** an IVR, mobile, and Web application lifecycle management platform. It supports hot redeployment, instant restore, and a centralized cluster management and notification framework. It also dynamically renders markup code for phone applications, including VoiceXML, HTML, and custom XML.

- **CXP Desktop,** a graphical service creation and management environment, offered as Web-based, thin client front-end and Eclipse-based, rich client plug-in development environments.

- **CXP Analytics,** a complete analytics and reporting application.

- **Voxeo CXP 15,** a bundle of the latest releases of Voxeo CXP and Prophecy. CXP Pro improved visual developer tools enable faster, easier self-service application development. Advanced integration of Aspect UIP and Aspect CXP 15 connects self-service to a larger customer service ecosystem and creates easier customer journey analytics reporting. The comprehensive software platform is designed to easily build, manage, and analyze customer self-service applications across multiple channels, available on-premise or in the Aspect Cloud.

Zipwire

Zipwire, for the SMB market, is available with a 30-day free trial and contains:

- ACD

- IVR

- Outbound/predictive dialing

- Campaign management

- Email/chat/voice

- Virtual agent

- Call recording

- Interactive toll-free

- QM

- White labeling

- Multibrowser/multiplatform support

- Softphone/phone-agnostic support

- Visual scripting

- Self-provisioning

- Carrier-agnostic

- Fully integrated carrier services

- 24 x 7 x 365 support

- 100% service-level agreement guarantee

- Unlimited elasticity (utility-like scalability on demand)

- Pricing packages/flexibility

Proactive Engagement Suite

Aspect's Proactive Engagement Suite gives Aspect a fraud detection platform for mobile and wireline. The suite allows customers to select the channel on which they would like to be contacted, to respond in the channel of their choice, and even to switch between channels as part of one seamless interaction. Customers can also choose to be transferred to a live agent during or after an automated interaction.

The Proactive Engagement architecture fits into and supports legacy business processes so that day-to-day operations are not disrupted. It integrates with any enterprise-grade backend system. It uses preconfigured template applications for outbound scenarios such as surveys and collections. Proactive Engagement Suite products include:

- **Aspect Collect,** an automated debt collection application compliant with Federal Communications Commission and regional outbound regulations that can be fully integrated with existing systems such as risk engines and is designed to measurably increase payment rates and improve overall business efficiencies.

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- **Aspect Survey,** a multichannel and personalized survey solution to better understand consumer sentiment and follow-up to avoid negative impacts or capitalize on profitable upsell opportunities.

- **Aspect Verify,** an automated solution for monitoring, identifying, preventing, and proactively notifying organizations and customers of fraudulent transactions, especially around outbound communication (e.g., when engaging in proactive authentication via a phone call or text message after signing up on the Web).

Aspect is committed to open standards, as well as critical security and compliance requirements. For instance, the UIP is fully SIP and H.323 compliant and supports WebRTC, CCXML, SCXML, VXML, SOA, REST APIs, and others. It also supports HIPPA/HITECH, FISMA, FIPS, and PCI-DSS.

Sales Model

Aspect has the capabilities to reach all segments of the market, from SMB to large-scale enterprise deployments. It sells through a combination of direct and channel partners that include cloud, specialty resellers, and mobile, as well as traditional contact center partners. In addition, it maintains global and strategic alliances, such as with Microsoft, IBM, and Deloitte.

In the past 2 years, Aspect has accelerated support of its partners through a new channel and partner program (AspectPro), a new Web and content site, an innovation exchange, and a revamped marketing and communication program.

Strengths	Concerns
Aspect products are PBX-agnostic, enabling them to fit into a multi-vendor environment, as well as offering flexible deployment models.	Aspect lacks the large installed base of PBX customers that many of its larger competitors have to sell into. Its aging installed base of contact center systems (Rockwell Spectrum ACD and Aspect Call Center) is also at risk for competitive displacement.
Each Aspect node scales to 2,000 agents, and can be integrated into clusters to support large enterprise and multinational environments. This is backed by N+1 primary/backup redundancy, available in different configurations.	
Aspect has made huge strides in overhauling services and support for its customers. It maintains a Center of Excellence, and highly tenured professional services employees focused on business transformation and customer enablement.	

Customer Recommendations

Best Fit

- Aspect does not provide networking or PBX components. However, its solutions are architected to be vendor-neutral. Aspect solutions will fit easily into companies with a multivendor IP-PBX environment.

- Aspect has weathered the storm of years of internal change, and has put forth a reinvigorated solution set, new cloud offerings, and a re-energized company. It continues to build out its cloud capabilities on a quarterly basis. With its longevity in the marketplace, platform-agnostic approach, and comprehensive set of offerings, Aspect should be on the shortlist of those enterprises looking for contact center solutions, particularly in multi-PBX environments.

- Aspect supports a deployment continuum that offers operational expense-based economics coupled with comprehensive management and monitoring, regardless of whether it is deployed in the customer's data center or on the Aspect Cloud. Aspect offers on-premise, SaaS, and Aspect Managed Services for customers. The latter provides full 24/7 operational support using Aspect Proactive Monitoring and Management on Aspect contact center and WFO suite solutions deployed in customer data centers.

- Zipwire is a bundled cloud contact center product that provides SMBs with an affordable, feature-rich solution. Zipwire is a pure cloud contact center with a target sweet spot of 250 seats or less but can scale up to 1,800 seats, and has been tested for a lot higher. It is Aspect technology deployed via Aspect data centers. The system provides a multitenant-based platform to deliver a true SaaS offering, ensuring high resource utilization and low operational cost. Priced at $119 a seat, this presents a highly competitive and attractive offer for the SMB market.

Caution

- In what Aspect considers the last stage of the transformation it started 3 years ago, in March 2016 the company filed for Chapter 11 bankruptcy protection. Aspect generates over $400 million of annualized revenue and nearly $100 million of earnings before interest, taxes, depreciation, and amortization, but with an overleveraged balance sheet it needed to restructure in order to free up funds to invest going forward. As numerous entities hold Aspect's debt, it did not have their 100% agreement to restructure without court involvement. Therefore, Aspect entered into a "pre-arranged agreement" with several of its current lenders to restructure and renew its existing credit facilities. No other material changes will be made, including workforce size or partnership arrangements.

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Avaya

Company Background and Current Performance

Avaya is a global provider of next-generation business collaboration and communications solutions. Avaya's lineage can be traced back to AT&T, one of the original contact center providers. In 1995, AT&T spun off the part of the business that contained contact centers, which became Lucent Technologies. In 2000, Lucent's management decided to again spin off this business, which was then known as its Enterprise Communications Group, and named the new company Avaya, Inc. Avaya then became an independent company and started trading in October 2000 (NYSE: AV), and in 2007 went back to being privately held when it was acquired by Silver Lake and TPG Capital.

Avaya has an impressively large installed base that has helped it maintain market leadership in inbound contact center routing and IVR for many years. However, much of the installed base consists of older Avaya platforms and those gained through acquisition (such as Octel, VMX, and Nortel). This represents an opportunity for Avaya, but also has created a target for competitors that have been eroding Avaya's market share through targeted sales campaigns. To reduce this exposure, Avaya has focused extensively on upgrading and migrating its installed base, and improving customer satisfaction. The results of these efforts show up with a 2015 total-year NPS of 56; in the last quarter of 2015, the NPS increased to 62. The company also reports that new customer acquisition is 17% of total bookings.

Over the last 7 years Avaya has transitioned to a software and services company, and as of the end of 2015 software and services generated 72% of total revenue. The company has positioned its portfolio around the theme of engagement. Avaya defines this experience as a combination of customer engagement and team engagement — making use of and adding onto UC and collaboration solutions for the team, and Avaya's Customer Experience and contact center capabilities for the customer. Overall, the company's portfolio includes networking, contact center, UC and collaboration, real-time video collaboration, and related services. Avaya sells to companies of all sizes directly and through a large network of VARs and reseller partners. Furthermore, Avaya, perhaps later to the cloud than similar providers, has now fully embraced the cloud. The focus going forward is for everything the company offers to be offered as a service. The other focus is on partner enablement, which the company has long strived to achieve and maintain.

Part of carrying out this strategy was the March 2016 announcement of a spin-off company named Zang. A wholly owned subsidiary of Avaya, Zang consists of a cloud communications platform and communication applications as a service. It offers a communications-as-a-service platform with easy-to-use drag-and- drop tools, pre-built applications, and robust APIs that make it possible for anyone to quickly build and deploy applications that communication-enable consumer or enterprise applications and services. Zang communication applications can work independently or can be embedded into other applications, providing ultimate flexibility. It also comes with simple SDKs, sample apps, and the ability to use other third-party communications apps to speed adoption and value creation.

Portfolio Description and Analysis

Avaya offers an extensive customer engagement portfolio that includes sophisticated omnichannel solutions for both agent and self-service voice and multichannel customer contact. The company also has an extensive set of UC and collaboration solutions. Solutions are available on premise, hybrid, or in the cloud. In fact, Avaya recently announced mid-market solutions that enable companies to seamlessly move between all 3 deployments on the same code base.

Contact Center Systems

The Customer Engagement portfolio includes products for self-service and live agent assist. Products can be centrally administered through Avaya Control Manager. Solutions include:

Avaya Aura Contact Center (AACC), a context-sensitive, inbound/outbound voice and multimedia solution for managing customer interactions. AACC provides omnichannel, skill-based routing of voice, email, Web chat, fax, SMS, scanned documents, instant messages, social media and preview, and progressive and predictive outbound. AACC supports integration with:

- Avaya Aura Experience Portal Release

- Avaya WFO

- Avaya Proactive Outreach Manager

It also supports integration with Avaya Aura UC components.

Avaya Aura Call Center Elite, an optional, fee-based, separately licensed product delivered in the Avaya Aura Communication Manager codebase. Targeted at midsized to large contact centers, it provides configurable, conditional voice call routing commands (call vectors), agent selection algorithms, call handling features comprising the agent user experience in telephones and desktops, and a structured event stream used by the offboard call management system for reporting, which provides real-time and historical reports for call center supervisors.

Elite Multichannel (EMC) feature pack, which is a native multimedia enhancement to the Elite offering and utilizes the existing routing and reporting applications so businesses can add email, Web chat, and SMS/text channels to their existing environment without disruption.

Avaya Interaction Center, a CTI-based platform for phone and multichannel Customer Experience management that provides cost-effective management of cross-channel interactions through a universal, media- independent Contact Engine that allows voice, email, Web chat, and other media to be managed based on enterprise segmentation and business rules. The Contact Engine acts a single point of control and intelligence for all Avaya Interaction Center-defined interactions regardless of the physical location of agents and enterprise resources.

Avaya Aura Experience Portal, a unified software platform that enables organizations to orchestrate omnichannel customer experience from self-service across any channel or media, including phone, video, email, or SMS, to inbound and outbound interactions. It also enables the seamless handover to a live agent. It includes IVR functionality; advanced call treatment and segmentation (provided by Intelligent Customer Routing) predictive agent-based dialing campaigns; two-way, multichannel, proactive agentless notifications (provided by Proactive Outreach Manager); and callback options (provided by Callback Assist). It also integrates with mobile applications for mobile self-service, and click-to-call access to agent with context.

Proactive Contact, an outbound platform for creation and management of outbound campaigns and customer communications. It offers superior voice detection and predictive dialing capabilities. It also offers a proven track record of over 99.9% system uptime and flexible agent blending options.

Avaya Aura Orchestration Designer, a unified, open standards-based development environment for the design, simulation, and maintenance of agent scripts and inbound/outbound self-service, supporting Avaya Aura Experience Portal, AACC, and prior Avaya IVR systems (MPS, Avaya Voice Portal, IR).

Avaya Aura WFO unifies contact recording, QM, eLearning, coaching, performance scorecards, WFM, speech analytics, desktop and process analytics, and customer feedback under one platform, with a single user interface and centralized system administration and reporting.

Avaya Contact Center Select (ACCS), a solution for sophisticated mid-market contact centers, supporting up to 400 agents and providing multichannel and inbound/outbound capabilities. ACCS can be integrated with all of the Avaya capabilities from WFO and voice analytics to reporting and automated self-service.

Avaya IP Office Contact Center, a solution for the small- to mid-market, supporting 5 to 250 agents. It is a blended multichannel offer, supporting inbound, outbound, and call recording. Designed for simplicity, certified resellers can perform system setup in hours, with easy maintenance and IP office support.

Mid-Market Cloud, a complete, multichannel UC and contact center cloud targeted for the mid-market. Available in 2 deployment options, both utilize the same code base as their premise-based counterparts, allowing for true hybrid deployments. It also supports multiple operating systems and devices, including PC and Mac Web clients and Chrome OS, along with Avaya Communicator for Web, which allows for communications from any browser-based application.

Partner Powered by Avaya IP Office, a fully featured contact center and UC solution globally available to qualified channel partners that want to install the solution in the data center of their choice.

OnAvaya – Google Cloud Platform, a fully featured contact center and UC service with a flexible monthly subscription via the Google Cloud Platform. It is currently available only in the United States.

Avaya Breeze (formerly Engagement Development Platform) is a single integrated environment for the development of UC and contact center solutions. It allows users with no technical background to develop apps across channels, processes, and systems. It includes Avaya Collaboratory (developer sandbox), Avaya Breeze (communications middleware), and Avaya Engagement Designer (visual design tool). It also includes Snap-Ins such as:

- Connectors (email, SMS, Scopia video, presence)

- Applications (Engagement Assistant, Smart Caller ID, Call Park & Page, Call Redirection Manager)

- Developer code modules (mobile video, WebRTC, co-browsing, context store, real-time speech, work assignment)

Sales Model

Avaya sells direct and through partners and resellers. The Avaya Connect Partner Program for channel partners fosters closer collaboration globally. It delivers a simplified framework with globally consistent pricing, training, and certification. Partners are financially rewarded for their commitment to mutual goals via larger discounts for increased volume, as well as access to comprehensive technical, design, and marketing resources. Targeted programs and promotions are developed to incent partners including a revised rebate program designed to drive year-over-year growth around Avaya's strategic portfolio including contact centers.

Avaya also maintains a global Avaya DevConnect partner program and has contact center specialist teams. For instance, in EMEA, more than 20 countries have different regulations and localization needs. Avaya has contact center specialist teams for the EMEA market that act as an overlay for the business to identify needs and work with the business to address these issues.

Avaya has striven to improve upon its already solid professional services practice. In 2014, Avaya created an "as is" and "to be" methodology to show the customer current solutions versus what is possible, and roadmaps that include a 1-page value proposition with cost and ROI. This is a consultative approach, based on understanding exactly what the business wants/needs, what is driving the needs, and when it is needed. It focuses on helping organizations solve their business challenges and transform their customer services. Avaya uses a combination of presales and professional services expertise as part of the methodology to ensure the right focus on both the business and technical requirements. This allows for greater project management at every stage, and folds in directly with Avaya's strategy of product simplification, and working with customers as a trusted advisor.

Strengths	Concerns
One of the most comprehensive portfolios of contact center solutions and development tools in the market today provides superior value to customers.	Avaya's impressively large installed base of contact center systems is at risk of competitive displacement.
It has strong brand recognition, partner channel, and longevity in the market.	Avaya faces competitive pressure from all-in-one suite vendors, as well as cloud solution providers that established themselves long before Avaya launched cloud solutions of its own.
Avaya's large global footprint favors clients with or seeking a strong international presence and support.	

Customer Recommendations

Best Fit

- Avaya Breeze allows for rapid design, creation, and deployment of advanced team and customer engagement applications. Avaya also offers Avaya Collaboratory, a non-production, cloud-based Avaya Breeze sandbox for developers to validate ideas and proofs of concept.

- Avaya has a strong focus on the emerging Mega Trend of the digital transformation of business. Avaya Breeze, for example, will allow customers to more easily create communication-enabled applications that make customers' lives easier — many of which are outside the realm of classic customer service, or are part of business workflow. Developers can "Snap-in" capabilities such as WebRTC, mobile click-to-call and video, rich contextual capture, SMS or speech analytics, or create their own Snap-ins to expose their own unique APIs and services. So whether it is a hospital allowing customers to increase the time on their parking meters from a mobile device, or popping a text with a map location to their next appointment by using the geolocation capabilities of their phone, Breeze can easily facilitate the creation of applications that improve the Customer Experience.

- Avaya also has focused on providing a clear, simple strategy, roadmap, and migration plan for customers. Part of this strategy is providing more offerings in the mid-market. The addition of IP Office Contact Center and Avaya Contact Center Select represents the core of a new category of customer engagement solutions optimized for SMBs and that work with the Avaya IP Office platform.

Caution

- Avaya has an impressively large installed base that has helped it maintain market leadership in inbound contact center routing and IVR for many years. However, much of the installed base consists of older Avaya platforms and those gained through acquisition (such as Octel, VMX, and Nortel). This represents an opportunity for Avaya, but also has created a target for competitors that have been eroding Avaya's market share through targeted sales campaigns.

- Avaya has one of the broadest portfolios in the industry, spanning networking, IP telephony, UC, and the contact center, with dozens of products, some of which overlap and can be confusing for customers. In 2013, Avaya initiated the strategy of creating a clear path for every customer to use existing investments, yet add on new applications. For instance, Avaya created simplified packaging for the mid-market, enterprise, and professional services. Avaya needs to continue on this path as competitors are doing likewise.

- Customers have voiced concern about — and competitors have been quick to point out — Avaya's declining market share, including questions about long-term financial stability. Avaya needs to stop the decline and deflect the competitive barbs in an effort to increase customer confidence. However, the company has made inroads in doing so: its NPS has increased to 56 in 2015. Also in 2015, Avaya had 96 new product releases with upgrades and entirely new apps, and customer and partner feedback on its progress has been positive. In fact, March 2016 was the best month the company has had since the launch of ACCS in 2014, with almost a sale a day.

Calabrio

Company Background and Current Performance

Calabrio is a US-based WFO provider, headquartered in Minneapolis, MN, with global presence through offices in the United Kingdom, Singapore, Brazil, and a growing network of global partners. Calabrio was founded in 2007 as a spin-out of another company, but its technology roots go back to the mid-1990s. The company now has over 4,000 customers and 1.5 million desktops across North and South America, Europe, and APAC. Calabrio supports all industry segments but has a high concentration of customers in financial services, insurance, distribution, state/local government, higher education, retail, and manufacturing.

Calabrio focuses on increased simplicity in usability and implementation flexibility. As such, its extensive solution set allows customers to capture structured and unstructured data to accomplish a broad array of business objectives including measuring and managing productivity and performance in their contact centers, managing compliance adherence, listening to and understanding the VoC, evaluating trends, increasing brand awareness, and measuring marketing effectiveness.

Calabrio currently has 215 employees worldwide and is growing, with 40% growth in hiring in 2015 compared with 2014. Calabrio claims to be growing at 7 times the industry average, and has enjoyed a 225% increase in revenue over the past four years. Sales increased 44% year-over-year from 2014 to 2015.

In 2015, the company added 162 new customers, 40 of which were competitive displacements of 2 of the top competitors in the WFO space. Additional growth came from international expansion with new offices in London and Singapore, as well as a new distributor in Brazil. The company expanded its partner network with the addition of 36 new reseller partners in 2015, and saw expansion through key partnerships, such as Avaya and Cisco.

Portfolio Description and Analysis

Calabrio designs its products to be used for any sized contact center and boasts clients ranging from 5 to more than 50,000 seats. It strives to streamline the sometimes-complicated process of implementation through product simplification and an integrated suite of products. Calabrio ONE is a suite of WFO solutions with a unified architecture for WFM and QM that has integrated voice, text, and desktop analytics. All 3 are accessed through the same dashboard, enabling supervisors to take the metadata on a call, combined with what an agent is doing on the screen (including which apps being used or video being watched), capture the entire interaction, and tie it to coaching and training. On the customer side, VoC analytics gives Calabrio customers the capability to fine-tune their customer support environments.

To increase flexibility and decrease the challenges of implementation, Calabrio designed the suite to be modular so that customers can add modules or adopt the entire suite of products. This has helped Calabrio achieve fast growth as well as industry-leading adoption of the entire suite, with 40% of new customers adopting the suite rather than modules. Calabrio provides flexible deployment options with on-premise, hybrid, and cloud offers that are built off the same code base so that there is equivalent functionality no matter which option customers choose. The Calabrio ONE suite includes:

WFM

- Forecasting and scheduling

- Historical and real-time reporting and analytics

- Dynamic scheduling (supporting shift bidding)

- Intraday dynamic scheduling

- Automated requests

- Gamification

- Strategic planning

- Vacation planning

Quality Management

- 100% audio and screen recording

- Gamification

- Multichannel quality evaluation

- Evaluation queue

- Pinpoint evaluation commenting

- Live monitoring

- Automated pause/resume

Analytics (speech, text, desktop)

- Targeted QM

- Escalation management

- Improved sales

- Customer retention

- Compliance

- Marketing effectiveness

- Brand impact

- Predictive scoring

- Agent benchmarking

Calabrio has architected its solution to integrate with a variety of platforms and applications, along with storage to aggregate and use the data (including data from third-party systems and the potential for Big Data, or data generated within Calabrio ONE). Companies will be able to make use of the data to glean insight without having to change WFO or analytics platforms. The Calabrio ONE data mart is designed for ease of use and does not require staffing of data scientists.

Sales Model

Calabrio has a multi-tiered sales model that focuses on partnerships throughout the world with an account management function to ensure customer success. It also has a direct sales force focused on the Fortune 500. Initially Calabrio targeted SMBs, but in recent years Calabrio has gained a lot of traction in the MLE market, and now has a growing base of large enterprise customers. The company endeavors to make interactions with offices and partners as easy as possible by including them in corporate events, conducting regular check-ins, and sending senior executives to visit them.

Calabrio Support Services provides 24/7 support to meet the needs of customers, regardless of geographic location. Calabrio engineers have decades of cumulative contact center application experience and receive consistently high marks for their technical ability and responsiveness.

Calabrio also has many strong partnerships, including an exclusive OEM relationship with Cisco with 116 Cisco reseller partners signed up. Its partnerships are expanding; for instance, Calabrio entered Avaya's DevConnect program in 2010, and has 70 partners globally, including Dimension Data and Carousel. In total it has 230 partners worldwide. The platform also integrates with other contact center platforms, including those from ShoreTel and Mitel.

Strengths	Concerns
Calabrio is the fastest-growing company in the WFO space, growing at nearly 7 times the industry average. This uptick is a combination of customers adding more applications to their Calabrio ONE suite (including analytics) and a significant increase in the average seat size per deal.	Limited international presence makes it difficult to provide uniform capabilities across business locations of multinational organizations. Although global in scope and growing, Calabrio is still gaining market presence outside of North America, where it got its start. Strong partnerships, such as the exclusive arrangement it has with PCS Software in Brazil, will assist in gaining global visibility.
The Calabrio platform scales from 10 to tens of thousands of seats	Calabrio's support resources are centrally located, which if not done correctly could have an impact on regional locations.
Calabrio ONE is a unified software suite for WFM, QM, and voice, text, and desktop analytics, fully integrated with a modern, open architecture. All 3 components are accessed through the same interface, enabling supervisors to access the metadata from a call while monitoring what the agent is doing on his or her desktop, and then quickly find the entire interaction for use in coaching and training, all without leaving Calabrio ONE.	

The products were developed as a suite, and feature a single, unified interface, allowing users to find data between applications easily. The customizable, widget-based user interface enables users to view pertinent data quickly, yet retain the ability to click on widgets and drill down further if needed, optimizing the toolset for each user: agents, supervisors, managers, knowledge workers, and executives.	
The simple, flexible, and easy-to-use design methodology extends to installation and maintenance, lowering TCO. While each component is available as stand-alone software, nearly half of Calabrio customers choose the integrated suite.	
For 7 years the company has followed the internal rule of utilizing customer input as the driver for development, with two-thirds of its development being driven yearly by direct customer feedback.	

Customer Recommendations

Best Fit

- Calabrio is committed to working collaboratively with customers from on-site workshops at headquarters to driving the majority of its roadmap directly from customer input. Companies looking for a collaborative relationship should short-list Calabrio.

- The investments that Calabrio has made over the last several years in WFM and analytics has positioned it squarely to compete with the top-tier vendors in the APO space. Customers looking for a solid, intuitive QM, WFM, and analytics solution, easy installation and maintenance, and support from their vendor would do well to investigate what Calabrio has to offer.

Caution

- Limited international presence makes it difficult to provide uniform capabilities across business locations of multinational organizations. However, Calabrio has made inroads gaining international presence on 2 fronts: The company has added multilingual capability (localized in 14 languages), and is partnering with local groups in order to demonstrate and complete sales. Calabrio, along with other solution providers, also faces the issue of selling into areas such as APAC and Latin America where wages are lower and it is often easier to overstaff than purchase a scheduling tool. The company has made great strides in helping to educate prospects on the value of its tools and best practices in WFM use.

- Because many regions believe it is necessary to have local resources in order to do the best job, this puts the burden on Calabrio to prove its centralized support approach provides world-class service.

CallMiner

Company Background and Current Performance

CallMiner is one of the original, and last remaining, pure-play purveyors of speech analytics. It has a 14-year history of improving agent performance and customer engagement, through mining more than 2 billion hours of conversations. CallMiner is a privately held company headquartered in Waltham, MA, with offices in Fort Myers, FL, the United Kingdom, and Australia. The company also supports customers in the APAC and Latin America regions.

CallMiner has significant expertise in the outsourcing and financial services market, particularly in ARM. It also serves clients in a wide variety of other industries including utilities and energy, manufacturing, government, communications, healthcare, insurance, performance marketing, and travel and hospitality.

Frost & Sullivan has determined that CallMiner has a customer-centric culture with a focus on customer collaboration that helps feed product development. It has a vibrant user community (www.engagementoptimization.com) that is built around collaboration and utilizes a Jive-based social community platform.

The company has an annual subscription business model, and as such annual recurring revenue relies as much on renewals as it does on new clients. CallMiner backs this up with its results assurance program, CallMiner RPM — an industry-first, results-based pricing program that is designed to help customers achieve quick wins and targeted results using speech and interaction analytics. CallMiner RPM allows qualified customers to have their subscription and services prices adjusted based on the achievement of specific benchmarks and improvements in key performance metrics. In this program, CallMiner works alongside the customer to identify opportunities for improvement and then to achieve the targeted results. The impact for the company is that it has shown consistently strong growth, with a 73% CAGR from 2012 to 2015.

Portfolio Description and Analysis

Originally built to scale for the largest enterprises and for data, CallMiner has expanded its product capabilities to include all channels of customer conversations including calls, chat, email, and social media. The Eureka platform is agnostic to the source system that captures data, supporting integration with all market-leading call recorder, chat, and email systems and popular social networking sites. Users can also quickly and easily do ad-hoc searches and are not confined to premade reports. It is offered on-premise or in the cloud, and can be used as a complete APO solution or as a data source to feed other systems.

CallMiner products include:

- **Eureka,** CallMiner's core platform and application for enterprise customer engagement analytics. Eureka captures the entire contact interaction, along with CRM and other data. It analyzes acoustic and language patterns and then automatically categorizes and scores each interaction. For example, it can reveal what a call is about; whether the agent was in compliance, used proper language, or talked over the customer; or whether the customer was agitated or wanted to escalate. The interactions are scored across a number of customer-configurable criteria, including compliance, customer satisfaction, and agent effectiveness.

- **myEureka,** a performance management portal that automates feedback to agents, supervisors, and managers.

- **EurekaLive,** an automated, real-time QM and alerting solution that provides supervisors with a real-time dashboard and agents with next-best-action guidance while calls are ongoing.

- **Eureka Essentials,** a fully featured, cloud-based customer engagement analytics solution for small contact centers, with packages tailored to specific industries including customer service, collections, and sales.

- **Redactor,** a solution for automated removal of PCI-sensitive authentication and cardholder data from incoming call recordings or call recording archives.

The company is heading toward the creation of analytics that will help facilitate digital transformation, analyzing an increasingly larger sphere of communication channels across the entire customer journey encompassing more forms of data such as Web/marketing and Big Data.

Sales and Services Model

While CallMiner has customers with over 10,000 agents, it has a higher concentration of customers in the mid-market between 100 and 1,000 agents. About 80% of its customers are now in the cloud.

CallMiner sells directly and through channel partners — both traditional reseller and as an embedded offering. In 2015, CallMiner added 10 new channel partners. It offers an interesting business model for partners, selling blocks of data mining hours, rather than selling on a per-agent basis.

Strengths	Concerns
Strong customer satisfaction reputation is backed by a supporting business model.	As a best-of-breed, pure-play vendor, CallMiner faces competition from entrenched contact center solutions and WFO suite providers.
Open and flexible applications provide users independence to configure the system for their needs without reliance on costly service engagements.	
As a pure-play vendor, CallMiner has extensive expertise in gaining insight through customer engagement analytics, and is 100% focused on customer engagement analytics for its revenue stream.	
It is optimized for hosted delivery, with implementation times in 30-40 days.	
Its full suite of customer engagement analytics includes post-contact, real-time, and automated agent performance for voice and text channels.	

Customer Recommendations

Best Fit

- CallMiner has some of the largest customer engagement analytics deployments in the industry, including the largest government contact center and one of the world's biggest online retailers. The system uses transcription technology to convert speech to text. This enables smaller data footprints, faster search response times with greater precision, true discovery of unknown trends, and seamless integration of text-based communications in the same interface. Full transcript approximation also allows users to preview every conversation without having to listen to the full audio recording.

- For companies without a lot of dedicated analytics talent, CallMiner products are designed to keep control in the hands of the user without requiring a lot of professional services.

- CallMiner fosters a community of users as additional support. Its user community boasts more than 1,000 members, with 50% of them signing up in the last year alone. In December, this community was relaunched as EngagementOptimization.com with content and information for both CallMiner customers and non-customers. Best practices, new ways of using the products, and other information are shared within the community, lessening the need for professional services consulting work. The CallMiner LISTEN conference is an annual event where customers share their success stories and the company shares best practice sessions and workshops focused on getting the most out of customer engagement analytics. This event is also open to non-customers and analytics professional worldwide. CallMiner's client success directors facilitate strategy sessions, help drive ROI, and steer targeted analysis to help create successful customers.

Caution

- The trend in the industry is for adoption of suites of products. Some customers may prefer working with a single-vendor solution.

Cisco

Company Background and Current Performance

Cisco is a global supplier of IP-based networking and other products related to the communications and IT industry, with over 400 offices around the world. Cisco was founded in 1984, at its current headquarters location of San Jose, CA. It focused on data communications and networking products until 1998, when it branched into telephony with the acquisition of Selsius (which became the basis for CallManager). In 1999, it purchased GeoTel, giving it a strong beginning for its contact center portfolio. Other acquisitions followed, including Audium for IVR development and Latigent for contact center reporting utilities.

Cisco's contact center solutions are part of its collaboration portfolio that integrates voice, video, data, and mobile applications on fixed and mobile networks across a wide range of devices and endpoints, including mobile phones, tablets, desktop and laptop computers, and desktop virtualization clients. The portfolio includes UC infrastructure products, IP phones, contact center and messaging products, Web-based collaborative offerings (WebEx), and Cisco TelePresence Systems. Cisco provides solutions on-premise and in the cloud.

The company is one of the top-tier contact center industry participants, with a broad array of contact center solutions in its portfolio or through partners. The company places a heavy emphasis on digital transformation, and the combination of contact center and UC and collaboration. In late 2015, the company introduced Spark, its collaboration application that debuted as a platform the year before as Project Squared. The design methodology for the project was "simple, magical, open," which is a theme that Cisco hopes to deliver across all of its contact center and collaboration solutions. The company also announced the release of the new Spark service, all delivered in the cloud. The company will include care capabilities as part of the Spark Service beginning with the Care Assistant announced in March 2016.

This vision of combining contact center and collaboration with the greater enterprise has netted the company strong growth. By the end of 2015, the company had 25,000 contact center customers, supporting 2.2 million contact center agents. The number is higher for agents supported through its Hosted Collaboration Services (HCS) partners, with 50,000 agents. In the fourth quarter of 2015, the company hit a landmark $100 million in contact center software bookings and $1.5 billion in Cisco product sales to contact centers, software, Cisco UCS servers, phones, and switches, routers, gateways, and session border controllers, but not including channel partners and services.

Cisco is committed to open standards, supporting SIP, H.323, Media Resource Control Protocol (MRCP), VXML, XML, HTTP/S, REST, and JTAPI.

Portfolio Description and Analysis

Cisco's contact center solutions include:

- **Unified Contact Center Enterprise (UCCE),** a fully featured, high-touch, large-scale contact center solution for the enterprise and service provider market. It includes:

  o   Intelligent multichannel contact routing, self-service treatment, and open integration interfaces for the agent desktop and other applications

  o   Delivery of each contact to the most appropriate resource based on real-time conditions, business rules, and agent attributes

  o   Detailed and summary data provided in prebuilt reports and an open reporting database with a published schema

  o   Presence integration for knowledge-worker assistance

  o   Integration with third-party ACDs

UCCE does not come with WFM or call recording, although it has a workflow engine and the capability to do call recording through Mediasense. More feature-rich WFM/WFO options are available through partners. A single instance supports 12,000 inbound or 4,000 outbound agents, although Cisco has cited numerous larger deployments.

- **Packaged Contact Center Enterprise (PCCE),** a packaged offering for mid-market contact centers with fewer than 1,500 agents that contains call control, call routing, and customer voice portal on a single server.

- **Unified Contact Center Express (UCCX),** a contact center solution for small- to mid-sized contact centers with fewer than 400 agents; also sells UCCX to SMB customers as part of a Business Edition 6000 (BE6000) communications platform, preloaded with contact center express, video, and Jabber. It includes integrated IVR, outbound, email, Web chat, social media, reporting, and WFM.

- **Business Edition 7000 (BE7000),** a feature-rich communications and collaboration solution, based on Cisco Unified Communications Manager, for enterprises with more than 1,000 users and thousands of devices. This modular solution combines collaboration and contact center packaged onto a UCS blade, and is pre-integrated for faster, more cost-effective implementation.

- **Unified Intelligent Contact Management Enterprise (ICM),** a solution for network routing and management that can support multi-vendor environments.

- **Hosted Collaboration Solution for Contact Center (HCS-CC),** a cloud-based contact center solution offered through select Cisco partners that provides support for customers with 20 to 12,000 agents.

- **Unified Customer Voice Portal (CVP),** a fully featured IVR solution that forms an integral part of UCCE, PCCE, and HCS, or can be used as a stand-alone IVR.

- **Finesse,** a browser-based, zero-client, agent, and supervisor desktop that integrates collaboration with different user communities in the contact center.

- **MediaSense,** a network-based platform that supports recording, playback, live streaming, and storage of media — including audio and video.

- **Context Service,** which provides cloud-based storage, tagging, and management of the data from interactions between businesses/organizations and their customers. It is built-in functionality in Cisco's contact center products including UCCE, PCCE, UCCX, and HCS-CC. It is compatible with both on-premise and cloud contact center deployments.

- **Cisco Spark,** a service that provides secure customer support capabilities hosted and managed by Cisco in the cloud. By combining customer context with persistent messaging, along with secure voice, video, and meeting capabilities, the Spark service can provide a robust customer care experience.

Cisco complements these products with other contact center solutions available through partners.

In the latest release, Cisco increased capacity for UCCE. It now allows for contact sharing up to 24,000 agents and 10,000 self-service ports, and it can be done in real time. For example, with 2 peer systems and an IVR, calls go to the IVR first, and when they come out of self-service they go to the peer system that will have the fastest speed of answer.

When it comes to packaged CCE, the company greatly simplified installation, with a new installer that allows the product to be set up in 10 minutes, and simplified administration, lowering TCO. The product also has been expanded to support 1,500 agents, 150 supervisors, and 3,000 customer voice ports.

Sales Model

Cisco's sales are primarily partner/channel driven. Cisco provides global distribution for all contact center products with local sales teams and channels in all markets. It has 2 primary categories for partners that sell, service, and integrate Unified Contact Center solutions: Advanced Collaboration Architecture Specialization (CAS), which replaced the Advanced Unified Communications (AUC) specialization, and Authorized Technology Provider (ATP) partners for Customer Contact. There are nearly 1,700 CAS partners worldwide, each of whom is certified on UCCX. There also are over 150 certified ATP Customer Contact Partners worldwide, all certified on UCCE-based solutions.

Strengths	Concerns
A broad set of contact center capabilities coupled with UC and collaboration may a compelling feature set.	Cisco faces competition from vendors marketing integrated, all-in-one suites.
Cisco's strong brand recognition and penetration into enterprise accounts through data products gives it an advantage when competing for a contact center.	For large enterprise deployments, Cisco does not support as many agents per node as some of its larger competitors, which might keep it out of some engagements.
Cisco has a strong partner network. The company's robust certification history ensures that partners are qualified to implement and manage Cisco infrastructure.	Cisco does not supply all of the core components of the contact center and works with third-party suppliers for applications such as WFO. This might hold back companies looking for a single source for all contact center applications.

Customer Recommendations

Best Fit

- Cisco's contact center provides a broad set of functionality including support for mobile applications, video, network-level routing, IVR/voice portal, social media, and outbound dialing. Many of the unique features or applications developed to enhance UC and collaboration can be used to also enhance the contact center. For instance, as a next-generation collaboration product for team-based collaboration, Cisco Spark opens the door for interesting uses in specialized contact centers. In a technical support environment with complex customer service issues, collaboration rooms could be set up for ongoing resolution of issues in which trouble tickets can be assigned to agents who can do research, invite the right people to help, share information, and get the answer back to the customer.

- One of Cisco's strengths is the ability to share developments across business units. For instance, work done on telepresence can be "borrowed" for use in developing video for contact centers, such as in use with remote agents, video contact centers, immersive video at branch locations, and kiosks. Cisco's R&D also benefits from having a single architecture for its entire collaboration portfolio.

- Cisco has invested heavily in training partners and in eliminating the channel conflict that previously plagued it. The company holds contact center partner, field sales, and technical summits that dive deep into installation, setup, and de-bugging. In 5 years, this grew from a single, 30-partner event to 4 events on multiple continents with over 600 partners in 2014.

- Cisco has over 400 global sites and operates in 165 countries; its contact center customers enjoy the global footprint and support that Cisco brings as a company. At the same time, R&D, marketing, and other areas critical to the collaboration business unit where contact centers reside have to fight for awareness and recognition in the larger company. This business unit has achieved this so far, but needs to continue to do so to ensure continued support at the highest levels to maintain strong budgets for marketing and R&D.

- BE6000 is one of the fastest- selling products in Cisco history. Bundling Contact Center Express with BE6000 provides an attractive way for SMBs to get into the contact center market.

Caution

- Some key functionality, in particular for UCCE, is only available through third-party suppliers, such as WFO from Calabrio and NICE Systems, through Cisco's SolutionsPlus resale program or many other partner products through Cisco's reference sale program, potentially increasing integration complexity. However, Cisco has addressed this by working with OEMs and with Calabrio to provide WFO as a Cisco-branded and fully integrated part of UCCX.

- Cisco faces competition for vendors offering integrated, all-in-one suites for products, as adding on third-party applications makes implementations more complex despite recent integration work. However, companies that have large investments in applications, such as WFM, may choose to upgrade or replace the rest of their contact centers with Cisco solutions.

Enghouse Interactive

Company Background and Current Performance

Enghouse Interactive is a subsidiary of Enghouse Systems Limited, a Toronto-based software and services company. With deep roots in all aspects of the contact center, Enghouse Interactive owes its longevity to its keen acquisition strategy and the manner in which it supports its global partners. Along with Enghouse Interactive (customer communications software and services), Enghouse Systems is composed of Enghouse Networks (telecommunications and utility software), and Enghouse Transportation (transportation and operations software). Enghouse Interactive, the largest piece of the company, delivers a comprehensive suite of contact center technology, including: skills-based routing, contact center monitoring and management, attendant console, IVR, dialers, knowledge management, speech analytics, and call recording solutions that support any telephony environment — on-premise or in the cloud. Enghouse Interactive has thousands of customers worldwide, supported by a global network of partners. The company sells to all verticals, with specific expertise in financial services, healthcare, government, and utilities.

The company, founded in 1984, is publicly held and traded on the Toronto Stock Exchange (TSX: ESL). It has more than 1,200 employees globally, with 700 Enghouse Interactive-dedicated employees.

Enghouse's goal of delivering products to market faster than the competition has been the key motivation behind its numerous investments to enhance its portfolio. For instance, in 2015, the company entered into a definitive agreement to acquire CTI Group (Holdings) Inc., which is an international provider of electronic invoice processing and management, enterprise communications management software and services solutions, and carrier-class VoIP management applications.

The company has made numerous similar investments in the past decade, strengthening capabilities in existing areas as well as filling in holes in its portfolio. Chief among them was the 2012 acquisition of Zeacom (for Enghouse's Business Solutions), which enabled the company to better address the low end of the market and to enter the Microsoft Lync (now SfB) market. Zeacom, one of the leaders in contact centers with Lync platforms, enabled Enghouse to quickly offer a feature-rich, Lync-compliant contact center solution with Communications Center. Enghouse currently has over 400 contact center and customer service solutions deployed globally on SfB. In 2015, it furthered its portfolio with the acquisition of Reitek S.p.A in Italy for omnichannel contact center solutions. Other acquisitions that have fueled its portfolio include AndTek, Apropos, Arc, CosmoCom, Datapulse, IAT, IT Sonix, Safeharbor, Syntellect, Telrex, Trio, and Voxtron. Despite the number of acquisitions, Enghouse has done a solid job of incorporating expertise from both technology and human resources into its product family without loss of service quality and by addressing region-specific regulations.

Enghouse is consistently profitable, with more than 10,000 contact center customers and annualized revenue for 2015 of over $279 million. The company has no debt, and large cash reserves that it uses in part to fund its acquisition strategy. In December 2015, Enghouse Systems reported a record year: revenue increased 27.0% to $279.3 million for the fiscal year, compared with $220.0 million in the previous fiscal year.

One of the largest areas of growth for Enghouse Interactive's Communications Center and Contact Center Enterprise (CCE) products is through the strategic alignment with UC platforms such as SfB. Some of the largest IP/PBX VARs such as Carousel, ConvergeOne (formerly NACR), Arrow SI, SPS, and Dimension Data have partnered with Enghouse Interactive to address the migration to UC platforms that are displacing traditional PBX environments.

Supporting this trend, Enghouse Interactive has over 300 contact centers and more than 100 operator consoles deployed on SfB (more than double 2014) and is almost always displacing a variety of standard PBX environments. Often included in these deployments are CRM integrations and Enghouse's imbedded QM suite.

Product Portfolio and Analysis

One of the guiding goals of the organization is to ensure that its customers attain a positive ROI with lower TCO. As such, the solutions are designed for quick installation and ease of use. They are telephony platform-agnostic, allowing them to fit easily into existing environments and provide connectivity migration strategies. The company maintains 3 core suites of products to address specific line segments:

- **Communications Center** is a contact center solution targeted at the mid-market, typically ranging from 10 to 500 seats. With integrations to Avaya, Cisco, NEC, and Microsoft Lync/SfB, it is available on-premise or deployed in a private cloud with the option of subscription payment models.

- **CCE** is a high-scale, high-reliability solution for multi-location environments with up to 10,000 seats. The architecture is designed to provide numerous options to protect against site, hardware, or network failure, with continuous transparent operation regardless of failure type. With integrations to Cisco, Avaya, ShoreTel, Mitel, Microsoft Lync/Skype for Business, and other PBXs, it is available on-premise or deployed in a private cloud.

- **Contact Center Service Provider (CCSP)** is a multi-tenanted cloud solution for carriers that market contact center in the cloud or enterprises seeking a multi-tenanted private cloud solution. The architecture is designed to turn on a new tenant in minutes, provide timed subscriptions, provide simple, easy-to-learn and -use interfaces, integrate to premise-based or other cloud-based applications, and provide telephony routing to any kind of telephony endpoint anywhere in the world.

- CCSP also includes TouchPoint, an updated Web-accessible agent, supervisor, and admin user interface. Built on HTML5 and AngularJS, TouchPoint is browser-agnostic with a minimal footprint, taking up only a half-inch on the desktop, allowing users to easily have access to other customer information from other systems such as CRM and ERP.

One of the key features of the enterprise suite is redundancy and failover. A customer can deploy geographically distributed nodes, and in the event of WAN failure, the 2 nodes will automatically separate, with only local traffic queued to agents in each node. However, once the network recovers, a single blended queue is repopulated from all locations, without any requirement for IT intervention.

Enabling a choice of these 3 solutions as a foundation, Enghouse Interactive also provides a portfolio of integrated technologies that share a common user interface across platforms andcan be added on to optimize customer communications. These include the following:

Self-Service Applications

- **Mobile IVR Navigator** provides the ability to quickly deploy mobile IVR applications with visual content, reusing existing self-service structures across mobile and voice interfaces, and connect to the contact center to request live help while providing the agents with context to the customer interactions.

- **Communications Portal** provides IVR solutions with scalable and graphical scripting, speech recognition, text-to-speech, and packaged applications and integrations.

- **Corporate Directory Solution** combines the functionality of an attendant console with a corporate directory, tailoring each call handling automatically, and supporting complex, multi-tiered directory structures.

- **Knowledge Management Suite** enables Web self-service, customer and agent community forums, and tools to measure and optimize article usage.

QM Suite

- **Call and Screen Recording** provides call (and soon multichannel) recording, screen capture, and agent evaluation. It supports all leading industry PBXs and communication servers, enabling compliance with PCI and HIPAA regulations.

- **Speech Analytics** analyzes spoken phrases as well as tone, stress, volume, cross-talk, and other characteristics, providing analysis on recordings or in real-time.

- **WFM** operates through the QM Suite and partnerships with Teleopti and WFM Software Group.

- **Call Billing and Accounting** provides detailed accounting records based on PBX utilization.

Integration and Development Tools

- **CTI Connect** provides a PBX-independent layer for applications to incorporate click-to-dial, call control, queuing and routing, event management, and reporting.

- **CTI for CRM** packages CTI functions for Salesforce.com, SAP, and Microsoft Dynamics.

- **IVR Development Toolkit** enables rapid application development for self-service applications.

- **VoiceXML Test Suite** simulates user calls to analyze and diagnose all call flow paths in VXML IVR scripts to greatly decrease time to test and deploy self-service applications into production

Operator Consoles

Enghouse offers a suite of operator/attendant console applications that support a range of deployment footprints, from client-side-only applications to full server-based operator queuing and routing engines. These consoles are targeted at mid-market and enterprise opportunities, with integration to Microsoft Lync/SfB, NEC, Cisco, and Avaya platforms. The consoles are specifically designed to improve operator efficiency and awareness, with integrated and scalable directory search capability. The 3 models are:

- **ArcPro Console for Cisco,** a high-end, scalable attendant console for Cisco Unified Communication Manager, with rich directory, presence, routing, recording, real-time statistics, and user interface designed for speed and accuracy.

- **Intuition Console for Avaya,** a scalable attendant console for ACM, with rich directory, presence, routing, recording, statistics, and feature-rich user interface.

- **Operator Console for Communications Center,** a part of the communications center contact center suite, allowing centralized queuing and routing, directory, presence, recording, analytics, and a single point of administration and reporting across attendants and contact center users.

- **Operator Console for Skype for Business,** a fully integrated attendant console for Skype that provides professional call handling solutions with superb voice quality and no additional hardware. It also takes advantage of users' presence and the unique collaboration tools available in Skype.

Customers also are given the option of using more affordable open source solutions and cloud-based integrations if they are unable to invest heavily. For example, contact centers that require email can make use of Office 365 as a platform, with tight integration to contact center queuing and routing. On the telephony side, Enghouse provides an inexpensive open source alternative to third-party telephony interface cards or SIP stacks with its CTI Connect product, which leverages open source PBX and SIP functionality to reduce the cost of implementation.

In terms of quality, Enghouse is ISO 9000 certified and invests time in gaining a deep understanding of all customer requirements to ensure that its roadmap is well-aligned to current market demands.

Sales and Services Model

Enghouse Interactive operates principally as a channel partner-driven business, and is known for architecting its software offerings based on the requirements of those partners. The company also maintains a set of dedicated regional consultants, and professional services, training, and support teams working with customers and partners to ensure that projects are defined, designed, and deployed efficiently and accurately.

The company takes a regional approach, meaning it has executive management, R&D, and services and support in each region reporting to global management — in essence treating each region as a channel. This ensures that each region has the critical local support it needs to deliver solutions tailored to the geographic needs of each client.

The company is focused on establishing itself as a flexible contact center solutions provider by offering the right solution in the right geography and with the right deployment method for the customer, offering suites of premise, cloud, and hybrid solutions. While others in the industry sometimes disagree, it is Enghouse's strong belief that particularly for cloud vs. on-premise, a completely different architecture for the underlying platform is absolutely required, as virtually everything is different from deployment and activation strategy, application integration, and call routing, to redundancy and resiliency. For example, the company's cloud application, Contact Center Service: Provider, is built to allow service providers (e.g., carriers) to manage and administer the application, and to grow their own installed base using the platform. Communications Center is sold exclusively through resellers, and is easy to deploy, support, and learn. Contact Center: Enterprise is sold both directly and through integrators, and is targeted at the high-end, typically multi-site, high-scale environments where high reliability and scale are important.

Although the core routing platforms are separately architected, adjunct applications, such as IVR, can integrate with any of the platforms, and have a common user interface for ease of administration.

In order to understand customer needs, refine products, and build product roadmaps, Enghouse Interactive runs annual user groups to gain feedback from its customer groups, including major telcos such as BT Global Services and Telefonica, and business and enterprise customers. Enghouse also sponsors market research surveys of global contact center managers to further advance its understanding of the evolving marketplace.

Strengths	Concerns
Profitable status and consistent growth ensure financial stability.	A lack of brand awareness is due to selling primarily through channel partners and OEMs that often brand the solutions with their names.
Each contact center suites and the combined portfolio support all leading PBXs and communication servers available in the market.	Enghouse needs to do a better job of counteracting the hype around the potential benefits of having a single platform for all line sizes.
It offers a single queue for all interactions, including tasks, with push/pull capability. Two of the 3 suites — CCE and CCSP — do true blended inbound and predictive outbound blending, enabling agents to handle predictive outbound calls when inbound volumes are decreased.	As with other companies that acquire numerous companies, Enghouse has to prove its integration story to prospects.
CCE provides multi-node resiliency, so if a network fails between physical locations it can move the interactions from one to the other, and have the queues automatically restored when the initial node is up. The CCE platform also handles component or server failure and entire site failure by allowing interactions to be automatically rerouted to other sites.	
With its Communications Center product, Enghouse is one of the vendors offering SfB-based platforms. The product is natively integrated to SfB, using a fully Microsoft-endorsed and certified method that supports any and all omnichannel interaction management capabilities. The CCE platform also provides Skype integration. Enghouse is a Microsoft Gold Certified Partner.	

Enghouse has retained the resources in-country to take care of the needs of different regions rather than centralize management, as was the case with the acquisition of ITSonix in Germany. It also spreads R&D out regionally, supporting 10 R&D centers globally.	
Important industry certifications such as FISMA, HIPAA, CPNI, FIPS and PCI-DSS help address specific industry requirements.	

Customer Recommendations

Best Fit

- Enghouse does not provide networking or a PBX offering. However, its platforms are architected to be vendor-neutral, enabling Enghouse to fit easily in a multi-vendor IP-PBX environment, provide connectivity migration strategies, and move into competitors' accounts.

- Enghouse has paid particular attention to acquired numerous best-of-breed components over the years that are then integrated into the portfolio, no matter which of its core platforms the customer chooses. So changes made to applications, such as QM, are available to all.

- Customers looking for superior fault tolerance should look at CCE's multi-node resiliency, and failover protection. The ability to reroute and restore provides a compelling proposition for multi-node environments.

- Customers invested or interested in SfB would do well to shortlist Enghouse Interactive. The company has been working with Microsoft since 2006 to natively integrate its contact center and communications offerings. For instance, it has an extensive list of methods for capturing media that are unique to its SfB integration and purpose-designed for that platform. At the core of the recording methods is Enghouse-provided software that is deeply integrated into the SfB front-end server system, which allows calls to be recorded while keeping all SfB communications secure in their native encrypted format.

Caution

- Those companies looking for a single platform to serve all line sizes, or those looking for all-in-one capabilities including PBX capabilities, might not short-list Enghouse Interactive.

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Genesys

Company Background and Current Performance

One of the leaders in the contact center market, Genesys is a global supplier of Customer Experience and contact center solutions, focused on omnichannel customer engagement. Founded in 1990, the company is headquartered in Daly City, CA.

Genesys has over 4,500 customers in 120 countries, serving them in all line ranges from SMB to large enterprise accounts. Genesys runs some of the largest contact centers in the world. It provides a full range of solutions in the cloud, on premise, or as a hybrid deployment model. It has specific expertise in banking and financial services, healthcare, utilities, government, insurance, retail, telecom, and travel and hospitality.

For several years, Genesys was part of Alcatel-Lucent, but emerged as a private company in 2012 after being sold to a private equity firm controlled by Permira with participation from Technology Crossover Ventures. Since becoming private, Genesys has made key investments in acquiring companies to round out its premise-based offerings and to build a cloud-based solution. This included:

- Utopy (January 2013), which added speech analytics and bolstered the capabilities of the Genesys WFO suite while also supporting on premise, hosted, and hybrid deployments

- Angel (February 2013), which brought strong hosted self-service and an entrée to the smaller end of the market

- SoundBite (July 2013), which brought cloud-based outbound notification capabilities to the Genesys portfolio

- Echopass (October 2013), which gave Genesys a significant installed base of cloud customers

- Voran Tecnologia (December 2013), which offers WFO as a service in Brazil

- Ventriloquist Voice Solutions (January 2014)

- Solariat (March 2014) for social media analytics

- OVM Solutions (May 2014) for cloud-based proactive communications and customer interactions

- CanaPlus Consulting (September 2014) for SI in Singapore

- SpeechStorm (December 2015) for omnichannel self-service

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The bulk of these acquisitions have been integrated to become the foundation of the Customer Engagement Platform. For example, the Angel CX Builder and analytics combined with Genesys CX platform to form Premier Edition, and the Solariat integration brought machine learning and predictive analytics to the Genesys analytics solution.

In 2014, its overall revenue grew to $850 million from $740 million in 2013. Genesys now has over 2,400 cloud customers.

Genesys is committed to open standards, as well as critical security and compliance requirements. For instance, the Customer Experience Platform is fully SIP and H.323 compliant and supports CCXML, SCXML, VXML, SOA, Web Services, REST APIs, and others. It also supports HIPPA/HITECH, FISMA, FIPS and PCI-DSS.

Portfolio Description and Analysis

Genesys has one of the broadest customer contact portfolios in the industry. Offerings include its Customer Experience Platform that is common across all 3 contact center editions. It supports cross-channel inbound and outbound orchestrated routing, IVR, digital channels (email, chat, mobile, Web, social), outbound dialing, and employee engagement (call recording, WFM, QM, and interaction analytics). It is highly scalable, supporting up to 25,000 concurrent agents on a single system, with more capacity through networking. It also provides agents with an extensible omnichannel desktop with a journey timeline.

Genesys bundles offerings in 3 editions to suit different markets:

- **Premier Edition for Small- to Midsize Contact Centers** is a pure cloud offering that scales up to 250 seats. Capabilities include:
    - Multichannel support
    - Unlimited IVR ports
    - Intuitive and visual solution configuration
    - Email and chat
    - Blended agents (outbound)
    - Proactive notifications and surveys
    - Customer Experience analytics
    - Real-time reporting
    - Call recording
    - Agent monitoring and coaching

- o   Interaction analytics

- o   CRM desktop integration

- o   WFM

- o   Bundled telco services

- **Business Edition** is designed for midsize to large contact centers of up to 1,000 seats. It can be run in the cloud, on-premise with a pre-configured appliance, or in a hybrid cloud configuration. The on-premise appliance is new and comes in multiple configurations. Capabilities include those in the Premier Edition, plus the following:

  - o   Inbound and outbound multichannel or omnichannel support

  - o   Routing using full context

  - o   Proactive Web engagement

  - o   Social engagement

  - o   Mobile engagement

  - o   Co-browse

  - o   Interaction recording and quality management

  - o   Agent scripting

  - o   Local telephony connect

  - o   Local storage of media

  - o   Simplified and preconfigured routing options for rapid deployment

  - o   Real-time performance and operational monitoring and analysis

  - o   Pre-integrated hardware appliances for on-premise deployments

- **Enterprise Edition** is a customized contact center solution is designed for large contact centers and scales to in excess of 25,000 seats. It can be run in the cloud, on-premise, or in a hybrid cloud configuration. Capabilities include those in the Business Edition, plus the following:

  - o   Orchestrated routing

  - o   Cross-channel interaction management

  - o   Work item prioritization, routing, and analytics

  - o   Customization and third-party system and application integration

  - o   Advanced administrative capabilities management

Genesys has tight integrations with a number of third-party applications, including Oracle, Salesforce, Pegasystems, and SAP. It also has native integration with SfB enabling UC integration.

The SpeechStorm acquisition brings more self-service capabilities to the portfolio. The company had been a Genesys partner since 2010 and the solution is well underway to being integrated with GVP, routing, Mobile Engagement and Conversation Manager. It brings a single tool to create and deploy self-service applications across IVR, the Web and mobile, as well as a catalog of over 80 pre-packaged, self-service applications that use best practices across key vertical and horizontal markets.

Genesys AppFoundry

In late 2015, Genesys launched Genesys AppFoundry, an online marketplace for Customer Experience solutions. Modeled after best practices from Salesforce, the AppFoundry is intended to be a resource for developers looking for Customer Experience applications, integrations, and services. Genesys is drawing on its ecosystem of over 500 partners and SIs to populate the marketplace with Customer Experience solutions that provide complete customer engagement integrations through voice, chat, email, video, social media, and mobile.

Sales Model

Genesys sells through a mix of direct and indirect channels, leaning towards a more direct model in North America. The company works with partners on the cloud offering. Each region is headed by a senior vice president of sales, and in many cases business consulting groups for pre-sales in different regions report directly to the VP. Each region is supported by sales and professional services.

In 2015, Genesys focused on partner marketing enablement with a new program, backed by a lead qualification and development team that provides an online lead generation infrastructure with automated lead nurturing. Genesys is providing co-branded, relevant content on Genesys microsites to drive partner Web site engagement. The program also contains social and email engagement.

Genesys is at the forefront of getting clients to understand the need for transforming the Customer Experience, whether it is adding new channels into the mix or optimizing customer journeys. As such, it developed a methodology called The Genesys Wow Method, named for creating and delivering memorable experiences that will make customers say, "Wow, that was great!" Developed by the UK Design Council, it has 4 distinct phases — vision, discover, design, and deliver — and uses industry-standard service design techniques, templates, best practices, reference use cases, and other tools to optimize customer journeys, resulting in improved experiences and increased business performance.

Strengths	Concerns
Genesys does not shy away from complexity. A broad array of solutions coupled with strong professional services directly and through partners has enabled it to implement large and complex contact centers.	Historically, Genesys has been seen as costly to implement and maintain, in part due to the reputation for high-end, complex implementations.
The company is at the forefront of extending contact center capabilities beyond the contact center, with mobile, Web, digital, and back-office solutions.	Despite simplification of offerings, and making inroads into the SMB market with its cloud offerings, Genesys' reputation still deters many smaller companies from considering it.
The company's message of omnichannel journey mapping coupled with digital engagement is resonating with customers, enabling Genesys to be short-listed on RFPs. In fact, it acquired several new customers that are now digital only.	Periodic talks about Genesys being up for sale may have a negative impact on customer interests, and open up questions for prospects.
Genesys sells its products and solutions in 80 countries through direct and partner channels, and supports regions through in-country resources and channel partners, plus regional partner and customer events.	In areas such as reporting and agent desktop, many small and mid-tier suppliers have produced hundreds of out-of-the-box reports, along with easy customization, and simplified, streamlined desktops that are pulling attention away from larger participants such as Genesys.
The Customer Experience Platform is vendor neutral, enabling Genesys to easily fit into multi-vendor environments.	
The platform can support up to 25,000 agents, and can be configured with N+1 redundancy within a single node, or as active/active across 2 data centers.	

Customer Recommendations

Best Fit

- Genesys does not provide networking or a PBX offering. However, the Customer Experience Platform is architected to be vendor-neutral, enabling Genesys to fit easily in a multi-vendor IP-PBX environment, as well as move into competitors' accounts.

- Genesys has stayed at the forefront of market leaders in providing emerging contact center solutions and moving customers towards providing omnichannel customer care. This includes social media interaction, mobile customer care and engagement, and integration with UC and enterprise workflow applications. The company provides personalized and proactive omnichannel self- and assisted-service experiences, and direct-to-best-agent orchestrated routing. The company has enhanced its offerings in WFO (now positioned at Employee Engagement) and performance management with the introduction of Continuous WFO, which fully integrates WFO and contact center infrastructure to automate highly manual processes, and Interaction Recording for audio and desktop recording. In addition, the company's Interaction Analytics solution, developed with assets from its Utopy acquisition, analyzes customer voice and text interactions and triggers automated workflows.

- Genesys now has one of the most feature-rich arsenals of contact center functionality in the market, providing the gamut of contact center applications across all lines of business, channels, and size ranges, both on-premise and in the cloud. Despite a reputation for complexity, Genesys now offers updated interfaces providing greater simplicity, and has a strong professional services team that can handle complex environments spanning the contact center, UC, and other business applications. It is this expertise, acquired through development of more custom environments, that has enabled Genesys to move customers to omnichannel from multichannel, and head them towards digitally transforming Customer Experience.

- An example of adding on a capability that isn't a simple plug-in but adds richness to a customer application is the virtual assistant capabilities provided through the 2014 partnership deal between Genesys and IBM. It combines IBM's cloud-based Watson Engagement Advisor and Genesys' Customer Experience Platform, integrating access to Watson for use by agents and customers. The system will both aid and assist agents to provide fast, data-driven answers and also sit directly in the hands of consumers via mobile device, chat session, or online interaction. In one click, the solution's Ask Watson feature can quickly help address customers' questions, offer feedback to guide their purchase decisions, and troubleshoot their problems. Watson thinks, learns, and provides insight while combing through millions of pages of data within seconds.

- The solution also provides organizations with the ability to identify when a customer should speak with an agent, rather than continuing in a self-service application. Watson's knowledge of predefined business guidelines allows the Genesys solution to signal when it is time to transfer the conversation to an agent and pinpoints the exact agent to handle a customer's inquiry, based on specific factors such as an agent's experience, channel used, training, and even license to discuss or sell a given product. An example of this engagement can be found at Tangerine Bank in Canada.

Caution

- Genesys still suffers from the reputation of solutions being costly both to buy and customize despite new product and services designed, priced, and packaging for the mid-market. With the Premier offering, the company has a feature-rich, easier to deploy and manage offering for the mid-market. In addition, due to the predefined common configurations and integrations and rapid deployment services, Business Edition allows for fast time to market (about 30 days) at a lower cost. However, Genesys needs to build its brand awareness in the SMB market to gain share and shake off the reputation for being high end.

- However, different Editions of the Genesys Customer Experience Platform (Premier Edition, Business Edition, and Enterprise Edition) allow customers to select the right offering for their business needs, taking into account contact center size and complexity. With specific capabilities involving inbound voice and omnichannel engagement, Genesys offers defined packages for rapid implementation, so the degree of professional services needed is reduced substantially.

Huawei

Company Background and Current Performance

Huawei is a global provider of ICT solutions that include telecom network equipment, smart devices, and IT products, as well as a portfolio of contact center solutions sold to telecom carriers and enterprises. Huawei is privately held, is headquartered in Shenzhen, China, and does business in 170 countries and regions.

The company invests over 10% of its annual revenue into R&D. Roughly 45% of its 170,000 employees are engaged in R&D, spread out through 16 R&D centers around the world, including in China, India, Russia, the United States, France, Italy, Germany, and Sweden. In total, Huawei has a large portfolio of technology patents (it has applied for more than 700, and been granted 450).

The company has been marketing contact center solutions for over 20 years. Globally, in 2015, the company did $170 million in contact center sales, representing 11.25% growth over 2014. About half of this was in China. Its focus on high-touch accounts and specific industries contributed to this success. Huawei has particular expertise in telecom, financial services, government, eCommerce, and logistics. In particular, it targets large enterprises; in fact, it supports 5 of the top banks and 5 of the top mobile operators in China. An additional central focus is in the development of smart cities.

Huawei is going through the process of fully "cloudifying" all products and solutions to enable its telco and enterprise customers to be successful in digitally transforming their businesses. Across its portfolio, Huawei is transforming the user experience with solutions that provide real-time delivery of information on-demand, and that are always on and social.

Portfolio Description and Analysis

Huawei provides a converged multimedia contact center platform for the telecom and premise-based enterprise market. Its eSpace UAP and U-series versions cater to the following market segments:

- **eSpace U2980 and USM** are targeted at the small- to mid-sized enterprise market. U2980 is packaged as part of Huawei's OneBox contact center appliance offer.

- **eSpace U2990 and U2980** are targeted at the large enterprise market.

- **eSpace UAP3600, UAP6600 and UAP9600** are targeted at the telecom provider market.

Huawei's multimedia platform is SIP-based, and includes access to and routing of voice, video, fax, email, Web, and social media interactions. It also has rich media resources embedded in the ACD, eliminating the need to purchase third-party voice recording servers. In addition, it supports integration with the company's UC products allowing for personnel outside of the contact center to interact with agents or be tapped as remote experts.

The platform supports multi-center disaster recovery with active-active standby so that if a node goes down an agent can seamlessly be logged onto another node. The platform is scalable up to 20,000 agents on a U2990 with 7 servers and up to 50,000 agents on a UAP6600 with 7 servers. It provides a unified operations and management portal.

The application components of the platform are defined by multiple functional layers as follows:

- **Customer Service Suite and Telemarketing,** which includes an agent desktop, knowledge database, trouble ticketing, and eSales solution.

- **Performance Optimization Management,** which includes performance optimization management, business intelligence reporting, real-time monitoring, a supervisor dashboard, KPI analysis, agent scoring, service policy management, and WFM.

- **Intelligent Interaction Platform,** which includes a Contacts Routing Server (CRS), Internet Contact Service (ICS), Proactive Outbound Platform, and an automated experience portal. The CRS provides unified multimedia routing, and the ICS functions as a multimedia access gateway for Web-based communications (Web, email, and social media).

- **Session Control and Media Platform,** which includes U2980 (ACD), USM server, UAP3600, UAP6600, UAP9600, and a multimedia service platform.

- **Terminals,** which include an agent softphone and 7900 series IP phone. Alternatively, integration with Microsoft SfB will allow SfB to act as an agent terminal.

The platform can make use of high-definition video for applications such as virtual teller machines, mobile applications, and video contact centers. It also provides mobile customer care solutions and the use of Big Data analytics, and provides interfaces for third-party development, service integration, and system customization, and offers pre-integration to many mainstream CRM and other customer service products.

Sales and Services Model

Huawei has a vast ecosystem of thousands of partners worldwide across its solutions portfolio. Within customer contact it maintains a healthy ecosystem of technology partners that include NICE, Verint, Voice Codes, Teleopti, Nuance, SinoVoice, SAP, Siebel, and Microsoft Dynamics. It also maintains partnerships with more than 200 independent software vendors and SIs for third-party development. Its partner program includes more than 1,000 signed agents and over 20 service partners with more than 200 authenticated engineers.

Strengths	Concerns
Huawei has a breadth of experience in delivering telco-grade contact centers, along with telecom and networking assets. It also has a deep understanding of the APAC market.	Despite its huge global partner ecosystem, Huawei still lacks broad brand awareness for contact centers outside of the APAC market, compared with some of the more entrenched contact center system suppliers.
Huawei provides targeted value-add solutions to industries that show promise for expansion, particularly in areas that can take advantage of Huawei technology developed outside of the contact center. For instance, it has had success with a remote banking application: a virtual teller machine, mobile and home banking using its video technology.	While integration with many third-party suppliers of contact center applications such as WFM is laudable, it faces competition from the all-in-one suite vendors with more tightly integrated offerings.

Customer Recommendations

Best Fit

- Huawei has a great understanding of the APAC contact center market, along with the technical assets to combine contact center with telecom and data networking services, making it attractive to companies looking for a single-source vendor for all their communications needs.

- Huawei has had success combining mobile and video assets to enrich the Customer Experience in specific verticals. For instance, it provides virtual teller machines, mobile banking, andVIP@Home services that enable customers to directly access and collaborate with agents remotely. Another example is using voice, video, and data convergence in e911 situations for surveillance, dispatch, and collaboration of emergency personnel.

Caution

- While the company is a strong participant in the APAC region and other developing areas, its lack of presence in the North American market will hamper winning global customers. Lack of strong marketing leaves the impression that contact center is peripheral to the rest of Huawei's business.

Interactive Intelligence

Company Background and Current Performance

Interactive Intelligence is a global provider of software and services for customer engagement, communications, and collaboration, offering a suite of pre-integrated applications that provide customers with multichannel and omnichannel, inbound and outbound customer contact. The company provides solutions that are delivered on-premise, hybrid, or in the cloud. Backed by a 21-year history of industry firsts, it owes its longevity to understanding the emerging needs of its customers and a history of innovation, holding a portfolio of over 150 issued and pending patents in these areas.

Headquartered in Indianapolis, IN, Interactive Intelligence was founded in 1994 by Dr. Donald Brown, who still sits at the helm as president and chief executive officer — something that is rare in the industry. He is also responsible for a portfolio of 4 patents, with 6 additional patents pending. The company released its first product in 1997, which was the first all-in-one platform offering PBX, ACD, IVR, and Presence. The company had its initial public offering in 1999, and is now traded on the NASDAQ under ININ. In 2011, the company became Interactive Intelligence Group, Inc. It now employs more than 2,000 people worldwide, and is backed by more than 6,000 customer deployments worldwide. Interactive Intelligence has specific expertise in teleservices, insurance, banking, ARM, utilities, healthcare, retail, technology, government, and business services.

Interactive Intelligence has had strong financial performance over the past decade, posting double-digit growth in 8 of the last 10 years. The 2015 year-end financial highlights included total revenue of $390.9 million, which represents a 15% increase over 2014. Recurring revenue, which includes cloud subscriptions and support fees from on-premise licenses, increased 23% to $230.7 million and accounted for 59% of total revenue. Cloud-based revenue increased 62% to $97.9 million. In 2015, the company put 19% of its revenue back into R&D.

Portfolio Description and Analysis

Interactive has a solid track record of offering a lower TCO than its competitors, and a rapid ROI. The initial design of its Customer Interaction Center (CIC) is aimed at simplicity by being purpose-built as an all-in-one, software-based platform. This has enabled customers to easily add features without costly upgrades — not just for the contact center, but for broader business applications, such as UC and business process automation. This design helps reduce costs through simplified administration, customization, and reporting. The CIC platform shares the same code base with its hosted counterpart, CaaS, allowing for customers to have premise, hosted, and hybrid deployments and move between them.

In 2015, the company took this further by releasing numerous improvements to lower bandwidth usage, improve scalability and reliability, and lower memory usage, along with myriad other enhancements. For example, database queries are now 25 times faster than in previous releases, and making queries across agent groups is much faster. CIC now has the capacity of 7,500 agents on a single server.

PureCloud, a completely re-architected, fully featured contact center product, was launched in 2015 and has proven so popular that starting in 2016 it became the company's flagship product.

The product portfolio includes:

CIC

CIC is a fully integrated, all-in-one solution for business communications and the contact center. CIC does not require multipoint hardware, integrations to third-party products such as ACD or IVR systems, or CTI middleware. CIC's multichannel approach allows contact centers and enterprises to process multiple channels of communication including voice, emails, faxes, voice mail messages, chat, IP telephony calls, SMS text messages, social media alerts and responses, work items, and generic media such as trouble tickets.

Interactive Intelligence releases 4 CICs each year. In 2016, the company released CIC 2016 R2 that contains numerous enhancements to core functionality. Among them is the release of Interactive Text to Speech, the company's own text-to-speech product, which includes initial support for 5 languages, improvements to outbound dialing for better intra-day campaign management and reporting, new reporting for real-time analytics and agent performance, and agent-initiated shift trading for WFM. The company also released a Manual Calling Server that assists its customers with complying with manual-only call scenarios, as well as improved PCI compliance in the IVR. Other portfolio applications include:

- **Interaction Dialer,** an outbound dialing solution

- **Interaction Director,** multisite call routing

- **Interaction Optimizer,** WFM and scheduling, adherence, and intraday management

- **Interaction Analyzer,** speech analytics, including real-time key word/phrase spotting, and scoring

- Interaction Feedback, customer surveys

- **Interaction Mobilizer,** mobile customer contact

- **Interaction Web Portal,** contact center monitoring via secure Web access

- IVR

- Interaction Speech Recognition, speech-enabled IVR

- **Interaction Process Automation (IPA),** a process automation application that applies proven communications technologies to capture, prioritize, route, escalate, track, and manage processes and communication interactions throughout the entire business process life cycle for enterprises

- **Interaction Supervisor,** a real-time interface for monitoring CIC user and system activities, with optional mobile access through Interaction Supervisor, iPad Edition

- **Interaction Tracker,** contact history management

- **Interaction Recorder,** recording, screen recording, and speech analytics

- **Interaction Quality Manager,** multichannel quality management

- **Interaction Decisions, a forecast,** budget, staffing, and capacity planning platform with what-if and risk analysis (formerly known as Bay Bridge Decisions)

- **Interaction Collector,** ARM (formerly known as Latitude)

- **Interaction Connect,** multichannel agent desktop/Web client

In addition to its comprehensive UC and collaboration and contact center services portfolio, Interactive Intelligence provides enhanced solution flexibility through integration with third-party products and solutions. It provides tight integration with IBM Sametime to close communications and collaboration gaps between contact center agents and enterprise business users. It also integrates with Microsoft SfB to extend the voice, messaging, conferencing, presence, and collaboration reach of both solutions into the contact center and the enterprise. It also integrates with, based on industry standards, a number of popular CRM solutions such as Salesforce.com, Oracle Service Cloud, SAP Corporation, Oracle's Siebel, Heat Software, Microsoft Dynamics. And it provides a REST-based API for integrations with other third-party suppliers.

Communications as a Service (CaaS)

CaaS is a single-tenant, cloud-based version of the CIC solution that supports customers in 31 countries. The product includes:

- Multichannel routing (voice, email, chat)

- IVR

- Speech recognition

- Outbound dialing

- Multichannel recording

- Multichannel quality management

- WFM

- Strategic resource planning

- Real-time speech analytics

- Customer surveys

- CRM and UC integrations

- Supervisor and reporting applications

- Mobility

- UC

- Business process automation

PureCloud

Interactive Intelligence PureCloud is a suite of cloud-based services for collaboration, communications, and customer engagement built on a microservices cloud architecture atop Amazon Web Services. This architecture was designed to achieve new levels of reliability, security and scalability. PureCloud also integrates easily with third-party applications using REST APIs. It includes:

- PureCloud Engage
    - o Omnichannel routing
    - o Speech-enabled IVR
    - o Outbound campaigns
    - o Recording and quality management
    - o WFM
    - o CRM integrations
    - o Graphical scripting
    - o Performance analytics
- PureCloud Communicate
    - o IP telephony
    - o Speech-enabled auto attendant
    - o Call recording
    - o Voice conferencing
    - o Fax
    - o Voicemail
    - o Unified messaging
    - o Remote survivability

FROST *&* SULLIVAN

- PureCloud Collaborate

  o Chat/instant messaging

  o Team collaboration

  o Video conferencing

  o Desktop and file sharing

  o Content management

  o Company directory and employee profiles

  o Advanced search and filtering

  o Back office integrations and data synch

Subscription to PureCloud services is available individually or collectively. PureCloud incorporates the latest in Web and mobile design and is enterprise grade. The company also took a number of steps to make it easy and affordable to adopt PureCloud. It created a subscription plan that enables customers to pay monthly for what they use, with no commitment and no hidden fees at competitive prices. It also implemented an online ordering process that enables organizations to purchase directly from the company's Web site, and lets customers change their subscription at any time.

Sales Model

One key to Interactive Intelligence's global success is its tailored, customer-centric approach to the sales process. The company has focused on ensuring that it has the right in-country talent to support the sales process, staffing its teams with people who understand the languages, culture, and needs of the individual regions to which they are assigned.

The company sells through a network of approximately 400 resellers in over 60 countries. Interactive Intelligence has offices in 35 countries, including 8 across the United States and Canada. For EMEA, the company has offices in Italy, Sweden, Netherlands, the United Kingdom, Germany, Poland, Spain, France, Dubai, Saudi Arabia, and South Africa. For Latin America, the company has offices in Colombia and Brazil. For APAC, the company has offices in Malaysia, Japan, India, Australia, and New Zealand.

The company brings a consultative approach into the sales process. It has strong technical sales teams as well as sales engineers who understand both the technical and business needs of customers. This means that new customers going through the sales process have a team that understands the entire picture and is able to translate business needs into technology, ensuring that what is being proposed is specific to the business environment. The company also has forged relationships with consultants who are well-versed in the country-specific needs of their clients, and provide expertise and an independent voice for the customer during the sales process.

Interactive Intelligence has worked diligently at making the sales process simple through greater partner enablement, and recently overhauled parts of the sales process. For instance, it changed the compensation plan so that it doesn't matter whether a solution is sold as cloud or premise. However, typically for the mid-market (100 agents and below) the company will sell Communicate. Interactive Intelligence moved North American sales into 4 super regions and expanded its mid-market teams. It reduced contractual commitments for CaaS solutions from 5 years to 1 year, and greatly simplified and scaled down the complexity of its customer contracts, replacing existing templates with a 3-page, customer-friendly version.

As of December 31, 2015, Interactive Intelligence had 139 territory managers, maintained a global channel network of approximately 400 partners and installed products in approximately 125 countries. This expansion netted the company 308 new customer logos in 2015, with roughly half in North America. In 2015, the company expanded its Global Partner Program for SIs and telecommunications/carrier partners by adding new revenue opportunities in the cloud market. Interactive Intelligence believes the enhanced program better supports its existing contact center-focused partners, is helping it more quickly bring to market its PureCloud product offerings, and is extending its services business to reach new customers — especially large, multinational organizations.

Strengths	Concerns
Its profitable status and consistent growth ensure financial stability.	Except for Australia and Japan, the company lacks the geographic coverage in APAC that many of its larger competitors have.
Strong brand recognition enables growth and broader customer reach.	Although certainly UC-enabled and still selling UC capabilities, the company has backed away from aggressively marketing itself as a UC provider.
Customers can do premise, hosted/cloud, or hybrid options.	It is unclear how the premise-based CIC platform will fare with PureCloud taking center stage going forward.
Important industry certifications such as FISMA, HIPAA, CPNI, FIPS and PCI-DSS help address specific industry requirements.	
A single point of system management simplifies administration and maintenance.	

Customer Recommendations

Best Fit

- Interactive Intelligence provides a wide range of solutions that can be deployed via the cloud using a CaaS data center, on-premise at the customer's site, as hybrid cloud/on-premise solutions, or as a managed service. As an alternative to CaaS, the PureCloud platform provides cloud-based, multitenant contact center functionality, and UC capabilities quickly and at affordable price points.

- For companies looking to deploy premise-based systems, CIC is an on-premise, server-based solution built for IP networks, with an application suite designed to reduce equipment costs and complexity. CIC can be deployed as a PBX/IP PBX or with an organization's existing PBX/IP PBX. For VoIP, the CIC software leverages the SIP standard and incorporates a full-featured media server, media gateways, SIP proxy, and SIP station voice device.

- Industry-specific certifications enable Interactive Intelligence to address stringent regulatory requirements in the healthcare and financial services industries. The company backs this with industry-specific practices, hiring talent drawn from the ranks of the vertical markets it caters to and building best practices and technological features pertinent to that industry. For instance, in collections, it acquired Global Software Services, Inc., doing business as Latitude Software in 2010. Its suite of solutions (now rebranded as Interaction Collector) includes Latitude's ARM products, which provide all of the necessary features to perform sophisticated debt collection operations.

Caution

- The CIC platform is an all-in-one suite, and this message has played well for Interactive Intelligence in building its brand and gaining market share. However, others also are marketing suites with differentiated products that are bundled. The company needs to articulate the differentiators in its solutions to combat best-of-breed point solutions being sold as integrated packages.

- The declaration that PureCloud will be the flagship product going forward should raise a tiny question as to the future of CIC. PureCloud has been heralded as a complete do-over for the product architecture for the cloud, and while the company was built on the backbone of its premise-based CIC platform — and the base certainly will not be abandoned — customers looking to upgrade or replace current systems with CIC should ask about future product plans for CIC.

- While global in coverage, Interactive Intelligence still lacks the depth of coverage of some of its main competitors. However, in EMEA, the company is increasingly seeing CaaS deals sold from outside of the data center location countries (United Kingdom and Germany). It is having considerable success with large, multinational corporations that want to operate homogenized service operations around the globe and have looked at developing an optimal approach with regard to multichannel contact/CRM/back-office integration, then, following trial have rolled out this approach internationally. So national centers that might normally have a relatively small number of agents become several thousand seats across multiple worldwide locations.

- For monitoring social media networks, CIC software integrates with many available network monitoring and reporting tools, and adds the ability to route notification alerts to contact center users. PureCloud offers integrated social media monitoring and routing capabilities for Twitter and plans to add support for Facebook and other social channels in the near future.

InVision Software

Company Background and Current Performance

InVision was founded in 1995 and is headquartered in Düsseldorf, Germany. The parent company started out as a pure-play provider of WFM software for contact center systems, but early on provided access to the software using a Web browser interface, and moved into providing a hosted version of its flagship InVision WFM product. The company's initial public offering was in 2007 on the Frankfurt Stock Exchange, under IVX.

In 2011, InVision started down the path of transforming from a pure provider of WFM software for on-premise installation to an SaaS solutions provider. While very competitive with its premise-based WFM offering, the company realized that the future was in the cloud and took advantage of the fact that it already had the browser, which allowed it to move to the cloud more easily than the competition. So in 2011, InVision launched injixo, a pure cloud WFM solution. At the same time, InVision felt that the success of the customer was not just about being able to use the software, but to understand the underlying principles and best practices of WFM yet do this without a lot of cost and professional services. As a result, in 2011 it acquired The Call Center School, a leader in contact center training and eLearning, as its second new brand.

Historically, the bulk of the company's sales have been to business and public sector customers in Austria, Germany, and Switzerland. The company also has a strong presence in the Baltic, Dutch, French, Italian, Scandinavian, Spanish, and UK markets, and in the North American market through wholly owned subsidiaries. InVision maintains 3 R&D sites: in Leipzig and Düsseldorf, Germany, and Derry, Northern Ireland.

Portfolio Description and Analysis

InVision markets a complete WFM solution for both premise and cloud deployments. The injixo cloud WFM for contact centers suite offers forecasting, scheduling, analysis, and reporting. It also allows contact centers to allocate, organize, and track how employees use their time, such as when they handle customer service, support, and sales.

The application has patented multi-activity scheduling algorithms that allocate multi-skill agents' time for voice and text channel interactions, including concurrent conversations, and for non-call work such as emails. The forecasting engine also allows the software to factor in longer calls on more complex questions. The injixo application has 16 forecast quality metrics. It also automatically refreshes forecast calculations when there is new historic data available.

InVision's solutions provide a self-service portal, called injixo Me, that lets agents view their schedules, bid and swap shifts, request vacations, and obtain adherence reminders. Agents can access a time recording feature whereby activity can be captured even for agents who do not log into a telephony platform. An absence planner feature supplies monthly views of scheduled absences and annual views for individual employees.

InVision offers 2 versions of the product off of the same code base: InVision WFM, its premise-based version that is also offered on a hosted basis, and injixo, a pure cloud offering. Both access the same agent portal, and all software is downloaded through a browser.

Sales Model

InVision sells its product directly, with referral partnerships with telephony vendors. The company offers a feature-rich product that is easy to purchase, with no ongoing maintenance fees. All terms and conditions are on the company's Web site. injixo more than matches the competitors, with all-inclusive pricing at $9 per user per month.

Since the products share the same code base, go to market is based solely on the predilection of the area or customer. For example, some countries are less cloud-ready than others and some customers have made a significant investment in contact center systems and do not want to move, so the company is continuing to offer the on-premise solution with no plans to retire it.

InVision has a global team of WFM experts, many of whom are former resource planners, who work with the company's prospects and customers to ensure that they realize significant benefits from its solutions. InVision also sponsors a user community through The Call Center School. The company recognizes that with the cloud model it is just as easy for customers to sign up as it is for them to abandon.

Strengths	Concerns
The company has more than 20 years of focus and experience in WFM.	Limited international presence makes it difficult to provide uniform capabilities across business locations of multinational organizations.
Comprehensive agent and supervisor training is available through The Call Center School.	InVision's injixo WFM solution faces stiff competition from suppliers that integrate other vendors' WFM solutions with other APO applications to form WFO suites and that may also combine them into WFO-plus-routing suites. Also, many businesses and the public sector may not be convinced that WFM has sufficient value to merit being sourced as best-of-breed, preferring to source WFM from suites to avoid the cost and time of integrating different vendors' products, and in managing multiple vendors.
injixo more than matches the competition on functionality and on price. The company sells it for $9 per user per month, all-inclusive.	
The company makes its application mobile-device accessible. It automatically adjusts its page views to users' smartphone or tablet screens.	

Customer Recommendations

Best Fit

- InVision is well suited for SMBs looking to acquire a comprehensive WFM tool that is cost-effective and easy to use. Those with limited resources can take advantage of the training and eLearning capabilities offered through The Call Center School and InVision Community.

- The injixo product is purely cloud-deployed, which, along with attractive pricing, allows InVision to aim it at contact centers that currently use manual forecasting and scheduling. The injixo cloud model and value proposition permits companies that are frustrated with their existing WFM suppliers to test and, if satisfied, change vendors without major disruptions. Buyers may switch to injixo out of dissatisfaction with their existing product functions and service, quality of service, and high version upgrade costs.

- injixo is localized for most EMEA countries' languages and labor laws. InVision acutely understands its home region's complex cultural, language, and regulatory environments. Having been designed in Germany and written for that country's complex workplace regulations, injixo has been engineered to factor in complicated scheduling rules and employee agreements.

Caution

- InVision is in a growing market but one whose maturity is in sight. The APO market, which includes WFM, has the strongest growth potential percentage-wise of the hosted contact center segments. Notably in southern European countries, as well as in Latin America, many smaller contact centers and private and public organizations have not yet adopted WFM. But those contact centers that recently invested in on-premise APO and WFM solutions may not need to replace them before the end of this decade. WFM is a relatively mature technology, with few expectations of any major innovations on the horizon that would prompt companies to switch out their solutions.

- Companies should consider the InVision injixo WFM solution and compare it for functionality, versatility, and affordability against the performance and value in competitors' WFM, WFO, and all-in-one suites.

- InVision's still-limited international exposure prevents it from fully supporting distributed organizations with business sites in multiple countries. While it has presence in Latin America and APAC, it still does not have corporate offices in those regions.

Mitel

Company Background and Current Performance

Mitel is a global provider of customer contact, mobile, UC and collaboration software and services. The company is headquartered in Ottawa, Ontario, Canada, and has 80 offices globally that sell to customers in over 100 countries. Founded in 1973 as one of the first PBX suppliers, Mitel now provides one of the industry's largest portfolios of enterprise, cloud, and mobile solutions and services, including a full suite of contact center, UC, and mobile applications. The company was one of the first in the industry to take advantage of the worldwide shift from traditional digital communications systems to the deployment of IP-based cloud, mobile, and enterprise solutions. Mitel is publicly traded on NASDAQ as MITL and on the Toronto Stock Exchange as MNW.

In the past 5 years, CEO Rich McBee has fundamentally reshaped the company from a premise-based, UC and telephony company into a diverse global market leader in multiple segments with established positions in the cloud, mobile, and enterprise markets. As a result of organic in-house development and merger and acquisition activity, Mitel now offers cloud, mobile, and enterprise customers one of the industry's broadest, most comprehensive portfolios of complementary and interoperable communications and collaboration solutions.

As part of that corporate strategy, Mitel has focused significantly on expanding and investing in its global contact center business and portfolio. In June 2013, Mitel acquired PrairieFyre, which had been the OEM supplier of Mitel's contact center platform. In January 2014, Mitel acquired Aastra, with its Solidus eCare family of contact center products. Solidus eCare (now MiContact Center Enterprise) is a multichannel contact center platform that is tightly integrated with Aastra's MX-One IP telephony platform. The merger boosted the company's global customer base to 60 million end users, and further expanded its range of products and services, channel partners, geographic reach, installed base, sales and marketing resources. In March 2014, Mitel further supplemented its contact center portfolio with the acquisition of OAISYS, a leading developer of integrated call recording and quality management solutions. In April 2016, it announced its intent to acquire Polycom, a leading provider of video endpoints, telephones, and conferencing solutions.

While continuing to enhance its premise-based communications solutions, Mitel was one of the first premise-based solution vendors to leverage its proven communications and collaboration technologies to develop solutions for the emerging cloud communications market. In June 2013, to align with its focus on the cloud, Mitel went through a product renaming architecture. Its MiCloud suite of products includes MiVoice, MiCollab and MiContact Center. Tied together for a seamless experience by the Mitel Freedom Architecture, these solutions offer a comprehensive set of PBX, contact center, and UC and collaboration capabilities. The MiCloud solutions are available both as retail and wholesale offerings. The latter are branded as MiCloud-Powered by Mitel and allow several delivery models including white-label, resale, and partner-deployed solutions.

Mitel's installed base of cloud customers has rapidly grown. By the end of 2014, it had close to 900,000 total cloud seats and 250,000 recurring cloud seats, particularly in North America, where Mitel Cloud Services is one the most successful hosted IP telephony and UC and collaboration services providers. In March 2016, it surpassed 2 million cloud business communications subscribers, further advancing its industry lead. This latest milestone included the addition of more than 70,000 seats since the beginning of 2016. As for contact center, 34,000 of its 623,000 agent seats are in the cloud.

Portfolio Description and Analysis

Mitel uses a simple statement that brings together all of it technologies — mobile, operators, network, and telephony: "One touch to connect real-time." This concept supports its corporate vision of making communications and collaboration seamless for customers. As such, it primarily focuses on delivering integrated solutions combining its IP telephony, UC, and contact center offerings into a holistic corporate communications system.

Through its acquisition of OAISYS, Mitel delivers integrated call recording and quality management as part of the owned portfolio. Combined with its workforce scheduling software, Mitel offers a complete WFO suite as part of its own intellectual property offering, unlike many competitors.

Mitel was the first voice network vendor to virtualize its call control software. This extended to its entire portfolio of applications including contact center, enabling customers to deploy an entire corporate communications environment in a private cloud. This move further enables service providers to create complete communications services based on Mitel software for public cloud delivery. Based on a single software stream, this allows customers to control the transition from on-premise to cloud at their pace in a hybrid deployment.

Mitel recognized the profound impact of mobility on communications. It acquired Mavenir, a telecom networking provider, in early 2015, which brought it a sizable footprint in 75% of the top mobile operators globally. Part of this recognition was the understanding of the impact mobile would have on customer service; those assets are being extended into its contact center strategy and portfolio to support businesses in their transformation to digital and mobile customer engagement.

The products are backed by internal training and professional services organizations that can assess, recommend, design and deliver transformative workflows and SI. Its training goes beyond product use to include an exclusive content distribution agreement with ICMI, a leading provider of contact center best practices education.

Contact center solutions include:

MiContact Center Business, a natively digital contact center designed for the mid-market, scaling from small to 1,200 concurrent agents. MiContact Center Business is a pre-packaged solution that brings voice, email, Web chat, social media, and SMS into a single contact center for self-service and live assistance, along with native CRM integration and browser-based workstations. It includes Mitel's MiCollab UC client and MiVoice Call Recording.

MiContact Center Enterprise (formerly Solidus), a highly available enterprise contact center solution supporting 15,000 concurrent agents. It offers everything necessary to deliver sophisticated customer engagement and business automation through embedded advanced workflows into enterprise business application software. Like MiContact Center Business, MiContact Center Enterprise natively brings voice and digital media including email, Web chat, social media, and SMS into single queues with a single agent experience. Its powerful script engine can be used to create sophisticated workflows to automate tasks, speeding service delivery while cutting costs.

MiContact Center Office Edition, a customer experience solution for contact centers targeted at organizations with up to 100 agents. It extends general business telephony to include call and email routing, cross-team visibility, business reporting, and team productivity tools that drive operational efficiency.

MiContact Center for Microsoft SfB, an end-to-end solution that is built natively on the Microsoft SfB call control and SfB client. It combines multimedia capabilities, a feature-rich IVR, ACD routing with in-queue messaging, extended SfB presence, real-time reporting, historical monitoring and forecasting, and CRM screen pop functionality.

MiContact Center Outbound, a preview, progressive, power, and predictive outbound dialing solution that includes tightly integrated CRM, campaigning, and agent scripting capabilities.

MiContact Center Live, a fully featured public cloud contact center solution. Delivered entirely through a browser and using any telephony device, it is a natively digital and social contact center platform for organizations wanting a pure SaaS delivery model or having a mixed environment of telephony networks across the enterprise. MiContact Center Live is available through an OEM partnership with LiveOps.

Mitel's MiContact Center Business and MiContact Center Enterprise software are deployed by its own cloud services division as well as third-party service providers to create public cloud services. Based on the same software stream, these offerings can include identical capabilities and scalability as the on-premise descriptions offered above.

Sales and Services Model

Mitel sells directly and through partners, with 2,500 partners worldwide. In the United States, over 120 partners sell Mitel exclusively.

Mitel provides a one-stop shop for customers that are either undecided between hosted and premise-based solutions or looking to deploy hybrid architectures. Unlike most of its competitors, Mitel also sells cloud communications directly, which is appealing to customers that trust Mitel both for its technology and customer support and want to eliminate the middleman.

The different Mitel delivery models enable a variety of partners to become "Powered by Mitel" service providers. Its wholesale and white-label models as well as partnerships with platform-as-a-service and infrastructure-as-a-service providers enable telcos and other resellers with limited data center capabilities to tap into the considerable hosted communications growth opportunities. VARs and smaller local interconnects can use Mitel's solutions to generate additional revenue and differentiate, leveraging their existing customer relationships, knowledge of customer premise equipment infrastructure, and familiarity with Mitel's portfolio.

Strengths	Concerns
A single software stream for both premise-based and cloud-based solutions enables smoother transitions between the delivery models and more tightly integrated hybrid deployments.	Despite being a well-entrenched brand, a lot of its growth has come from acquiring the large installed bases of its competitors in different regions. Mitel still needs to continue to tell its story for the integration of its portfolio of native and acquired product lines to gain global brand awareness.
A comprehensive applications suite addresses the needs of a diverse user base.	Mitel's vast installed base of older contact center systems native and through acquisition are ripe for replacement and therefore at risk for competitive displacement.
Awareness of the impact of mobile consumers is evidenced through purely digital workflows optimized for mobile phone users.	
Mitel has a firm grip on moving customers through multi- and omnichannel customer care to full service digital and mobile customer engagement.	
Users of Mitel corporate telephony solutions will experience a deeply integrated Customer Experience solution connecting the entire enterprise into the Customer Experience center.	

Customer Recommendations

Best Fit

- Mitel's flexible deployment options mean that customers can maintain their investments in on-premise solutions, deploy hybrid infrastructure, or move entirely to the cloud.

- Organizations wanting to evolve to deliver great experiences to mobile consumers will benefit from Mitel's strategic focus on this transition in communications behavior, and its expertise in mobility.

- As a competitive local exchange carrier and a diversified communications provider, Mitel MiCloud has the ability to offer a one-stop shop to its customers for multiple services and solutions.

Caution

- Businesses with investments in other telephony providers wanting an integrated solution for contact center may not get the tight integration from Mitel that they can from pure contact center providers, with deep integrations into other PBXs.

Nexidia

Company Background and Current Performance

One of the leaders in customer interaction solutions and pioneers in speech analytics, Nexidia has developed and patented a phonetic approach to indexing and analyzing audio content as well as applications that integrate with legacy call recording platforms to transform contact center data into business intelligence. The company's technology is internally developed and backed by more than 20 patents. Nexidia is a privately held corporation headquartered in Atlanta, GA. It was founded in 2000 as Fast Talk, and became Nexidia in 2004. In January 2016, the company was acquired by NICE.

The company offers a range of solutions for audio, video, and interaction search, and delivers a platform that taps into unstructured audio, video, and textual content. Nexidia's analytics capabilities are enabling customers to move beyond targeted listening for phrases and topics and into statistically valid metrics and modeling to measure and compare results, perform metric-driven performance management, and practice predictive modeling. These tools enable companies to see a bigger picture of what is happening and understand what needs to change. Nexidia's products are offered on-premise or as a hosted offering with PCI-certified hosting facilities in the United States and the United Kingdom. Both deployment options are supported by Nexidia's managed services teams.

Nexidia's strongest domain expertise lies in financial services, communications, satellite, wireless and wireline, followed by healthcare (primarily insurance), and retail. The company shines at using interactions to drive compliance in regulated industries and has specific solutions aimed at compliance regulation.

Portfolio Description and Analysis

The company has a robust product suite that includes:

Nexidia Interaction Analytics

- **Discovery** automatically identifies and visually displays emerging topics and potential issues in customer interactions that merit further investigation. Trending topics are uncovered without having to know what to look for, and metadata is used to compare trends in countless ways including across media types or by customer segment.

- **Search** provides in-depth, ad-hoc searches for spoken topics across 100% of recorded audio at speeds of up to 785,000 times faster than real-time on a single dual-core processor. The phonetics-based methodology is designed to find any type of word or phrase, including proper nouns, slang, and specialized industry terms. Search also enables users to construct sophisticated queries using time-based and Boolean operators, such as "and," "or," "not," and "within x seconds" to generate contextual results.

- **Analytics and Reporting** is a comprehensive set of reporting and analytics tools that mines caller intent, provides advanced reporting, and delivers root cause analysis to develop quantitative business intelligence. Results are consolidated and synthesized in a visually intuitive format that makes it easy for management to understand the contact center dynamics that influence business results.

- **Performance Management** offers metrics-based performance management capabilities allowing customers to analyze and baseline current performance, tailor goals to match corporate initiatives, and measure performance against those goals on a continuous basis. Nexidia's Evaluate feature uses the analysis and intelligence gained from Nexidia Interaction Analytics to track quality and manage performance across contact center sites, teams, and individual agents.

- **Capture** works in concert with Nexidia Interaction Analytics, recording phone calls and metadata directly from the switching environment. It integrates with TDM and VoIP-based networks, and has an optional screen capture module.

- **Scan and Agent Assist** is a real-time monitoring and decisioning platform that taps directly into the live call stream. Alerts and knowledgebase articles are triggered based on business topics and sentiment scores, enabling contact centers to make in-the-moment decisions while the call is in progress. Scan also provides event APIs that enable notification to external systems, such as agent desktop applications.

Compliance Management

Nexidia has deep expertise in voice surveillance and compliance management for financial services. The company's Advanced Compliance Management is a highly scalable solution that combines the Interaction Analytics engine with workflow to enable companies to rapidly aggregate risk issues and automatically route calls and creates appropriate workflows for those responsible for quality and performance management.

ARM

Nexidia also has put significant effort into the effectiveness and usability of applications in collections. The latest release of Nexidia Live Collection Assistant drives relevant alerts and information to collector and supervisor desktops in the contact center by referencing pre-defined events in live call activity, such as an omitted mini-Miranda disclosure or the detection of a settlement request. The system provides real-time decision-making that enables companies to change agent behavior and maximize collection effectiveness while the call is in progress, all while adhering to rules and regulations. The solution allows debt collection companies to incorporate what has traditionally been back-end analysis of recorded calls directly into the live call stream. Other enhancements greatly improved a supervisor's ability to monitor the agent pool and intervene if necessary.

The company also provides additional tools to help with compliance, including PCI desktop pause triggers and redaction capabilities.

Sales and Support Model

Nexidia sales are approximately 90% direct to medium and large contact centers and contact center outsourcers, with the remainder being sold through partners. Initially, sales were concentrated in North America and the United Kingdom, but Nexidia has expanded its coverage to EMEA, Latin America, and APAC. The Nexidia product suite supports 43 languages.

Nexidia has developed strong partnerships to provide speech and text analytics in contact center portfolios. For instance, Nexidia powers the speech and text analytics capabilities of Aspect's WFM solution, which greatly increases the sales potential. Other partners include Accenture, Deloitte, Ernst & Young, Noble Systems, FICO, MicroAutomation, and Convergys.

Global partners include KPMG (United Kingdom), Accenture (Europe), Bumicom (Netherlands), BSL (United Kingdom), and Omega3C (Italy).

The company continues an aggressive pursuit of large-scale deployments. In 2015, it deployed numerous marquee customers supporting 1,500 to 10,000 agents, and has scored many wins with companies seeking to be in compliance with new regulations. The company's redaction capabilities, which allow for scrubbing of vast repositories of recorded calls, have netted it many such clients. In one of the largest wins in 2015, an energy company that had a decade of stored audio files (5 million hours) in English and Spanish used Nexidia for a one time-cleansing of the data, to be in compliance and get to the next level of PCI certification.

Nexidia has a Professional Services team that consists of subject matter specialists that have extensive knowledge of multiple industries and verticals. The teams also have practical experience in the day-to-day operation of Nexidia's interaction analytics solutions and can augment customers' internal teams with business analysts to jump-start programs or manage implementations on an ongoing basis.

Strengths	Concerns
Neural Phonetic Speech Analytics combines the strengths of a Large Vocabulary Continuous Speech Recognition (LVCSR) and phonetic indexing and search in a way that offers very high scalability, accuracy, and flexibility.	Pre-acquisition by NICE, Nexidia did not provide the entire breadth of solutions that others offered, such as customer journey mapping, but it can draw from the NICE portfolio. It remains unclear, however, how the 2 companies will market the complete portfolio going forward, and which products will remain in total.
All audio processing occurs on the Nexidia Search Grid architecture, using a MapReduce- style framework to allow massively parallel, distributed processing of data on commodity hardware or in the cloud. Nexidia Search Grid manages large implementations with one logical instance of the system, and expands when interaction volumes increase or data retention periods grow, without requiring multiple instances of software or databases.	
Nexidia's Interaction Analytics can be deployed on-premise or hosted, and both deployment option are supported with managed services.	
Nexidia is dedicated to open data architecture. There is no difficulty in accessing results or interaction data for any third-party or external application through Nexidia's Data Exchange Framework.	

Customer Recommendations

Best Fit

- For companies that demand large-scale speech and text processing, Neural Phonetic Speech Analytics combines the strengths of an LVCSR and phonetic indexing and search in a way that offers very high scalability, accuracy, and flexibility. It produces both a phonetic index and word-level transcription of the audio using advanced neural network speech recognition that has been modeled with real call center audio. These transcripts can be analyzed to facilitate the rapid discovery of interaction content, uncover emerging topics, quantify related phrases, and organize topics with business logic. Once these topics are organized, the application can search the phonetic index for them at a speed and scale unparalleled by other solutions. When words or business logic need to be changed, the system can rapidly requery the index without having to reprocess the audio.

- Nexidia's auto-indexing methodology allows for high-speed processing. It creates a time-aligned phonetic index of audio at a rate of 288 times real time per core, or about 4,600 time real time per server, enabling vast amounts of audio to be processed very quickly. Analysis is not dependent upon dictionary or language models, so if the lexicon and query structure changes, the audio does not have to be reprocessed, and new queries are fast.

Caution

- It remains unclear how NICE will market its complete portfolio of products, including Nexidia solutions. Customers would be advised to look at how their needs map to the products from both pre-acquisition product sets, and ask questions as to which products will be integrated and maintained.

NICE

Company Background and Current Performance

NICE is a global leader in customer interaction solutions. NICE consists of 3 business units: Enterprise, where Customer Experience and the contact center reside; ACTIMIZE, providing financial crime, risk, and compliance solutions; and Security, providing visibility and insights supporting emergency communications, command and control, incident reconstruction, and others. These solutions apply real-time, cross-channel analytics to realize the intent of customers, criminals, or fraudsters as a way to enable proactive response for real-time impact.

NICE has specific vertical expertise in multiple industries including banking, communications, healthcare, outsourcing, insurance, travel, retail, and utilities.

The company was founded in 1986, is headquartered in Ra'anana, Israel, and is publicly traded on the NASDAQ under NICE. A global company that serves 80% of the Fortune 100 companies, it has 35 offices and 3,500 employees, serving more than 25,000 organizations in the enterprise and security industries in more than 150 countries.

In 2015, NICE divested 2 of its security businesses in order to focus its efforts on enterprise software, and in January 2016 it announced its acquisition of Nexidia, a leading provider of analytics, to extend its reach with speech/text analytics to new non-contact center use cases. Together, NICE and Nexidia cover the entire range of interaction analytics use cases, technologies, and delivery models. By combining the strengths of these companies, NICE is well positioned to remain a leader the customer interaction analytics space.

At the end of Q1 2016, NICE also acquired VPI. This move complements NICE's drive into the mid-market. VPI brings a solid brand and large installed base of customers in this area as NICE looks to bring more cloud offerings to its WFO portfolio. In May 2016, the company announced the acquisition of inContact, a cloud contact center provider, rounding out its suite of contact center products.

In 2015, NICE's fiscal year revenue grew a solid 6.2% to $927 million (excluding financial exchange impact). Customer Interaction revenue was $688 million in 2015, up 2% from 2014. Financial Crime and Compliance ended the year very strong with $239 million, an increase of 21% from 2014.

Portfolio Description and Analysis

NICE has one of the broadest portfolios in the industry, bringing together real-time interaction management, advanced analytics, and employee engagement tools to deliver faster, smarter, and safer customer engagements, helping customer improve and differentiate their Customer Experience. It also has one of the broadest intellectual property portfolios in the industry: 135 issued US patents, 50 patents issued in other countries, and over 72 patent applications pending in the United States. The solutions include:

WFO

WFO is a suite of solutions that enables every individual in the organization to understand their impact on customers, own their schedule development, and use best practices and coaching to constantly increase their effectiveness, providing customers greater flexibility, lower upfront costs, and faster implementations. It includes:

- **Performance Management,** which maps enterprise business objectives to group and individual goals and tracks and reports performance against these goals. It also automates critical managerial activities, including employee coaching, recognition, and performance improvement. It is available as on premise, hosted or SaaS.

- **Workforce Management,** which provides forecasting and scheduling capabilities, measures agent and team performance, and provides real-time change management to proactively respond to changing conditions. It is available as on-premise, hosted, or SaaS.

- **Quality Management,** which automates the quality monitoring process and selection of interactions (voice, email, chat, and social media) for evaluation based on performance data, and facilitates root cause analysis.

- **Interaction Analytics,** which provides a unified view of multichannel interactions and uses advanced technology for analyzing speech, text, call flow, and sentiment to understand the root cause of issues to drive business results.

- **Back Office Performance,** which automates manual processes, integrates data from employees' desktops, improves long- and short-term forecast accuracy, enables managers to view and manage resource capacity, and empowers employees to improve their performance.

- **Robotic Automation,** which automates routine back-office processes that do not require human thought or involvement, freeing up workers to focus on more sophisticated processes. It includes centralized management that orchestrates task queuing, collects data about process completion and livelihood of the system, and manages resource allocation of robotic resources, depending on need.

Interaction Optimization

- **Real-Time Authentication** utilizes voice biometrics for authenticating customers in real time without customer effort. It also helps agents expedite time to service and significantly reduces fraud risk for all customers.

- **Real-Time Process Optimization** provides agents guided resolution and an intelligent decisioning engine to help agents process complex inquiries, as well as process automation for reducing desktop complexities.

- **Real-Time Activity Monitoring** identifies when a desktop process starts and ends, and monitors all desktop activity in between. This ability to define process paths at the agent and team levels serves as the foundation for its 2 core capabilities: Desktop process Analytics and Desktop Application Analytics.

- **Real-Time Speech Analytics** automatically captures and analyzes the entire customer interaction as it unfolds to uncover insights and opportunities, and provides tailored next-best-action guidance to the agent's desktop.

- **Call Volume Reduction** combines Big Data infrastructure and advanced analytics to help organizations resolve customer needs in one contact, predict and prevent follow-up calls, and enable customers to effectively solve their issues using self-service tools.

Sales Optimization

- **Incentive Compensation Management** enables automation and management of commissions bonus, and incentive administration.

- **Customer Retention** uses cross-channel and transaction-driven contact analytics to identify customers at risk before they churn, and provides retention agents with real-time guidance and tailored retention offers.

- **Real-Time Web Engagement** uses customer intelligence, predictive models, and machine learning to make insightful, real-time decisions during customer Web interactions, improving customer retention and online conversion rates.

Contact Center Compliance Solutions

- **Contact Center Compliance Recording** addresses contact center compliance requirements with features that include end-to-end media encryption, PCI-DSS compliance, adherence to government security regulations, Department of Defense data deletion capabilities, advanced retention setting, and business continuity and disaster recovery options.

- **Complaint Management** is a full-service platform for identifying and managing complaints, monitoring their status, generating reports and statistics, and proactively resolving customer issues at all stages.

Customer Journey Solutions

NICE Customer Journey Solutions allows companies to capture and analyze data in real time from all customer touchpoints, including the Web, call center, retail outlets, email, chat, and social media to create a single view of a customer's journey during engagement with and about the organization. The solutions include:

- **Customer Journey Optimization,** which uses predictive and real-time analytics as well as patented machine learning to identify customer behavior patterns and help determine customers' next move, likeliness to churn, or interest in a particular product or offer.

- **Real-Time Personalization,** which uses customer intelligence, predictive models, and machine learning to deliver a tailored, targeted, and impactful engagement regardless of the channel in which it occurs.

- **Call Volume Optimization,** which uses Big Data and advanced analytics to increase FCR and reduce costs.

- **IVR Optimization,** which enables organizations to make their IVR more effective through detailed, end-to-end IVR customer journey maps that uncover opportunities to improve IVR effectiveness.

- **Total Voice of the Customer,** which allows organizations to combine customer surveys with the ability to listen to customers across multiple channels to get a complete picture of the customer engagement including the emotion involved.

- **NICE Interaction Analytics,** which helps organizations to understand the indirect VOC by analyzing customer interactions to extract the hot topics and the root cause of why they are calling as well as opinions, preferences, and needs they are expressing.

- **Real-time Customer Feedback** is part of the VoC family of solutions, but is also available separately. Immediately following a retail, call center, or online experience, the application reaches out for customer feedback from any touchpoint, including text message, email, IVR, mobile app, and forms. It uses Natural Language Processing to accurately categorize verbatim comments and quickly locate the key drivers of customer satisfaction.

Sales and Services Model

NICE primarily uses a direct sales force, but also works through select partners around the globe. The company maintains a global strategic accounts team for multinational accounts, and works on a regional level for clients that operate in a single region.

NICE has a robust and rich ecosystem of successful partnerships outside of North America. It has over 150 resellers/VARs/SIs in the NICE Business Partner Program, continues to see strong annual growth, and is looking to create new global alliances with leading consulting firms to further its reach.

Partnerships are an important part of NICE's sales strategy across all regions, particularly because it does not supply the entire contact center portfolio. Its global strategy is driven by 2 objectives: market reach and completeness of solution. For market reach, NICE selects partners that can cover the geographies where it has no direct presence; segments, such as SMB, that partners can reach effectively; or target audiences, such as marketing or back-office operations, where its partners are well positioned. These complementary relationships enable NICE to be successful in situations that cannot effectively be covered through its direct channel. They also give NICE worldwide coverage and penetration beyond the contact center market. For completeness of solution, it selects partners to bring complete end-to-end solutions to customers. NICE partners with all vendors that reside in the contact center ecosystem, such as SIs, UC companies, and core CRM participants.

To ensure success, NICE has dedicated internal resources for partners, engages in global training, and provides partner enablement throughout the world.

For services and support, it maintains hundreds of customer service personnel spread throughout its global hubs, supplemented by field support and on-site personnel. Each region has its local focal point, but the governance and infrastructure is global.

Strengths	Concerns
The company has a broad portfolio of analytics capabilities, with deep expertise in particular vertical markets including finance, communications, healthcare, outsourcing, insurance, travel, and utilities.	It has a reputation for being costly and complex. With the growing list of providers developing solution suites from the ground up, work remains to change this reputation.
Well thought-out vertical market packages reduce the need for customization in key verticals such as finance and healthcare.	It is unclear how integrated the products from the Nexidia acquisition will be with the NICE product set.
Its broad portfolio of solutions includes forward thinking areas such as back-office WFO, Big Data, gamification, and key pieces of SIO.	NICE has a large installed base of older recording equipment that is ripe for replacement, putting the company at risk of competitive displacement.

Customer Recommendations

Best Fit

- NICE provides a broad suite of WFO capabilities, and enhances these offerings with applications and features that complement traditional WFO, drawing from R&D in adjacent business units. As such, it brings strong offerings in the realm of security, fraud detection, and compliance to contact centers with particular concerns with these issues. For those companies and others looking at taking the next step in analytics by working with Big Data resources or wanting to improve back-office functionality, NICE should be high on their short list of companies to investigate.

- NICE has one of the most comprehensive WFO offerings in the industry. It is continually ahead of the curve in adding advanced functionality to its suite of products. For instance, the company was the first to introduce WFO mobile support, as well as contact center video recording. The latter provides information for better evaluation of video conferencing sessions, including the ability to do side-by-side playback of agent and customer; simultaneous playback of audio, video, and images of the agent's screen; and isolation of audio for playback and evaluation of either the agent or customer. Other features that were early entrants into the analytics space include BOWFO and guided resolution.

- Industry-specific certifications enable NICE to address stringent regulatory requirements in the healthcare and financial services industries. Businesses in these verticals, as well as those doing business with healthcare and financial services organizations, should strongly consider NICE's solutions.

- NICE Customer Engagement Analytics combines interaction and transaction analytics, including VoC and Big Data analytics; it can make use of real-time decisioning to change the Customer Experience in real time. With the acquisition of Nexidia, NICE deepens its reach for Big Data analytics, reaching a set of use cases previously not the focus for NICE Big Data solutions.

- NICE offers solutions on a robust and scalable platform, available on-premise and as a hosted or SaaS offering. NICE's next-generation capture platform, NICE Engage Platform, provides 100% real-time analytics with greatly increased scale, speed, and cost efficiency. This integrated platform makes interaction data available for every application simultaneously and instantly, and with it NICE reduced latency 10-fold and increased recording capacity to support 10 times more channels per server.

- The company offers suites of packaged applications targeted at different functions. For instance, it bundled key WFO capabilities into a Back Office Performance package that includes WFM, QM, and performance management, and it then added work inventory management and real-time activity monitoring to address the specific work requirements of the back office.

- A key differentiator is creating packaged solutions for specific vertical markets, such as finance, drawing developments in its other lines of business. As such, NICE has strong financial services credibility for providing security, anti-fraud, and compliance solutions for the contact center. For instance, the company launched a Contact Center Fraud Prevention solution, which tracks fraud patterns and screens all phone interactions for fraud against a watch list of known fraudsters. The Proactive Compliance Suite for Consumer Protection, launched in March 2013, helps financial institutions adhere to regulations and effectively respond to audits across the contact center, back office, and branch. This was followed by Real-time Authentication with voice biometrics, seamless passive enrolment and real-time agent guidance, and Real-time Fraud Prevention, which enables contact centers to detect and prevent fraud in real time using voice biometrics and both speech and desktop analytics.

Caution

- Because NICE is a third-party supplier to PBX vendors and its solutions were not built from the ground up as an all-in-one suite, there is the risk of inaccuracy in conglomerating agent data from different systems.

- With a broad portfolio of capabilities, some of which have come through acquisition, comes complexity. Customers have often commented on the expense of upgrades and professional services work required to make all of the pieces function together, or for having to pay for features that other competitors do not charge for, such as real-time adherence.

- NICE has acquired numerous companies over the years, the latest being Nexidia, VPI, and inContact It is too early to determine how integrated from an organizational and product perspective these acquisitions will end up. This could cause confusion with buyers looking to get the competitive differentiators from both companies in one solution. It is also unclear whether NICE will retain the competitive brain trust behind the technology. With VPI, the company is leveraging its reach into the SMB space to ramp up its efforts in cloud.

Noble Systems

Company Background and Current Performance

Noble Systems was the pioneer in the development and distribution of outbound dialing systems. Noble Systems founder Jim Noble managed call centers earlier in his career using automated dialing software, and sought to improve the automation of outbound dialing. In 1985, the company developed a predictive dialing product and began selling it to other companies, and in 1989, Noble Systems Corporation was officially formed to further develop and distribute the company's products. In 2014, Noble Systems celebrated its 25th anniversary with a move to its new global headquarters in Atlanta, GA. The company employs more than 375 people and has over 4,000 client sites supporting more than 1,200 customers around the world.

The accounts receivable market gave Noble Systems its initial success, and continues to help grow the company. Today, Noble does more debt collection applications than anyone else in the industry, driven by compliance requirements; here Noble Systems excels, often selling its solution alongside other vendors such as Genesys and Avaya. This has become particularly important in an era of bank consolidation where multiple brands merge, all with the need to contact customers yet restricted by limits on the number of times they can contact customers under one brand name. Hence, Noble's campaign management solutions often sit on top of competitors' solutions to provide an answer to compliance issues.

While the company has a solid leadership position in outbound dialing, it also has expanded its brand presence with WFM, UC, interaction analytics, and a range of contact center solutions available on-premise, through the cloud, and as hybrid configurations. These solutions include ACD, predictive dialing, blended processing, multichannel (email, SMS, Web), recording and monitoring, IVR, messaging, interaction analytics, and WFM.

Noble Systems continues to expand its product portfolio to broaden its contact center and business offerings. This approach enables the company to sell its best- of-breed dialing solutions as stand-alone products or as part of a complete contact center suite offering inbound, outbound, and blended software, multi-channel customer engagement, contact center and agent management, and WFO and customer interaction analytics. Its WFM and UC offerings provide additional incentive for customers to invest with the company.

In fact, in 2014, the company had a banner year in sales for WFO and analytics in addition to outbound. The company saw double-digit growth in 2014 and is focused on sustainable long-term growth and profitability. In 2015, Noble saw continued growth, especially internationally as Noble cloud adoption increased.

This is backed by an impressive patent portfolio. In 2014, the company significantly grew its patent portfolio with the addition of 21 new patents in contact centers alone. In 2015, Noble added 32 patents and filed for 40 more to add to its portfolio. These patents cover many technology segments of the contact center environment, including inbound, outbound, WFM, speech analytics, compliance and security, QM, call management, and agent/management desktop.

In addition to brand longevity and breadth of offering is the tenure of its staff. Most notable is the presence of Jim Noble, the founder of the company, who has been in the contact center industry throughout his career and was recognized in 2014 as one of Georgia's most admired CEOs out of a field of more than 1,100 nominees. Not many companies in business for more than a quarter of a century can boast the same leadership. The company was named one of the top 40 most innovative companies in Georgia by the Technology Association of Georgia, and was honored at its technology summit in March 2015 and again in March 2016.

Although Noble Systems sells into every industry, the company has specific in-depth expertise in telecommunications, healthcare, outsourcers, retail, insurance, financial services, and inside sales.

Portfolio Description and Analysis

Although Noble Systems is the leader in outbound dialing systems, it has had inbound functionality for a while for its UC clients. In fact, in 2015, inbound accounted for over 40% traffic on the Noble cloud. In 2016, Noble Systems released a new package, Noble Inbound 100, which the company notes was named because it is 100% designed for inbound call centers, 100% complete in functionality, and backed by a 100% uptime guarantee. As with Noble Systems' other solutions, it is available on-premise and in the cloud.

Noble provides customer communication solutions in either a modular format or as a unified, integrated package. The company's offer is grouped into 3 suites: UC, WFM, and analytics. The portfolio of Noble Systems solutions includes:

Noble UC

- Agent desktop/workflow (Composer)

- Management desktop (Maestro, Harmony, and Reports)

- Predictive dialing

- Inbound contact routing

- IVR and voice portal systems

- Messenger

- QM and recording

- Multichannel communications (such as email, Web, and social)

- iPBX

Noble WFM

- ShiftTrack WFM

- Quality management

- Recording (voice and screen)

- Performance management

Noble IQ

- Interaction analytics including VoC and customer surveys

- Best time to call

- Advanced campaign management

- Automated decisioning and strategy management

- Speech analytics including real-time screening to provide information for supervisor alerts and agent guidance

- Quality management

Noble also boasts strong integration features that include integration with third-party software, such as CRM, collections, or compliance solutions.

Together Noble's ACD and predictive dialing solution offers the following:

- Inbound, outbound, and blended communications

- Advanced multimedia skills-based routing

- IVR and messaging

- Agent desktop unification

- Scripting and workflow management

- WFM and WFO

- Voice logging and screen capture

- Quality assurance management

- Enterprise speech analytics

- Proactive campaign strategy, best time to call, and decisioning

- Real-time and historical reporting and management dashboards

- Data management tools

- IP infrastructure/VoIP and TDM support

- Data security and PCI compliance

- Regulatory compliance

- Mobile management portal

Noble Harmony

Noble Harmony provides remote and mobile access to management tools from virtually any Web-enabled device. The latest version (V5) features a re-designed user interface and enhanced tools for agent and group maintenance, manager wallboard, and quality assurance and recording. Managers can organize workgroups, configure workflows, monitor agent activities and compliance, define alerts to be triggered on specific conditions, analyze results, audit changes, and perform other activities.

Noble Inbound 100

The system delivers an all-in-one platform that includes intelligent routing, callback management, CRM integration, IVR and speech recognition, recording and quality assurance, and reporting for multichannel environments. Inbound 100 simplifies the user experience and presents the most complete inbound solution from a single vendor.

The system provides noteworthy, patent-pending features to help improve the Customer Experience and customer service and reduce costs. For instance, Smart Accept dramatically reduces the average speed to answer while decreasing telecom costs, and provides a better Customer Experience. It is configurable by DNIS or business rules. The system listens for inbound calls and looks to see whether agents are available, or looks for agents with the skill set to match the customer, and provides ring-back while it is looking. Smart Recover significantly reduces dropped calls for systems deployed in a cloud architecture by redirecting calls to an alternative path should the audio path of an agent drops for any reason.

Additionally, it is multichannel and multithreaded, so that any agent can take any interaction at any time, but is completely configurable by management for individual agent. Channels can be increased in volume as agents become more proficient. The application also tracks what agents are doing so that supervisors can make improvements to workflow.

Sales Model

In addition to strong sales and professional services in North America, Noble Systems has regional teams for companies that are growing or multinational in scope. The company follows a "manage globally and act locally" philosophy, so that assets such as marketing materials, training, product demonstrations, and knowledge base are localized, yet overseen by global management.

Products such as Inbound 100 have been aggressively priced and quick to deploy, with centers being up and running in less than 30 days. The product can be sold inbound only for less than $80 per agent, or as part of the whole suite for around $100.

Strengths	Concerns
Architected as an integrated application suite that can also be sold as separate components, customers can seamlessly deploy premise and cloud versions at the same time and manage them as one, allowing for elastic demand as a premise customer can use cloud for overflow and manage campaigns on both from a single console. Noble also extends a 100% service level guarantee in the Noble Cloud.	There is a lack of brand awareness for complete contact centers as compared with other legacy providers in the market, although the latest release of Inbound 100 should give Noble Systems more tools to alleviate this.
Noble Systems maintains that its product is evergreen with no software obsolescence.	
Noble Systems has developed the patented Noble Compliance solution in response to the challenge of US Telephone Consumer Protection Act wireless compliance for outbound dialing to mobile devices; the solution combines manual dialing capabilities through the Noble iPBX and compliance management capabilities in the Noble Contact Center solution.	
In 2015, the company delivered 6 nines of reliability and is now offering a 100% uptime guarantee of its services.	

Customer Recommendations

Best Fit

- Noble Systems' expertise in the outbound dialing market and rich feature set has given it a strong global footprint. The completely redone management front end and new inbound functionality is well worth companies investigating, particularly with the attractive per-seat pricing it offers.

- Noble Systems provides best-in-class outbound dialing solutions that solve the more difficult issues around compliance. As these solutions can be bought stand-alone and can easily reside in other vendors' environments, the products are well worth looking into.

Caution

- Despite 26 years in the contact center industry, the company comes late in the game to marketing true inbound contact center functionality, and therefore faces tough competition for mindshare with the incumbent inbound solution providers.

SAP

Company Background and Current Performance

SAP is one of the world leaders in enterprise applications, analytics, and mobile solutions. It was founded in 1972 and is headquartered in Waldorf, Germany. It is traded on the New York and Frankfurt Stock Exchanges under SAP. The company has more than 77,000 employees worldwide, supporting over 300,000 customers in 190 countries.

SAP offers a wide portfolio of cloud-based solutions and industry-specific applications that help organizations drive complete customer engagement. Combining contact center and customer engagement solutions with the omnichannel commerce capabilities of Hybris Software, an SAP company, and the power of the SAP HANA platform, SAP provides a platform for businesses to engage their customers anytime, anywhere, from any device, at any point in their journey.

SAP Contact Center resides in the SAP Hybris business unit, focusing on SAP's Customer Engagement and Commerce portfolio.

Portfolio Description and Analysis

SAP Contact Center

SAP Contact Center is an all-IP-based, multichannel communication solution that can be used as a stand-alone solution or integrated with other business applications. Together with SAP's Customer Engagement and Commerce solutions, it can provide a complete omnichannel solution from customer service to field service capabilities. It can be deployed as a cloud offering or as an internally hosted solution.

SAP Contact Center includes:

- Unified inbound contact routing (voice, chat, email, Web, voicemail, fax, and SMS)

- IVR

- Outbound dialing

- Directory and presence services

- Voicemail

- Call recording

- Real-time quality monitoring

- Reporting and analytics

- Mobile

- Social media and collaboration

SAP provides an all-in-one, unified architecture that allows data to flow between channels. Integrated IVR along with analytics and CRM provide flow to a unified agent desktop with screen pop and instant customer insight/decisioning. It uses a single user interface (Infrastructure Administrator) to configure different servers allowing system administrators to install, upgrade, and monitor the servers from a single interface. Also, a single user interface (System Configurator) is available for business administrators, so they can create agent positions, queues, scripts, users, directory services, presence services, and outbound campaigns from a single interface.

SAP Contact Center is natively integrated with SAP CRM and other SAP enterprise software and cloud solutions. For instance, SAP Hybris Marketing provides real-time contextual marketing to deliver contextually relevant offers to customers, and can be integrated with SAP Contact Center outbound campaign management. Other solutions include SAP Digital for Customer Engagement and SAP Cloud for Customer. SAP Contact Center can easily be integrated with third-party products and solutions. It is switch-agnostic, enabling it to fit into any environment. However, as it includes call switching, third-party PBX or ACD systems are not required.

One particularly useful development is the use of widgets that embed communications functionality into host applications, so that the communication controls that agents are using can be in the application familiar to them. Previously it was typical for a contact center to require SAP CRM or another CRM solution in order to get APIs to connect to. But with SAP's embedded framework, any third-party system can pick use the SAP Contact Center widgets to include communication functions such as chat or video without needing to integrate through an API. For example, a home-grown CRM application could use its own user interface for the agent, along with embedded video or chat from SAP.

Sales and Services Model

SAP Contact Center is available on premise and in the cloud. It is sold directly through SAP and via selected partners globally. Large enterprise and named SMB accounts are supported by SAP direct sales, SAP consulting, and global partners. The SMB market is mainly covered through local SAP partners.

The SAP Support model helps customers implement, operate, upgrade, and improve their solutions. The different levels of support are provided by SAP partners, SAP Global Support, and SAP Contact Center Support organizations. The product support process for SAP Contact Center works via the SAP Support Portal as with any other SAP software.

Strengths	Concerns
The contact center is embedded into broader business solutions.	SAP still suffers from limited overall market awareness of its contact center solutions.
SAP offers a rich set of business intelligence and Big Data analytics tools and solutions that companies can utilize for greater customer intelligence and customer service improvement. Contact center user licenses include the rights to use SAP BI Suite for analytics. This includes BusinessObjects products.	
The SAP contact center group enjoys the financial stability and global reach across the larger SAP organization, yet it has the benefit of operating as an autonomous organization. This autonomy allows for greater R&D resources and potential advancements in other parts of SAP, as well as for a strong global footprint of support.	
As a pre-integrated bundle, SAP Contact Center can reduce the amount of pre-integration work needed and reduce installation costs.	
The ability to embed SAP contact center functionality into third-party applications greatly enhances the simplicity of the offering and gives it broader appeal.	

Customer Recommendations

Best Fit

- The main value that SAP provides is the embedding of the contact center and communications functionality in the broader business software that SAP traditionally has been known for. Among these are SAP CRM and SAP Cloud for Customer applications. Embedding enables SAP customers with existing investments in SAP enterprise software and cloud to easily and cost-effectively add contact center functionality. It also allows SAP to embed communications into customer service and other business processes. As a software-only solution, SAP has designed the product to utilize standard off-the-shelf hardware and has incorporated open APIs for third-party application integration.

- SAP can use its strong experience in analytics, cloud, Big Data, and mobile applications to strengthen and broaden its contact center functionality, along with digital marketing and other assets gained through its Hybris Software acquisition. Using SAP HANA, SAP Hybris Service, SAP BusinessObjects, and SAP Customer Engagement Intelligence, companies can use Big Data tools for analyzing customer information to better understand them, anticipate their behavior, predict their interaction, and then create best offers.

- SAP Contact Center is a good choice for organizations invested in the SAP Business Application suite or SAP Cloud portfolio seeking to add or replace contact center functionality without a lot of integration work. It is also a good candidate for those organizations seeking to add stand-alone contact center functionality with minimal overhead.

Caution

- SAP has a vast installed base of customers, but only a modicum of market awareness concerning the contact center. While this is changing, SAP still needs to make headway against the long-entrenched contact center incumbents and combat the perception that the solution is not as fully featured as more established providers. SAP is making headway on this challenge as it continues to add SIs and partners qualified to sell and maintain the solution.

Teleopti

Company Background and Current Performance

Teleopti was founded in 1992 by Nils and Marita Bildt to provide optimization for ABB, SAS, SEB, and Volvo in Sweden. Teleopti's first products were designed to help companies save money by getting the most out of their telecom and networking infrastructure. These first Telecom Expense Management products were soon followed by a different set of applications. In 1996, the Swedish Rail System requested a solution to forecast and schedule its virtual call center, which Teleopti built and expanded into what is now known as WFM. From then, it focused on building out these capabilities at a time when most companies were not focused on WFM, giving it a head start in the industry that allowed it to expand across EMEA, and Asia. In 2010, Teleopti opened its US operations and has rapidly grown its customer base there. North America now is Teleopti's biggest market.

The Telecom Expense Management business was spun out to a separate company in 2013, and today Teleopti is 100% focused on WFM. It is one of the last of the pure-play WFM providers, which allows it to concentrate exclusively on improving WFM and not spread resources over the other areas of APO.

Teleopti It is still privately owned by Nils and Marita Bildt. The company just marked its 23rd consecutive year of growth, has been profitable since it was founded. It has high market capitalization, no debt, and a AAA credit rating — the highest credit score in the Soliditet evaluation system, which it has maintained every year since 2004. Its customer satisfaction rating also is very high. Since Teleopti started to measure customer satisfaction in 1999, the company has consistently had more than 9 out of 10 customers willing to recommend it. Headquartered in Stockholm, its 180 employees support more than 800 customers in over 80 countries. The company has offices in Denmark, Finland, France, Germany, Norway, Russia, Spain, Turkey, the United Arab Emirates, the United Kingdom, Brazil, China, India, Malaysia, and the United States.

Teleopti got its start with premise-based systems, and indeed has a healthy business with system sales, particularly in regions that are have been slower to move to the cloud and with BPOs. However, as with the rest of the industry, Teleopti also provides a cloud-based offering, which is rapidly being adopted. In 2015, 45% of its customers adopted cloud solutions. In all, Teleopti continues to grow, with a record year in 2014 followed by 41% increase in bookings in 2015.

The company is also known for its regional focus in product development. Getting its start in a small European country laid the foundation for a flexible product that can cater to the needs of specific regions. As such, it has taken great care in adding features and functions to its products to address specific needs. For instance, for Middle Eastern countries it created a prayer planning function that takes into account the needs of Muslim workers who need to pray at specific times of the day. The feature "follows the sun" to properly insert breaks at needed times. The agent screens also read right to left to accommodate the difference in language.

Portfolio Description and Analysis

Teleopti provides on-premise and cloud-delivered WFM solutions. Unlike many providers in the APO space, Teleopti has focused solely on WFM for 2 decades, enabling it rapidly and economically innovate. It has developed an extensive set of WFM capabilities that rivals the capabilities provided by premise-based WFM solutions contained in WFO suites, and ranks among the most compelling set of offerings in the industry.

Teleopti WFM provides workforce adherence, forecasting, planning, scheduling, intraday management, performance management, budgeting, and reporting. There is also agent self-service for overtime availability, shift reviewing and trading, and vacation planning. Mobility is a strong suit of Teleopti. Agents can access the self-service functionality on any device. Add-on products cover competence management, development, and training.

The WFM products are available on-premise and in both public and private clouds. The multi-tenant support enables hosting partners to provide cost-efficient and easy-to-maintain services to their customers. Teleopti integrates with most PBX/ACD/CTI solutions. Avaya, Cisco, Genesys, Mitel, Huawei, and others have certified Teleopti solutions as compatible with their contact center products for both historical and real-time integrations.

The company is continuously innovating in the areas of agent engagement and empowerment. Key functionalities include employee work-time preferences, automated vacation planning, and shift trading. In the past 18 months the company has added 6 new modules, with numerous capabilities in the areas of lifestyle and engagement, including such features as gamification, automated overtime management, and different types of notifications to keep agents updated. All agent self-service tools are available from their smartphones or from a browser.

Sales and Services Model

The company targets organizations with complex WFM requirements such as omnichannel and multi-skilling. Customer size for traditional on-premise installations range from 50 agents to tens of thousands of agents.

Teleopti has offered cloud solutions for many years, both in private and public clouds. In the beginning, it predominantly sold its cloud solutions to smaller customers, but in the last few years the enterprise space has increasingly adopted cloud and the company now has numerous cloud customers in the 2,000–5,000 agent range.

Teleopti's business model is to sell through alliance partners and resellers, supported by regional offices. A significant number of leading contact center solution providers are Teleopti partners. For example, in 2015, both Avaya and Mitel signed agreements to resell Teleopti as part of their contact center suites. Additional key partners include Cisco, Microsoft, Huawei, 8x8, and ShoreTel.

The company also differentiates itself through its consulting model, staffing with consultants with deep expertise in contact centers. Customer engagements start with extensive pre-installation analysis of the customer and continues during the implementation process where the appointed Teleopti consultant and the customer form a working relationship through design, configuration, workshop, and go-live phases. But it is post go-live where Teleopti differs from the rest. This is when the "Live 1" phase starts and the same Teleopti consultant stays in close contact with the customer to ensure that things are working according to plan, with regular bi-weekly or monthly meetings for typically a 6-month period, until it is jointly decided to move onto "Live 2." The same consultant does "health checks" every quarter or 6 months. While this model typically is more costly, it has paid off for Teleopti in terms of long-term customer satisfaction.

Strengths	Concerns
Teleopti's 2 decades of profitable status and consistent growth ensure financial stability.	Teleopti provides a best-of-breed product in a market slated towards WFO suites, and faces the normal challenge of marketing against a preference for suites or single- source providers.
It has one of the most comprehensive WFM products on the market. Streamlined and simple usability, underscored by deep functionality, is a key differentiator.	
Teleopti enjoys a high degree of customer satisfaction, with 96% of customers saying they would recommend the product.	
The company has a deep focus on regional and local needs, building features such as time zone management, language independence, and those that satisfy local regulations and customs, into its products.	

Customer Recommendations

Best Fit

- Teleopti's obsession with customer satisfaction is very attractive to companies looking for a collaborative working relationship.

- Companies in markets with regional- or country-specific requirements will find that Teleopti is willing to adapt their solution to meet local requirements. Market localization is critical in EMEA, where WFM has to be written to be easily adaptable to different countries' labor laws and practices, languages, and workplace cultures. Teleopti WFM has been localized into 30 languages, accommodates requirements such as right-to-left reading, prayer planning, and multiple calendars, and allows for gender-separate work shifts. Also, while UK- and US-based companies have tended to use WFM more for scheduling than planning, and the reverse has been true in other countries, there is now a trend to use both features in all markets. Teleopti WFM covers both needs. The company has had to have a "think globally, act locally" approach, which is a product of being based in a small, export-oriented country. This accounts for the versatility of its solutions and its sales through regional office-supported, in-country resellers. As a result, Teleopti is making strong headway in the Brazilian, Chinese, and US markets.

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- While there is a clear market for best-of-breed WFM (over 80% of Teleopti revenue is from pure WFM business), certain customers see a benefit to buy WFM as part of a WFO suite. Teleopti, therefore, collaborates with selected WFO partners including HP, ASC, KnoahSoft, Telstrat, and ZOOM to fill the WFM gap in their WFO-suites.

- Teleopti WFM has been certified by and is interoperable with most contact center routing solutions, and the company has partnered with a number of key vendors. For instance, Teleopti partnered with 8x8 to offer an integrated, cloud-based contact center and WFM solution. The service uses 8x8 Virtual Contact Center's call history data to drive Teleopti's staffing models.

- The Teleopti WFM suite has been written to cover not only contact centers, but also back and branch offices, retail, and other enterprise departments and work teams. Companies can track and, based on historical data, forecast the hours spent by back-office employees.

Caution

- Teleopti continues to be a successful and growing best-of-breed WFM vendor. This singular focus enables it to develop, enhance, and support these solutions without splitting the attention and resources to other product lines, as is the case of its leading competitors. Teleopti has deliberately avoided expanding into the WFO market. Instead, its solutions integrate with other vendors' WFO solutions, including analytics, eLearning, performance management, and quality management applications, and it offers SDKs.

- Teleopti has a powerful, flexible, versatile, feature-rich, best-of-breed WFM solution that meets the needs of global markets. Companies seeking a blended WFM and WFO solution will have to carefully evaluate the benefits versus the costs of best-of-breed WFM and full-suite WFO and Teleopti's evolving WFM offering with WFO solutions from those vendors.

Unify

Company Background and Current Performance

Unify, an Atos company, was born out of the engineering DNA of Siemens. That history includes being one of the top-tier legacy vendors in both telephony switching and the contact center, with early innovations that included the first digital PBX, the original CTI, and many of the now-basic contact center features. It has an impressive portfolio of over 3,000 patents in these areas. Unify transitioned in the past decade into a software-oriented company, providing integrated communications solutions that include IP telephony, UC and collaboration, and the contact center.

The company was founded in 2008 as Siemens Enterprise Communication, as a joint venture between and Gores Group and Siemens AG. Unify is headquartered in Munich, Germany, with 5,600 employees active in over 60 countries generating €1.2 billion in annual revenue

In the latter half of the past decade, it began a multi-year effort to evolve those earlier communications systems. Along with this was the decision to rebrand the company from Siemens Enterprise Communications to Unify, which happened in 2013, with the stated mission and vision of unifying its customers' communications systems. At the time of rebranding, Unify's vision statement read: "The goals of our products, solutions, and services are to pull together and manage the daily flow of communications into rich and meaningful conversations so employees can work seamlessly across multiple channels and devices, with a unified view of every conversation, relevant context and history to enhance every interaction. We call this vision 'The new way to work,' and it's the next step in our relentless quest to introduce new and productive ways for our clients to work better together."

Unify has kept to this vision, and in fact, out of this movement was born Circuit, the company's collaboration platform that did indeed present customers with an entirely new way to work. Circuit is a category-defining communication solution, combining voice, video, screen share, chat, and file sharing in a single intuitive application. It was the first of its kind enabled by the WebRTC.

In 2014, the company signed a global go-to-market agreement with Atos, as an SI, to broaden Unify's reach and help push the vision of digital transformation and new ways of working. Atos, a global leader in digital services, has 93,000 employees operating in 72 countries. The company provides consulting and systems integration services, BPO and managed services, Big Data and cybersecurity solutions, as well as transactional services through Worldline, the European leader in the payments and transactional services industry. In 2016, Atos decided to acquire Unify to create, as the company stated, "a unique integrated proposition for unified communications and real-time capabilities enhancing social collaboration, digital transformation, and business performance of its clients."

Over the last year, and continuing since the Atos acquisition, Unify stabilized the business and has been seeing strong growth. The company is seeing a lot of pull-through of products across its portfolio, and in particular has seen a large attach rate of contact center systems and a doubling of its win rate in the past year. With Atos it has new synergies and opportunities, allowing it to extend reach into new markets.

Portfolio Description and Analysis

Unify, with its OpenScape Contact Center Suite, offers a broad array of contact center capabilities that are clearly resonating with customers. The company has one of the highest attach rates in the industry, with 2 out of every 5 OpenScape deals containing OpenScape contact center applications. Unify products are offered on-premise, hybrid, and in the cloud.

In recent years the company has more than doubled the amount it spends on R&D in contact centers. Some of the 2015 results of this effort included a new agent portal with a Circuit-like user interface and a 360-degree view of all customer history and activity, the co-existence of UC and collaboration on OpenScape Voice, mobile supervisor capability, and journey mapping. The portfolio includes:

- **OpenScape Business MyAgent,** an out-of-the-box OEM product for up to 64 agents.

- **OpenScape Contact Center Enterprise,** an integrated, multichannel contact center solution for midsize, large, and very large contact centers, featuring multi-contact handling, advanced skills-based routing of all inbound and outbound channels, presence and collaboration tools, integrated IVR and voice portal options, multisite networking, real-time and historical reporting, multi-tenancy, high availability, and CRM and social media pre-integrations. Enterprise supports up to 1,500 concurrent agents on a single server and up to 7,500 agents in a 5-instance configuration. Agent and manager desktops run on PCs, iPhones, iPads, and Android smartphones and tablets. Contact Center Enterprise works with OpenScape 4000 and OpenScape Voice platforms.

- **OpenScape Contact Center Agile,** an easy-to-implement solution optimized for the small and midsized contact center, featuring intelligent group-based routing of phone and email contacts, fully integrated front-end call processing/basic IVR, and customizable reporting. It also includes presence and collaboration tools allowing agents to easily identify available users and collaborate on contact resolution. Agile pairs up with the OpenScape Business Communications Platform and supports up to 100 concurrent agents.

- **OpenScape Contact Center Campaign Director,** a pure SIP, software-only, all-in-one contact handling and campaign management solution that supports predictive, progressive, power, preview, and manual outbound dialing modes as well as multichannel inbound, IVR, and agent-less notifications. Campaign Director can be run in stand-alone mode, or integrated with Enterprise to blend inbound/outbound campaign interactions. It includes a Web-based agent desktop with a VisualScriptor scripting tool, management interface, real-time and historical reporting, skills-based routing, integrated IVR, and recording capabilities for any size or complexity of contact center.

- **OpenScape Contact Center Call Director,** an integrated IVR/call processor for Agile and Enterprise. It includes full routing design integration, including call menu prompting, caller input digit collection, numbers to speech playback, and callback in queue announcements. It dynamically passes call data to the agent desktop in the form of a screen pop.

- **OpenScape Media Portal,** a highly scalable, SIP-based voice portal with a real-time dialogue engine that supports text-to-speech, speech recognition, and natural language understanding capabilities. It supports Web services, macros, complex data types, and operators, and SIP audio and video calls with multiple codecs. It is also WebRTC capable, and comes with an SDK for easy integration.

- **OpenScape Cloud Contact Center,** an integrated multichannel inbound, outbound, self-service, and WFO solution offered out of the public cloud for contact centers of all sizes and verticals. The all-in-one platform features skills-based routing, integrated speech voice portal, real-time and historical reporting, CRM pre-integrations, voice and screen recording, QM, WFM, eLearning, and more, with built-in security and disaster recovery. OpenScape Cloud Contact Center works with all communication platforms and is operated by inContact from fully redundant, geo-separated data centers in Frankfurt and Munich along with a point of presence in the United Kingdom.

- **OpenScape Contact Center WFO Solutions,** which provides contact recording (voice and screen), QM, WFM, performance management, speech analytics, coaching and eLearning, and customer surveys, available through partners that include:

  o WFO (ASC, Verint, and NICE)

  o The InsideEdge line of analytics solutions that are integrated into Unify's OpenScape Contact Center Enterprise platform (Softcom)

- **OpenScape Contact Center Customer Collaboration Solution,** which allows agents and customers to share their desktops and applications, exchange files, co-browse, whiteboard, push URLs, chat, and share desktop video. This solution can also be used to deliver remote PC support in IT helpdesk environments.

- **OpenScape Branch,** which added survivability for voice mail, survivable ACD agents, bandwidth optimization.

- OpenScape Mobile Windows 10 support for mobile client.

Unify also has a partnership with Genesys for large-scale, complex deployments.

In the latest release of the contact center portfolio, Unify focused on usability and agent empowerment. The newly designed user interface provides a 360- degree customer view with a historical list of channels that customers came in through, aggregated into one view. An agent can look at previous calls and contacts and see everything that has happened (across channels), and the customer does not have to explain what they did before the call. UC and the contact center can co-exist on OpenScape Voice, with a single device for ACD and non-ACD calls, and the ability for supervisors to silently monitor agents talking on their UC/contact center preferred device, and agents can chat with other agents or OpenScape UC users.

In addition to its comprehensive UC and collaboration and contact center solutions portfolio, Unify will now be able to bring in additional solutions and services from Atos as well. Through available APIs and professional services, Unify also has enabled integration with various industry-specific and line-of-business and other third-party products including those of Verint, NICE, and ASC.

Sales and Services Model

The company sells directly and through a global network of partners. However, over 50 countries are now in a pure channel model with no direct sales. In core countries, the company has alignment with direct sales to focus resources. In 2014, the company created a new partner program focused on partner enablement, with direct training and certification in key regions. As a result, over the last 12 months there has been a 30% increase in the number of partners completing certifications on the Unify portfolio, with more than 25% of partners holding master- or professional-level certifications. Overall, the company has 2,000 global partners. The company also has invested globally in adding contact center expertise in major regions, and has designed offers specifically for the channel. For example, the OpenScape Enterprise Express product is a bundled, out-of-the-box offering that takes minimal resources to sell and deploy, and which is being readily adopted by partners.

Unify offers an array of commercial models including traditional perpetual licensing, low-cost license bundles, subscription-based licensing, or per-seat/per-month pricing.

Its services portfolio includes a strong and healthy managed services offering, which exceeded revenue targets in fiscal year 2015. Unify has deep vertical market expertise in several markets, including the public sector, higher education, financial services, manufacturing/automotive, healthcare, and energy/utilities. The company provides specialized vertical solutions, deep industry field expertise, targeted go-to-market plans, and collateral optimized for those verticals. The company strives to make products for those markets, with solutions and services wrapped around them.

Atos integration presents additional opportunities in the mid-market and with large service providers.

Strengths	Concerns
Unify is one of the only vendors that offers end-to-end enterprise telephony, UC and collaboration, and contact center (inbound, outbound, and WFO) solutions.	Despite being a global provider, Unify still does not enjoy the brand recognition some of the bigger providers have and will have the added challenge of educating customers and prospects on the acquisition by Atos.
For companies wanting a single-source provider, Unify is a full-service vendor providing direct sales, installation, training, maintenance, and support for all contact center applications in the OpenScape Contact Center suite.	
The Unify Atos partnership is recognizing and acting upon movement of digital transformation in business. Together the companies have the assets and vision to help businesses transform the way they do work.	
The Unify OpenScape Contact Center suite can be integrated into a customer's existing enterprise voice infrastructure. The preferred device feature enables agents to select any device for call handling. For example, agents can handle calls using existing extensions on their legacy PBXs, can work from home, or use mobile devices.	
Financial stability has Unify poised for growth in its portfolio and new markets.	

Customer Recommendations

Best Fit

- Unify is one of the only vendors that offers end-to-end enterprise telephony, UC and collaboration, and contact center (inbound, outbound, and WFO) solutions. Primarily home-grown, it offers some third-party solutions, such as WFO and cloud, through partnerships including Verint, ASC, Softcom, Genesys, and InContact.

- Unify understands the Mega Trend of the digital transformation of business. Its focus on enabling the new way to work through proactive, digital customer engagement and follow-up, coupled with a broader vision of how this should expand throughout an organization, should be of interest to prospects. The Atos acquisition should help further Unify's movement to helping customers digitally transform their businesses.

Caution

- Unify has extreme longevity and a large installed base of contact center customers. Despite name and ownership changes, Unify has a history going back more than a century and remains financially secure. Its global installed base of customers includes over 75% of the Fortune 500 companies. It does, however, still suffer from lower brand recognition than its solution providers with similarly deep histories, and needs to rectify this.

- Unify appears committed to an indirect model, and is investing heavily in its partner program, and is looking at new types of partners such as service providers and SIs. It needs to continue to shore up its partner program, particularly in light of the recent acquisition by Atos, and adequately convey to partners the new benefits that can come from Atos assets, in order to maintain the momentum it has created with partners and keep mindshare away from competitors.

Verint Systems

Company Background and Current Performance

Verint Systems Inc. is one of the oldest solution providers in the APO market, with a 22-year history of providing analytics solutions that span customer engagement optimization, security intelligence, and fraud, risk, and compliance. Verint is a global company with headquarters in Melville, NY. Its 4,800 employees spread over 60 offices support more than 10,000 organizations in over 180 countries. The company is publicly held, and trades on the NASDAQ under VRNT.

Armed with one of the most extensive portfolios in the APO market, Verint provides a compelling set of features for capturing and analyzing customer interaction data including voice recording, voice biometrics, QM, speech analytics, text analytics, enterprise feedback management, WFM, performance management, desktop and process analytics, and eLearning and coaching. This portfolio is marketed to contact centers of all sizes and complexities, to specific industry verticals, and to branch and back-office operations. In the past decade the company has invested over $1 billion in R&D through a team of more than 1,500 professionals backed by more than 700 patents and patent applications worldwide.

Verint has a history of acquiring companies as a means to add technology, increase its geographic presence, enhance its market presence, and/or expand into adjacent markets. Noteworthy acquisitions include the January 2014 acquisition of KANA, a leader in customer service and contact center CRM solutions such as agent desktop; case management; knowledge management; and email, chat, and social media response management. Solutions are delivered both on-premise and in the cloud. Verint Customer Engagement Optimization —comprising customer analytics, engagement management, and WFO solutions — combines all of the technologies between the merged companies.

In October 2013, Verint acquired Victrio, an innovator in fraud prevention and identity authentication solutions, adding to its fraud risk and compliance capabilities. These also include video and situation intelligence.

In 2015, the company acquired Telligent, a provider of software for customer support and digital communities, to enhance its customer engagement optimization portfolio, and allow customers to gain more intelligence by mining interactions in social communities.

In January 2016, Verint extended its portfolio further with the acquisition of Contact Solutions. Contact Solutions brings voice self-service to complement Verint's Web self-service capabilities, along with greater personalization and advanced mobile capabilities. The company's My:Time solution allows for persistent cross-channel engagement that preserves context across mobile and Web interactions. The acquisition will further strengthen the company's identity authentication and fraud detection capabilities. For instance, Contact Solution provides an upstream fraud detection functionality that can identify suspicious caller behavior in voice self-service interactions and provide users with red flag detection alerts.

Portfolio Description and Analysis

Verint offers a full suite of products that address the needs of contact center, branch, and back-office operations. It also offers packaged business solutions and a native mobile application that provides access to the solutions for managers on their mobile devices. The company's Customer Engagement Optimization platform brings 3 main pillars to the market: traditional customer analytics, engagement management, and WFO.

Customer Engagement Optimization was the first joint product after the acquisition of KANA. The cloud-based offering provides access to customer engagement insights across the entire enterprise, including Web and mobile activity, phone interactions, emails, chats, secure messages, case notes, social media messages, desktop activity, employee performance, and survey responses. It provides analysis of customer journeys across all touch points. It also provides omnichannel data capture and analytics, visualizations, and automated journey mapping; predicts likely outcomes; and can be used to do guided resolution and next-best actions and offers. The portfolio includes:

Verint Customer Analytics

- Speech analytics

- Enterprise feedback management

- Engagement analytics

- Text analytics

Verint Engagement Management

- Agent/employee desktop

- Web self-service

- Knowledge management

- Customer/employee communities (Telligent)

- IVR self-service (Telligent)

- Case management

- Email management

- Live chat

- Co-browse

Verint offers a mature, unified, WFO platform of software and services, with visibility and real-time guidance for enhancing customer service processes and workforce performance. It includes:

- WFM

- Performance management

- Desktop and process analytics

- Quality management

- Call recording

- Gamification

- Biometric identity authentication and fraud detection

- Coaching

- eLearning

Verint WFO for Back-Office Operations consists of 5 modules:

- WFM

- Desktop and process analytics

- Performance management

- QM

- Work allocation manager

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Verint WFO for Branches includes:

- WFM

- Desktop and process analytics

- Performance management

- Branch recording

- Branch experience survey

- eLearning and coaching

Sales and Services Model

Verint uses a combination of direct and indirect channels, that vary by country and region to reach target markets. The company maintains a strong and experienced direct sales and sales support team, and works with a wide range of partners from global SIs (e.g., Accenture and Wipro) through regional participants (e.g., Dimension Data and Sabio) and strategic OEM relationships (e.g., Avaya, inContact, and AdTech Global). For example, Verint has had a partnership of more than 12 years with Avaya, which brands and sells the majority of Verint's enterprise intelligence solutions. In addition to continuing unique integration and enhancement efforts, Avaya provides value-add to customers by offering a one-stop shop for all contact center requirements. In addition to having a cross-functional team, the partnership also has a dedicated relationship and business development team from both companies.

Verint sees a significant opportunity for the combined portfolio in its combined base of more than 10,000 customers, as well as the market at large.

While not the bulk of its installations, Verint offers WFO and VoC solutions, including speech analytics and enterprise feedback management, and customer engagement optimization in the cloud through partners such as BT, inContact, and Unify.

Verint backs its sales model with a broad range of services-such as strategic consulting, implementation services, training, maintenance, and 24x7 support, as well as a broad range of deployment models, including on premise, hosted, managed services, and SaaS.

The company also provides solutions to address specific business challenges. One example is Verint's Operations Visualizer, which can provide organizations with greater visibility into employee and/or work group productivity, helping to quickly identify areas with excess capacity, balance workloads and resources more effectively, and use desktop activity data to identify areas for enhancing staff utilization.

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For services and support, Verint runs 3 distinct practices: business advisory services, a consultative engagement focusing on process excellence, customer journey mapping and project and program management; implementation and enablement services, post deployment integration and implementation services, and enablement services; and a consultative engagement for ongoing best practices implementation and continuous application improvement.

Verint provides a full complement of support services for the Americas, EMEA, and APAC regions. Verint Support serves as the contact point for customers requesting assistance with functional and technical questions and issues concerning licensed products.

Application Managed Services programs help maximize business benefits from Verint solutions, such as helping to reduce the risk of downtime and business disruption, increase flexibility for IT, or provide clear governance that can yield cost savings through increased system availability.

Strengths	Concerns
Verint has one of the broadest portfolios of analytics capabilities in the industry, with deep expertise in particular horizontal business segments.	It has a reputation for being costly and complex. With the growing list of providers developing solution suites from the ground up, it must work to change this.
The broad portfolio of solutions includes forward-thinking areas such as back-office WFO, Big Data, gamification, and key pieces of SIO.	Smaller competitors have created integrated solution suites, along with advanced agent desktops that are competitive with what Verint has to offer.
Verint's 22-year tenure in APO gives it a solid platform for creating advanced APO solutions, as well as providing professional services expertise for companies pushing the envelope on analytics.	Verint has a large installed base of older recording systems that are ripe for replacement, putting it at risk for competitive displacement.

Customer Recommendations

Best Fit

- Companies looking to invest in cross-company analytics or those that fall into the vertical markets in which Verint specializes would do well to contact Verint.

- Whether through acquisitions or internal development, Verint has stayed at the head of the pack for providing a breadth of solutions and innovative functionality in existing products. For instance, one of the core innovations it has developed is the deployment of analytics technology across the enterprise, moving beyond solutions solely focused on the contact center. While the back office can be viewed as operating in isolation from the contact center, Verint and its clients realize more value when tying the front- and back-office environments together and integrating both into the entire enterprise.

- Verint brings together its 3 core areas of Customer Analytics, Engagement Management, and WFO to help customers put in place the infrastructure and analytics needed to ensure that they achieve better outcomes with less effort.

- Verint runs its own Customer Experience Program, which encompasses feedback from all sources to continuously improve operations. The program captures both VoC and voice of the employee. Since Verint started the initiative, it has seen an increase in customer satisfaction, as well as an overall satisfaction with product ratings and professional services.

Caution

- One drawback is that with product breadth — particularly for solutions obtained through acquisition — comes complexity. Customers have voiced concern over this, opening the door for competitors that offer core APO features, but with greater simplicity and less cost. In addition, competitors have rapidly gained in offering some of the advanced functionality that Verint provides.

- Of course with any company that acquires multiple companies, customers should ask questions about product integration and future product roadmaps.

ZOOM International

Company Background and Current Performance

ZOOM International is a global provider of WFO solutions. With more than 1,400 customers in 92 countries, the company is headquartered in Prague, Czech Republic, and Franklin, TN. It has 11 international offices.

ZOOM is a privately held company that is debt-free with no outside capital funding. It has been consistently profitable with healthy growth year over year since its inception in 1999. In fact, ZOOM International revenue grew from $1.8 million in 2007 to almost $18 million by the end of 2015; It recently earned a place on Inc. Magazine's 2016 list of the 5,000 fastest-growing private companies in Europe, with 157% growth over the past 3 years. It continually expands globally as well. In the past 18 months it opened offices in the United Kingdom, South Africa, and Australia.

According to CEO and Founder Simon Vostry, "the company is obsessed with customer satisfaction. Obsession with fast response is the DNA of ZOOM." He said that 9 out of 10 customers will highly recommend the company to others. In 2015, the company's NPS was 77% based on 745 surveys, up from already impressive 70% in 2014.

ZOOM is committed to supporting a wide array of critical security and compliance requirements, including HIPAA, FDCPA, Sarbanes-Oxley, Telemarketing Sales Rules, the Securities Exchange Act, and PCI-DSS.

Portfolio Description and Analysis

The ZOOM WFO suite is a highly scalable, omnichannel, multi-tenant solution that is available on-premise, in the cloud, or as a hybrid deployment. The company has developed an extensive set of WFO solutions designed for ease of use, with a highly intuitive user interface, and powerful, customizable reporting. The suite also contains innovative features, such as a quality management module that allows for calibration of agent scores across evaluators. Agents also can self-evaluate. The WFM modules allow for running "what-if" scenarios and provide for monitoring agent adherence in real time. New releases come out multiple times a year. The ZOOM portfolio consists of the following application modules that form an integrated suite:

- **Call Recording,** which allows for recording of all calls or through business rules, on-demand or at random.

- **Screen Capture,** which allows supervisors to capture what is happening on the agent screen for the duration of the customer interaction including the wrap-up time. This can be reviewed simultaneously with recorded calls to get a complete view of the interaction.

- **Video and Telepresence Recording,** which provides recording of video conversations ad hoc, or by business rules. Fully Cisco-compliant, the product supports Cisco Jabber on mobile devices or the desktop systems, video-enabled Cisco IP phones, telepresence units, or collaboration desk endpoints. The solution is fully PCI-DSS compliant.

- **Live Monitoring,** which allows a call to be monitored live anywhere it happens, in the contact center or other places of a business. In the contact center, the audio stream and what happened at the agent desktop are securely stored, and both can be reviewed and archived in the quality management application or used as eLearning modules.

- **Quality Management,** which automates quality assurance processes measures agent performance based on predefined, standardized scorecards, and calibrates agent scores across evaluators.

- **eLearning,** which allows supervisors to coach agents through customized delivery of self-service training modules, and monitor the progress and see the scores from quizzes that agents take after each class.

- **VoC,** which provides post-call customer survey and analytics capability to measure customer satisfaction, or NPS.

- **Speech Analytics,** which provides analysis of recorded calls that can be combined with additional contact center data to get a complete picture of performance and agent/customer interaction. It is designed for use in the contact center so no special skills are required.

- **WFM,** which provides forecasting and scheduling capabilities for multi-site and multichannel, for any interval, including seasonal and trend analysis.

- **Performance Analytics Contact Center Business Intelligence** solution integrates with dozens of customer systems out of the box and offers more than 300 prebuilt reports that combine data from myriad sources to provide a complete picture of agent performance for strategic decision making. For example, the system can pull standard call center metrics, such as AHT, training scores, sales data and customer satisfaction, and combine these in any fashion to gain insights. It is offered as a hosted service with weekly updates.

In 2016, ZOOM will extend its WFO offering with a deep focus on analytics, with speech-to-text transcriptions, topics and trends detection, an advanced gamification to support agents' engagement all integrated in the product.

Sales and Services Model

While ZOOM is based outside of the United States and it has customers in 92 countries, about half of the company's sales are in the US. The company built upon its initial success by partnering early on with Cisco, and expanding later to Teleopti and Genesys.

The sweet spot for sales is in the 100- to 500-seat range, but it serves customers with over 10,000 seats in a highly distributed environment.

ZOOM has a 100% indirect sales model, selling through a strong partner network, placing heavy emphasis on partner enablement. The company supports all partner efforts, from pre-sales, sales, discovery, and quality management workshops and training courses to implementation, acceptance testing, and product support. It also maintains a partner board for support and feedback.

However, an aspect that makes ZOOM particularly effective is the complete support it provides regional partners. It feels that local offices should be run by local people, and located its US headquarters in Tennessee rather than a tech hub because of the talent it found to run it. While global in scope, the company supports regional partners locally through local industry shows and its own conferences. The company is well versed in local laws, regulations, and customs, and provides support through local offices. It also provides its partners up-to-the-minute information through a Web portal and allows them to open cases, download software and patches, browse an extensive wiki-like documentation and knowledge base, or see their customers' expiring maintenances and open tickets.

Most importantly, the company does not shy away from supporting customers directly if that is their preference, and will always provide Tier I support and take guidance on product roadmaps or other issues.

Working 100% via channel, 275 partners have done at least 1 deal with ZOOM in the last 18 months.

ZOOM has partnered with Cisco since 2002 and provides deep integration across its entire portfolio of contact center and UC products, with a "Cisco Compatible" certification. In 2010, Genesys executed an OEM contract with ZOOM to provide call recording, screen recording, and quality management under the Genesys brand. Since 2015, ZOOM has been reselling an integrated offering of Teleopti's WFM product under the name ZOOM Workforce Management.

Strengths	Concerns
It offers out-of-the-box integration and very fast implementation.	Despite global coverage global brand awareness is limited.
Service and support for partners is strong. Customers and partners are covered by premium rather than tiered support.	
Its strong partner network includes marquee partners such as Cisco, Genesys, Avaya, and Oracle.	
Application modules are simple and intuitive. For example, the speech analytics component requires no specialized skills to set up and use.	
ZOOM has the highest customer and partner satisfaction rating in the industry (NPS of 77% for 2015 based on 745 surveys).	

Customer Recommendations

Best Fit

- Companies that are just getting in the door on using speech analytics will love the simplicity of installation, set up, and management.

- Its performance management provides 300 reports out of the box, is flexible, customizable, and typically is up and running in 48 hours. Pricing is simply per agent per month, with product updates every 2 weeks.

- The company also provides its speech analytics engine as a service, whereby a partner/customer can send to ZOOM recordings via a secure REST API and ZOOM will provide analysis quickly.

- ZOOM's products are open and extensible, with no proprietary formats, and open APIs for which the company does not charge.

- User interface is localized into 21 languages (US English, UK English, Spanish, Brazilian Portuguese, Arabic, Russian, German, French, Dutch, Danish, Norwegian, Swedish, Finnish, Turkish, Polish, Czech, Slovak, Slovenian, Bulgarian, Romanian, and Latvian).

Caution

- While ZOOM offers a best-of-breed WFO solution, it might not be appropriate for those looking for a single vendor contact center solution, or a complete suite of contact center offerings.

Companies to Watch

The following are a handful of companies that are worth looking into for the unique contact center products or services they provide.

Cicero

Cicero Inc. provides desktop activity intelligence and improvement software that helps organizations isolate issues and automate employee tasks in the contact center and back office. Headquartered in Cary, NC, Cicero was founded on the premise that almost every aspect of a business converges at the employee desktop, providing an untapped source of opportunity to solve business problems related to quality, productivity, compliance, and revenue. Cicero helps companies discover these overlooked opportunities and, where applicable, automate tasks. While realizing that companies already had investments in other best-of-breed applications, such as WFM, CRM, and the back office, Cicero developed complementary applications to enhance contact center and back-office efficiency without forcing customers to change the underlying applications already in use or requiring costly development expenditures.

The company provides a set of desktop activity intelligence and automation solutions with its Cicero Discovery, Cicero Insight, and Cicero Discovery Automation products.

Cicero Discovery

Cicero Discovery collects user activity and application performance data, which is not readily obtainable or commonly utilized in business-level analysis. It also can be configured to track any business object across time and across multiple users, as well as measure against a defined expected business process flow, either for analysis or to feed a third-party application such as WFM. Cicero Discovery runs in the background and is invisible to end users. It gathers data about what they do, what applications they run, how those applications are being used, the health of their computer, and the type of data they are working on. This data is collected and stored centrally and can be tracked in real time or via deferred processing.

Cicero Insight

Cicero Insight is a measurement and analytics solution that collects and presents high-value information about quality, productivity, compliance, and revenue from front-line activity to target areas for improvement. Using a set of configurable sensors at the employees' desktop, Cicero Insight collects activity data about when and how applications are used and makes it readily available for analysis and action to the business community. Results are displayed in role-based, customizable dashboards and reports, enabling companies to identify areas of improvement with actionable intelligence. Cicero Insight also supports data harmonization with the integration and correlation of data from other data platforms.

Cicero Automation

Cicero Automation delivers all the features of the Cicero Discovery product as well as desktop automation for enterprise contact center and back-office employees. It integrates applications, automates workflow, and provides control and adaptability at the end-user desktop. Companies are using Cicero Automation to eliminate copying and pasting data between screens, navigate users to the appropriate screens based on context, provide single sign-on, and automate other redundant tasks.

All 3 products include a studio environment that enables business analysts and other non-IT staff to configure which applications, processes, and business objects to monitor, and how the data should be stored for analysis or shared with other applications. It also maintains a secure credential store that facilitates single sign-on and stay-signed-on capability. Passwords can be reset but are non-retrievable. Stored interactions can be selectively encrypted based on the needs of the enterprise, and all network communications are compressed and encrypted for transmission.

Sales and Services

In addition to software products, the company offers technical support, training, and consulting services as part of its commitment to providing its customers with industry-leading integration solutions. The company maintains a consulting team with deep expertise in developing successful enterprise-class solutions, particularly in the areas of financial services, government, retail, energy, communications, healthcare, travel and hospitality, utilities, manufacturing and transportation.

A key to Cicero's success is its partnerships. Leading contact center companies, including Nexidia, Aspect, Avaya, Teleopti, and Almawave, use Cicero's products as part of their offerings — typically as a white-label feature or product.

Dimension Data

Founded in 1983, Dimension Data PLC is an ICT services and solutions provider that provides global systems integration expertise and services to more than 6,000 clients in 58 countries, with further support of clients in 103 additional countries through its Preferred Partner Program. It serves 72% of the Fortune 100 and 60% of the Fortune 500 companies.

The company is headquartered in Johannesburg, South Africa, and is a wholly owned subsidiary of NTT Group, which acquired it in 2010. For the first few years after the acquisition, NTT took a fairly hands-off approach to the company, but more and more they have embraced their synergies and recently formed joint technology groups to further business. The combination of Dimension Data's client base, product set, and expertise coupled with NTT's wide area network, and its global 10 gigabit Layer 2 backbone creates a compelling partner proposition for clients.

The term "trusted partner" is the hallmark of system integration. In this category, Dimension Data excels across its portfolio of products and services. The company takes a solid partnership approach to client acquisition, whether an SMB or a well-recognized global brand, cultivating relationships that start long before the solution is implemented and continuing throughout the life of the relationship. Core to this approach is the attitude that is fostered by the Dimension Data's corporate goal of "Accelerating Your Ambition," which drives its 31,000 employees to accelerate their ambition for themselves, their customers, and shareholders, and to make a difference in society.

The breadth of offerings it can provide, the balance of technology vendors, and the ability for the company to support architectures across different vendors is impressive and is a critical differentiator, particularly for clients with mixed vendor environments.

However, what separates Dimension Data from the majority of global SIs in the contact center space is in the breadth of expertise it brings to an enterprise's entire operations. This includes:

- Global IT services
- Contact center and UC solutions
- Customer Experience
- Professional services
- Storage
- Partnerships
- Global platforms with local delivery
- Employee productivity services
- Security, protection, and risk
- Technology experience
- Co-location
- Managed data centers
- Technology expertise

Companies also benefit from Dimension Data's depth of industry expertise, with employees certified in an array of partner solutions — particularly Cisco, Genesys, and Avaya in the contact center space. In fact, it has been a trusted partner of Cisco for 25 years and is by far Cisco's largest partner, doing double the amount of business of the second-place partner. The company also is Genesys' largest partner and was named Partner of the Year at Genesys G-Force in the fall of 2015. The company also is in a multi-year global alliance partnership with Microsoft with joint investment to accelerate growth for both companies. It is certified as a Microsoft Gold partner in 21 countries and holds more than 4,000 Microsoft certifications.

While its depth of contact center and UC and collaboration is stellar, the company also brings critical expertise from other areas such as networking and security. In particular, it bundles its expertise around security, protection, and risk into practically every client engagement.

While unusual for a system integration and solutions provider, Dimension Data has produced an annual benchmarking survey for customer contact since 1997. The company, along with Merchants, a Dimension Data BPO customer contact company, has used the research to keep abreast of industry trends and challenges, and help it drive product strategy and develop innovative solutions and services for customers. The report contains some of the most comprehensive year-over-year research in the industry. The company developed similar assets directly impacting customer contact, as well as all areas of the business, and recently completed one for UC. Its Global Threat Intelligence Report 2015, which surveyed 18,000 clients on security issues, is another stellar example of this.

Dimension Data has clearly built its brand not just on technology, but also on people and the greater good of the environment and society. It is a certified top employer in 25 countries, and in March 2015, it was recognized as 1 of 5 Global Top Employers for outstanding employee offerings, based on an annual independent research project carried out by the Top Employers Institute. Its internal 2014 employee survey showed employee satisfaction rising to a 4 out of 5 ranking over the prior year.

HireIQ Solutions, Inc.

HireIQ was founded in 2009 and is headquartered in Alpharetta, GA. The company has carved out a unique and untapped niche in the contact center space. Straddling both WFO in the traditional contact center market and business optimization in the back office, HireIQ has built predictive talent selection and multimedia virtual assessment solutions that help companies improve their recruiting processes, hire better-performing labor, and facilitate increased collaboration between recruiting teams and their stakeholders.

HireIQ complements WFO offers by addressing the early stages of the agent life cycle. It also competes in the assessment test niche of recruitment. The company's key performance drivers are aligned with the 2 ever-present and critical goals in the contact center: reducing costs and improving the Customer Experience. Its products address these challenges by:

- Streamlining the early-stage candidate screening process

- Reducing recruitment labor costs

- Improving consistency of the screening process

- Expanding the available pool of qualified candidates

- Reducing time to hire

- Improving quality of hire

- Increasing agent performance and retention

HireIQ has developed an automated system that reduces the burden on recruitment and retention of personnel, speeds up the hiring process, and delivers measurable ROI. The products include:

- **Virtual Interviewing,** a cloud-based product that enables job candidates to interview from anywhere at any time of the day. It captures written, audio, and — optionally — video, responses from candidates. It captures text responses on basic qualifications, effectively weeding out the first level of non-qualified candidates. It also can record voice or video on-the-job scenarios so that candidates can role play, enabling recruiters to view potential new hires in real-world situations. The online interviews are configurable per candidate if necessary, and evaluations can simply be done through sort and click.

- **Language Assessment Testing,** an application module that assesses specific language fluency, proficiency, and critical thinking skills in the candidate pool. It is available in English and Spanish.

- **Other assessments,** which have been designed to determine a candidate's level of competency in customary Customer Experience measures. These include typing, dictation, math, reading, and sales, service, and technical support propensity.

- **Audiolytics,** a proprietary, audio analytics and emotional assessment application that extracts relevant features from recorded, pre-hire interviews to determine best-fit job matching and provide data to the company's Candidate Optimizer.

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- **Candidate Optimizer,** a predictive analytics application that uses outcomes-based modeling and machine learning to identify applicants who are most likely to succeed. Based on proven attraction-selection- attrition science, it automatically makes a recommendation as to whether a job candidate is likely to perform well against the metrics that are most relevant for the job. HireIQ says this product has a success rate of over 90%. It also reduces the time to hire, reducing costs.

- **Performance Feedback,** a process that provides all recruiting stakeholders with relevant feedback through measurements of KPIs such as quality of new hires, cost, and time to hire. It also helps reduce early-stage attrition by providing retention statistics that show which applicants are performing well and have reached critical tenure milestones.

In the initial screening phase, for example, the application can be adjusted to add "knock-out" questions to eliminate mismatched candidates that would otherwise take up a recruiter's time. Its Audiolytics feature provides the ability to analyze recorded voice files for emotional cues to the potential success of a candidate. For instance, if a firm is placing candidates for sales, the application would look for attributes such as energy and enthusiasm — known success factors for sales-oriented positions.

HireIQ's products also have relevance outside of the contact center. For instance, companies that require the ongoing recruitment of large numbers of workers that have clearly defined skill sets, such as in retail, banking, hospitality, and insurance, benefit from using HireIQ's tools.

HireIQ provides customers with long-term value in a number of ways. Automating the recruitment pipeline helps customers save time and money by pre-screening large pools of applicants and discovering the best candidates. The always-on, always-available nature of the company's software enables clients to attract passive candidates and those who might otherwise be overlooked in the recruiting process. HireIQ's own statistics show that the best agent candidates are typically working during normal business hours, limiting the amount of time that recruiters can access them. In fact, 45% of applicants using the HireIQ system completed their applications after hours.

Statistics from HireIQ's case studies show savings. In one study, the recruiting cost to hire was reduced by 58%, days to fill open positions was reduced by 84%, and the number of qualified hires increased by 37%. In another study, total time to process and decision a job candidate was reduced by two-thirds, with a 90% reduction in recruiter labor time.

HireIQ's products not only help increase the efficiency of the agent recruiting step, but also improve the quality of the agents who are hired. One customer saw 56% new hire retention in the critical 90-day post-hire window. Customers also state improvements in common, relevant KPIs such as first contact resolution (a 56% improvement) and customer satisfaction (a 28% improvement).

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One of the biggest values that HireIQ's solutions provide is the ability to easily bring the hiring process in-house rather than outsourcing it to recruiters. When outside agencies recruit and agents are trained in-house, there is often a disconnect in information available between recruiter and supervisor. But companies can eliminate the hidden agenda of merely "putting butts in seats" and aim for higher-quality, long-term hires by bringing hiring in-house and automating much of it.

The HireIQ solution helps to foster continuous improvement by allowing key stakeholders to share metrics and measurements regarding quality of hire, performance results, and tenure statistics. It also uses machine learning to constantly fine-tune its analysis and recommendations.

The products help to increase employee satisfaction as well. For instance, speeding up the hiring process and giving direct and immediate feedback to candidates improves the hiring company's brand in the eyes of both agents and client companies. Also, by assessing the fit of applicants in a more thorough manner, applicants are placed and trained in the right position, reducing new-hire anxiety, and increasing the expertise of the entire group.

Virtual Hold Technology

Headquartered in Akron, OH, Virtual Hold Technology (VHT) was founded in 1995 as the brainchild of founder Mark J. Williams to solve an industry problem that he repeatedly encountered in his call center outsourcing and professional services company, Professional Services, Inc.. High call abandonment rates and long average handle times was an issue that had plagued the contact center for years, and was costing companies money as well as customer satisfaction. In 1995, he founded VHT with a patented new approach to the callback technology that was in play at the time as a way of reducing callers or call times on hold. The company also coined the term "virtual queueing" as a way of distinguishing itself from the callback technology of the time, and never looked back, producing a string of return call solutions that have greatly enhanced the Customer Experience, as well as improved operational efficiency for the companies using it.

VHT's callback solutions are available on premise or in the cloud via its Callback Cloud for Business SaaS platform. The VHT Solution Suite consists of a number of multichannel applications that can be deployed singly or in any multi-vendor environment. Solutions include:

- **Callback,** which calculates and quotes the expected wait time for callers on hold, giving them the option to receive a callback in the same amount of time as if they had waited on hold, yet not lose their place in line, or to schedule a callback for a more convenient time. Before the customer is called back, the system passes the information that is known about the caller to the agent in advance, so that the agent begins the conversation already informed. This greatly reduces caller frustration and abandoned calls, and increases the chance for a positive agent-customer interaction.

- **Conversation Bridge,** which provides customers with the ability to request a callback seamlessly through non-voice channels such as Web or mobile.

- **Agent Assist,** which eliminates the time-honored but often frustrating blind transfer that occurs when an agent has to transfer the customer to another agent. Frequently, when a call is transferred, the customer has to wait on hold for the second agent. With Agent Assist, the first agent can see the wait time for the second agent and inform the caller of the potential wait time, and offer and arrange an as soon as possible or scheduled callback as an alternative. Agents are also using it to schedule callbacks when interim work needs to be completed by a customer before a call. For example, in the case of technical support, a customer might need to back up a hard drive or load software.

- **Notification Suite,** which sends notifications via different channels, such as email and text, on the status of the customer's callback, or as a reminder that the customer has an impending callback, with the option to reschedule if that time is no longer convenient. This helps to put the customer in control, and most likely have a more positive view of the company. It also increases the chance that the company will complete the call. Additional notifications include VHT's patented Abandoned Call Recovery and Final Attempt Follow-up, which allow the contact center to proactively reach out to customers who have abandoned calls during some part of the call or missed the callback attempts by the organization, increasing the likelihood of connecting with a customer.

- **Navigator,** which manages customer outcomes. The highly scalable software solution captures and analyzes historical and real-time customer-specific data, navigates real-time decisions and desired outcomes, and lowers customer effort. It captures cross-channel and system customer interaction details, including which paths customers take, frequency, what information is sent, and which activities are performed. Navigator also can log activity for unknown customers and aggregate it if the customer is later authenticated. Analysis of this data, based on business rules created by business analysts, is then used to drive dynamic, personalized interactions. The solution uses an event-based architecture and has a small footprint that overlays existing infrastructure and applications for quick deployment.

VHT built its name on elegantly solving some of the knottier problems associated with callers waiting in queue. Its platform-agnostic solutions enable its applications to add value to existing contact center environments. As such, companies are well advised to investigate how these can fit into their own operations.

Conclusions

The contact center systems market has gone through rapid change — from the emergence of an increasingly savvy and demanding consumer base to new forms of competition as well as digital disruption. For the most part, it appears that the hosted and cloud service providers that once lacked feature-rich offerings have now caught up to traditional suppliers.

Meanwhile, because it has become harder to differentiate between suppliers, companies looking to invest in new infrastructure have grown more discerning. Particular items warrant attention when considering partners, including the following:

- **Agent desktops.** Frost & Sullivan has seen refresh after refresh of the agent desktop across the industry. Many providers have completely redesigned user interfaces that are customizable by the supervisor or agent. Many offer widgets to get agents to applications they need rather than flipping through multiple screens to get information. Still more companies have deep integrations with popular CRM applications allowing agents to work in a familiar environment, with routing and other applications from the contact center provider running in the background. Gamification, which even 2 years ago was just starting to emerge, has become a key differentiating item in 2016.

- **Supervisor desktops.** Industry supervisor desktops have seen similar reinvigoration. Customizable dashboards, heat maps, word clouds, and the ease with which a user can drill down into an individual interaction have all been focal points of redesign.

- **Analytics.** Ease of use is a key consideration in the analytics field. Just as with supervisor desktops, analytics applications have been overhauled to provide myriad end-user requested features including the ability to easily customize reports, both for historical and real-time information. However, the biggest areas of innovation are customer journey mapping and analytics, the elimination of data silos, the inclusion of outside sources of data for omnichannel reporting, and the inclusion of Big Data. There are so many flavors of contact center analytics that this is an area that deserves deep scrutiny in order to satisfy current and future needs.

- **Future Strategy and Product Roadmap.** Of utmost importance is how a company articulates its future strategy and product roadmap. Every vendor talks omnichannel, but do they deliver, or can they clearly articulate how they are going to deliver? What is their strategy regarding emerging technologies or trends such as IoT, WebRTC, machine learning, Big Data, artificial intelligence, and of course digital transformation?

Choosing a vendor is still a multifaceted decision, and no matter which deployment methodology suits a business, vendors should also be judged not only by the items above, but also by common sense

business factors, including but not limited to how they address overall market trends and overcome challenges, and their financial stability, management longevity, and customer references.

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