DATAMONITOR

COMPETITOR FOCUS SERIES

Decision Matrix – Selecting an IVR Vendor in the Enterprise (Competitor Focus)

Differentiating a commoditizing technology

Reference Code: DMTC2245
Publication Date: January 2009

OVERVIEW

Catalyst

Due to demand for a better understanding of the competitive landscape in the interactive voice response (IVR) market, Datamonitor has developed the IVR Decision Matrix. This report explores the competitive dynamics in the IVR sphere and helps businesses select a vendor based on its technology strength, reputation among customers, and impact in the market. Datamonitor provides a complete view of vendor capabilities and advises on those you should explore, consider and—most importantly—shortlist.

Summary

Datamonitor's analysis of the competitive dynamics in the IVR market reveals the following:

- Technical differentiation is becoming increasingly difficult as IVR technology becomes more commoditized.
- Genesys and Voxeo achieved the highest aggregated scores across technical capabilities, end-user sentiment and market impact rankings.
- Avaya, Cisco, Convergys / Intervoice and Nortel are also leaders in many respects due to their strong market presence and solid technical capabilities, but their end-user sentiment scores did not rank as high as Genesys and Voxeo.
- Aspect, Holly Connects and Syntellect are viable contenders in the IVR space and each has unique strengths, in unified communications (UC), customer support and technical capabilities, respectively.

© Datamonitor. This brief is a licensed product and is not to be photocopied

TABLE OF CONTENTS

Overview **1**

Catalyst *1*

Summary *1*

Market Developments **6**

Definitions *6*

Market trends *7*

The IVR Decision Matrix **11**

Core IVR Decision Matrix *11*

Extended IVR Decision Matrix *13*

Market leaders: Genesys, Voxeo *14*

The challengers: Avaya, Cisco, Convergys / Intervoice, Nortel *15*

The prospects: Aspect, Holly Connects, Syntellect / Envox *16*

Market Leaders **17**

Market leaders: technology assessment *17*

Market leaders: end-user sentiment *18*

Market leaders: market impact *19*

Vendor Analysis **21**

Aspect: IVR radars *21*

Avaya: IVR radars *23*

Cisco: IVR radars *26*

Convergys / Intervoice: IVR radars *28*

Genesys: IVR radars *30*

Holly Connects: IVR radars *33*

Nortel: IVR radars *36*

Syntellect / Envox: IVR radars *38*

Voxeo: IVR radars *40*

Summary **43**

Customer service and technical messaging are increasingly important *43*

APPENDIX **44**

Summary scores *44*

Datamonitor ratings *44*

© Datamonitor. This brief is a licensed product and is not to be photocopied

Table of Contents

Definitions 44

Extended methodology 45

Sources 48

Further reading 48

Ask the analyst 48

Datamonitor consulting 48

Disclaimer 48

© Datamonitor. This brief is a licensed product and is not to be photocopied

TABLE OF FIGURES

Figure 1:	*The changing contact center*	*7*
Figure 2:	*The IVR Decision Matrix*	*12*
Figure 3:	*Extended IVR Decision Matrix: technology assessment and market impact scores only*	*13*
Figure 4:	*Market leaders analysis: technology assessment*	*17*
Figure 5:	*Market leaders: end-user sentiment*	*19*
Figure 6:	*Market leaders: market impact*	*20*
Figure 7:	*The Aspect IVR radars*	*21*
Figure 8:	*The Avaya IVR radars*	*23*
Figure 9:	*The Cisco IVR radars*	*26*
Figure 10:	*The Convergys / Intervoice IVR radars*	*28*
Figure 11:	*The Genesys IVR radars*	*30*
Figure 12:	*The Holly Connects IVR radars*	*33*
Figure 13:	*The Nortel IVR radars*	*36*
Figure 14:	*The Syntellect IVR radars*	*38*
Figure 15:	*The Voxeo IVR radars*	*40*

© Datamonitor. This brief is a licensed product and is not to be photocopied

TABLE OF TABLES

Table 1: The leading IVR platform vendors (in alphabetical order) *11*

Table 2: The IVR Decision Matrix *14*

Table 3: IVR Decision Matrix – vendor scores summary *44*

© Datamonitor. This brief is a licensed product and is not to be photocopied

MARKET DEVELOPMENTS

Definitions

IVR

Datamonitor defines interactive voice response (IVR) as the technology that analyzes a sequence of spoken and / or dual tone multi-frequency (DTMF) commands and reproduces voice prompts to the caller. The call is then routed via the switch or serviced wholly within the IVR, which is linked to a database. The IVR interacts with key systems, private branch exchanges (PBXs) and automatic call distributors (ACDs) through analog ports, digital ports and local area network (LAN) or wide area network (WAN) connectivity. IVR generally comes in two forms: traditional IVR and open-standards-based platforms. In this report, the term 'IVR' refers to both traditional IVR and open standards-based platforms (often called voice portals or voice platforms in the industry today).

Traditional IVR

Traditional IVR platforms are similar to appliances in that they typically include both hardware and software from the same vendor, which are bound together and developed primarily for use in time division multiplex (TDM) telephony environments. Since they are telephony platforms, they are predictably robust and have a high degree of call control functionality. However, the technology is proprietary and, as result, highly inflexible. Application development and call flow creation require extensive knowledge of vendor-specific proprietary programming and scripting languages.

Traditional IVR platforms also bundle the user interface, application logic, media processing and telephony interface into a single server, which confines performance to the hardware limitations of the specific server system. Organizations typically have to ‘rip and replace’ traditional IVR systems when upgrading to newer versions.

Open standards-based platforms (voice portals and voice platforms)

As the name suggests, open-standards-based platforms are software-based IVR platforms that support VoiceXML, the World Wide Web Consortium’s (W3C) standard markup language based on the Extensible Markup Language (XML) and used for creating voice user interfaces (VUIs) that use advanced speech recognition (ASR) and text-to-speech (TTS) technologies. They allow for the disaggregation of the user interface, application logic, media processing and the telephony interface. Organizations are able to utilize several off-the-shelf servers to build a distributed system that separates media processing and applications, improving processing power and the overall performance of the platform.

Open-standards-based platforms are specifically designed to leverage web assets. Because VoiceXML IVR solutions resemble distributed web applications, they leverage existing web architecture. Web servers can be used as application servers, enabling a distributed web-centric architecture in an open-standards-based platform implementation. Voice and web applications can be parked on the same server. These applications can then access and assemble services through common web application programming interfaces (APIs), apply business logic to them and present the appropriate data to either an HTML or VoiceXML browser. Business rules, data access and code assets are aggregated within the application server (such as Websphere).

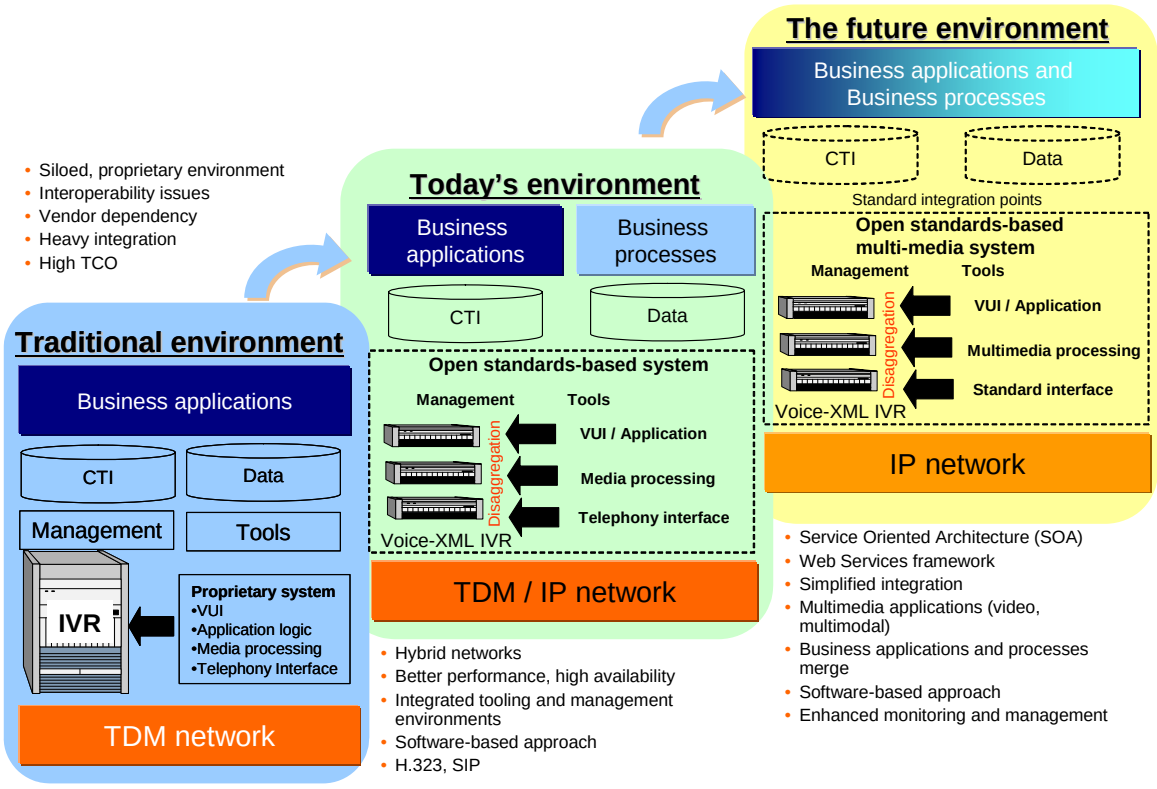
© Datamonitor. This brief is a licensed product and is not to be photocopied

Market trends

IVR is moving from a hardware- to a software-based technology with VoiceXML and web services

The advent of VoiceXML, the open standard for IVR and next-generation IVR platforms, is helping businesses to re-evaluate the strategic value of IVR in the enterprise. VoiceXML enables IVR to work in a web services environment through a software-based solution rather than an all-in-one hardware platform. It allows greater flexibility for enterprises to build distributed systems, as well as providing better performance at a lower total cost of ownership (TCO). Despite these advantages, there are still a large number of traditional IVR systems being used. In 2008, shipments of VoiceXML-based systems overtook those of traditional IVR systems representing a significant inflection point in the market. Some traditional systems are still being deployed to support TDM infrastructure and legacy applications, but the majority of new deployments moving forward will be VoiceXML-based.

Figure 1: The changing contact center



Source: Datamonitor

DATAMONITOR

The growing support, endorsement and adoption of VoiceXML are indicative of the fundamental shift in investment philosophy across many organizations today. Companies fear getting stuck with managing monolithic, expensive solutions that other elements in the network must conform with, be coded to and be designed around. As a result, businesses are graduating beyond siloed technologies and are looking to build on application paradigms to move towards a common standardized web architecture that provides interoperability across disparate systems. This is the driving force behind the

© Datamonitor. This brief is a licensed product and is not to be photocopied

service-oriented architecture (SOA) movement in the enterprise. SOA provides companies with the means to treat certain business processes and the underlying IT infrastructure as standardized, secure reusable components to address changing organizational needs. In the enterprise, this shift is illustrated in Figure 1, 'the changing contact center'.

As converged networks emerge around Session Initiation Protocol (SIP) and web services, applications will no longer be limited by infrastructure constraints and boundaries will be determined by business processes, as seen in 'The future environment' in Figure 1. At this point in time, business applications and business processes are expected to merge ,enabling a tighter fit between application and specific organizational needs.

The changing contact center and evolving IVR platform

This shift from a closed, proprietary contact center and IVR environment built on top of a traditional TDM network to an Internet Protocol (IP)-centric infrastructure with VoiceXML platforms will happen in three major stages as highlighted in Figure 1 and discussed below:

- **Traditional environment** – in the traditional environment, organizations own an IVR that is used primarily for DTMF applications. The VUI, application logic, media processing and telephony interface are bundled into a single system on top of a circuit-switched or TDM network. Because all of these elements are bundled into one proprietary hardware system, organizations are locked into the vendor and solution performance is limited to the hardware constraints of the box. Any significant changes would require expensive professional services, often provided by the vendor or a third party firm. The majority of enterprises today operate in the traditional environment, but many are moving to the next stage.

- **Today's environment** – a prime directive for contact centers has been to optimize usage and squeeze as much use out of existing legacy TDM systems as possible before graduating to IP. Due to the large amount of pre-existing circuit-switched infrastructure and the conservative technology investment climate (especially in today's economy), many businesses today are in a transition / migration stage, moving from a TDM to an IP network based on H.323 or SIP. On the IVR front, these businesses are increasingly investing in VoiceXML platforms as traditional IVR systems come to the end of their product life and new investment philosophies around open, web-centric IVR platforms take form. Moreover, today's businesses are realizing the benefits of disaggregating the IVR solution stack, a fundamental benefit enabled through VoiceXML. This introduces new deployment models and performance boosts, as hardware resources are no longer confined to that of one box but instead spread across multiple servers. The VUI, application logic, media processing and telephony interface, which are bundled into a single system in the traditional environment, now exist across different server systems. Open and integrated tooling environments decrease vendor and third party dependency and also help to improve logging, monitoring and reporting features.

- **The future environment** – in the future, the majority of contact center operations will have a converged IP network based on SIP and built within a SOA and web services framework. Standard integration points will be a key characteristic of the future environment. The heavy costs for computer telephony integration (CTI) and data integration go away as standard SIP integration points enable interoperability. The VoiceXML based IVR will provide new features and functions, becoming a multimedia and multimodal platform for DTMF, speech, video

© Datamonitor. This brief is a licensed product and is not to be photocopied

and outbound applications. Centralized monitoring and analytics across all channels will become more prevalent and take the form of greater business intelligence.

The sluggish economy has led to an increased focus on customer service and retention

The sluggish economy has led to a change in strategy in the contact center: the focus has shifted from customer acquisition to customer retention. Clients' budgets are tightening and consumer confidence is in decline along with consumer spending. This is making it difficult for enterprises to gain new business, and they are concentrating on current customers, improving customer service and seeking out contract renewals and upgrade opportunities. Customer service quality is becoming increasingly important to achieve good customer loyalty rates and present a positive brand image. The other key objective for contact centers is cost reduction. Rather than making large infrastructure upgrades to IP, enterprises are looking to squeeze out the most from existing investments. These market trends are reflected in enterprises' deployment and use of self-service solutions. Although large scale investments will taper off slightly, enterprises will continue to invest in self-service solutions. Speech applications can be used to provide more personalized interactions, and outbound IVR provides customers with additional information while allowing enterprises to retain costs; these factors make it an attractive technology in this climate. There is also a trend towards application portability, and enterprises want to make the most of existing and future investments. They will be looking for ways to extend the life of previously deployed applications when migrating platforms, in order to reduce any associated application development costs.

Deployment flexibility is increasingly important

The advantages of hosting are particularly pertinent in the current economic climate. Hosted IVR solutions offer customers the ability to move from a capital expenditure (CAPEX) model to an operating expenditure (OPEX) model, trial solutions without significant capital outlay, support varying call volumes and seasonal fluctuations and deploy solutions faster. Some of the inhibitors to this model are security concerns over data storage and this has forced IVR vendors to provide greater choice in deployment, including premise-based managed services. Many enterprises already have a premise-based IVR platform but want to add additional capabilities and use hosted solutions for overflow calling or for migrating from traditional to software-based IVR. Vendors are beginning to address these needs by offering hybrid solutions, which provide seamless failover from the premise-based platform to the hosted platform when capacity is reached. The availability of such solutions and closer scrutiny of CAPEX will lead to enterprises reviewing their deployment models. As a result, Datamonitor predicts an increasing demand for hosted and hybrid IVR services in this downward economy.

Growing adoption of speech self service and routing

There has been customer backlash relating to poor customer service and badly deployed automated solutions, which led to the gethuman initiative (www.gethuman.com). Enterprises are changing their strategies in order to provide better customer service and increase customer retention rates. Decreased costs, better accuracy, and the introduction of VoiceXML standards have allowed IVR systems to become more sophisticated. Rather than using IVR to simply deflect calls and reduce agent costs, enterprises are now using IVR to provide personalized and useful information to customers. Challenges for speech recognition, such as the high costs of associated services and enterprises' cautious investment plans, still exist. But better application development skill sets, improved recognition accuracy and a need for more functional IVR solutions have led to an increase in the use of speech solutions. Speech recognition is being used to make the automated conversation more intelligent, with the use of open-ended grammars and natural language understanding

© Datamonitor. This brief is a licensed product and is not to be photocopied

(NLU), and this helps to reduce the need for the onerous long menus associated with DTMF IVR. This allows customers to more quickly and accurately navigate through a self-service interaction or route to an agent.

Diversifying offerings to target multichannel campaigns

Enterprises are keen to address customers' ever-increasing demand for choice, and with the increasing support for VoiceXML and Call Control XML (CCXML), IVR systems can more easily be integrated with SMS, email and messaging channels. In order to keep up with changing consumer behavior, IVR vendors are beginning to offer both text messaging and email, in addition to speech and DTMF, with their IVR solutions. This is particularly relevant for outbound campaigns, which are becoming a popular and cost effective way of reaching customers: a multichannel approach ensures that when a phone call is unsuccessful, a text message or email can be sent to alert the customer. The ability to choose the relevant channel depending on time sensitivity or customer preferences helps enterprises to provide better customer experience, and communications can be targeted based on those factors. These benefits are leading to an increase in demand for integrated multichannel self-service solutions.

The IVR market continues to consolidate

With the advent of VoiceXML, IVR platforms are becoming commoditized and are increasingly being sold bundled with larger contact center suites. Furthermore, vendors are providing more areas of the IVR solution stack from open-standards-based platforms, development tools, applications, services and hosting. The last few years have witnessed a number of mergers and acquisitions in the IVR market, resulting in heavy consolidation from the supply side. Intervoice acquired Edify in 2005 and Genesys acquired VoiceGenie in 2006. In 2008, Syntellect acquired Envox and Fluency Voice, and Convergys acquired Intervoice. Other recent notable acquisitions in the IVR market include Voxeo acquiring VoiceObjects in 2008 and Cisco acquiring Audium in 2006, to provide applications development tools.

Datamonitor expects to see more consolidation in other areas of the value chain in the future, mainly in the areas of hosting and applications. Holly Connects is the only major standalone IVR platform vendor in the market and may be an acquisition target for larger contact center or communications vendors looking to enhance their portfolio by improving their VoiceXML platform offerings. Voxeo provides a standalone IVR platform but is better known for its hosted IVR services, and is a potential acquisition target for companies that want to inherit these capabilities and products. In addition, Open Methods and Vicorp are also acquisition targets as they provide crucial application development tools that can help round out a contact center or communications vendors' self-service or media platform offering.

© Datamonitor. This brief is a licensed product and is not to be photocopied

THE IVR DECISION MATRIX

In order to understand the competitive dynamics in the IVR market, Datamonitor profiled nine IVR vendors in this Decision Matrix. Datamonitor believes that these vendors, listed in Table 1, are the leading IVR platform providers and represent a balanced view of the IVR market ranging from standalone IVR providers to contact center specialists and large enterprise infrastructure vendors.

In this IVR Decision Matrix report, Datamonitor provides a summary of the vendors' capabilities based on a quantitative assessment of their market impact and end-user sentiment scores, as well as the technology features that they support. Datamonitor also provides guidance for enterprises looking to deploy IVR solutions and places vendors in 'shortlist', 'consider' and 'explore' categories based on the aggregated results of the Decision Matrix. The detailed scores underpinning the Decision Matrix can be found on individual vendor radars and in Table 3 in the appendix, where definitions for these recommendations can also be found.

A decision to purchase one solution over another should be based on a broad array of factors, including—but not limited to—the degree of alignment between the solution's features and functionality and the specific objectives of an enterprise's IVR strategy. As a result, Datamonitor's recommendations of 'shortlist', 'consider' and 'explore' should be taken only within the context of an enterprise's specific solution requirements.

Table 1: The leading IVR platform vendors (in alphabetical order)

Aspect
Avaya
Cisco
Convergys / Intervoice
Genesys
Holly Connects
Nortel
Syntellect / Envox
Voxeo

Source: Datamonitor DATAMONITOR

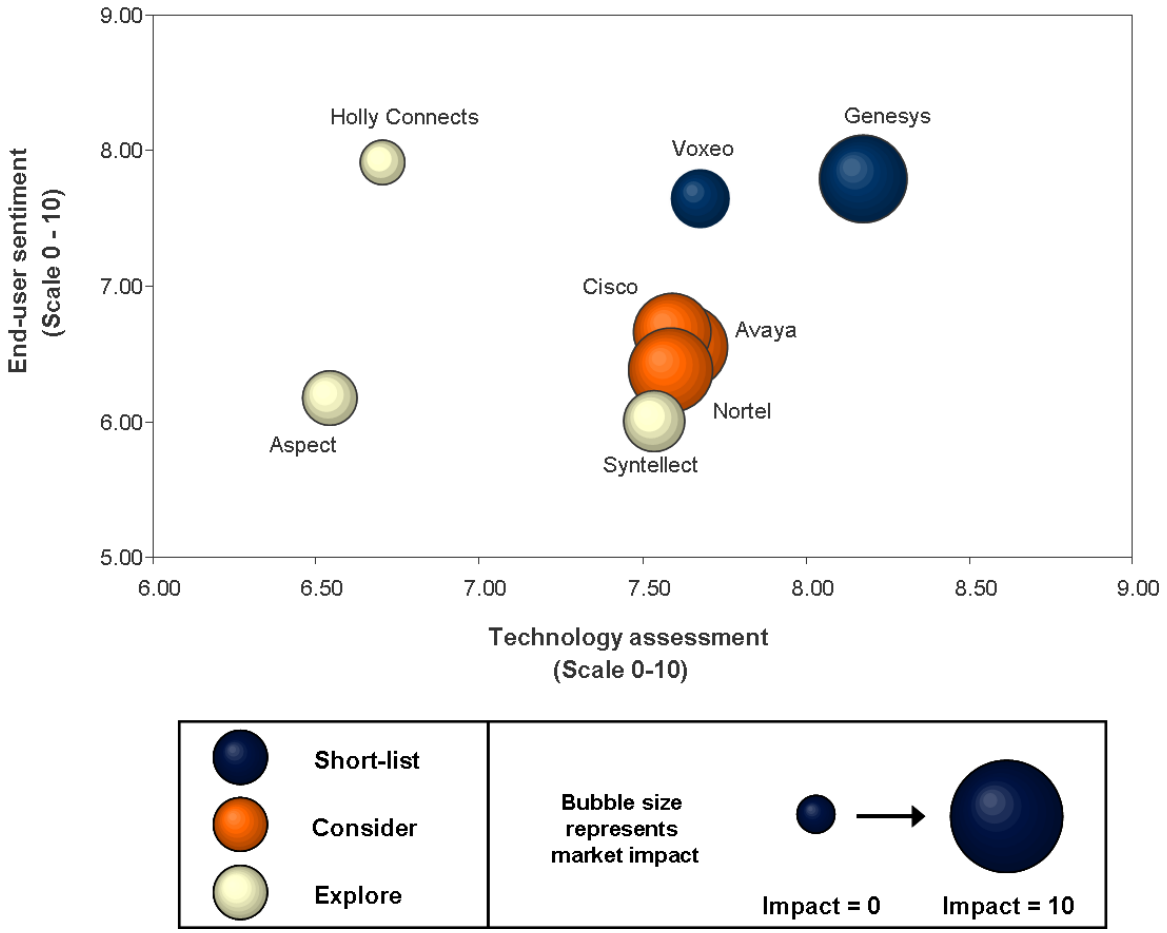
Core IVR Decision Matrix

The core IVR Decision Matrix in Figure 2 depicts the vendors in a bubble chart. The average scores from the technology assessment, end-user sentiment and market impact analysis were used to plot the vendors. For the purposes of this report, Datamonitor prioritized the technology assessment and end-user sentiment scores. Based on those two parameters, Genesys and Voxeo were classified in the 'shortlist' category. Datamonitor emphasizes that, due to the minimal variation in the technology assessment scores for vendors in the 'consider' category (Avaya, Cisco, Convergys / Intervoice, and Nortel), vendors should be compared carefully in the context of any deployment scenario. The respective strengths of each of the vendors may matter more than small variations in the overall technology assessment score. It is also important to note that vendors in the 'explore' category have proven successful deployments in the enterprise and have delivered

© Datamonitor. This brief is a licensed product and is not to be photocopied

incremental benefits to their customers. Because of the lack of sufficient responses in the end-user sentiment study, Convergys / Intervoice was excluded from the core IVR Decision Matrix but has been included in an extended IVR Decision Matrix in Figure 3, showing overall technology assessment and market impact ratings.

Figure 2: The IVR Decision Matrix



Source: Datamonitor

DATAMONITOR

The following definitions are used for each of these recommendations:

- **Shortlist** – these vendors' products and services should be placed on an enterprise's shortlist for IVR platform selection. This category represents the leading solutions that Datamonitor believes are worthy of a place on most technology selection shortlists. The vendor has established a strong market position with an IVR product that is widely accepted as best-of-breed or part of a larger suite solution.
- **Consider** – the vendors in this category have solid market positioning and are selling and marketing the IVR products well. The products provide competitive functionality and good price / performance, and should be considered as part of the technology selection process.

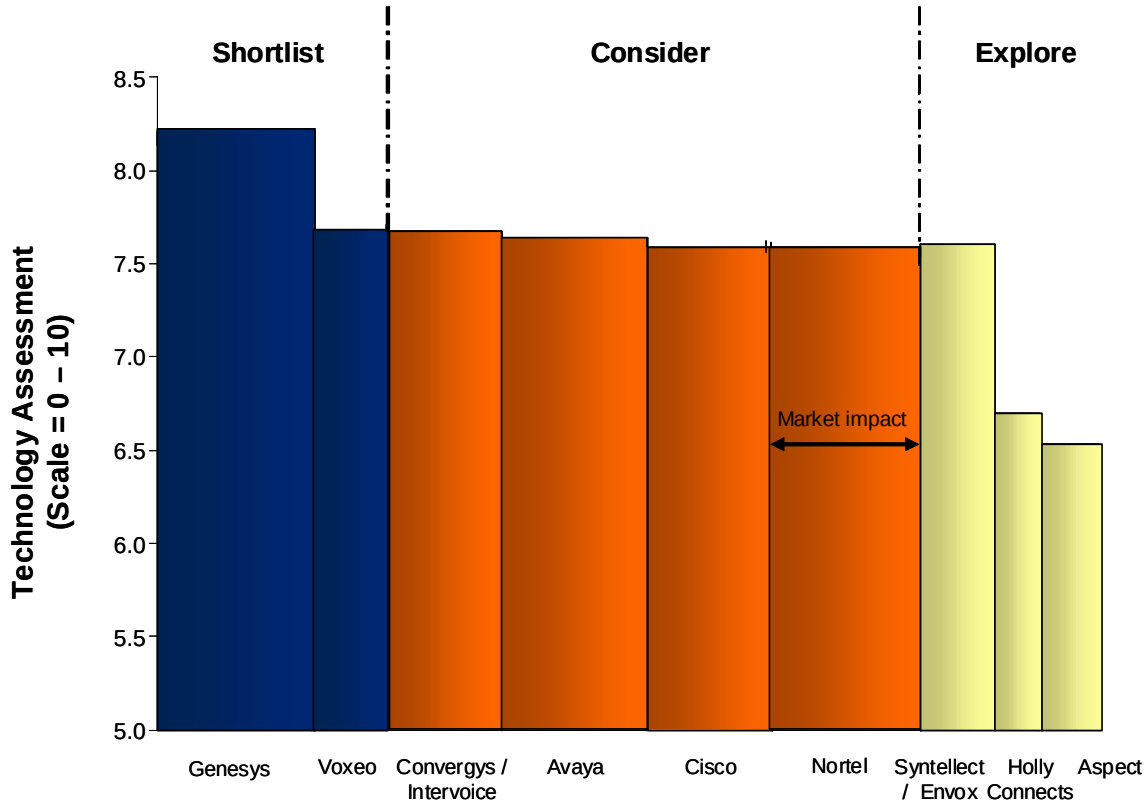
© Datamonitor. This brief is a licensed product and is not to be photocopied

- **Explore** – solutions in this category have less broad applicability, and may have limitations in terms of the product's functionality, or the vendor's execution capability. However, they will still be suitable to meet specific requirements, and are worth exploring as part of the technology selection process.

Extended IVR Decision Matrix

Datamonitor presents an extended IVR Decision Matrix in Figure 3. This variable-width bar chart represents each profiled vendor with a column whose height reflects its technology assessment score and whose width represents its market impact score. The extended IVR Decision Matrix can be considered a subset of a traditional Decision Matrix, with the end-user sentiment variable excluded.

Figure 3: Extended IVR Decision Matrix: technology assessment and market impact scores only



Source: Datamonitor

DATAMONITOR

The primary benefit of this figure is the ability to benchmark the performance of Convergys / Intervoice, which does not have a end-user sentiment score. Intervoice ranked high in the technology assessment and market impact scores. The extended IVR Decision Matrix also more clearly shows the clustering of the technology assessment scores. In order to understand the vendors' detailed strengths and weaknesses in terms of technical capabilities, it is important to examine the individual vendor radars in the Vendor Analysis section of this report.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Table 2: The IVR Decision Matrix

Shortlist	Consider	Explore
Genesys	Avaya	Aspect
Voxeo	Cisco	Holly Connects
	Convergys / Intervoice	Syntellect / Envox
	Nortel	

Vendors listed in alphabetical order in each category

Source: Datamonitor

DATAMONITOR

Market leaders: Genesys, Voxeo

Genesys and Voxeo are in Datamonitor's 'shortlist' category and are considered to be the current leaders in the IVR market. These competitors have received the highest overall scores for the technology assessment and both scored well in the end-user sentiment ratings. Although both were selected as leaders, Genesys and Voxeo have very different business models and may not necessarily compete directly. Genesys is a suite contact center vendor, providing core routing, workforce optimization and customer interaction management solutions, whereas Voxeo is a standalone IVR vendor and hosted IVR services provider, and has only recently obtained additional SIP and application development capabilities through acquisitions. Voxeo built upon its success as a hosted IVR services provider and introduced its premise-based version of its Prophecy platform for small and medium enterprises (SMEs) and large enterprise customers.

Genesys's acquisition of VoiceGenie helped the vendor bolster its own platform, Genesys Voice Portal (GVP), to include support for SIP and H.323 as well as additional monitoring and reporting capabilities. These features cemented Genesys's high score in the technology assessment. Genesys also has its own application development tool, Genesys Composer, that comes bundled with GVP 8 as well as providing support for other third party tools giving development options to customers. The vendor has a large number of IVR customers and has shown consistent double digit growth over the past five years in its GVP business, which has resulted in its high market impact score. The vendor also received the highest score in the end-user sentiment radar, which shows it is a well known and trusted provider of IVR platforms. Genesys's release of its Intelligent Customer Front Door (iCFD) framework is indicative of the vendor's forward thinking philosophy and commitment to extending IVR functionality. However, Genesys needs a more transparent pricing model and is viewed as being more expensive than its competitors.

Voxeo differentiates itself through its intimate understanding and capabilities in VoiceXML and CCXML. The vendor has extensive experience in both open standards, and has among the deepest levels of expertise in CCXML. It offers hybrid deployments and seamless failover and overflow services for premise to hosted platforms. Voxeo is currently one of the smaller IVR platform vendors in the field. It does not have significant market share and for this reason did not receive a high market impact score. However, the vendor's strong technical capabilities and successful go-to-market strategies have enabled it to grow rapidly over the past five years. Its high scores for both technology assessment and end-user sentiment place Voxeo in the 'shortlist' category. However, Voxeo does not have a strong contact center heritage, nor does it have a

© Datamonitor. This brief is a licensed product and is not to be photocopied

suite of contact center products. It should focus on increasing its brand strength in the contact center market and be wary of continuing to provide a high level of support throughout integration with acquisitions and rapid growth.

The challengers: Avaya, Cisco, Convergys / Intervoice, Nortel

With the exception of Convergys / Intervoice, the vendors in the 'consider' category are all large enterprise communications vendors offering end-to-end IP telephony and contact center suite solutions. Avaya, Cisco, Convergys / Intervoice and Nortel all received high technology assessment and market impact scores. All vendors have a large installed base of IVR customers. The variations in technology assessment scores are minimal and indicate that these vendors are very closely matched in terms of features and capabilities. Each of these vendors excels in certain technology areas and controls significant market share in terms of new shipments and installed systems. In fact, Avaya, Convergys / Intervoice and Nortel have the largest installed base of IVR customers in the global market. The key strengths of these vendors are as follows:

- Avaya has a long heritage in IVR. Its strengths include its focus on application portability across different Avaya platforms and contact center portfolio depth. It has seen strong growth for its Avaya Voice Portal platform (AVP) and has a large installed base with expertise in numerous deployment scenarios, including interactive voice and video response (IVVR). However it does not currently provide or support hosted IVR, and this may be seen as a disadvantage as enterprises want greater deployment choice. It also needs to focus on improving customer support and simplifying the messaging around its two platforms.
- Cisco's strengths are in utilizing the network to enable routing on the edge to support customers with distributed contact centers. This may also be seen as a disadvantage, however, because deployment may be complicated, particularly for those customers that do not already use Cisco back-end infrastructure. Cisco's other strengths are its service creation environment (SCE) tools for building applications and its financial stability, which was recognized by its customers. It is currently the only vendor not yet supporting CCXML in its current version and this will become more important in the future for support of multichannel call control.
- Convergys / Intervoice has one of the largest professional services teams that provide customers with a single vendor solution for IVR platforms, applications and services. The vendor has extensive experience in IVR and has recently integrated Convergys's Dynamic Decisioning Solution (DDS), which allows for the integration of back-end customer data with the latest version of Intervoice Voice Portal (IVP) 6. Intervoice is known as a best-of-breed platform as it is infrastructure agnostic, unlike other vendors with full contact center suites. The company may face some challenges with integrating a services company (Convergys) with a product company (Intervoice).
- Nortel has a long track record in the IVR market. Its strengths stem the robust performance of its IVR platforms, which are known to be highly dependable in the market. The vendor also has one of the largest professional services teams that provide applications and services to complement its IVR offerings. Nortel is focused on providing a range of solutions for different sized customers and flexible deployment offerings. It is also one of the few large premise-based IVR vendors to offer its own hosted platform (Convergys / Intervoice is the other). The vendor faces an uphill battle, as the company's overall financial viability has been brought into question by customers. However, the vendor exhibits buoyancy as a leader in the IVR market, as evidenced by its annual port shipment figures. Nortel has also been slow in releasing its latest platform, Interactive Communications

© Datamonitor. This brief is a licensed product and is not to be photocopied

Portal (ICP), and rolling out its hosted services, and has not had first mover advantage in the IVR market for quite some time.

The prospects: Aspect, Holly Connects, Syntellect / Envox

Aspect, Holly Connects and Syntellect have a smaller presence in the market than the other vendors profiled in the IVR Decision Matrix. However, these smaller vendors have a number of strengths and are suitable for particular deployments.

- Aspect's strengths are in providing all-in-one contact center solutions, and it has a strong position in North America. Its recent partnership with Tellme should help it to gain market presence outside of this region, as well as a stake in hosted IVR services. It does not have any live deployments with outbound speech or video but it does support these capabilities and is expected to gain a stronger position in the market through its partnership with Tellme.

- Syntellect / Envox has extensive experience in the IVR market and provides a strong technical solution; its differentiator is that it is able to integrate with a number of vendors through its CT Connect product, inherited from Envox. Its professional services team has expertise in deploying DTMF and speech applications, and it also has developed a unique VoiceXML testing product, Voiyager, which is the first of its kind. Challenges for Syntellect include its integration with Envox and the convergence of the two platforms. Customers may be unsure of its future direction and Syntellect must provide a clear roadmap and migration path.

- Holly Connects' strengths include its strong customer relationships and the robustness and scalability of its carrier-grade platform. The vendor is known for being a purist when it comes to the support of open standards such as VoiceXML, SIP, CCXML and other industry standards. Holly Connects also has sophisticated reporting and monitoring capabilities. It has an advantageous market position in Asia Pacific (APAC), particularly among carriers and large enterprises. However, the vendor's small size and reliance on partners to provide some of the capabilities that its competitors offer, such as an SCE, can increase the TCO of its IVR solutions.

© Datamonitor. This brief is a licensed product and is not to be photocopied

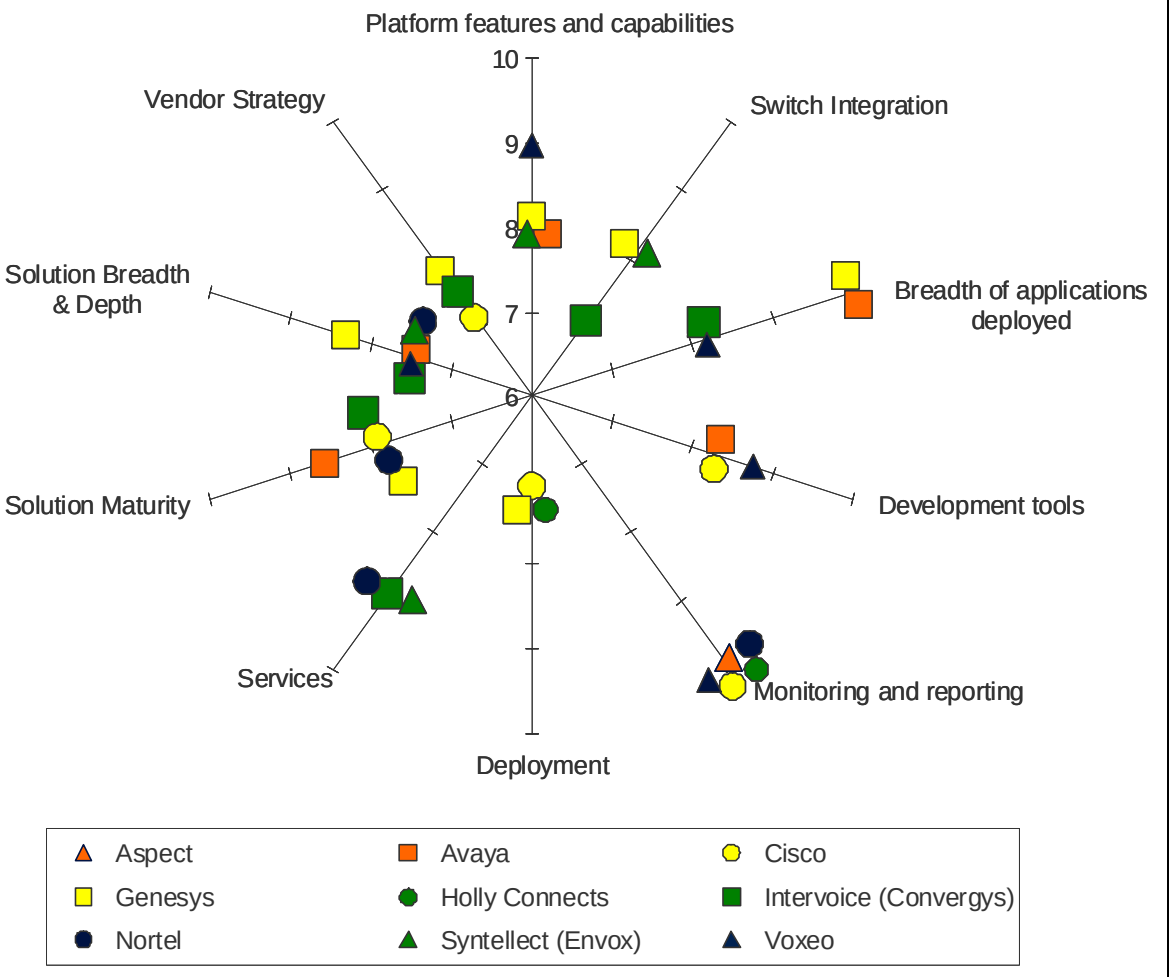
MARKET LEADERS

The IVR competitive landscape varies significantly across the three areas covered by Datamonitor's Decision Matrix: technology assessment, end-user sentiment and market impact. It is important to consider these categories separately in order to develop a more complete understanding of each vendor's particular strengths and weaknesses, and why it has been assigned a 'shortlist', 'consider' or 'explore' rating. In the following section of this report, Datamonitor will present the market leaders for each area and then discuss how they vary across the sub-criteria within the assessment areas.

Market leaders: technology assessment

The market leaders figure below shows the leading vendors in each of the technology assessment categories. Three leading vendors are presented for each category unless multiple vendors have received the same mark, in which case all vendors sharing the same score are displayed.

Figure 4: Market leaders analysis: technology assessment



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

As expected, the vendors with 'shortlist' and 'consider' ratings are among the technology assessment market leaders. However, the fact that all vendors are present in this figure shows that each has its own technical strengths. IVR technology is also commoditized, and the apparent clustering of scores reflects the difficulty in differentiation in terms of features and functions. The monitoring and reporting and services categories reflect the densest clustered results. Those vendors not represented in the technical leaders' radar also scored highly in these categories. Vendors must differentiate themselves on professional services, tools, deployment flexibility (in-house or through partners) and use partner ecosystems to increase market share in a commoditized market.

Voxeo achieved the top scores for platform features and capabilities and development tools. It provides support for open standards and has application development tools, which it gained from its recent acquisition of VoiceObjects. It offers this alongside an internally developed SCE for less complex projects.

Genesys is a leader across a number of categories, with particular strengths in solution breadth and depth, vendor strategy and switch integration. Its IVR platform works with the majority of its competitors' ACDs / PBXs and CTI connectors. Genesys's integration with its iCFD product, its strong partner ecosystem and IVR specialization also contributed to its position in the technology radar.

The other notable leaders in this radar include Syntellect for its switch integration and solution breadth and depth. It achieved higher scores because of the addition of the CT Connect product, which it inherited from Envox. Avaya, meanwhile, has application deployment experience for both video and outbound speech, and was rated highly for this as well as solution maturity. It has a large number of installed ports and offers dedicated support for application portability. Holly Connects, known for its adherence to pure open standards and robust and scalable platform, received high marks for deployment, as its average size of deployment is substantially larger than other vendors.

Market leaders: end-user sentiment

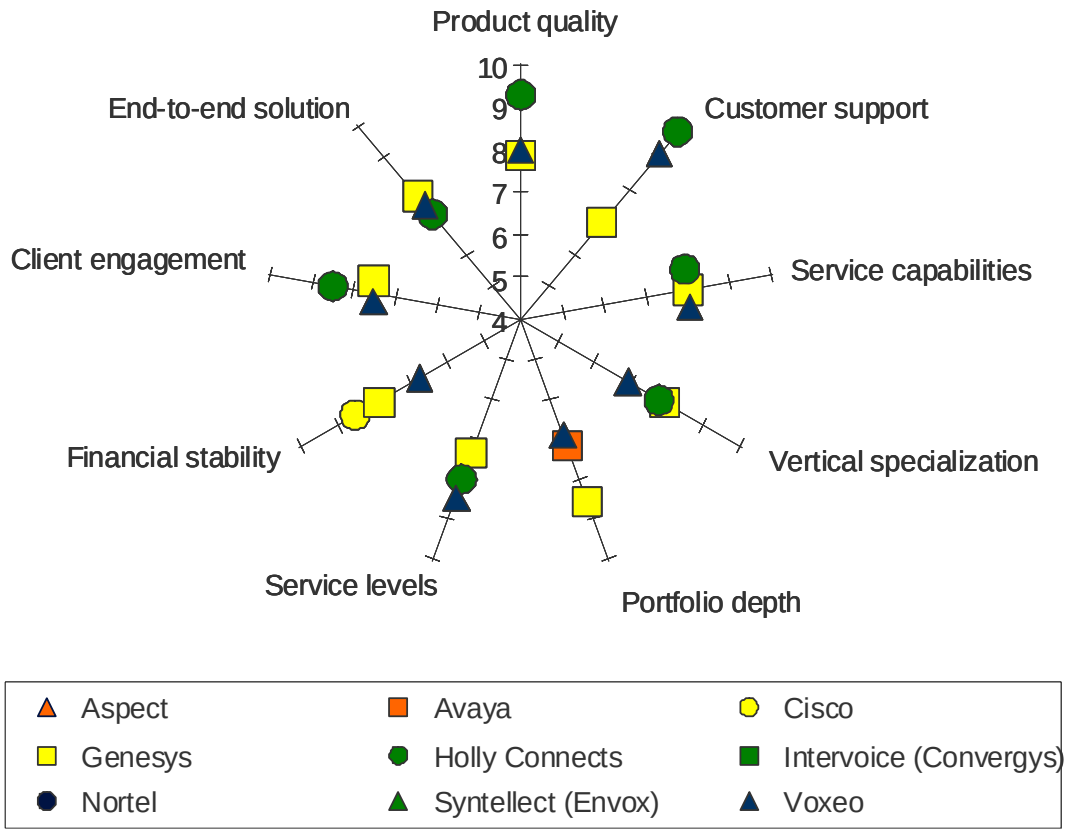
The end-user sentiment radar is based on scores from a survey of vendors' customers. Respondents were asked to rate vendors that they either are currently deployed with, have evaluated and / or have previously deployed products from and no longer use. The scores from each vendor's current customers are briefly discussed in the vendor profiles.

Three vendors dominate the market leaders for end-user sentiment: Holly Connects, Genesys and Voxeo. As shown in Figure 5, all are highly regarded by customers. Holly Connects and Voxeo are two of the smallest vendors profiled in the Decision Matrix; however, both vendors have executed very well in providing support for their clients, as exemplified in their high end-user sentiment scores. Holly Connects was rated highly for product quality, customer support and client engagement. It is known for the reliability and scalability of its platform and has used its high-touch direct sales team to gain loyal customers. Voxeo prides itself on its customer service and 24-hour technical support. As a result of its dedicated customer relations, it has achieved the highest scores for service level and service capabilities, and is in the top two for customer support.

Genesys stands out for portfolio depth, vertical specialization and end-to-end solutions. Given its strength as a provider of contact center suite solutions and its wide portfolio of products, this rating is justified. Cisco has been selected as the leader for financial stability due to its considerable size and brand strength. Avaya was rated highly for portfolio depth, which is reflective of its range of end-to-end contact center and enterprise communications solutions.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Figure 5: Market leaders: end-user sentiment



Source: Datamonitor

DATAMONITOR

Market leaders: market impact

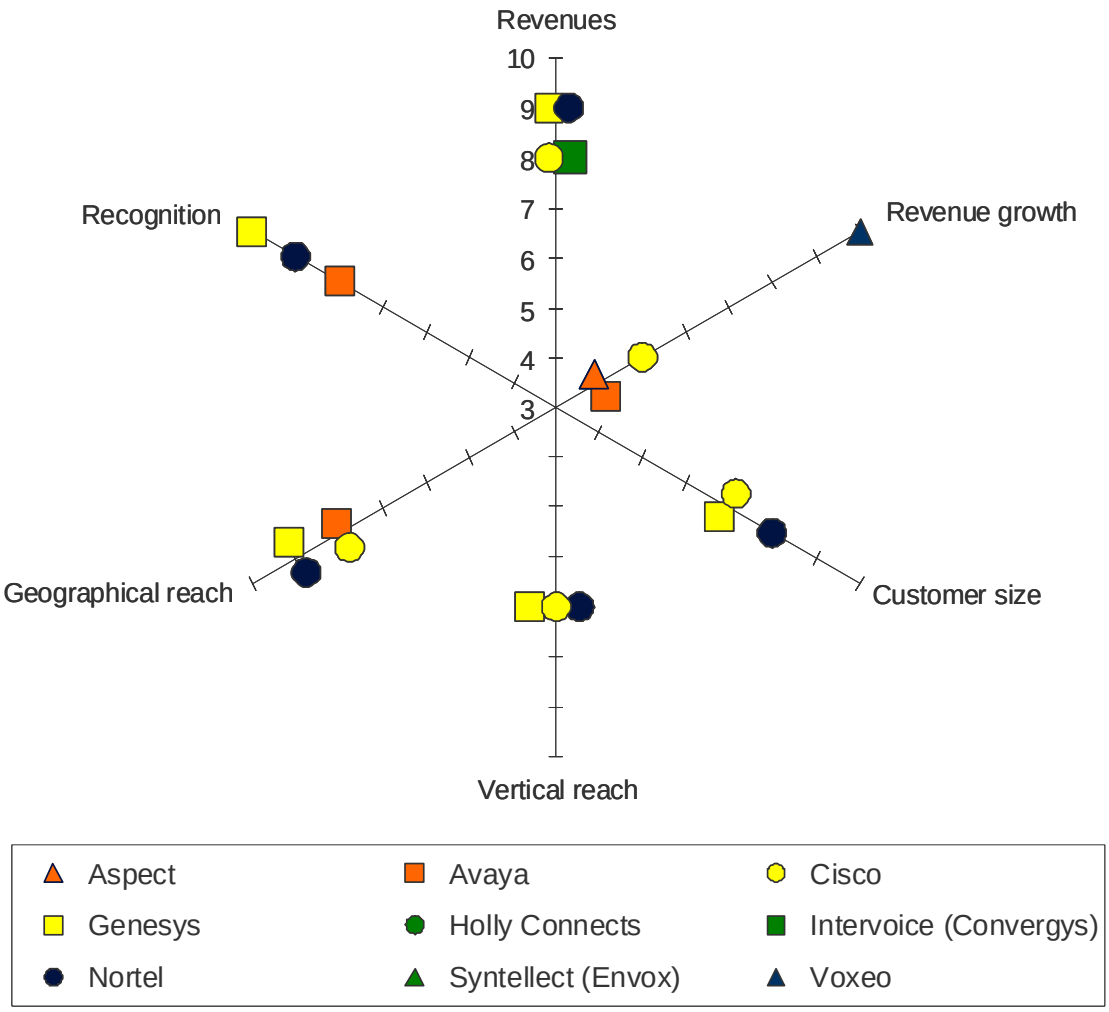
Market impact was determined by a combination of IVR port shipments and estimated IVR revenues for 2007. The vendors with the greatest global market share have scored the highest in this radar, with Avaya, Cisco, Genesys and Nortel all featured prominently in Figure 6. Intervoice also has a large number of port shipments and significant IVR revenues and has been rated highly in the revenues category. However, the majority of Intervoice's port shipments are in North America and it does not have as wide a geographical coverage as some of its competitors.

Recognition is based on customers' awareness of the vendors' solutions and Avaya, Genesys and Nortel are the most familiar names. All have strong brand equity and larger contact center suite customers. Voxeo is the newest vendor in the premise-based IVR market, and is currently much smaller in size than the other competitors in this Decision Matrix. The addition of its premise-based platform has proved beneficial thus far for the vendor and it has grown rapidly over the last couple of years. It received the highest score for revenue growth, which was based on a percentage for year-over-year increases in IVR revenue from 2006 to 2007 and does not take into consideration the installed base. Aspect, Avaya and Cisco have also seen strong growth in their IVR shipments but have received lower scores relative to Voxeo's rapid growth.

© Datamonitor. This brief is a licensed product and is not to be photocopied

It is particularly of interest to note that Cisco and Avaya have seen substantial revenue growth despite their large installed bases over these years.

Figure 6: Market leaders: market impact



Source: Datamonitor

DATAMONITOR

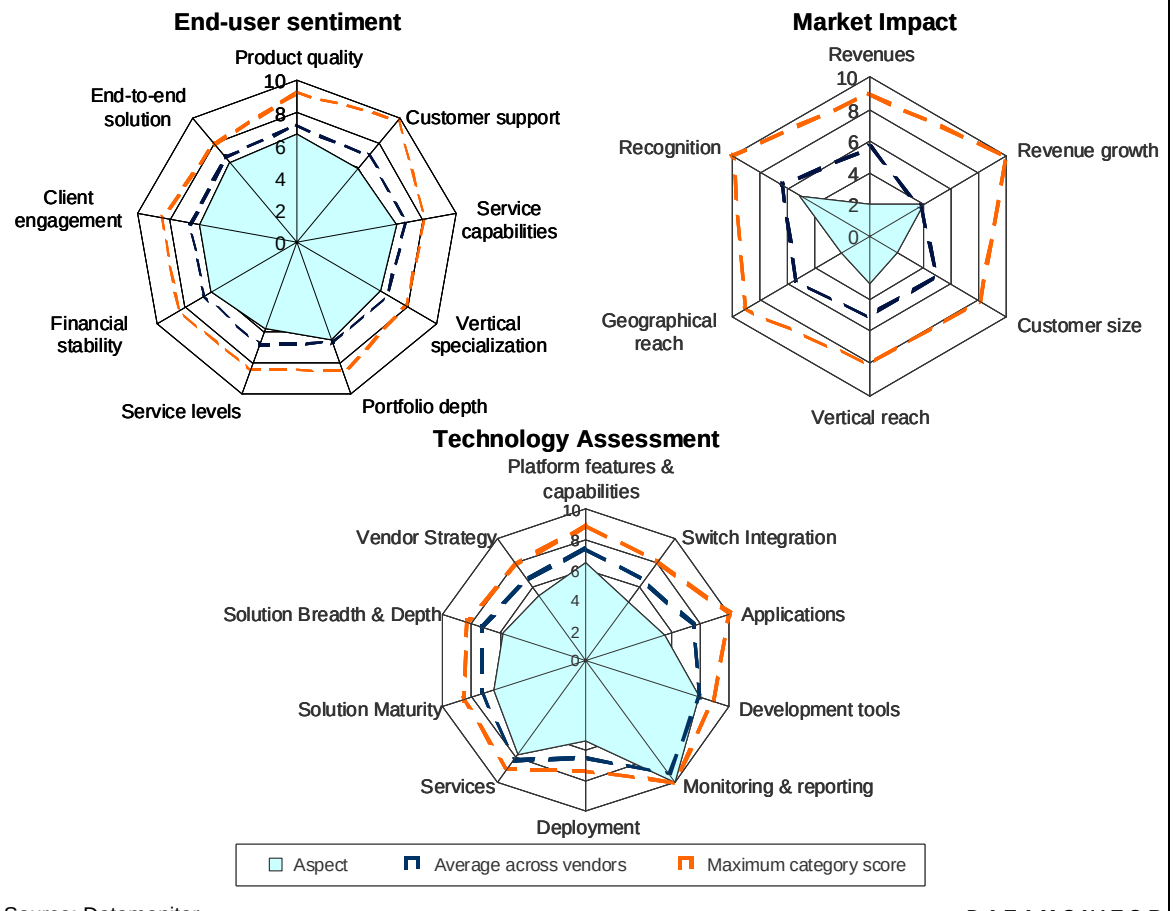
© Datamonitor. This brief is a licensed product and is not to be photocopied

VENDOR ANALYSIS

Aspect: IVR radars

Aspect provides a full suite of UC and contact center solutions and services. It has been widely recognized as a leader in outbound and inbound solutions and over the years, through acquisitions and product integration, has become a major provider of fully integrated, all-in-one contact center suites. The vendor offers IVR in two flavors: Aspect Customer Self Service, its standalone IVR product, and through Aspect Unified IP, where the IVR is part of a complete contact center suite. Aspect Unified IP is the company's flagship solution and accounts for the majority of its IVR business today. Aspect Unified IP supports VoiceXML 2.1 and includes its own SCE. The company has primarily focused on premise-based contact center deployments in the past, but it recently announced a partnership with Tellme, a subsidiary of Microsoft, to provide a joint contact center and hosted IVR option for its customers. Aspect is already working with Microsoft on the UC front, where it uses Microsoft Office Communications Server to provide presence capabilities for its contact center solutions. It is expanding this relationship to work with Tellme and is now able to offer hosted and outbound IVR services, which were previously missing from its portfolio.

Figure 7: The Aspect IVR radars



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

Aspect's unique selling points include the ability to provide a complete integrated contact center solution with self service as an element of the customer management process. It focuses solely on the contact center and has many years of experience in providing services and solutions directly aimed at these customers. It offers CTI, ACD, routing and call recording together in its modular Aspect Unified IP solution or as separate functions for best-of-breed contact centers.

Recommendation: explore

Aspect is a major player in the contact center solutions market; however, it lacks a significant IVR presence. The vendor has a strong professional services team that provides DTMF and speech application development, systems integration and consulting. Aspect's main technology partners are Tellme, Microsoft, Nuance and Loquendo and although it does not have many other external application development resources, it has a number of channel and systems integration (SI) partners worldwide through whom it delivers IVR services. It primarily uses Aspect Professional Services in the US, but outside this region it uses this network of partners to build DTMF and speech applications for its customers. Aspect did not gain as high a market impact score as some of its competitors because it has a lower number of port shipments and a strong US bias, but its Unified IP contact center solution has been growing quickly. Aspect also scored lower in the end-user sentiment and technology assessment radars and has therefore been given the rating 'explore'.

Aspect Unified IP supports both Media Resource Control Protocol (MRCP) 1.0 and 2.0. The vendor, who has traditionally partnered with Nuance, is the first large contact center solution provider to support Microsoft's ASR engine, which brings down the TCO of a speech solution. The vendor also supports Loquendo's ASR to provide customers with greater choice. It has recently gained hosted outbound capabilities through its partnership with Tellme and also offers predictive dialing technology (where it is a leader) to provide sophisticated outbound capabilities. Aspect has a number of large scale deployments with customers such as Lockheed Martin, Experian and Verizon Wireless, but typically its customers are smaller in size. Partnering with Tellme was a good move for Aspect, as it can offer greater deployment options for customers that require large scale, complex self-service applications. Aspect is putting tremendous focus on UC in the contact center and, therefore, the importance of Aspect Unified IP is likely to increase as routing becomes more complex with integrated business processes. Today, Aspect Unified IP and Aspect Customer Self Service are viable IVR platforms for mid-sized deployments in the contact center and can deliver significant business benefits to the organization.

Customer rankings

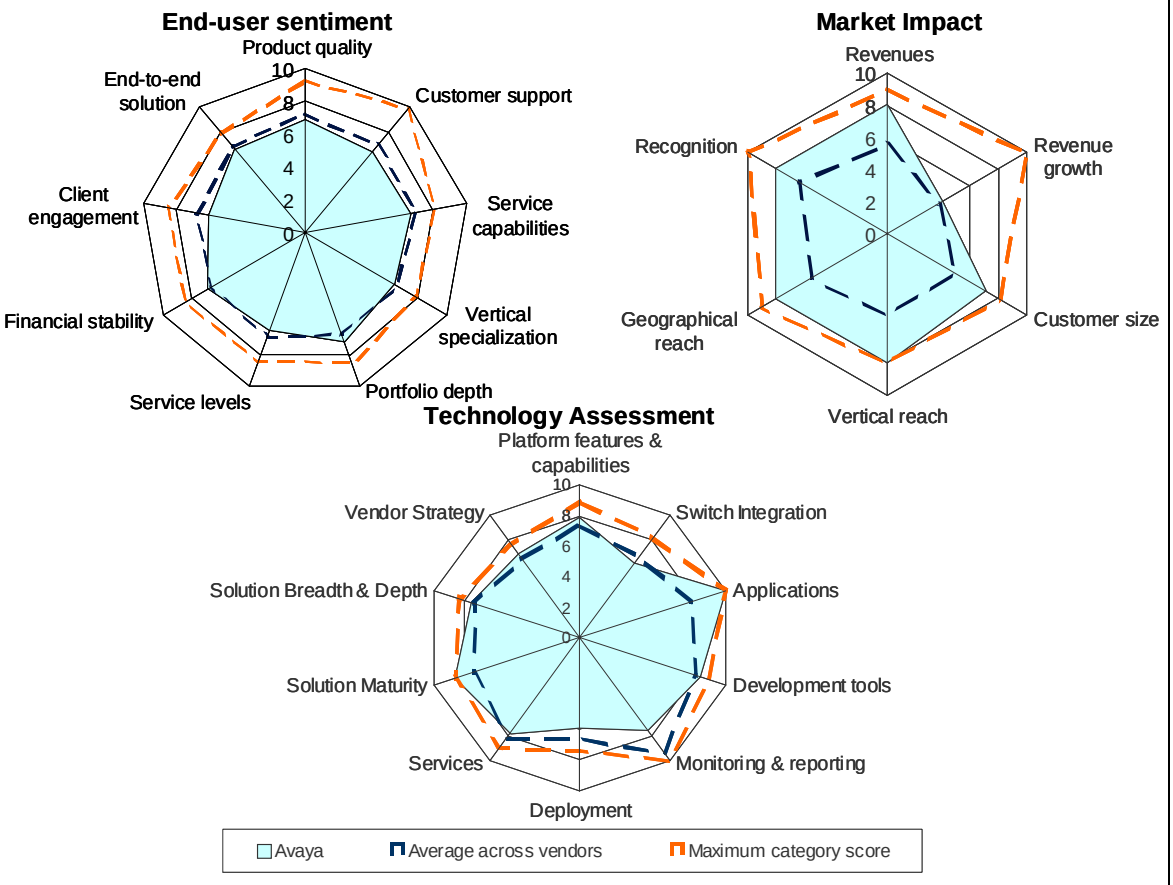
Aspect received high ratings from its own clients for customer support, where it received a score of 8.8 out of 10. Its customers rated it well for services, portfolio depth and its end-to-end solution, for which it gained 8.1/10.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Avaya: IVR radars

Avaya has a long track record of success in the contact center, IP telephony and IVR markets. It offers a full suite of contact center solutions for SME and large enterprise customers across the spectrum of vertical markets. Over the last couple years it has ramped up its UC portfolio, and is actively promoting communications-enabled business processes (CEBP) as a strategy that ties together its entire contact center portfolio and IP message. Avaya was sold to private equity investors Silver Lake and TPG Capital for approximately $8.3 billion in October 2007, and is currently undergoing a transformation. It has announced a number of new executives recently, including CEO Kevin Kennedy, and is in the process of streamlining its business units and aligning its marketing strategies globally. Privatization provides Avaya with additional financial backing for research and development and frees the company to focus on core business improvement and growth, of which self service is a strong part. In the contact center, Avaya has traditionally been a strong vendor among large enterprises and is planning to target mid-market companies by adopting a new indirect sales model for both its enterprise and contact center solutions.

Figure 8: The Avaya IVR radars



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

Avaya currently offers two IVR products: Avaya Voice Portal (AVP), its next-generation VoiceXML platform, and Avaya Interactive Response (IR), its VoiceXML and legacy Conversant (proprietary) compliant platform. Although it actively supports both platforms, AVP is Avaya's flagship IVR platform, created from the ground up to be deployed in a SIP environment, whereas Avaya IR supports legacy IVR applications and TDM-based environments in addition to VoiceXML applications.

In 2008, AVP overtook Avaya IR in new sales, which is indicative of the market transition from hardware- to software-based IVR solutions. Avaya's unique selling points are its use of CCXML to support inbound, outbound and conferencing services, its flexible platform architecture, and the scalability of its AVP solution. It currently offers free migration from Avaya IR to AVP and prides itself on its support of application portability of both proprietary and VoiceXML applications. This also enables customers to migrate easily from Avaya's legacy Conversant platform to AVP. While the use of SIP standards ensures AVP integrates with other contact center infrastructure providers, it is typically not deployed as a standalone IVR platform, although it has been implemented as part of a best-of-breed solution. Most AVP deployments are sold with other Avaya contact center products due to the routing and reporting benefits inherent in deploying an IVR solution within an Avaya contact center solution. Avaya's in-house development tool, Dialog Designer, is free to its customers and partners and allows developers to build DTMF, speech and video applications. The vendor also has an extensive partner ecosystem in its DeveloperConnect program, which has resulted in a large number of partners supporting AVP and IR.

Recommendation: consider

Avaya has received high ratings in both the market impact and technology assessment radars. It has a strong market position as the largest provider of contact center solutions globally; however, it did not receive high scores for end-user sentiment. Therefore Avaya has earned a 'consider' rating. Avaya received its highest score in the end-user sentiment radar for portfolio depth, which is unsurprising given its contact center expertise and range of communications solutions. However, Avaya appears to be weaker in client engagement and customer service.

Avaya received above average scores for each of the categories in the market impact radar. It has experienced strong growth for both AVP and Avaya IR platforms through 2008 and has among the largest installed bases of IVR customers. It also has significant market presence across all geographic regions in the world. Avaya's technology assessment scores were taken using its AVP platform, which has the most features and capabilities. In the technology assessment, Avaya scored lower for deployment as it currently does not provide hosted IVR services. Avaya does plan to offer these in the future, but it may be difficult for it to compete against other vendors in an increasingly competitive market. Despite the difficult economy and the increasing interest in hosted services, the majority of contact center customers will still deploy premise-based IVR solutions, and Avaya is in a strong position to make the most of these opportunities. It has considerable experience as a contact center solutions provider and is also able to leverage its position as a UC provider to create cross-selling and upselling opportunities. Although AVP is typically deployed with Avaya Communications Manager as part of a complete Avaya suite, it does integrate with all major IP / SIP-based vendor switches.

Avaya received the highest score for breadth of applications deployed as well as solution maturity. In terms of applications, it offers good support for outbound IVR including live-answer and answering-machine detection. It is also one of the few vendors to have deployed interactive video and voice response (IVVR) in a kiosk environment as well as offering support for video application development in DialogDesigner. Avaya will continue to control a large share of the IVR market, as it is

© Datamonitor. This brief is a licensed product and is not to be photocopied

a leader in the space, but it is important for it to focus on its customer service and support and simplifies its product marketing and messaging around AVP and IR.

Customer rankings

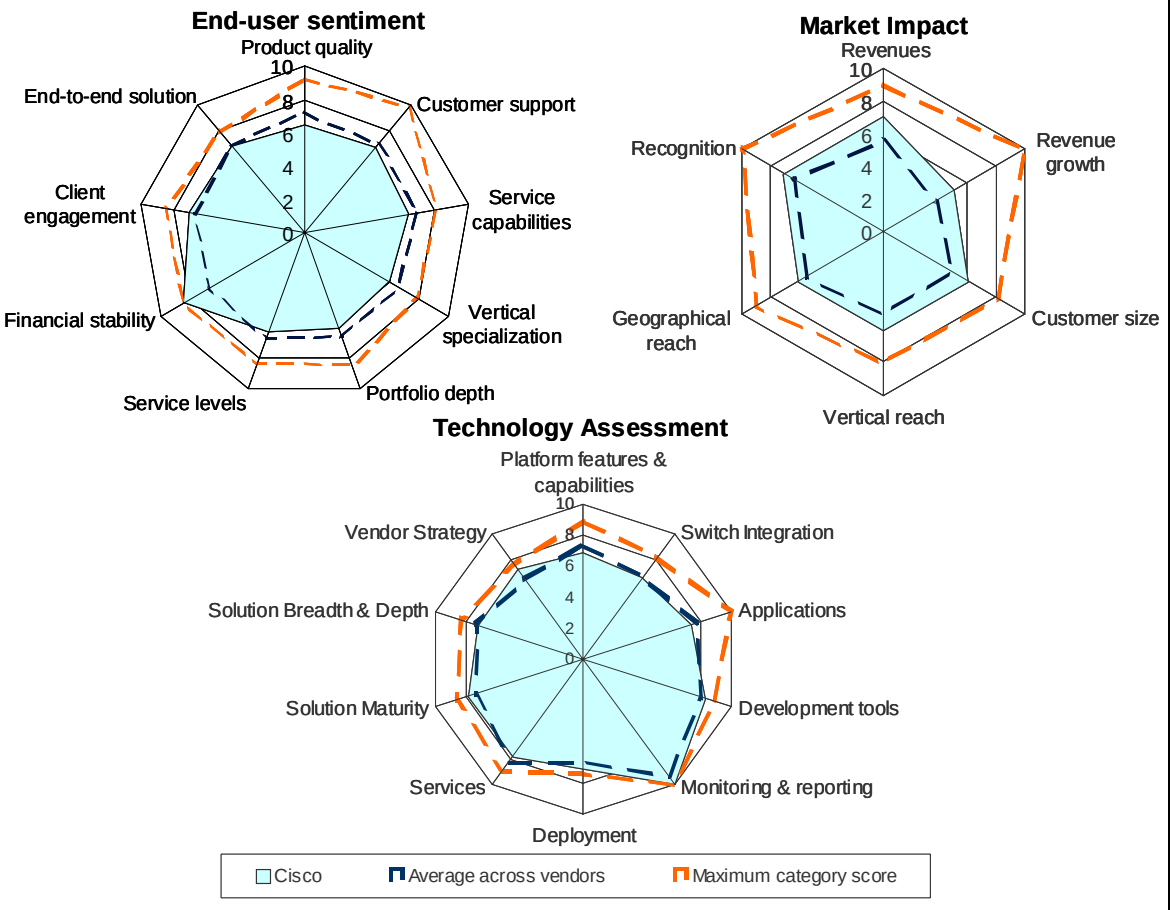
Avaya received an average score of 8.3 out of 10 for product quality and portfolio depth from its own customers. It was also rated as one of the leaders for portfolio depth in the overall scores, which take into consideration all Avaya respondents, including past customers.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Cisco: IVR radars

Cisco offers two IVR products: Unified IP IVR, which is designed for contact centers with 10–300 agents, and Unified Customer Voice Portal (CVP), which is its flagship platform. IP IVR is an out-of-the box solution with integrated media processing and call control bundled on a single server, with the option of speech recognition support. It is based on IP and is typically sold alongside Cisco's Unified Contact Center Express (CCX). CVP, on the other hand, is a distributed, software-based platform that resides at the edge of the network, and in doing so provides advantages for distributed contact center operations and branch locations. It is Cisco's large enterprise IVR platform, supporting both hosted and hybrid solutions, where the application and routing can be controlled either by the enterprise, the contact center or an external party.

Figure 9: The Cisco IVR radars



Source: Datamonitor

DATAMONITOR

In 2006, Cisco increased its stake in IVR and acquired Audium, which enables it to provide an SCE bundled with its IVR solutions. Unlike most of the companies in the market, which have their own SCEs, Audium continues to support other vendor platforms; this provides Cisco with the opportunity to migrate companies using other IVR platforms to CVP while

© Datamonitor. This brief is a licensed product and is not to be photocopied

protecting their applications. Cisco has a tremendous amount of traction in the contact center market today, and as a result its IVR port shipments are growing at a rapid pace. Like Avaya, the majority of CVP deployments are deployed with products from Cisco's contact center suite and network gateways. Over the past three years, however, CVP has rapidly closed in on the incumbent IVR platform vendors from a features and functions standpoint. Its focus on IP and enhancing IVR with SIP and UC, along with its large Intelligent Contact Management (ICM) installed base, gives it an advantage in transformative deals where call routing and self-service applications are running in an intelligent virtualized network.

Recommendation: consider

Cisco is a relatively new entrant in the contact center space. While most of its competitors come from a telephony heritage, Cisco comes from the data and network world and has leveraged its brand equity here to gain credibility in the contact center market. It has received above average scores for market impact because of the strong growth in the volume of IVR port shipments over the last few years. It has also received high ratings in a number of categories in the technology assessment radar. Cisco has earned the rating 'consider' because it did not achieve above average scores for many categories in the end-user sentiment radar.

Cisco has been recognized by its customers for its financial stability, and was rated as the leader in this category of the end-user sentiment radar. It was also rated above average by customers for client engagement and end-to-end solutions but is weaker in product quality and portfolio depth than some of the other competitors, such as Genesys and Holly Connects. In terms of technical capabilities, Cisco has achieved high scores for both monitoring and reporting and development tools. It is the only vendor that is not yet supporting CCXML. Although Cisco does not yet see widespread adoption of this technology, it will be supporting this in future releases of CVP. CCXML is becoming more important to support multichannel call control and will be a necessity for Cisco in the future. It does, however, support a number of ACD / PBX and CTI connectors, despite providing its own solutions. Although Cisco does not currently offer its own hosted services, it does actively sell CVP to hosted and managed services providers, as well as tier 1 carriers.

Cisco has strong global reach and brand strength and will continue to gain ground as an IVR vendor. Over the next few years, Cisco is expected to become a top three vendor in terms of new IVR shipments. Although CVP does work as a standalone platform, it is sold mostly to existing and new ICM customers. As a result, monitoring and reporting can be complex, as disparate tools are required for ICM and CVP. Cisco is still very network-focused, so a high level of knowledge is needed by channel partners to sell CVP to non-Cisco customers or as a standalone platform. Cisco should leverage its brand strength and continue to focus on deploying self service in regions such as the Middle East and Africa and APAC, where there is significant growth potential for new self-service solutions. It should also have more messaging around the success of CVP in the self-service market, which has been limited compared to its competitors. Cisco has demonstrated a strong commitment to customer satisfaction in recent years and to this end operates staffed resources to assist customers and partners in the development of tested, interoperable IVR solutions through programs such as the Cisco Technology Developer program.

Customer rankings

Cisco received a high score of 8.8 out of 10 from its own customers for financial stability. It also received high scores from its own customers for customer support, services capabilities and end-to-end solution, where it scored 8.1 out of 10.

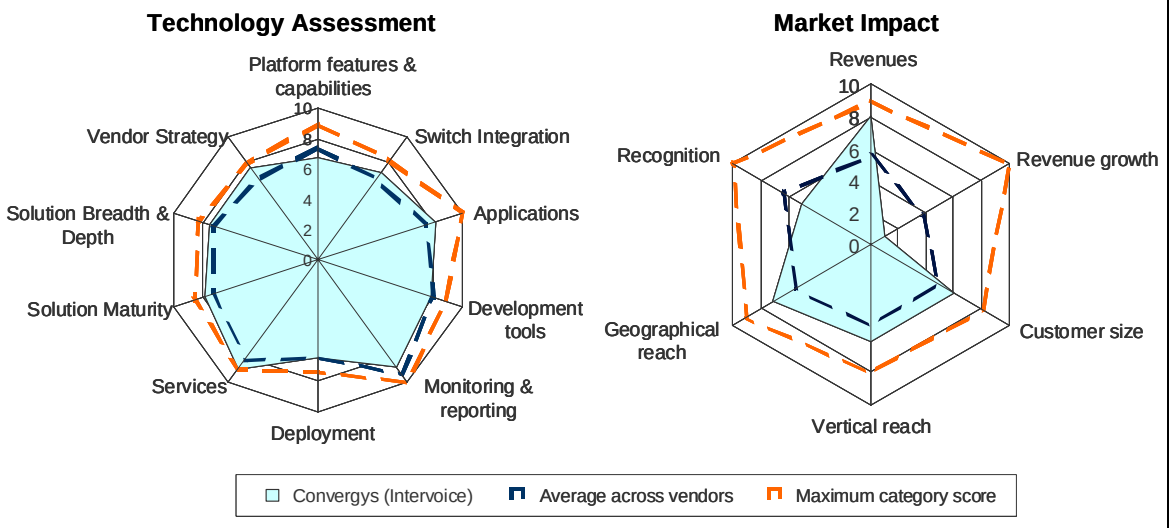
© Datamonitor. This brief is a licensed product and is not to be photocopied

Convergys / Intervoice: IVR radars

Intervoice has been providing IVR solutions for the past 25 years and was widely recognized as the largest standalone IVR platform and applications vendor in the industry. Over the last couple of years, Intervoice expanded its portfolio to include an IP contact center offering through its acquisition of Nuasis. In September 2008, Intervoice was acquired by Convergys, a global tier one contact center outsourcer and relationship management provider of customer and HR services. Although Convergys had its own existing hosted IVR solutions offering, it gained a significant amount of intellectual property, expertise, products and services, global sales force, channel partners and a very large IVR customer base through its acquisition of Intervoice.

The latest version of the Convergys / Intervoice IVR platform, called Intervoice Voice Portal (IVP), is a software-based, VoiceXML 2.1 compliant platform that appeals to multiple market segments. The platform can be deployed on premise, as a managed service or hosted as a solution. IVP is offered in three flavors to address different customer requirements: Express, Enterprise and Enterprise Pro. As the names suggest, the Express edition offers basic functionality and caters to the SME market, the Enterprise edition has added reporting and basic voice application development support, and the Enterprise Pro edition has the most features and capabilities, including Interaction Composer, support for State Chart XML (SCXML), and an advanced notification gateway.

Figure 10: The Convergys / Intervoice IVR radars



Source: Datamonitor

DATAMONITOR

Interaction Composer is Intervoice's Eclipse-based SCE for building, deploying, and managing applications. It includes an extensible framework that enables companies to develop complex voice and multimodal applications. The tool complements Convergys's DDS, a proprietary engine that provides personalization capabilities by using dialog management and remembering previous user interactions. DDS funnels multichannel interactions through a single engine, which interacts with an IVR and / or human agents. The entire solution includes what Convergys calls a real-time

© Datamonitor. This brief is a licensed product and is not to be photocopied

decisioning engine, which reacts to customer interactions coming through voice, web, SMS, or chat portals based on its access to back-end customer data.

Recommendation: consider

Convergys / Intervoice did not receive a score in the customer sentiment radar as there were not enough customer responses to qualify a rating. However, it received high scores in the technology assessment and market impact radars and has therefore been given the rating 'consider.' In terms of technical capabilities, Convergys / Intervoice received above average scores for services, applications and maturity. With the inclusion of Intervoice, Convergys has one of the largest professional services organizations in the industry that offers application and VUI design, implementation and consulting services, setting it apart from most of its competitors. Convergys / Intervoice also supports a wide variety of enterprise applications such as DTMF, speech, outbound, personalized IVR (through DDS), and multimodal applications. The company has received high ratings for solution maturity because of its large installed base, market share, experience and support for proprietary application migration.

It is too early to tell whether the new company will successfully leverage economies of scale across its agent business and self-service solutions, but the combination of the two companies certainly places Convergys / Intervoice in a unique position in the IVR and contact center markets. Convergys / Intervoice may find itself competing on new fronts against vendors that have end-to-end contact center solutions and enterprise communications portfolios as well as large service providers and other contact center outsourcers. In addition, while Convergys is primarily a services company it now sells and supports a product offering in IVP. This presents a significant opportunity for Convergys, as it can offer variations of managed services for overflow, bursting and disaster recovery to support premise-based customers.

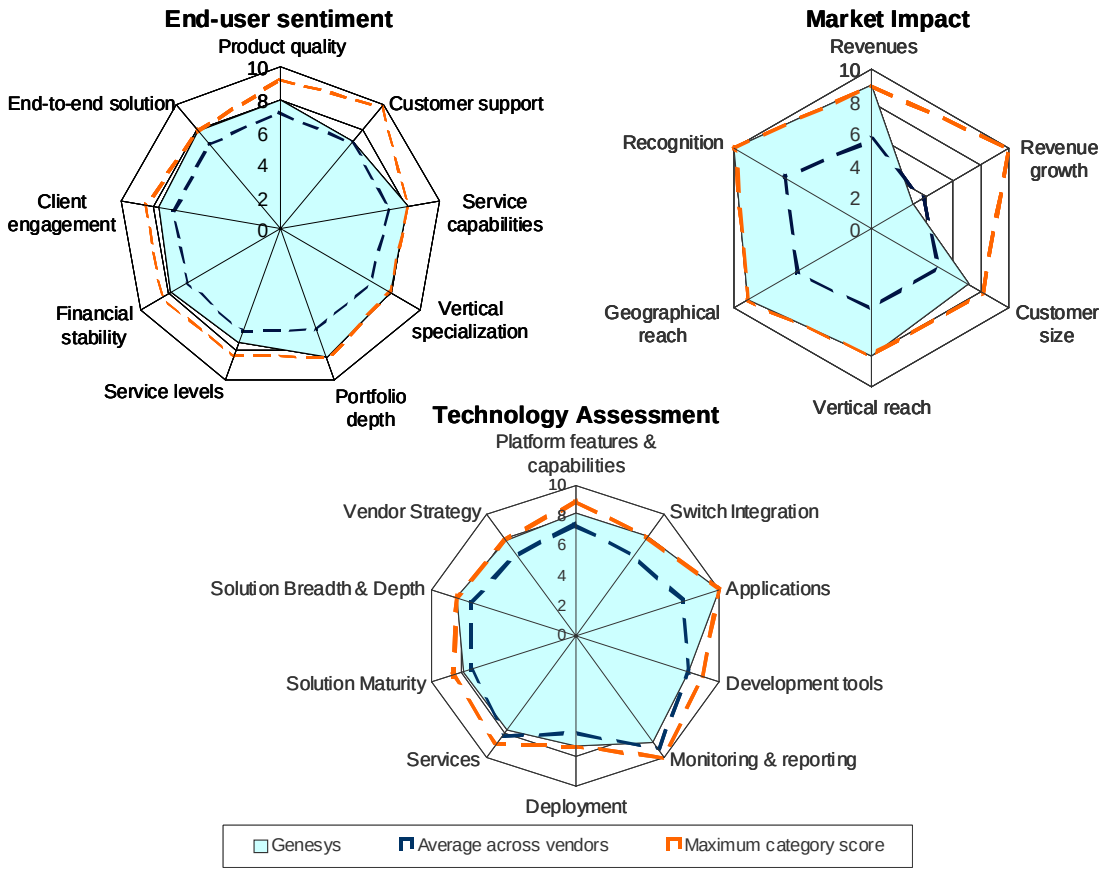
Integration between the two companies is not yet complete, and marrying a services company with a platform company can have obstacles; however, with the successful launch of IVP 6 it seems the integration is headed the right way from an IVR platform perspective at this time. Convergys / Intervoice must work to protect its customer base and support migrations from legacy Intervoice platforms to IVP.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Genesys: IVR radars

Genesys, an Alcatel-Lucent company, is focused on providing contact center software, core routing, workforce optimization, and customer interaction management solutions alongside self service. Genesys entered the IVR market with its acquisition of Telera in 2002 and since then has emerged as a major player in VoiceXML platforms in the contact center space. Genesys Voice Platform (GVP) 8 is a conflation of the company's eponymous voice platform with VoiceGenie's, which Genesys acquired in June 2006. Streamlining what had previously been separate platforms increases efficiency, decreases overhead costs, and allows GVP 8 to maintain more competitive pricing in the marketplace. Genesys products have been typically more expensive than its competitors in this space. This consolidation is also likely to enhance the platform's overall performance, particularly by increasing the processing system's speed. The integration is being carried out in three stages and is set to be completed in H2 2009 with the release of GVP 8.2. The addition of VoiceGenie has helped bolster GVP's support for SIP and H.323 as well as improved monitoring and reporting capabilities. Genesys is investing heavily in application development tools and offers Genesys Composer with GVP 8, an Eclipse-based SCE. The company also has a variety of third party tools, such as Vicorp, Open Methods and VoiceObejcts (Voxeo) available for developers to deploy applications on the GVP platform.

Figure 11: The Genesys IVR radars



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

Genesys is emphasizing next-generation applications, such as Proactive Contact, a campaign management tool; Virtual Hold, a customer callback solution; and iCFD, which enables the connection of sophisticated self-service applications with back-end systems. Additionally, Genesys continues to work closely with customer relationship management (CRM) vendors and integrate its solutions with the Genesys Gplus Adapter. It allows enterprises using GVP 8 to easily install sophisticated applications that communicate with back-end systems. In other words, Genesys is emphasizing business value over technological innovation; this is reflective of an industry trend wherein vendors attempt to offer comprehensive contact center solutions, touting full-suite products over point solutions. So while GVP 8 can be used as a standalone platform for some applications, like video or outbound notification, more specialized needs like leveraging Outbound Voice for campaign management on automated applications requires the full Genesys suite.

Genesys still needs to protect the investment of customers using previous versions of GVP and VoiceGenie platforms. To enable this, Genesys includes the software upgrade free of charge for existing customers under maintenance. GVP 8 supports previous GVP and VoiceGenie browsers, to accommodate a number of applications that run on earlier platforms. While even older VoiceXML applications existing on prior platforms should be forward compatible with GVP 8, there are always growing pains when transitioning to an updated platform.

Recommendation: shortlist

Genesys received some of the highest scores in all three radars and has therefore been placed in Datamonitor's 'shortlist' category. It has a large installed base of IVR customers and has shown consistent growth in its GVP business, as shown by its shipment numbers over the past few years. Genesys also received the highest score in the end-user sentiment radar, indicating that it is a well known and trusted provider of IVR platforms.

One of GVP's key differentiators is its ability to integrate with any back-end platform and it is therefore unsurprising that Genesys received the top score for switch integration. It works with the majority of competitors' ACDs / PBXs and CTI connectors as well as having support for solutions from its parent company, Alcatel-Lucent. Genesys has partnerships with several CRM, BPM and analytics vendors offering many co-developed products. GVP uses CCXML for integrating UC solutions, such as messaging and conferencing, with the self-service system. Genesys also received a high score in applications because it offers support for all types of applications and has deployed a handful of IVVR solutions in Europe, the Middle East and Africa (EMEA). For outbound IVR, Genesys offers call progress detection, including answer machine detection, and has deployed both speech and DTMF applications. It has developed the Genesys Proactive Notification application, which integrates GVP with its Outbound Contact Server to provide multi-channel notifications and list and campaign management.

Genesys's integration with its iCFD product and offering shows forward thinking and it has therefore received a top score for vendor strategy. Although Genesys is not the strongest vendor for technical messaging, it has a clear business plan. In terms of end-user sentiment, Genesys has been recognized as a leader for its portfolio depth, vertical specialization, service capability and end-end solution. It is clear from the survey that Genesys's customers recognize its achievements in this market. Although Genesys did not score below average in any category in the user survey, it should focus on improving its customer service and support, where it did not get top scores. Another question Genesys must reconcile within its iCFD offering is the ratio of product to professional services. Placing an excessive emphasis on professional services undermines the advantages of leading with applications by over-complicating the very system GVP 8 was supposed to help

© Datamonitor. This brief is a licensed product and is not to be photocopied

simplify. Productizing the majority of GVP 8 offerings gives enterprise customers more flexibility in supporting and maintaining their solutions, which will ultimately lower total costs. Genesys should lead heavily with product over services.

Customer rankings

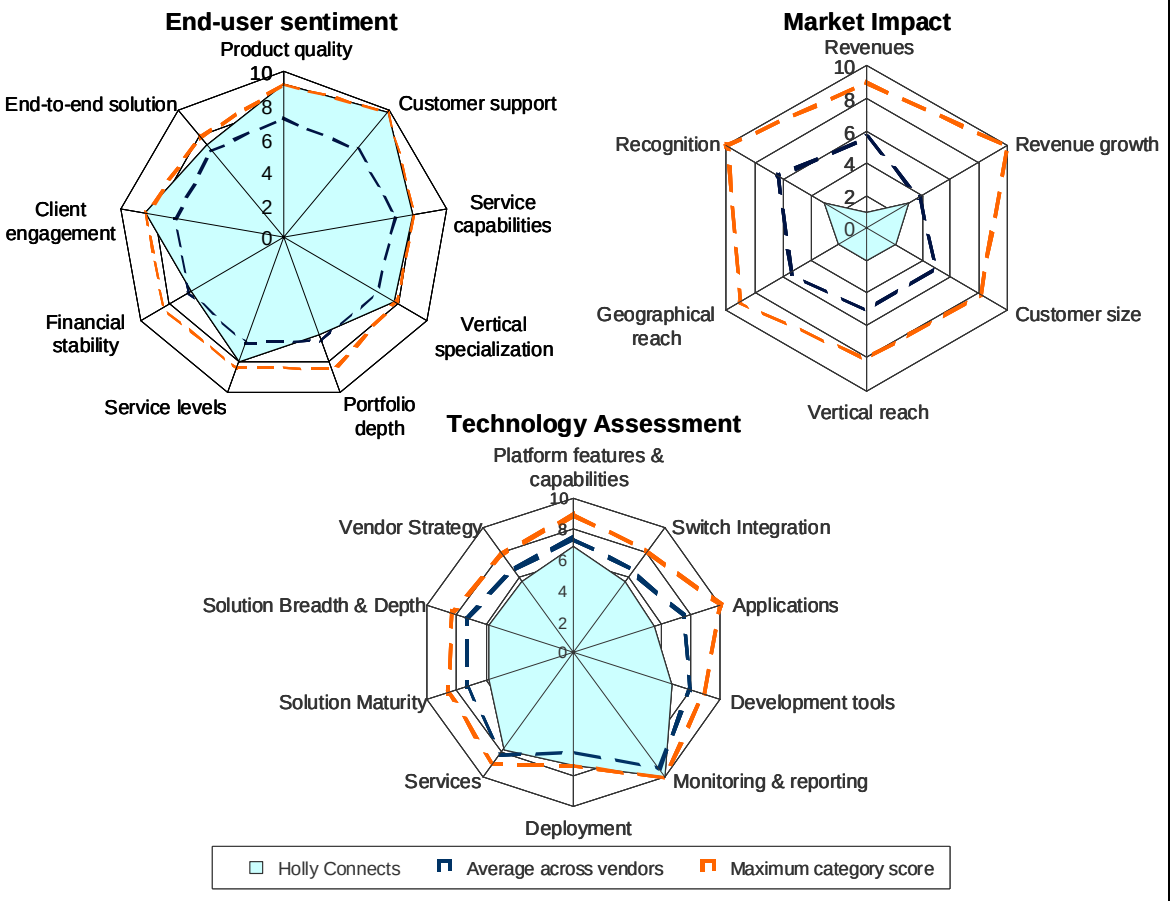
Genesys received the highest scores for portfolio depth, where the average score was 9.6 out of 10, and end-to-end solutions, where it was given a score of 9.1 out of 10 by its own customers. Overall, Genesys was rated the leader for these categories along with vertical specialization and services capabilities, where its clients rated it 8.6 out of 10.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Holly Connects: IVR radars

Holly Connects is a specialist IVR platform vendor founded in Australia in 2000 and, as a result, has a large customer base in the APAC region. During efforts to expand its regional presence in North America, Holly Connects moved its headquarters to the United States in 2008. Its IVR product, Holly5, is a carrier-grade IVR platform that is designed to thrive in large enterprise and carrier environments. The platform's key advantages are reliability, cost effective scaling and support for multi-tenancy deployments. Holly5 offers certified support for VXML 2.1 and is currently in the process of adding support for CCXML. It offers its own VoiceXML interpreters as well as outbound and blended inbound and outbound calling. Hosted IVR providers are among Holly's main customer base, along with carriers and large enterprises. The standalone platform is a software-only solution offering remote system management and integration with the majority of leading ACD / PBX and contact center providers. It uses a high touch, direct sales strategy to connect with customers and provides its own professional services for the design and integration of IVR platforms. Holly Connects is particularly suitable for distributed systems because of its centralized management system and telco grade performance.

Figure 12: The Holly Connects IVR radars



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

Recommendation: explore

Holly Connects provides a reliable, highly scalable, software-based IVR platform and is highly regarded by its customers. The vendor received a lower market impact score because of its small size, relative to other competitors, in this Decision Matrix. Holly Connects is the only remaining major standalone IVR provider after considerable consolidation in the IVR market over the last several years. Its competitors have gained additional features and capabilities, mainly through acquisitions, and Holly Connects has therefore not achieved such high scores in some of the technology assessment categories. Holly Connects has been given the rating 'explore' because of its smaller size and lower overall technology assessment score. However, the Holly5 IVR platform is a strong contender to become any large scale enterprise's or carrier's IVR deployment, as the platform has strong multitenant and sophisticated monitoring and reporting features, in addition to being aggressively priced in the market. End-user sentiment is high for Holly Connects, as its engineering support team is known for being exceptionally responsive to customer needs.

The majority of Holly Connect's success has been in APAC and its recent move to the US should help it to gain a greater global presence and be closer to potential customers in Europe. However, the challenge in both North America and EMEA will be that there are many more established competitors than in APAC that offer a broader range of solutions. Many of the survey respondents were from the US and EMEA, and this explains why Holly received a lower score for recognition in the market impact radar. It should continue to put efforts into delivering exceptional support to its customers in Australia, where it has an established base, but it needs to focus on marketing and gaining partners outside of APAC in order to succeed.

Holly Connects relies on partners to provide many of the capabilities that its competitors offer, especially application development. For example, Voxeo recently acquired Voice Objects to provide customers with an SCE, and many of Holly's other competitors have in-house development tools that do not require additional per port licensing. Although Holly offers support for the majority of ACD / PBX vendors, it does not integrate with all CTI connectors. This is not as important for Holly, as it offers a pure VoiceXML platform, but not all customers have yet migrated to SIP-based contact center solutions and it has therefore scored lower for switch integration. It should look for additional partners in the North America and EMEA regions, such as Siemens and Alcatel, to help gain a wider market of customers and consider joint go-to-market solutions. Holly5 runs on Linux- and Solaris-based systems, but the company should also consider support for Windows operating systems to broaden its market and so attract more enterprise customers. Although Holly Connects received a lower rating for solution maturity and has not been in the IVR market for as many years as its competitors, it had one of the first VoiceXML based platforms in the market, giving the vendor extensive experience in VoiceXML and other associated industry standards.

Holly5 should be considered for large scale deployments in carrier and large enterprise environments. It uses VoIP and SIP exclusively, which allows it to offer flexible deployment and pricing options, and adheres closely to other industry standards including VoiceXML, MRCP and Java 2 Platform, Enterprise Edition (J2EE). It should be able to compete effectively in North America with its competitive pricing. Holly's excellent customer service, quality and client engagement ratings are also to be noted. The only areas where it did not score as highly in the end-user survey is financial stability because of its relative size and lack of contact center products outside of IVR. Holly should consider creating larger channels to expand at a faster rate, with the aim of increasing market and wallet share.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Customer rankings

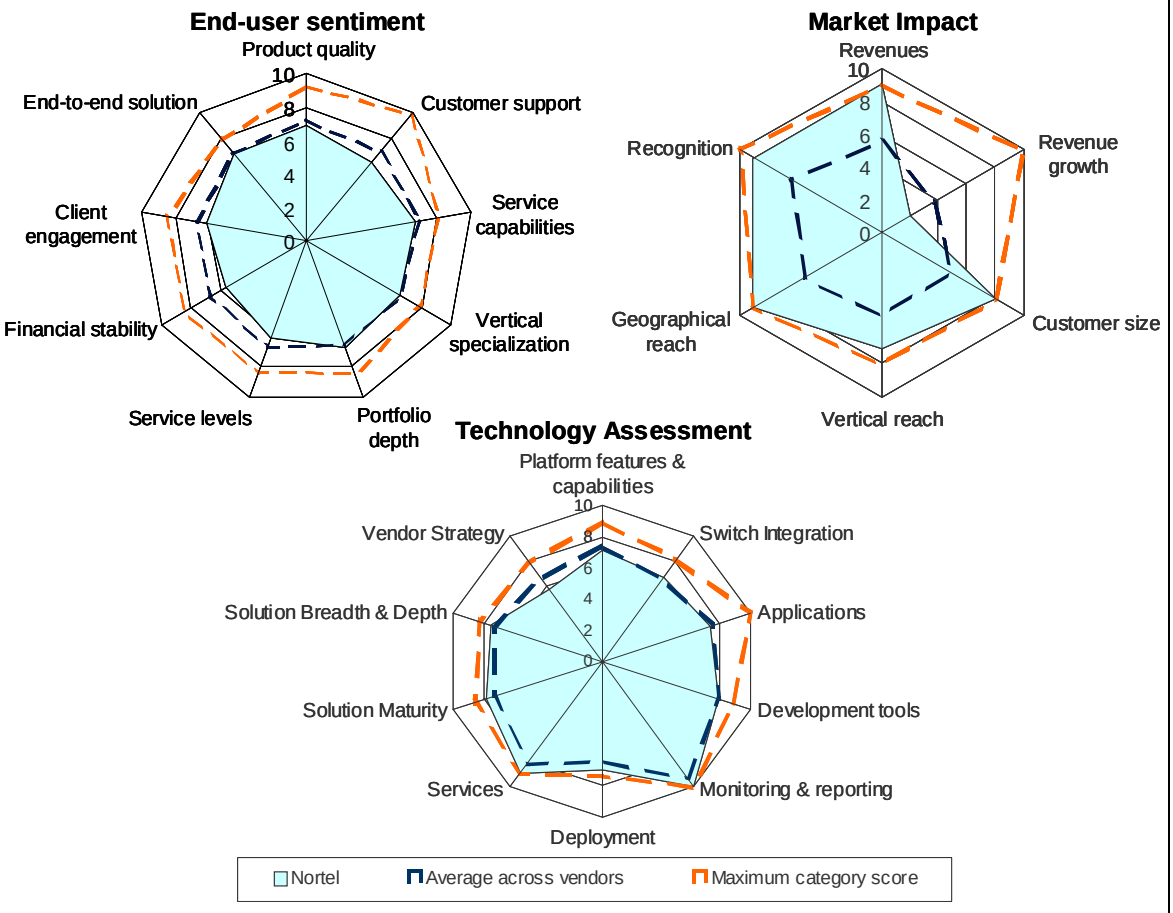
Holly Connect's own customers rated it very highly for customer support, where it received an average score of 9.7 out of 10. It also gained high scores for product quality and client engagement, where it received average scores of 9.4 and 8.9, respectively, out of 10. As a result, Holly received one of the highest aggregated end-user sentiment scores. The ratings are indicative of Holly's strong commitment to its customers.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Nortel: IVR radars

Nortel Networks provides an extensive range of communications solutions and offers a comprehensive portfolio of contact center products for the enterprise. Nortel has more than three decades of IVR experience. It has built upon its success in the IVR market over the past decade, following its acquisition of Periphonics in 1999, and currently has one of the largest customer bases in the IVR industry. Its IVR platforms are recognized in the industry as being highly reliable and robust, and the vendor is committed to maintaining its investments in this space. Nortel offers a range of IVR platforms for small, medium and large enterprise deployments: Media Processing Server (MPS) 1000 (for large and very large enterprise and carriers); MPS 500 (for SMEs); and ICP (for small to medium-large enterprises), which was released in August 2008. The MPS line is proven, highly scalable, hardware dependent IVR platforms, whereas ICP is Nortel's software-based IVR that runs in a native SIP environment and features improved redundancy, reliability and integration with email, web chat and live agents, representing an integral component of Nortel's UC strategy. ICP appeals to customers with SIP deployments and advanced telephony capabilities and offers scalability through clusters. Nortel offers a SCE with its MPS platforms and ICP and can support third party tools.

Figure 13: The Nortel IVR radars



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

Nortel recently announced the availability of its hosted IVR service, which supports both DTMF and speech, and is now able to offer hybrid deployments that combine premise-based and hosted Voice-XML solutions in a SIP environment. The new hosted IVR service should help Nortel in its mission to maintain its customer base as these organizations migrate from Nortel's old flagship legacy platform, Voice Processing Series/information server (VPS/iS), to a hosted or managed service. At the same time, Nortel offers discounts for legacy customers wanting to migrate to MPS and ICP. The vendor is still focused on providing support to TDM customers with its MPS platforms, and also offers an option for TDM with ICP.

Recommendation: consider

Nortel is among the leaders in terms of market share for IVR and has a large customer base and strong global coverage. It has therefore received a high score in the market impact radar. The vendor also has a very large ACD / PBX customer base and provides end-to-end communications solutions, giving it greater credibility and upsell opportunities in the contact center market. Nortel has one of the industry's largest professional services organizations dedicated to IVR application development, systems integration and consulting. Its offerings are scalable and the fact that it offers solutions tailored to different-sized deployments has allowed it to gain customers in the SME sector as well as large enterprise and carriers. Nortel achieved the second highest score for recognition, showing that it is well known for its IVR solutions. Although Nortel also scored highly in the technology assessment, it did not achieve such good ratings for its customer sentiment and has therefore been placed in the 'consider' list in this Decision Matrix. Nortel is a sizable organization but has recently announced restructuring, layoffs and a net loss in Q3. In September 2008, the outlook for its 2008 full year results was that its total revenue will decline from 2007. These announcements are likely to have affected customers in rating Nortel for financial stability, for which it received a below average score despite its size. Other areas of weakness in the customer sentiment radar are in customer support, client engagement and service levels. These are areas that Nortel should focus on improving over the short term.

Although slow in coming to market with its software-based IVR, ICP, Nortel has strong technical messaging and excels in the areas of services, monitoring and reporting, deployment and IVR solution maturity. It also provides advanced support for the integration of multi-channel notifications, video and conferencing with its ICP. Nortel's experience and market share, along with its new ICP and hosted offering and large professional services organization, make it a viable choice in the market when it comes to IVR solutions.

Customer rankings

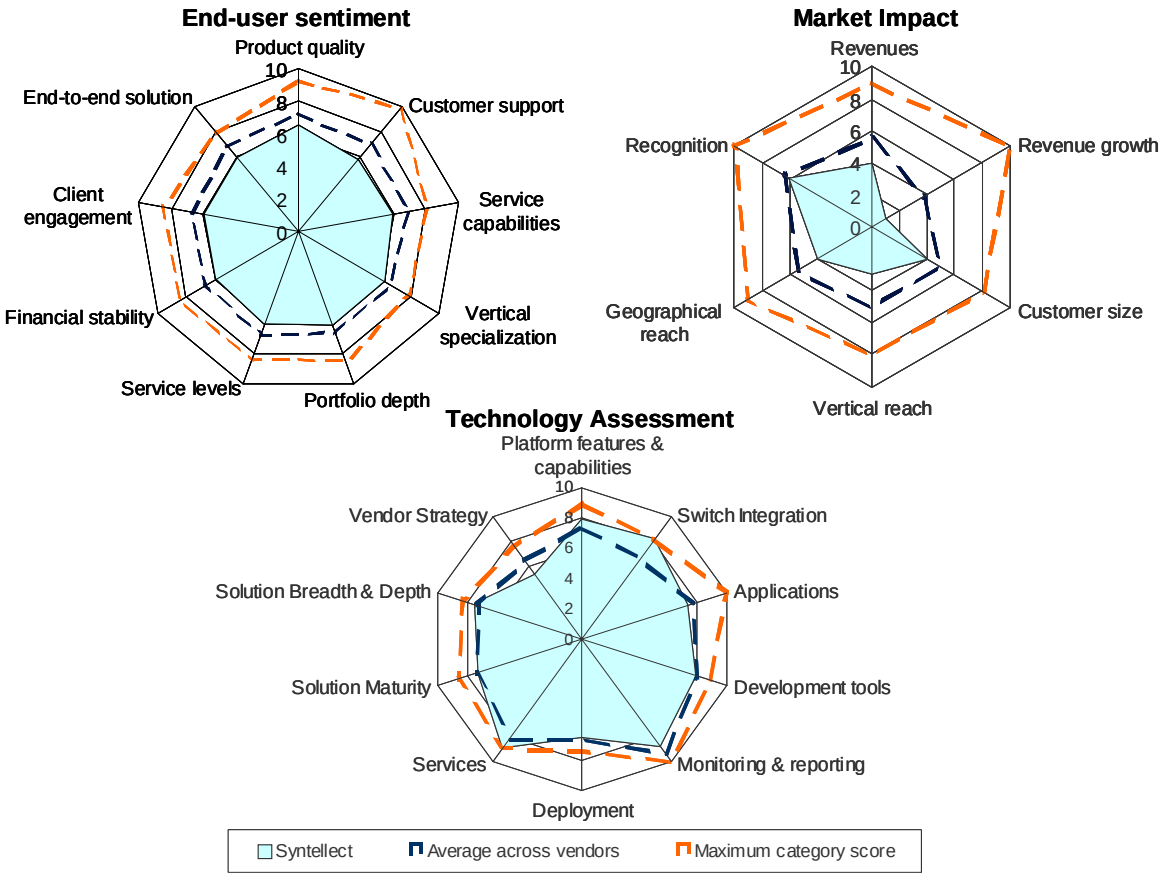
Nortel received high ratings from its own customers for product quality and end-to-end solutions, receiving average scores of 8.3 out of 10 in these two categories. It was also recognized by its own customers for its good portfolio depth and service levels, in which it scored 7.8 out of 10.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Syntellect / Envox: IVR radars

Syntellect has been providing IVR solutions for nearly 25 years and is recognized for its IVR expertise and strong professional services team that has successfully designed and implemented IVR solutions in the contact center. Today, it offers IVR as part of its Customer Interaction Management (CIM) suite, which provides enterprises with intelligent routing, reporting and management tools. Syntellect is owned by Enghouse Systems, a Canada-based software and services company. It has been expanding aggressively over the past year with the acquisition of Fluency Voice and Envox Worldwide. The company is currently working to integrate the Syntellect Voice Platform (SVP) with Envox's Communications Development Platform (CDP). The new IVR solution is expected to be released in Q1 2009. The acquisition will help Syntellect to expand outside the US and UK, where it has traditionally been strong, and also provides additional sales channels.

Figure 14: The Syntellect IVR radars



Source: Datamonitor

DATAMONITOR

© Datamonitor. This brief is a licensed product and is not to be photocopied

The Envox platform will provide added features and functionality for Syntellect as well as the addition of Envox's CT Connect, a standards-based CTI software tool that provides for out-of-the-box integration with ACDs / PBXs from other vendors. Syntellect differentiates itself by its ability to integrate with any back-end ACD / PBX or contact center solution. The addition of CT Connect secures Syntellect's advantage of being able to provide IVR for customers that have mixed ACD / PBX infrastructures. Syntellect's long heritage in IVR has enabled it to develop strong expertise in the contact center and build a professional services team that provides a variety of services for developing DTMF and speech applications and integrating and deploying IVR solutions. It also recently launched a unique offering, Voiyager, a VoiceXML application testing solution that allows users to automatically analyze call paths and check for errors.

Recommendation: explore

For the purpose of the technology assessment in this Decision Matrix, Syntellect's ratings were based on the current SVP platform, taking into consideration some additional capabilities gained from its acquisition of Envox. Aggregated revenues for market impact are taken from both companies combined, and customers from both Envox and Syntellect were surveyed. Although Syntellect has achieved a high overall score in the technology assessment, it did not receive such good scores in the end-user sentiment or market impact radars and has therefore been given the rating of 'explore'. Syntellect's strengths in the technology assessment are in switch integration and solution breadth and depth. It integrates with all PBX and CTI vendors, with the exception of Interactive Intelligence, and this is a unique selling point of its platform. Syntellect also scored highly for solution breadth and depth because of its contact center suite and IVR specialization. It has customers with outbound speech but has not yet deployed any video IVR solutions, although it does support these capabilities.

Although Syntellect has notable experience as a provider of IVR and contact center solutions, it is not as large as its competitors, nor does it have as much market presence outside of the North American and UK markets. With the addition of UK-based Fluency Voice, Syntellect inherits a suite of configurable speech applications, hosting capabilities in the UK, a solid application development tool called Voice Runner and Fluency Voice's installed base of customers. By acquiring Envox Worldwide, Syntellect gains added features and functions from CDP and also inherits a large installed base of legacy CT Application Development Environment (ADE) customers, which provides substantial upsell opportunities for the vendor. In addition, the acquisitions enable Syntellect to expand its global reach in the areas of EMEA and APAC. Syntellect is at an interesting juncture in the company's development. Once it rationalizes its acquisitions by completing the integration with Fluency Voice and Envox Worldwide, it will be a larger company with significantly more assets and value in the IVR and contact center markets. It should leverage Envox's broad network of partners and resellers to make the most of upsell / cross-sell and hosted opportunities. Syntellect's solution has typically had success in the SME market, but the acquisition of Envox Worldwide gives it greater appeal with large enterprise and carriers. Syntellect will be a stronger player in 2009 once it rationalizes its acquisitions and develops and communicates a cohesive strategy that echoes the value of its acquisitions and existing IVR assets. The vendor also needs to concentrate on improving its customer service and support capabilities for both its existing customers and new ones that it has gained through acquisitions.

Customer rankings

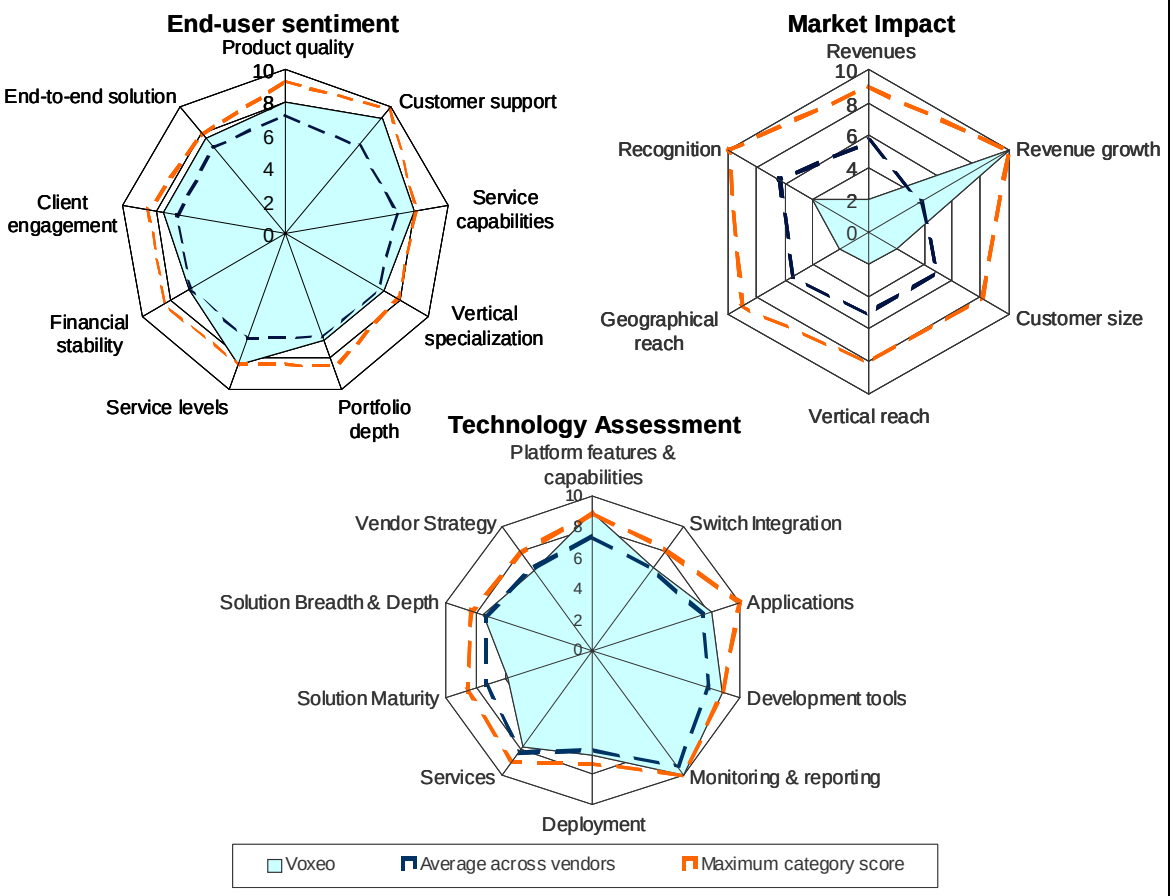
Syntellect received high scores of 8.5 out of 10 for both product quality and vertical specialization from its own customers.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Voxeo: IVR radars

Voxeo is a provider of VoiceXML and CCXML standards-based platforms supporting both inbound and outbound campaigns. The vendor is known in the industry for providing hosted IVR services and is in fact one of the largest hosted VoiceXML IVR providers in the market today. Voxeo has used its own Prophecy SIP-based VoiceXML and CCXML platform for its hosting services since 2001, and released a premise version of the same platform in 2005. Demand for its on-premise solution has grown among its installed base of hosted customers that want to migrate to a premise or a hybrid deployment, as well as new customers. In August 2008 Voxeo announced its updated platform, Prophecy 9. The new release offers many additional features, including public-key encrypted call recording, which significantly reduces storage requirements of call recording, more flexible maintenance and administrative capabilities as well as dashboard reporting.

Figure 15: The Voxeo IVR radars



Source: Datamonitor

DATAMONITOR

One of Voxeo's key strengths is its ability to offer hybrid deployments and seamless failover and overflow from premise to hosted platforms. It offers the ability to manage a distributed IVR solution from a single location. Prophecy 9 is native to SIP and, although it can be adapted to work with older TDM telephony systems, there is a need to use a SIP to TDM gateway from vendors such as Cisco, Dialogic or Sangoma. As part of its efforts to provide customers with a lower cost speech-enabled platform, Voxeo bundles its own, internally developed ASR and TTS engines on its Prophecy platform at no extra

© Datamonitor. This brief is a licensed product and is not to be photocopied

charge to customers. Voxeo's ASR supports directed dialog and can be used for basic speech applications. For more complex speech applications that require NLU capabilities, Voxeo supports Nuance ASR and TTS as well as other speech engines. Voxeo offers a free download of its platform from its website that includes two ports, the Designer development tool and built in speech recognition, among other features.

Voxeo has been on an aggressive acquisition spree over the last year. It acquired Micromethod and VoiceObjects in 2008. Through its acquisition of Micromethod it gains a presence in Asia as well as a platform for the development of SIP-based communications solutions. The acquisition will also allow Voxeo to develop its web services and API-based telephony solutions, which underpin its strategy to leverage the web development community for DTMF and speech application development on its platform. Voxeo's acquisition of VoiceObjects provides the vendor with a SCE and suite of tools, which is far more suited to service large scale deployments than Voxeo's own Designer application. In addition, Voxeo inherits VoiceObjects' large enterprise and carrier customer base, providing ample upsell opportunities for the vendor. The company will continue to offer VoiceObjects as a standalone product with support for alternative IVR platforms. VoiceObjects also improves reporting and monitoring capabilities as well as introducing realtime analytics to Voxeo's offering. Overall, the acquisition of VoiceObjects will enable Voxeo to move up market to compete with the larger IVR platform providers.

Recommendation: shortlist

Voxeo is currently one of the smaller IVR platform vendors featured in this Decision Matrix and, despite growing rapidly over the last few years, it still has some catching up to do in terms of market share and presence. As a result, it did not receive high scores for market impact. However, its growing momentum in the market cannot be ignored, as it has received the highest score for revenue growth. Voxeo achieved high scores in both the technology assessment and end-user sentiment radars and therefore Voxeo, along with one other vendor, has been placed in the 'shortlist' category. Voxeo's recent acquisitions should help it increase its visibility in the North American, APAC and European markets. Voxeo will be able to offer a more complete contact center solution and strengthen its position in the telephony world, which should enable it to expand its presence in the future.

Voxeo has received some of the highest scores in the end-user sentiment radar, particularly in the areas of service levels, customer support and client engagement. Voxeo achieved top scores for platform features and capabilities as well as development tools. Prophecy is aggressively priced in the market and offers companies the ability to try out the platform by downloading a free version of the software platform through Voxeo's website or by using Voxeo's free developer and hosting services. This strategy appeals to the IT-centric subculture within large corporations and has proved successful in helping Voxeo to gain market traction.

Voxeo did not score as highly as its competitors for solution maturity because it has a smaller installed base of customers and has not had as much experience as a premise-based platform provider. Although Voxeo provides a strong technical marketing message, it needs to develop clearer messaging around the business aspects of IVR, SIP and self service in order to increase recognition and brand strength. In addition, it may be difficult for Voxeo to maintain such a high level of customer support if it continues to grow rapidly; this could be a challenge with regional expansion because of language barriers. Unlike its competitors, Voxeo does not have a strong contact center heritage or a suite of contact center products, which can play to its disadvantage in large enterprise deals.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Customer rankings

Voxeo received high scores of 9.7 out of 10 for customer support and 8.8 out of 10 for service capabilities, service levels, client engagement and end-to-end solutions from its own customers that participated in the survey.

© Datamonitor. This brief is a licensed product and is not to be photocopied

SUMMARY

Customer service and technical messaging are increasingly important

IVR platform commoditization means that it is becoming difficult for vendors to differentiate on technology alone. Vendors must broaden their portfolios and focus on customer support to do well in the rapidly consolidating self-service market. Moving forward, vendors are likely to be focusing on providing adaptable deployment options, supporting a wide range of applications and offering greater pricing flexibility. There is likely to be an increase in the uptake of hosted and hybrid IVR solutions as enterprises assess CAPEX and OPEX in the current economic downturn and vendors look to support their clients' needs. Switch integration will become less of an issue as enterprises invest in a SIP infrastructure and adopt an SOA strategy. Despite slow growth in IVVR, vendors with experience in deploying these solutions will be at an advantage as more customers look to use this technology for competitive differentiation and new customer-centric applications and advertisements.

Strategic messaging is very important, particularly where there has been vendor consolidation. Support for platform migration and competitive pricing for upgrades will be essential to retain clients. Market consolidation means that standalone players will have to stay one step ahead of suite solution providers through aggressive pricing, unique messaging, customer support and new features and functions. It is also equally important that vendors provide hosted IVR services either themselves or through a close partner. The IVR platform is quickly becoming commoditized, and differentiation will be in the higher value-add areas of the voice business value chain, namely applications, services and hosting. These are the areas where further industry consolidation is expected.

As we roll out the tape over the next five years, vendors will increasingly differentiate themselves by introducing novel application frameworks, which work in tandem with SCEs and other contact center products, to simplify the creation and deployment of sophisticated IVR (DTMF and speech) applications such as outbound, personalized IVR and video. The level of customer support needed, however, will not change. Customer service and support, especially in the short term, will be crucial for customer retention. Vendors should focus on maintaining exceptional levels of support and client engagement to retain customers. They should, if they have not done so already, create a formal, iterative process where customers (of all sizes) are able to provide insight into future product releases and version upgrades.

© Datamonitor. This brief is a licensed product and is not to be photocopied

APPENDIX

Summary scores

Table 3: IVR Decision Matrix – vendor scores summary

Vendor	Technology assessment	End-user sentiment	Market impact
Aspect	6.5	6.2	3.0
Avaya	7.6	6.6	7.2
Cisco	7.6	6.7	6.2
Genesys	8.2	7.8	7.7
Holly Connects	6.7	7.9	2.2
Intervoice	7.7	5.7	5.5
Nortel	7.6	6.4	7.3
Syntellect	7.5	6.0	3.7
Voxeo	7.7	7.7	3.7
Average	7.5	6.8	5.2
Minimum	6.5	5.7	2.2
Maximum	8.2	7.9	7.7

Source: Datamonitor DATAMONITOR

Datamonitor ratings

- **Shortlist** – these vendors' products and services should be placed on an enterprise's shortlist for IVR platform selection. This category represents the leading solutions that Datamonitor believes are worthy of a place on most technology selection shortlists. The vendor has established a strong market position with an IVR product that is widely accepted as best-of-breed or part of a larger suite solution.
- **Consider** – the vendors in this category have solid market positioning and are selling and marketing the IVR products well. The products provide competitive functionality and good price / performance, and should be considered as part of the technology selection process.
- **Explore** – solutions in this category have less broad applicability, and may have limitations in terms of the product's functionality, or the vendor's execution capability. However, they will still be suitable to meet specific requirements, and are worth exploring as part of the technology selection process.

Definitions

- **Call Control Extensible Markup Language (CCXML)** – this is an XML-based language that can control the setup, monitoring, and tear-down of phone calls. CCXML allows the industry to leverage the strength of web platforms and technologies to intelligently control calls on and off the telephone network.
- **Contact center** – Datamonitor defines a contact center by the following features:

© Datamonitor. This brief is a licensed product and is not to be photocopied

- an ACD or PBX with equivalent functionality overlaid (or soft ACD);
- 10 or more agent positions;
- agent positions are desks from which agents make and/or receive telephone calls to and/or from internal or external customers (this is taken to imply that the call in question involves communication between the agent and the customer).

- **Dual tone multi-frequency (DTMF)** – the signal to the phone company that a caller generates when he/she presses keys on a telephone's keypad. DTMF has generally replaced loop disconnect ('pulse') dialing.
- **Outbound IVR** – this is the term for a speech or touchtone application that calls a customer. Outbound IVR is unique in its ability to have an interactive conversation, obtain an immediate response, and complete a transaction.
- **Service creation environment (SCE)** – speech application development tools are sometimes referred to as service creation environments or integrated development environments (IDEs). These are the building blocks used to form the application framework needed to create, configure, test, debug and deploy a speech application both in proprietary environments and VoiceXML-based applications. Modern tools are designed to work within a web framework and provide greater value than the tools used in proprietary development environments.
- **Session Initiation Protocol (SIP)** – this is a signaling protocol, used for setting up and tearing down multimedia communication sessions such as voice and video calls over the Internet. SIP was accepted as a 3rd Generation Partnership Project (3GPP) signaling protocol and permanent element of the IMS architecture for IP-based streaming multimedia services in cellular systems.
- **Speech recognition** – a speech recognition engine listens to and recognizes spoken words. In most cases it processes the incoming audio to isolate words, splits these words into segments (usually phonemes or diphones), and then statistically compares these segments with a linguistic database. Depending on the word spoken, a value is returned, normally with a degree of confidence, which will result in a menu selection or action through the IVR system.
- **VoiceXML** – the World Wide Consortium's (W3C's) standard markup language, based on XML and used for creating voice user interfaces that use advanced speech recognition (ASR) and text-to-speech (TTS) technologies.
- **XHTML+Voice (X+V) – a** language for describing multi-modal visual and auditory user interfaces. The visual interaction is defined using XHTML, whereas auditory components are defined by a subset of VoiceXML. Interfacing the voice and visual components of X+V documents is accomplished through a combination of ECMAScript, JavaScript, and XML Events.

Extended methodology

Datamonitor assesses IVR vendors based on three core criteria, each of which consists of between eight and twelve specific criteria. Taken together, these criteria serve as the basis for Datamonitor's positioning of vendors as 'shortlist', 'consider', or 'explore' in the competitive landscape.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Technology assessment

Datamonitor analysts assign vendors a score from 1 to 10 for each of the ten assessment criteria, whereas the overall technology assessment is determined by taking the average of these scores. The ten technology assessment criteria used for the IVR market are:

- **Platform features and capabilities** – vendors' support for open standards, speech engines, development tools and industry protocols.
- **Switch Integration** – vendors' integration capabilities with other providers' ACD/PBXs, CTI connectors and UC solutions.
- **Breadth of applications deployed** – vendors' experience in deploying various applications including speech, voice biometrics, outbound and video IVR.
- **Development tools** – the assessment of a vendor's own development tools and third party integrations, including design features, testing and monitoring, interface and support and application portability.
- **Monitoring and reporting** – solution features such as dashboard, real-time analytics, and reporting and analysis tools are assessed.
- **Deployment** – the ability of vendors to provide a trial solution, support different hosted deployment environments and operating systems. Vendors are also rated for size of deployments.
- **Services** – a vendors' ability to provide consulting, SI, road mapping, application development, and load testing.
- **Solution maturity** – the extent to which the solution has developed in comparison to similar offerings on the market, taking into consideration investment protection for applications, the length of time the solution has been in the market and installed base.
- **Solution breadth & depth** – the degree by which an offering meets business requirements from integrated contact center suites, vertical markets strength, hosted services and support.
- **Vendor strategy** – in this category the many aspects of a vendor's IVR strategy are assessed including global presence, partner, hosted, technical and business strategies as well as messaging and market presence.

End-user sentiment

As part of each technology assessment, Datamonitor surveyed 70 users of IVR technology globally. These end users were asked to rate the technology vendors they work with; Datamonitor analyzes the results and provides an average rating in each of the following categories.

- **Product quality** – the enterprise's perception of the quality of the vendor's products.
- **Customer support** – the quality of the vendor's business/technical support offerings.
- **Service capabilities** – the quality of a vendor's particular services offerings (consulting, integration, maintenance, management)
- **Vertical specialization** – the extent to which the vendor offers industry-specific solutions and expertise.

© Datamonitor. This brief is a licensed product and is not to be photocopied

- **Portfolio depth** – the enterprise's perception of the depth of the vendor's product portfolio.
- **Service levels** – the quality of a vendor's service level agreements (SLAs) and its ability to meet them.
- **Financial stability** – how financially stable the enterprise believes the vendor is.
- **Client engagement** – the effectiveness of the vendor's sales-force and the enterprise's perception of its channel to market.

Market impact

Datamonitor analysts use data collected through primary and secondary research to determine a vendor's global market impact. Market impact is measured across six categories, each of which has a maximum score of 10:

- **Revenues** – each vendor's global IVR platform revenues are calculated as a percentage of the market leader. This percentage is then multiplied by a market maturity value and rounded up to the nearest integer. The market maturity value is determined in inverse proportion to the rate of global market growth.
- **Revenue growth** – each vendor's revenue growth rate for IVR over the last 12 months is calculated as a percentage of the fastest growing company in the market. The percentage is then multiplied by 10 and rounded up to the nearest integer.
- **Vertical reach** – Datamonitor determines each vendor's revenue in 11 vertical markets (energy and utilities; financial services; healthcare; life sciences; manufacturing; media and entertainment; professional services; public sector; retail, wholesale and distribution; telecommunications; and travel, transportation, logistics and hospitality). These revenues are calculated as a percentage of the market leader in each vertical market, multiplied by 10 and then rounded to the nearest integer. The vendor's overall vertical reach score is the average of these 11 values.
- **Geographical reach** – Datamonitor determines each vendor's revenue in three regions: the Americas, EMEA, and APAC. These revenues are calculated as a percentage of the market leader in each region, multiplied by 10 and then rounded to the nearest integer. The vendor's overall geographical reach score is the average of these three values.
- **Recognition** – as part of the survey of 70 end users, respondents are asked to select IVR platform vendors they are aware of. The percentage of the vendor recognition is then divided by the highest percentage of the vendor recognition, multiplied by 10 and rounded up to the nearest integer.
- **Size-band coverage** – Datamonitor determines each vendor's revenue in three company size bands: large enterprises (over 5,000 employees), medium-sized enterprises (1,000–4,999 employees) and small enterprises (fewer than 1,000 employees). These revenues are calculated as a percentage of the market leader in each region, multiplied by 10 and then rounded up to the nearest integer. The vendor's overall company size band score is the average of these three values.

© Datamonitor. This brief is a licensed product and is not to be photocopied

Sources

- **Financial analysis –** an analysis of vendors' financial performance or estimated financial performance, taken from annual and quarterly reports, vendor shipment information and investor presentations, as well as a variety of secondary sources.
- **Customer survey** – a survey of 70 IT managers and contact center managers.
- **Technology analysis** – assessment of vendors' technology.

Further reading

2009 Trends to Watch: Voice and Video Business, BFTC2212, December 2008

2009 Trends to Watch: Contact Center Markets and Technologies, BFTC2238, December 2008

Hosted Speech and Outbound IVR Services (Strategic Focus), DMTC2239, June 2008

The Global IVR Market Model (Interactive Model), IMTC0264, February 2008

Understanding the Changing Role of IVR in Evolving Infrastructures (Review Report), DMTC2166, December 2007

Identifying Global Opportunities for Hosted Speech and DTMF Services (Strategy Focus), BFTC1668, April 2007

Ask the analyst

The Technology Knowledge Center writing team:

Aphrodite Brinsmead, Associate Analyst, Customer Interaction Technologies abrinsmead@datamonitor.com

Daniel Hong, Lead Analyst, Customer Interaction Technologies dhong@datamonitor.com

Datamonitor consulting

We hope that the data and analysis in this brief will help you make informed and imaginative business decisions. If you have further requirements, Datamonitor's consulting team may be able to help you. For more information about Datamonitor's consulting capabilities, please contact us directly at consulting@datamonitor.com.

Disclaimer

All Rights Reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher, Datamonitor plc.

The facts of this report are believed to be correct at the time of publication but cannot be guaranteed. Please note that the findings, conclusions and recommendations that Datamonitor delivers will be based on information gathered in good faith from both primary and secondary sources, whose accuracy we are not always in a position to guarantee. As such

Datamonitor can accept no liability whatever for actions taken based on any information that may subsequently prove to be incorrect.

© Datamonitor. This brief is a licensed product and is not to be photocopied