



## Future Technology: Customer Contact in the years to 2012

A paper for CCA Industry Council



**GALLUP**



**Ipsos MORI**



## CCA INDUSTRY COUNCIL

CCA Industry Council drives the contact centre industry’s research agenda, by sharing information from all sectors to ensure the research approach, debate and output provides the pathway for the future in terms of new thinking and strategies.

An initial meeting was held when 30 leading players from industry debated ‘Changing the Rules’. From this debate it is clear there is a need to create ‘Beyond Operational Efficiency’ – a new vision for how customer contact centres should be repositioned within organisation, placing the customer at the heart of the business.

The Industry Council consists of an exclusive group of representatives from leading organisations who are committed to providing this input whilst themselves benefiting from a unique package of: leading edge research, networking, government influencing opportunities and establishing their profile as ‘Leaders of the Future’.

Expert academic and private sector facilitators will draw on leading edge debate and invite participation from other recognised research houses and agencies to engage with Industry Council to ensure the group deliver leading edge analysis.

As the independent professional body, CCA has a partnership with leading organisations and groups to access relevant research and information for the development of the Industry Council. CCA’s vision is for contact centres to be repositioned within organisations to reflect the increasing complexity and competitor challenges arising from the dominance of this channel.

CCA are indebted to the efforts of the Foundation Partner Group who have formed the backbone of activity in taking forward the development of the CCA Global Standard<sup>®</sup> and creating the vision for CCA Industry Council. These organisations from all sectors, public and private, each have a significant impact on the contact centre market-place.

### FOUNDATION PARTNERS



## Foreword from Rob Pike, Chair of CCA Industry Council



During the past 18 months CCA Industry Council has looked at many key questions facing the contact centre industry. Several topics have been covered, from getting the DNA of the customer into the boardroom, to understanding the impact of automation on the agent. We have carefully considered the impact of change with the able assistance of the Research Council.

For this quarter, we set out to answer the question “is there an iPod equivalent for the customer contact industry?” In doing so, we were conscious that there may not be something as significant as the iPod in customer contact, but an exploration of key technology changes is the first step in understanding how the future might develop.

Our time horizon being the next 3 to 5 years, we wanted to understand what technological developments have the potential to impact end-to-end customer contact. Obvious areas include front-end channel interface, workflow management and scheduling, database management and analysis, networks and virtualisation. We also sought to share learnings about successful deployment of new technology in customer contact and also to remember the changing customer.

The results of our debate and the contributed papers have centred on how people communicate with a company, how they are handled, and followed up by the organisation when the call gets through. The first is all about what external channels of communication the organisation provides and the second is concerned with the quality and level of support provided to agents and web-based processes.

Although we have not (knowingly!) identified the equivalent of the iPod for customer contact, we have established that the future is already here in terms of technology. Advanced contact centres today are using the technologies, such as IM and voice analytics, which the majority will be using in five years time. For the director needing to develop strategy, I’m sure the papers will provide useful guidance and advice.

Once again we are indebted to the work of CCA Foundation Partners who have been the catalyst of CCA’s evolution to become the present day Customer Contact Association. Their dedication has helped create CCA Industry Council, a unique think-tank which is challenged with finding solutions to ensure that the customer is placed at the heart of an organisation’s operations.

We would like to extend our grateful thanks to CCA Research Council, which has been strengthened with the addition of Ipsos-MORI and Ventana, for again providing very insightful findings into this critical issue.

**Rob Pike**  
Chair, CCA Industry Council

*Rob is Director of Operations, Ulster Bank Group and European Consumer Finance at the Royal Bank of Scotland*

## Customer Interaction Handling Technologies

A vision of what technologies will be in use in contact centres by the year 2012

Prepared by Richard Snow, Ventana Research



## Introduction

During 2005 and 2006 Ventana Research carried out two studies into the maturity of contact centre operations and the use of technology to handle customer interactions. In both studies, we defined four levels of maturity for handling customer interactions: tactical, advanced, strategic, and innovative. Each of these represents an increasing level of sophistication - maturity - in the both the way the centre is run - the processes and people - and the technology deployed to support more advanced operations. The results show that overall the majority of companies are at the strategic or advanced levels, and less than 30 percent of companies have reached either of the top two levels. We believe the innovative companies of today point the way to how centres will be run in the future and what technologies will be in place by 2012.

We see the pace of change in centres has been slow, with many companies so focused on cost savings - reducing agent head count - that they have not kept pace with the latest technology developments and how these could improve their operations. This is particularly true in area such as the agent desktop, agent work force management, and the use of performance management techniques and technologies. However we see several business drivers that we believe will accelerate the pace of change: the web is changing customer buying behaviours, mobile technology and cheap broadband to the home are changing the way customers communicate, competition is getting fiercer as new entrants change the face of doing business, and the business environment is becoming more regulated. The innovative centres lead the way in meeting these demands and we believe that for most companies the next five years will be about taking advantage of existing technologies and enhancements to these rather than any technology revolution.

As the “customer becomes king”, companies will have to address two things: how they enable customers to communicate with them and how customer interactions are handled. The first is all about what external channels of communication the company supports and the second is concerned with the quality and level of support provided by agents.

## Customer Interaction Handling Maturity

**Tactical** - This is the basic level of maturity, at which the centre has voice access only, supports only simple services (often only one), primarily handles inbound calls and is concerned mostly with providing information to customers or answering

simple inquiries. A Tactical centre is severely constrained by cost issues and seldom uses advanced technologies.

**Advanced** – At this level the centre supports additional channels of communication (e-mail, fax, postal mail and Web-generated inquiries), offers more services including technical help, sales and more complex inquiries, and conducts some outbound interactions. It also is constrained by costs but is more concerned with customer satisfaction and uses some advanced technologies, mainly to support additional channels of communication and basic call routing. It uses business intelligence (BI) and related software to produce agent and operational reports and dashboards.

**Strategic** – Companies at this level are more concerned about customer satisfaction and see the centre as a way to help retain customers and add revenue. Toward this end, they have begun to link the contact centre to back-office processes and employees. Centre management realizes the importance of agent retention because good agents can make up for inefficient processes and limited technology. The centre uses technology to improve efficiency and effectiveness, typically providing its agents with a more advanced desktop and using agent workforce management software to match agents with particular types of inbound interactions. It uses predictive analytics to help improve the number of first-call resolutions and assist in training agents on how best to handle callers. It uses BI to produce business and customer related reports and analysis.

**Innovative** – At this highest level of maturity, companies see the centre as a way of differentiating themselves from the competition. The centre uses advanced technologies that support the newest channels of communication (such as instant messaging and video) and advanced interaction routing based on the caller's profile and preferences, and it is fully aligned with the back office through the use of workflow and collaboration tools. At this level companies have started to virtualise the interaction handling by routing calls outside of the traditional contact centre, for example to branch offices, home workers, field service engineers. Although cost remains an issue, the Innovative centre has deployed advanced BI and analytics tools that help identify the root causes of interactions as a way of driving improvements in the centre and other lines of business.

## Customer Communication Channels

The research carried by Ventana Research shows that despite lots of talk the telephone remains the most popular choice for customers, with anything up to ten times the volume of interactions than any other channel. But there are signs this is changing. Consumers are getting more comfortable with communicating and transacting business electronically. Post the dot com boom, people now seem happier buying things over the web. This means they are becoming more familiar with the technology and as they do, they seem quite prepared to try alternate channels of communication, with Email and mobile short message (SMS) now commonly used forms of communication. The younger generation is taking further steps. They increasingly live in a real time world where voice communication is too constraining and even email is too slow. They live on the web and so expect to do more business over the web, communicate using Instant Messaging (IM) and Video, and expect companies to be more responsive by sending them alerts that match their profile. Contact centres need to keep up or risk losing customers. The research results show innovative companies are leading the way:

- They have upgraded their web site from providing simple information to sites that support online business transactions
- They plan or have begun to deploy IM (53%), SMS (48%), and Video (42%), and the results show this will accelerate of the next 5 years
- They have begun to deploy technology that will send targeted SMS messages to selected customers

Providing multiple, advanced communication channels creates issues in itself:

1. **consistency of experience:** customers expect to get the same experience – and the same information – regardless of what channel they use. For companies this means finding ways for different business units and different systems to share what has traditionally been seen as proprietary data.
2. **enhanced website** – companies today have little visibility on how users use their web-site. Web analytic systems are quite cumbersome to deploy and only provide some basic data. Newer, more advanced systems, are much easier to set-up and can now provide a full picture of how users navigate the site, thereby allowing companies to optimize their sites to deliver an enhanced experience and hopefully drive more revenues.
3. **IVR (Interactive Voice Response)** – with the telephone being the most popular choice, companies have deployed IVR as a form of self-service or to

least capture key customer data to speed up the resulting conversation with an agent. The majority have not met with wide-spread approval of customers. The research shows that the more innovative companies intend to replace their traditional text based IVR with more user friendly speech-based systems, with 54 percent of respondents to the survey indicating they will make the transition in the next two to five years.

### **Interaction Handling Technologies**

The customer experience is heavily impacted by the level of maturity of interaction handling. Underpinning this is whether the company is focused on the efficiency or effectiveness of their operations. Efficiency companies tend to focus on cost and let the customer experience “be what it is” - this applies to companies at the tactical and strategic levels. Effectiveness companies, while still keeping an eye on costs, are more focused on their customers and generating additional revenues from more loyal customers - the advanced and innovative companies. As companies transition to more mature levels they place greater emphasis on four things:

1. having the right profile of agents available to match expected patterns of inbound interactions
2. where the interaction is routed to in order to increase the likelihood of it being resolved during the first interaction
3. how the agent desktop is configured to support the flow of an interaction and simplify accessing all the systems and data needed to resolve the interaction,
4. the key performance measures and systems deployed to monitor and assess performance.

### **Agent Workforce Management**

Research shows that some of main gripes of customers are waiting in a queue to speak with an agent, having to repeat information already entered into an IVR or to another agent, and being transferred multiple times because the agent cannot deal with their interaction satisfactorily. The primary cause for these is not having sufficient skilled or empowered agents available to meet inbound interaction volumes. Even at the most basic level, our research shows that only 26% of companies have deployed agent work force management to help schedule agent work patterns. The majority of companies at the tactical and advanced level rely on manual methods, more often than not using excel spreadsheets. Advanced companies have deployed a basic agent workforce management system that at least

attempts to match agent availability to previous inbound interaction patterns. Innovative companies have gone one step further and linked their agent workforce system with routing systems to enable skill based routing and routing to other employees (“virtual agents”) that are present and available to handle interactions. The latter is particularly relevant to the most innovative companies that are seeking to virtualise their interaction handling.

### **Interaction Routing**

Companies can achieve much higher levels of customer satisfaction, for example by improving their rates of first call resolution, by ensuring interactions are routed to an agent or virtual agent that is best skilled and empowered to resolve that customer's interaction. Our research shows that although most companies have deployed a form of basic interaction routing, only 40% have deployed what we would term intelligent call routing. Basic routing is predominantly concerned with calls only and seeks to route calls to the next available agent or to a specific agent group, for example a group trained to deal with complaints. More mature companies with multi-channel centres place all interactions into a single queue and route according to the most skilled agent to deal with that interaction type. The most innovative centres link routing to customer and agent information so they can ensure the best possible person deals with the identified customer. Again, the latter is particularly relevant to the most innovative companies that are seeking to virtualise their interaction handling.

### **Agent Desktop**

The agent desktop is key to the efficiency and effectiveness of interaction handling. A bad desktop will require agents to manually navigate to the system or systems they need to access to resolve an interaction, manually navigate through multiple screens of information to resolve an interaction, and possibly re-enter data into multiple systems. Each of these takes time, making the agent less efficient and less able to focus on the customers. The research shows that agents on average have to access 2-3 applications and multiple utility-type systems to handle an interaction, sometimes having to access 30+ screens to resolve one interaction. This reduces their effectiveness and leads to a great deal of customer aggravation as they wait for agents to navigate through their systems. A staggering 17 percent of companies still require their agents to use most multiple computers to access systems and only 31 percent have deployed a smart desktop to help make their agents' lives easier. Again as companies' route calls to virtual agents outside the traditional contact

centre more of these will not have had the benefit of the same level of training afforded to agents so will require even smarter desktops.

## Performance Management

The key performance measures used by companies to monitor and assess the performance of interaction handling - and the contact centre - haven't changed a great deal over the last ten years. Nine of the top ten measures remain efficiency oriented and related to the throughput of calls; total number of calls, average call length, queue times etc. In our survey, only one effective measure - first call resolution - makes the top ten. The most cited reason is lack of available systems, to the extent only 17% said they have deployed a contact centre-centric business intelligence system. Companies at the tactical and advanced levels tend to rely on reports generated by the different systems in the contact centre, for example, a call report from their ACD, with many manually extracting of data from these reports into excel spreadsheets in order to get a more balanced view. As companies transition to the more mature levels then they either rely on IT to use their enterprise-wide BI system to create a specialist set of reports, or they deploy one of the many specialist systems now available. Even so most of these are limited to providing reports and dashboards that integrate data from multiple sources and few have taken the final step of deploying a true performance management system.

As for other areas of the business, the contact centre suffers from growing volumes of unstructured data: IVR scripts, web scripts, scanned documents, recorded calls. These have been notoriously difficult to analyze, making it extremely hard for companies to achieve a 360 degree view. But help is at hand as vendors are emerging with systems that can provide a deep analysis of how the web site is used and others have systems capable of providing an automated analysis of recorded calls. For the most mature, there are also systems emerging that can capture data from all channels of communication and all data sources to produce a picture of how customers have tracked across channels and systems in order to resolve their issue.

## Virtualisation

The result from the surveys show that the move to distributing interaction more widely across the enterprise - virtualization - is gaining pace. The enabling technology to achieve this is voice over the Internet (VoIP) and a VoIP-based contact centre; which has shown a 4% increase in deployments from the results of our 2005 study. These provide an affordable and functionally rich platform that allows

companies to route interactions to anyone in the enterprise. As the new SIP-enabled devices become more available then we believe this trend will accelerate as both the networking equipment and communication devices become even more affordable and capable. But deploying VoIP is only part of virtualization. The fundamental premise is that more employees become involved with dealing with interactions so as to increase the chance of the customer being satisfied at the first point of contact. That means a more distributed workforce, more part time workers, less well trained workers, and more people on the front line dealing with customers with perhaps communication not their number one skill. This will require all companies embarking on this journey raising their maturity levels using workforce management (optimization), interaction routing, the agent desktop, and customer (interaction handling) performance management.

However our research shows that taking this path opens up an even bigger challenge; that of customer data and information. With more employees, in more business units handling customer interactions, it will be vital that everyone is working from a consistent source of customer data. Our research shows this is not the case today and companies have customer data in tens, if not hundreds, of systems. The more mature companies are therefore deploying extraction, integration and data cleansing systems to create a single source of customer data. Initially this is largely being used to provide a single source for producing reports, dashboards, and analysis but early adopters have taken the next step of synchronizing this source with all applications in their architecture.

## Conclusion

Predicting the future is always dangerous, as external and internal drivers can significantly effect how companies run their business. The contact centre world is still relatively new and the pace of change has on the whole been quite slow. Our research shows that many centres remain at what we have defined as the tactical and advanced levels. Their priority is clearly to handle as many customer interactions as possible, at the lowest cost which means investment in the past has been largely targeted at reducing agent numbers by driving customers to IVR and the web. We believe that is changing. New web-based services such as moneysupermarket.com are driving customers to look on the web for the best deal and not necessarily to stay loyal to past suppliers. Whether customers remain loyal or move is going to be greatly influenced by their last experience when interaction with a company. We believe the more mature companies that responded to our

surveys are leading the way and it is the technologies they are using today that will become the commonly used technologies by the year 2012.

In terms of communication channels, we expect VoIP to become the de facto standard by 2012, supporting increased use of IM, Video, and outbound text messaging. Although not particularly liked by customers, we expect the continued use of IVR but with more companies transitioning to voice-based systems. We believe it is essential that companies improve their web-based self service systems and bring them more into line with other channels such as the contact centre. We expected virtualization to continue to gather momentum, but we expect several hiccups on the way as companies don't fully account for the impact on "agents" and processes. We believe that the main priority for companies will be to follow the lead of the innovative companies of today and make much fuller use of:

- single queue, intelligent interaction routing
- a process-driven, smarter desktop to allow more efficient use of systems and allow the "agent" to focus more on the customer
- workforce optimization systems to manage and assess a more diverse and less full time work force handling interactions
- both structured and un-structured data analysis tools to provide better information to everyone in the organization, and to transition to full blown customer-focused performance management.

Finally, whether within a SOA environment or not, we believe companies must seek greater integration across business units and channels of communication. Use of the web will continue to increase and with it the increased likelihood of less loyal customers. Integrating the web with all lines of business will therefore be vital, as will ensuring consistency of experience across all channels. And the basis of all initiatives will be creating a single source of customer data and a 360 degree view of the customer.

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### **About Ventana Research**

Ventana Research is the leading performance management research and advisory services firm. By providing expert insight and detailed guidance, Ventana Research helps clients operate their companies more efficiently and effectively. We deliver these business improvements through a top-down approach that connects people, processes, information and technology. What makes Ventana Research different from other analyst firms is our focus on Performance Management for finance, operations and IT. This focus, plus research as a foundation and reach into a community of more than 2 million corporate executives through extensive media partnerships, allows Ventana Research to deliver a high-value, low-risk method for achieving optimal business performance. To learn how Ventana Research Performance Management workshops, assessments and advisory services can impact your bottom line, visit [www.ventanaresearch.com](http://www.ventanaresearch.com).

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