

# Research Report

**A Cost Comparison of  
All-in-One versus Multi-Point Solutions  
In the Contact Center Sector**



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## A Cost Comparison of All-in-One versus Multi-Point Solutions In the Contact Center Sector

by

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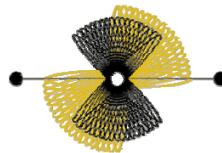
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Dr. Jon Anton  
Bruce Belfiore  
John Chatterley

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## EXECUTIVE SUMMARY

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### Purpose of This Study

In 2006 we completed a study into an emerging model of contact center technology – the all-in-one model -- in which one vendor provides all needed solutions on a single platform. We surveyed the people and explored the processes that are keys to the acquisition and implementation of technology in today's contact centers. In particular we sought to understand base-line decisions made regarding a "multiple point solution" approach as opposed to the "all-in-one" contact center suite approach.

The resulting research paper, entitled "A Comparison of All-in-One versus Multi-Point Contact Center Solutions" (Footnote 1) has been the subject of considerable and fruitful comment for its groundbreaking information and insights as regards the all-in-one approach. Major findings included:

- Administration requires more resources for multi-point contact centers than for all-in-one centers.
- Integration is usually simplified, and the reported ability to leverage the functionality of various applications, is enhanced with all-in-one offerings.
- The ongoing addition of most new technology, applications, and functionality, appears significantly easier for customers who have deployed an all-in-one solution versus those who choose a different vendor for each solution.
- As a whole, contact center managers recognize the value of reducing the number of vendors they must deal with in the deployment and maintenance of contact center technology.
- The total cost of ownership of technology appears less for an all-in-one solution contact center when compared with its multi-point counterpart.

As a result of this research, we wanted to drill down further into the actual total costs of ownership, including items that might be hidden or ignored in many contexts. This White Paper explores the cost factors of the two alternative technology choices, and includes the following components:

- We will review the definitions of "all-in-one" solutions and "multiple-point" solutions to ensure that the readers and authors of this report begin at the same starting point;
- Study relative costs of these two solution types in terms of:

- Technology specification, selection and pre-acquisition costs;
- Installation and integration costs;
- Maintenance and ongoing administration costs;
- Costs of upgrades;
- Other costs including hidden costs that may not be immediately apparent;
- Evaluate results of these findings and draw conclusions;
- Try to conclude something about best practices that can be of use to contact center managers.

Note that we homed in on the “non contractual” costs of ownership. We focused on these factors rather than “sticker price” for three reasons:

- a. Availability of accurate information. Today's competitive market for contact center technology means that solution costs are changing all the time. Since existing installations can have histories of five years or more, the pricing information of the past does not reflect the pricing realities of today or predict pricing of the future.
- b. Usefulness for Contact Center Managers. The price of solutions is often among the easiest costs to obtain for contact center managers. In line with the “tell me something I don't know” approach to research, we focused on the other costs that could ruin budgets and skew real ROI's for contact center operations.
- c. Distortions. Certain elements tend to distort solution sticker costs, including financing methods and bundling. Short of a full-scale audit of each center, it is not possible to create a true apples-to-apples comparison.

We have brought forward and incorporated some of the research from the previous Study (footnote 1), at points when this information helps to illuminate important concepts or describe things that are in line with this research. This Study will be referred to herein either by name or as “our 2006 Study”.

## Definition of Best Practices

Since we use the term “best practices” in our Research Reports, we have found it useful to define this often-used and often-misunderstood term. “Best practices” are not necessarily:

1. the most common, or most popular process implementation practice (“conventional wisdom”); or
2. the least expensive process implementation practice.

Rather, we define best practices as follows:

“Best Practices are those defined steps that have been shown to achieve the highest possible effectiveness and efficiency for a given business process.”

Best practices result when highly creative managers optimize the combination of people, processes, and technology to achieve the highest possible customer satisfaction at the minimum possible cost. Such a definition indicates a balanced optimization of quality and quantity, and/or of efficiency and effectiveness.

Note that there is seldom one company that is better than all others in all of its practices. More typically, each world-class company is doing one or more steps really well, but is not doing as well as other creative centers in other processes.

The worldwide benchmarking research performed by BenchmarkPortal helps us pinpoint the “best of the best” call centers based on results obtained. We then study the origins of their success and strive to make their best practices knowledge available to all.

## Summary of Research Findings

Our previously-mentioned 2006 Study on all-in-one versus multiple non-integrated solutions found that most contact center managers want ease of use and reliability in their technology, and would prefer to have one relationship, one vendor, one suite of products, and one common administrative interface, though some managers need to be convinced that going with all-in-one providers will not deprive them of “best-of-breed” excellence, at least for those applications they consider mission-critical to their success.

This research builds on those findings and explores cost-based detail, to understand if the preferences expressed by managers find support in financial considerations.

Some of the key findings allow us to draw the following conclusions:

- Costs of technology are often unknown or “under-known” to many managers. Detailed “budget” (before) and “actual” (after) analyses of capital investment should be a routine part of good management practices, but often are not.
- For those managers with a fairly complete understanding of costs, the total cost of ownership appears distinctly less for an all-in-one solution when compared with a multi-point approach. This is taking into account all costs, including establishment of vendor relationships, time required to evaluate new technology, system maintenance and system administration requirements.
- In numerical terms, (and leaving aside purchase cost), total annualized cost of technology per agent was \$2,048 for centers with multi-point solutions, compared with \$922 for all-in-one solutions, i.e. the all-in-one costs were less than half of the costs for multi-point solutions.

- A significant portion of this advantage derives from the diminished need for system administration, which is significantly lower for all-in-one solutions.
- Integration, particularly for centers that add technology over time, is also a major issue, both in terms of cost and in terms of frustrations.
- The ongoing addition of most new technology, applications, and functionality, appears significantly easier for customers who have deployed an all-in-one solution versus those with multi-point products. This is because they need only to add on modules from their single supplier, rather than conduct full RFP processes each time they purchase a functionality.
- Those adopting all-in-one approaches are generally less concerned about missing out on best-in-breed functionality. "By the third or fourth release of a solution component" said one all-in-one owner, "the functionality of each of our components has been just as good as the so-called 'best-in-breed' solution."

Thus, the research reported here provides strong financial justification for the preferences expressed by managers in the call center sector.

(1) "A Comparison of All-in-One versus Multi-Point Contact Center Solutions", by Dr. Jon Anton, Bruce Belfiore and John Chatterley. © BenchmarkPortal, 2006. Purdue Research Foundation, West Lafayette, IN 47907. All rights reserved. Copies available at [www.BenchmarkPortal.com](http://www.BenchmarkPortal.com), or email [brucebelfiore@BenchmarkPortal.com](mailto:brucebelfiore@BenchmarkPortal.com).





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## INTRODUCTION TO THE RESEARCH

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Technology is both an essential component of today's contact center and a major concern for contact center managers. These managers are tasked to integrate people, processes and technology to deliver the kind of quality service that favors customer loyalty and builds value for the enterprise.

We have noted before that technology is often the biggest challenge for contact center managers, who tend to have excellent people skills, but are less comfortable in the technical arena. They know good technology when they see it, but they are not really at ease with the inner workings of technology, and must rely on their technology administrators to deal with issues that arise.

Yet technology remains a significant budget item for contact centers, particularly in years when new or upgraded solutions are acquired. Scrutiny of contact center budgets is almost always intense, and senior managements are insisting on careful spending and calculated ROI's more and more from their contact center teams. Also, the real total cost of technology is something financial managers are concerned about. Having had bad experiences with IT solutions gone bad, or technology integration costs that have ballooned way beyond budget, they understandably want to see a more comprehensive and in-depth analysis of what is involved, long term, with a technology purchase.

Given this context, and with the debate over all-in-one solutions versus multiple non-integrated solutions heating up, it is worthwhile to poll users on both sides of the fence to determine how expensive each type of solution is.

### Definition of Multi-Point versus All-in-One Solutions

Before describing the research, let us reprise the definitions of multi-point and all-in-one solutions provided in our 2006 Study:

1. A multi-point solution is a solution provided by a specific vendor that satisfies one functional need, such as Automatic Call Distribution (ACD), Interactive Voice Response (IVR), workforce management (WFM), and many more. In the multi-point strategy, a call center manager will choose and pay for a collection of individual point solutions, and then have them integrated together by software integration specialists. The center will employ on-site experts to administer each solution. Vendors offering these types of

solution range from those that provide just one point solution to those that provide a product suite of point solutions - - typically acquired, brought together by the vendor and sold with integration services. It is important to note that a vendor that has a suite of point solutions is not the same as an all-in-one solution, as will be more clear after reading the next paragraph.

2. An all-in-one solution is a complete, integrated suite of contact center products provided by a single vendor; typically the technology is "born" integrated, with the components designed to work seamlessly together and provide a single point of administration. In the all-in-one strategy, a call center manager has one relationship with one vendor that provides all, or most, components under one contract. The all-in-one strategy comes in two versions, as follows:
  - a. The all-in-one hardware/software solution can be located on-premise at the contact center with on-premise employees dedicated to operating the system. It is also possible to blend on-premise and all-in-one across sites, leaving the legacy technology infrastructure intact.
  - b. Alternatively, the all-in-one hardware/software solution can be located off-premise at a third party's site, with the contact center paying only a non-recurring start-up fee, followed by a "usage" fee, i.e., pay-as-you-go. In this scenario of the all-in-one solution, there are no boxes on-site, and no employees dedicated to operating them.

On a schematic graphic, a typical multi-point solution call center looks like the following:

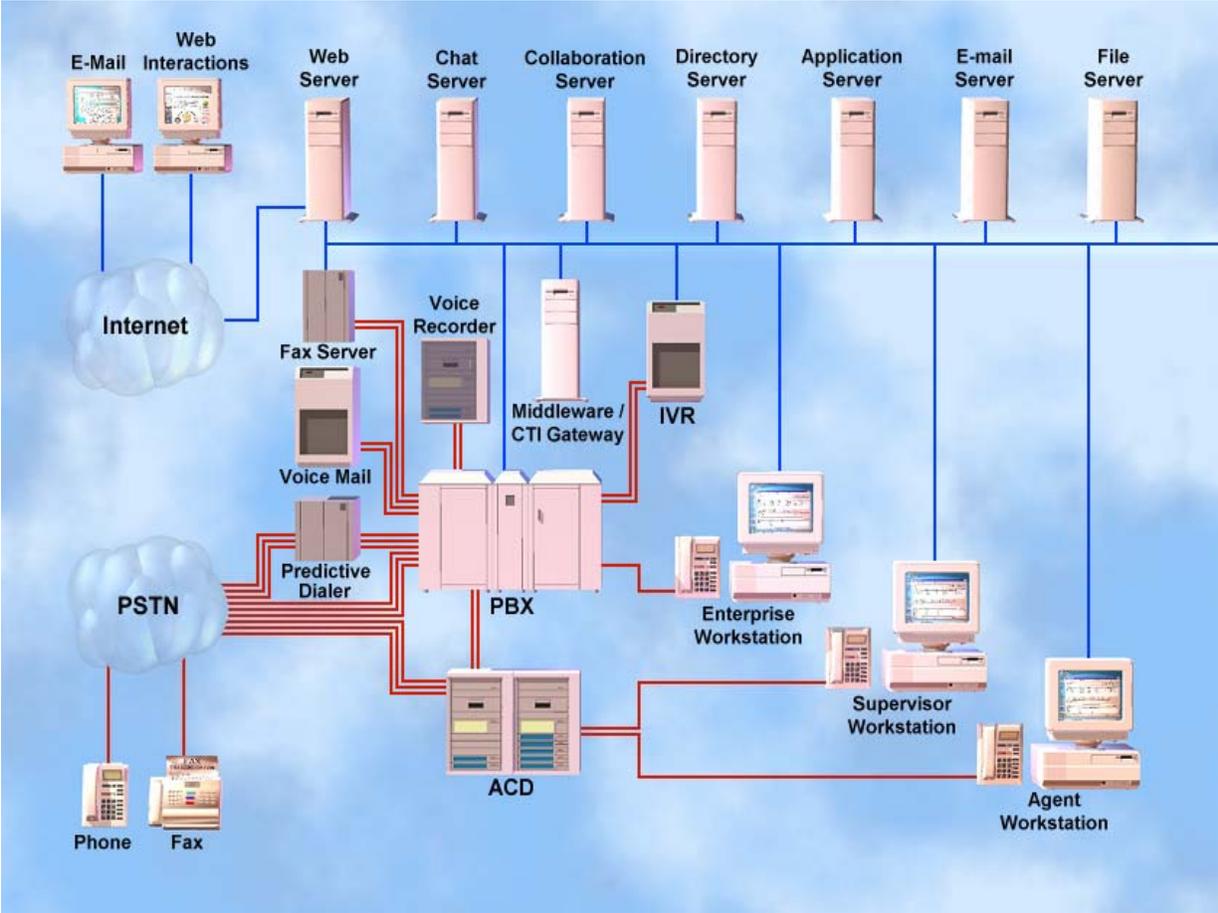


Figure 1: Diagram of typical multi-point solution contact center

By contrast, all-in-one solutions (which use software that runs on a normal server rather than a proprietary firmware/hardware “box”) look more like the following diagram:

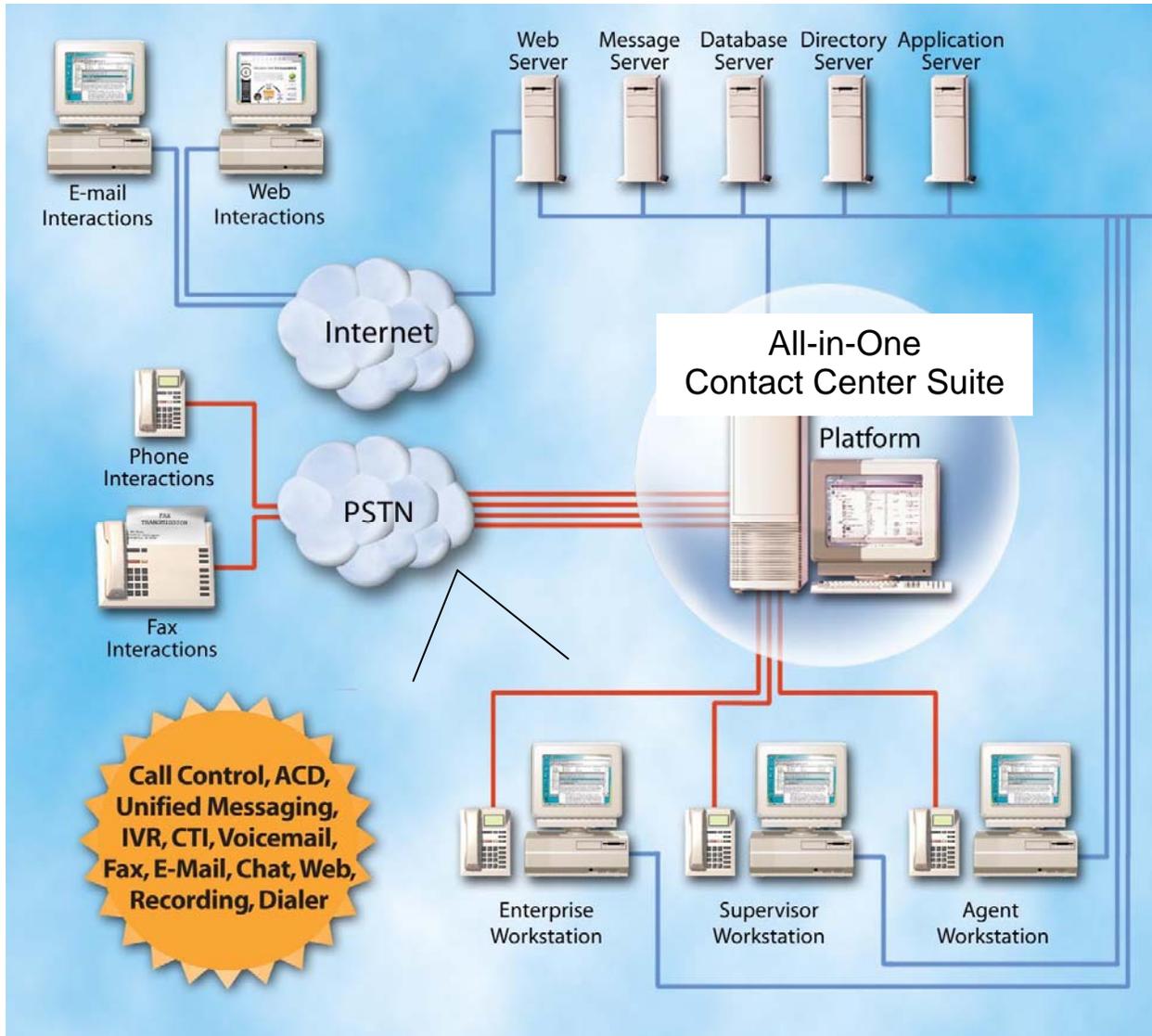


Figure 2: Diagram of all-in-one solution contact center

On-premise all-in-one solutions are of more recent origin, which means that most call centers have multi-point legacy solutions, and a small, but growing percentage have all-in-one solutions.

The off-premise, all-in-one solution appears to be an “emerging model” where the contact center has no technology on-site to worry about. The center only pays a usage fee and, as important, no major capital investment is needed to get started. However, this option may

have additional challenges relative to the ability to customize applications, and/or there might be reduced flexibility in the architecture. There might also be some concerns about off-premise data security.

Finally, for both on-premise and off-premise all-in-one solutions, major upgrades over time are included in the periodic fees, which is not necessarily the case with maintenance costs for multi-point solutions.

## Recalling the Great Debate: Multi versus All-in-One

The debate regarding the efficacy and efficiency of the two models was put forth in our 2006 Study as follows;

- According to believers in the multi-point strategy, assembling pieces allows the contact center to choose the “best-of-breed” solution for each technology component, and thus is a superior approach. With numerous “pieces” to the CRM puzzle, no single vendor can cover them all, at least not with excellent offerings.
- Supporters of the all-in-one approach respond that much of the technology in the all-in-one suites is already best-of-breed, and in other cases the functional delta between the all-in-one suite offering and the “best” multi-point offering is generally small and does not have noticeable impact for most centers.
- On the issue of technology integration, the all-in-one supporters take a strong stance, noting the huge problems often posed by adding on new technologies from disparate vendors, and are ready to share the scars of more than one multi-point integration horror story. They like having fewer boxes and administrators to deal with. Drag and drop programming tools offered by all-in-one providers have made it significantly easier to set up and change advanced call flows with no integration programming required.
- The multi-point people respond that integration has been getting easier and more predictable over the last few years with the gradual introduction of industry standards, and that most of the horror stories pre-date today’s technical realities. They also point out that recent merger activity in the industry means that certain “product suites” are, in fact, product integrations, rather than organic sibling offerings. They also note that some components of large CRM suites have proven to be difficult for some to implement.
- The all-in-one supporters contend that all-in-one systems are leading the way with open standards. However, until industry standards are more widespread and more meaningful for multi-point suppliers, integration of multi-point solutions will continue to present significant headaches for managers along with higher costs. Data that is separately configured across multiple applications makes it difficult to unify things usefully in a multi-point world.

- Regarding system upgrades, and/or enhancements and/or changes, the all-in-one supporters contend that these are easy and do not require the technical skills needed to apply the impact of a change to all the boxes.
- The multi-point people respond that the current individual solutions are much more user-friendly than in the past, allowing average technical professionals to make changes without major headaches, assuming, of course that these technicians are available.

In this paper we will focus on the costs of the two types of solutions by combining new research of 178 contact center management participants with the findings of the previous study, to provide additional, practical information and decision-making input to managers who are trying to evaluate the two strategies.

## Key Technology Process Phases

In the last research paper we referred to the key Phases of Technology selection. For purposes of this research, we have configured these as follows

1. Specification, RFP and Vendor Selection. The sub components of this include:
  - a. In response to a perceived need, the call center personnel take time to research the market for a solution to satisfy the need. This sometimes requires the added cost of consultants to assist in the process. The results are presented for budget approval and management questioning about the solution.
  - b. This is usually followed by the typical RFP processes. This also requires time from company personnel and possibly outside consultants
  - c. Once all of the information is received, decision makers must decide with whom to enter contractual discussions
2. Contract Finalization. This Phase typically involves legal counsel, who interacts on an intensive basis with general and technical managers to make sure the company is getting everything it expects from a deal.
3. Installation and Integration. This Phase includes installing the “boxes” and integrating hardware and software as required. This can involve separate boxes for each solution, as well as administrator training, plus creation of connective software to make everything work together.
4. Operation and Upgrades. Here the elements are the cost of system administrators, ongoing training and consulting costs, hardware and software support and maintenance, as well as upgrades needed to improve functionality.

We will refer to these Technology Process Phases in mind as we explore the cost components that are associated with each.

## Methodology

The present study had the following components:

### 1. Questionnaire

A questionnaire (Appendix B) was sent out to call center managers in the Center for Customer-Driven Quality - BenchmarkPortal database. This questionnaire asked basic “framing” questions about the call center and inquired whether the person had all-in-one or point-solution technology in their contact center.

The information gleaned from the questionnaire is presented below.

From the centers that responded, a number were identified as having parameters which were considered useful for the interview component of this study:

- Size: We wanted a good distribution of size ranges; and
- Technology: We looked for a sampling of centers that used all-in-one and multi-point solutions.

### 2. Individual Interviews

To get further detail on costs, as well as “war story color” based on actual experiences, telephone interviews were held with 12 centers. The centers represent a variety of sizes, industries and technology solutions.

This group allowed us to drill down on cost aspects of all-in-one versus multiple point solutions, providing richness of detail and depth to the study.

### 3. Results and Analysis

The survey responses by contact center management respondents were tabulated for each question, and then analyzed to develop the averaged answers reported in Appendix B.

It must be noted that some respondents omitted an answer response to individual questions. Therefore, in interpreting the averaged results to each question we tabulated the sum of all responses to each question, and used the totaled sum to calculate the averaged survey response to questions with a single answer, and to calculate the percentage distribution for answers to multiple-choice questions.

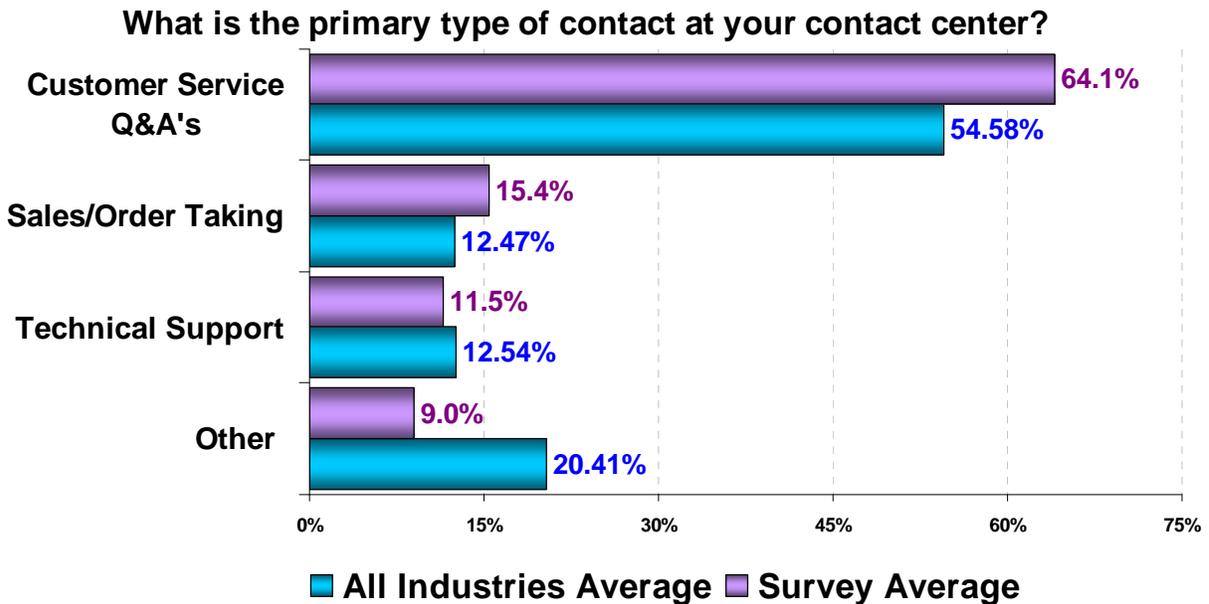
The interview results were tabulated and anecdotal inputs were recorded. These elements were turned into graphics and textual comments and included in this paper.

## RESULTS OF THE SURVEY RESEARCH AND INTERPRETATION

### General Profile of the Companies Surveyed

The Companies surveyed have the following general characteristics:

#### Type of calls:



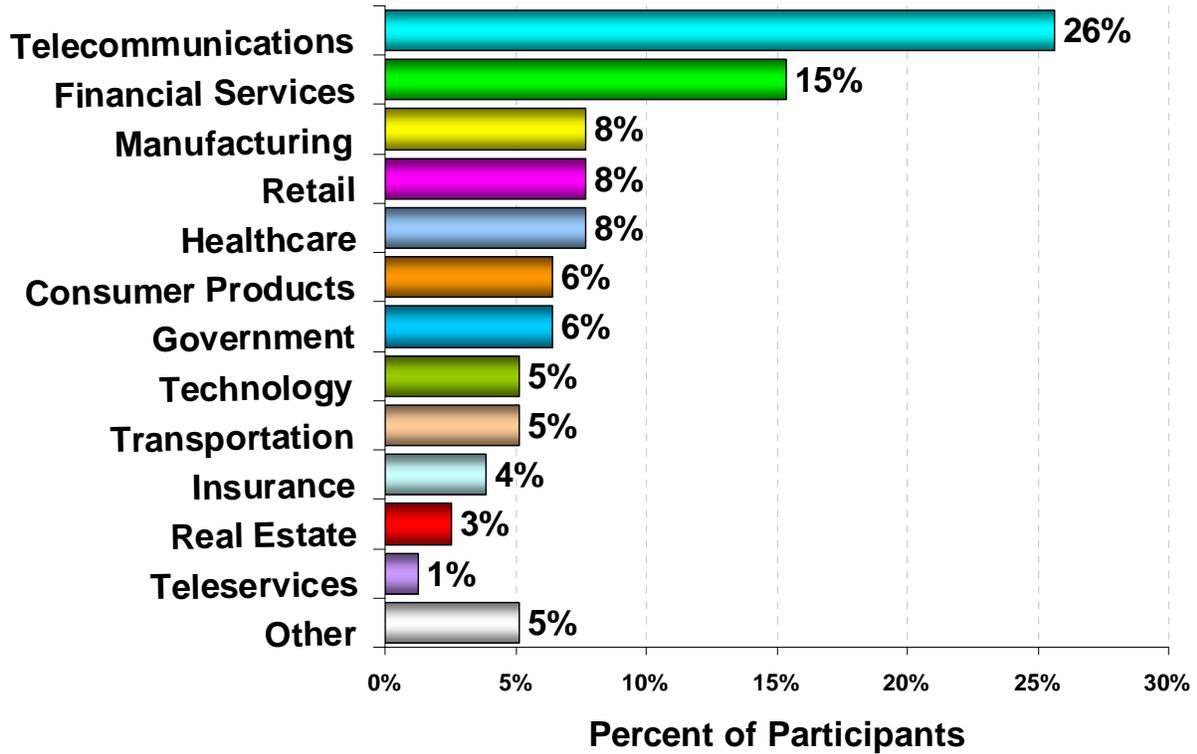
*Figure 3: Comparison of type of calls: Survey Average versus All Industries Average*

The survey sample tracks reasonably well with the averages for the call center industry as a whole, though the respondents were more likely to be of the Customer Service and Sales/Order Taking type.

**Note:** The "All Industries Average" for the graphs in this study comes from the *BenchmarkPortal-Center for Customer-Driven Quality™ (Purdue University) database, which is the world's largest repository of contact center performance metrics.*

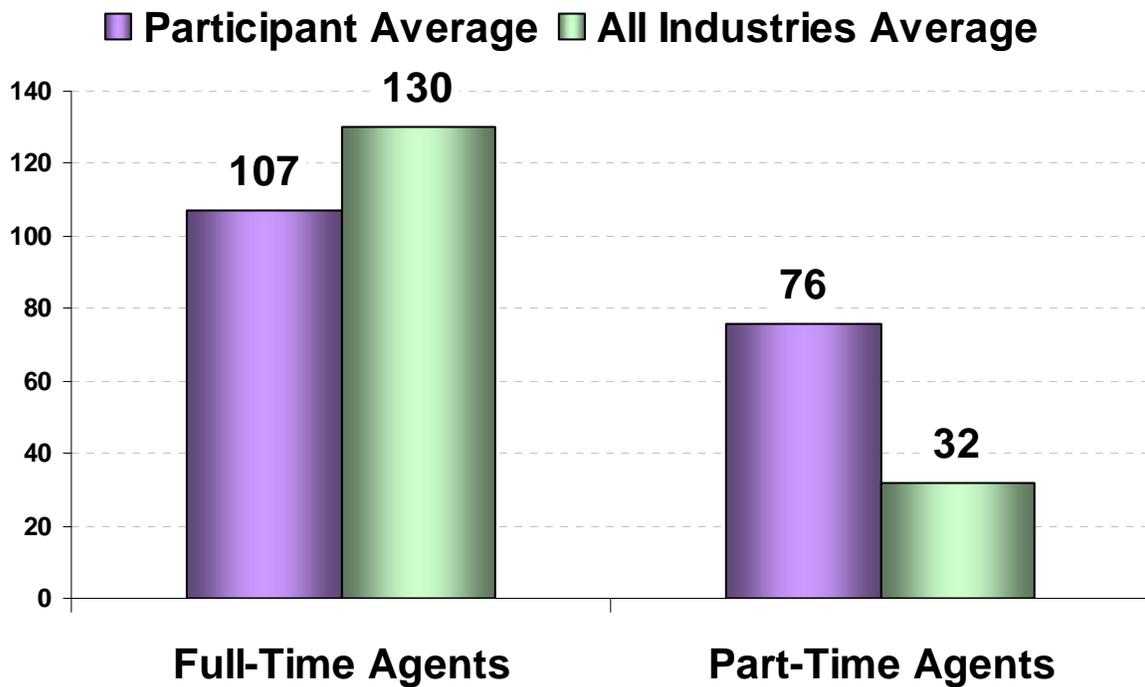
**Industry Sectors:**

**Industries of Survey Participants**



*Figure 4: Industries represented by survey participants*

The respondents to the survey were somewhat weighted toward the Telecommunications and Financial Services industries. This is not surprising, since both of these sectors have invested heavily in contact center technology, and see continued advancement as keys to competitive differentiation.

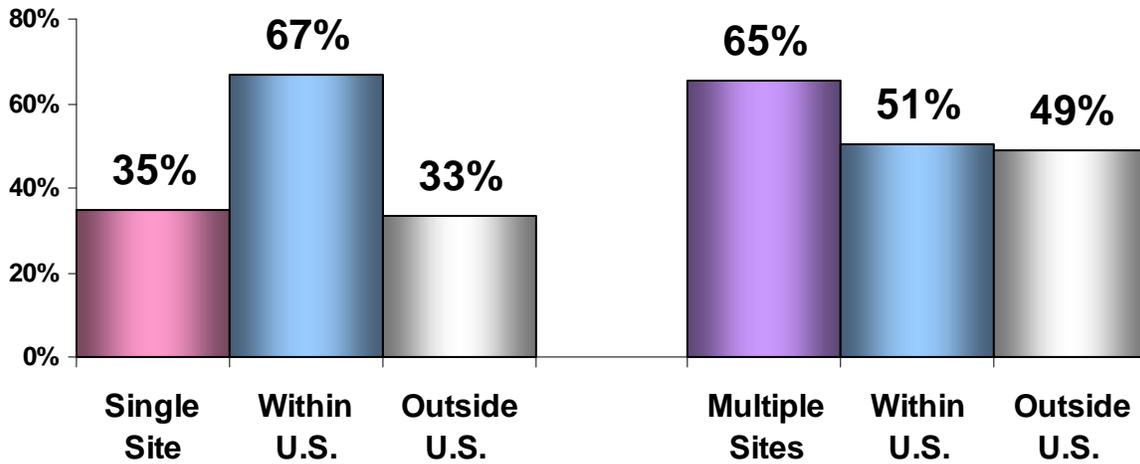


*Figure 6: Comparison of average contact center agent staffing: Survey Participants versus All Industries*

The average number of full time agents for the survey sample is 18% lower than the average for all industries as a whole, but the average number of part-time agents is more than double the average for all industries. This is probably due to the high percentage of telecommunications and financial services contact centers participating in this study, which tend to staff with a higher proportion of part-time agents. Overall, the size of centers appears larger than the industry average, but not disproportionate from the norm.

## Location of Centers and Administration

**Does your technology support single or multiple sites? Sites within/outside U.S.**



*Figure 7: Distribution of technology support sites; single sites vs. multiple sites with percent and number of sites within and outside the U.S.*

There is a good mix of multi-site and single site centers. We also have a good mix of centers from within and outside the United States.

## General Profile Summary

We can summarize this overview of the survey sample in the following manner:

- The participating centers have similar general call types as the sector as a whole;
- The sample included everything from very small centers to very large centers;
- There were also a good international spread of participants, and two thirds of the respondents have multiple contact center sites in their operation.

We can thus conclude that, in terms of their basic characteristics, these respondents represent a good sampling for our purposes.

## Technology Profile of the Participants

The following charts show the technology currently possessed by the participating centers who indicated that they had an all-in-one solution for at least part of their technology.

### Crosstab: Solution Versus Location of Technology

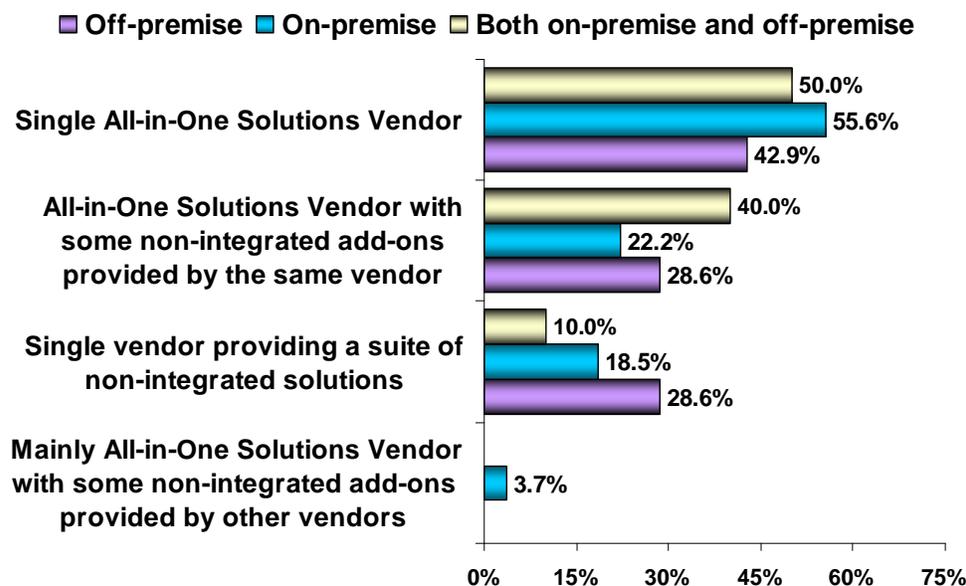


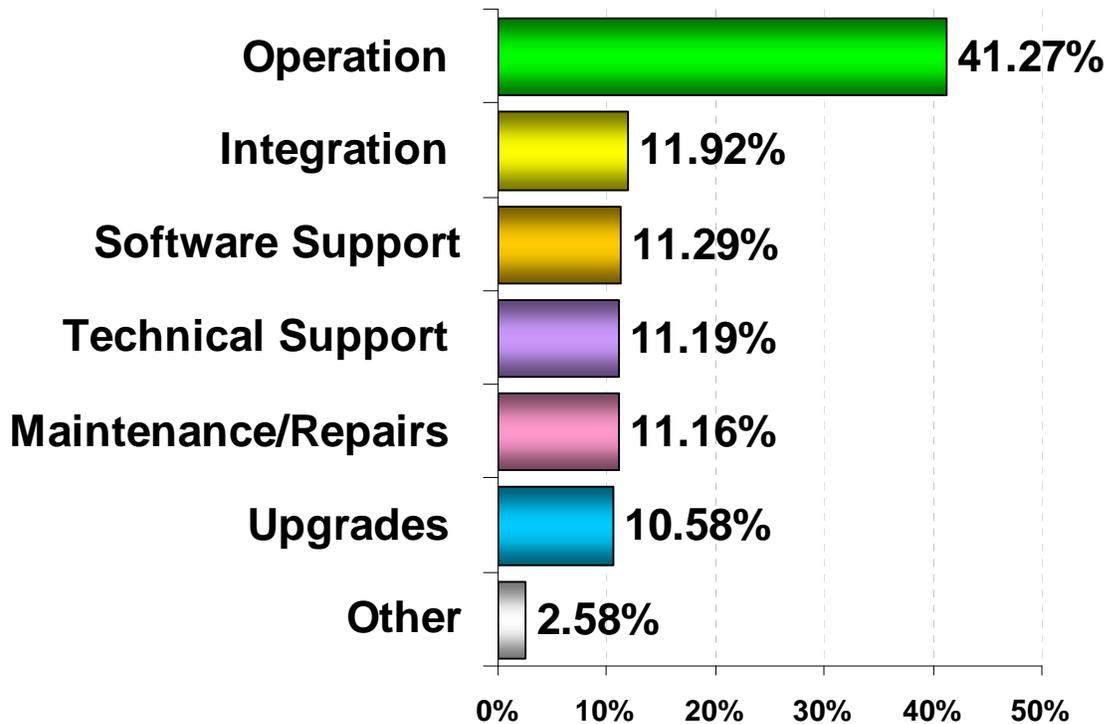
Figure 8: Crosstab: Technology solution versus location of technology on-premise, off-premise, or both

**Finding:** More than half of the participants who responded to this question indicated that their technology solutions are located on site, or occupy combined locations both onsite and offsite.

**Interpretation:** Our research shows that off-premise appears to be increasing in strength.

**Allocation of Technology Budgets:**

**What percentage of your annual operating budget do you spend supporting your technology for the following?**



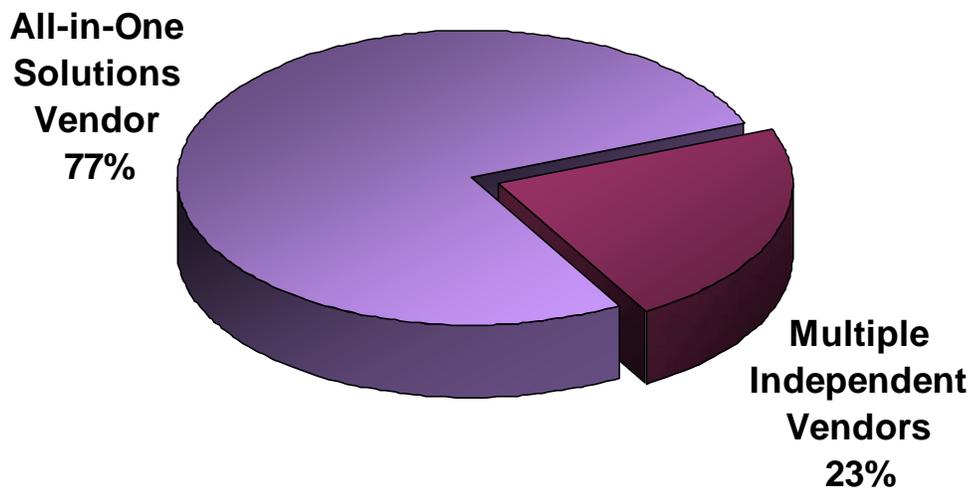
*Figure 9: Percentage of budget spent on support of technology*

**Finding:** More than forty percent of the average annual budget for survey participants' contact center technology is dedicated to operational costs, which is more than triple the average expense for any other technology cost category. Our findings further revealed that all other major technology cost categories are virtually equivalent with respect to the impact that each has on the annual budget.

**Interpretation:** While all major elements of technology have significant impact on costs, operating costs are paramount. These mainly consist of human resource costs such as administration. Managers who are considering new technology should carefully project future operational costs when deciding which technology types and solutions to acquire.

### Opinions of All-in-One vs. Multi-Point Solutions

**Given the choice, if you could get all of your needed technology solutions from a single integrated-solution vendor or from multiple independent vendors each providing a single point-solution, which would you choose?**



---

*Figure 10: Percentage of survey participants that would choose either single integrated-solution vendor or multiple independent vendors, given the choice*

**Finding:** Over three quarters of respondents would prefer to have a single vendor rather than multiple independent vendors for different solutions.

**Interpretation:** The number of people who preferred a single provider was even higher than the two-thirds majority obtained in last year's study. This may be due in part to the following factors:

1. All-in-one solutions have received increasing attention recently;

2. In particular, the attention given to our previous study may have caused some people in the multiple non-integrated solution camp to reconsider their positions;
3. The cost focus of this study may have sensitized some respondents to the savings that can come from all-in-one approaches

## The Technology Process Phases and Choice of Solution Type

One purpose of the study was to focus attention on the often hidden costs of the technology acquisition and operation processes:

1. Specification and RFP/Selection Phase. This is a key phase which groups together functions that lead up to the vendor selection decision. Major systems include:
  - a. ACD (Automatic Call Distributor);
  - b. IVR (Interactive Voice Response);
  - c. Voice Recognition;
  - d. CTI (Computer Telephony Integration);
  - e. Intelligent Routing;
  - f. Workforce Management;
  - g. Hiring and Training Software;
  - h. Contact Recording and Quality Monitoring; and
  - i. Universal Messaging, in those situations where the contact center connects to the rest of the enterprise

In the multi-point solutions world this involves identifying all the elements by oneself or with the help of paid consultants, followed by individual processes for each system.

For the all-in-one solution approach, the vendor's suite becomes the focal point for the manager, as it is designed to satisfy all of the center's technology needs. The supplier sits with managers and reviews each product, probing for needs and building an operational and financial case for adopting the various functional "modules" offered by the vendor. The vendor thus matches the customer needs with its offerings, and proposes a comprehensive or a progressive solution.

Also by definition, the all-in-one solution customer chooses one supplier at the beginning, perhaps by the process phases described above. Having chosen its preferred all-in-one supplier, it then saves the time, effort and money associated with the above process phases going forward.

2. Contract Negotiation Phase. This Phase involves senior management and legal assistance to nail down the paperwork for signature by the parties.

3. Installation & Integration Phase. This Phase involves the installation of the chosen solution and its integration into the overall system.

In the case of the multi-point solution customer, each new system must be installed and integrated on an ad hoc basis, possibly encountering technical problems and glitches along the way, which can cost unforeseen time and expense.

In the case of the all-in-one solution customer, the vendor adds on the required product module. These modules, as integral parts of the vendor suite of products, do not require any third party to integrate them.

4. Operation and Upgrade Phases. Once transitioned, the new system must function reliably, be administered by someone on site, and be maintained and upgraded over time.

For multi-point systems, each major system requires an on-site administrator and the maintenance of a vendor relationship and contract file. Upgrades must be signaled through each individual supplier.

All-in-one solutions consolidate the administration into one or two people, and consolidate the vendor relationship, including upgrade functions, into one.

## **Data Points from Individual Interviews**

The purpose of the individual interviews was to delve deeper into the cost elements of different technologies, and verbally “walk” with call center managers through the Technology Phases to see what could be learned about hidden costs of the process. The process was enlightening and occasionally surprising.

Some interview components had to be set aside entirely due to insufficient data. An important point we learned, both from the survey and from the interviews that contact center managers often do not have visibility into their technology costs. The comments “Those costs are absorbed by our IS area: we don’t really know what they are” and “We don’t have that in our budget” were more common than we expected. We will discuss the implications of this later.

After setting aside centers without useful data, the interview group was made up of 12 call centers, 6 with multiple non-integrated solutions and 6 with all-in-one solutions. Size distribution went from a small center with 17 agents to a large operation with 1300 agents. One interview, with a company having 27,000 agents was included for certain elements only, since useable cost figures were not available throughout.



Figure 11: Breakdown of survey participants interviewed, by agent size of contact center

With each interview, we first explored the first Phases of technology acquisition, focusing on the specification and RFP/vendor selection functions together, as most people had difficulty separating them out. We found that in a few cases no RFP was held. Technology was acquired because “it was good enough for another group company, so it was good enough for us” or because the responsible person simply made a decision to buy. In these few cases the managers now living with the results of such decisions were split between being moderately satisfied with the decision and being very unhappy with the decision.

In the former case, there was generally in-depth study of options before a decision was made, even if a full RFP process was deemed unnecessary. In the case of unhappy managers, they definitely felt that truncating the vendor selection phase had been deleterious for the contact center, as it robbed management of the opportunity to optimize its operations and had resulted in ongoing integration problems. In one case, a manager complained that he was still having system problems two years after implementation, pursuant to a badly-made decision. Even a manager who was relatively satisfied with the results of a quick, “top-down” decision could not say that the lack of process had resulted in an optimal decision for the contact center operation. The clear message was that best practices point toward careful study and consideration of all the ramifications before making technology decisions.

For those who did undergo a specification and RFP phase, the cost elements were, not surprisingly, overwhelmingly human resource costs. In many cases the manager interviewed had not thought about the total time and effort that had gone into the process in terms of dollars and cents, and so the exercise was illuminating in terms of demonstrating actual investment.

The following table shows an illustrative composite of a spreadsheet tabulation that resulted from the interviews. This component of the interview process was structured as follows:

- We first asked about each category of internal personnel that was involved in the process.
- Then we determined how many employees of each category were utilized in the process
- We then got information on the amount of time spent on the project
- We then asked about the approximate cost of each category.

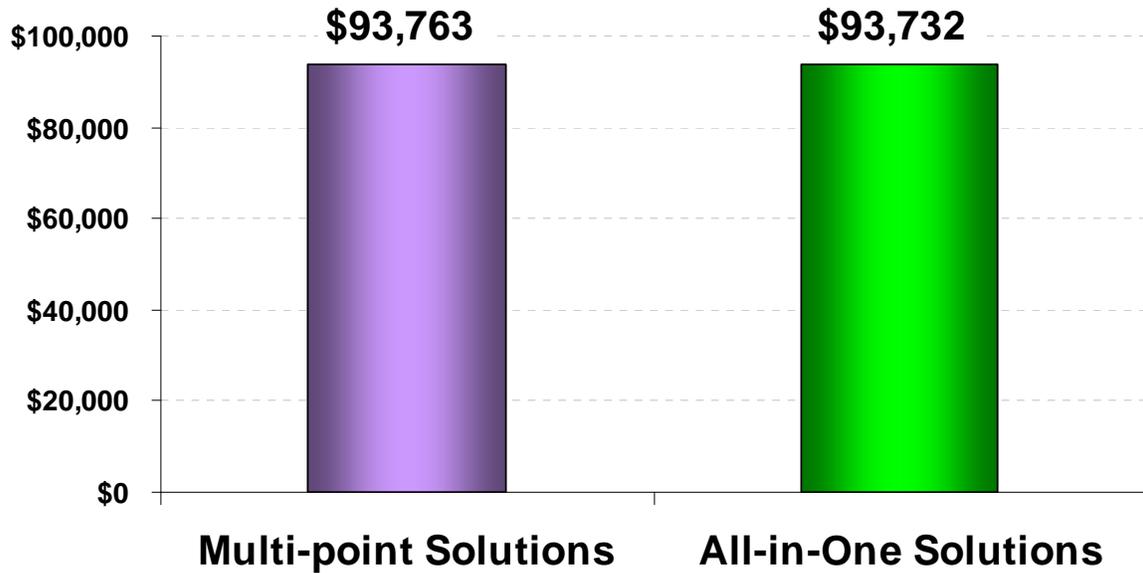
These were multiplied to determine cost (number of employees involved x amount of time dedicated to the project x cost per employee) as follows:

<b><u>Specification, RFP &amp; Vendor Selection</u></b>	
<b>Category of resource</b>	<b>IT Personnel</b>
Number of people	2
Time dedicated (*)	15.0%
Avg. total cost (**)	\$98,400
<b>Subtotal</b>	<b>\$29,520</b>
<b>Category of resource</b>	<b>Customer Service</b>
Number of people	2
Time dedicated (*)	12.5%
Avg. total cost (**)	\$86,100
<b>Subtotal</b>	<b>\$21,525</b>
<b>Category of resource</b>	<b>Executives</b>
Number of people	2
Time dedicated (*)	2.0%
Avg. total cost (**)	\$147,600
<b>Subtotal</b>	<b>\$5,904</b>
<b>Category of resource</b>	<b>Purchasing</b>
Number of people	2
Time dedicated (*)	5.0%
Avg. total cost (**)	\$98,400
<b>Subtotal</b>	<b>\$9,840</b>
<b>Category of resource</b>	<b>Telecom/Telephony</b>
Number of people	1
Time dedicated (*)	8.0%
Avg. total cost (**)	\$92,250
<b>Subtotal</b>	<b>\$7,380</b>
<b>Other costs (consultant &amp; travel)</b>	<b>\$20,000</b>
<b>Total Costs for these Phases</b>	<b>\$92,169</b>
(*) Time dedicated is based on annualized calculation. E.g. 6 months of 50% dedication = 25%	
(**) Average cost is based on total cost (including benefits)	

While there was variation among centers of both the multi-point solution type and the all-in-one solution type (from those who had virtually no process at all to those who had a long and inefficient process that might include starts and stops over an extended period of time), most centers appeared to have a reasonably structured and disciplined approach that was limited to 3 – 9 months.

Eliminating the effects of extreme situations, we find little difference on average between the initial purchase of an all-in-one solution versus multi-point solutions, using the ACD as the core technology purchase:

## Total Costs of Specification, RFP and Vendor Selection



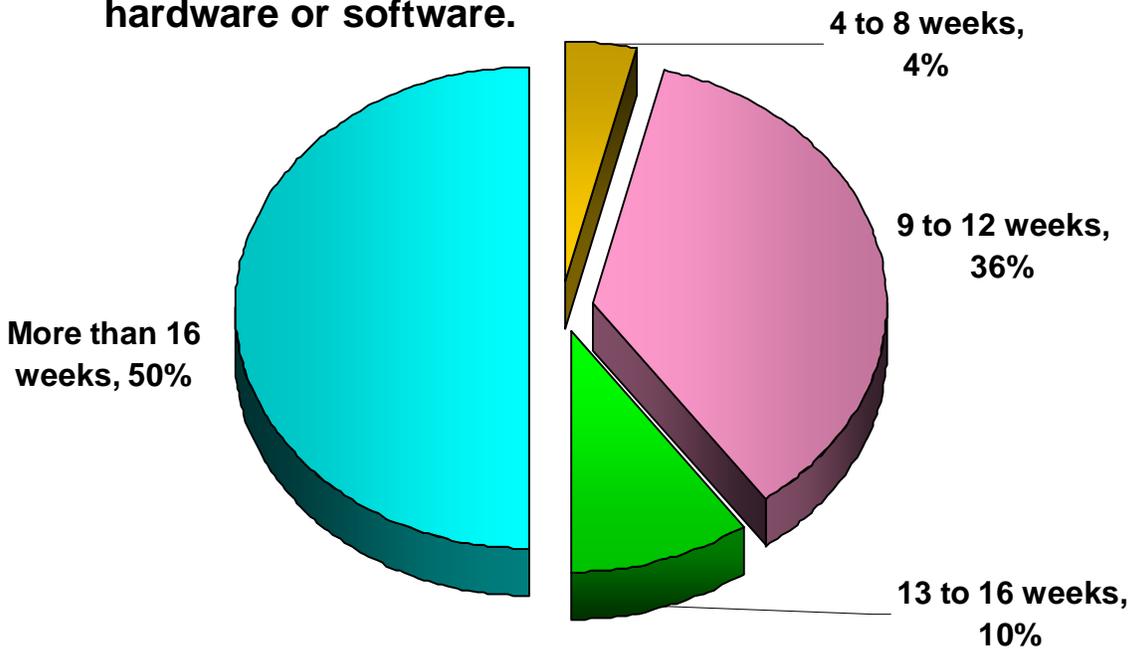
*Figure 12: Total costs of specification, RFP, and vendor selection for multi-point versus all-in-one solutions*

The difference arises when these economic impacts are multiplied over numerous processes for different types of technology. While all-in-one centers address this phase one time, multi-point centers must do so multiple times, depending on how much technology they need and want. Thus the actual costs for a center with multi-point technology could be three or four times the costs for an all-in-one center, if a similar process is repeated for three or four separate technologies bought by the multi-point center.

### Supporting Technology Additions

The interviews revealed that the estimates obtained in our 2006 Study are amply validated, and the amount of time that goes into the initial Technology Phases is often considerable and expensive:

**Estimated man-weeks req'd to evaluate, select, & negotiate contract for new contact center hardware or software.**



*Figure 13: Estimated time required to evaluate, select, and negotiate a contract for a new contact center. From "A Comparison of All-in-One versus Multi-Point Contact Center Solutions", BenchmarkPortal 2006.*

In fact, the interviews indicated that upwards of 40 weeks of personnel time go into the preliminary stages of a major technology purchase.

The next phase discussed with interviewees was the contractual phase, during which the final written agreement is negotiated and signed by the parties. A representative composite example that emerged from the interviews is as follows:

<b><u>Contractual Phase</u></b>	
<b>Category of resource</b>	<b>VP IT</b>
<b>Number of people</b>	<b>1</b>
<b>Time dedicated (*)</b>	<b>1.0%</b>
<b>Avg. total cost (**)</b>	<b>\$147,600</b>
<b>Subtotal</b>	<b>\$1,476</b>
<b>Category of resource</b>	<b>Purchasing</b>
<b>Number of people</b>	<b>1</b>
<b>Time dedicated (*)</b>	<b>3.0%</b>
<b>Avg. total cost (**)</b>	<b>\$92,250</b>
<b>Subtotal</b>	<b>\$2,768</b>
<b>Category of resource</b>	<b>Legal</b>
<b>Number of people</b>	<b>1</b>
<b>Time dedicated (*)</b>	<b>2.0%</b>
<b>Avg. total cost (**)</b>	<b>\$147,600</b>
<b>Subtotal</b>	<b>\$2,952</b>
<b>Other costs</b>	<b>- - -</b>
<b>Total Costs for these Phases</b>	<b>\$7,196</b>
(*) Time dedicated is based on annualized calculation. E.g. 6 months of 50% dedication = 25%	
(**) Average cost is based on total cost (including benefits)	

Based on our interview sample, the calculated amounts for interviewees representing the two different types of solutions were as follows:

## Total Cost of Contracting for New Technology

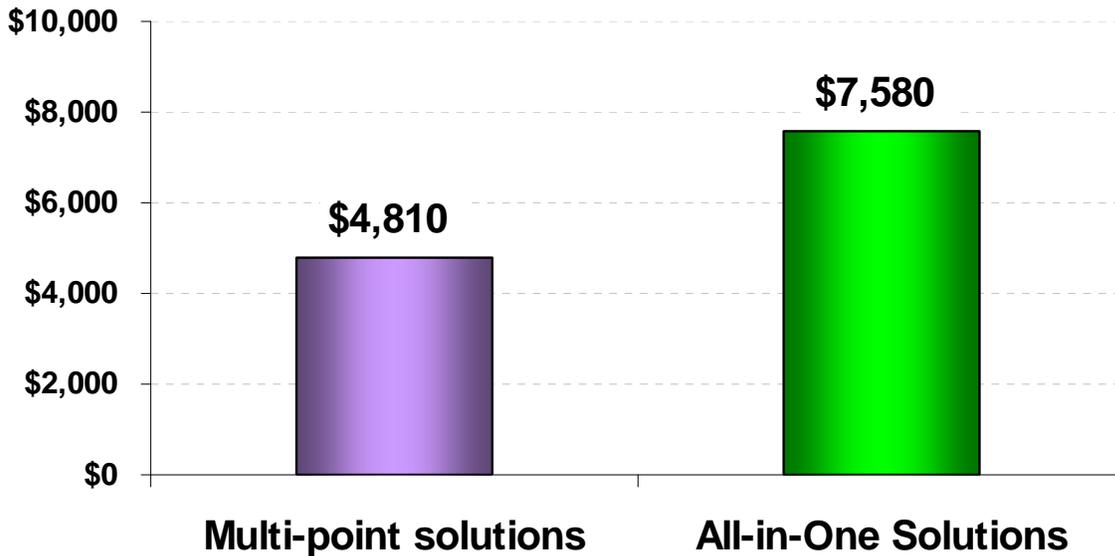


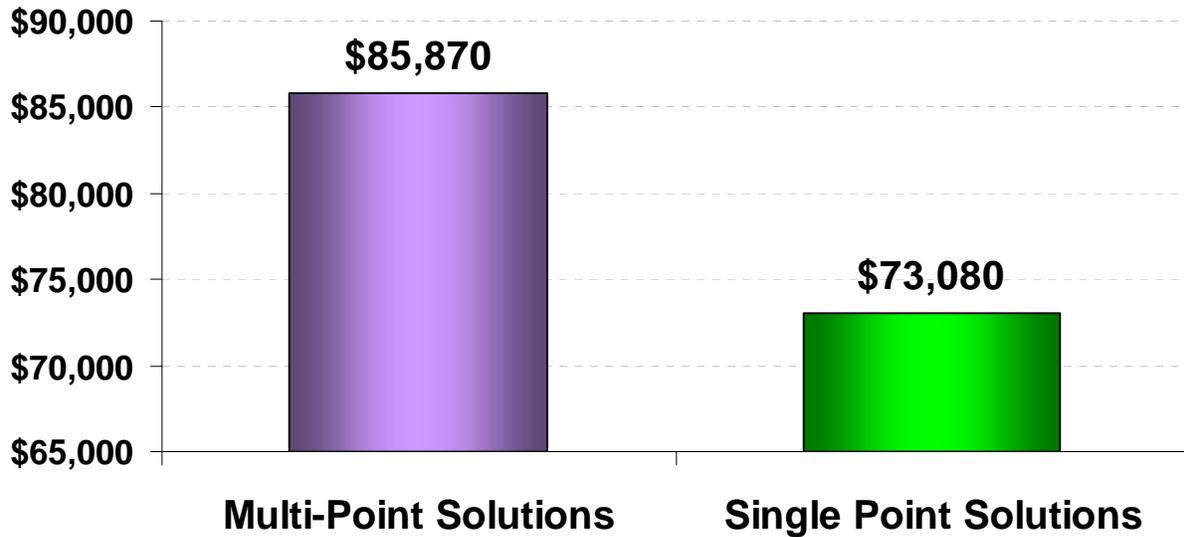
Figure 14: Total cost of contract for new technology

The absolute amount spent on this Phase is modest compared to the whole. However, the all-in-one centers indicated a higher expenditure than the multi-point solution centers, possibly because they knew they were “marrying” a single supplier and wanted to be extra careful to have a clear idea of what the future relationship would look like on a legal level. This indicates a rational, business-minded approach by customers. Ultimately, the cost differential of this more careful approach is marginal in the context of the total cost of the technology.

### INSTALLATION AND INTEGRATION COSTS

Some interviewees with multi-point solutions found it difficult to separate out installation from integration costs, so we have aggregated these Phases for the purpose of analysis. For installation and integration of the “core system”, there was a difference in average costs between the interviewees who have an all-in-one solution compared with multi-point solutions:

## Total Cost of Installation and Integration of Multi-point versus All-in-One systems.



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*Figure 15: Total cost of installation and integration for new technology*

The total costs of initial installation and integration for core all-in-one solutions was 15% lower than for multi-point solutions. A composite compilation of representative categories for these Phases follows:

<b>Installation &amp; Integration Costs</b>	
<b>Category of resource</b>	<b>Director of IT</b>
Number of people	1
Time dedicated (*)	5.0%
Avg. total cost (**)	\$110,700
<b>Subtotal</b>	<b>\$5,535</b>
<b>Category of resource</b>	<b>IT Personnel</b>
Number of people	2
Time dedicated (*)	18.0%
Avg. total cost (**)	\$98,400
<b>Subtotal</b>	<b>\$35,424</b>
<b>Category of resource</b>	<b>Telecom Engineers</b>
Number of people	2
Time dedicated (*)	6.0%
Avg. total cost (**)	\$79,950
<b>Subtotal</b>	<b>\$9,594</b>
<b>Category of resource</b>	<b>Database Personnel</b>
Number of people	1
Time dedicated (*)	6.0%
Avg. total cost (**)	\$92,250
<b>Subtotal</b>	<b>\$5,535</b>
<b>Consulting and other costs</b>	<b>\$20,000</b>
<b>Total Costs for these Phases</b>	<b>\$76,088</b>

(\*) Time dedicated is based on annualized calculation. E.g. 6 months of 50% dedication = 25%

(\*\*) Average cost is based on total cost (including benefits)

These are figures based on the installation and integration of core technologies. In the case of all-in-one solutions it represents the initial installation of the solution. Managers must take into account the fact that installation and integration issues are minimal when additional modules are added to all-in-one systems, due to the fact that the new modules have been designed to “snap on” to the core system easily. For multi-point centers, each additional technology may represent a separate and costly integration challenge. The ultimate cost impact may be several times the figure indicated in the graphic above.

## **COSTS OF ADMINISTRATION AND OPERATION**

We found that the costs of administration are closely related to the number of administrators involved with maintaining the solutions purchased. This, in turn, depends on the

number of solutions which are utilized, and the number of locations that an operation has. Our 2006 Study revealed that all-in-one solutions required fewer administrators, as follows:

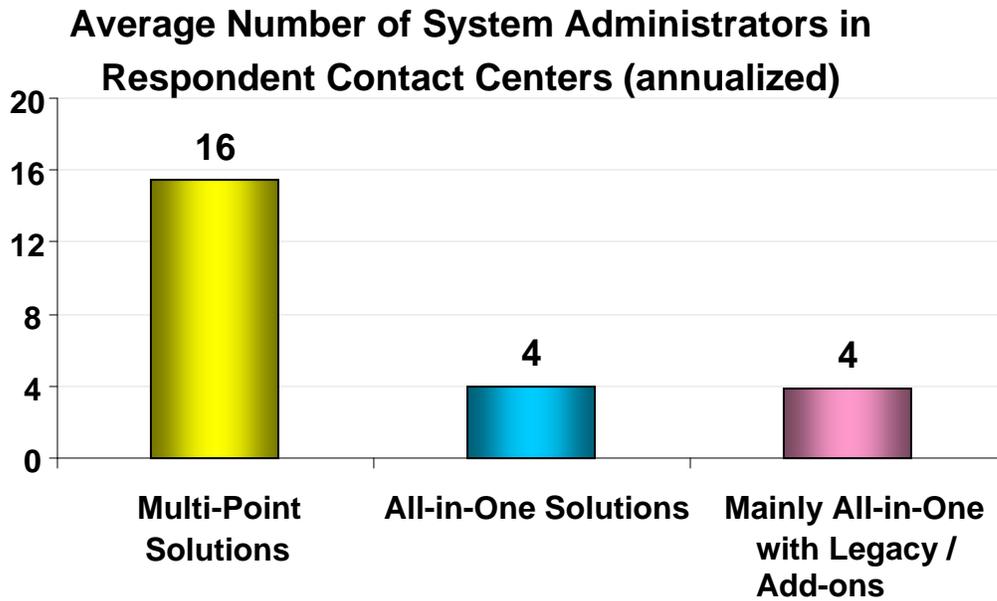


Figure 16: Average number of system administrators in respondent contact centers (annualized). From "A Comparison of All-in-One versus Multi-Point Contact Center Solutions", BenchmarkPortal 2006.

Note that these figures were from a sample of centers in which average sizes were roughly the same.

The economic impact is borne out by the figures obtained from the interviews. A representative composite data sheet for all-in-one centers for this Phase is as follows:

<u>Operating/Administration Costs</u>	
Number of Administrators	2
Avg. cost of Administrators	\$86,100
Other operating costs	\$40,000
<b>Total Admin/Operating Costs</b>	<b>\$212,200</b>
Number of Agents	400
<b>Cost per Agent</b>	<b>\$531</b>

When normalized for number of agents, the annual amounts per agent look as follows:

### Administration and Operating Costs: Multi-point versus All-in-One systems – Normalized Per-Agent Basis

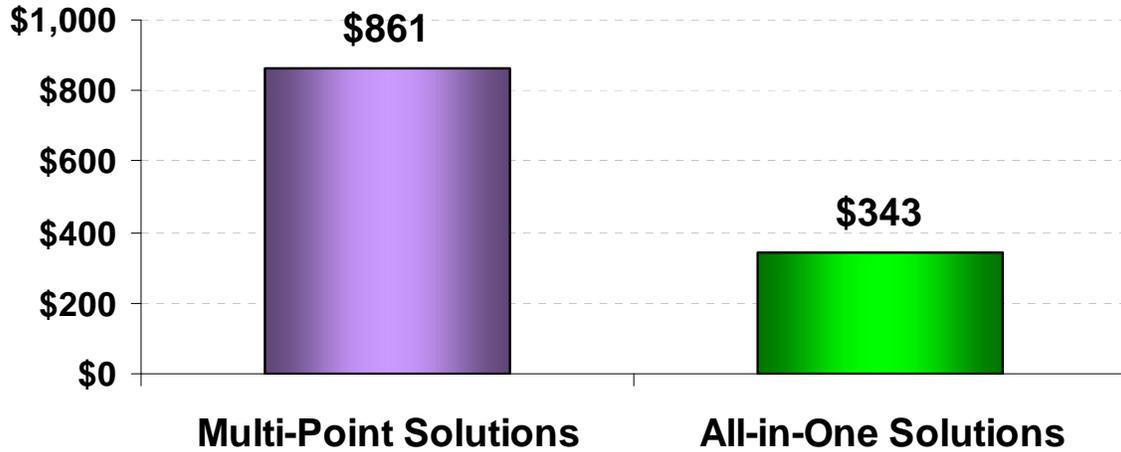


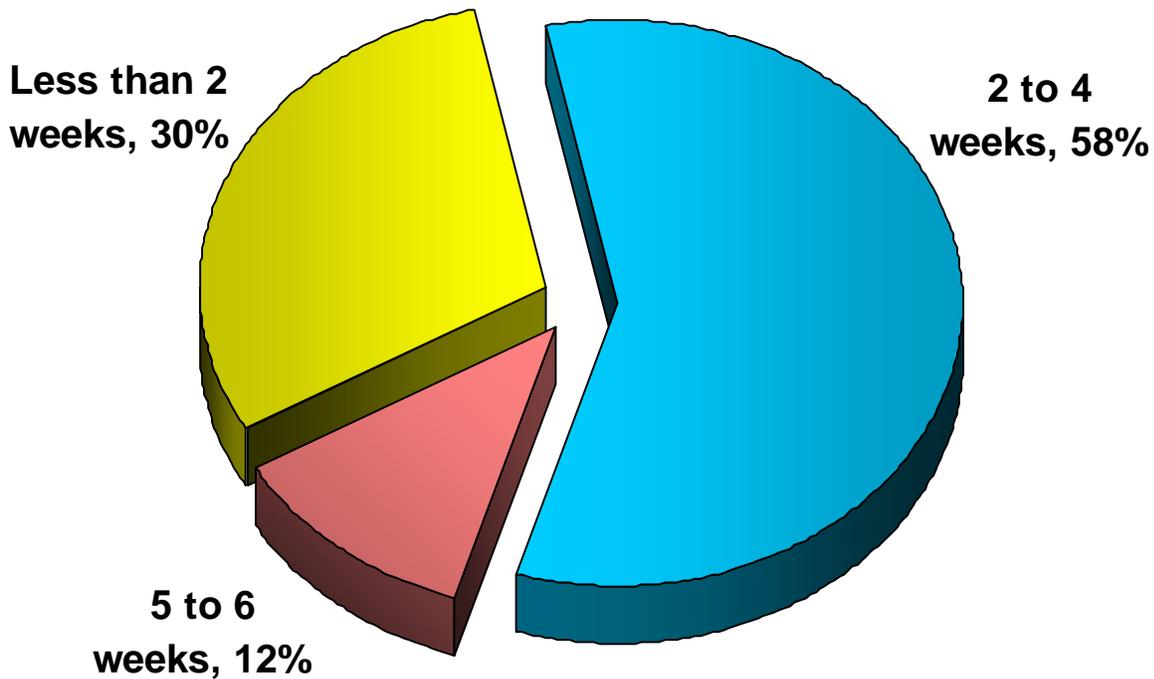
Figure 17: Average annualized system administration costs in respondent contact centers, normalized per-agent basis.

Thus, while the 4-to-1 proportion reported in the previous study based on *number of administrators* was reduced to 2.5-to-1 (*on a per agent cost basis*) in this more limited sample, the advantage of an all-in-one solution was reconfirmed, and the cost difference in any event is substantial.

When calculated for a 100 agent center, the difference in cost would be \$861,000 - \$343,000 or \$518,000, a savings which represents more than the total technology costs for the all-in-one solution sample.

Another component of cost is training time. For this purpose we bring forward the following graphic from our 2006 Study:

**Estimated time required for a contact center administrator to learn a new admin interface for a hardware or software product.**



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*Figure 18: Average time required for system administrator to learn new product's admin interface. From "A Comparison of All-in-One versus Multi-Point Contact Center Solutions", BenchmarkPortal 2006.*

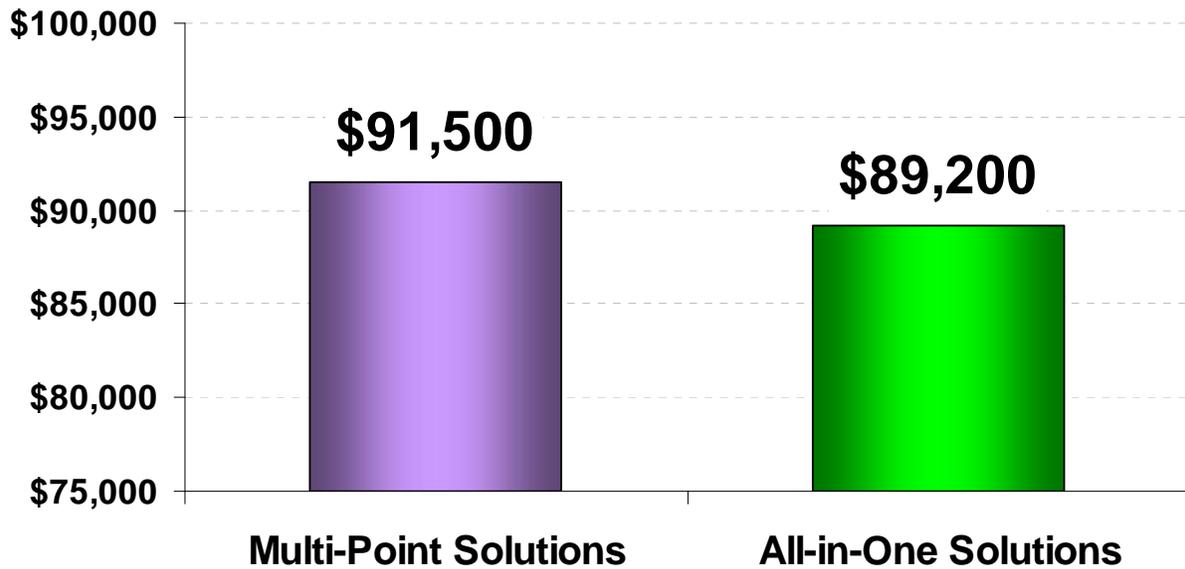
Time and training are needed to bring administrators up to speed during the pre-launch period, which adds costs that are sometimes not taken into account by managers when they make their decisions.

Clearly, there are hard-dollar costs associated with administrators having to learn new administration interfaces (most commonly 2-4 weeks). In this regard, managers should

consider whether an all-in-one solution, with a common administrative interface and a common operating platform, might considerably lower those costs.

Investigation into other hardware and software maintenance costs did not reveal significant differences between the two solution types.

## System Maintenance Costs

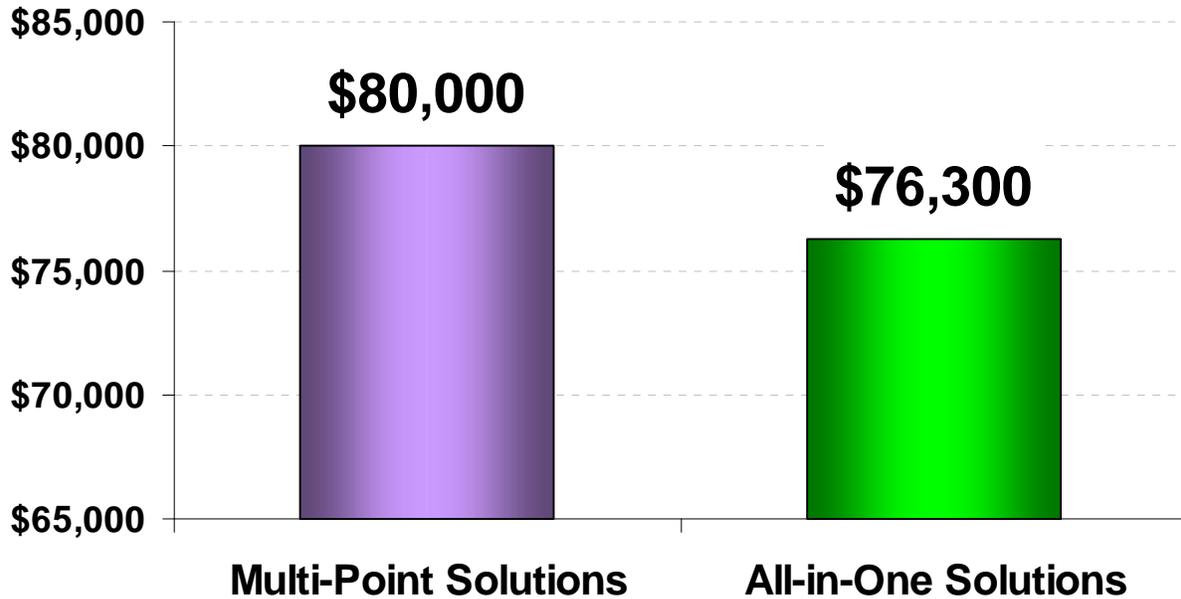


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*Figure 19: Average system maintenance costs*

Upgrade costs were also remarkably similar, for those operations for which upgrades were not included in their maintenance figures:

## Upgrade Costs



*Figure 20: Average system upgrade costs*

The important difference can be felt when there are many individual solutions that need their own upgrade, and then may need to be re-integrated as a result of the upgrade. The ongoing integration issue is one managers should consider carefully, and should question their vendors and vendor references about.

Single point solutions, coming from a single source, will have less of an issue in this regard. When the vendor is doing an upgrade of one module, it does so with the other modules in mind, and with the knowledge that the satisfaction of its clients depends on seamless implementation.

Consider the situation of a multi-point call center with four different vendors supplying four different functional solutions which must be integrated into the same system. Each time there is an upgrade released by one vendor, the center must consider and pay for the integration of the new package with its other systems.

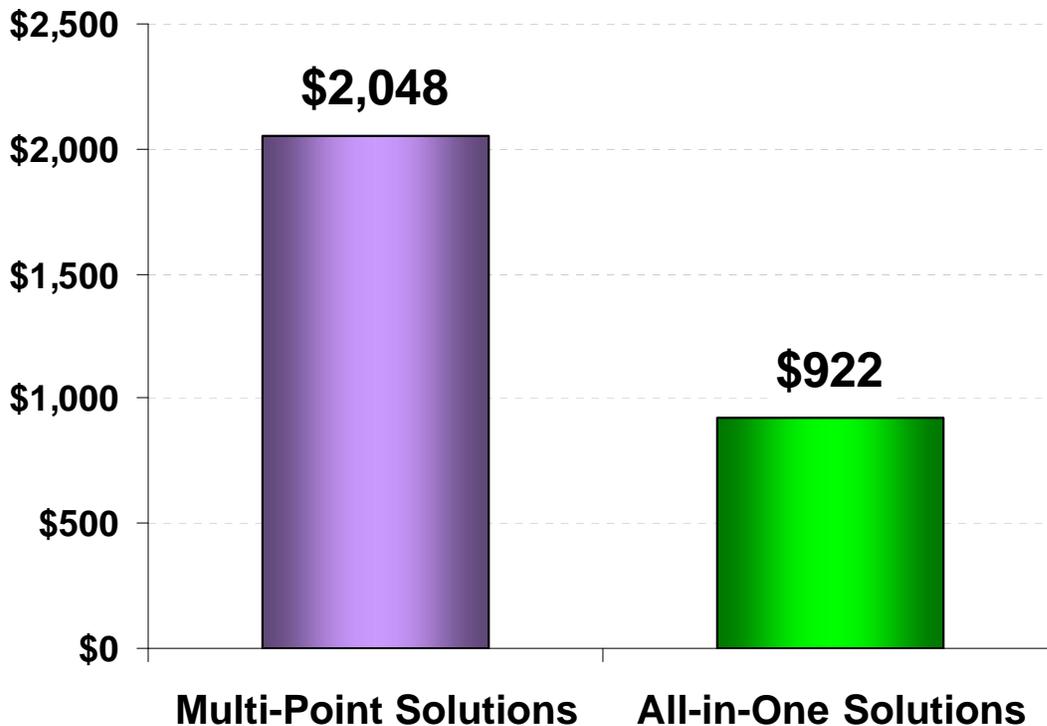
### ROLL-UP OF COSTS

Ultimately, we wished to understand what the mix of non-purchase costs would total for the two technology types. To do this, we blended the up-front costs with ongoing operating costs, to come up with a ballpark figure based on our interview sample.

We took five years as a reasonable period of time for a new technology to validly operate, after which a major upgrade or a new technology would likely be necessary. We then calculated the total front costs plus five years of operating costs. In doing this we also took into account things told to us during the interviews regarding the managers' expectations of cost changes over the next five years.

We took the total of the up front costs plus the 5-year operating costs, and divided by five to get a representative all-in annualized cost. This annualized cost was then divided by number of agents, as a means to normalize the numbers. With outliers eliminated, the results were as follows:

### Total Annualized Cost per Agent



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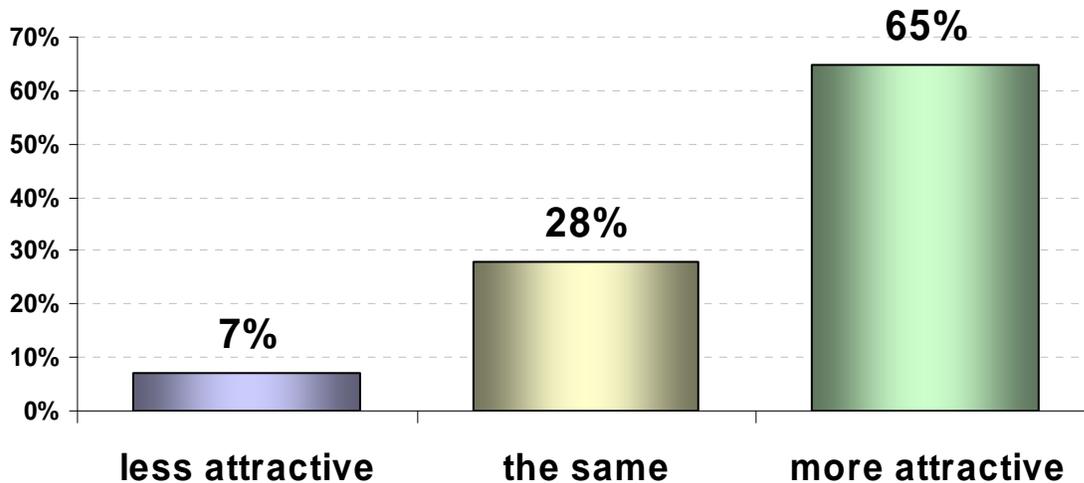
*Figure 21: Total annualized system costs per agent*

Thus, while the interviews were based on a statistically limited sample, substantially all major indications were pointing toward lower overall costs for all-in-one systems. The impact of this delta for an average 100 seat center is over \$1 million, a major difference that managers should consider before making their basic technology platform decisions.

## CONCLUSIONS

This Study probed the non-purchase costs of acquiring, installing, integrating and operating all-in-one and multi-point systems. We sought, among other things, to discover if there was an economic underpinning for a result obtained in our 2006 Study:

### Do you feel that all-in-one platforms have become more attractive or less attractive solutions over time?



*Figure 22: Attractiveness of All-in-One platforms over time. From "A Comparison of All-in-One versus Multi-Point Contact Center Solutions", BenchmarkPortal 2006.*

Our findings indeed validate that the increasing attraction to all-in-one systems expressed by managers is supported by financial considerations. According to our sample and methodology, the long term total average cost of technology in an all-in-one environment is less than half that for multi-point systems on a per agent basis.



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## SUMMARY OF IMPACT FACTORS

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The research revealed that the following Impact Factors were operating in the centers interviewed:

1. Process is important to outcome when it comes to selecting contact center technology. Managers require time and procedures to understand their needs, document their requirements and gather information on potential solutions. Short-cuts go against best practices and can have a long-lasting deleterious impact on operations.
2. There are many hidden costs in the technology specification and selection process that are generally not considered by managers, but can be calculated with minimal effort. Most of these relate to employee and consulting costs.
3. The cost associated with the selection of an all-in-one supplier is roughly equivalent to selecting multiple non-integrated solutions up front. The costs of negotiation are slightly higher for all-in-one contract which may be due to the fact that the customer is "marrying" the supplier and wants to be sure that the contract is "just right."
4. Having gone through the selection process once, all-in-one centers do not have to re-incur selection costs each time they add new functionality. This results in substantial savings, since multi-point centers need to undergo the process for each technology that they acquire.
5. Once the "core system" decision is made, the costs of maintenance, administration are less with an all-in-one solution by a significant factor.
6. In particular, the multi-point centers have a higher number of administrators to take care of the various boxes involved with their systems, significantly adding to the annual costs of technology.
7. Best in breed functionality remains important to managers, but they are finding it in all-in-one modules that have gone through a few releases.
8. The trend toward all-in-one systems seems to be driven, at least in part, by awareness of their lower overall costs.



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## CONCLUSIONS FROM SURVEY AND INTERVIEWS

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We noted in the previous research paper that “the complexity or simplicity of technology plays an important role in the success and the cost structure of the center. Fewer boxes, platforms, interfaces and administrators are positive factors, as long as the center can obtain the functionality it needs.

The voice of the market indicates that increasing numbers of managers are seeing the robust functionality they need in the all-in-one offerings currently available. Thus they generally see the all-in-one approach as the trend for the future.

Leaving aside the “sticker price” of the solution, our study showed that the total costs of ownership are lower for all-in-one systems as compared with multi-point solutions. The sources of this advantage include the following:

- Technology selection processes are expensive - - more expensive in terms of human resource costs than most companies realize. In the case of multi-point centers, they must go through the selection process and incur the related costs multiple times - - once each time they add a new technology. In the case of true all-in-one centers, they go through the process once only.
- Installation and integration costs are also important. Each time a new system is added to a multi-point center, the new system must be integrated with the existing systems. In the case of all-in-one centers, the new functional module is “plugged in” to the existing platform without a lot of integration issues.
- Systems administration is a major human resource cost. Since all-in-one systems share the same supplier and the same platform DNA, they require fewer administrators to take care of multiple functionalities.
- Upgrades can cause integration problems when systems are not from a common platform, and problems can cost money to fix.
- Looking at total non-sticker costs over a five year period, our sample indicates that all-in-one systems cost less than half as much as multiple-point systems.

The results of this study indicate that managers' expressed preference for the simplicity of all-in-one systems is supported by financial considerations. Taking into account all costs of selecting, installing, integrating, administering and upgrading technology, our study finds the “non-sticker” costs of all-in-one systems are measurably less than multiple point solutions. .



## BIOGRAPHIES

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### Principal Investigator



**Dr. Jon Anton** (also known as “Dr. Jon”) is an Adjunct Professor at Purdue University and the Director of Benchmark Research at Center for Customer-Driven Quality™ at Purdue. He specializes in enhancing customer service strategy through inbound call centers, and e-business centers, using the latest in telecommunications (voice), and computer (digital) technology. He also focuses on using the Internet for external customer access, as well as Intranets and middleware.

Since 1995, Dr. Jon has been the principal investigator of the Purdue University Call Center Benchmark Research. This data is now collected at the BenchmarkPortal.com Web site, where it is placed into a data warehouse that currently contains over ten million data points on call center performance.

Dr. Jon has assisted over 400 companies in improving their customer service strategy/delivery by the design and implementation of inbound and outbound call centers, as well as in the decision-making process of using teleservices providers for maximizing service levels while minimizing costs per call. In August of 1996, *Call Center Magazine* honored Dr. Jon by selecting him as an Original Pioneer of the emerging call center industry. In October of 2000, Dr. Jon was named to the Call Center Hall of Fame. In January of 2001, Dr. Jon was selected for the industry's “Leaders and Legends” Award by Help Desk 2000. Dr. Jon is also a member of the National Committee for Quality Assurance.

Dr. Jon has guided corporate executives in strategically re-positioning their call centers as robust customer access centers through a combination of benchmarking, re-engineering, consolidation, outsourcing, and Web-enablement. The resulting single point of contact for the customer allows business to be conducted anywhere, anytime, and in any form. By better understanding the customer lifetime value, Dr. Jon has developed techniques for calculating the ROI for customer service initiatives.

Dr. Jon has published 117 papers on customer service and call center methods in industry journals. In 1997, one of his papers on self-service was awarded the best article of the year by *Customer Relationship Management Magazine*.

Dr. Jon has published twenty-four professional books:

1. *Enabling IVR Self-Service with Speech Recognition*
2. *Contact Center Management By The Numbers*

3. *Managing Web-Based Customer Experiences*
4. *From Cost to Profit Center: How Technology Enables the Difference*
5. *Customer Service and the Human Experience: We, the People, Make a Difference*
6. *Customer Service at a Crossroads*
7. *Offshore Outsourcing Opportunities*
8. *Optimizing Outbound Calling*
9. *Customer Relationship Management Technology*
10. *Customer Obsession: Your Roadmap to Profitable CRM*
11. *Integrating People with Process and Technology*
12. *Selecting a Teleservices Partner*
13. *How to Conduct a Call Center Performance Audit: A to Z*
14. *20:20 CRM A Visionary Insight into Unique Customer Contact*
15. *Minimizing Agent Turnover*
16. *e-Business Customer Service*
17. *Customer Relationship Management*
18. *Call Center Performance Enhancement Using Simulation and Modeling*
19. *Call Center Benchmarking: How Good is "Good Enough"*
20. *Listening to the Voice of the Customer*
21. *Contact Center Management by the Numbers*
22. *Customer Relationship Management: Making Hard Decisions with Soft Numbers*
23. *Inbound Customer Contact Center Design*
24. *Computer-Assisted Learning*

Dr. Jon's formal education was in technology, including a Doctorate of Science and a Master of Science from Harvard University, a Master of Science from the University of Connecticut, and a Bachelor of Science from the University of Notre Dame. He also completed a three-summer intensive Executive Education program in Business at the Graduate School of Business at Stanford University.

Dr. Jon can be reached at 765-494-8357 or at <DrJonAnton@BenchmarkPortal.com.

## Senior Research Executive



Bruce Belfiore is Senior Research Executive at the Center for Customer-Driven Quality at Purdue University, and is Director of Best Practice Research at BenchmarkPortal, Inc., which provides best practices information to the customer contact industry worldwide.

A dual national, Bruce has divided his career between North America and Europe, and has fulfilled work assignments in Asia and Africa as well. He has worked in the finance sector with international commercial and investment banks. Bruce worked with the Bain & Co. management consulting group in Italy and formed a specialty unit advising clients in the field of corporate finance. While in Europe, Bruce was also a speaker and writer on business topics in English and Italian.

Bruce first became involved in the call center sector over a decade ago and joined BenchmarkPortal, Inc. in 2000. Bruce is the author of the books *Benchmarking for Profits!*, a manual for best practices call center benchmarking, as well as its sequel, *Benchmarking at its Best for Contact Centers*. He is currently working on another book, *Shareholder Value and Customer Contact* with Dr. Jon Anton of Purdue University.

He is involved with the certification of Contact Centers of Excellence under the Center of Customer-Driven Quality at Purdue University, administered by BenchmarkPortal. He is also an instructor with the College of Contact Center Excellence, which provides an advanced curriculum to contact center managers.

Bruce is co-inventor of a patent for a symbolic language system, Simbly™, with important call center applications. Simbly, which uses nested symbols to encapsulate and standardize frequently used text “chunks” has been shown in research to lower data entry time by 17 to 20%, and offers advantages to operations that must deal with more than one language.

Bruce holds an A.B. degree from Harvard College, a J.D degree from Harvard Law School, and an MBA degree from Harvard Business School, where he also attended the HBS Entrepreneur’s Tool Kit program in 2000. He has published numerous articles and has been a featured speaker in both English and Italian on a variety of business topics. Bruce can be reached at [BruceBelfiore@BenchmarkPortal.com](mailto:BruceBelfiore@BenchmarkPortal.com).

## Content Editor



**John Chatterley** is Director of Content & Analysis and Chief Editor at BenchmarkPortal, Inc. John has published numerous books, customized benchmarking reports, research reports, One-Minute Survey reports, and White Papers. Mr. Chatterley authored a comprehensive study entitled "Improving Contact Center Performance through Optimized Site Selection," and co-authored books entitled *Offshore Outsourcing Opportunities* and *Selecting a Teleservices Partner*. Mr. Chatterley is also senior content writer of the books "Contact Center By The Numbers" and "Automated Self-Service Using Speech Recognition." Mr. Chatterley is the editor of the annual series of 42 detailed Benchmarking Industry Reports covering the spectrum of contact center vertical industry sectors.

John is a Purdue Certified Contact Center Auditor, Certified AT&T Call Center College Instructor, and BenchmarkPortal Certified Benchmarking Instructor and Analyst. John's professional career spans more than 20 years of experience in contact center management and consulting.

Prior to joining BenchmarkPortal, Mr. Chatterley was Director of Operations, Site Development and Facilities Management for MicroAge Teleservices, a Fortune 500 teleservices provider. Mr. Chatterley designed, implemented, staffed and managed three 500+ seat contact center sites in Arizona, Nevada, and California. He possesses extensive first-hand knowledge and experience at all levels of contact center operations including front-line technical support agent, supervisor, team lead, reports analyst, contact center design, contact center manager, and operations director.

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## APPENDIX A

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### **Brief List of Solution Providers:**

#### **All-in-One Vendors On-Premise:**

1. Interactive Intelligence
2. Telephony @ Work (purchased by Oracle)
3. Avaya (also multi-point solutions)
4. Nuasis (purchased by Intervoice)
5. Apropos (purchased by Syntellect)

#### **All-in-One Off-Premise:**

1. MCI
2. UCN
3. Contactual
4. Five9
5. Cosmocom

#### **Multi-Point Vendors:**

1. Nortel
2. Cisco
3. Aspect
4. Genesys (purchased by Alcatel)
5. Witness Systems
6. Siemens



## APPENDIX B

### Survey Results

The survey results presented in the following pages are the result of responses by 178 contact center management participants to BenchmarkPortal's custom survey regarding technology in contact centers.

#### One-Minute Survey™ Results

##### Question 1

Are the technologies you currently use in your contact center provided by: (check one)

Description Of Answer	Respondents
A single integrated-solution vendor	14.04%
A single integrated-solution vendor with some non-integrated add-ons provided by the same vendor	6.74%
A single vendor providing a suite of non-integrated solutions	4.49%
Mainly single integrated-solution vendor with some add-ons or legacy systems provided by multiple independent vendors	47.75%
Multiple independent vendors providing a single point solution	26.97%

##### Question 2

If your contact center technology is provided by a single integrated-solution vendor, is the technology located: (check one)

Description Of Answer	Respondents
On-premise	61.36%
Off-premise	15.91%
Both on-premise and off-premise	22.73%

##### Question 3

Given the choice, if you could get all of your needed technology solutions from a single integrated-solution vendor or from multiple independent vendors each providing a single point-solution, which would you choose? (check one)

Description Of Answer	Respondents
Single integrated-solution vendor	77.19%
Multiple independent vendors providing a single point solution	22.81%

##### Question 4

What is the total annual budget for your call center for this year?

Description Of Answer	Respondents
Average annual budget in \$US	\$4,232,417

## One-Minute Survey™ Results

### Question 5

What percentage of your annual operating budget do you spend supporting your technology for the following? (enter percentage for all that apply)

Description Of Answer	Respondents
Integration	11.92%
Operation	41.27%
Software support & reprogramming	11.29%
Maintenance & repairs	11.16%
Technical support	11.19%
Upgrades	10.58%
Other ( see Appendix B-1)	28.11%

### Question 6

Does your technology support: (check one)

Description Of Answer	Respondents
A single location	34.78%
Multiple locations	65.22%

### Question 7

If your technology supports multiple locations, how many?

Description Of Answer	Respondents
# within the U.S.	10
# outside the U.S.	7

### Question 8

How many agents work in your contact center?

Description Of Answer	Respondents
Full-time agents	107
Part-time agents	76

### Question 9

Would you be willing to discuss your responses with someone from our organization?

Description Of Answer	Respondents
Yes	19.78%
No	80.22%

### Question 10

If you responded that you are willing to be contact by our organization, please indicate your contact information below:

Description Of Answer	Respondents
Contact information was provided by respondents that replied yes to previous question.	N/A

## One-Minute Survey™ Results

### Question 11

Of the industries listed below, which one best describes where your company belongs?

(Check the best fit)

Description Of Answer	Respondents
Financial Services	15.38%
Healthcare	7.69%
Insurance	3.85%
Transportation	5.13%
Retail	7.69%
Real Estate	2.56%
Government	6.41%
Outsourced telesales	1.28%
Telecommunications	25.64%
Technology	5.13%
Manufacturing	7.69%
Consumer Products	6.41%
Other (see Appendix B-2)	5.13%

### Question 12

What is the primary type of contact at your contact center? (Check one response)

Description Of Answer	Respondents
Customer service questions and answers	64.10%
Technical product support	11.54%
Sales and order taking	15.38%
Other (see Appendix B-3)	8.97%

## One-Minute Survey™ Results

### Appendix B-1: Other responses to Question 5:

1. All of our software, systems, etc. are expensed in the technology area (we don't see the exact totals), they allocate our portion of support and materials to us.
2. All our budget is handled by our IS individuals. the 250K is for Maintenance Tech Support and Upgrades. It doesn't necessarily go to anything, if it isn't needed.
3. Customer goodwill
4. expenses related to just in time solutions
5. most IS and software support is budgeted by out IS Dept.
6. Most of this comes from the IT budget
7. None
8. Our support costs are in the IT budget
9. Payroll
10. Salaries
11. Salaries, rent, travel, etc.
12. Tech and maint not in call centr budget, in IT budget

## One-Minute Survey™ Results

### Appendix B-2: Other responses to Question 11:

1. BPO F&A
2. Consulting
3. Death Industry - Funeral Home and Cemetery Shared Services Center
4. Electric and Gas Utility
5. Handle spare parts for chip manufacturing equipment
6. Health information services outsourcing
7. Hospitality
8. HR and help desk support
9. Information Technology Outsourcing
10. Life Science
11. Media Information
12. Outsourced Help Desk and Call Center services
13. Publishing
14. Software and services provider
15. Systems Integrator
16. Utilities
17. We provide high tech communications solutions for companies with geographically dispersed employees or retail locations.

## One-Minute Survey™ Results

### Appendix B-3: Other responses to Question 12:

1. Answering the public assistance lines for Maricopa County.  
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2. Collections  
-----
3. Collections  
-----
4. Consulting  
-----
5. HR and help desk support  
-----
6. Inbound and outbound interviewing  
-----
7. Multiple types of contact centers have approximately equal importance.  
-----
8. Scheduling and registering patients for both hospital procedures and physician visits.  
-----
9. Services coordination (roadside assistance)  
-----
10. Tracking and order management.  
-----
11. Transaction Processing  
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Retail Price: \$495.00