



**Inbound Call Centers:
Design, Implementation,
and Management**

Robert A. Gable



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For a complete listing

*This book is dedicated to my wife Lynn Ann,
for all of the love and encouragement she gave me
throughout this project and continually gives me throughout life.*

Preface

The concept of this book first occurred to me about five years ago while I was employed as a telecommunications analyst for a Fortune 500 company. I had a number of responsibilities, but the most challenging was to solve the myriad of problems that were plaguing 12 inbound call centers geographically dispersed around the United States. Management was very concerned that the company was losing business and it wanted to resolve the problems as soon as possible.

I constantly heard three complaints from customers: “too many busy signals,” “nobody answers the phone,” and “too long on hold.” Management always attributed the problem to the telephone system. In my previous position as a consultant, I had worked on call-center applications but never on one so large and geographically dispersed and with problems so endemic. Management never asked me to formulate a business strategy or to adapt to one—it asked me simply to “fix the phone system.” In the beginning, I tried to work closely with the call-center managers to locate problem sources and to determine requirements so that I could establish a course of resolution. But I soon found that the call-center managers all had different methods of conducting business and different requirements, even though they all sold the same line of products.

It soon became apparent that the most glaring problem was that there was no universal corporate strategy for the call centers. The centers were designed with little or no telecommunications expertise, and were never managed afterwards. Some of the centers were experiencing extraordinary problems, some were experiencing no problems. Nobody could explain why the problems existed, but everyone thought that replacing the telephone systems would cure them.

During this time, the complaints from customers reached a critical level. Nobody could say how much, but everyone was sure that the company was losing revenue. Customer confidence was low, and the sales force found themselves often facing the objection from a customer that it was fruitless to call and order a product, since the end result was always either a busy signal or an unanswered call.

I was asked to fix the problems on a case-by-case basis. Never did I hear anybody ask how these problems had reached this level and how could they be prevented in the future. To further complicate my task, there were no reports on call activity to give me any sort of guidance. Several short-term ideas were implemented to relieve problems, but the rewards were minimal at best. After some lively meetings, I stressed to management that the real problems were not busy signals, unanswered phones, or excessive hold time. The problems were just a symptom of one larger problem—the lack of a corporate call-center strategy.

The need for a call-center strategy suggested two things: there was no quick fix for the problems facing the call centers, and a large project would have to be undertaken to determine the call-center strategy. I documented many of the problems facing the call centers: obsolete systems, no automatic call distributors, and no reporting systems. I also suggested that major changes would have to be implemented in the operation of the call centers.

I suggested that a study team be created combining the talents and expertise of the customer service and telecommunications departments. My goal was create a dialogue between the two organizations. I wanted to be educated on the business objective and I wanted them to understand what telecommunications technology could (and could not) do for them. I cited many facts that I had collected when I had interviewed the call-center managers. Customers were confused because there were too many 800 numbers to call. The telephone equipment was antiquated and unable to handle the call volume. There was no reporting system to tell us how well we were servicing the customer. The design of each call center was different. The list was long and it convinced management that the problems were more deeply rooted than previously thought and would not be solved with a quick fix. I was also successful in convincing management that the problem was not isolated to the telephone system, and that other facets of the call centers affected service to the customer.

Setting up the study team was only a small victory in a large war. My new challenge was to completely redesign the network, choose and implement new equipment, and establish procedures for ongoing management of the call centers. To complicate matters, the parent company acquired more call centers, many of which were experiencing the same kinds of problems, and placed them all under my umbrella of responsibility.

The call-center project took almost a year to complete. During the course of that year, I traveled with representatives of the call centers and conducted research to formulate a call-center strategy and implementation plan. It was during my research and travels that I became painfully aware of the unavailability of fundamental information to many call centers. I found good information on network services, equipment, call-center operation, and reporting systems respectively, but very little that tied everything together. Much of the published information covers a specific aspect of call centers and touches only lightly on other subjects that may have a dramatic impact on the call center's operation.

We collected information from whatever published sources we could find—books, trade journals, and technical reports. We also contacted many companies with call centers and vendors that are key players in the field. We found that we were not alone in our quest for knowledge and that other companies had encountered many of the same problems that we had faced.

While much of the information we found was of a high quality, it was usually limited to a single subject. Vendors were helpful, but their knowledge was normally confined to their specific product and they often had preconceived notions about how a call center should be designed.

We assiduously plodded through this information and developed a corporate strategy. We identified all possible components of a call center and developed corporate standards for performance and design. This entailed the use of ACD, voice-messaging systems, advanced network services, and reporting systems. An operational and managerial policy was also developed to maintain the performance levels of the call centers.

The final report that I made to executive management emphasized that a call center is not simply a telephone-switching system, but rather a combination of technology and business practices. Conceptually, I divided the inbound call center into four distinct layers; the network, the equipment, the personnel, and the management reports that allow a company to manage the first three layers. Each of these layers has specific technology, design, and operational criteria that are essential to the successful implementation and operation of a call center. Each layer also has a distinct set of problems that will surface if these criteria are not met.

This book is not an answer to all the possible problems that could plague an inbound-call-center design or application. Such a text would be considerably longer and soon obsolete, since new applications and technologies are developed virtually everyday. The premise of this book is to provide basic guidelines for call-center design and operation. I first explain the basic concept of the call center, followed by its use and the design criteria. Considerable attention is given to the ongoing management of the call center in reaction to both changing business trends and disaster situations. These studies are offered for either the single location or multiple call centers.

Special emphasis is also given to developing a corporate strategy for inbound call centers, for the present and the future. This entails the development of a business objective for call-center design and operation. In developing the business objective, technological, procedural, and managerial issues are considered.

Several terms are used throughout this book that are my own. I have chosen to designate the person responsible for call center design and operation the call-center specialist. This is because the person responsible for daily supervision of the call center is not always a telecommunications professional. A call-center specialist is anyone who happens to have the responsibility for a company's call centers, individuals with titles such as telecommunications manager, telecommunications analyst, call-center manager, call-center supervisor, customer-service manager, or marketing manager.

I have also chosen to use the term business objective. The business objective is the goal of the call center as defined by the provider of the call center or centers. This includes the purpose of the call center (order entry, service, dispatch, etc.), expected performance levels, and expected results such as sales volumes or service levels.

It is important to set such criteria because the penalties for not developing a business objective are severe: angered, confused customers who lack confidence in the call center and

the supporting enterprise. The inevitable result is lost revenue, either immediate (if the call center supports an order-entry function) or eventual (if it serves a support function).

There are many issues facing the call-center specialist today. One of the most important is to initiate a dialogue with management. A two-way dialogue ensures a cooperative effort resulting in a call-center design that serves both parties. Once the business objective is set, the call-center specialist must wade through a quagmire of vendors, technology, procedures, and concepts to find the solution that works. He or she must also create a platform that will accommodate changing or growing business needs or will adopt new technology without a wholesale change. Once the design has been established and implemented, the ongoing managerial policy must allow the call center to adapt to a changing environment while still controlling costs.

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Chapter 1

Introduction

1.1 THE CALL CENTER

As we approach the end of the twentieth century, we are migrating from a manufacturing-based economy to one that is service-based. The service-based economy is being augmented by inexorable advances in information technology. Modern business will be seeking methods not only to conduct business in a more efficient manner, but also to increase the efficiency of each individual employee through the use of technology. One of the primary tools of this service-based economy that uses a sophisticated array of telecommunications technology is the *inbound call center*.

The inbound call center (or simply the *call center*) is not a new idea; one could probably make the argument that call centers have been in existence in one form or another since the advent of the basic telephone instrument. But simply offering a telephone number to the general public and hiring a group of people to answer the calls does not guarantee that a business objective will be met. The company without a coherent, well-organized call-center philosophy may find itself at a severe disadvantage in the competitive business world. A poorly conceived call center equates to lost productivity, poor credibility, and an inevitable loss of revenue.

The call center is a versatile tool used for a variety of applications. The telephone is the most widely accepted method of conducting business today. Depending on the type of business, most surveys reveal that between 70% and 90% of all business contact is over the telephone. From the customer's perspective, it is a quick, efficient, and inexpensive method of conducting business. From the company's perspective (i.e., the provider of the call center), the call center provides many opportunities to efficiently support and boost sales and to maintain a high level of service to the customer base.

As a sales tool, the call center offers a cost-effective solution to the sales call while maintaining the current customer base. As a revenue generator, the call center provides an order-entry function and, if service is good, boosts customer confidence. Confident customers are more likely to repurchase a product or resubscribe to a service. The call center not only generates revenue, it also protects revenue. By providing a high service level, customer confidence is maintained and business continues.

The call center can be considered a functional business tool and, to date, it is the only method of servicing a large number of calls. In addition to providing a sales function, the call center can offer many value-added features such as dispatch, polling, and service. The well-planned and managed call center provides a company with a competitive edge. In an environment where product, quality, and price are similar, the deciding factor for the customer is often the level of service.

1.2 WHAT IS A CALL CENTER?

There are a number of applications to which the concept of a call center can be applied. Some of the basic applications are dispatch centers for repair or service, an order-entry point for sales, an information center, an emergency center, a reservation center, a registration center, or any combination of these applications. New applications are being developed every day.

The basic premise of the call center is that a customer, client, or subscriber accesses a network service (e.g., 800, 900, or local lines). The call is processed by a telephone system and then distributed to an agent or *telephone service representative* (TSR). The agent provides a service or product to the customer, usually by accessing information in the company's database. The telephone system provides reports to call-center management that are used to manage the network, the telephone system, and the agents. The main technological tool of the call center is the *automatic call distributor* (ACD) which is managed through a unique reporting system (see Figure 1.1).

The call center is an application of technology and business practices. The goal of the call center is to process a large volume of calls quickly and efficiently. A business objective is established that will satisfy the customer base, and the call center operates to meet this business objective.

1.3 THE FOUR LAYERS OF THE CALL CENTER

It is important to understand that the call center is not a single telephone system or the 800 lines that are attached to it, but rather a series of concepts. These concepts can be divided into four distinct layers:

1. The network layer;
2. The equipment layer;
3. The personnel layer;
4. The report layer.

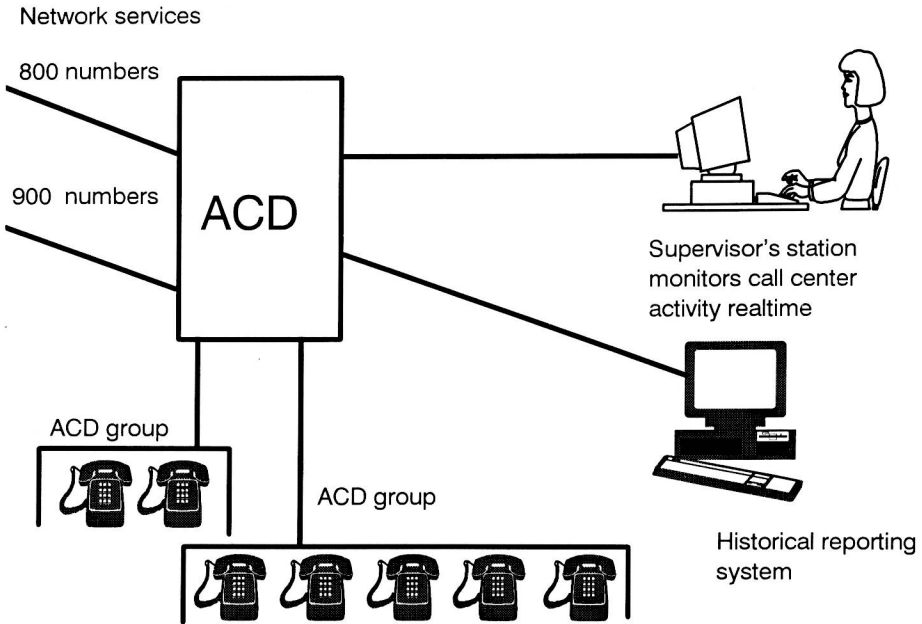


Figure 1.1 The call center.

Why the four layers? Each layer has a vast array of products and technology with an associated cost and unique design and management criteria. There are also distinct technical, design, and operational problems associated with each of these products and technology. Identifying these four layers is crucial to successful call center design, operation, and cost control. The relationship between the four layers is symbiotic, and the failure to properly administer any single layer will inevitably affect one or more of the other layers and degrade the overall efficiency of the call center. A thorough understanding of each of these layers and the skills that it takes to design and manage them will prevent many of the problems common to call centers from reaching a critical point.

1.3.1 The Network Layer

The network layer is the first point of contact for the customer. This layer is one of the most expensive aspects of call-center operation, comprising up to 45% of the call-center budget. The network is designed to meet specific criteria demanded by both the customer base and the company that is providing the call center. The network should provide simple access and

a minimum number of busy signals in order to meet optimum service levels. There should also be methods for controlling costs and for ensuring quick recovery in the event of a disaster.

There are specific maintenance criteria that are required for the network layer. The call-center specialist strives to provide continuous access to the call center for the customer with a minimum number of busy signals while also trying to maintain or reduce costs. In addition to maintaining a high and continuous service level during normal business hours, service should be continued with minimum disruption to the customer in the event of a disaster.

1.3.2 The Equipment Layer

The equipment layer is the second point of contact for the customer. It also has specific design criteria that include the expedient processing of calls to live agents or, if agents are not available, queueing callers until the call can be answered. The equipment layer is designed to make the maximum use of personnel (i.e., to route the call in the quickest manner possible to an available agent). There is also a need to make provisions for disaster recovery at this layer.

The call-center specialist also has criteria for maintaining the equipment layer. These include designs that provide quick processing of calls with the minimum inconvenience to the customer. The designs should make the maximum use of the call-center personnel. The designs and procedures for disaster situations should also provide the absolute minimum amount of disruption to the customer.

1.3.3 The Personnel Layer

The personnel layer is the third point of contact for the customer. This is another expensive component of the call center budget, comprising up to 45% of call center operational costs. The design criteria for this layer are to employ the minimum number of agents while providing the maximum level of service to the customer base.

The maintenance criteria are once again to provide the maximum service level to the customer base, that is, to service the number of calls offered to the call center. This is accomplished through the scheduling of staff to service the offered call load. There is also a need to adapt the tasks of agents to accommodate the offered call load. These criteria are to be met while controlling the staffing budget. Procedures are also required at this layer to offer service to the customer in the event of a disaster.

1.3.4 The Report Layer

The report layer is often considered to be the most important part of the call center design. This layer allows the call-center specialist to manage the two most important and expensive call-center attributes: trunk lines and agents. The reports are offered on both a real-time and a historical basis and provide information that is crucial to the operation of the call center.