1-800-CUSTOMER SERVICE

Reliability and Responsiveness. Two key ingredients in any customer service organization. In fact for many customers quality service is one of the deciding factors for purchasing the product.

Customer service is, by nature, a labor intensive function. People answer the phone, people identify the customer and the problem and still more people are used to provide the solution.

Yet labor intensive functions, like customer service, tend to be expensive to support. With continual demands to increase and improve the level of service in order to remain competitive, the problem becomes one of managing the customer service department to increase the level of productivity of each service representative in order to avoid adding personnel.

With voice response technology there are several economic methods for increasing productivity without decreasing the level of service offered to customers. Voice response can be used to answer the call, identify the customer and problem and even provide the solution. In some situations the voice response system may be used to automate the complete customer service function while in other instances it is more desirable to automate only a selected portion of the transaction. Regardless of the configuration, customer service departments can benefit through increased availability of service representatives and prevent customers from reaching a busy signal or waiting for a callback.

Consider the effect of partial automation. A customer calls the service department and is greeted by the voice response system. The customer identifies himself and his problem by pressing appropriate keys on a Touch Tone telephone in response to verbal prompts. The call can then be transferred to a service representative along with a data screen which represents the information gathered initially by the voice system. The service representative receives the call and the data screen simultaneously and can immediately begin working on a solution for the customer.

Through partial automation of customer service the voice response system performs the routine data entry and identification functions of the service representative. Relieved of this routine task, the representative is capable of handling a greater number of calls. Partial automation through voice response has increased the level of productivity for the individual service representative without a decrease in the level of service provided to the customer. Multiplying the increased productivity of a single representative over an entire customer service department can provide a solution to the problem of managing the expense of a labor intensive function.

Consider yet another possibility, complete automation of selected calls.

In many instances customer service representatives handle the same questions several times a day. The voice response system can be used to provide answers to these routine or standard questions. Following the scenario described in previous paragraphs, a customer calls the service number and is greeted by the voice response system. The voice system identifies both the customer and the question. If the question can be answered by the voice response system the call will be handled without human involvement. If the question requires an unstructured solution, the call and data gathered by the voice system, can be simultaneously transferred to a service representative.

Through complete automation of selected routine inquiry calls, and partial automation of all calls, the voice response system can increase productivity by freeing up trained representatives to handle the involved and complicated inquiries made by customers. The result, customers receive better service since the voice system can provide immediate answers to routine inquiries and representatives are free to handle the difficult calls for which they have been trained.

Some voice response applications in customer service are very simple, yet many can get quite complicated due to the problems of interfacing to existing software and hardware as well as telephone systems. There are several solutions offered through voice response that can solve the problems of integration as well. For example, the VCT ADVANTAGE system can support T1 service. For departments with very high call volumes, a service such as T1 can provide substantial savings in telephone charges. Equipped with a T1 interface the VCT ADVANTAGE system can not only support T1 but can also provide some special services such as immediate identification for particular applications.

In one VCT application, several 800 numbers enter the service department over many T1 spans. These calls are received by the VCT ADVANTAGE before going to an ACD. DNIS codes received with each call allow the voice

Commentary

I had the pleasure of meeting with several representatives of our College user customer base this month. It was a meeting which we sponsored in an effort to get our first VCT User's Group started. It was especially significant for me because all of them have systems installed and most of them are using the system for registration. None of the installations were easy. Each presented a unique set of problems to us, and we all learned together as these first systems went in. User meetings can turn into interesting experiences for suppliers, and you might well imagine my anxiety as I spoke to them at the beginning of the meeting as I welcomed them to VCT.

As the meeting began to take shape as we worked our way through the agenda, it became clear that the session would be informative, educational, and enjoyable for them as well as the VCT people. In spite of the difficulties experienced by each, I believe the unanimous opinion of the group was that they had no regrets about their decisions to implement telephone registration systems for their schools, and as for their decision to go with VCT, well you probably should ask them directly.

It gave testimony to the quality and dedication of a young but seasoned group of people here at VCT that were responsible for working with these customers and users, and seeing them through the difficult periods as the systems were implemented. It was significant for me because it epitomized the "partnership" relationship that we strive for with our customers. It's one thing for me as the president of the company to preach it to the group, but when you see it in action, and have your customers tell you that it's working, well that is a real "high" for me.

The users are assuming control of the group now. Our role of providing the impetus to get it started has been completed and we will switch to being supporters of it. It seems to be an enormously valuable communications tool, and we have plans to extend the concept to other vertical markets where common interest exists for voice technology applications, such as banking and customer service.

William L. Hutchison
President
Voice Computer Technologies Corporation

VCT USERS MEET IN ATLANTA

October 16th marked the first meeting of the VCT User Group for Colleges. Representatives attended the one day meeting from the University of Texas-San Antonio (UTSA), Miami-Dade Community College (MDCC), Colorado State University (CSU), Central Piedmont Community College (CPCC), Suffolk County Community College (SCC) and York University in Canada. By sharing their experiences, each school was able to benefit from the ideas and solutions used by others. Among the future enhancements planned at several of the schools are an Admissions Hotline and Quarterly Grade Reporting.

Attendees were so enthusiastic about the formation of the group, that they plan to meet again in February. They have also extended an open invitation to new VCT customers as well as schools planning to implement Telephone Registration to join them in February. Alan Eddy, of CSU, will work with VCT in setting a date for the second meeting.

Front Row: Juddy Gedes-UTSA, Robert Parenti-MDCC, Cindy Kelly-CSU, Stan Rubinson-MDCC; Back Row: John Brown-UTSA, Tom Stewart-MDCC, Alan Eddy-CSU, Charles Cox-CPCC, Paul Libassi-SCC, Susan Salusbury-York.

College

COLORADO STATE UNIVERSITY

Colorado State University (CSU), began using telephone registration in Spring of 1987. Today over 95% of the student body performs registration from the convenience of the telephone.

In order to introduce the telephone registration system to students, a video tape was developed by the campus film department which shows the process of a student performing telephone registration. The video tape was placed on television sets located in the student union to provide additional promotion and instruction on the system. A registration worksheet is also provided in the class schedule for each registration period. The worksheet provides instructions and examples for course selection and special features of telephone registration.

Each Quarter students pick up a Personal Access Number (PAN) and confirmed appointment period from their major department office. In order to register students enter their social security number and PAN number before making course selections. Students may re-enter the registration system to make changes to course selections during their registration period or during open registration.

Another feature of the registration system at CSU, is a grading option which easily provides students with the ability to select pass/fail grading or audit a selected course. Students select the grading option while performing registration simply by entering a * symbol between the course reference number and the # symbol, which signifies the end of that selection. The VCT system is equipped with a special database file provided by the CSU host and stored on the VCT system, which allows for immediate verification that the course can be taken under the optional grading formats. If the verification indicates that the course requires a letter grade only, the VCT system will ignore the grade option entry made by the student.

CSU is unique in telephone registration because they utilize a batch process to update student records. With plans to implement an Integrated Student Registration System (ISIS) from SCT Corporation in 1988, CSU decided to go 'on-line' with telephone registration prior to the installation of the ISIS registration software from SCT. In order to provide registration by phone, VCT provided a voice response registration system that could gather registration information from students and batch the information to the host computer to update student records. Once the SCT software installation is complete, VCT will interface to the new software via terminal emulation to provide interactive real-time registration to CSU students.

Students must confirm their registration by picking up their class schedule from the Department of Admissions and Records. Along with a confirmation of their course selections, students receive a statement of tuition and fees as well as housing information and a student activity card. If a student does not pick up his schedule confirmation, the registration transaction will be cancelled.

In addition to interactive capabilities to be added in 1988, CSU plans to enhance their registration system with additional applications in the area of admissions and financial aid. A hotline service for admissions and financial aid would give students access to information on the progress of their applications. It can be used to notify students of missing documents required to complete their applications.
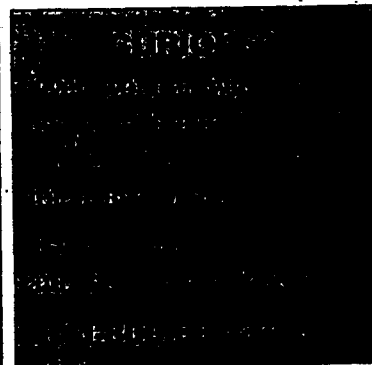
LEADING THE WAY

Over the past quarter, VCT doubled its college customer list with the addition of 6 new colleges. Mike Arntzen, Account Executive for the West coast, added the final two contracts with Texas Women's University and the University of California at San Diego, needed to set a new college sales record for a single quarter.

CONGRATULATIONS, MIKE!!!

AMERICAN EXPRESS...

In October, VCT completed installation of a 264 line voice response system for a regional American Express service center located in Greensboro, North Carolina. VCT will provide the Greensboro office of Travel Related Services with a system similar to the 336 line system currently in operation at the Western Regional Center in Phoenix, Arizona.

Equipped with a VCT digital telephone interface to support T1, both systems perform call routing and card authorization functions to enhance productivity of service operators. The voice system will identify the call according to DNIS codes which are associated with each of the many 800 service numbers that enter the center. Based on these codes, the voice system will instruct the ACD to route the call to the appropriate department. In the case of a credit authorization call, the VCT system will instruct the ACD to send the call to an operator called a Relayer who keys in transaction data provided by the merchant. Once the data has been entered, the Voice Response Unit (VRU) takes control of the call and the Relayer is immediately available to receive another call. The VRU will either speak an authorization code, or transfer the call to a representative who is reviewing the transaction.

The result has been an estimated 40-50% increase in productivity. A recent enhancement to the systems allow the calling merchants to complete the entire transaction by entering the data on their telephone keypad rather than wait for an available Relayer. This enhancement has proved especially effective during peak traffic conditions.

UCSD MOVES TO TELEPHONE REGISTRATION

The University of California at San Diego (UCSD) is currently implementing a telephone registration system to provide registration by phone service to its 16,000 students. UCSD purchased the system from Atlanta based Voice Computer Technologies Corporation (VCT).

UCSD plans two phases on implementing telephone registration. In February 1988 UCSD will begin telephone registration for Graduate Students and Seniors. By Fall Quarter of 1988 all UCSD students will be able to register by phone. The VCT system will perform all verification and course checking functions from a master database of student records received each quarter from a Burroughs 7805, the Student Information System Host. Among the database files to be located on the VCT system are student identification numbers, course authorization codes and a special calendar file to permit students to register only during appointed registration times. Registration information collected by the VCT system will be downloaded to the Host computer to update student records. The Host will then be used to generate schedule confirmations to be mailed to each student.

The UCSD telephone registration system will model the current procedures of registration allowing students to waitlist for closed courses and allowing Departmental offices to continue to control registration for specific courses through assigned authorization codes. These authorization codes are currently given to each department prior to registration and are given only to students meeting course pre-requisite requirements. The codes will be assigned by the departmental advisor and matched with duplicate files located on the telephone registration system.

In phase two, UCSD plans to migrate to a new Student Information System, Integrated Student Information System (ISIS) on an IBM 3090 Host by Winter Quarter 1989. At that time the VCT system will interface to the new host system through terminal emulation. This method of interface allows the telephone registration system to perform all the functions of an operator at a terminal and in a real-time environment to provide students with immediate verification of their class schedules.

With Telephone registration UCSD will not only be able to provide students with a convenient and time saving means of registering for courses but they will also gain more control over the registration process.

VCT has provided Telephone Registration systems to 13 institutions throughout the United States and Canada. These institutions range in size from 11,000 to 45,000 enrolled students.

PROFILE: BLOOMINGDALE'S

■ ■ ■ **H**ave you ever pur-
■ ■ ■ chased a bed or
■ ■ ■ couch from a de-
■ ■ ■ partment store
only to find yourself sitting at home
all day waiting for delivery? Perhaps
you have found the right piece of
furniture to complete your home or
office but it is out of stock and you
are required to make repeated calls
to the store to determine the date of
delivery.

For customers of Bloomingdale's,
a special service was designed allow-
ing for the immediate verification and
reservation of stock in the Furniture
and Rug sales departments. With
this service, Sales Representatives
and Designers can check available
stock, reserve specific items and
schedule delivery dates all at the
point of purchase from a telephone
on the selling floor. This service
utilizes several service operators who
talk with the employee and key data
directly into the host computer con-
taining inventory and scheduling
information.

In November, Bloomingdale's auto-
mated the reservation service with
voice response equipment from VCT.
The new system, nicknamed STAR
for Simply Touch And Reserve, will
allow Designers and Sales Represen-
tatives to make inquiries, reservations
and schedule deliveries from any
Touch Tone telephone. The reserva-
tion of furniture and scheduling of
delivery dates at the point of pur-
chase allows for better inventory
management and provides a valuable
service to customers who can leave
the store with a "promised" delivery
date. Prior to implementation of the
VCT system, only three operators
were available to perform reserva-
tions. With the VCT system, Bloom-
ingdale's will be able to expand the
number of available lines for this ser-
vice without the cost of providing
additional operators. Automation of
this routine transaction enhances the
productivity of Designers and Sales
Representatives who will no longer
receive a busy signal when attempt-

ing to reserve merchandise.

By March of 1988, the VCT system
will also be used to automate another
area of customer service through an
outdial application. With this applica-
tion, customers who have ordered
items that were not available, at the
point of purchase, will be contacted
by the VCT system and notified of
the arrival. During the same phone
call, initiated by the VCT system, the
customer can elect to schedule a
delivery date or be transferred to a

service operator for additional infor-
mation. Although this service is cur-
rently offered by Bloomingdale's and
has provided better management of
inventory levels, the automation of
this function will relieve operators
from repeated attempts to reach a
customer. Automation will also pro-
vide for faster billing services. Once
a customer has been notified and has
scheduled a delivery, Bloomingdale's
can initiate the billing procedure.

In addition to the automation of
outdial calls to customers, the VCT
system will provide call routing for
the service department. When a
customer makes a purchase he
receives an information booklet which
contains a general number of
customer service. When a customer
calls the service department, he is
asked to press 1 for an estimated

delivery time, to press 2 to report
problems with delivered merchandise
or press 3 for all other business. In
the case of a customer without a
Touch Tone telephone, he is asked to
hold the line for a service operator.
If options 2 or 3 are pressed the call
is immediately transferred to a ser-
vice representative. If option 1 is
pressed, the voice response system
asks the caller to enter their sales in-
voice number to receive an estimated
time of delivery. This option provides
delivery times only on the date of
scheduled delivery. With this feature
customers can immediately access in-
formation that can help them
schedule their time and prevent the
inconvenience of waiting at home all
day for delivery. By providing addi-
tional incoming lines and automation
of delivery times the VCT system is
expected to triple the capacity of the
Customer Service department.

According to Robert Farina, Vice
President of Customer Service for
Bloomingdale's, "The automation of
major portions of the Customer Ser-
vice function will improve the produc-
tivity of our Sales Representatives
and Designers. Although our current
procedures provide many advantages
in inventory management and billing
control, the VCT system will cut the
time delays involved in reaching
customers and in waiting for
operators who are already on the line
with other customers."

For Bloomingdale's the Customer
Service function is a vital link in the
chain to ensure customer satisfaction
and repeat business. With the im-
plementation of the STAR system,
the quality and level of service can
be enhanced while costs related to
the Customer Service function are
controlled. A marketing and adver-
tising campaign is under develop-
ment to promote the new system to
customers upon its release in March,
1988. By making the new service
convenient and easy to use, Bloom-
ingdale's will maintain its reputation
for high quality merchandise and
excellent service.

EMPLOYEE OF THE QUARTER

On October 2, David Schmitt received the 'Employee of the Quarter' award for exceptional performance on the job. David was selected for this recognition by his fellow employees as part of a new program to officially recognize consistently superior performance.

Over the past quarter, VCT has received three letters from customers to compliment David's performance. As a Technical Support Specialist, he is responsible for installation and after-sale technical support for VCT customers. In addition to the quality assistance he has provided to customers such as CSX Transportation, Fulton Federal Savings & Loan and Marriott Corporation, he has provided additional technical suppport to several VCT distributors. With Norrell Systems Corporation, a VCT re-seller for Credit Unions, he was able to provide a quick solution to the Federal Employees' Credit Union which purchased their system from Norrell. At Electronetic Systems Limited (ESL) in Toronto, Canada, David conducted a training seminar to educate ESL technicians on installation and service procedures.

In addition, he has gone beyond the boundaries of his job description to organize and document installation procedures to assist in the training of several recently hired field service technicians.

---

response system to identify the application before even speaking with the customer. 800 numbers (combined in a T1 service called Megacom) are provided to customers for credit card authorization, point of sale terminals and corporate accounts. The DNIS codes associated with each 800 number are identified by the voice system and directed to the appropriate department before the call is even answered. The result is an efficient interface with an existing telephone service that enhances the economic benefits of T1.

A second solution to the problem of integration is Automatic Number Identification (ANI). ANI allows the voice system to identify the number from which the call is being placed. With this type of identification, the voice response system can match the number with a customer's account and notify the host of a pending inquiry for that customer while at the some time answer the call. The call can then be handled automatically by the voice system or transferred to a service representative along with a data screen for that customer. The voice response system can also perform some initial data collection to update the customer account before transferring the call and screen to the service representative.

The process of making host inquiries and simultaneous transfers of customer calls with data screens to service operators represents another integration problem. The voice system must be able to support interactive communications with the host via a direct link in order to maintain fast service and prevent having customers waiting on hold for information. This interactive communication link can be accomplished through interface

software supported by either the voice system or the host mainframe; in some instances, software is required for both systems. Due to the expense of developing software for the host it is beneficial to consider a voice system that will support the required host interface or has the ability to adapt to host communications with minimal modifications to the host.

In regard to the simultaneous transfer of a customer call with an associated data screen, there are several options to accomplish this task. One is to allow the host to act as the controller and monitor CRT usage to determine the next available representative as well as direct the voice system in the transfer function. Yet this method once again requires software development on the host. A more efficient and economic option, available with the VCT ADVANTAGE system, is to allow the voice system to act as the controller. In this instance, the voice system is programmed to monitor line usage to determine available representatives and can direct the host to transfer the data screen to the specified representative at the same time it performs the call transfer function.

With an array of solutions available for dealing with the problems of integration, voice response becomes an exceptionally valuable tool for the customer service department. Increasing productivity in customer services aids in the management of operating expenses and often provides inexpensive avenues for the addition of special new services. Voice response can help businesses maximize their investment in customer service and continue to provide the kind of quality service that keeps customers coming back.