A VRU in a Telephony Application Means More Then Just a Terminal to Your Data

There are always considerations in defining the ever changing needs of your firm's customer service department. A common-sense approach is needed. The methods that you choose must be flexible and easy to support while not being prohibitive in cost.

On top of this, our clients now have a "I need it now" mentality." Clients want information 24 hours a day, 7 days a week. Existing solutions such as EDI, web sites, or live customer service representatives during office hours can handle much of the client's support issues but what about request that come in after hours or if current resources are not available. Some clients might lack web connectivity or might have an immediate need which requires human intervention. Placing an order on a web order entry system just places it in the order shipment queue and may not be the best solution if the situation is an emergency and the client needs it ASAP.

Its an Emergency

Maybe you need someone to go pick the item out of inventory and hand deliver it to the customer

A simple solution might involve computer telephony. A **V**oice **R**esponse **U**nit is a processor that has the ability to combine voice and data for use with the existing public phone network. This turns any normal phone into a terminal to you data.

Benefits

- Affordable Customer Support
- Takes Customer Service to 24/7
- No training or sophistication of user required
- No equipment other then phone and possible fax required by user
- Optimizes existing personnel
- Improves Customer Service

This technology has existed for a number of years but now it is more affordable and easier to customize. With the explosion of cellular phone usage and people always on the go, now is a good time to re-examine what this approach can do for you.

Putting a square peg in a round hole

Not all clients are the same and you may have requirements to provide more then one way for a customer to communicate and be supported by your customer support department.

I/O to your Data

Most VRUs are used as an input/output device to your data. Many corporate accounts now have that data distributed among various platforms so it is necessary to make sure that the VRU you choose can communicate with all the types of platforms which are in-house. It is beneficial if this is a real-time link as various batch processes means the information is only as good as when the last file transfer took place.

Report Generation & Fax-back on Demand

Perhaps the user doesn't want to hear the reponse from the VRU for the requested information but wants a report created or documents faxed back on-demand. Your firm may provide a great web solution which your clients' executives use everyday but go to their site, there is this brick wall between the client's office and their warehouse. The sophisticated executives in the front office use

your web solution but go the other side of that brick wall and we have a receiving clerk who only knows:

- He calls an 800 number
- Puts in his customer number
- Here comes a shipment manifest to his fax machine

The VRU can easily transverse the client's communication issues.

Store-forward of Information

You may want to move the collected data automatically to a different department, location, or people in the field. Perhaps from an order entry system, you want to send a text message to delivery personnel in the field when an order has been place so that delivery can be made ASAP. What if after hours, an emergecy has came in. The unit requests the user to record a voice mail message describing the problem which is converted to a wave file. An e-mail message is sent to the remote personnel about the problem including wave file. Another example might bean 800 number distributor locator system. Not only do we tell the protential client where their local distributor is, but we also send that lead information on to that distributor.

E-mail Generator or Call-out

The VRU runs a daily routine where it looks at the daily deliveies or orders going into production and sends e-mails to your clients sharing this information with them. This is an inexpensive way to automatically keeps your customers abreast of the current status of their orders or deliveries. This may also be done with a call out routine.

Foreign Language Support

The VRU may assist your customer service department in the support of multiple foreign languages. Even though the data on your computer system may be only in English, it is a simple process to provide support to up to 10 different forgein langages per unit. This is exspecially important in some verticals such as logistics and construction where Spanish is becoming widely spoken by laborers and may be creating problems within your customer support department.

Automatic Call Distribution

Automatic **C**all **D**istribution is becoming such a large topic that you will find a complete article on page 3 of this newsletter. A good definition of ACD is that the call will be disbursed to where it needs to go based on the information the caller knows and supplies. In a PBX, if the user know the extension number, the call will be sent to that selection. If the caller know the name of the individaul, we direct it there or perhaps a menu is used to find the department. The VRU routine may ask questions which define the problem and who needs to address it.

Batch Processing

One of the featurs of the ODT VISION VRU is the "Control Window Program." This is a scheduling program which can be started off the system clock. This allows us to start a batch type process at a certain time during the day. In general, since the ODT VISION VRU is a processor; it can be turned into a modified robot which can go review information, make judgement calls and take the suggested action.

Audit Trails

Logging routines are always a second thought in most projects.

Audit trails requiements may be one of the most important functions of the application. It is essential to build a complete audit trail in a HIPAA application and who did what and when. This is as important as the application itself. HIPAA privicy concerns means you need more security then user id and password. The ODT VISION can automatically collect and build this logging information as well as a breakdown of demograpic information.

After Hours Calls

The way you handle customer service calls after hours may be different then the way you handle a call through the VRU during hours with the CS department. Most VRU routines contain exit strategies where the caller can be transferred to a live customer service representative. During office hours, the DTT100o VRU transfers the call but if outside of office hours, the caller is informed they are going to voice mail. If the caller has identified an emergency condition, the VRU may forward the information to someone who is on-call. You may also have certain conditions which happen during office hours such as cut off times for todays shipments placed in the order entry system or when the VRU is being used to schedule appointments of personnel.

Conclusion

Using the ODT VISION VRU in your telephony application now means even more than it just being a terminal to your data. Your customer needs, type of system(s), and way your firm conducts business will have a lot to do with how the unit is configured and what applications are available through it. Keep in mind that any call the unit takes is one less call a live customer service representative has to take. This approach optimizes existing personnel, lowers costs, and improves customer service. It is worth a look.◘

Application In the Spotlight: Automated Call Distribution Can Mean Many Different Things

Automated **C**all **D**istribution can mean many different things. ACD is used in most modern PBX phone system where the caller can identify the individual they need by spelling their last name. Once an individual is found in the database, the caller is requested to affirm that this is the individual they desire and then the call is transferred to that person's extension. This is quite helpful in the automation of where the call needs to go but ACD can be used in more applications then location of a person's extension. It saves labor cost when a company operator is not needed. If you still use a live operator, their time can be optimized by handle only calls that need personal assistance. ACD can also be used outside of business hours or if operator is busy.

A good definition of ACD, the call will be handled and routed by the information the caller is able to supply .

One published phone number

ACD may provide a menu which list a variety of departments where the caller identifies the department

they desire and the call is automatically transferred to the department selected. This allow your firm to publish only one phone number.

Level of Support Needed

ACD may be used where the caller answers a series of question which define the type of problem they have or the level of sophistication required to address their problem. This allows your firm to hire a variety of customer service personnel which can handle different degrees of situations. For example, does the problem need a nurse or doctor to handle caller's request. Based on the caller's answers, the call is automatically routed. Important in this form of ACD is logging to build a study of the personnel demographics needed to handle a normal day's calls.

Help Desk Automated

ACD may allow a number of FAQ's be handled by the automated attendant and transfers the call to live support personnel if the situation reaches a certain level of severity or if the problem warrants it.

911 Its an Emergency

In the case of an emergency or where a manager needs to be contacted who is not on site, we may need to collect information and forward it to the appropriate individual. This may be especially important if the call takes place outside normal business hours or if the manager tied to the account or project is not known to the caller. The information collected may be text which was built from the caller's responses or even a voice file which was recorded. The VRU may call the manager or send an e-mail about the request to obtain a response ASAP.

Finally, ACD may provide features which improve your customer service by allowing your customers to define their needs.

How Many Platforms Are In Your Shop

One of the advantages of the ODT VISION VRU is that it can be connected to multiple hosts or databases concurrently. Although most of our ODT VISION VRU customers may have an IBM iSeries/AS400, it is not uncommon to have data on a variety of servers or platforms. In today's business community where companies are acquiring other companies or where there is purchasing abilities at the department level, it is not uncommon to see a hodgepodge of platforms within a firm.

If you are running legacy green screen applications to your IBM host, we can use HILAPPI screen scrapping as our method of customization however, we can

also use ODBC links to your data on that or any other platform.

Another advantage of the ODT VISION is that if you change from your current platform, the ODT VISION VRU can move to the new platform as you do. Look for a future article in this publication which will cover the University of Virginia moving from the current iSeries/AS400 to Oracle.

The new 3rd party program command found in release 6.0 also allows the ODT VISION VRU to interact with various windows programs from non-related vendors.

Get Your Own Demo Today

Go to *www.ODT VISION.com* to get your own demonstration of the ODT VISION Voice Response Unit which will run on any Windows based PC of Windows 98 or later with sound card and speakers. This is a simplistic order entry and shipment status system which is running off a Microsoft Access database. The demo is in the test mode and you will be using the "Test Phone" feature of the ODT VISION VRU to simulate a phone call to the data. Manuals and case studies are also available on the web site.

Improving Customer Service Affordability

HOW DO THEY DO THAT?
"Text to Speech" in the ODT VISION Release 6.0

Text-to-Speech (Optional)

Variables

VoiceRate = -10 to +10

Sets the speaking rate (speed) of the voice for text-to-speech.

Values are in the range from -10 to 10, which represent the slowest and the fastest speaking rates respectively.

VoiceVolume = 0 to 100

Sets the base volume level (loudness) of the voice for text-to-speech.

Values are in the range from 0 to 100, representing the minimum and maximum volume levels respectively.

VoiceEnableXML = True/False

If this is true, the input text will be parsed for XML markup.

The default is True

VoiceName = "Microsoft Mary"

Changes the default voice used for text-to-speech.

Examples of Voice Names are "Microsoft Mary" and "Microsoft Mike." Use the Text-to-Speech test program or the Speech control panel option to determine what voices are available.

VoicePunctuation = True/False

If this is set to True, punctuation characters should be expanded into words (e.g. "This is it." would become "This is it period").

The default is False

Commands

VoiceText "Text to speak

Puts text in the Text-to-speech Queue. Multiple VoiceText, VoiceXML, and VoiceFile commands can be queued. The Text-to-speech Queue is emptied when either the VoiceSpeakToFile or the VoiceSpeak commands are performed.

Example:

OrderQty = 22

Item = "Widgets"

VoiceText "You ordered "

VoiceXML "number", OrderQty

VoiceText Item

Rtn = VoiceSpeak

Would speak:

"You ordered twenty-two Widgets"

VoiceXML type, [parms] [,text]

Wraps the text supplied in XML tags as specified by the type parameter and puts the XML text in the Text-to-speech Queue. Multiple VoiceText, VoiceXML, and VoiceFile commands can be queued. The Text-to-speech Queue is emptied when either the VoiceSpeak-ToFile or the VoiceSpeak commands are performed.

See "VoiceXML tags for more information.

Example:

OrderQty = 22

Item = "Widgets"

VoiceText "You ordered "

VoiceXML "number", OrderQty

VoiceText Item

Rtn = VoiceSpeak

Would speak:

"You ordered twenty-two Widgets"

Txt = VoiceXML type, [parms] [,text]

Wraps the text supplied in XML tags as specified by the type of parameter and returns the XML text in the returned variable. This allows your to perform multiple XML tags on text before adding them to the Queue with a VoiceText command.

Example:

vSilence = VoiceXML SILENCE 1000

vText = "Say this first " CAT vSilence

vText = vText CAT " Say this second"

vText = VoiceXML EMPHASIS vText

VoiceText vText

Would speak:

"Say this first" (one second of silence) "Say this second" and the whole sentence would be spoken with emphasis.

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Next Month, look for commands for "Text to Speech using VoiceXML types,"