Best Practices in Outbound Customer Interactions
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Best Practices in Outbound Customer Interactions

The ability to proactively serve customer needs, provide personalized alerts and quickly communicate with mass audiences are some of the capabilities that make automated outbound customer interactions a valuable component in any organization’s customer service strategy. Advantages include improved customer loyalty and satisfaction, lower support costs and new opportunities to generate revenue — if you understand the critical success factors.

Companies worldwide use Voxeo to deliver timely, targeted outbound campaigns. Over the past decade, we’ve worked with hundreds of customers who are placing millions of calls per day with greater than 96% call classification accuracy — a success rate that far surpasses the industry average of 80-85%. An increasing number of these customers are also extending their initiatives to include SMS (text messaging) for even greater return on their IVR investment. We don’t think there is an IVR vendor on the planet with as much hands-on experience as Voxeo. This experience has led to innovative functionality and best practices for the delivery of Outbound IVR and SMS.

**BEST PRACTICE #1: CALL PROGRESS ANALYSIS**

Call Progress Analysis (CPA) is the ability to detect answering machines, fax machines, and special information tones such as busy signals, as well as identify when a call is answered by a human. CPA’s detection functions are enabled by media processing algorithms that are typically provided by DSP boards or host media processing (HMP) software. The ultimate goal of CPA is to quickly and accurately detect the various tones used during call set-up and the post-connect responses in order to present the appropriate call treatment.

Unlike “batch” calling systems, Voxeo’s outbound capabilities enable customers to define the business logic associated with various CPA results.

Below are the possible results from CPA:

- **Human** - A ‘human’ result is determined when the duration of initial voice activity is less than the specified CPA value
- **Machine** - A ‘machine’ result is determined when the duration of initial voice activity is greater than the specified CPA value
- **Beep** - A ‘beep’ result indicates that CPA’s Digital Signal Processing (DSP) has encountered a pure tone
- **Modem** - CPA has detected a modem
- **Faxtone** - CPA has detected a fax machine
- **SIT** - A ‘SIT’ result indicates that CPA detected Special Information Tones or SIT tones. This generally means that the called number has been disconnected or is no longer in service.
- **Unknown** - An ‘unknown’ result is returned when the CPA runtime expires
Call handling decisions can be made in real time based on returned events. For example, a “human” event may trigger an interactive, speech-enabled application while a “machine” event results in the playing of a pre-recorded message.

On average, about 5% of answering machines are incorrectly identified as human contacts and 5% of human contacts are assumed to be answering machines and abandoned. Unfortunately, the majority of CPA solutions cannot stay in the call after their initial detection and therefore cannot benefit from advanced error detection techniques or business logic that helps increase success rates and prevent caller frustration. Unique to Voxeo is our ability to process CPA events beyond just the initial detection.

**BEST PRACTICE #2: CALL CONTROL XML**

While VoiceXML addresses the voice interface of an IVR application, Call Control XML (CCXML) addresses the need for standards-based call control functionality such as placing an outbound call, transferring and conferencing calls. CCXML works hand-in-hand with VoiceXML to provide a 100% standards and XML-based solution for any telephony application.

Because VoiceXML is only capable of making an outbound call in the form of a call transfer from an inbound call, Voxeo “wraps” all VoiceXML applications with a stock CCXML script or ‘wrapper’. The wrapper works behind the scenes to give VoiceXML applications the ability to initiate outbound calls. Using this method, the basic parameters that control CPA detection can be sent with the outbound call. However, once a CPA event is identified, the VoiceXML dialog starts and CPA is no longer in the call.

Taking full advantage of CPA requires call classification and other call control features that are available to application developers using the CCXML 1.0 specification. Developing the outbound component of an application in CCXML enables complete control of the VoiceXML application at runtime, including the ability to generate XML on the fly or change the call flow. It also allows CPA to remain in the call – listening for further events and weeding out false “human” or “machine” results.

Today, Voxeo has the most deployed CCXML engine in the world, including OEM deployments with other well-known IVR providers. Voxeo’s CTO, RJ Auburn, is Editor and Chair of the W3C CCXML standard and working group.

**VOXEO CALLXML**

Voxeo gives customers the option of using CallXML. Voxeo CallXML is a simple markup language with a short learning curve. It was the first XML telephony language with both call control and IVR-like media control. It suits the needs of most telephony applications being deployed today, while allowing for faster development due to its easy-to-learn syntax. CallXML does not require complex Speech Recognition Grammar Specification Version (SRGS) voice grammars in order to operate.

CallXML can initiate new sessions without the need for an originating telephone call. Many Voxeo customers use CallXML to even further lower the cost and complexity of application development. CallXML enables the same type of CPA advantages derived from using CCXML.
BEST PRACTICE #3: ASSUME HUMAN

A Voxeo best practice is to assume that all calls are answered by a live human until proven otherwise. Playing a VoiceXML dialog as soon as the call is connected eliminates the frustrating dead air a called party may otherwise experience while a “human” vs “machine” decision is being made and lowers the number of abandoned calls. CPA events will continue to fire while the VoiceXML dialog is running. If a “machine” is subsequently detected, the dialog can be stopped midstream and started again to avoid the message being clipped by an answering machine, or an entirely different message can be played. This feature is made possible by the call control functionality in CCXML or CallXML, and the ability for Voxeo CPA to remain listening on the call.

Most vendors agree that it is worse to falsely classify a call that is answered by a live person as one that is picked up by an answering machine. This is where the majority of errors occur – and an area where Voxeo offers a clear advantage. Some providers claim that accurate postconnect detection in less than one second is not possible with present day technology and that it is impossible to accurately detect a live speaker 100% of the time. However, using CCXML or CallXML with Voxeo’s “assume human” approach makes these technology limitations a nonissue.

The industry average overall success rate for outbound is between 80% and 85%. By contrast, Voxeo customers using the techniques described typically achieve call classification success rates above 96%.

Outbound Call Connects

CPA Initializes

Assume Human Logic - VoiceXML dialog plays instantly and eliminates “dead air”

CPA Returns “Human”

HUMAN CONFIRMED
VoiceXML dialog continues

CPA Returns “Machine”

MACHINE DETECTED
VoiceXML dialog restarts at beep or alternate dialog is fetched and played
BEST PRACTICE #4: FOCUS ON THE CUSTOMER EXPERIENCE

For customer-focused companies the biggest benefit of Outbound IVR and SMS is the ability to provide proactive, highly personalized customer service. It enables enterprises to anticipate customer needs, diffuse potentially frustrating situations, streamline processes and improve agent utilization. But companies must take great care to deliver Outbound IVR in a manner that customers find of value rather than a nuisance. That means providing an intuitive user interface, a well-tuned application, useful information and an overall pleasant experience.

Voxeo offers features that improve the customer experience, such as:

- CPA capabilities designed to eliminate frustrating “dead air” and increase detection accuracy in an outbound call.
- Built-in speech recognition and synthesis capabilities (ASR and TTS), enabling companies of all sizes to take advantage of an intuitive voice-driven interface. Voxeo solutions also work with all leading third-party speech engines.
- Fully interactive Outbound IVR and two-way SMS, allowing customers to easily obtain additional information, confirm an appointment, or connect with a customer service representative.
- The ability to use stored information about each customer, including interaction history and data in CRM and similar systems, to automatically adapt prompts and interaction options to individuals' preferences, purchase history, recent interactions, languages and more.
- Voice Biometrics to streamline user authentication when accessing sensitive information or performing transactions.

ANALYTICS

Voxeo CXP is a complete Application Lifecycle Management Suite. It includes real-time reporting and deep analysis of caller behavior, application performance and transaction success for rapid tuning, improved ROI and a better customer experience. CXP integrates with popular business intelligence platforms such as IBM Cognos, MicroStrategy and SAP BusinessObjects.

CXP makes it easy to refine your applications as opportunities for improvement are identified. Application changes are centrally deployed with the ability to automatically update documentation and without affecting your reporting and database schema. Customers report up to a 50% savings in development and 80% savings in maintenance and lifecycle management.

CXP works with Voxeo’s Prophecy IVR and multi-channel self-service platform and global cloud hosting solution. The solution also provides Application Lifecycle Management for more than 30 other IVR platforms, as well as SMS gateways, mobile web and IM environments.
BEST PRACTICE #5: MULTI-CHANNEL OUTBOUND

Voxeo CXP facilitates a consistent user interface across all customer service portals with little to no incremental effort; a concept Voxeo calls Unified Self Service™. Using CXP, a company can build an application once and deploy it across different interaction channels, including voice, SMS, IM, mobile web and even social networks. These channels can share the underlying dialog flow definition, business logic and backend access, drastically simplifying development, maintenance and reporting.

MULTIPLYING THE ROI OF YOUR IVR SYSTEM WITH SMS

ABI Research forecasts mobile messaging revenues to grow to $212 billion by 2013. More people are incorporating messaging services like SMS, IM and mobile IM into their daily personal and business communications. For some, these immediate and effective non-voice channels are often the preferred mode of communication.

By supporting messaging services where applicable, businesses address two conflicting customer support goals: improving service and keeping costs as low as possible. This is especially important in highly competitive markets where customer acquisition costs are high and margins are tight.
While teens account for a large portion of SMS usage, they are not alone. A study by Limbo, one of the largest mobile social networks, reported that SMS continues to transcend the generational divide, with 50% of SMS users age 35 or over.

SMS is ubiquitous, user-friendly and personal, yet relatively inexpensive. Using SMS for customer interactions costs a fraction of the amount of agent-assisted communications. UK-based call center analyst firm ContactBabel reported that live agent service calls average about $12 per call, while SMS costs pennies per message. Additionally, many routine inquiries and outbound notifications are particularly suited to SMS. Some companies already offer applications that make it possible for customers to obtain information such as their bank account balance, order status, mobile minute usage, the amount of a utility bill, or the nearest store location.

For the customer, the obvious benefit is the ability to quickly get the exact information needed. SMS saves time, enables multi-tasking and is convenient — especially in a loud environment, a weak coverage area, when privacy is needed, or simply when they aren’t able to make a voice call. SMS can also provide the customer a record of the response, including confirmation information or associated URL links so they can refer back to the requested information at a later date.

The same tools used to develop and deploy Voxeo IVR applications can be used to develop and deploy SMS applications — saving you time and money while ensuring a cohesive customer experience.

**BEST PRACTICE #6: SCHEDULING AND MANAGING OUTBOUND CALLS**

XML standards make it easy for administrators to use a web interface to set up and schedule an Outbound IVR campaign — enabling them to quickly send notifications or react to market opportunities.

When using Voxeo hosting, Outbound IVR campaigns can be scheduled and managed from any web browser or originated based on http-based updates. Integration with backend databases can be used to trigger calls based on business and user-defined events. Ports can be reserved before placing the call or allocated on demand, after the outbound call has been placed and connected.

Once an Outbound IVR campaign runs, it’s important to understand exactly how and why a call failed. Unlike VoiceXML, CCXML and CallXML can capture information about the call in the application, giving developers access to fine grain call disposition details including the type of error detected. This enables campaign administrators to more effectively manage contact lists and remove bad contacts from future campaigns. Since these results are obtained immediately during application run-time, administrators have access to accurate real-time reporting with no delays.

Customers can also leverage the convenience of campaign management solutions, such as MicroAutomation’s MicroMessenger™. MicroMessenger provides complete, turnkey campaign management for interactive outbound service and notifications. Available in the Voxeo cloud, MicroMessenger offers instant, low- cost start-up and on-demand access to Voxeo’s robust IVR and multi-channel self-service platform. The solution offers proven reliability and virtually unlimited scalability.
BEST PRACTICES #7: BURSTING CAPACITY AND 100% UPTIME

When it’s necessary to send a broadcast message to many recipients in a short time period, such as in the case of a service outage, security threat or school closing, the ability to burst to handle spikes in traffic is critical. In these cases it’s equally important to have the reliability of multiple, geographically dispersed data centers to ensure service uptime even if one site becomes unavailable.

MULTI-SITE, WORLDWIDE CLOUD HOSTING

The majority of Outbound IVR is hosted – a trend that analysts predict to continue. Hosting gives companies the ability to get started quickly and without upfront capital expenses tied to deploying and maintaining the infrastructure needed to deliver interactive outbound calls. This is even more relevant for companies and service providers who need to deliver important and/or time-sensitive calls to large audiences.

Voxeo is the largest worldwide VoiceXML and CCXML cloud hosting provider and the only one with a 100% uptime guarantee. Multiple, distributed data centers ensure up-time while alleviating congestion on the system should one local or regional area experience traffic spikes or an outage that might otherwise impact everyone on the system. The solution also ensures customers have on-demand access to capacity for large bursts in call volume – without the burden of port reservation fees.

VOXEO HYBRID DEPLOYMENT

The same platform behind Voxeo’s IVR cloud hosting infrastructure is available as a premise solution. This gives customer the unique ability to choose a hybrid deployment in which Voxeo premise and hosting offerings work together seamlessly. For example, a business could deploy a premise solution for their outbound campaigns with automatic failover to hosting for bursting and overflow.

BEST PRACTICES #8: SECURITY

When sending outbound communications it’s important to avoid unintentionally violating a customer’s privacy. Validating the identity of the called party is often necessary. In some cases, it’s enough to insert contact verification steps. The IVR can use a combination of pre-recorded messages and TTS to announce the intended recipient of the call and verify that whomever answered the phone is in fact that person. In other cases, voice biometric solutions may be used to protect sensitive communications common with healthcare and financial companies. Using voice biometrics, a caller’s identity can be authenticated and the confirmation recorded for compliance. Voxeo has created several quick start guides to help customers trial voice biometrics solutions. Visit www.voxeo.com/biometrics for details.

Regulations in most countries stipulate that a connection to an agent or IVR greeting needs to be made in less than two seconds from the time the call is answered. Outbound IVR with good Call Progress Analysis can meet these industry requirements. Voxeo’s implementation of CCXML also enables recording of both sides of an outbound call, from start to finish. This functionality is important in cases where regulations require archived call recordings.
SUMMARY

Outbound IVR is gaining momentum as companies look for ways to differentiate on customer service, drive new revenue, and lower costs. Outbound IVR can be a valuable component of any customer interaction strategy by enabling effective and proactive customer support.

However, Outbound IVR presents some unique challenges that are not present in the deployment of an Inbound IVR solution. By using the right technologies and employing proven best practices, companies can avoid pitfalls that result in customer frustration.

Voxeo has hosted standards-driven, Outbound IVR applications on its platform for longer than any provider in the market and understands the unique considerations that are necessary for success. Voxeo support engineers are available around-the-clock, with deep knowledge of the industry standards and technologies that are critical to the development of a successful outbound application. Chances are, if you’ve got an Outbound IVR question, we’ve answered it before. Additionally, Voxeo’s free Evolution customer and developer portal is the world’s most widely used VoiceXML and CCXML developer community. Evolution provides extensive tutorials, sample applications, sample grammars, discussion forums and developer tools.

The same platform and tools used for Voxeo Outbound IVR can be used to develop Inbound IVR applications and two-way SMS applications.