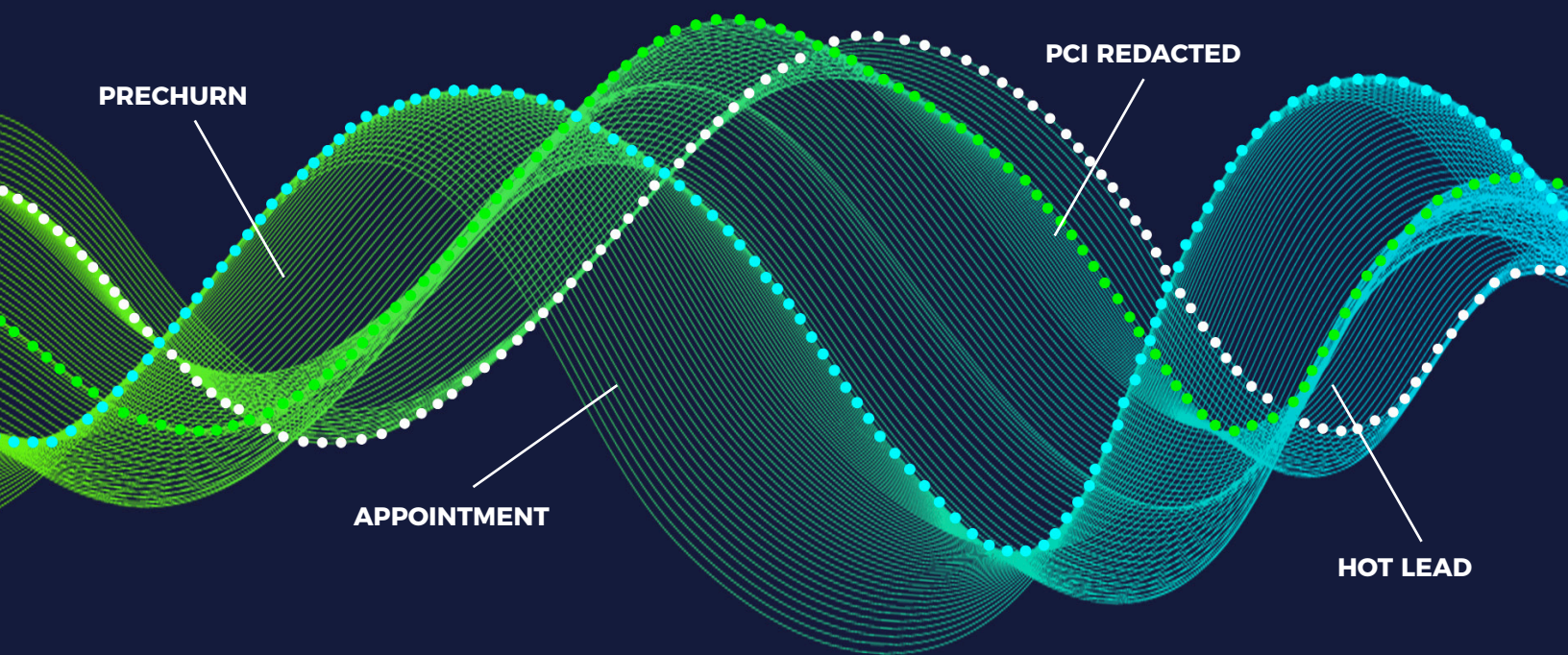


# VoiceBase Predictive Insights

AUTOMATED CALL SCORING FOR TODAY'S CALL CENTER



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# OVERVIEW

**In today's contact center** there are millions upon millions of calls waiting to be mined for insightful intelligence. But the manual process of analyzing voice recordings in search of business opportunities is labor intensive, costly, and time consuming. And that all adds up to a lot of resources that could be better spent exploiting newfound insights for improving business processes.

If you are operating a contact center or hosting a PBX (private branch exchange), your clients will be interested in a solution that accelerates the call-scoring process, saves money, and enables a new level of intelligence to be gleaned from customer calls. VoiceBase Predictive Insights is just such a solution.

An advanced form of data mining, predictive analytics leverages machine learning to identify patterns in voice recordings, intuit a speaker's intent, and predict a future outcome — be it a sale, account cancellation, or one of many customized “X” signals your clients might request. Using recorded call data, VoiceBase constructs predictive models that provide the means for automated call disposition, thus eliminating the need for costly human call scoring and giving call center customers actionable insights to support their sales, marketing, and CRM initiatives — and much more.

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Automatically mining the rich data in spoken interactions opens the door to a wealth of possibilities. This paper will detail how VoiceBase Predictive Insights works and describe a few of its beneficial applications for call center customers.

## PREDICTIVE INSIGHTS FOR VOICE

**Predicting the future** was once strictly in the realm of science fiction. But having the ability to do so can unlock unlimited potential across the entire human experience — from romance and politics to war and peace. In the business world, being able to predict what will succeed (or fail) can clearly be a game-changer for sales and marketing efforts, among other endeavors.

While not 100 percent foolproof, today's predictive analytics is all science and no fiction. Its power is achieved by detecting patterns, behaviors, and trends in historical, transactional, and customer data to ferret out risks to avoid and opportunities to pursue.

VoiceBase takes the science to a new level by making predictive analytics possible via voice recordings. Using industry-leading speech recognition and transcription technologies and creating thousands of columns of related characteristics, VoiceBase is able to identify unique relationships that define the signals detected in spoken words. As such, VoiceBase Predictive Insights provides answers to questions that were previously unimaginable — or at the very least required considerable human interaction, meaning it took a lot more time and money to resolve.

Imagine: What if a business could automatically mine every customer call for actionable data? Are there specific words or phrases associated with a high cancellation rate or closing a sale? Predicting customer behavior based on spoken interactions provides contact centers with a powerful new tool to drive business results. Previously this was only attainable using costly, time-consuming, and error-prone human call scoring. With VoiceBase Predictive Insights the potential is now enormous.

## BUILDING MODELS: THE MORE DATA THE BETTER

**VoiceBase utilizes proprietary** technologies to build unique predictive models. By compiling thousands of data points — not just a few keywords — VoiceBase constructs analytical models that can accurately detect spoken signals and classify calls according to pre-tagged signals.

When it comes to building predictive models, like many things in life, the more the better — data that is.

VoiceBase leverages ASR (Automatic Speech Recognition) to deliver precise speech-to-text transcripts and machine learning to cull a speaker's intent from a given signal. Predetermined words or phrases taken from a transcript can be analyzed and applied to calls or snippets of spoken content to signal, for instance, "Hot Lead," "Rude Sales Rep" or "Immediate Follow-up Required."

When it comes to building predictive models, like many things in life, the more the better — data that is. The model-building process is as follows:

- VoiceBase obtains training data (recorded calls) from an end-user customer.
- The recordings are then tagged for select attributes in order to train VoiceBase's machine learning model. Manual, human tagging can be managed by VoiceBase for the initial model set up or training data from customers can come pre-tagged; new calls can then be added and classified at any time.
- Once tagging is finished, VoiceBase builds an analytics model based on the individual context of the recordings and the specific classifications requested.
- VoiceBase trains each model and leverages neural networks and deep learning to detect patterns and isolate sought-after "X" signals to test the model for accuracy.
- Note: New predictive models do not necessarily have to be built in every instance. VoiceBase also has a library of context-specific models ready for off-the-shelf deployment.

## UNPRECEDENTED INTELLIGENCE: SIGNAL "X" AND OTHER INSIGHTS

**What kind of information** can a VoiceBase predictive model elicit?

> **Signal "X":** VoiceBase builds models that detect just about anything — commonly referred to as an "X" signal in the analytics lexicon. Did the customer ask about pricing? Mention a competitor's product? Ask for store hours and location? Using pre-scored call data, the technology can detect client-requested attributes in order to classify a call, predict an outcome, and trigger a response. The data can be optimized for any event a customer is interested in detecting.

**> Auto Call Classification:** VoiceBase can predict the result of a known set of call classifications (e.g., hot lead, appointment made, order placed, upset customer) for which training data has been provided. Results are classified by a simple “Yes/No” for the presence of any given signal.

**> Time-based Predictions:** Certain events can be time-stamped to identify the start/stop times when keywords or phrases are mentioned in a recording. Customers can skip directly to positive or negative comments without having to listen to entire calls. Personal information can also be time stamped, making it easy to remove or mask sensitive data. Recorded playlists can be created to highlight sales techniques that work and tactics to avoid, which can subsequently be attached to CRM files for optimizing sales training efforts.

**> Generic Models:** As noted earlier, every model does not have to be built from the ground up. In addition to custom-built models, VoiceBase provides a variety of ready-to-use predictors based on previous use cases, such as “Appointment,” “PCI,” and “Profanity.”

- **Detection and Redaction:** Recorded calls and their transcripts can be scrubbed for sensitive information such as PCI data (Payment Card Industry), Social Security numbers, customer IDs, and phone numbers. VoiceBase’s proprietary algorithms scan calls for all credit card data in order to strengthen data security.

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> **Custom Analytics:** Models for finding signal “X” are built using an end-user customer’s tagged training data. Models are trained leveraging Big Data techniques to detect specific signals as requested by the customer.

- **VoiceBase automatically** discovers pre-selected words or phrases in voice recordings and uses proprietary algorithms to extract them.
- **VoiceBase technology** is also able to detect nuanced signals such as energy and pitch of speech to intuit a speaker’s intent.
- **Confidence scores** are appended to various instances of signal detection to help gauge a model’s accuracy.

## USE CASES

**What can predictive analytics** do for end-user customers? Applications vary across a full range of private- and public-sector entities.

> **Sales Optimization:** Let’s say a customer has purchased 50,000 sales leads to call and wants to evaluate their quality. VoiceBase Predictive Insights can distinguish between hot prospects and non-prospects, and thus help customers make better-informed decisions for future purchases.

The information garnered is not only valuable, it’s also actionable. Many SMBs have hosted phone systems that provide rudimentary call logs: How many calls were received and how long did they last? When were they received? Et cetera. By requesting to have VoiceBase’s API integrated into their PBX system, customers can avail themselves of detailed reports that offer much more useful data: How many calls were from first-time callers? How many made appointments or cancelled? Did they call to complain or purchase? Do they want an estimate? Who referred them?



In short, VoiceBase Predictive Insights can transform a Call Detail Record (CDR) from something that merely measures basic activities into a tool that can actually measure and help improve a company's business processes and, ultimately, its performance. And SMBs can use that intelligence to trigger automated responses: If a caller complained about a recent purchase, a sales rep can call back offering an additional discount. If callers feel they were treated rudely, have an email sent flagging the receptionist's supervisor. Or simply mine the call recordings for cross-sell and upsell opportunities and give the sales staff a new batch of leads.

**> Compliance Monitoring and Agent Training:**

The VoiceBase Predictive Analytics platform supports keyword and phrase detection, making it ideal for monitoring conversations for compliance with company procedures and policies as well as with external regulatory mandates. It can also be an effective way to measure agent performance and enhance an organization's training programs.

In regards to quality assurance, did the agent follow the sales script?

A company can monitor agent conversations and create scorecards across all departments to gauge the relative performance of every customer service rep.

Customers can also extract the most impactful words and phrases used by top performers and create recorded playlists. Knowing what works best for the most successful agents — offering a free trial or mentioning a money-back guarantee — is a powerful training tool that can extend success across an entire sales organization.

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Additionally, the intelligence mined from call data can help agents learn how to answer the toughest questions thrown at them and how to best counter common customer objections.

> **Listen to Big Data**, Hear the “Big Voice”: It is often said that social media is today’s surest way to hear the “Voice of the Customer.” But the fact is there’s some 6,000 times more data contained in call center recordings than there is in all social media websites and apps combined. And all of it can be easily mined and loaded into a queryable database using VoiceBase Predictive Insights.

Want to know what customers are saying, what they like, want, need or hate? What do they say about the competition? Want to get insights to help prevent customer churn? Then apply Big Data techniques to spoken information in ways never thought possible, but are now available from VoiceBase. Leverage Big Voice.™

Or a one VoiceBase client puts it: “With VoiceBase Predictive Insights we’ve been able to lower customer churn and optimize sales. By flagging the patterns in our call interactions we can quickly escalate calls for immediate action and better results.”

# CONCLUSION

**Contact centers, call-tracking services,** and hosted PBXs can now offer customers a solution that replaces human call scoring, saving them a considerable amount of time and money, while providing a trove of actionable intelligence from recorded call data.

VoiceBase Predictive Insights leverages machine learning and neural network technology to detect patterns in voice recordings, gauge a speaker's intent, and predict future outcomes. It is an ideal tool for optimizing a variety of business processes, including sales and marketing, agent training, and compliance.

Mining the rich data in spoken interactions opens the door to a wealth of possibilities — possibilities that can now be brought to life with VoiceBase Predictive Insights.



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