Business as Usual – How Much is it Costing You?
or
Why Industry-Best Call Analysis Matters

Case studies highlighting the latest disruptive technology for the Collections and Telemarketing industries from Interactive Intelligence

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Introduction

How often do you validate the results of your dialer's Call Analysis? Did you know that a 1% increase in accuracy can represent millions of dollars in savings in campaign efficiency, carrier costs and staff productivity? Find out how Interactive Intelligence has changed the game with Media Server advanced pattern and speech recognition algorithms that can have up to a 30% increase in accuracy of Call Progress Analysis.

Call Analysis

Call analysis is sometimes also referred to as Call Progress Analysis (CPA), or Call Progress Detection (CPD). Call analysis is a set of algorithms that determine how and if a call was answered by analyzing the audio and phone network signaling for an outbound call. These results can include wrong number, answering machine, or person, to name a few.

In the traditional hardware/board-based call analysis solutions, firmware updates often take months to come to fruition. Multiple customers have to report an issue, the board supplier has to rewrite its signal processing code, and a hardware/firmware update must be performed on the customer hardware.

With Media Server Call Analysis from Interactive Intelligence, call analysis is all software based. This means more flexibility, an easier update process, and much more rapid turnaround time from report of the new detection to final update. Updates based on new information take days instead of months.

Telemarketing Case Study

In telemarketing environments, agents must be speaking to a live person to be productive. Minimizing the number of answering machines that are sent to agents can produce huge returns in terms of bottom line revenue. This is especially true when making millions of calls a day, as the following case study of a customer that uses Interactive Intelligence's Media Server Call Analysis illustrates.

Call analysis accuracy can make the difference between being productive or millions of dollars wasted for a company that makes 4-5 million calls a day. Live speaker detection must be accurate, but answering machine and other non-live speaker detections must be more accurate to prevent agents from wasting time on non-live speaker calls and lines from being wasted on making unproductive calls to bad numbers.

In a common board-based solution, an answering machine detection rate in the range of 88-92% is considered standard. What this number fails to take into account is the number of live speakers that were marked as answering machines, and therefore were disconnected instead of being routed to agents. The 88-92% number only reflects the number of answering machines that went to the agents out of all answering machines that were detected. When considering the live speakers that were marked as answering machines (false positives), the accuracy rate falls in the range or 80%-85%.

In this Telemarketing Case Study, more than 750,000 diagnostic recordings were submitted for analysis to determine how accurate the Media Server Call Analysis detected answering machines, live speakers, and many other possible result types.

These recordings are analyzed using the best tool known: the human ear. Following are some of the results from this analysis.

- True **Answering Machine Detection Accuracy** was at 95%, higher than a board-based counterpart. This means that with Media Server Call Analysis, only 5% of the answering machines encountered were sent to agents, as opposed to 12%-20% from most board-based solutions.
- **Live Speaker Detection Accuracy** was 97%, which means that only 3% of live speakers were detected as something else.
- **Custom Ringback Detection** is one of the most difficult situations for call analysis systems to detect. A custom ringback is similar to a hold message, but is often accompanied with music. These are typically detected as answering machines by a standard call analysis system. However, with the capabilities of Media Server Call Analysis from Interactive Intelligence, custom ringback detection accuracy is 99+%.

Collections Case Study

In debt collections environments, the key to success is accurate answering machine detection. Not only is accuracy important to assure live speakers are getting to debt collectors, but also to assure answering machines are getting messages played to them when appropriate. Sending answering machines to debt collectors is time wasted, and playing messages to live speakers produces minimal results. In the Collections Case Study, we examine the effects of improved answering machine detection accuracy.

As in the Telemarketing Case Study, an answering machine detection rate of 88% is considered standard. Unlike telemarketing, however, the key concept in collections is to either speak to a debtor or, in some cases, leave an appropriate message on an answering machine that prompts a callback by the debtor. Answering machines that are sent to the debt collectors are a waste of agent time — time that could be spent getting a payment from a debtor.

### Reduction of Answering Machines sent to Agents:

In the Collections Case Study, the new Media Server Call Analysis from Interactive Intelligence reduced the number of answering machines that were sent to agents by **43%**. That means that 43% more calls were productive calls, talking to people that could actually pay instead of talking to an answering machine. The case study also showed that 11% of connects were right party connects (RPC), and 21% of those RPCs were either payments or promises to pay.

Positive Results of Media Server Call Analysis:

By sending more live speakers to debt collectors, this collections operation was also able to reduce not only the number of attempts to get a connect to an agent, but also reduce the number of connects to get an RPC. The change in the RPC to connect rate was a 39% increase with the latest Media Server Call Analysis, and the increase in Promises to Pay to RPC was 9%. This means that the collections operation not only received a significant increase in answering machine detection accuracy, they also benefited from a significant increase in live connects being right party connects, and an almost 10% increase in those RPCs promising to pay.

Benefits Summary:

The following chart outlines the improvements in Outbound Dialer Key Performance Criteria.
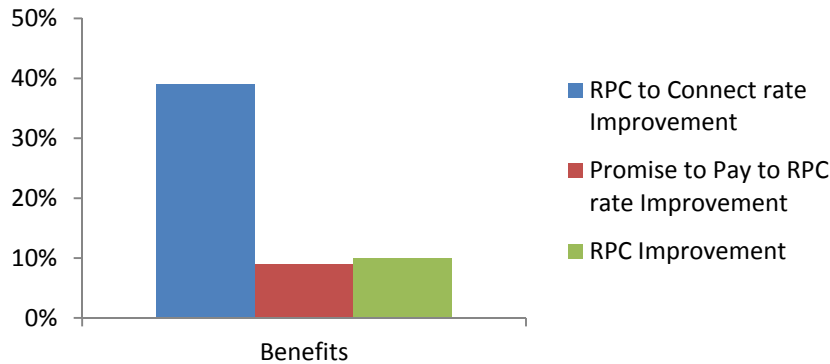

Independent Customer Case Study

An independent study, done by a customer using a competitor's product in the course of testing the call analysis, compared Media Server Call Analysis to a "significant competitor." The results were, in the words of the independent testers, "truly staggering."

For the study, the following calculations were used:

- AMD Detection = Agent Flagged AMD / (Total calls – disconnects). (*where Disconnects = SIT tones and such*)
- AMD Accuracy = Agent Flagged AMD / Total calls
- Disconnect Detection = Agent Flagged Disconnects / Total calls

Independent Test Results
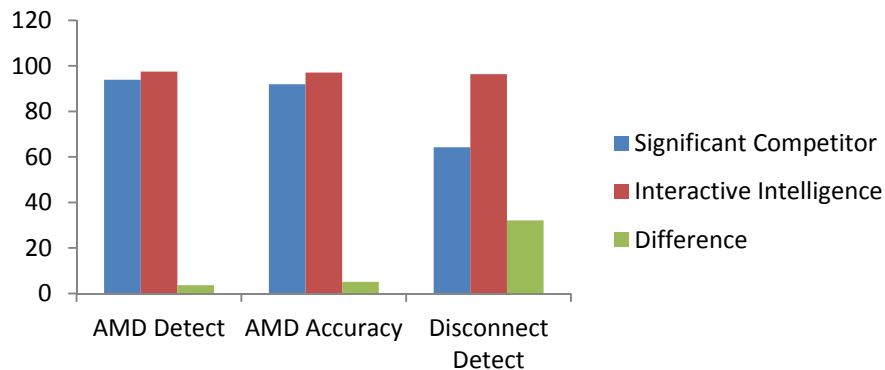
As these independent test results show, Media Server Call Analysis had a 97+% answering machine detection rate, and 97% accuracy with those detects. It also had a much better disconnect detection rate than the competitor, a full 32 percentage point increase! By any standard of measurement, this independent test further proves that Media Server Call Analysis by Interactive Intelligence is not only better than the competition, but is truly head and shoulders above them!

Case Study Conclusions

In each of these Case Studies, Media Server Call Analysis from Interactive Intelligence shows tangible results:

- Greatly improved answering machine detection (95-97% vs. ~85%)
- Improved live speaker detection (97%)
- Significant improvements in other tone detections (97%-100% accuracy for various tones)

Media Server Call Analysis also improves call analysis accuracy through other patented technological improvements including:

- Audio fingerprinting — used to accurately detect common system messages and common answering machine messages
- Custom ring tone detection — being able to accurately detect music as a ring tone while waiting for the called party to answer

In an industry that has been around for more than 40 years, it is difficult to find something that is revolutionary and disruptive. Interactive Intelligence Media Server Call Analysis is in that category. From significant improvements in answering machine detection to state of the art digital identification technology, it is clear that Media Server Call Analysis from Interactive Intelligence is changing the game.

Interactive Intelligence, Inc. Interactive Intelligence Inc. (Nasdaq: ININ) is a global provider of unified business communications solutions for contact center automation, enterprise IP telephony, and business process automation.

The company has developed an all-in-one IP communications software suite that's scalable and standards-based, offering single-platform architecture with inherent multichannel processing to deliver comprehensive applications minus the cost and complexity introduced by multipoint products.

Founded in 1994 and backed by more than 4,500 customers worldwide, Interactive Intelligence is an experienced leader delivering a comprehensive solution-set composed of premise-based and on-demand Communications as a Service (CaaS) offerings, including software, hardware, consulting, support, education and implementation.