HGS® digital

USING AI TO IMPROVE THE CUSTOMER EXPERIENCE

HARVEST MORE INSIGHTS, REFOCUS QUALITY ASSURANCE TEAMS, IMPROVE FIRST CALL RESOLUTION, IMPROVE THE CX IN REAL-TIME, AND INCREASE NPS® SCORES AND REVENUE

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01 INTRODUCTION

Net Promoter Score® (NPS®) is no longer a fad in corporate America — it's emerging as a leading brand standard. As per the Wall Street Journal, the term NPS® was cited more than 150 times in earnings calls held by prominent S&P 500 companies in 2019.

NPS® is a metric that measures the overall perception of the customer toward the brand. NPS® is created after customers respond to one question — "*Based on your interaction with the brand, how likely are you to recommend the brand to your friends and family?*" The customer can indicate a rank from 0 to 10, with 0 being *not at all likely and 10 being extremely likely*. The customers who ranked between 1 and 6 are marked as **Detractors**, the customers who ranked 7 or 8 are marked as **Passives**, and the customers who ranked 9 or 10 are ranked as a **Promoters**.
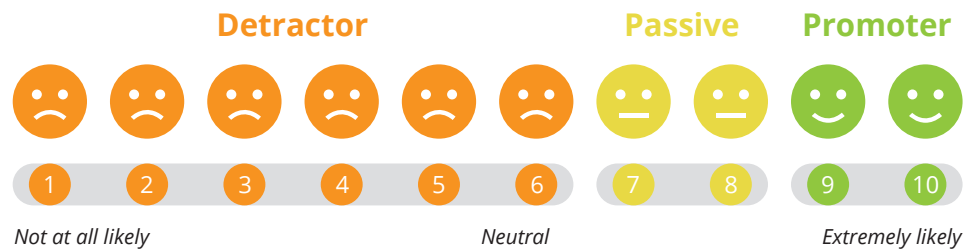
Figure 1 - Net Promoter Score® Scale

Per the Wall Street journal article, corporate America is obsessed with NPS®, and CEOs are going all out to improve their scores. NPS® is considered the ultimate voice of the customer gauge. Many companies are doling out bonuses to executives based upon NPS® rankings. Other companies are justifying CX and transformation project investments based on the NPS® rankings.

But should NPS® be used as the primary measure at every touchpoint?
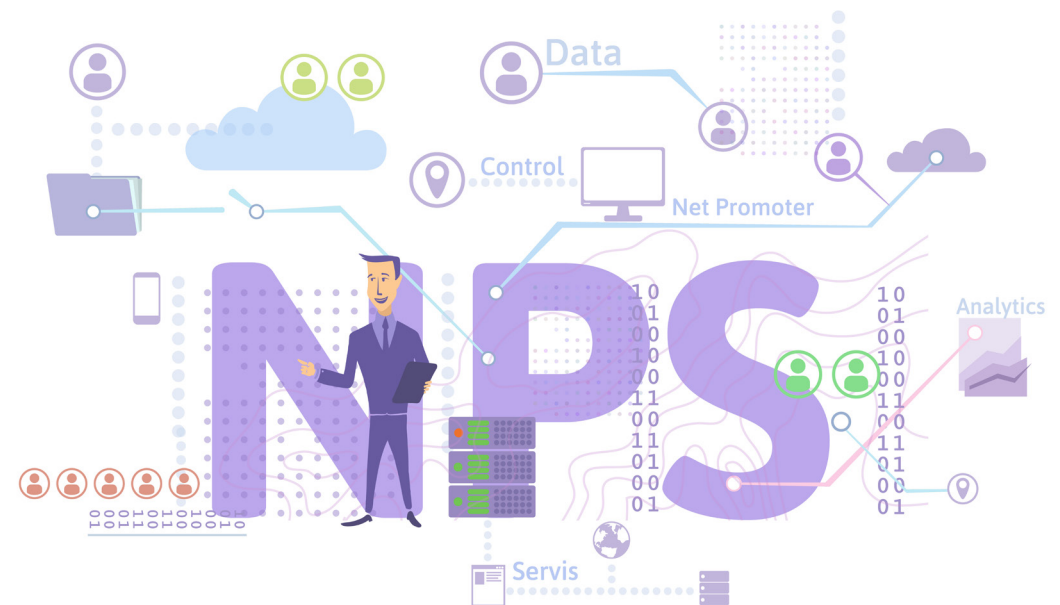
02   OVERRELIANCE ON NPS® MAY LIMIT CX IMPROVEMENT EFFORTS

HGS manages business processes for more than 50 *Fortune* 500 companies in North America and handles the omni-channel interactions (call, chat, email, social media, etc.) and other back office functions. HGS experience in CX and our analysis has led us to the conclusion that NPS® is not the best way to track CX in today's omni-channel, AI-driven world.

Following are some of the major disadvantages of NPS®:

> **Fewer than 3% of the customers take the NPS® survey.**
>
> HGS analysis indicates that fewer than 3% of the customers take the NPS® survey. This is a very small sample of customers to get a sense of the underlying problems. Even the customers who take the survey don't provide enough details about the reason(s) why they are happy or unhappy.

> **A majority of the customers who take the survey are either Detractors or Promoters.**
>
> When was the last time that you took a survey for a service for which you were neither very happy nor very unhappy? That's right — most of the customers who take the survey are Promoters and Detractors, and these people are typically a small segment of the total customer pool. The majority of customers falls under the Passives umbrella; this type of customer doesn't take the survey, and further skews the results. In fact, brands should be focusing on the Passives and should work hard to convert them to Promoters with every interaction.

04

02 OVERRELIANCE ON NPS® MAY LIMIT CX IMPROVEMENT EFFORTS

❯ NPS® is a lagging indicator and not immediately actionable.

The aggregated results of the NPS® are not available until after the customer has interacted with the brand. This means that the interaction has already happened, and there is nothing that a brand can do to prevent any negative impact. Furthermore, with the way survey systems are designed, it takes a day (if you are lucky) to pull the data, produce a report, and derive the key insights. Brands should find ways to take *immediate* remedial action that prevents a customer from turning into a Passive or a Detractor by taking required steps in real time before it's too late.

❯ Identifying the root cause of low NPS® is a manual and time-consuming task.

In a contact center setting, the quality assurance (QA) team identifies account performance issues, determines root causes, and devises steps to improve performance. The QA team listens to the Detractor calls (or reviews written exchanges with customers) to identify the root causes of the problems. This is a manual and arduous process, as the data is often stored in disparate systems and requires a certain amount of contextual judgement.

The calls are typically stored in a call-recording platform (Avaya, Verint, Genesis, Amazon Connect, Twilio, etc.), and the customer survey data is stored in a customer relationship management (CRM) system. The NPS® score may be stored in yet another. These systems typically do not talk to each other, and QA specialists have to manually download the data, combine them, and listen to each call. The outcome of the QA analysis is then populated manually, again, within a quality system.

In large contact center settings, due to the high volume of calls, QA specialists listen to maybe only 10% of the Detractor calls. This further reduces the analysis of NPS® into an even smaller subset (*Remember: fewer than 3% of customers take the NPS® survey*). Also, this whole process is manual, time consuming, repetitive, and error prone. HGS analysis indicates that automating this process using AI alone would save millions of dollars for contact center operations.

03 AI CAN HELP IMPROVE THE CX ALONGSIDE NPS®

Technology offerings have advanced considerably since *Harvard Business Review* announced back in 2003 that NPS® is just **one metric** that organizations needs to track in order to grow. Even though technology has progressed by leaps and bounds in the last two decades, organizations still have not found a panacea to solve their customer service problems. **New Voice Media reported** that U.S. companies lose more than **$62 billion** annually due to poor customer service. Two-thirds of millennials admitted to **changing loyalties** to a company because of a bad experience.

However, there is silver lining in sight for solving the CX conundrum. In recent years, AI has begun to occupy the contact center space with the advent of speech analytics, machine learning, and natural language processing. **Google**, **Amazon**, and **Microsoft** have jumped into the contact center fray with leading AI-driven solutions.

03   AI CAN HELP IMPROVE THE CX ALONGSIDE NPS®

As listed in **this HGS Digital article**, our experience in the contact center setting indicates that an AI-driven contact center can improve efficiencies in three main ways:

1. **Improve the overall CX through personalization.**

2. **Improve operational efficiencies by automating mundane and repetitive tasks.**

3. **Drive revenue by acquiring & retaining customers, up-selling, and cross-selling.**

Figure 2 - How AI Can Drive CX

There is a substantial opportunity to leverage AI and machine learning for voice calls to provide a personalized experience to the customer and thereby improve the overall CX.

04 A DAY IN THE LIFE OF A QA SPECIALIST (HINT: IT'S PRETTY REPETITIVE, MOSTLY REACTIVE, AND SOME OF IT COULD BE AUTOMATED)

Within a contact center, a QA specialist is responsible for providing quality improvement strategies; identifying opportunities for agents, team leads, and trainers; conducting quality audits; monitoring the voice of the customer; and more.

Typically, a QA specialist reviews the data from at least two different systems (i.e., a call recording platform and a CRM). The NPS® data is available either in a separate, third survey system or integrated as part of the CRM. The outcome of QA analysis is then inserted into a fourth quality system. This process occurs well after the call has taken place, and only a small subset of calls is analyzed.

Following is an illustration of traditional QA process

Figure 3 - A Day in the Life of QA Specialist Without AI and Automation

04 A DAY IN THE LIFE OF A QA SPECIALIST LEVERAGING AI

This traditional contact center QA approach is extremely time consuming, manual, repetitive and, hence, error prone. QA specialists are usually promoted from the agent ranks; these are sharp, experienced people who have a knack for identifying ways to please customers and coach agents to improve their performance. Having QA specialists spend time on rote, repetitive tasks doesn't capitalize on their full potential or expertise. There is another way: reinvent the process with AI and automation.

Following is the revised QA process flow using AI.
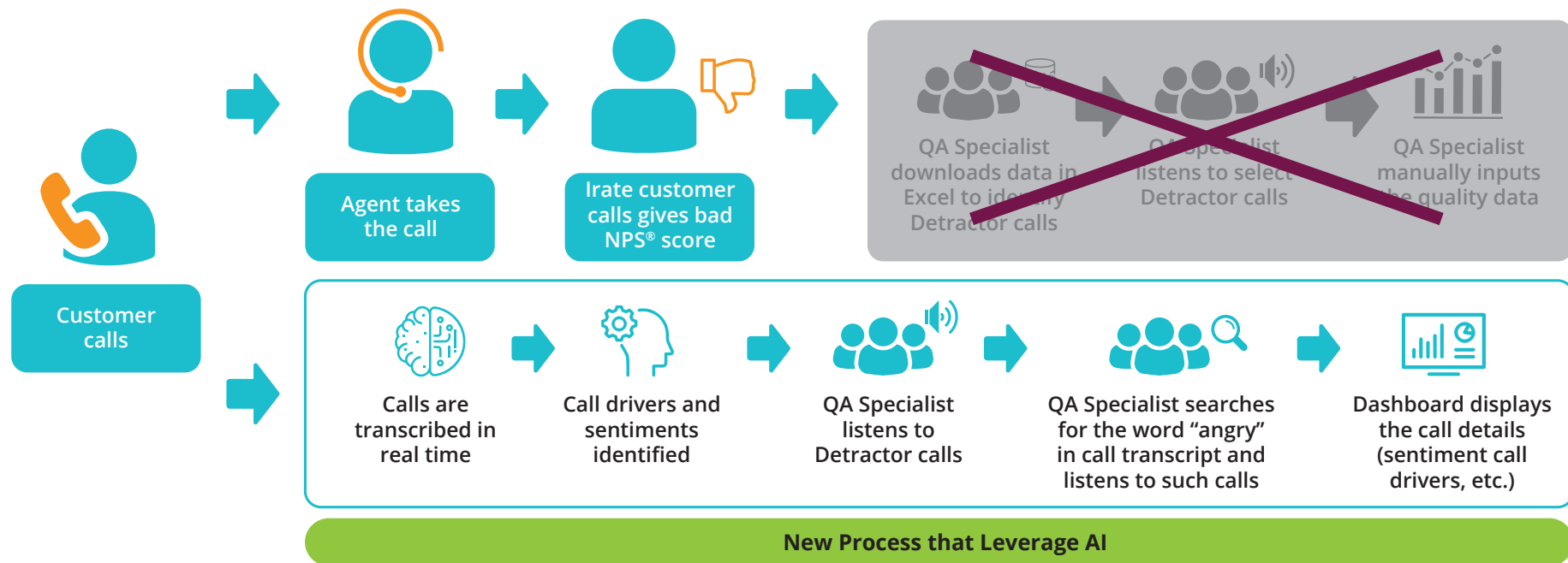
Figure 4 - A Day in the Life of QA Specialist Using AI and Automation

In the revised, more modern approach, calls are converted to text in real time, and call sentiment is analyzed in real time. At the end of each call, the call drivers, call summary, and overall sentiment of the call (including when the sentiment turned from positive to negative, or vice versa) is displayed in near real time.

A real-time analytics dashboard can display the voice call, transcript, call drivers, and recommended improvements for each call. The dashboard can pinpoint the specific time when the call turned negative so that the QA team can listen to that section of the call without having to listen to the full call. Data is then aggregated at the team lead and account level for executive viewing.

05 AI CAN DRIVE CONTACT CENTER QUALITY, CSAT, FCR, AND FINANCIAL IMPROVEMENTS

Jeff Bezos, founder and chief executive officer of Amazon, stated during the World Economic Forum in 2017 that "we're living in a golden age of AI, and AI will empower and improve every business, every government organization, and every philanthropy."

However, companies should take a long-term view when embarking on the AI journey. Several challenges will arise in the short term, such as skills gaps, finding the right business problems to tackle, finding the right way to measure ROI, siloed systems, and lack of data quality. Executives who take a long-term view, who are firm on their goals, and who treat data as an asset will gain the maximum benefits from AI. Lastly, executives shouldn't view machine learning as a problem that can be addressed by a few data scientists locked in a room. Just as "it takes a village to raise a child," it requires a cross-functional team — from business users and real customers to data engineers, data scientists, and DevOps users — to successfully tackle a business problem.

05 AI CAN DRIVE CONTACT CENTER QUALITY, CSAT, FCR, AND FINANCIAL IMPROVEMENTS

In contact center settings, AI-driven, speech-to-text solutions provide immense opportunity to capture the true voice of the customer. Below are some of the advantages of an AI-driven, speech-to-text analytics solution:

Quality improvements are directly proportional and related to improvements in customer satisfaction and higher revenue.

HGS internal study during the last quarter of 2019 showed that there is a direct correlation between focusing on quality and customer satisfaction (CSAT). As indicated in the following table, as the quality scores increased from **87.8%** in October to **98.8%** in December, the customer satisfaction (CSAT) scores correspondingly increased from **4.41** to **4.79**. So, the quality scores and associated feedback mechanism are directly proportional to an increase in CSAT.

As the *Harvard Business Review* pointed out back in 2003, a *10% improvement in NPS® correlates with a 6- to 7-percentage point increase* in revenue growth. So, focusing on quality results in improved customer satisfaction and higher revenue growth.

Relationship Between Quality Scores and CSAT Scores

■ QA % —●—CSAT Average
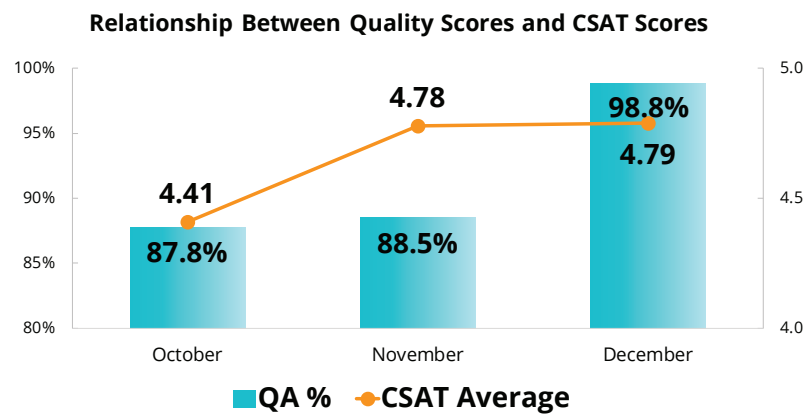
Figure 5 – Relationship Between Quality Scores and CSAT Scores
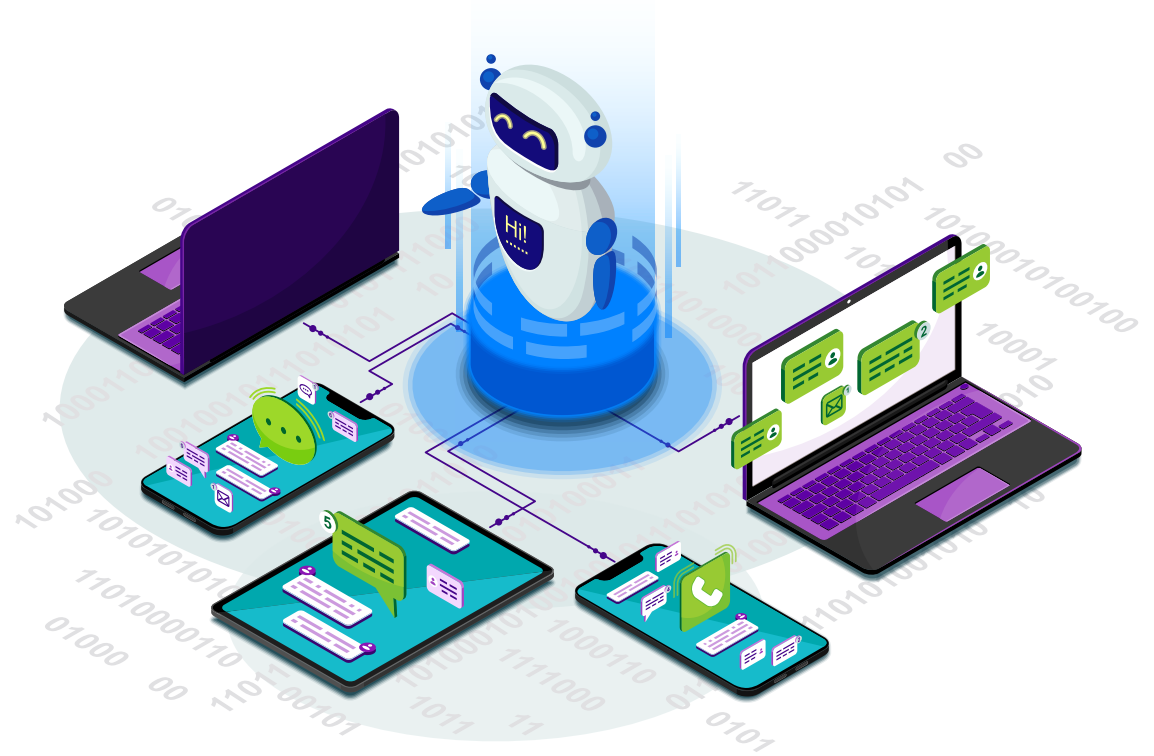
05 AI CAN DRIVE CONTACT CENTER QUALITY, CSAT, FCR, AND FINANCIAL IMPROVEMENTS

> **Reassign and enable QA specialists to perform the high value work of identifying root cause and driving performance improvements.**

Practically the entire QA process can be automated using a combination of natural language processing (NLP) and machine learning tools and techniques. This can reduce the manual, mundane, and repetitive work of QA specialists and allow them to focus on solving complex problems. HGS manages the contact center for more than 50 *Fortune* 500 companies, and each account has three or four QA specialists. By reassigning the QA specialists and using AI and automation to help gauge quality, the company saves millions of dollars.

> **By converting speech to text, 100% of the calls are searchable and available for analysis to derive insights.**

By applying advanced technologies to the QA process, a brand gets to analyze the authentic voice of the customer data, and 100% of the calls are available for analysis. It takes mere moments for a computer to search for keywords within thousands of calls. This is in stark contrast to humans manually analyzing only a small subset of the calls. The number of possible insights derived from natural language processing (NLP) is immense and can be used to drive tangible, fully documented performance improvements.

As the call text is available in a searchable database, a brand can easily check whether an agent is mentioning certain mandated text required to ensure compliance or to successfully up-sell and cross-sell. Furthermore, QA specialists can search the database to identify patterns. For example, the QA specialist could search for the word "*concern,*" and all the calls where customers said "concern," "concerned," or "concerning" would show up. One simple search could yield significant insight into all customer concerns.

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05   AI CAN DRIVE CONTACT CENTER QUALITY, CSAT, FCR, AND FINANCIAL IMPROVEMENTS

AI provides an opportunity to improve CSAT immediately and in real time.

As per the stats from **Voip-info**, when a customer problem is resolved on the first call, only 1% is likely to go to a competitor as compared to 15% when the issue is not addressed sufficiently. Contact center executives use first call resolution (FCR) as a key metric to measure the performance of the program.

Our analysis indicates that the customer is typically unhappy during the initial part of the call and the sentiment is usually negative. As the agent starts to resolve the customer's problem during the middle part of the call, the sentiment moves from negative to neutral. If the sentiment is not turned to positive during the last part of the call, there is an opportunity for a team lead to intervene and figure out how to resolve the issue. This way, the problem solving becomes real time, collaborative, and immediate.

05 AI CAN DRIVE CONTACT CENTER QUALITY, CSAT, FCR, AND FINANCIAL IMPROVEMENTS

Seamlessly identify call drivers and calculate the first contact resolution (FCR) metric.

Natural language processing can be used to identify call drivers from the call text. This information can be used to drive tangible performance improvements, such as "Why are customers calling, and are there repeat callers for the same problem?" The FCR metric can be calculated by looking for words such as "second," "twice," "again," and "previous" in the calls. The system would return such statements as, *"This is the second time I called," "I am calling again," "I have been transferred twice," and "The previous agent said,"* etc.

Once repeat calls are identified, the call drivers can be further categorized into *controllable* and *uncontrollable*. Controllable calls are those calls that could have been resolved with additional agent training. In the case of the health plan client example, HGS was able to categorize the client's calls into controllable and uncontrollable and then further coach the agents based on the controllable.
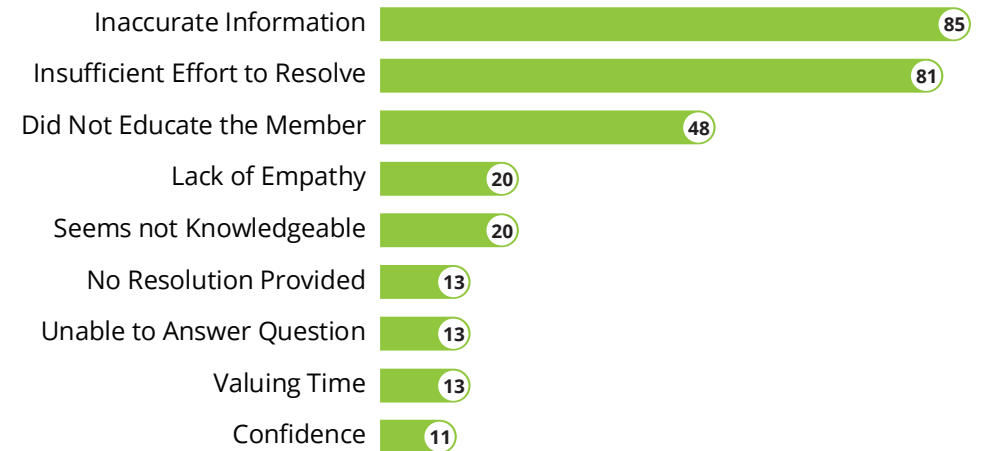
Agent Controllable

Inaccurate Information	85
Insufficient Effort to Resolve	81
Did Not Educate the Member	48
Lack of Empathy	20
Seems not Knowledgeable	20
No Resolution Provided	13
Unable to Answer Question	13
Valuing Time	13
Confidence	11

Figure 6 - Examples of Agent Controllables

Non-Agent Controllable

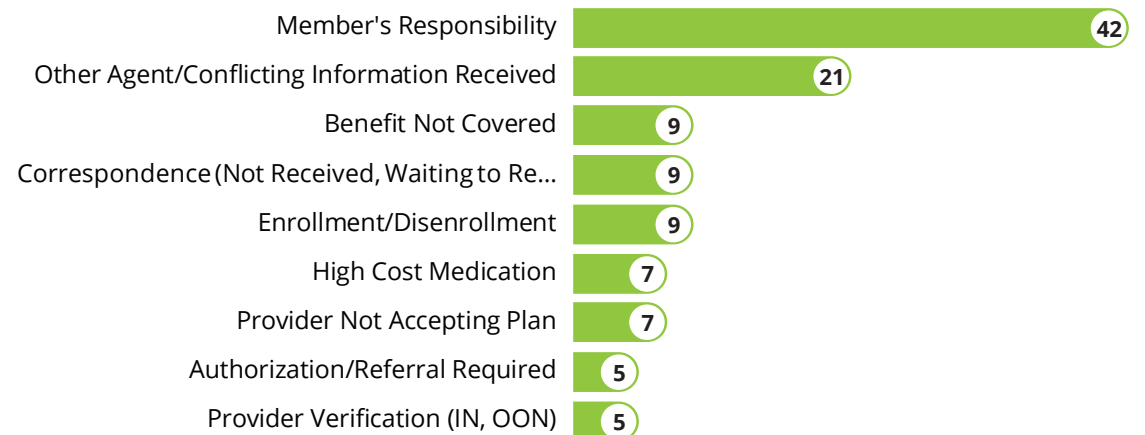|	
Member's Responsibility	42
Other Agent/Conflicting Information Received	21
Benefit Not Covered	9
Correspondence (Not Received, Waiting to Re...	9
Enrollment/Disenrollment	9
High Cost Medication	7
Provider Not Accepting Plan	7
Authorization/Referral Required	5
Provider Verification (IN, OON)	5

Figure 7 - Examples of Agent Uncontrollables

05 AI CAN DRIVE CONTACT CENTER QUALITY, CSAT, FCR, AND FINANCIAL IMPROVEMENTS

> **Team leaders can coach agents in real time on the floor based on sentiment analysis.**

According to a **Gallup study**, when organizations successfully engage their customers and their employees, they experience a *240% boost in performance-related business outcomes* compared with an organization that has neither engaged employees nor engaged customers.

Customers can figure out the skill level and work performance of the agent based on the interaction. So, companies should make sure that the agents are engaged and skilled to provide the best CX. Team leaders can review the performance of the agent by tracking the sentiment of the call. The sentiment analysis and additional real-time analytics give team leaders opportunity to coach the agents based on the data and provide real-time feedback.

HGS internal study indicates that, if an agent takes three consecutive negative calls, the shrinkage and absenteeism of that agent is higher. If an agent takes three consecutive negative calls, team leaders can intervene by advising their employees to take breaks and by providing extra encouragement. This way, agents are much more involved in the process, and team leaders get an opportunity to address the agent grievances. Agent attrition is a **huge problem** in the contact center industry, and this solution will help alleviate it. A happy and skilled agent is directly proportional to a happy customer.

06 COMBINE AI, NPS® CONCEPTS, AND CX EXCELLENCE FOR UNPARALLELED RESULTS

AWS has come up with products, such as Amazon Transcribe and Amazon Comprehend, that leverage the latest technologies in AI and natural language processing in the speech-to-text analytics space.

The technical solution using AWS includes leveraging a serverless architecture along with Amazon Transcribe, Comprehend, and QuickSight. The solution is designed in two phases.

1. **Phase 1** involves using Amazon Transcribe to convert the calls to text in near real time. The calls need to be split for agent and customer and, using AWS Lambda and AWS Step Functions, the calls are converted to text in near-real time.
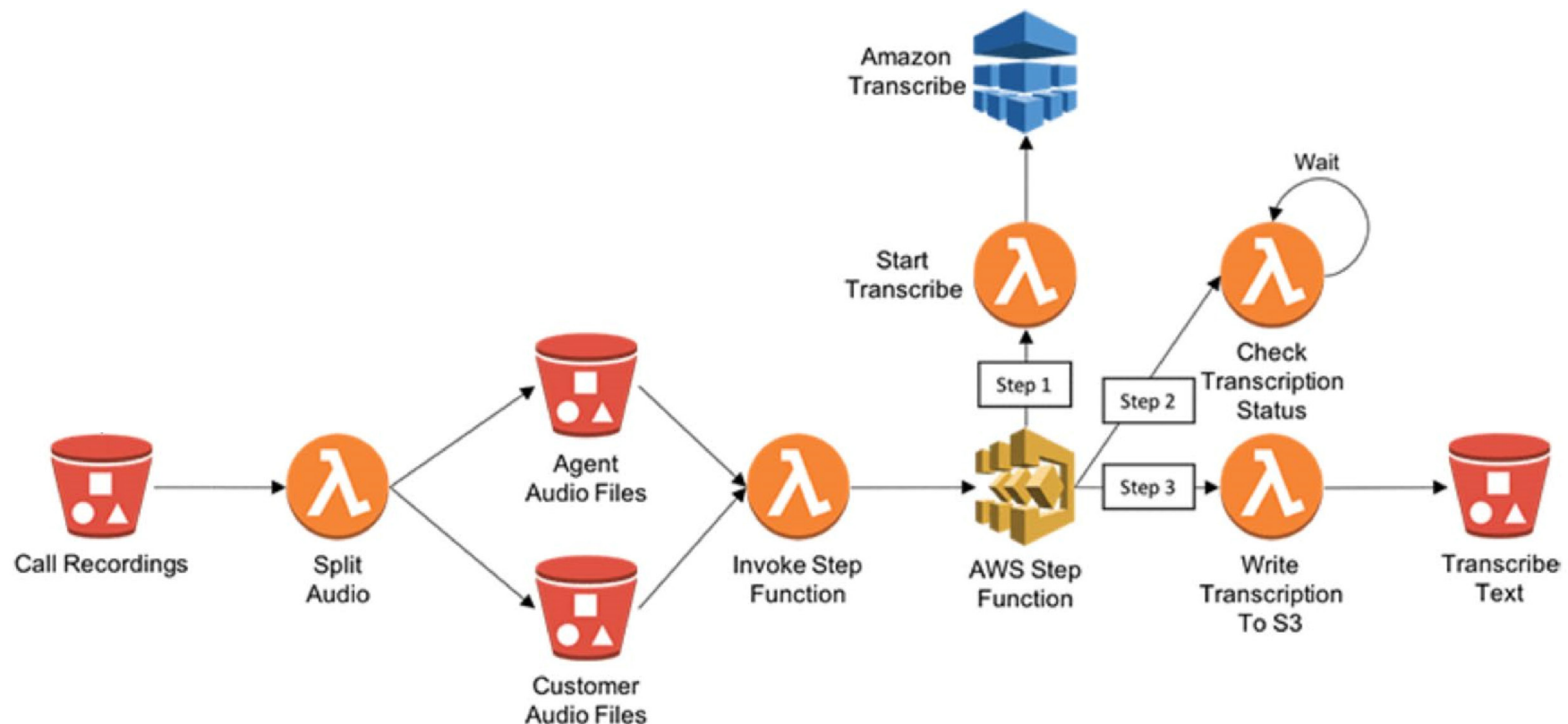

Figure 8 - Phase 1 of Speech-to-Text Solution

06 COMBINE AI, NPS® CONCEPTS, AND CX EXCELLENCE FOR UNPARALLELED RESULTS

1. **Phase 2** involves using **Amazon Comprehend** to calculate the sentiment and determine the call drivers. The sentiment analysis includes details of when the sentiment turned from positive to negative, or vice versa, during the call. The data is then displayed in an **Amazon QuickSight** dashboard.
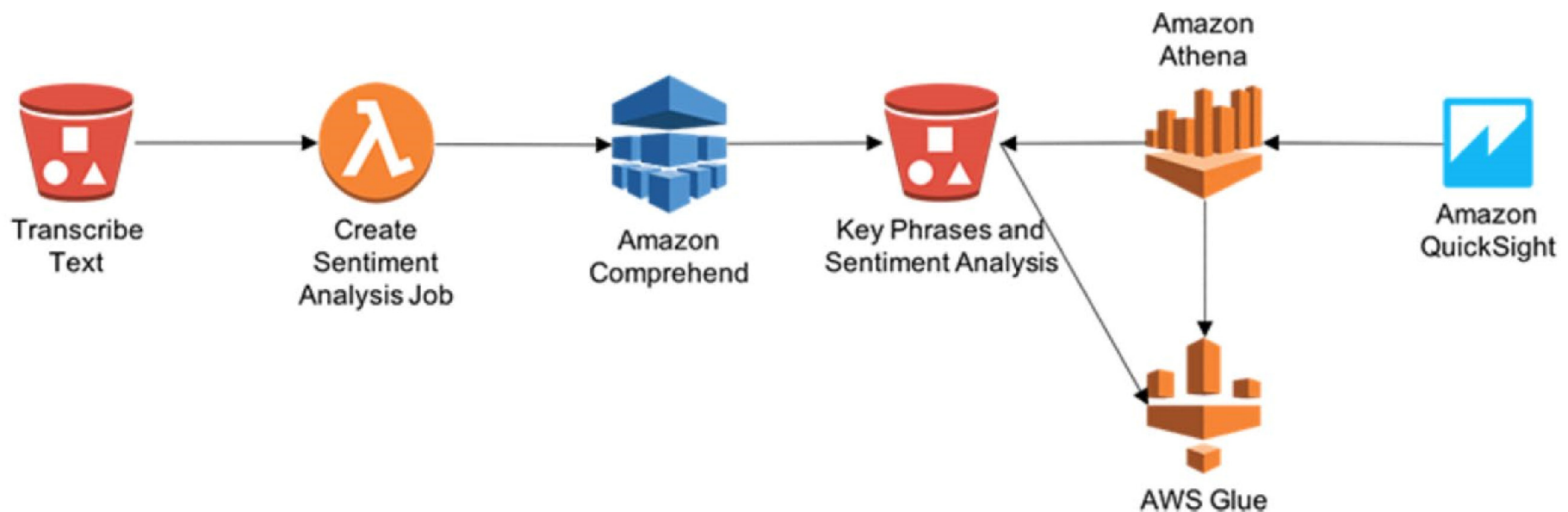

Figure 9 - Phase 2 of Speech-to-Text Solution

This fully automated and digital solution can provide greater insights to contact center executives about call drivers and the steps needed to take to drive performance improvements and thereby improving NPS®.

AI and digital technologies offer tremendous opportunity to transcend organizational silos and to provide personalized experience to the users, improve operational efficiencies, and drive revenue. The combination of AI, automation, machine learning, and natural language processing (NLP) is going to change the contact center environment and transform the relationships that brands have with their customers. Companies who start this transformation journey early will be at the forefront of innovation in the coming years.

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08 ABOUT HGS DIGITAL

HGS DIGITAL

HGS Digital is a marketing, data science and technology consulting and services provider that has helped various teams within 100+ organizations with digital transformation and automation solutions. Through our data-driven services, we help customers select the right models and systems and implement a complete strategy that helps teams get higher ROI out of their existing investments.

Our Data Practice has a matured and diverse portfolio with Big Data experts who help clients successfully strategize and implement data-driven solutions within their organization.

By integrating the right data from different systems, we help clients understand their customers better. Through AI and ML-based data modeling, analysis, reporting and visualization, we are able to provide our clients with highly valuable insights that they can act upon.

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