

UBM Top 50 Improvement Conference 2016

How To Win with Speech

Analytics and Voice Biometrics

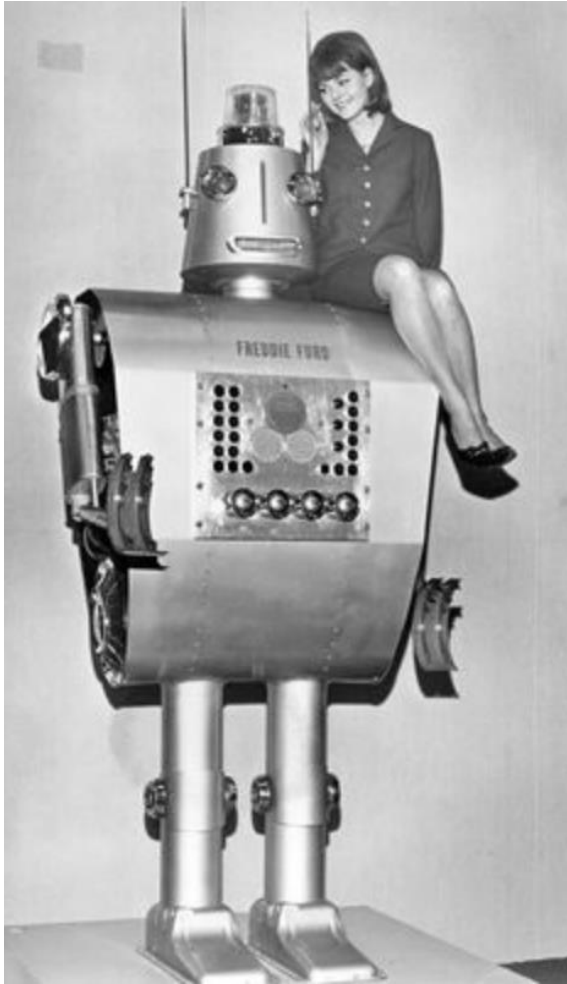
Enhancing and Optimizing Customer Touch Points



Spitch provides advanced speech data technologies to drive intelligent services.

Topic	Video link
Semantic Analytics – Intelligent IVR	https://www.youtube.com/watch?v=XIPwOAwI9QU
Call centre Solutions (Biometrics, Keywords, STT)	https://www.youtube.com/watch?v=0tV3Wqiwc2s
Automotive - Comprehensive Voice user interface (VUI)	https://www.youtube.com/watch?v=mlqEwR8jZ4c
Personalized online agent coaching using speech analytics	https://www.youtube.com/watch?v=vjdVCuHUk10

Company overview - Spitch AG



- **Spitch** is an international solutions and professional services provider that develops **enterprise class speech analytics** solutions for business.
- Spitch positions their solutions as advanced, **modular, scalable tools for business improvement** in the area of speech analytics.
- This area is currently experiencing rapid growth due in part to recent **breakthroughs in machine learning science**, which have helped pave the way for dramatically **more accurate SLT applications**.
- Our depth of **experience in speech recognition, synthesis** and search engine technologies enables us to create new, unique, **automatic and bespoke business solutions**.
- Privately owned with sustainable, **long term financing and a long-term Business-Plan**.

Value proposition - What's important when considering speech analytics

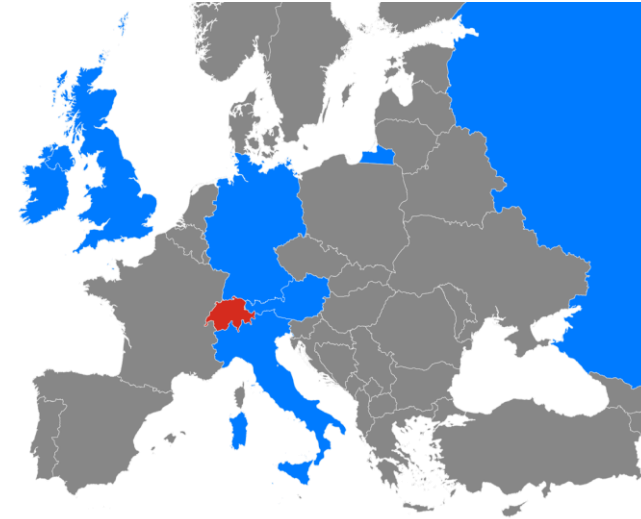
- Real-time technology and solutions
- Low TCO, low cost and flexible pricing models
- Step-by-step approach, not 'big bang' implementations (Implementation of small, manageable, high value functionality 'quick wins' instead of full-scale projects)
- High accuracy technology and output - recognition and verification
- Core SW components should allow seamless integration with 3rd party solutions

&

- Development and implementation of bespoke solutions addressing the business/client's needs and fine-tuned to the client's requirements
- Cutting-edge technology (R&D) in combination with result oriented implementation approaches: no-win-no-pay POC or similar
- Compliance with regulatory and legislative standards
- Support of industry standards and open architecture

Why Spitch – Competitive Advantages

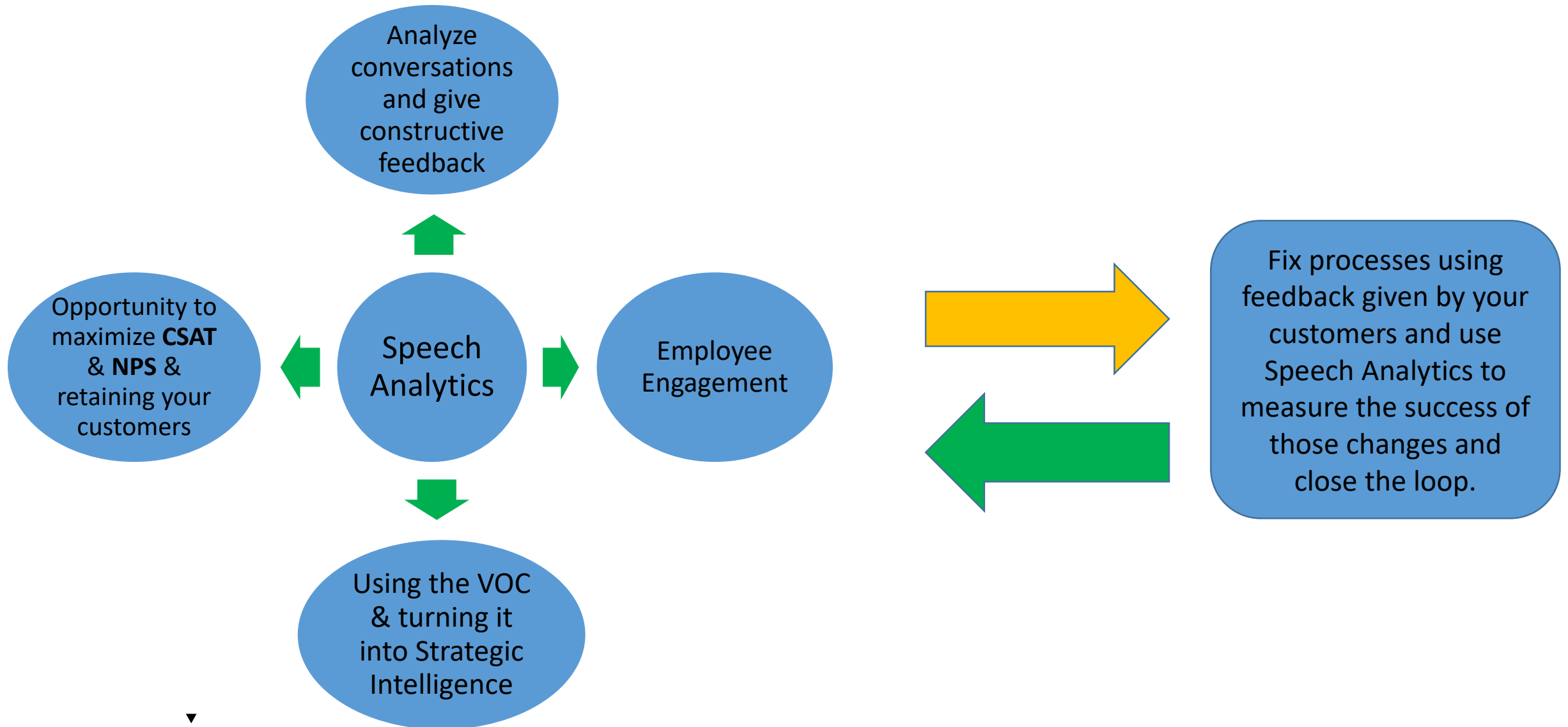
- **Highly focused and specialized.** Higher quality of recognition and verification by using the latest algorithms in the field of machine learning.
- Creating and **implementing bespoke solutions** addressing the needs of the client on the spot and **fine-tuned** to the client's requirements.
- **R&D core technical team** has over 50 years combined experience **Spoken Language Technologies (SLT)**, including **Automatic Speech Recognition (ASR)**, **Text-to-Speech synthesis (TTS)**, and **Information Retrieval (IR)**
- **50 years** combined **IT-management experience** of the Spitch executives.
- Compliance with **regulatory** and **legislative** standards.



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Recommended uses of Speech Analytics

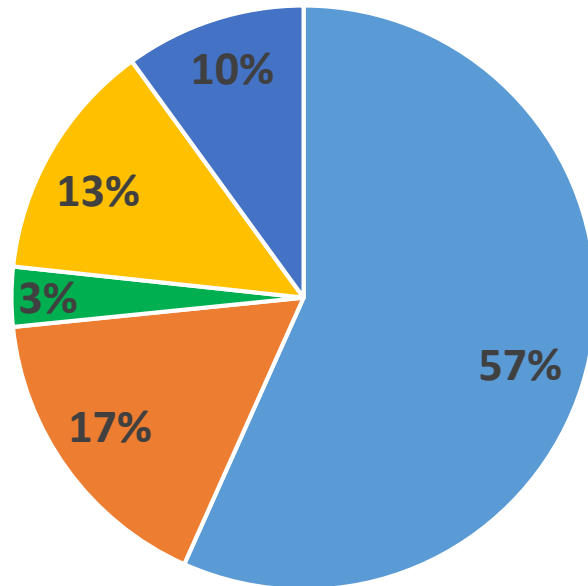
Quick wins using Speech Analytics



Feedback from Customers

Which of the following would be most important to you when considering a speech analytics solution?

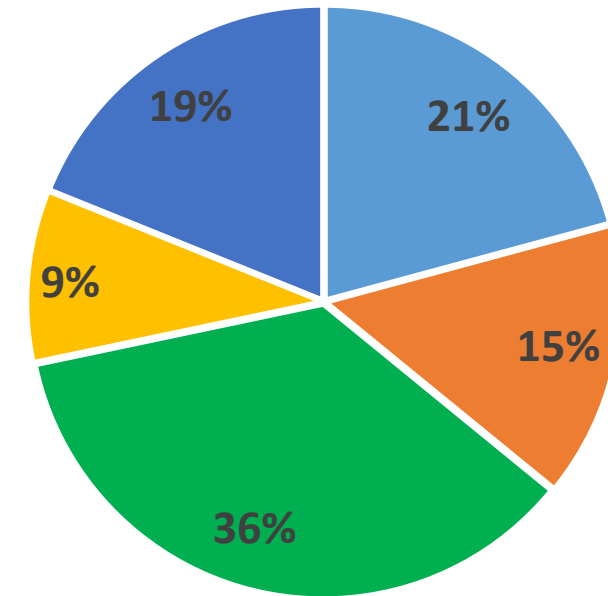
Customer Responses



- System output accuracy
- Solution costs
- Size and reputation of the supplier
- Time taken for deployment
- ROI for my organisation

Which of our products get you most interested in learning more about Spitch?

Customer responses



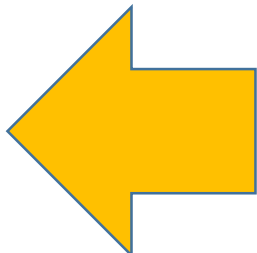
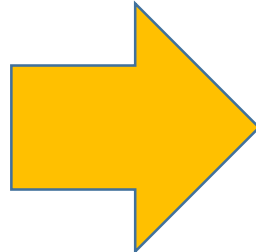
- Voice Biometrics
- Customer satisfaction/sentiment analysis
- Customer Experience Improvement
- To explore industry specific use cases
- To learn about technology trends in SA

Vision 2020

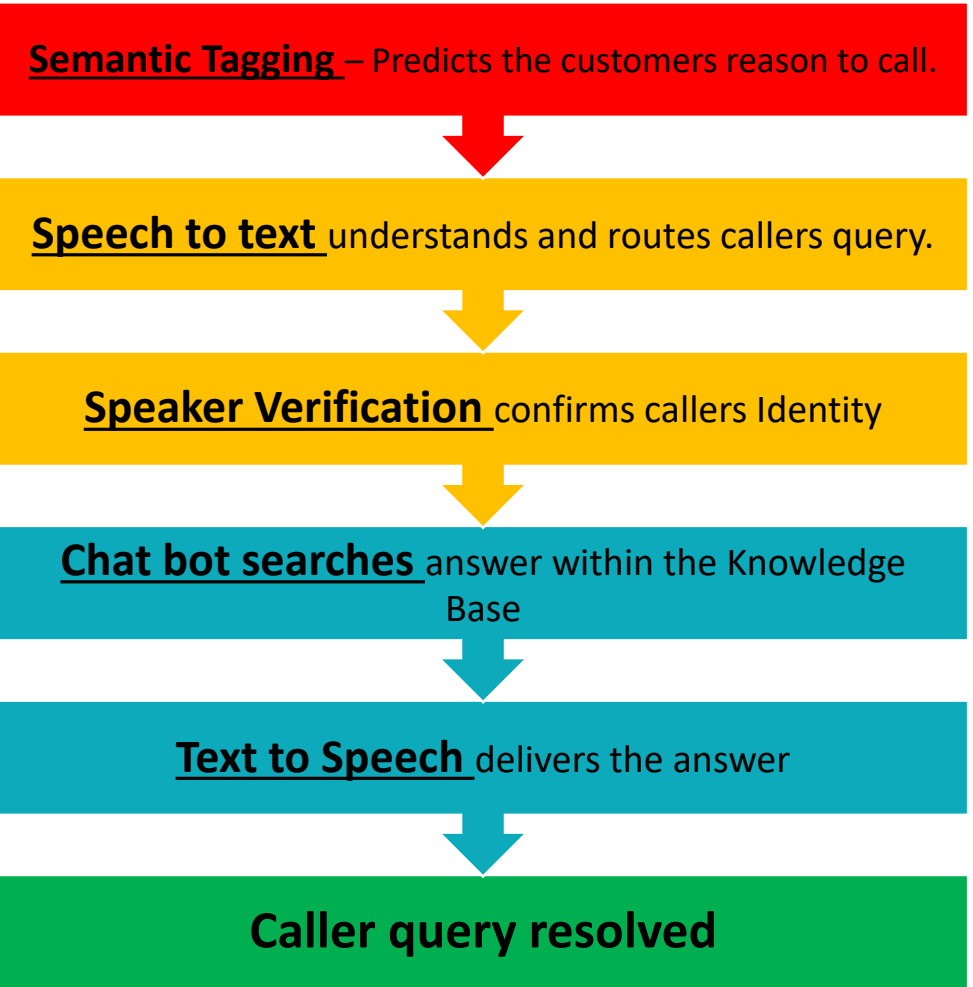


Future of Contact Centers - 2020 Workflow of the future

2016



2020

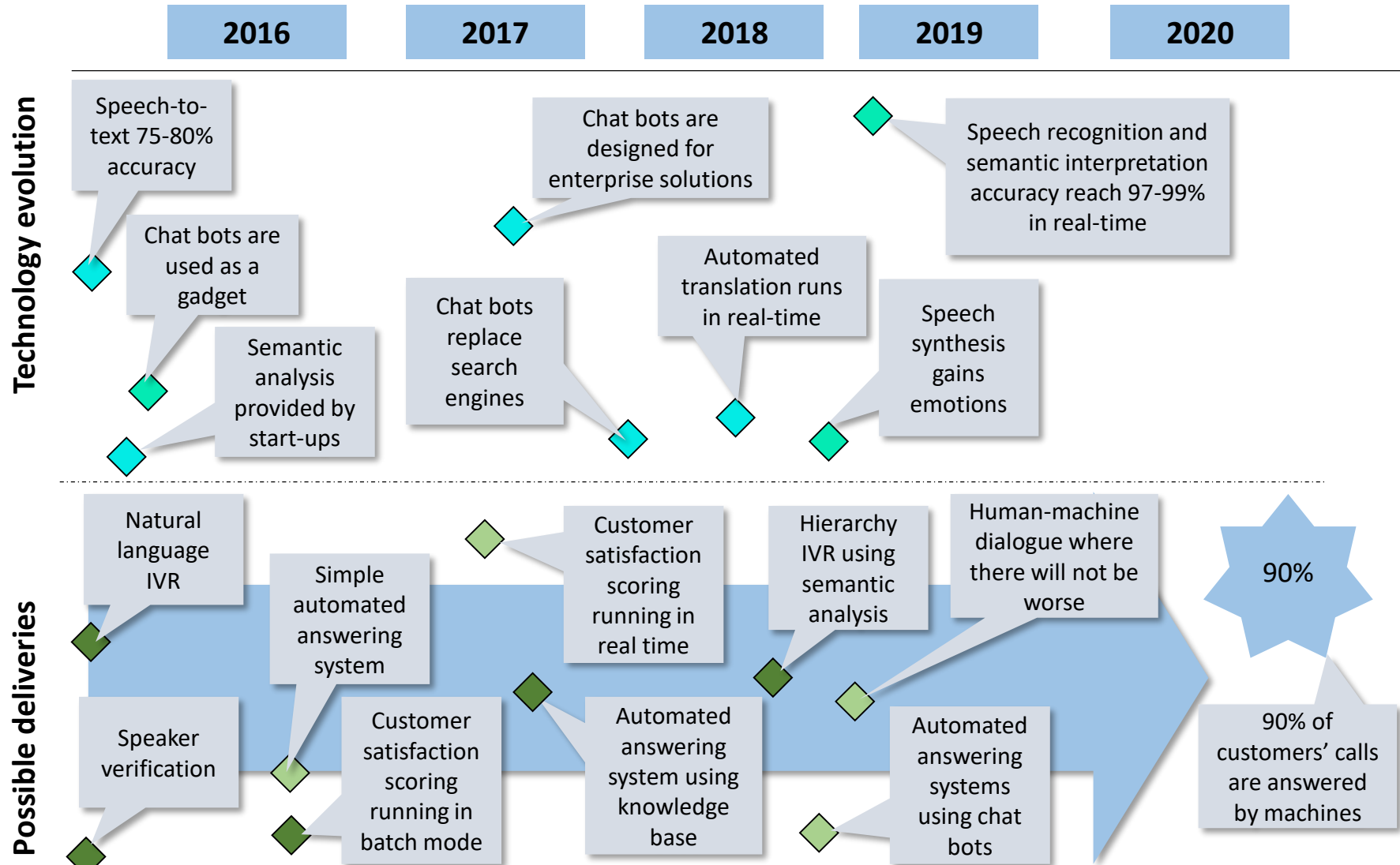


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Vision 2020 – Explained in detail/Drill Down

Omni-channel; Speech/Voice channel	Workflow of the future
<ul style="list-style-type: none">• Interaction will follow the same workflow regardless which channel is used• Most Contact Centers will be fully or partially automated by 2020• Most of the necessary technologies, algorithms, computational capacity, communication infrastructure are already available	<p>In the vast majority of cases customers will interact with the machine. The following principles will be utilized:</p> <ul style="list-style-type: none">• Semantic tagging and inference solution predicting topics of conversations• Speech-to-text detecting specific features and details• Voice biometric verification confirming the identity• Search engine formulating answers in knowledge space• Automated machine learning – each new case will be used as an input for training• Customer satisfaction will improve over time. NPS will increase• Sentiment analysis will be used for evaluating the customer satisfaction via Continuous machine learning

Contact Centre 2020 - Roadmap



Use Cases & Business Value



Business cases at a glance

Business Area	Use Cases
Omni-channel/Voice communication channel	Voice-driven IVR for call steering
	Automated customer identification for call-back
	Voice driven front-end applications
	Automated forms fill in
	Automated questionnaires
	Automated answering
Customer experience management	Contact centre quality assurance
	Automated Post call/event survey
	Service usability and customer satisfaction
	Contact centre agents coaching
	NPS measurement and improvement
Fraud and risk management	Voice biometrics - speaker verification
	Fraud management based on customer voice communication
Speech/Data analytics	Customer behaviour analysis
	Sales personalization
	Speech media analytics
	Big data collection and management from customer's conversations
Embedded solutions/IoT	Car comprehensive voice user interface (VUI)
	Voice driven automated command centres

Business Cases High Level Overview – Part 1

Title

Quick wins



Voice Biometrics Speaker Verification

- Identifies customers when on the call using their voice.
- Improves customer experience.
- Cost savings and better efficiency.

NET PROMOTER SCORE



NPS Measurement

- Extract key words and measure true NPS via feedback left by clients.
- Tangible business insight which is useful real time to fix issues efficiently.



CSAT (UX) Improvement

- Extract key words and use semantic interpretation during live conversations to measure customer sentiment and act quickly.

Business cases High Level Overview – Part 2

Title

Quick wins



Fraud Management

- Identify fraudsters by voice including those previously blacklisted.
- Reduce investment needed to deploy fraud solutions.



Service Usability and Automation

- Automated voice processing and form filling.
- More accurate insurance claims information capture. (Insurance claim reports often contain less than half the information from the call)



Voice triggered mobile apps

- Use banking services via mobile apps while driving/shopping with unique voice prints.
- Automated form filling and call reports.
- Reduces customer effort and telephony contact.

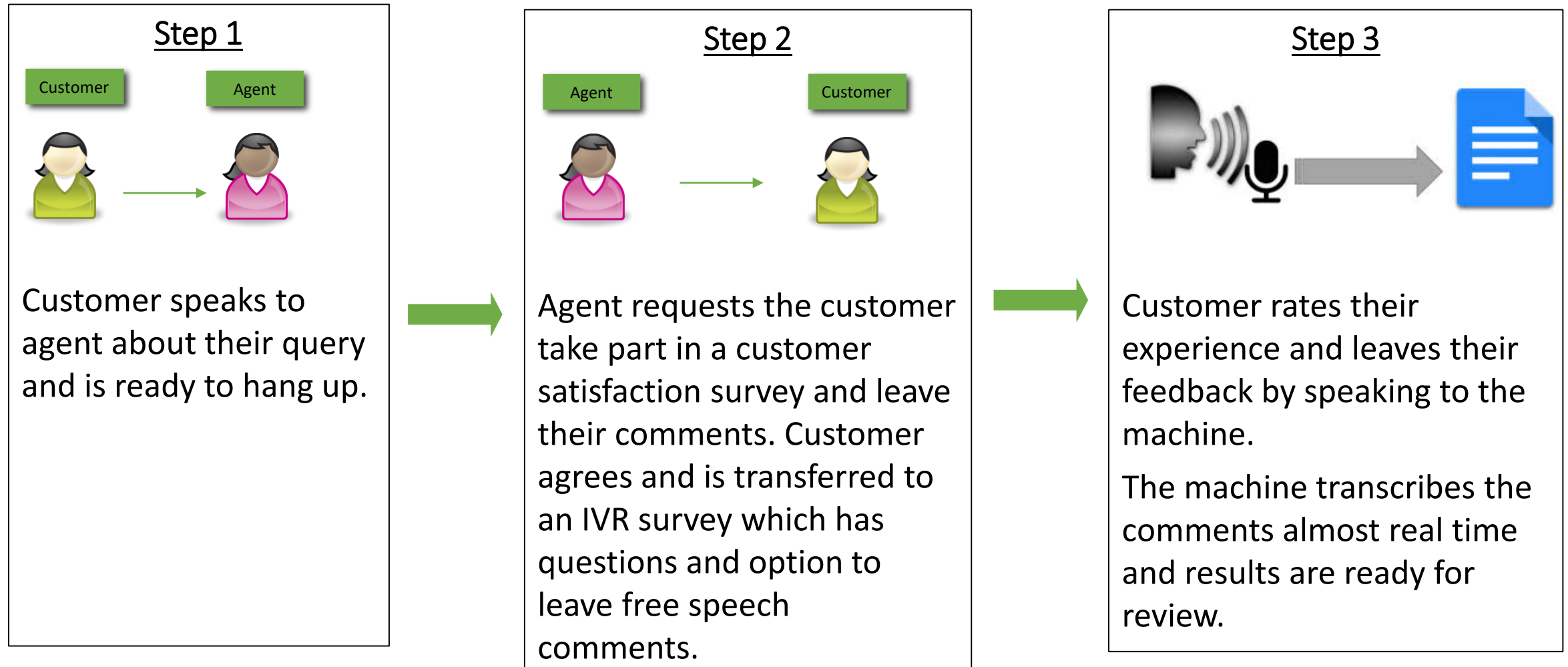
Business Cases explained in more detail

Business Area	Spitch technology application
Customer Experience Management	Automated Post call survey

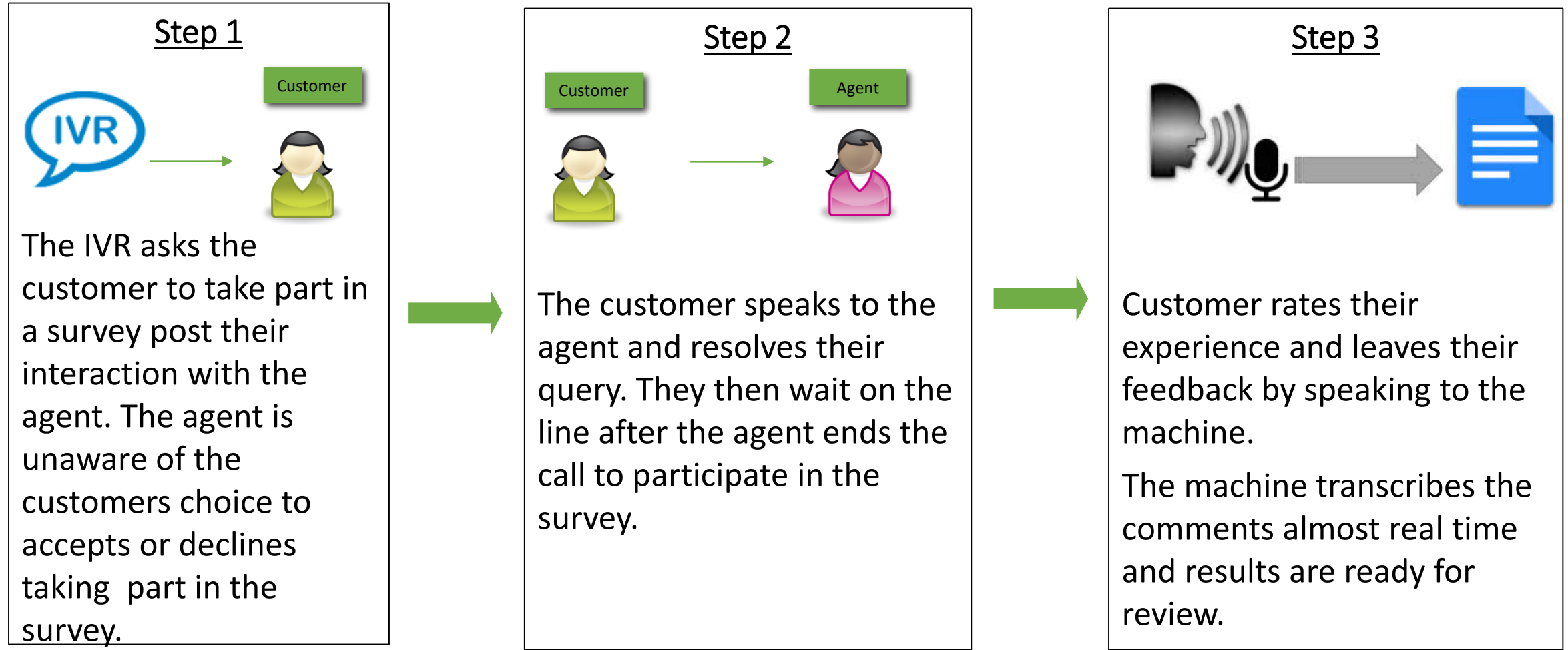


NPS Measurement & Post call survey workflow & design

Scenario 1



NPS Measurement & Post call survey workflow & design Scenario 2



Comparison of Scenario 1 & Scenario 2

Scenario 1

- The responsibility of transferring customers to the survey lies with the agent.
- This can negatively affect survey numbers and add a dimension of cherry picking.
- It may also skew the feedback received as it could be polarised due to agent intervention.
- Errors may occur when dialling out to the survey and customers may hang up mid way through transfer.

V/S

Scenario 2

- The customer is asked to take part in the survey before he gets through to an agent.
- The agent is unaware if the customer is scheduled to leave feedback or not.
- Feedback is unbiased as the agent is compelled to offer great service on all calls.
- The agent hangs up and the customer is automatically transferred to the machine in quick time.

Business case – Drill down

Workflow

Business area	Customer Satisfaction (Customer Experience Management)
Case description	The ability to easily receive and analyse customers opinion about company services. This provides a means to measure NPS by conducting the survey and the customers opinion, can be analysed with focus on: what they liked, what they disliked, what should be changed, improved, etc.
Problem	Usually NPS is manually evaluated by conducting surveys by CATI calls or SMS internally or by outsourcing it to market research companies. The sample sizes for such outcomes are not enough to evaluate the overall level of customer satisfaction and manage it. Increasing the number of manually evaluated outcomes increase costs.
Solution	The use of the Spitch CodyFi hosted solution can deploy an automated post call survey.

1. When the customer conversation is finishing, the call centre agent asks the customer whether or not they would like to leave feedback.
2. If the customer says yes, the call centre agent steers the call to the post call survey extension.
3. The customer is provided with the option to say what they think about the last call, company services, etc. in natural language (or answer several particular questions prepared by the company – all in an automated way)
4. Spitch provides the company with answers and full text of the customer's speech.
5. The company uses this information for QA and CEM.

Automated Post Call Survey - Benefits

- Identify drivers of customer satisfaction and customer dissatisfaction.
- Easy to deploy in operation with little effort and minimum expense.
- The survey can be designed with utmost flexibility to programme questions in and the ability to leave spoken comments.
- Questions can be changed and their order shuffled as per business needs.
- Identify process breaks via the voice of your customers.
- Real time feedback from customers to act quickly if needed.
- Agent performance feedback.
- Associate a score for service given with the customers comments thus having access to a 360 degree view of customer experience.

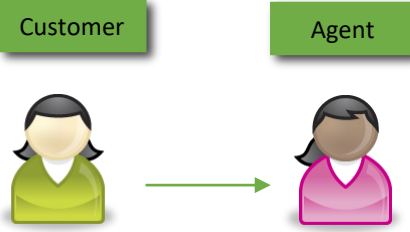
Business Area	Spitch technology application
Service usability and customer satisfaction	Automated payment card number dictation.



Automated card number dictation workflow – Scenario 1

Step 1

Customer Agent

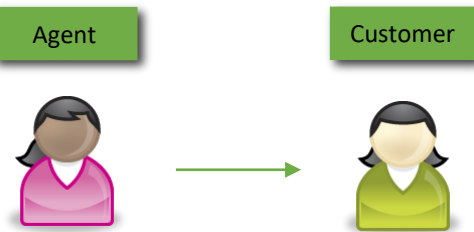


Customer speaks to agent about making a payment.



Step 2

Agent Customer

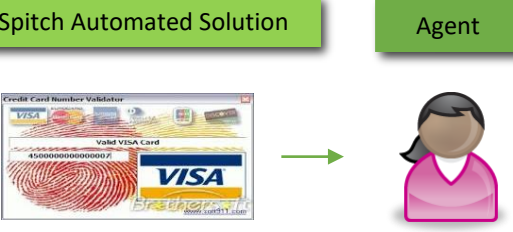


Agent transfers the customer to a machine which listens to the customer dictating the credit card number and the CVV code.



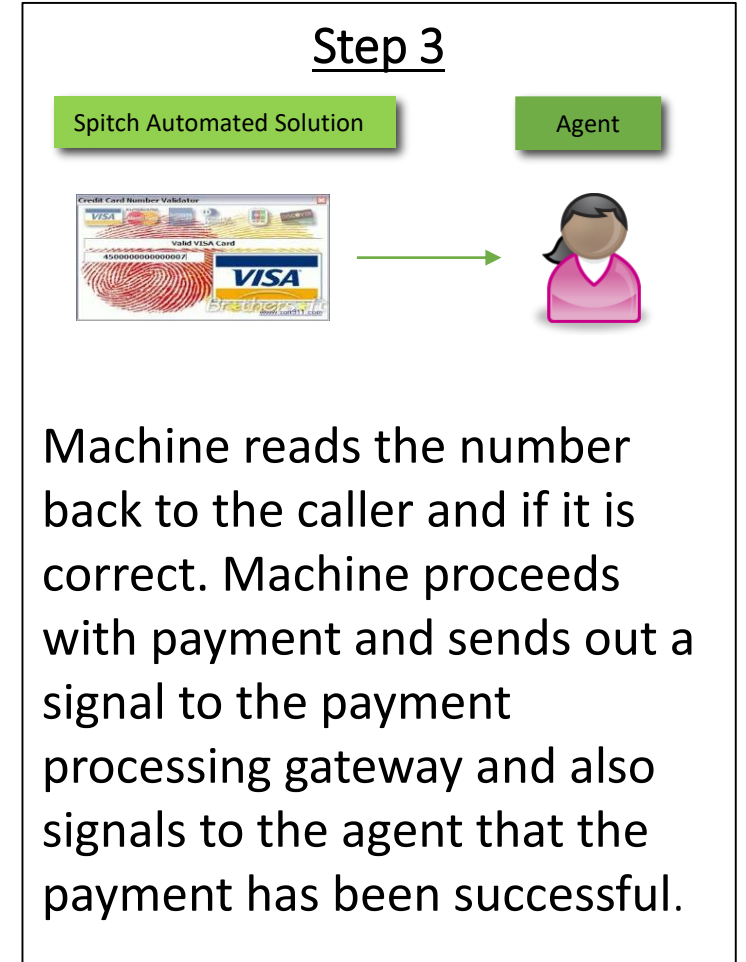
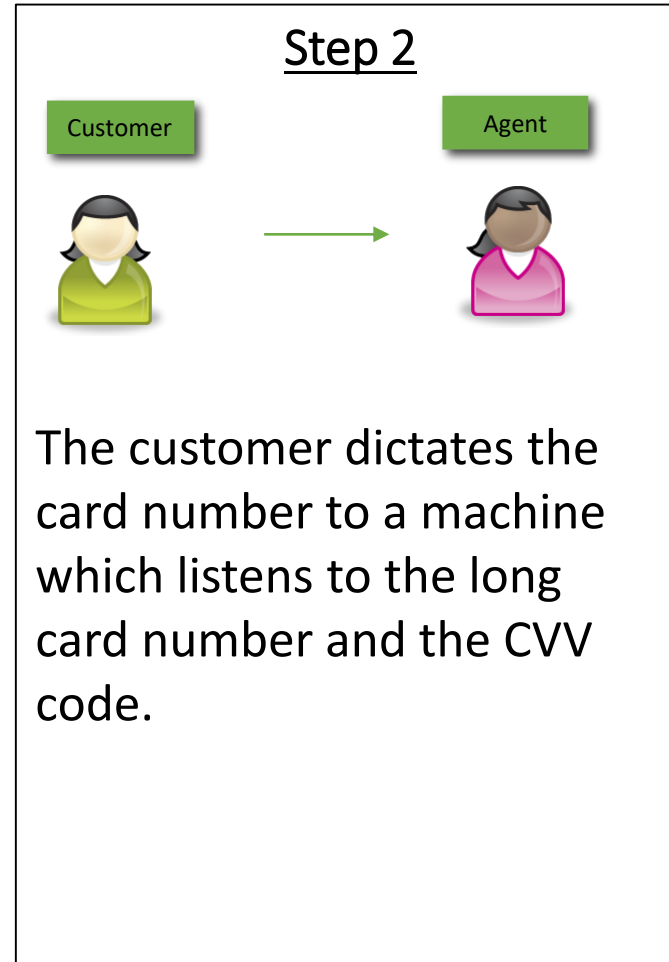
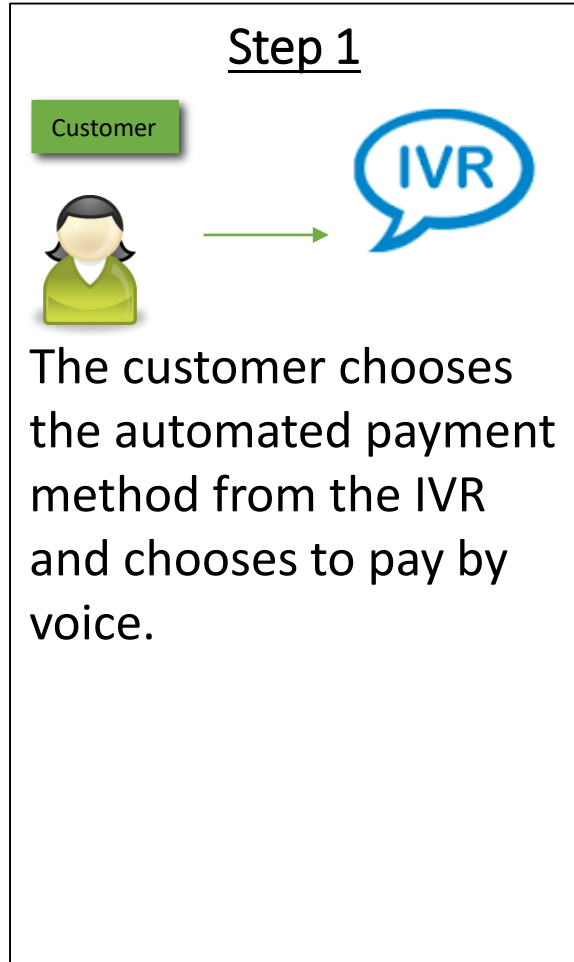
Step 3

Spitch Automated Solution Agent



Machine reads the number back to the caller and if it is correct. Machine proceeds with payment and sends out a signal to the payment processing gateway and also signals to the agent that the payment has been successful.

Automated card number dictation workflow – Scenario 2



Business Case – Drill down

Business area	Service Usability and Customer Satisfaction (Customer Experience Management)
Case description	The ability to input customer payments by card in a call centre in automated way such that the credit card number is not recorded during the conversation.
Problem	To enable customers' to make payments within the customers' conversation with the call centre agent , while complying with PCIDSS regulations. The alternative is to make automated credit card number capturing using DTMF input. But a lot of customers do not like to key in numbers via a key pad, especially iPhone and Android smartphone users. As a result customers avoid automated services & rather ask for an agent to manually input card details. Such work flow is cost inefficient, decreases NPS and quality of the service (errors occur during manual processing)
Solution	Use Spitch CodyFi for credit card number recognition

Workflow

1. When the customer is ready to pay, the call centre agent steers the call to a secure speech payments server.
2. The IVR ask the customer to read a credit card number and CVV code
3. The service recognises the credit card number and CVV and reads it back to the customer
4. The IVR asks the customer if the number and CVV code are correct
5. If the customer says “yes” the secure server proceeds with the payment and returns the results to the agent , and transfers the customer call back to the agent.

Automated card number dictation - Benefits

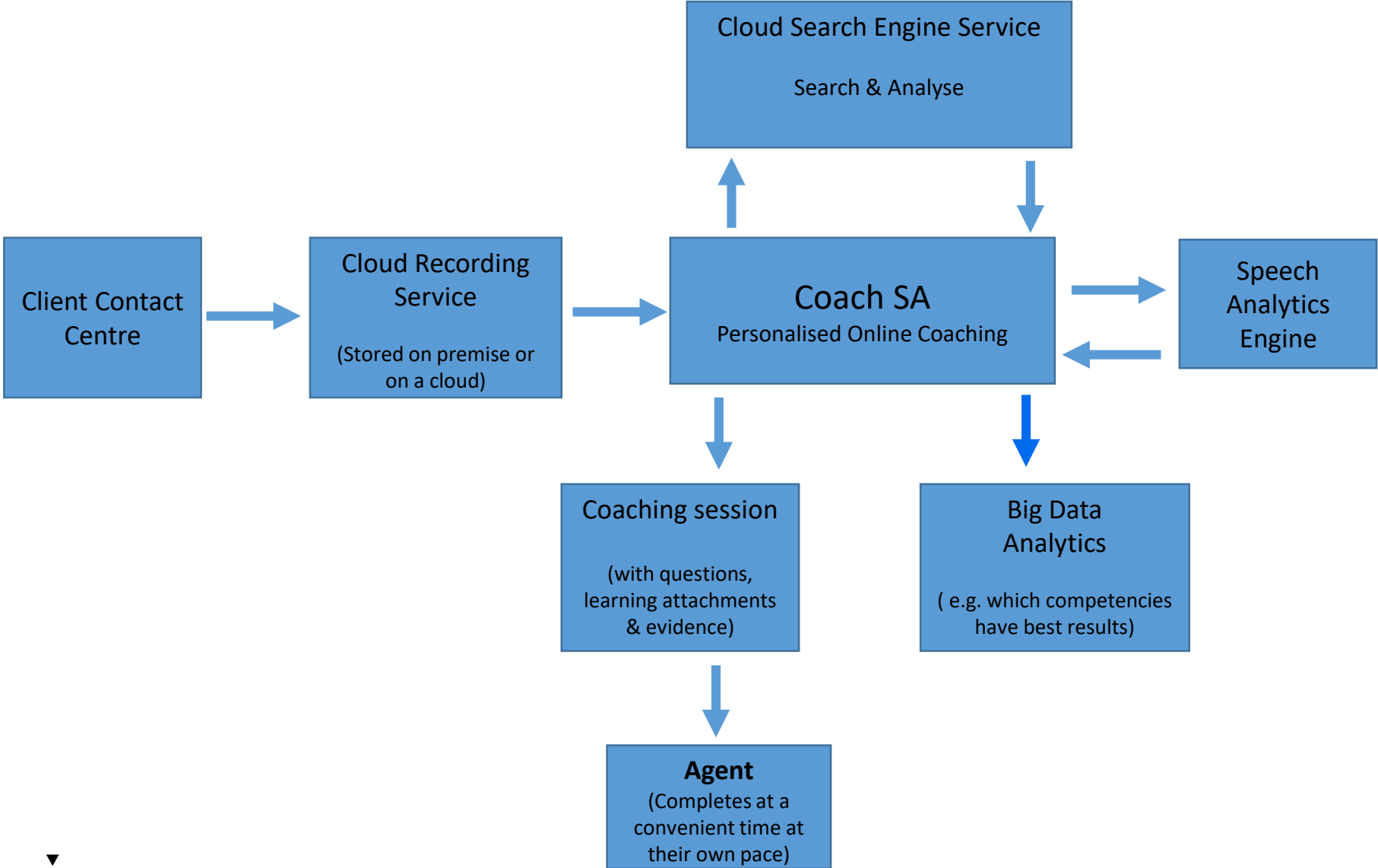
- Achieve PCI DSS compliance for all agent's without having to invest in individual agent Work station changes(cost savings)
- Increased service quality (reduction of errors caused by manual processing)
- Improve customer satisfaction
- Seamless integration with a payment gateway and agent CRM systems.
- Reduction in complaints regarding payment service
- Increased NPS

Business Area	Spitch technology application
Customer Experience management	Contact centre coaching & Quality assurance

Coach SA
powered by Qualtrak ✓

A Personalised Online Agent Coaching Solution
Coach SA is a unique coaching cloud service.

Coach SA – Design and Workflow



How does Coach SA work – Drill down

Coach enables supervisors to create personalised coaching sessions for agents powered by a Speech Analytics engine. This is done in 4 easy steps.

Solution	Functionality	Business Benefits
Coach SA	<ul style="list-style-type: none">• Find the needle in the haystack.• Characteristics of the 'Needle' is displayed (IntelliData) to help the supervisor author the coaching session.• Supervisor authors the Coaching Session.• Agent completes their online Coaching Session.	<ol style="list-style-type: none">1. Good customer experience builds loyalty and retention.2. Customers have emotional needs<ul style="list-style-type: none">• Acknowledgement• Appreciation• Being cared• Listened to• Getting noticed and being valued3. Such behavioural skills cannot be scripted but require extensive coaching to acquire.4. Contact centre's find face-to-face coaching challenging – costly, inconsistent delivery by supervisors, lack of physical resources e.g. rooms.

Coach SA and its Benefits

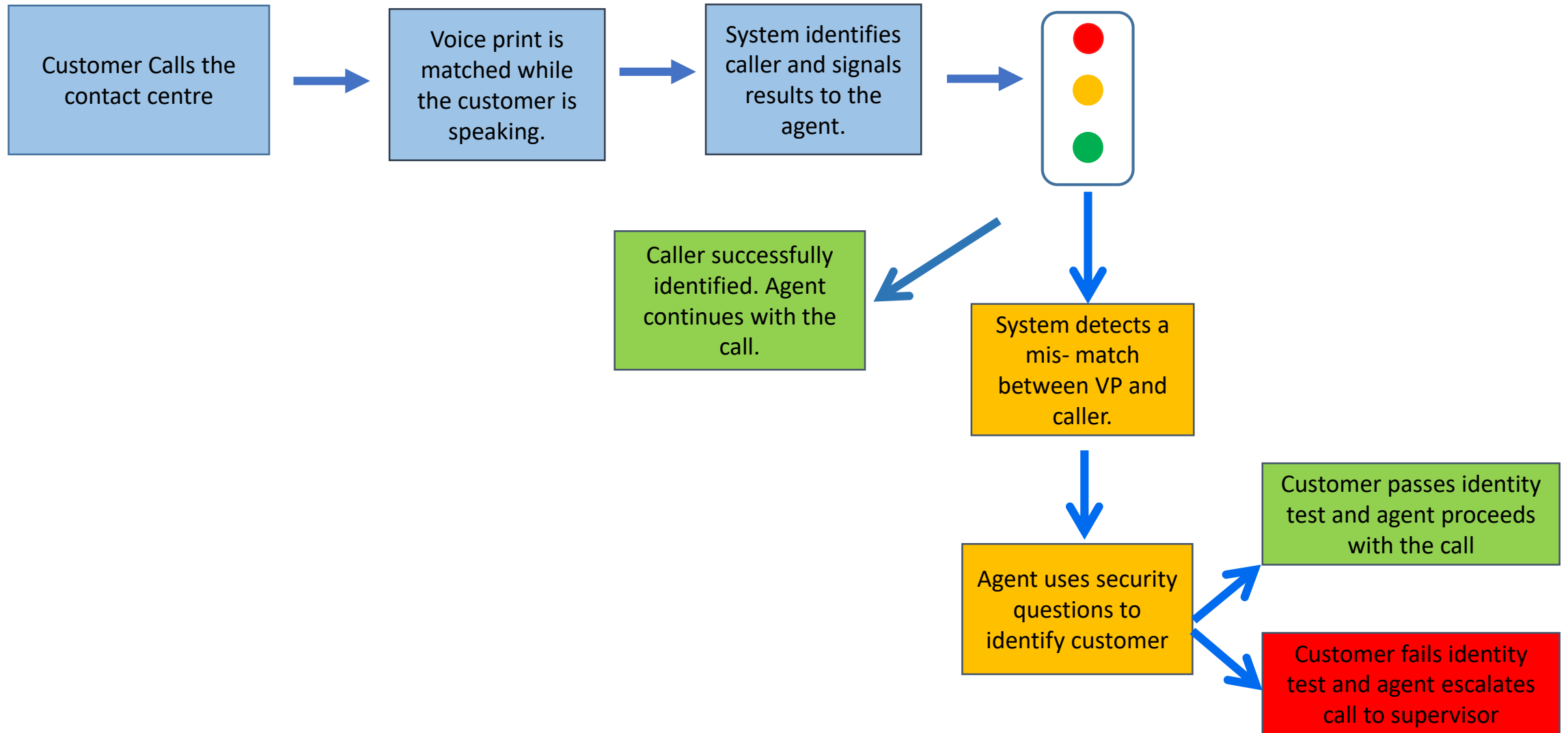
- Easy to use
- Cost effective – only pay for sufficient calls to be transcribed to meet the number of Coaching Sessions required. Multiple Coaching Sessions are created from the same transcriptions
- Minimal disruption and set up costs in setting up the trial Cloud Coaching service hosted & managed by Qualtrak
- No special ‘analyst’ skills required as with other Speech Analytics products. Optional Baseline Surveys available on-demand
- Easy transition to client’s own call recorder

Business Area	Spitch technology application
Customer Experience management	Voice Biometrics & Speaker Verification



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Voice Biometrics & Speaker Verification - Workflow



Business case – Drill down

Business area	Security, Customer Satisfaction (Customer Experience Management)
Case description	Banks, insurance companies and telecoms need to verify their customers identity. Traditional verification goes by asking secret questions or last transaction amount or so on.
Problem	Traditional verification is not secure enough and wastes agent's and customer's time. Customers don't always recall their passwords
Solution	Use Spitch VeryFi to conduct automated speaker verification in natural language conversation.
Restrictions	Customers must consent to the processing and storage their biometric data.

Workflow

1. When the customer calls the first time the agent registers the customers voiceprint in their system with customer consent in a secure database.
2. When the customer whose voiceprint has been enrolled calls again, the agent press "Check voiceprint" button in their CMS/CRM
3. The Spitch voice biometric server checks whether or not the current voice matches with the voiceprint stored and signals to the agent with a green/red light in the CRM interface.
4. If the confidence level is lower than the threshold defined in advance or a red light appears the agent proceeds with traditional verification.

Voice Biometrics & Speaker Verification - Benefits

- Improve operational service security (fraud management)
- Improve customer advocacy and satisfaction
- Reduce average call time (cost saving)
- Improve employee engagement scores
- Improve risk profile
- Verification completed in seconds without call interruption
- Around 90% reduction in complaints regarding security service

Thank you.

Martin Podhradsky

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