call center
commerce TRACKER

TD Bank On How AI, MFA Are Changing Call Centers

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what's INSIDE

Call centers and industry providers are continuing to rely on artificial intelligence (AI) and advanced analytics for a variety of use cases as customers demand more speed and improved service. Technology providers are innovating AI-powered applications, particularly those that are voice-based. These tools rely on natural language processing (NLP) and voice analysis to assist human agents, who are responsible for the complex tasks AI tools cannot solve.

Voice and conversational AI are becoming necessities in the call center ecosystem, where customers expect human agents to have their data on hand when conversations begin. Cloud communications solution provider Vonage is thus looking to expand the ways that it applies AI within call centers, recently acquiring conversational AI developer Over.ai. This will allow the former to compete with similar solutions, such as internet giant Google's Contact Center AI platform, which was recently expanded to include speech recognition technology.

Other technologies, most notably biometrics, are also finding greater footholds inside of call centers. More companies are looking for ways to add biometric authentication methods to their call centers to combat ever-increasing fraud attempts. Biometric tools can also help shorten and simplify customer experiences.

AROUND THE CALL CENTER WORLD

Biometrics and AI can provide consumers with speed, security and convenience, and digital communications platform Twilio is looking to these tools to meet customers' demands. The firm recently added real-time voice analysis tool Media Streams to its offering, enabling clients to integrate NLP and other advanced analytics into their call centers. The tool can analyze voices on calls in real time.

Visual customer assistance company TechSee is utilizing AI in a different way, pulling insights from images as opposed to voice. The company recently launched AI-powered TechSee Smart, which lets customers take and upload photos that the AI can process to identify issues. Customers are then transferred to human agents, who can use the information gathered by the tool to assist them.

Speech automation and authentication provider LumenVox is turning to biometrics to provide businesses and their call centers with better authentication tools.

It recently launched its Authentication Suite, which relies on biometric authentication solutions for more security.

For more on these stories and other headlines from the call center commerce space, check out the Tracker's News and Trends section (p. 9).

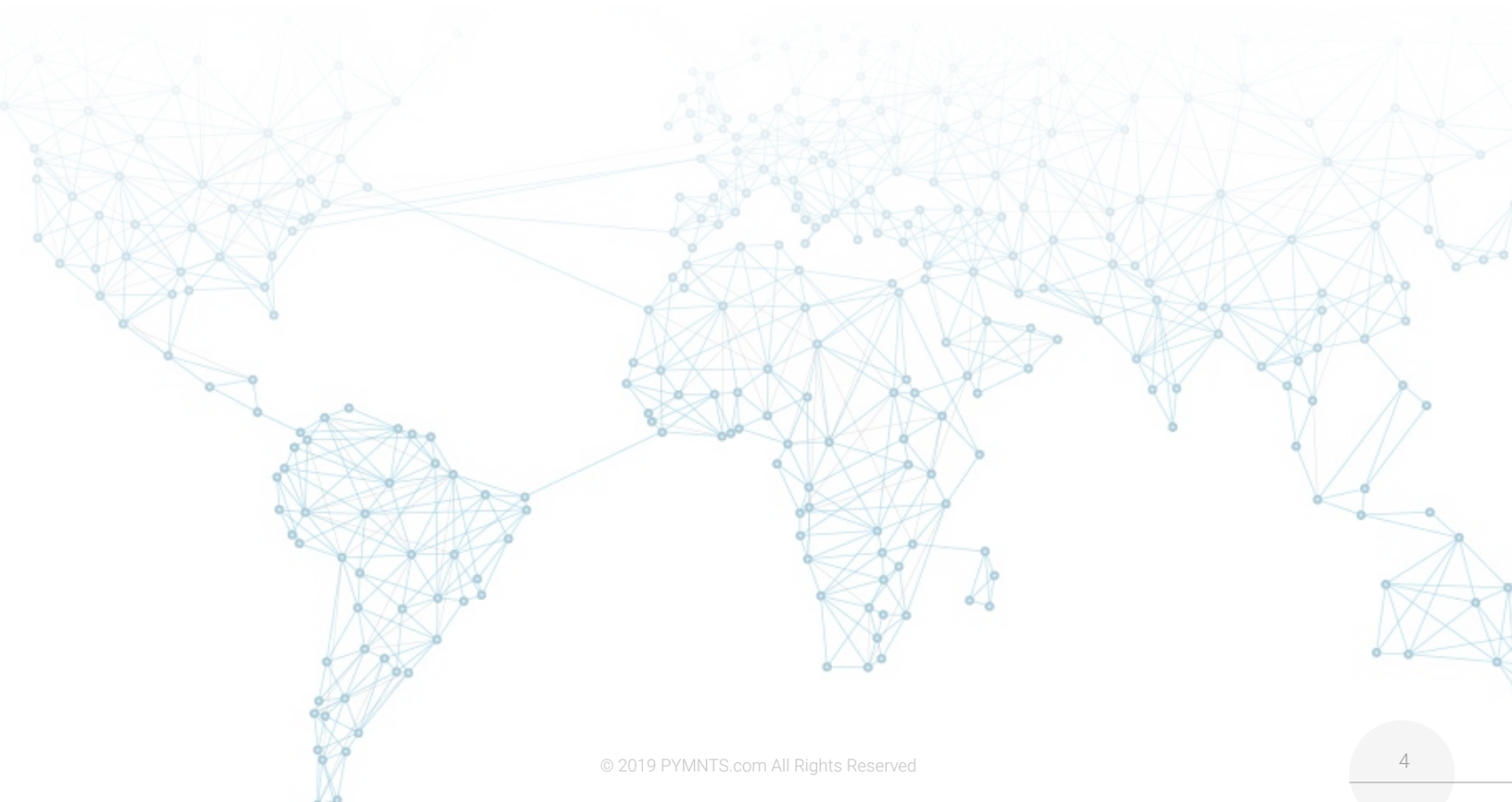## TD BANK TALKS TECHNOLOGICAL INNOVATION IN THE CALL CENTER

Call centers are looking for ways to revitalize their fraud defenses, especially in the face of automated bot attacks and near daily account takeover (ATO) attempts. AI and biometric technologies, such as voice and fingerprint scans, can have a noted impact on smoothing authentication frictions and improving customer engagement — especially when it comes to cross-channel authentication, said Lindsay Sacknoff, head of U.S. contact centers for TD Bank. For this month's Feature Story (p. 6), Sacknoff explains how TD Bank is using both AI and multifactor authentication (MFA) tools, including its Voiceprint service, to offer better authentication.

DEEP DIVE: MULTIFACTOR AUTHENTICATION AND ITS IMPORTANCE IN CALL CENTERS

Keeping fraudsters out of the call center and away from sensitive customer data is becoming more challenging, forcing businesses to reexamine how they authenticate customers. Many are moving away from traditional knowledge-based authentication (KBA) methods like passwords, personal identification numbers (PINs) or usernames, which opportunistic fraudsters can easily obtain. Firms are instead turning to biometrics and other types of authentication to keep customers safe. This month's Deep Dive (p. 13) takes a closer look at the security problems businesses are still facing and how call centers are employing MFA.

INSIDE THE SEPTEMBER TRACKER

The September edition of the Call Center Commerce Tracker includes a provider directory featuring notable providers from around the space, including three additions: Comnica, DIBS and Wirecard.

FIVE FAST FACTS

40% Share of call centers that saw more fraud through virtual calls than spoofing attempts

14% Expected CAGR of the payment fraud detection market from 2019 to 2025

76% Share of call center leaders who believe it is possible to prevent ATOs without negatively affecting customer experiences

91% Portion of call center leaders who believe fraud protection is critically important

17% Segment of call centers that are employing MFA for fraud protection

TD BANK ON HOW AI, MFA ARE CHANGING CALL CENTERS

Fraud protection has never been taken lightly by call centers, but the need for stricter authentication is reaching new levels in the face of automated bot attacks and near-daily ATO attempts. Call centers are reevaluating how customers are authenticated across all channels, including websites, mobile apps, chatbots and traditional telephone calls.

Seventeen percent of call centers are looking to replace KBA with MFA to better protect customers from scheming fraudsters, and though that may not seem like a high percentage, it is double the number of centers that were looking at such methods in 2018. KBA tools use information that bad actors can easily obtain, like passcodes or PINs, making stronger methods favorable.

Many customers still like the convenience of KBA tools, however, which is why Lindsay Sacknoff, head of U.S. contact centers for TD Bank, believes it is important for firms to have innovative authentication measures that protect against fraud and deliver quality customer experiences. Sacknoff recently spoke to PYMNTS about examining how these authentication tools fit each channel customers use to interact with businesses.

"Fraud is an ever-evolving space, [so] it's important, with multifactor authentication, to look at it holistically," she said.

TD Bank currently utilizes both AI and biometric authentication products, such as voice and fingerprint scans, to verify customers' identities. Sacknoff noted that it is important to maintain the personalization and convenience that customers have come to expect, even as fraud security measures grow tighter.

WHY AI, MFA ARE NECESSARY WITHIN CALL CENTERS

TD Bank has been offering TD Voiceprint since 2017, and the service examines approximately 150 separate voice characteristics to determine if customers are legitimate and prevent authentication frictions. Customers do not have to provide additional details once they are enrolled in Voiceprint, unless they are looking to make high-risk transactions. The bank has augmented Voiceprint with additional biometric authentication factors and analytical tools, allowing customers to be fully authenticated in fewer steps.

"Innovation goes both ways, ... to provide more security [as well as] personalization," Sacknoff said.

The need for personalization is increasing as more customers come to expect such experiences from various institutions. Customer familiarity with quick authentication tools means that call centers are locked in a constant cycle of innovation.

"We've seen better conversations [between agents and customers] and more awareness that we offer [TD Voiceprint]," she said. "As you offer more seamless solutions, customers want even more seamless solutions ... so there is that feedback loop."

This seamlessness is essential for all channels that call centers maintain, but it is especially important in mobile as the number of consumers using this channel continues to expand. The bank has developed TD ASAP, a mobile-based authentication feature, to respond to this need, allowing customers to interact with it through their smartphones. Sacknoff noted that the app maintains crucial omnichannel experiences, and that it authenticates users with fingerprint scans. She also explained that if customers wish to call from the app, after already verifying their identities, they will not be required to authenticate themselves a second time. High-risk transactions are the exception here, as well.

"We will say, 'You have already been authenticated through the app, what can I help you with today?'" she said.

This places biometrics at the forefront of the experience while making authentication little more than a blip on the customer's radar.

EVOLVING CALL CENTER CHANNELS

KBA's inadequacy and the need for call centers to stay on top of the innovation cycle is likely to grow, especially as consumers begin to express their problems and concerns on new channels, such as social media.

"We absolutely consider social media to be part of our contact center. This is a [channel] that is used in a few different ways," Sacknoff said. "It can be used purely for marketing or, like we use it, to address customer inquiries."

Consumers often turn to channels like Twitter to express issues they might have with a company. Some of these institutions have responded with dedicated teams that seem to fold social media into the contact center, but this channel comes with its own set of challenges. Call centers will need to find the best ways to interact with customers in this newly popular area without sacrificing the convenience that drives them there in the first place.

news and
TRENDS

AI innovations and offerings

TWILIO LAUNCHES AI-POWERED, REAL-TIME VOICE ANALYSIS

Voice technology is one of the premier AI use cases within call centers as it can pick up and respond to vocal cues. Digital communications company Twilio recently launched Media Streams, a call analytics tool that uses AI and NLP to analyze the language and emotional levels of all voices on a call — a process known as sentiment analysis — to better serve both agents and customers. The tool can also be integrated with solutions from Amazon Web Services (AWS), Google Cloud and Gridspace.

Media Streams provides real-time analysis, allowing human call center agents to gain more insights while they are on calls with customers. Twilio noted that such analysis also allows businesses to improve their customer service and engagement efforts. AI is becoming increasingly prevalent within the industry, especially as it becomes more sophisticated and familiar with human emotions.

VONAGE ACQUIRES CONVERSATIONAL AI COMPANY OVER.AI

Cloud communications provider Vonage is also looking to AI with the recent acquisition of both the team and

intellectual property of Tel Aviv-based startup Over.ai. The latter's 23-person group of engineers will be consolidated within the former's technology hub in Israel to enhance its platform. The purchase will also allow Vonage to graft Over.ai's conversational AI technology — including its proprietary NLP algorithms and speech-to-text tools — into all of its products. The aforementioned offerings will be used inside the Vonage Business Cloud (VBC) unified communications solution and its application programming interface (API).

Over.ai's suite of conversational AI tools competes with similar solutions, such as Google's Contact Center AI. It is also compatible with solutions from call center technology provider Avaamo, which offers virtual assistant tools through API integration, an operations dashboard that allows for scheduling of automated calls and other such services.

GOOGLE LAUNCHES SPEECH RECOGNITION IN CONTACT CENTER AI

Google has integrated new features into its Contact Center AI platform just one year after its launch. The internet giant will be adding speech recognition technology to the center, including an auto speech adaptation tool that will help provide additional context on calls. The solution allows the AI to leverage conversational context for more accuracy, preventing it from mistaking the word "bill" for "hill," for example. It also works with

Google-owned conversational experience development platform Dialogflow to interact with customers over the phone.

This new feature was released just a few months after another speech-to-text upgrade and was designed for conversations that involve up to four people. Google hopes it will provide faster and more accurate transcriptions of such calls.

TECHSEE OFFERS 'COMPUTER VISION' TO CALL CENTERS

Visual customer assistance company TechSee is utilizing similar technologies in other aspects of the call center to reduce the time it takes to resolve customers' problems. The firm recently launched a new AI-powered tool called TechSee Smart, which analyzes images before suggesting fixes to human agents. Customers looking for assistance can take pictures of their problems with their mobile phones. Those photos are then broken down by the AI, which displays the issues to human agents before

they begin speaking to customers. TechSee Smart was developed to improve call center resolution times and efficiency issues.

Biometrics and new technologies

LUMENVOX BRINGS BIOMETRICS TO ITS AUTHENTICATION SUITE

Speech automation and MFA company LumenVox is looking at a different technology for call center solutions. The firm has added biometric authentication tools, including voice algorithms and neural networks that can isolate suspicious calls before sending them to call center employees, to its Authentication Suite for fraud protection. The solution can recognize Czech, Dutch, English, German, Polish and Spanish thanks to an update from LumenVox.
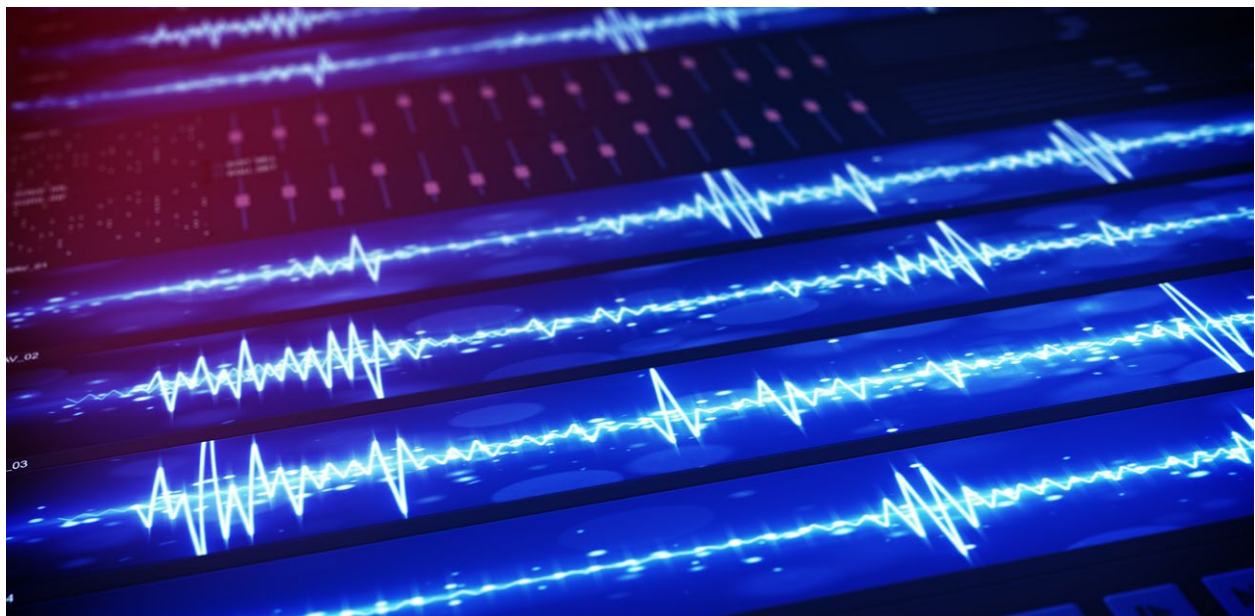
The enhanced suite also comes with a mobile application deployment feature for customers, enabling them to choose from several authentication methods including voice or text messaging. Such offerings aim to move call centers beyond the use of KBA, although that remains an option for users who authenticate with passwords or PINs.

VOXIMPLANT INTEGRATES DIALOGFLOW

Cloud communications firm Voximplant has integrated Google's Dialogfow platform into its call center solutions, enabling its clients to use speech-to-text and other features for further automation. Dialogflow automates communication between customers and human agents and uses advanced analytical tools to examine conversations for insights on customer problems. Clients can use the tool to create a bot that uses NLP to interact with customers, analyze their comments and come up with intelligent responses. The company hopes the integration will enhance customer service and satisfaction. The integration is currently in beta testing, and Voximplant plans to release the product for general use this fall.

TALKDESK LAUNCHES ADDITIONAL PRODUCT UPGRADES

Contact center technology provider Talkdesk is enhancing the way it uses data and analytics for better results. The company recently launched several updates to its Enterprise Cloud Contact Center, including new features for mobile, text messaging and data analysis. Talkdesk explained in a press release that these upgraded features use AI and the cloud, with added functionalities including Talkdesk Mobile for human employees. These upgrades follow several other changes and enhancements the company made during the first half of 2019, including Talkdesk Hybrid Spaces, which combine private and public cloud technology to enable increased security and flexibility for clients.

COGITO EXPOUNDS ON FUTURE USES OF BEHAVIORAL AI

AI contact center startup Cogito is using behavioral AI to foster stronger connections. The company's technology coaches human agents during their calls, offering cues for empathy or to change their vocal pitches, tones and speaking paces. Cogito's services are currently integrated into approximately three dozen call centers in the United States, including those for healthcare companies Humana and MetLife.

Company co-founder and CEO Joshua Feast is also looking at how this application could be innovated in the future. These updates could include the ability to automatically mute conference call participants who keep interrupting, for example. Technology for that use case already exists, but Feast claims there are still outstanding questions about its readiness for the public.

Funding and new developments

LIGHTICO TO USE $14.5M INVESTMENT FOR EXPANSION, NEW PRODUCTS

Contact center software developer Lightico is looking to use the $14.5 million it received from a recent investment to expand its presence in international markets and accelerate the development of additional products. The company is headquartered in New York City and Tel Aviv and is responsible for a collection of micro-apps that facilitate over-the-phone transactions.

Managers can use Lightico's cloud-enabled dashboard to support customers across various channels,

including mobile apps and websites. Customers can use the platform to share their billing statements and other documents with call center agents in real time for faster and easier customer service. It also supports eSignatures and provides identity verification tools to protect against fraudulent transactions.

PREDICTIVA RAISES $3.15M FOR QUALITY CONTROL PLATFORM

Spanish technology and call center software provider Predictiva also received a new investment, which it wants to use for the continued development of its platform. The company just raised $3.15 million to help streamline its AI and quality control products and expand throughout Latin America and the U.S. The startup's flagship service, CLARA, uses machine learning (ML) and NLP to create insights into and solutions to customers' problems from calls. CLARA can also provide information about customer satisfaction and whether an issue was correctly resolved after each interaction.

INTERMEDIA ACQUIRES TORONTO-BASED CCaaS PLATFORM TELAX

Cloud communications company Intermedia has acquired cloud contact center-as-a-service (CCaaS) platform Telax to offer its customers more omnichannel solutions. The terms of the acquisition have not yet been disclosed, but the former can now offer its clients its own cloud-based communication services as well as the latter's CCaaS technology stack. Intermedia CEO Michael Gold explained that this makes the company both a CCaaS and contact center provider.

Cloud technology is becoming the first technological choice for the majority of contact centers, which are continuing to grow. This makes development in the technology critical to the future of the cloud contact center

market, which is expected to reach a value of $4.2 billion in North America by 2022.

ATOS PARTNERS WITH NICE INCONTACT FOR CLOUD SOLUTION

Further cloud innovation is coming from contact technology provider Atos and cloud technology company NICE inContact, which recently announced a new partnership to bring the latter's CXone cloud service to the former's contact center clients. CXone will be integrated into Atos' Unify Circuit cloud solution and rebranded as "Cloud Contact Center powered by CXone," according to a recent press release. The revamped solution will support call centers across multiple channels for more holistic customer experiences.

The partnership will also enable both companies to further expand into international markets and new areas within the global cloud call center market. Both Atos and NICE inContact hope the solution will lead to lower costs and increased customer loyalty by moving call centers to the cloud.

deep DIVE

CALL CENTERS MOVE AWAY FROM KBA WITH MFA SOLUTIONS

Call centers are starting to move away from KBA as new technologies emerge. The number of facilities looking for alternatives has doubled since 2018, with 17 percent utilizing MFA to better protect against fraud. The need for newer, stringent authentication comes as call centers — especially those for banks and other financial services — are getting hit with increasingly sophisticated fraud. A recent survey found that 51 percent of financial service professionals believe that phone channels see the greatest number of ATO attempts.

The healthcare industry is also busy fending off fraudsters in its contact centers, especially as seniors face an increase in phishing attempts and robocalls. Fraud protection is thus a high priority for all call centers, regardless of their industries. Call center leaders know this, as shown by the 91 percent who cited it as important.

Consumers are losing faith in passwords, PINs and similar KBA verification methods, but they also refuse to sacrifice speed and convenience for greater security — quick and easy user enrollment remains a top priority for that same 91 percent of call center industry leaders. Many call centers are looking to marry passwords and PINs with tools like biometrics because of this. Solutions like these rely more on who customers are rather than what they know. Users' voices, how they hold their phones or type and their fingerprints are all factors call centers are examining for more secure authentication.

Call centers must maintain the ease of use customers have come to expect, while still protecting them from fraudsters. Implementing biometric verification in tandem with other tools could help call centers looking to move away from KBA. What is most notable about these newer authentication methods is that they do not always rely on the customers themselves. They instead work on the back end to ensure customers actually are who they say they are.

VOICE BIOMETRICS AND THE SLOW DEATH OF KBA

Call centers are not alone in looking to change their authentication methods, but they are one of the industries in which innovation is most necessary. ATO attempts are on the rise in these facilities, especially as bad actors gain access to newer technologies. Forty percent of call center leaders saw more criminal activity through virtual calls compared to spoofing attempts, for example. Fraudsters targeted new account creations and payments, but account logins remained relatively safe from quarter to quarter in 2018.

Call centers are experimenting with hybrid methods to combat ATOs, phishing and other types of fraud. This type of MFA will combine certain KBA elements, such as usernames, with alternate authentication measures that are harder to obtain in data breaches.

Biometrics, which verify customers' identities through different factors inherent in their voices, are particularly useful for call centers. Technology provider ID R&D has released upgrades to its biometric voice platform that allow for authentication across multiple channels, for example. This platform is compatible with a range of devices, including Android and Apple phones, and uses a combination of AI, behavioral and anti-spoofing technologies for better authentication.

Twilio is among those using AI to make voice prints a form of back-end authentication. The company applies it to live voice calls, text messages, WhatsApp and other customer contact channels to support more contextual conversations and voice authentication.

Other providers are looking to implement customer-facing biometrics into their authentication processes. Nuance Communications offers voice recognition technology that a number of financial institutions currently utilize for stricter verification. Spanish bank Santander is among them, enabling customers to verify their identities during calls by saying their chosen passcodes aloud. Nuance stated that its technology examines more than 100 distinct traits belonging to customers' voices to ensure their identities.

Voice biometrics do have drawbacks, however. Consumers may not want to state their passcodes aloud in public, and the technology is prone to other flaws that fraudsters can exploit. Many call centers are circumventing these issues by employing fingerprint and iris scans into mobile apps and digital channels, though these also have security issues. Many professionals still view biometrics as critical to protecting against fraud, especially when authenticating customers without adding unnecessary frictions.

FRAUD PROTECTION AND INNOVATION

Call centers are interested in developing more fraud protection without any added time or inconvenience, and most have faith in their ability to provide this: 76 percent of call center leaders stated that preventing ATO attacks is possible without negatively affecting customers' experiences. Call centers are not the only ones feeling the pressure to keep users' data and money secure. Banks and other institutions that deal with online transactions are also looking into new ways to keep payments safe, as the payment fraud detection market is expected to grow at a 14 percent compound annual growth rate (CAGR) from now until 2025.

Biometrics will remain an area of interest for call centers due to their lack of frictions, but it is worth considering other technologies that could be used for faster authentication. AI and behavioral tools can protect against fraudsters in ways that KBA solutions cannot. It is likely that KBA methods, such as typed passwords, will continue falling out of favor as new technologies grow more prevalent.

call center
commerce ecosystem

The PYMNTS.com Call Center Commerce Tracker breaks down the different players and covers the news and trends in the call center commerce ecosystem. New companies will be added to the provider directory each month based on movements in the space. Companies included in the directory have been sorted based on the following framework:

call center

payments
Ability to accept payments via self-service or dual-tone multi-frequency technology

SELF-SERVICE

DUAL-TONE MULTI-FREQUENCY

security
Offering PCI-compliant products or fraud prevention tools

PCI COMPLIANCE

FRAUD PREVENTION

TOKENIZATION

If you would like your company to be considered for inclusion in the Tracker's provider directory, or wish to have an existing listing reconsidered for an update, please head over to our profile submission/update page.

point solution providers

ACI UNIVERSAL PAYMENTS℠

Founded: 1975

ACI Worldwide provides call center payments processing solutions. Its offerings include card and merchant management; online banking; mobile, branch and voice banking; fraud detection; trade finance and electronic bill payment, among others.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	

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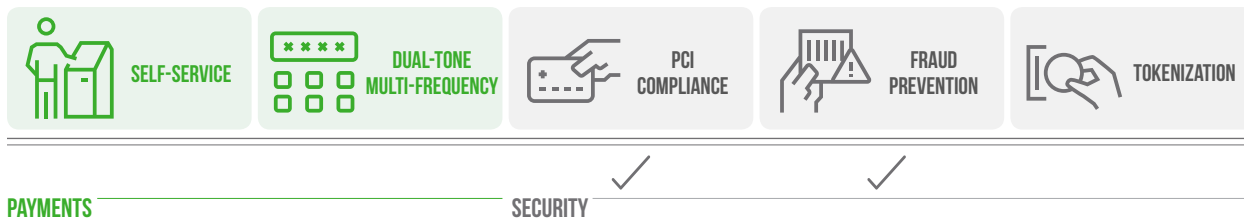
<@gile> PAYMENTS

Founded: 1999

Agile Payments provides integrated payment solutions. The company's offerings are designed for software developers, featuring payment gateway integrations for SaaS and platform-as-a-service (PaaS) applications.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

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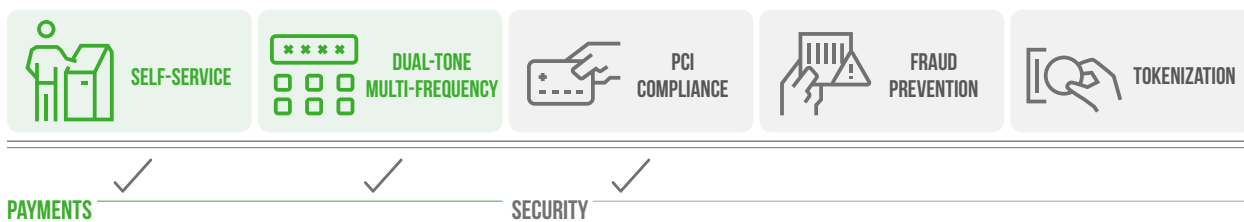
AURIC

Founded: 1987

Auric Systems International is a call center service solutions provider. It offers PCI-compliant payments processing software and services, including tokenization, custom solutions, tokenized payments, payment applications and cryptographic key management.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
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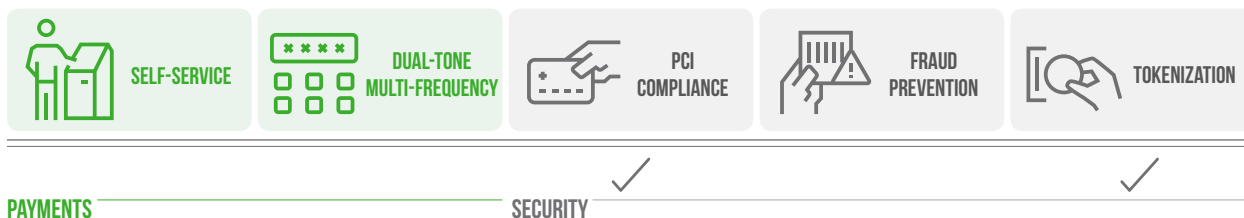
Founded: 2003

Billing Tree offers electronic payment processing services for a range of payment methods, including ACH, cash, credit and debit cards, mobile payments and paper check conversion, among others.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓		

PAYMENTS   SECURITY
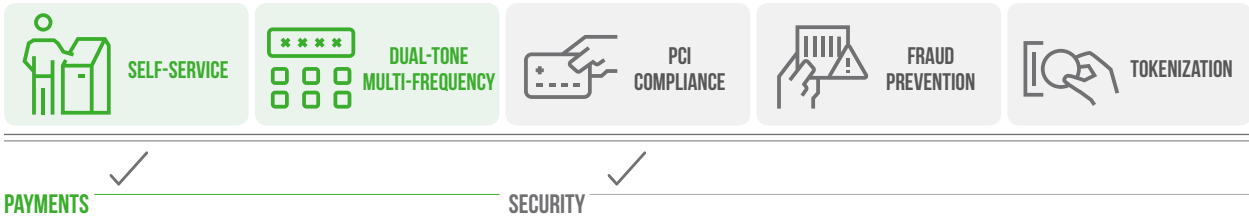
Founded: 2004

CallFire provides voice and text connectivity products to contact centers. The company's offerings include user interfaces, developer support and customer care.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓				

PAYMENTS   SECURITY
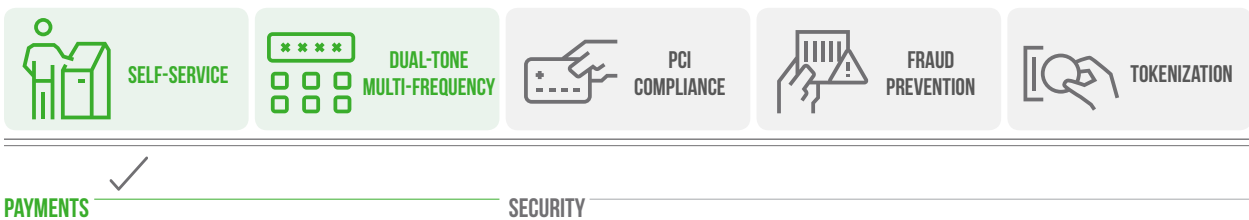
Founded: 2002

CallGuard is a technology company specializing in developing robust and reliable PCI DSS-compliant call center solutions. Its offerings allow sensitive data to be stored when taking card payments over the phone.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
	✓	✓		✓

PAYMENTS   SECURITY
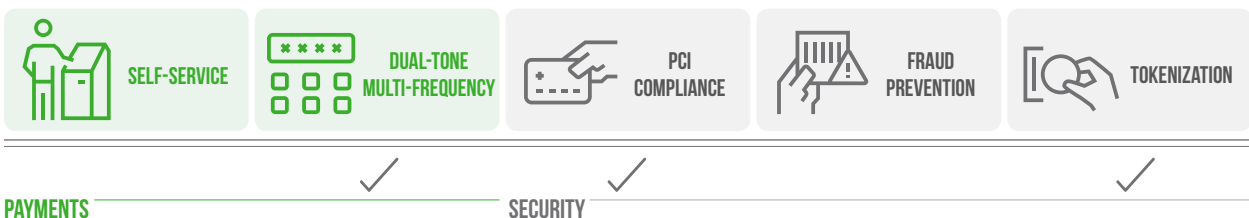
COALFIRE.

Founded: 2001

Coalfire is an information technology governance, risk management and compliance advisory firm. It works to help clients recognize and control IT-related risks, as well as maintain compliance with all major industry and government standards.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	

PAYMENTS ————————————— **SECURITY**

Cyprium Communications
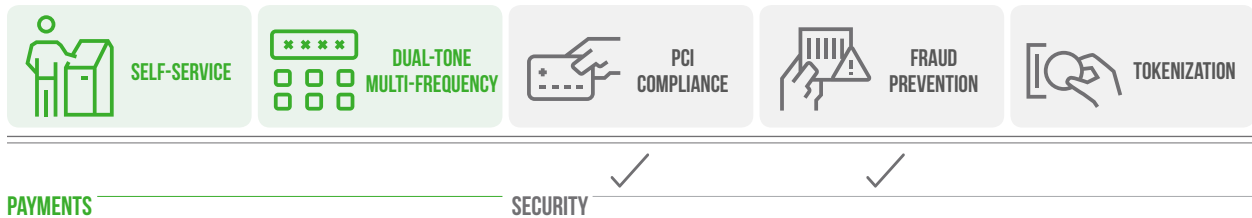
Founded: 2009

Cyprium provides a range of payment solutions for call centers that enable them to take payments by telephone with or without staff intervention. It provides its own PCI DSS-compliant platform.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS ————————————— **SECURITY**

New!
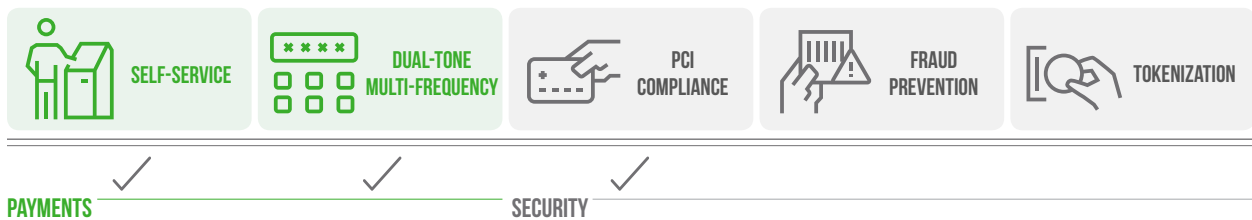
DIBS

Founded: 1998

DIBS provides contact centers with phone and online payment solutions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	

PAYMENTS ————————————— **SECURITY**
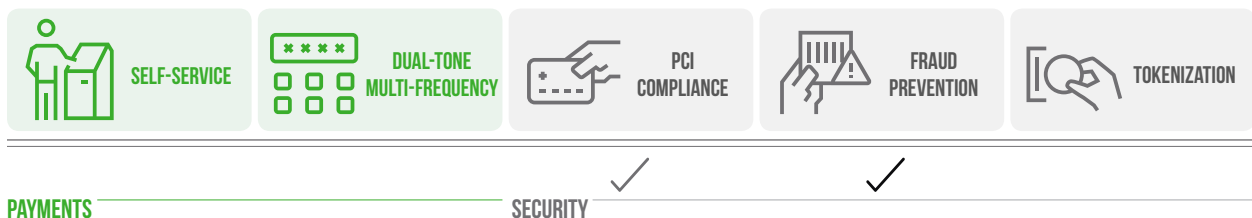
enacomm®

Founded: 1986

Enacomm offers a multi-modal self-service experience to organizations' customers via mobile, SMS, email, voice and other communication channels. The company provides organizations with hosted applications or on-demand cloud solutions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS — SECURITY
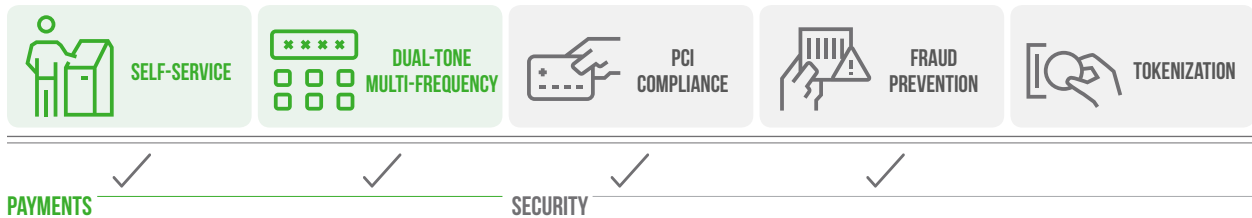
First Data®

Founded: 1971

First Data provides a range of call center payment services. It offers merchant transaction processing; credit, debit, private-label, gift, payroll and other prepaid card issuing and processing; fraud protection; authentication solutions; electronic check acceptance and IVR services.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓			

PAYMENTS — SECURITY

EVO®
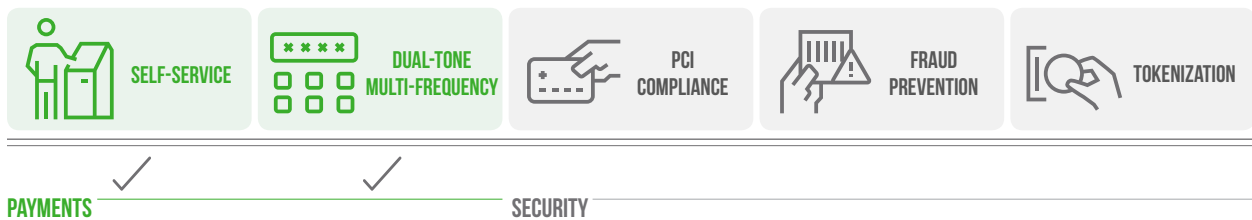
Founded: 1989

EVO Payments provides solutions for call centers that are compliant with Payment Card Industry Data Security Standards. The company also offers fraud protection and data security products.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓		

PAYMENTS — SECURITY
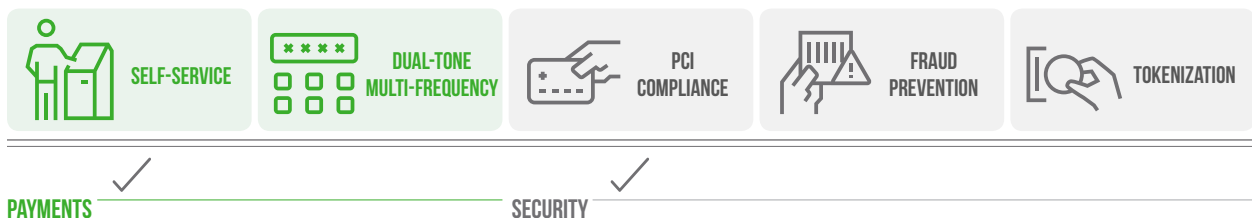
Founded: 2003

gPlex offers the gTalk Payment module, which supports over-the-phone processing of credit card payments. Agents remain in voice communication throughout the payment process and are not exposed to sensitive data, even while customers enter card information using their phones' keypads.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION

PAYMENTS	✓	✓ SECURITY		
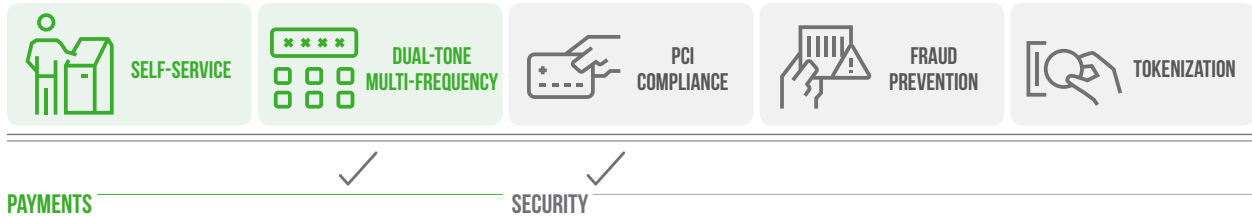
Founded: 2001

HostedPCI offers a PCI solution that includes payment vault and tokenization services.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION

PAYMENTS ✓		✓ SECURITY		✓
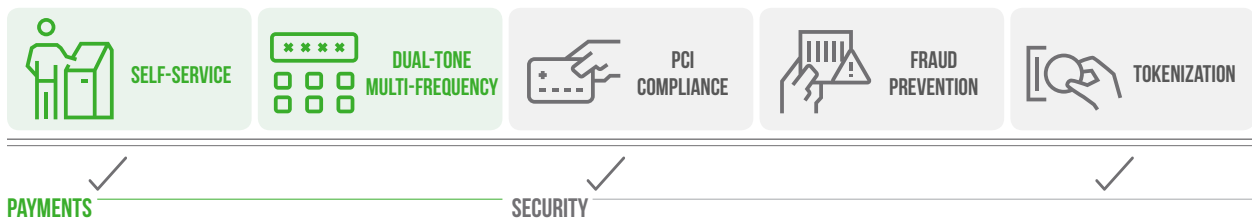
Founded: 1999

inConcert is a world class omnichannel contact center solution provider. The company's offerings include IVR, social media, predictive dialing, artificial intelligence, analytics and workforce management services.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION

PAYMENTS ✓		SECURITY		
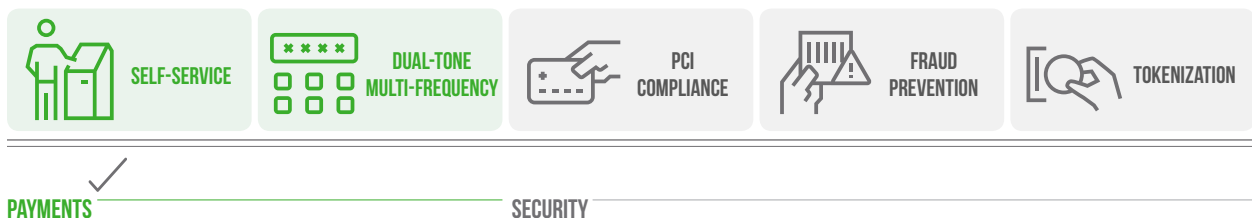
Founded: 2007

InVox offers business telephony and graphical drag-and-drop interface and IVR solutions. Its phone system is used to route calls, automate ordering and payment processes, track callers' purchase and shipment statuses, schedule appointments and place reminder calls, conduct surveys and collect feedback, update caller information into CRMs automatically, receive call notifications and hosted PBX.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓			

PAYMENTS · SECURITY ·

Founded: 2003

KomBea technologies offers PCI DSS-compliant solutions and security for call centers.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	

PAYMENTS · SECURITY ·
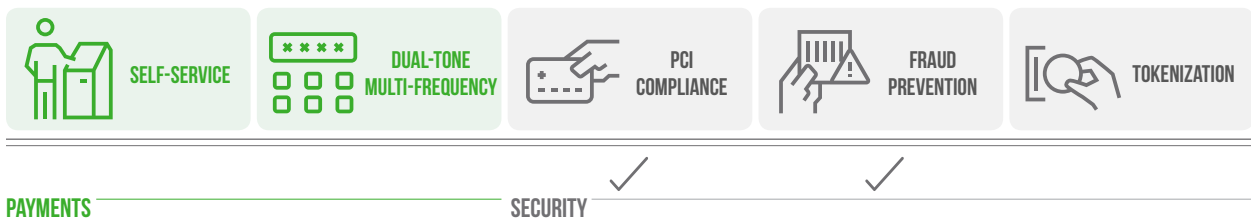
Founded: 2008

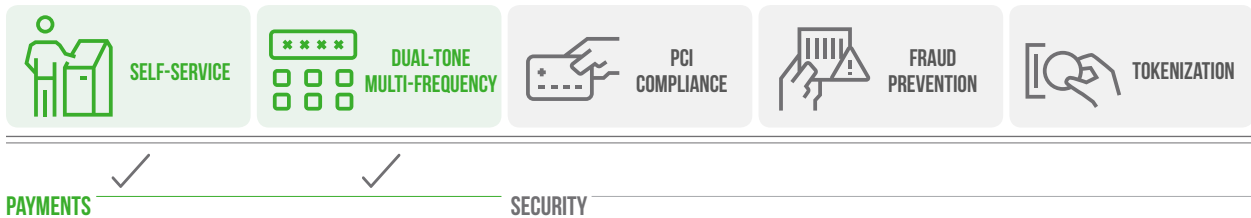Merchant Warrior is a payments processor. Its offerings include a range of online payment solutions for worldwide merchants, including direct API, tokenization and phone payment processing.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		✓

PAYMENTS · SECURITY ·
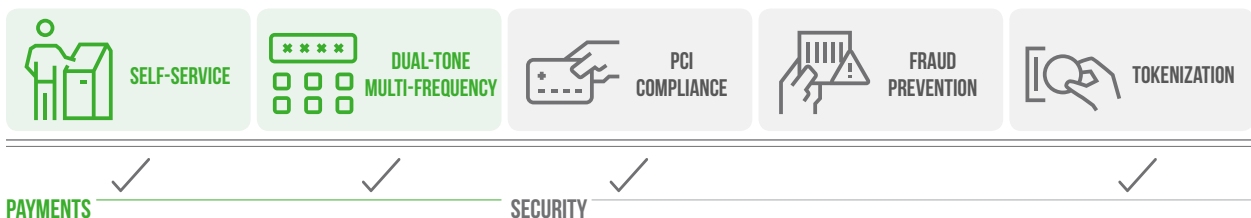
PAYFONE®

Founded: 2008

Payfone is a mobile and digital identity authentication solutions provider. It provides businesses with the ability to confirm customers' identities to enable secure and frictionless experiences across PCs, mobile phones and tablets.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	✓

PAYMENTS   **SECURITY**
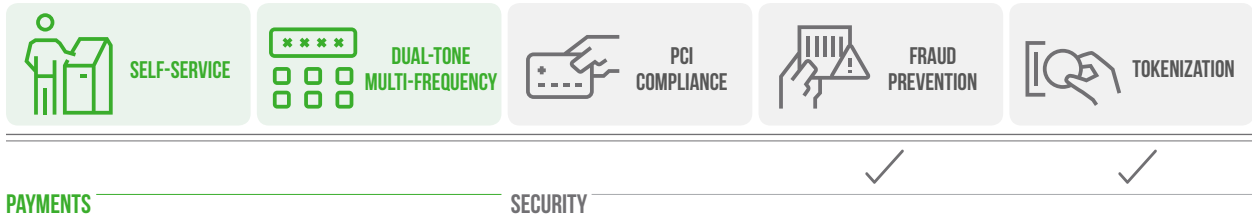
PaymentVision®

Founded: 1988

PaymentVision offers integrated payment solutions for merchants, including credit card processing, ACH processing and IVR bill pay. The company's electronic payment system solutions are biller-direct and PCI-certified. It also provides automated IVR phone payments and credit and payment risk management solutions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		✓

PAYMENTS   **SECURITY**
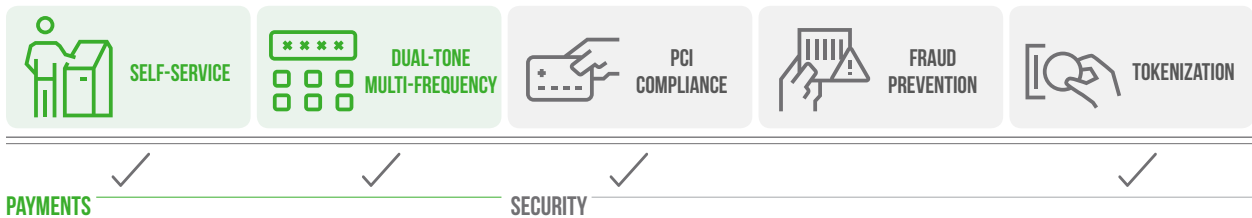
PCIpal

Founded: 1999

PCI Pal offers a pair of call center solutions known as Ansaback and CallScripter. Ansaback consists of both IP3 Telecom and PCI Pal software, while CallScripter is a customer interaction software suite developed for call centers and telemarketing operations. The suite's solutions include call recording, SMS and web services.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   **SECURITY**
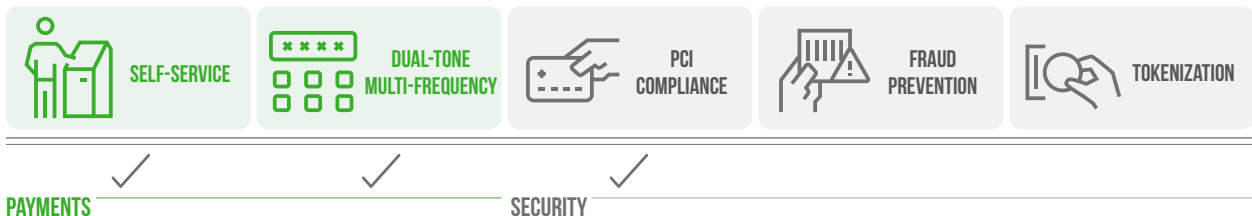
Founded: 2011

Pindrop Security provides enterprise solutions to help prevent phone-based fraud. Its acoustical fingerprinting technology works to detect fraudulent calls and authenticate legitimate callers, helping customers eliminate financial losses and reduce operational costs. The company's technology can fingerprint individual phone calls to provide caller authentication.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	

PAYMENTS   SECURITY

Founded: 2017

Regal Technologies is a payment processing provider. The company's solutions include VirtualPay, a call center payment portal designed to enable merchant reps to take advantage of real-time ACH, credit card and check verification. The solution also includes a fraud detection suite to prevent potentially fraudulent transactions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	
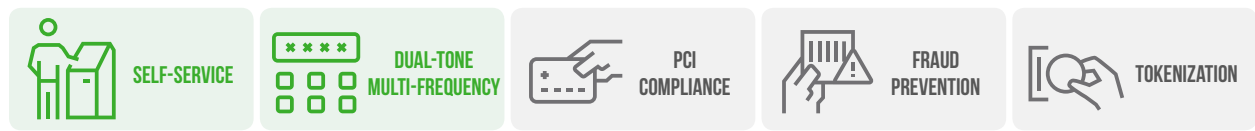
PAYMENTS   SECURITY

Founded: 2016

SAAVHA offers a SaaS platform that helps companies secure and streamline customer interactions. The company leverages blockchain technology for identity verification and provides voice print authentication.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	

PAYMENTS   SECURITY

Founded: 2012

SecureCo delivers security, compliance and payments solutions. Its PCI DSS-compliant offerings cover web, storage, call center and payment environments to deliver 24/7 monitoring.

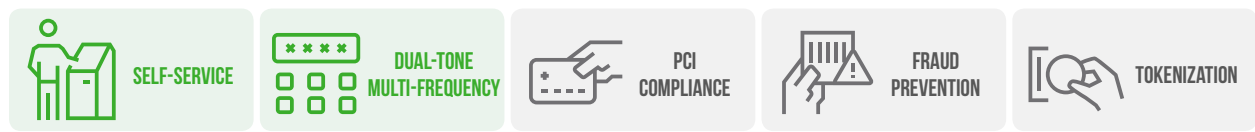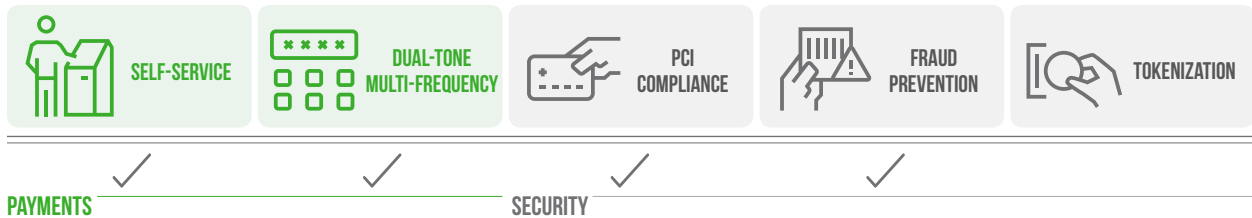| SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS   SECURITY

Founded: 2009

Semafone provides software to call centers. The company's solutions allow for secure payment processing and use dual-tone multi-frequency masking technology to prevent personal data from entering the call center and ensure compliance with industry regulations such as PCI DSS.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS   SECURITY
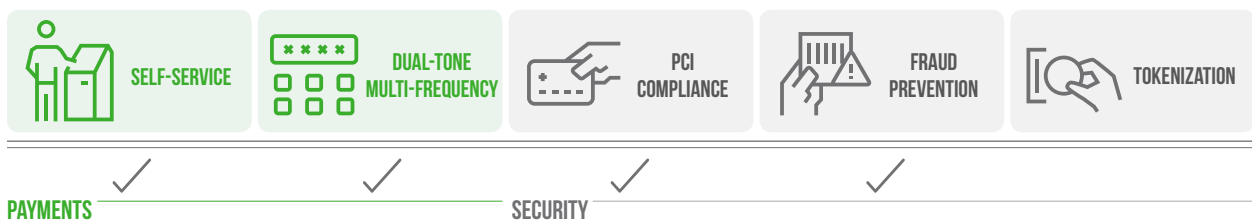
Founded: 1993

Sonant provides customized phone- and web-based contact automation and management, customer service and ePayment systems to a wide range of commercial and government organizations. Its all-in-one customer management, automated messaging and ePayment solutions can integrate with organizations' existing phone and data networks.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		✓

PAYMENTS   SECURITY
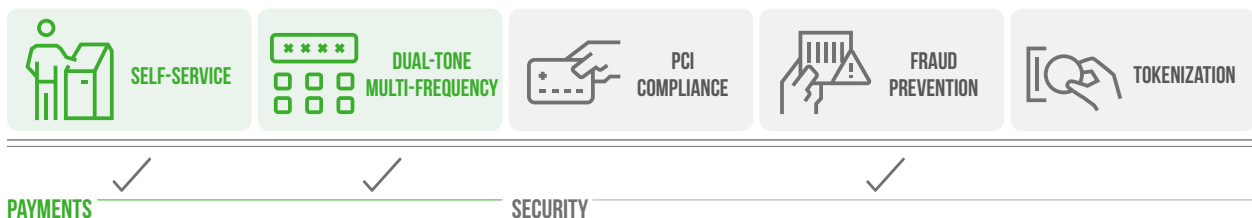
Founded: 2010

TokenEx provides tokenization solutions for one-time, recurring and archival transaction data. The company's solutions include an enterprise data security platform that enables coupling tokenization, encryption and key management to ensure data security.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓		✓	✓

PAYMENTS ——————————— SECURITY
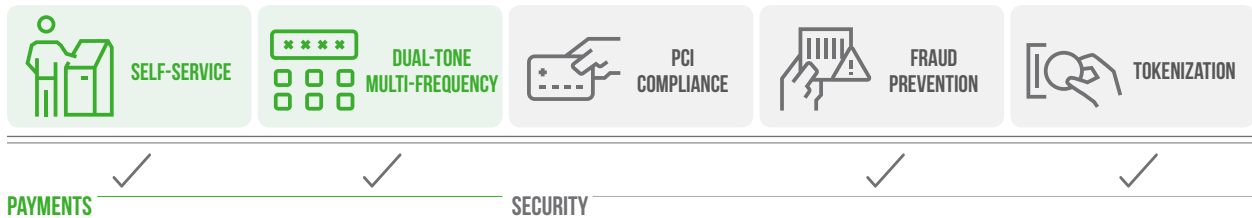
Founded: 2007

TRUSTID is a call center technology platform provider. The company's solutions authenticate caller identities and provide security for remote banking and other telephone-based commerce interactions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	

PAYMENTS ——————————— SECURITY
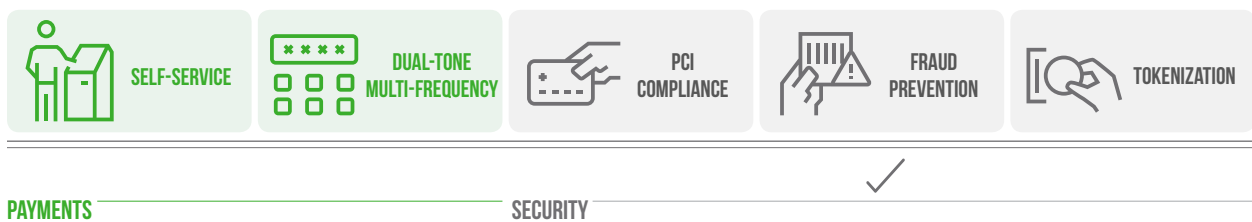
Founded: 2008

Uniphore is an India-based technology company that provides speech analtyics, a virtual assistant, voice biometrics and other solutions to enterprise customers.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	

PAYMENTS ——————————— SECURITY
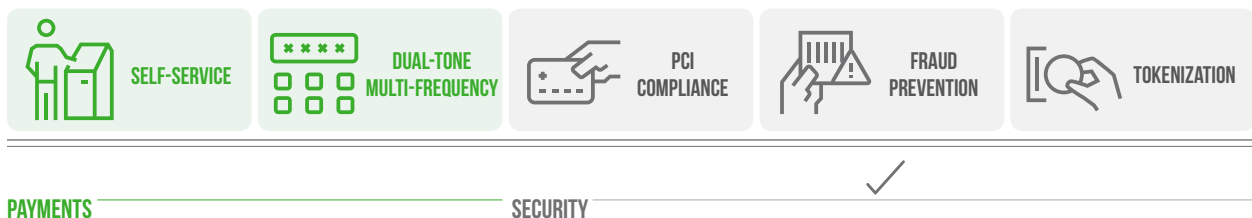
Founded: 2001

Voicent offers call center solutions, including automated appointment reminder software, phone, email and text message broadcasting software, customer-relationship management software, computer-contained PBX systems and design software for creating customized IVR systems.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓				

PAYMENTS — **SECURITY**

Founded: 2011

VoicePIN provides biometric voice authentication services. This technology enables consumers to securely log onto a system without having to remember passwords or PINs.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	

PAYMENTS — **SECURITY**
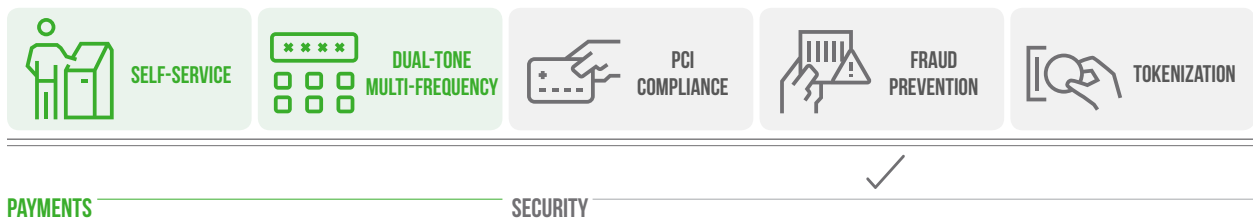
Founded: 1999

Waterfield Technologies is a software and professional services organization. It provides voice and mobile solutions that support customer interactions across multiple channels, improve efficiency and reduce costs.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		✓

PAYMENTS — **SECURITY**
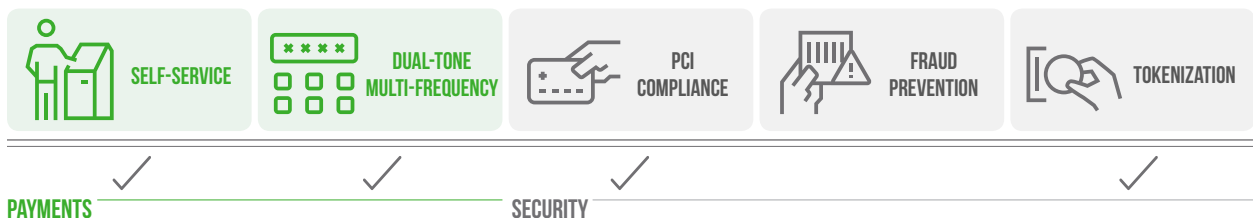
New!

wirecard

Founded: 1999
Wirecard provides web-based payment solutions to call centers.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	✓

PAYMENTS   **SECURITY**
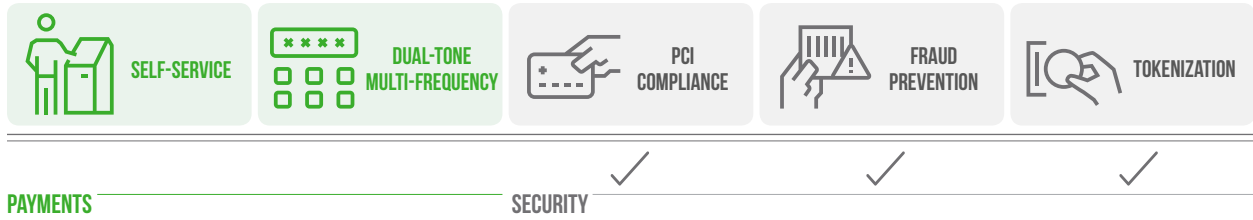
platform providers

3C Logic

Founded: 2005

3C Logic offers a suite of inbound, outbound and blended cloud-based call center solutions hosted on Amazon Web Services. The company's products are based on a distributed approach that eliminates the need for legacy server-centric architect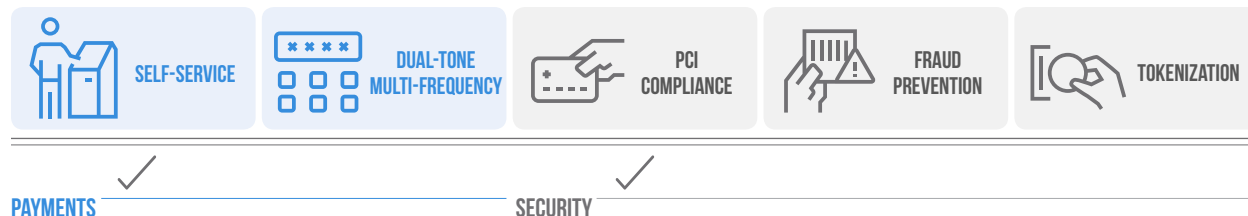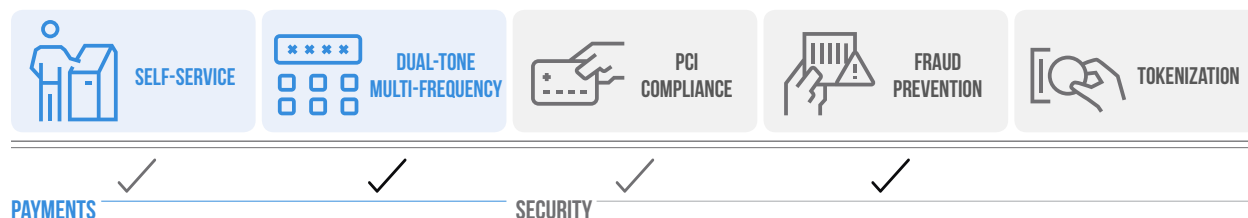ure. It offers integration with other cloud-based solutions and features multichannel communication, IVR, automatic call distribution and predictive dialer.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   **SECURITY** ✓

4net TECHNOLOGIES

Founded: 2005

4net Technologies specializes in call center technologies, unified communications, video conferencing and managed and cloud services. It operates in all market sectors across the globe and offers a complete communications package from design and implementation to after-sales customer support and maintenance.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   ✓   **SECURITY** ✓   ✓

8x8

Founded: 1987

8x8 offers a call center software suite for voice response and speech recognition that includes online chat capabilities and cloud-based technologies.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
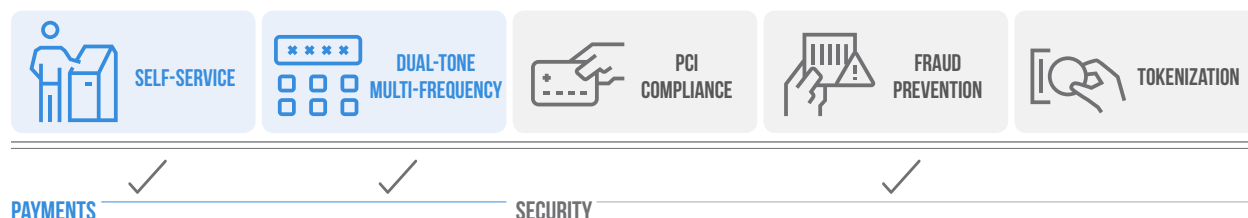
PAYMENTS ✓   ✓   **SECURITY** ✓

Founded: 2002

Aeriandi is a developer of voice security solutions. The company's PCI-compliant payment services enable clients to take payments through dual-tone multi-frequency signaling and IVR channels. The company also provides other PCI-compliant solutions, including speech analytics, call recording and call archive software.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   SECURITY

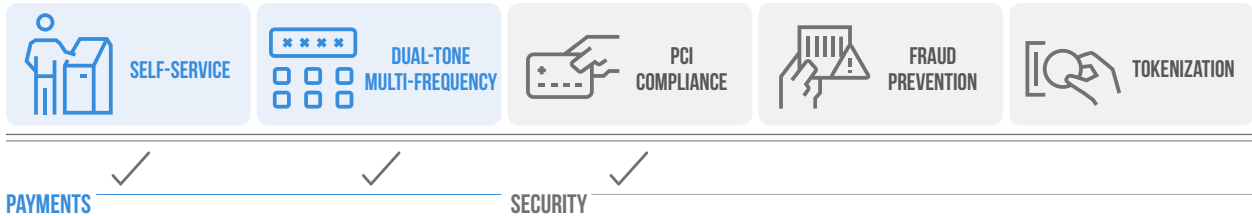**Founded: 2014**

Aircall provides phone support software for startups and small and mid-sized businesses. The company's solutions include a SaaS application that enables companies to set up and manage phone support online.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS   SECURITY
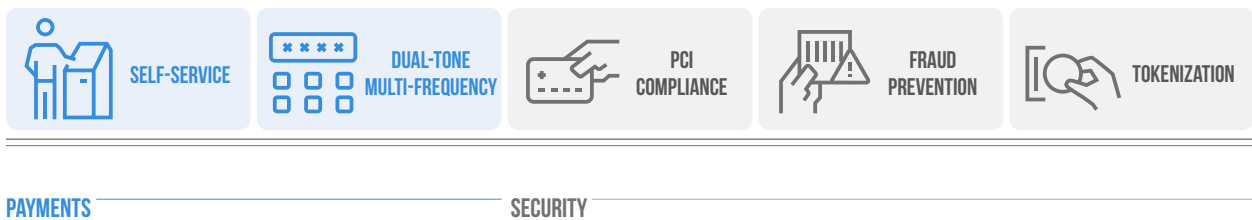
Founded: 1999

Alorica provides call center software solutions, including those designed for acquistions, sales and customer support. It offers customer relationship management, digital services, IVR and security features.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓	✓	

PAYMENTS   SECURITY

ALTURA
communication solutions
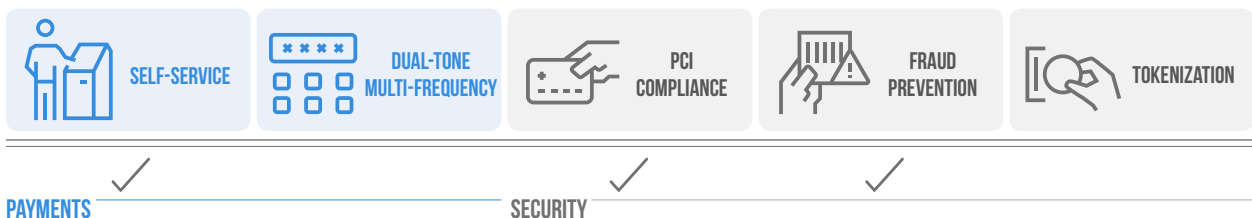
Founded: 2001

Altura offers automated payment reminders with cloud-based IVR payment solutions. Its solutions serve healthcare, government, financial services, nonprofits and other key enterprise verticals.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	**SECURITY**	✓				

AMEYO

Founded: 1993

Ameyo offers a call center solution platform to organizations ranging from small businesses to enterprises. The solution supports customer interactions and removes operational silos.
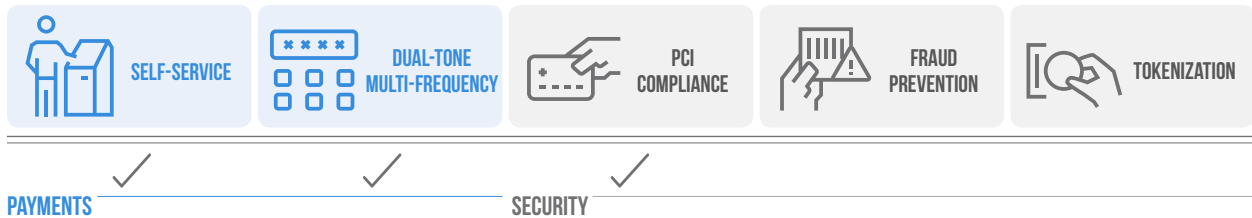
	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	**SECURITY**	✓		✓		
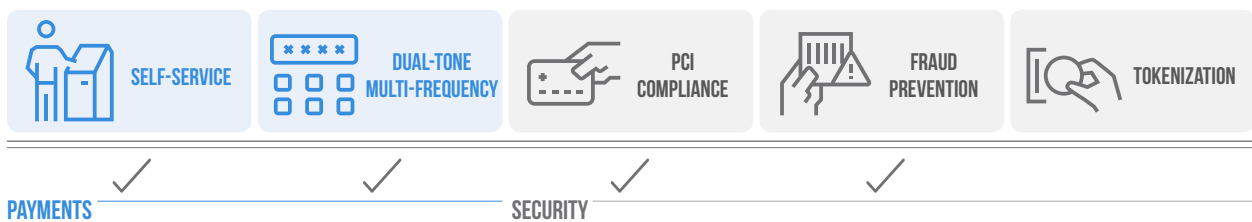
aspect™

Founded: 1973

Aspect provides communications and call center software solutions. The company's solutions include protocol-based voice-over, automatic call distribution, predictive dialing, voice portal, internet contact, workflow management and multi-channel recording solutions.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS				**SECURITY**			✓		✓
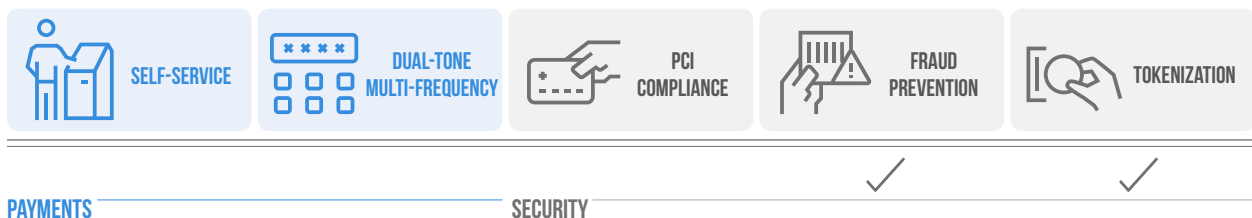
AsteriskService

Founded: 2012

An endeavor of Ecosmob Technologies Pvt. Ltd., Asterisk Service provides IP PBX systems, voice over IP (VoIP) gateways, conference servers, IVR payments and more.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   SECURITY
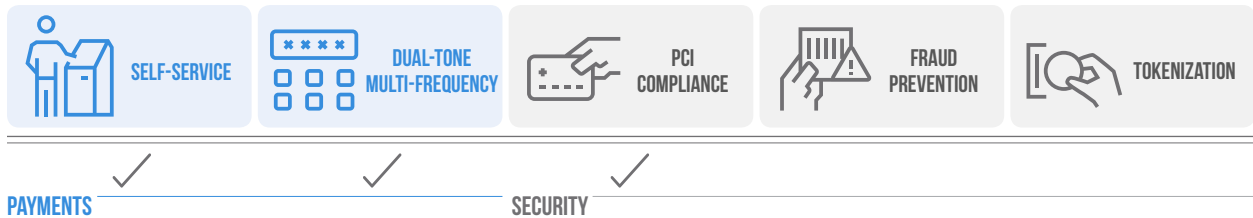
AVOXI

Founded: 2001

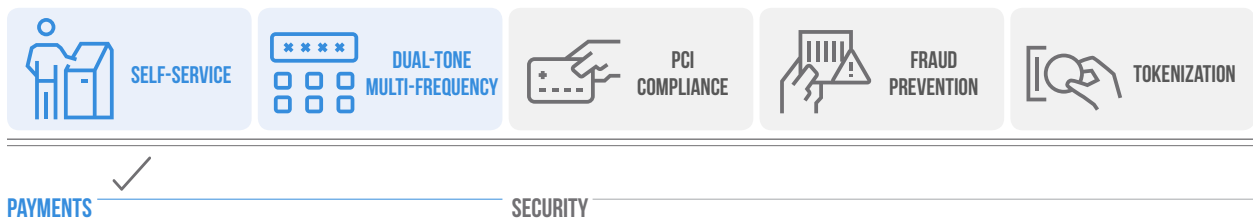AVOXI is a cloud communications provider. The company offers telecommunications and enhanced VoIP solutions, including toll-free services, call recording, call termination, cloud PBX, call center solutions, worldwide toll-free numbers, worldwide local numbers, SIP trunks, direct inward dialing numbers, virtual private network solutions, business telephone systems, VoIP phone systems and conference calling.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓				

PAYMENTS   SECURITY

Bluefin Payment Systems

Founded: 2002

Bluefin offers PCI-validated secure point-of-sale (POS) systems that provide brick-and-mortar acceptance, call center transactions and mobile and kiosk payments. Its omni-channel POS solutions enable secure payment processing through its PayConex Platform or through its Decryptx partners as a standalone solution.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	✓
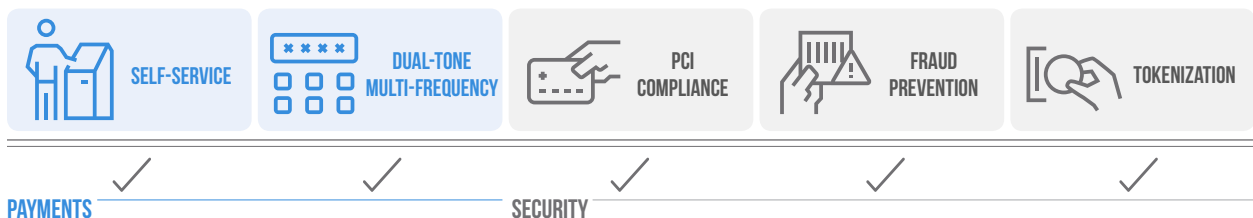
PAYMENTS   SECURITY

Founded: 1987

BluePay is a technology-enabled credit card payments processing services provider for enterprises, including small and mid-sized businesses. It offers call center payments processing solutions and security features like tokenization and point-to-point encryption.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓	✓	✓

PAYMENTS ——————————————— SECURITY
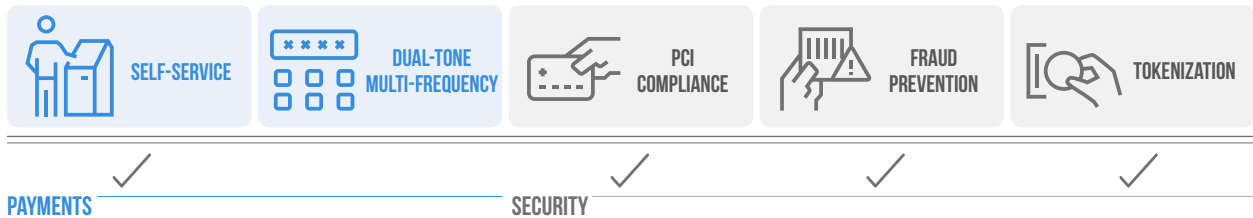
Founded: 2014

Callpay provides payment solutions for the payment industry and its strategic partners. Its solutions include the cloud-based Callpay Assist, Monitor and Request call center telephony payments platform, as well as products designed for call center, telephone and mobile payments.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS ——————————————— SECURITY

Founded: 1999

Callstream provides cloud-based call management solutions to the insurance, travel and retail markets. Its offerings allow clients to take telephone payments, record all calls and achieve PCI compliance.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS ——————————————— SECURITY
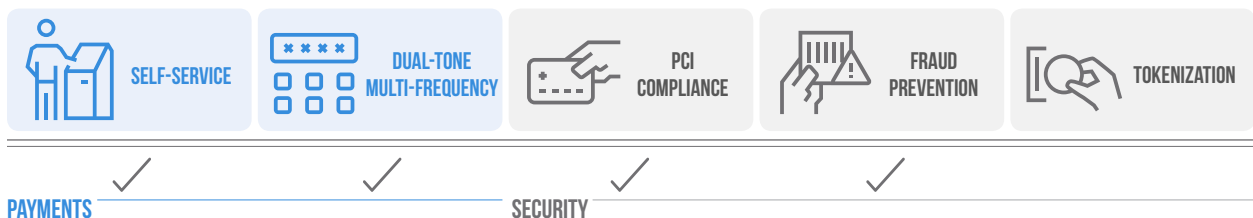
Founded: 2010

Bright Pattern is a multichannel cloud-based call center software provider. It provides both cloud and virtual contact center software, PCI DSS-compliant IVR and dual-tone multi-frequency payments solutions.

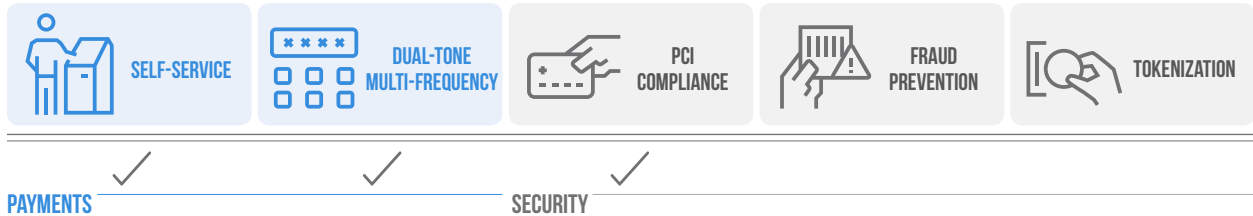| SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   SECURITY

Founded: 1996

ChaseData provides cloud-based call center technology. The company develops solutions for blended and inbound call centers as well as outbound call management. Its services cover multichannel solutions, reporting and analytics.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS   SECURITY
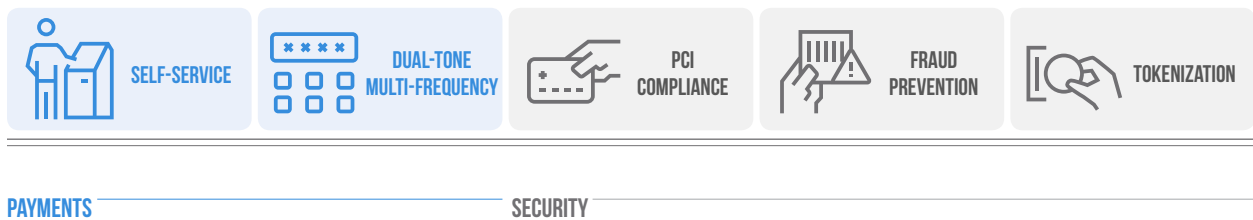
Founded: 2005

Content Guru, part of the Redwood Technologies Group, delivers cloud-based call center and customer engagement solutions to hundreds of enterprises. Its offerings enable customers to make both automated and agent-assisted secure PCI DSS-compliant payments.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS   SECURITY

Ciptex
Communications Pioneers
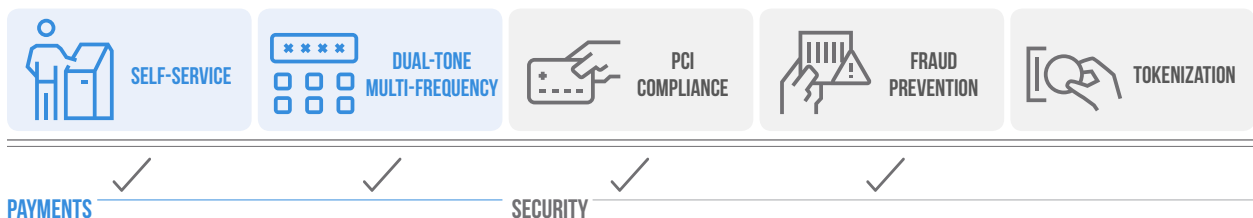
Founded: 2006

Ciptex offers cloud communications solutions for call centers and businesses. Its solutions include integrated telephone and call center applications.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS　　　　　　**SECURITY**
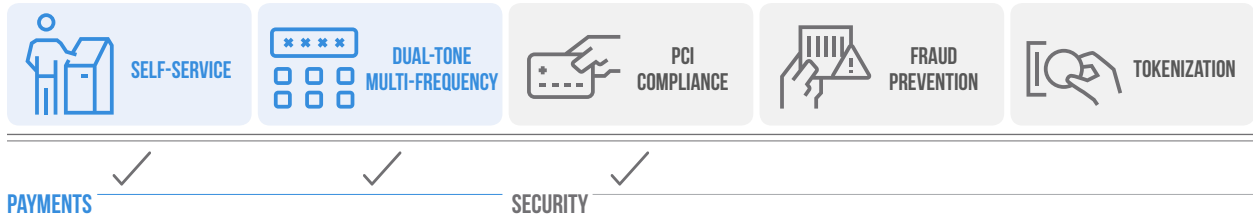
CLEARENT™

Founded: 2005

Clearent is a payment processor. The company's solutions use its proprietary payments platform to simplify business for customers and increase profits.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	

PAYMENTS　　　　　　**SECURITY**

New!

COMNICA
Connection as a Service
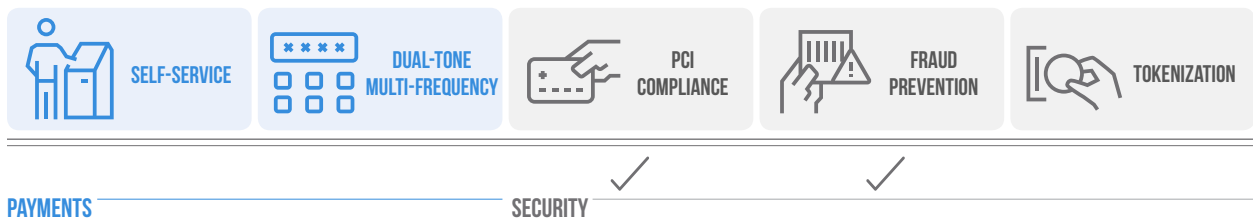
Founded: 2001

Comnica provides data security solutions to call centers.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
			✓	✓

PAYMENTS　　　　　　**SECURITY**
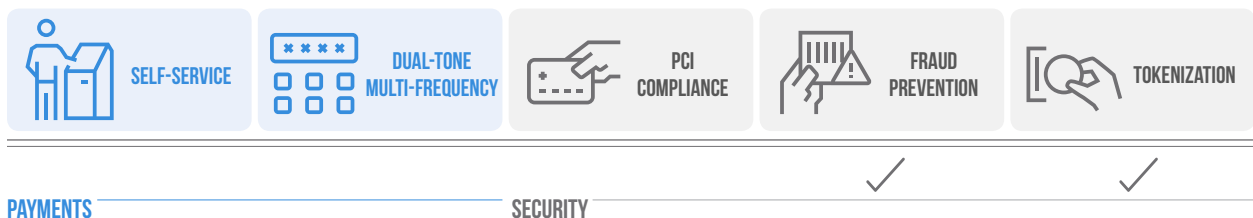
Founded: 1992

Conduit Global provides a cloud-center-as-a-service (CCaaS) platform for enterprises, offering solutions for both private and public clouds.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓			**SECURITY**	✓		
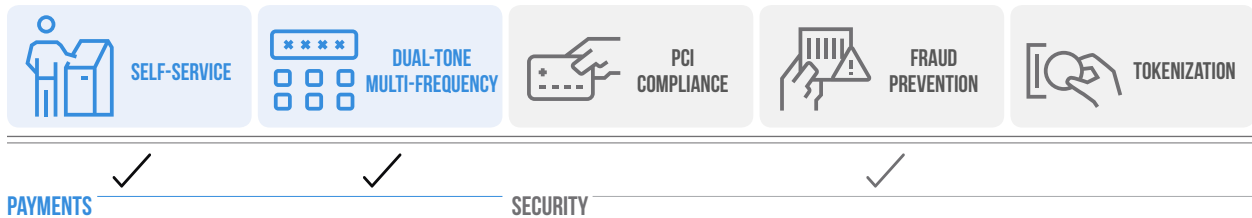
Founded: 2004

Connect First is a SaaS telecommunications and cloud-based call center software provider. Its offerings focus on customer satisfaction and hosted solutions, including cloud routing, inbound automatic call distribution, outbound dialing, call tracking, IVR, voice broadcast, disaster recovery, predictive dialer, real-time telemetry, call data record reporting and live agent chat, among other features.
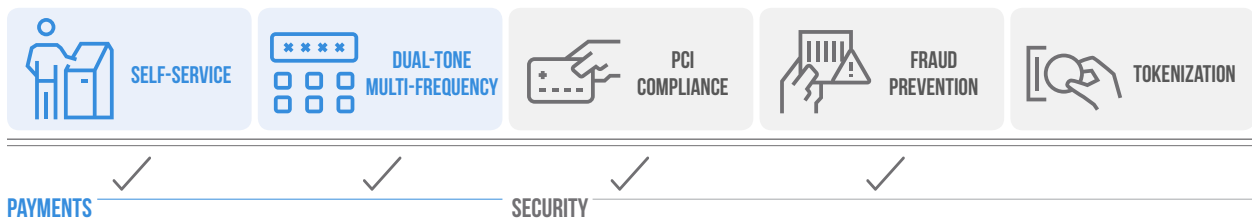
	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓		✓	**SECURITY**	✓		

Founded: 1994

CyberSource is a payment management company that offers solutions for processing online payments, streamlining fraud management and simplifying payment security.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS			✓		✓	**SECURITY**			✓
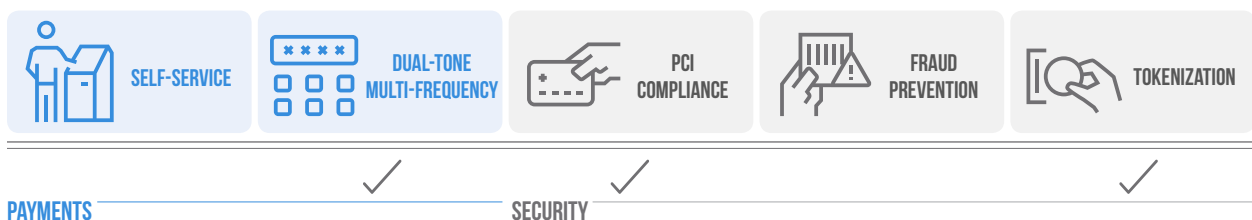
DAKCS

Founded: 2006

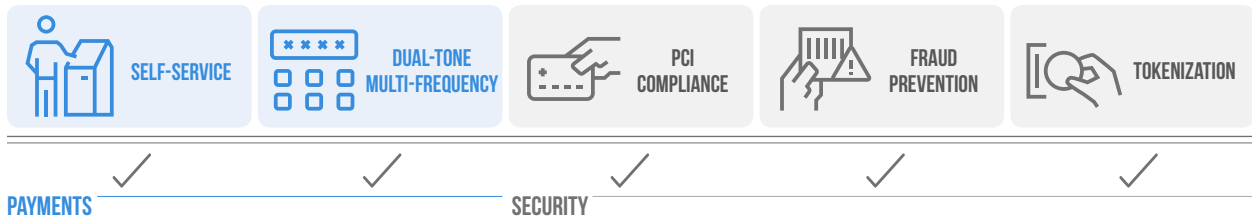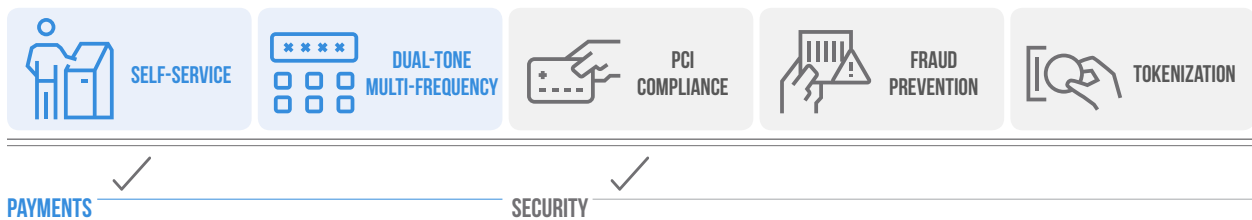DAKCS offers cloud and on-premise collection agency management software to support debt collection and accounts receivable management. It focuses on recording debts for medical and healthcare, financial services, law firms, governments and first-party accounts receivables.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	✓

PAYMENTS   SECURITY

DATATEL COMMUNICATION TECHNOLOGIES

Founded: 1996

Datatel Communication Technologies provides IVR payment solutions. Its PCI-compliant, cloud-based solutions are designed for merchants, healthcare providers, governments and nonprofits.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓		

PAYMENTS   SECURITY

DATAMARK INCORPORATED

Founded: 1989

DATAMARK provides outsourced business services. The company offers on- and offsite digital mailroom services, invoice document processing, manual data entry, automated data capture, business continuity planning, disaster recovery, bilingual customer contact center services, storage and retrieval services and finance and accounting.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓		

PAYMENTS   SECURITY
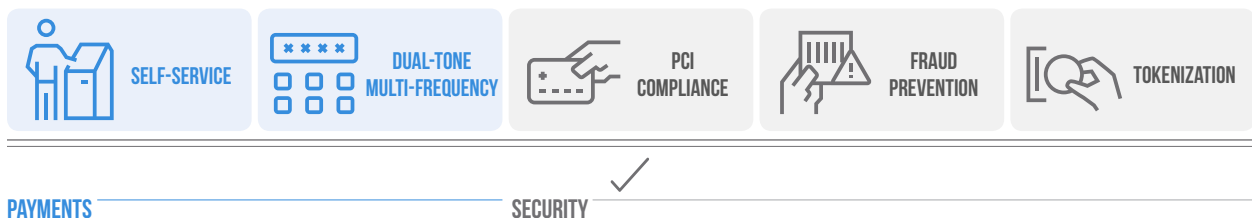
Founded: 2001

Delacon is a PCI compliance solutions provider that allows end customers to send payment details via their phones. The software also removes stored credit card and payment information from agencies' desktops, screen recordings and other call center environments.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓	✓	

PAYMENTS — SECURITY
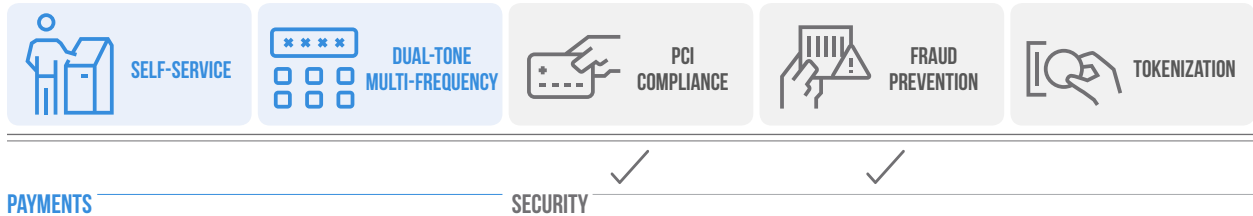
Founded: 1997

Delego helps companies expand their ePayment capabilities and integrates and secures their payments ecosystem with SAP using flexible and tailored solutions. Those solutions include secure cloud, proprietary tokenization and point-to-point encryption.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓	✓	✓

PAYMENTS — SECURITY
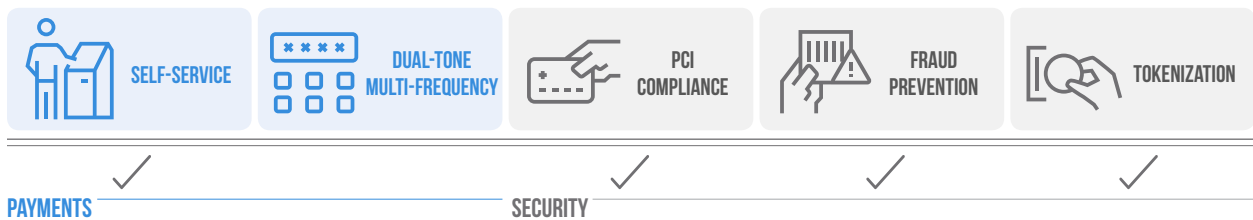
Founded: 1992

Dialpad creates communication solutions for enterprise companies, offering support for Slack and integration with Salesforce, among other products.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓		✓	

PAYMENTS — SECURITY
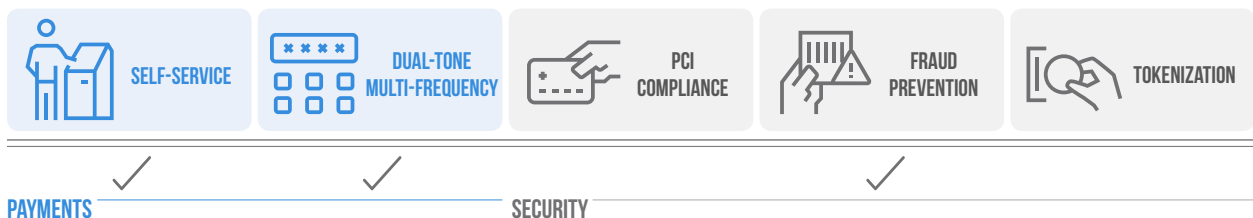
Eckoh

Founded: 1997

Eckoh is a provider of customer engagement, payment and operational solutions. The company's PCI DSS-compliant solutions for call centers include dual-tone multi-frequency masking and audio tokenization. They also enable call centers to take self-service payments via IVR technology.
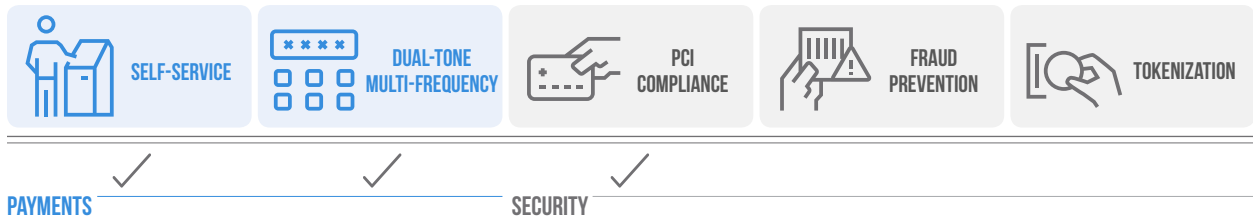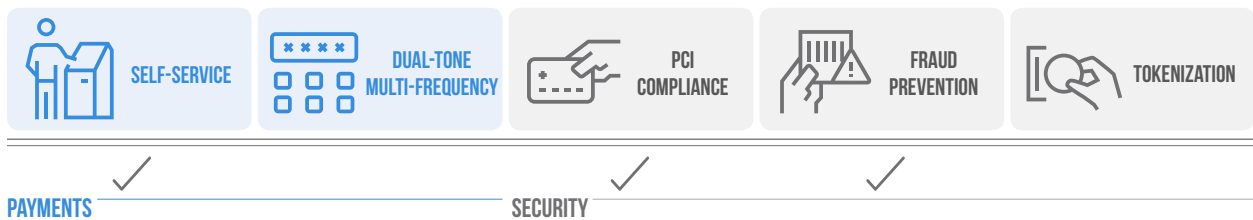
	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	SECURITY	✓				

elision
Next Gen Telecom Solutions

Founded: 2007

Elision provides cloud-based call center technology for both on-and offsite contact centers.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓			SECURITY	✓		✓		

ENERGYCARE

Founded: 2014

EnergyCare enables customers to speak to a live operator at any time to make ACH, credit card, debit card and prepaid card payments securely and privately. The system features Spanish and English options and is available as a stand-alone service or as part of the company's customer care offerings.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	SECURITY	✓				
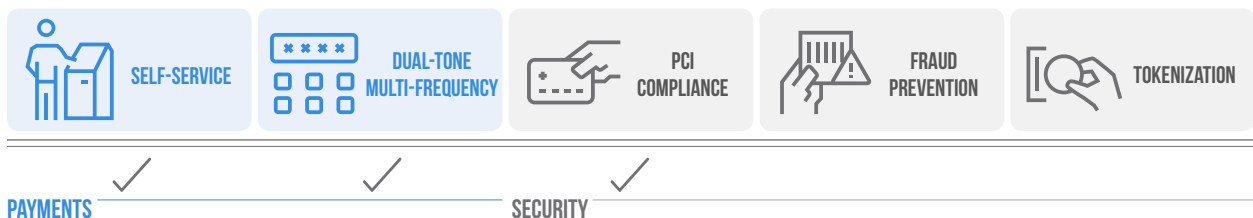
e-complish

Founded: 1999

E-Complish offers customer-facing eCommerce solutions, representative-facing payment portals, back-end check and credit card processing and IVR telephone payment tools.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	**SECURITY**	✓		✓		

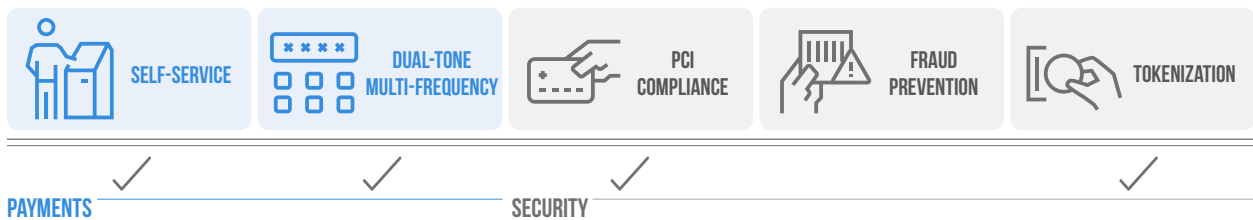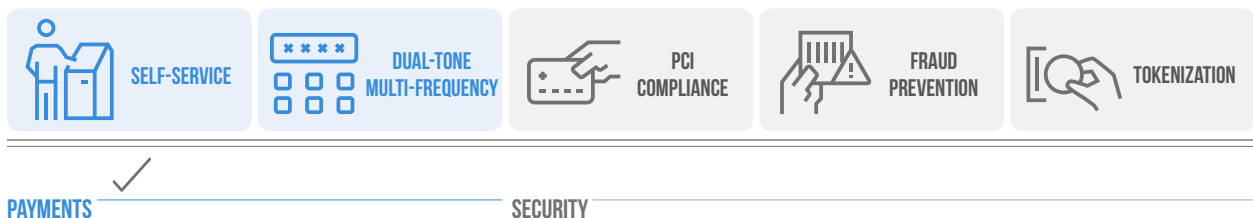**ENCODED** secure automated payments
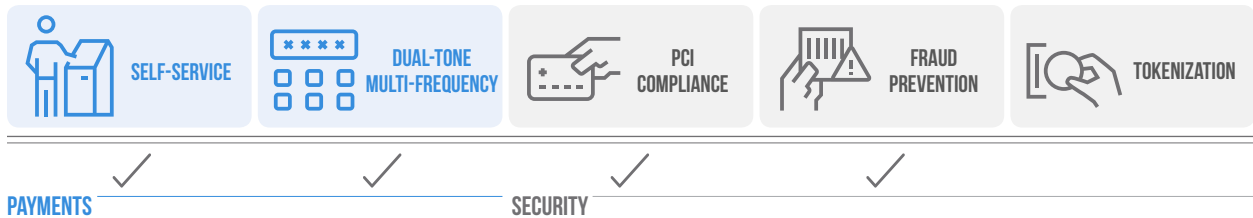
Founded: 2001

Encoded is a Level 1 PCI DSS-compliant and ISO 9001-accredited provider of IVR payment solutions. Encoded's solutions include IVR phone payments, virtual terminal payments, agent-assisted card payments and tokenization.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	**SECURITY**	✓				✓

Enghouse Interactive

Founded: 1994

Enghouse Interactive provides customer contact solutions for organizations. It offers solutions for computer and telephone integration, self-service IVR, knowledge management, operator consoles, call recording, quality monitoring, media voice services and outbound dialers.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓			**SECURITY**					

Founded: 2001

Five9 delivers cloud software for the enterprise call center market. It develops solutions ranging from inbound and outbound to workforce optimization. These include products such as automatic call distribution, IVR, Telephone Consumer Protection Act (TCPA) compliance tools and dialing solutions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
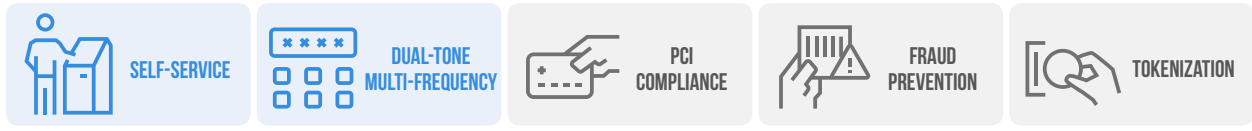
PAYMENTS   **SECURITY**

Founded: 1990

Genesys offers a set of call center solutions covering customer engagment, employee engagement and business optimization. The company's customer engagement products include self-service, inbound, outbound and digital services, as well as a PCI-compliant payment solutions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓		

PAYMENTS   **SECURITY**

Founded: 2000

Govolution is an enterprise electronic payment solutions provider. The company offers virtual terminals, gateway payments, web payments, bill presentation, reporting and shopping cart solutions. It also provides mobile, IVR and phone payments solutions. Its Velocity Payment System includes credit card, eCheck and debit card processing.

| SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	
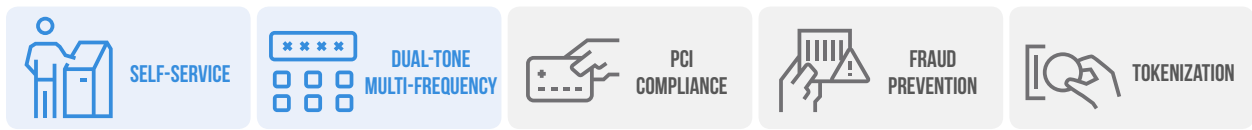
PAYMENTS   **SECURITY**

Founded: 2010

Intelligent Contacts offers communications and payments solutions that are PCI-compliant. Its solutions suite includes automatic call distributor groups with skills-based routing, an IVR system with text-to-speech, full call recording, automated payment negotiation and real-time data services, among others.
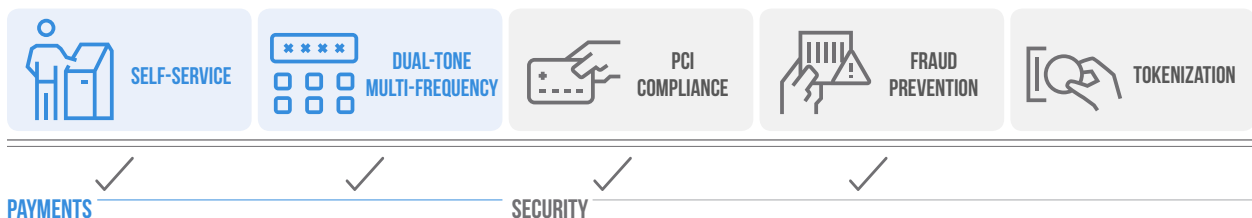
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   SECURITY
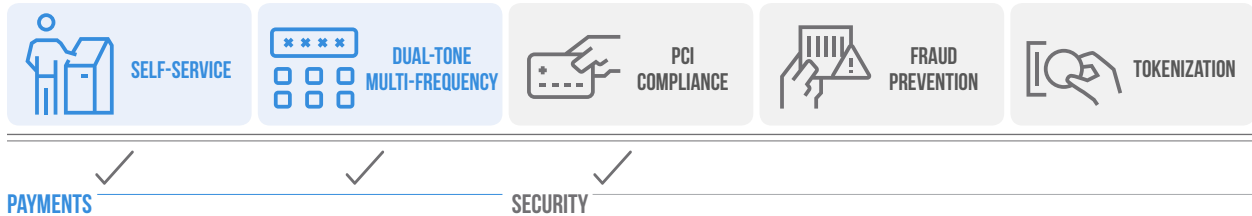
Founded: 1996

IntraNext Systems provides PCI-compliant software for contact centers. The company's solutions include iGuard, which enables call centers to store user data without breaking PCI compliance. It also offers Nextsys CTI, a group of computer-telephone integration capabilities to boost efficiency, improve service and reduce costs.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
	✓	✓	✓	✓

PAYMENTS   SECURITY
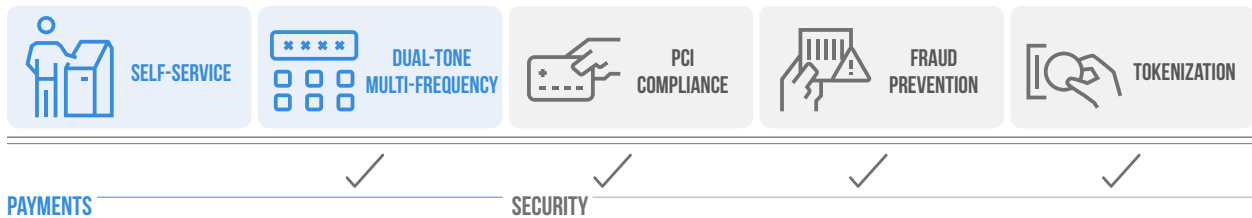
Founded: 1996

IVR Technology Group builds secure voice and text applications to improve overall customer experiences. The company focuses on creating offerings that boost compliance, data security and positive user interactions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS   SECURITY

keyivr

intelligent payment systems

Founded: 1994

Key IVR offers automated payment services in the U.K. and internationally through Europe and the U.S. Its services include PCI-compliant payment collection IVR systems and contact center solutions like dual-tone multi-frequency suppresion and sensitive customer detail masking.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
	✓	✓		✓

PAYMENTS ——————————— **SECURITY**
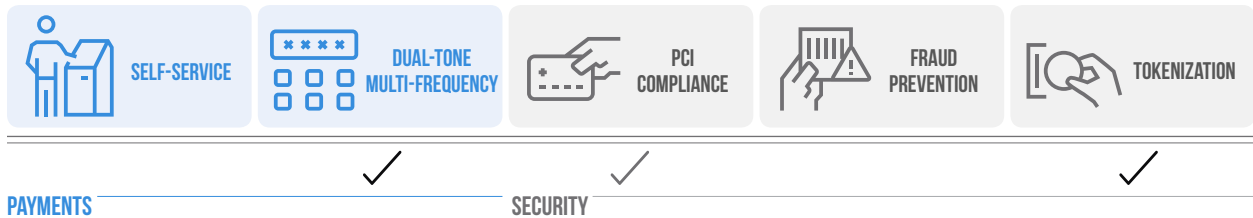
KOOKOO

Founded: 2007

KOOKOO creates cloud-based software for call centers, using technology to allow agents to focus on complex solutions while automating simpler tasks.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓		✓	

PAYMENTS ——————————— **SECURITY**
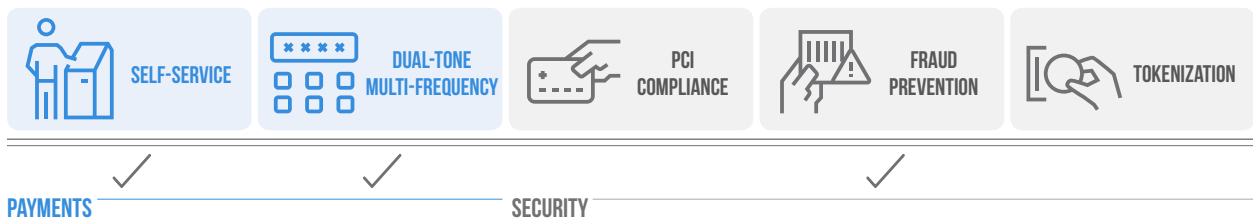
LIQUID VOICE

Founded: 2005

Liquid Voice provides call recording, quality management and interaction analytics solutions. Its products are developed using computer telephony integration and IVR technologies. The solutions are designed for utilities, financial services, legal, outsourced call centers and the public sectors.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓		

PAYMENTS ——————————— **SECURITY**
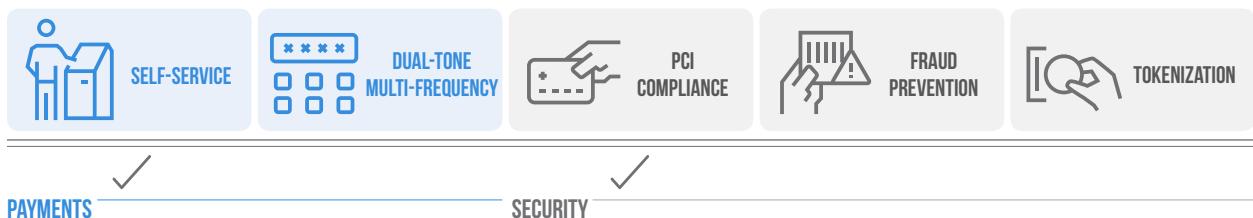
Founded: 2009

Natterbox is a British telecommunications company that offers a global cloud telephony platform. The platform provides end-to-end telephony services that are embedded and managed within the Salesforce platform.
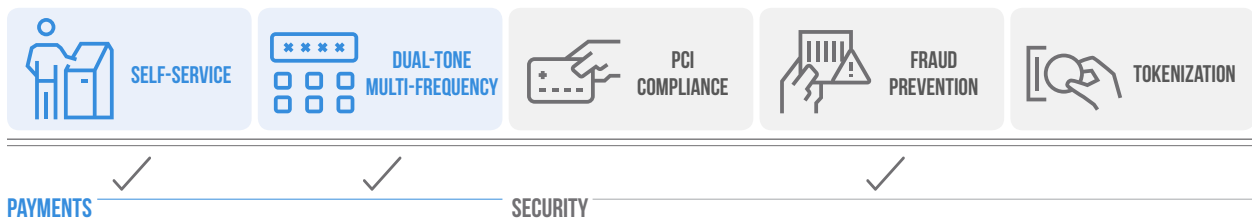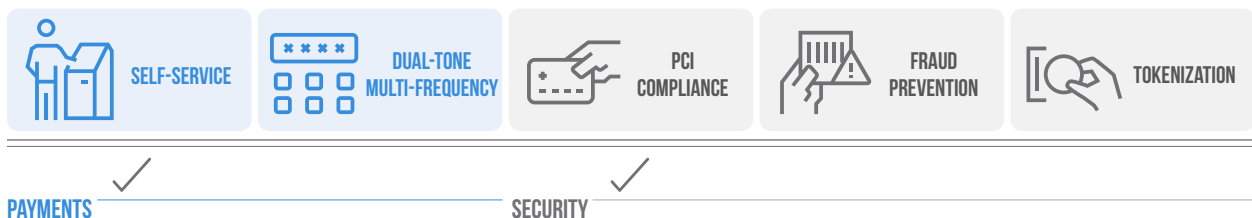
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓	✓	

PAYMENTS   SECURITY
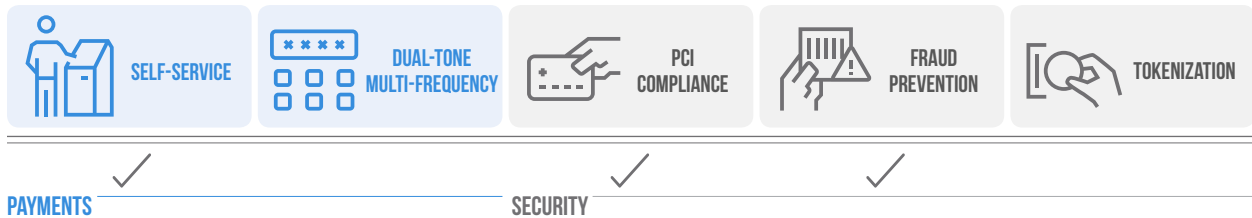
Founded: 1984

Netcall provides tailored, hosted, on-premise and hybrid call center solutions that support customer engagement for clients in the healthcare, public and private sectors.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓		✓	

PAYMENTS   SECURITY

Founded: 2000

NewVoiceMedia develops and delivers cloud-based call center solutions for organizations. Its product list includes ContactWorld for Salesforce, an integrated solution for the Salesforce CRM, and ContactWorld PCI, which helps merchants deliver PCI DSS-compliant telephone-based credit card transactions.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓		

PAYMENTS   SECURITY

nextiva

Founded: 2008
Nextiva provides cloud-based business communications solutions, which include automatic call distribution, IVR technology with remote and virtual agents, queueing and monitoring.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
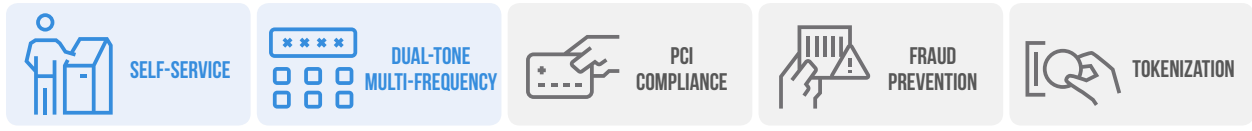
PAYMENTS   SECURITY

NICE · inContact

Founded: 1997
NICE inContact, part of software solutions provider NICE Systems, develops cloud-based call center solutions. The company's CXone platform provides analytics and workforce optimization solutions, a contact routing and interaction management suite and self-service products.
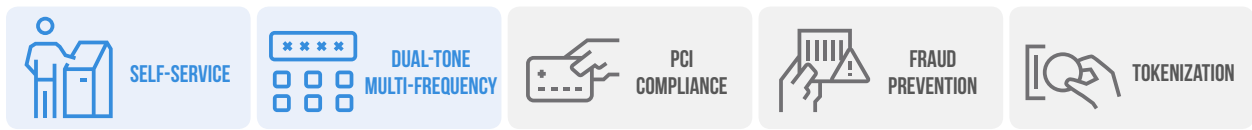
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS   ✓   SECURITY

NOBLE SYSTEMS

Founded: 1989
Noble Systems Corporation provides solutions for contact centers, workforce engagement and analytics technologies. Its premise/cloud hybrid platforms include automatic call distributors, predictive dialing, blended processing, recording and monitoring, IVR, messaging, interaction analytics, workforce management and gamification.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

              ✓   ✓   ✓
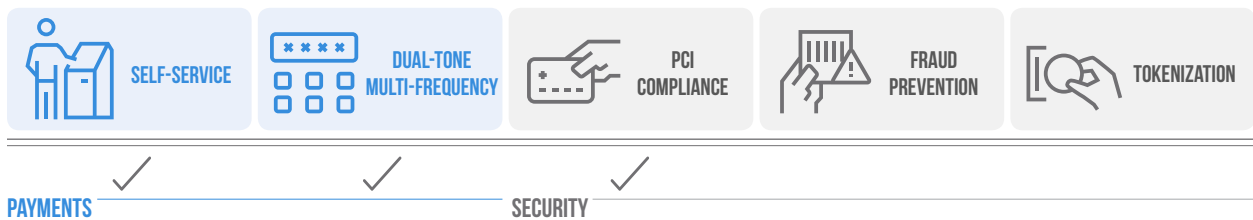PAYMENTS   SECURITY

NUANCE

Founded: 1992

Nuance Communications provides voice recognition and natural language understanding solutions worldwide. Its enterprise segment provides customer service through voice, mobile, web and messaging channels, with inbound and outbound customer service and engagement, voice biometrics and virtual assistant capabilities.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓		✓	

PAYMENTS   SECURITY
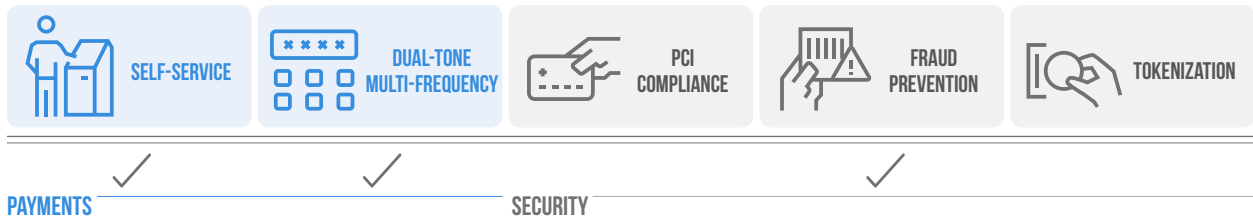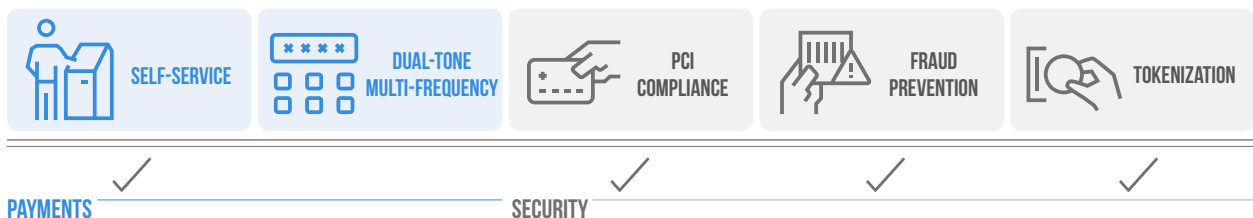
Paymentus

Founded: 2004

Paymentus delivers paperless eBilling and payment solutions to more than 1,300 clients across North America. Its offerings include a SaaS-based customer engagement and payment platform for direct-bill organizations.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   SECURITY

PAYCOMET
By Banco Sabadell

Founded: 2010

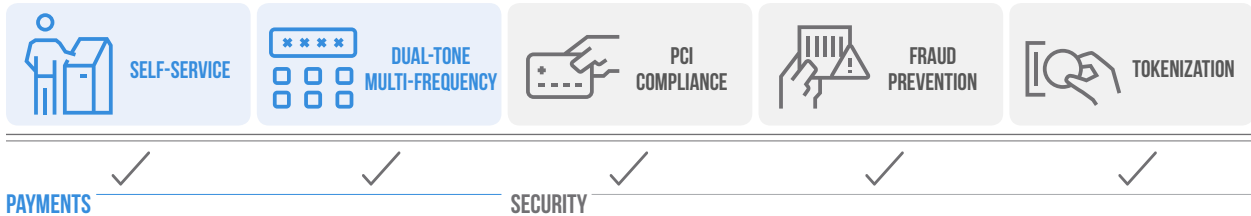PAYCOMET offers payment solutions for call centers. It also aids companies with Payment Card Industry Data Security Standard compliance and fraud protection, including tokenization for credit and debit cards.
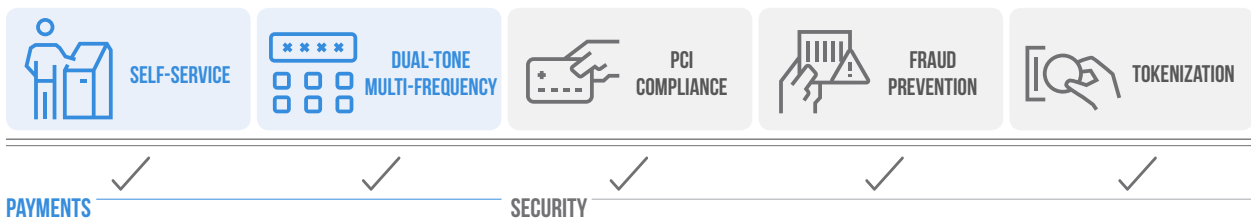
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓		✓	✓	✓

PAYMENTS   SECURITY

Founded: 1998

Paymetric provides payment acceptance solutions for call centers. The company offers an integrated, processor-agnostic tokenization solution supported by customer service, and the company's XiSecure solutions work to protect cardholder and other sensitive data.
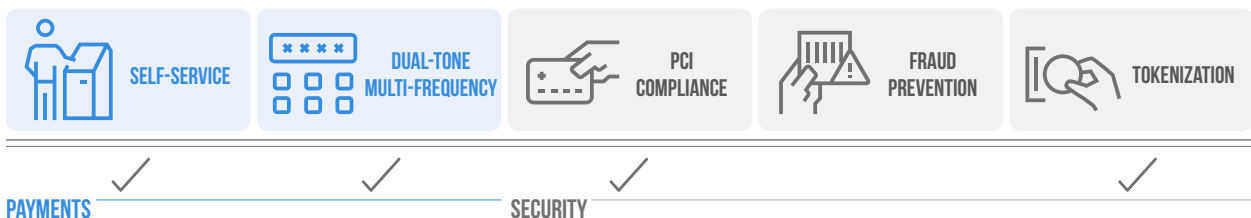
PAYMETRIC®
A Vantiv Company

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	✓

PAYMENTS   SECURITY

Founded: 2003

PDCflow provides PCI-compliant IVR payment solutions that support credit and debit card and ACH processing. Payment data is encrypted, tokenized and stored in a secure vault.

pdcflow

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	✓

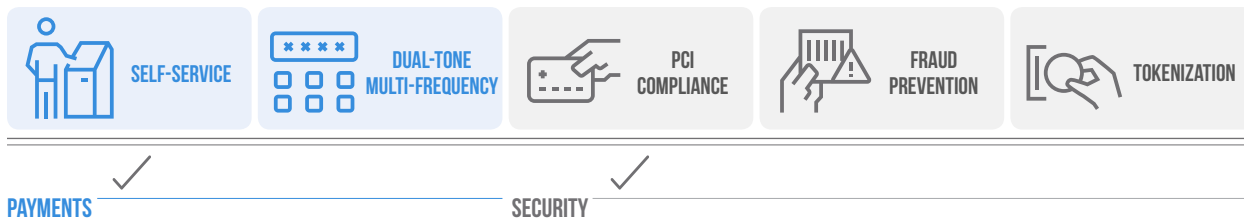PAYMENTS   SECURITY

Founded: 2011

Plivo is a cloud-based API platform and global carrier services provider. The company offers HTTP APIs to add voice and SMS capabilities to any web or mobile platform using web standard languages.
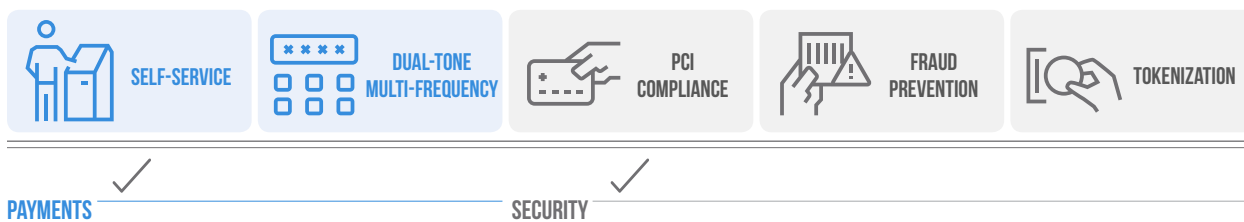
plivo

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		✓

PAYMENTS   SECURITY

plum|voice

Founded: 2000

Plum Voice provides call center solutions such as IVR platforms, systems and hosting services.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

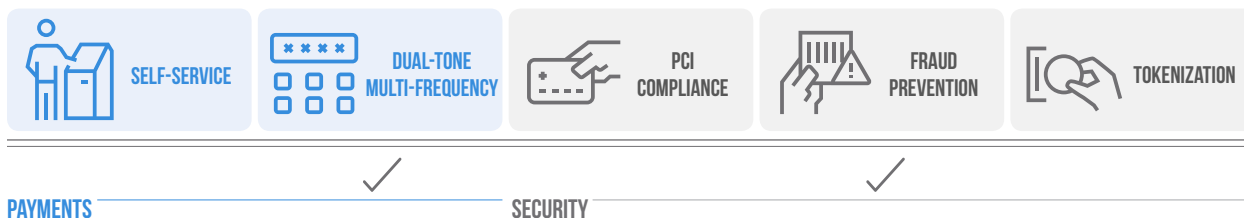PAYMENTS ✓   SECURITY ✓

puzzel.

Founded: 2017

Puzzel offers cloud-based call center solutions, including mobile messaging and payments features that deliver flexible and customizable customer interaction platforms.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   SECURITY ✓

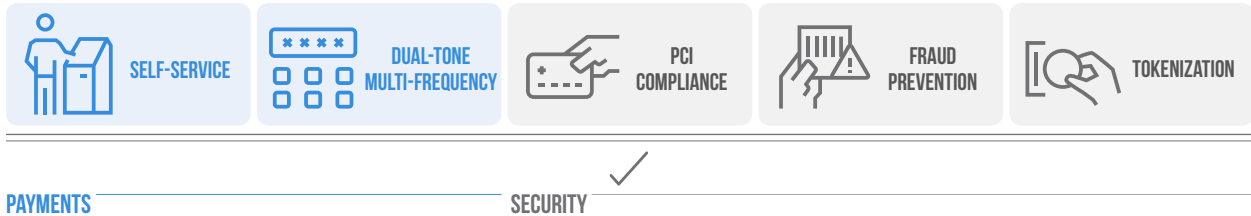**REPAY**
Realtime Electronic Payments

Founded: 2006

REPAY provides electronic transaction processing services for a variety of integrated end markets. Its platform provides access to a suite of payment technology products including credit and debit card processing, IVR, phone pay and text pay, among others.
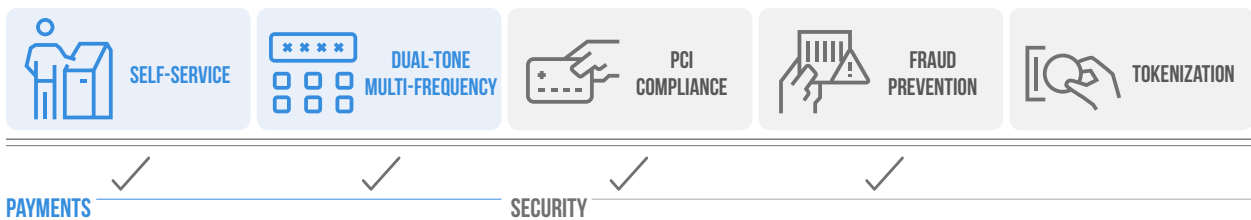
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   SECURITY ✓

RingCentral®

Founded: 1978

RingCentral provides communications and collaboration solutions. The company's call center solution offers a range of capabilities, including smart routing, CRM integrations, workforce optimization and real-time reports and analytics.
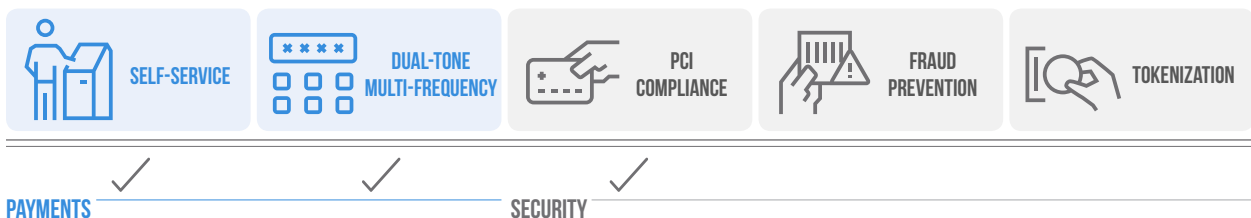
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
		✓		

PAYMENTS ———————————— **SECURITY** ————————————————

sabio

Founded: 1998

Sabio combines technologies with a comprehensive services wrap that include business consulting, systems integration, training and managed services. Its offerings include customer contact propositions, from flexible, hosted applications to bespoke end-to-end solutions that support upwards of 20,000 agent seats.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓	✓	

PAYMENTS ———————————— **SECURITY** ————————————————

Serenova

Founded: 2000

Serenova's cloud-based call center solution, CxEngage, connects data, people and brands for interactions, insights and outcomes. Its offerings include IVR and omnichannel payment integrations.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS ———————————— **SECURITY** ————————————————

Founded: 2011

Sharpen Technologies is a SaaS company. Its products are customizable to meet companies' specific needs and designed to help them communicate and connect with customers. It offers PCI-compliant self-service solutions, including IVR and dual-tone multi-frequency payments.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓	✓	✓		

PAYMENTS   SECURITY
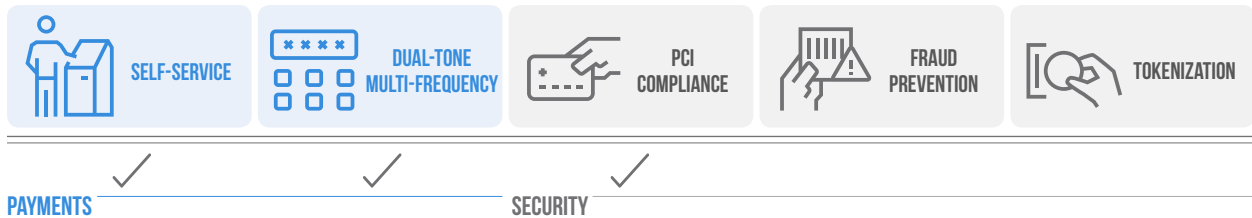
Founded: 2009

SmartAction provides AI-based voice self-service software. Its Intelligent Voice Automation is a hosted IVR platform that uses natural language speech recognition and is based on an object-oriented coding framework.

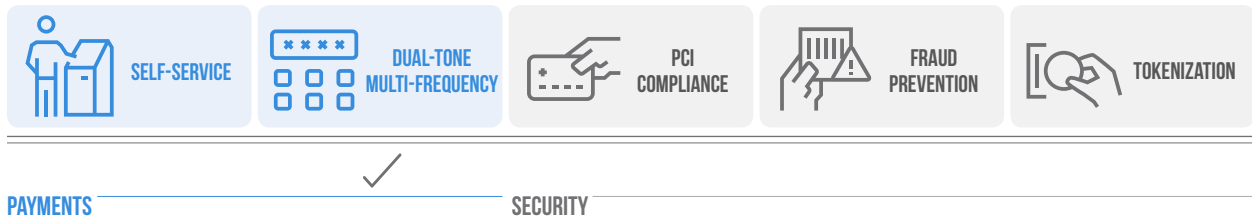| SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
✓				

PAYMENTS   SECURITY
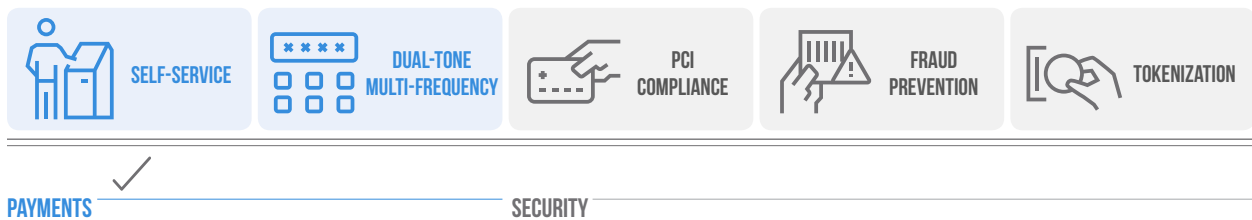
Founded: 1954

Stenocall is a telecommunications technology provider. Its solutions include PCI DSS-compliant services for call center payments.

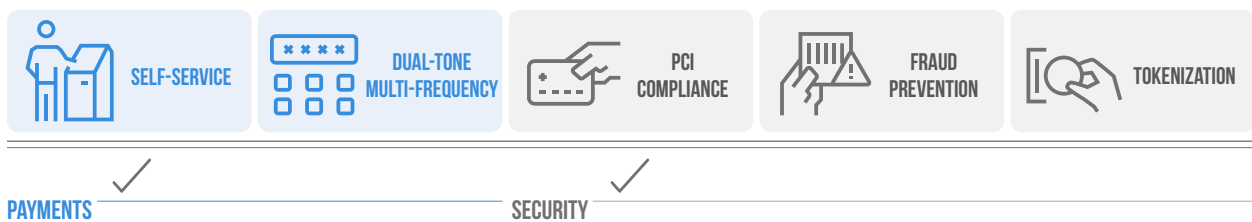| SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION
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PAYMENTS   SECURITY
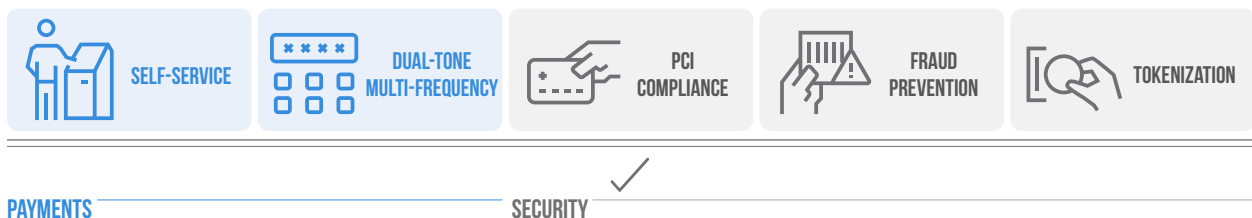
Founded: 2017

Speedpay provides electronic and cash bill payment services for utility, auto finance, mortgage, insurance and government industries. Its offerings include a suite of mobile payment solutions and enable bill payments from corporate social responsibility or IVR channels.
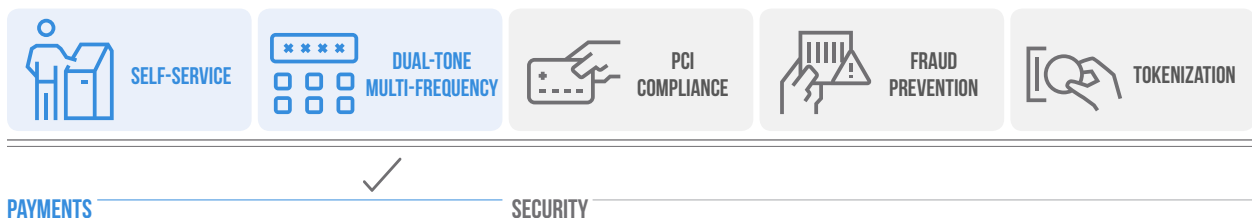
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   SECURITY

Founded: 2005

Spoken Communications provides digital conversation solutions. Its offerings include a conversation-centric solution for call centers and a single AI-enabled platform for channeling, managing and analyzing digital conversations.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   SECURITY ✓

Founded: 1989

StarTek provides call center ourtsourcing and a menu of cloud-based management service solutions. Its offerings include IVR and secure payments applications.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓   SECURITY

Syntec
### Integrated contact centre systems

Founded: 1998

Syntec is a telecom services provider, offering least-cost routing, network and telecommunications services and IVR. Syntec also has a PCI DSS-compliant call recording tool and a dual-tone multi-frequency payment solution.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓ ✓ ✓ **SECURITY**
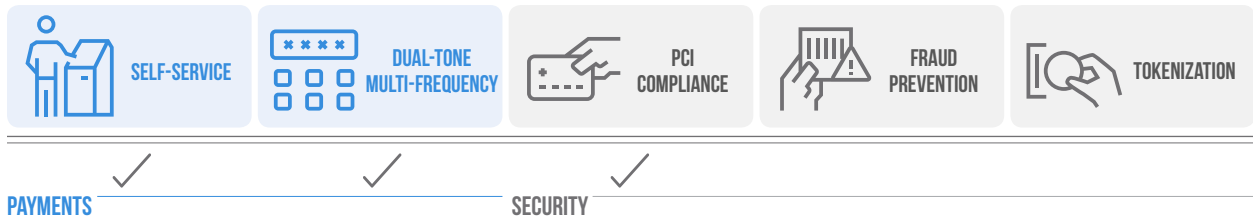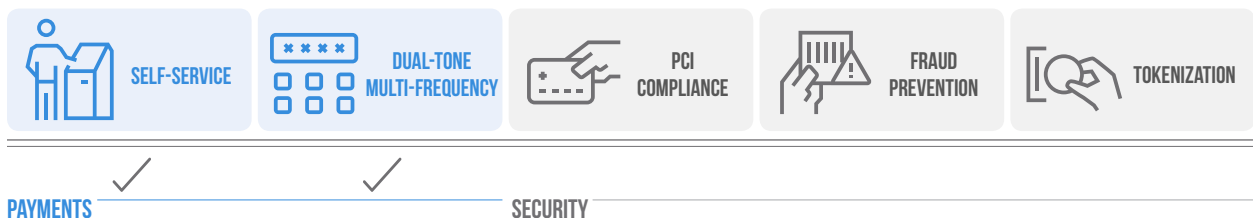
talkdesk

Founded: 2011

Talkdesk provides browser-based call center software solutions for small businesses. The company offers real-time call monitoring and historical reports, and its Talkdesk Context solution provides up-to-the minute intelligence on customer self-service activity for live contact center agents.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS **SECURITY**
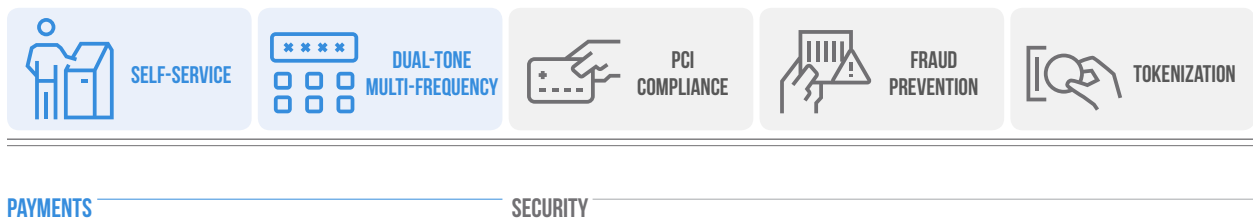
telax™

Founded: 1997

Telax provides a cloud-based call center solution. The company offers enhanced IVR for self-service, agent call-flow scripting, multi-skill routing, CRM integration and advanced automatic call distribution. It also provides outbound and blended voice queues, automated call-back and click-to-call services, among others.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS ✓ ✓ **SECURITY**

Founded: 2003

Teleperformance provides outsourced omnichannel customer experience management solutions. The company's call center services are designed for customer care, technical support and sales. Teleperformance also provides analytics solutions and back-office services.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS   SECURITY ✓

Founded: 1982

TeleTech is a global provider of customer engagement services and software. The company offers an integrated platform for call centers combining analytics, strategy, process, systems integration, technology and operations.
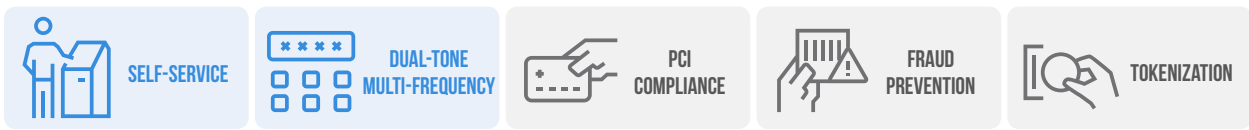
SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS   ✓   SECURITY

Founded: 2008

Twilio Flex provides fraud protection to call centers through its cloud-based platform.

SELF-SERVICE	DUAL-TONE MULTI-FREQUENCY	PCI COMPLIANCE	FRAUD PREVENTION	TOKENIZATION

PAYMENTS   SECURITY ✓

ultracomms

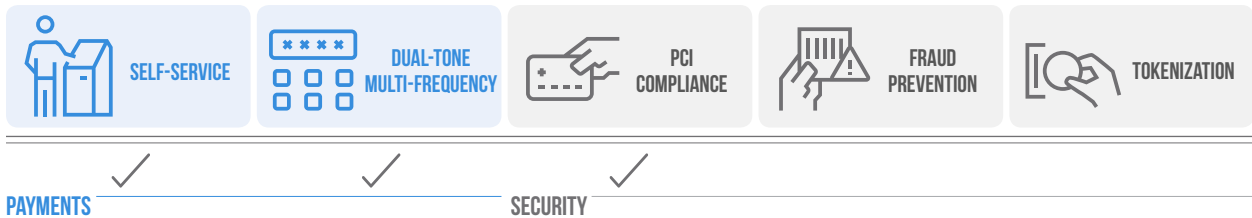**Founded: 2004**

Ultracomms provides a range of flexible, scalable and secure phone payment handling solutions for call centers and telephone network operators. The solutions can be delivered via the cloud, integrated with the telephone network or installed locally.
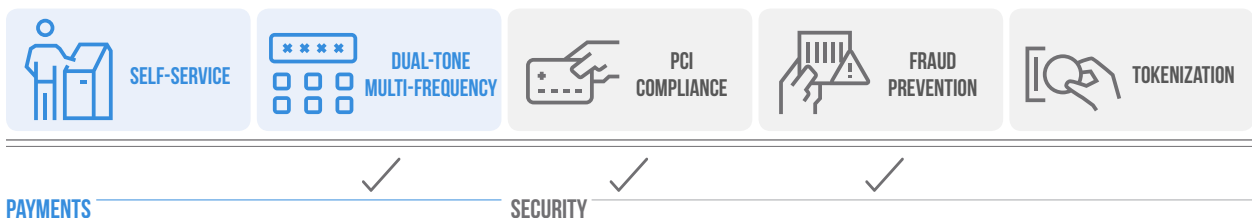
	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	SECURITY	✓				

Upwire

Founded: 2015

Upwire is a cloud-based platform that enables users to build customer communication flows with a "drag-and-drop" module, including customer communications via email, chatbots, IVRs with voice biometric authentication and more. Its offerings also allow businesses to securely accept credit card payments over the phone or via SMS.

|	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS	✓		✓	SECURITY			✓		✓

USAN

Founded: 1989

USAN offers hosted call center solutions connecting people with information for enterprise businesses and telecommunications carriers. The company offers network-based interactive voice response systems, courtesy and predictive dialer solutions, outbound dialers, live agent calls, computer-telephone interface routing and credit card transaction processing.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION
PAYMENTS			✓	SECURITY	✓		✓		

Founded: 1999
VCC Live is a call center and telecommunication technology provider. The company offers management services and call center functions such as digital VoIP lines, automated emails, customized SMS and dual-tone multi-frequency IVR systems.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION

PAYMENTS ✓ ✓ SECURITY
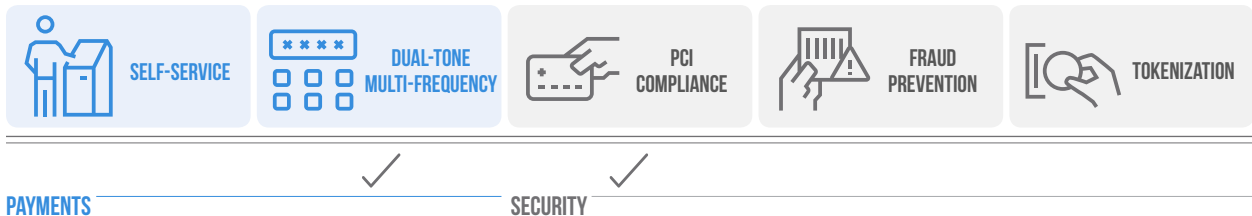
Founded: 1996
Vocalcom manufactures and implements call center solutions for multi-site VoIP architectures, and its solutions include answering machine detection, voice messaging, callback, automated after-call messaging and distant listening call recording features.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION

PAYMENTS ✓ SECURITY
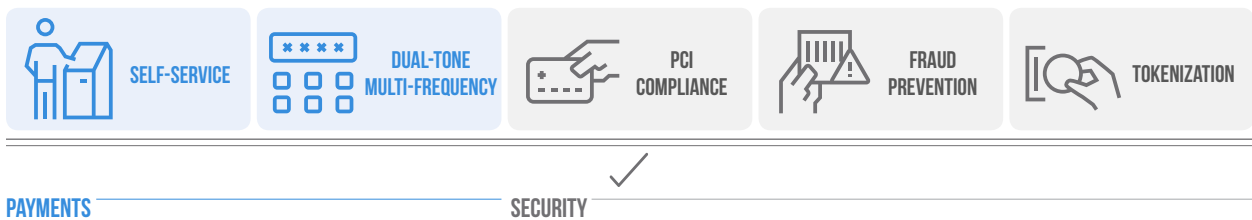
Founded: 2005
Voxai Solutions provides consulting services and strategies to transform call center infrastructures into distributed network applications, utilizing Genesys exclusively. Its full software suite, including both self-service IVR and agent-assisted services, can be deployed in a hosted environment and is offered as a pay-as-you-go or an on-demand model.

	SELF-SERVICE		DUAL-TONE MULTI-FREQUENCY		PCI COMPLIANCE		FRAUD PREVENTION		TOKENIZATION

PAYMENTS ✓ ✓ ✓ SECURITY
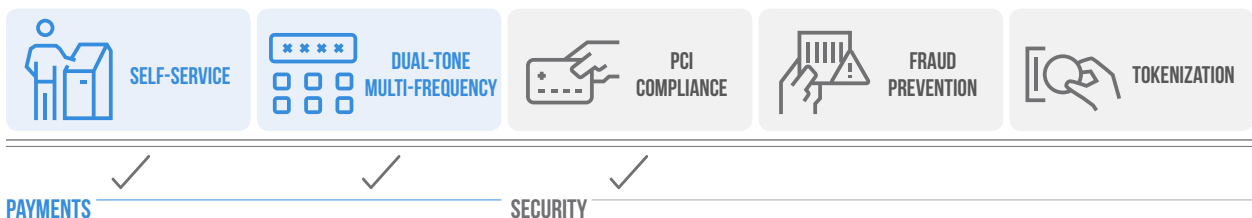
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