Technology-driven enterprise support and services in 2020 and beyond
Augmented reality based technical support

Abstract:

This thought paper targets leaders and decision-makers of customer support, enterprise technical support and contact center heads, and addresses challenges that come in the way of delivering technical support across enterprises and CX organizations. It helps leaders understand how they can use augmented reality to supercharge their support environment, especially as technology vendors are scaling up operations in the new normal.

CSS CORP

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Introduction

According to recent research by IDC, the global information technology industry will reach **$5.2 trillion in 2020**. The market is expanding, and the technology is continually evolving. The good news is that while technology evolution is serving its purpose, it has created new challenges for technology vendors who provide support but have to deal with seismic shifts. These shifts span across technologies, models, and the way they are delivered to customers.

Some examples include the **shift to XaaS, flexible delivery models, and the subscription economy.** With the advent of the subscription-based economy, the risks in a technology engagement have shifted towards the vendors, leaving customers in the driver's seat. Customers feel happier subscribing to the outcomes they want when they want them, rather than purchasing a service with the burden of ownership.

Whatever be the shifts and trends, customer loyalty is something vendors should always have on their radar. **Gartner has captured several reasons that are drivers of disloyalty** among customers. Vendors grapple with digital transformation, talent management, providing best-in-class support, and so on. Over and above this, they also have to ensure that their customers realize value from their investments. Technology vendors are already under immense pressure to deliver results. The situation has been exacerbated by the pandemic and forced everyone to accept the **realities of the new normal**. The pandemic has also increased the pressure on tech vendors to come up with innovative workarounds.

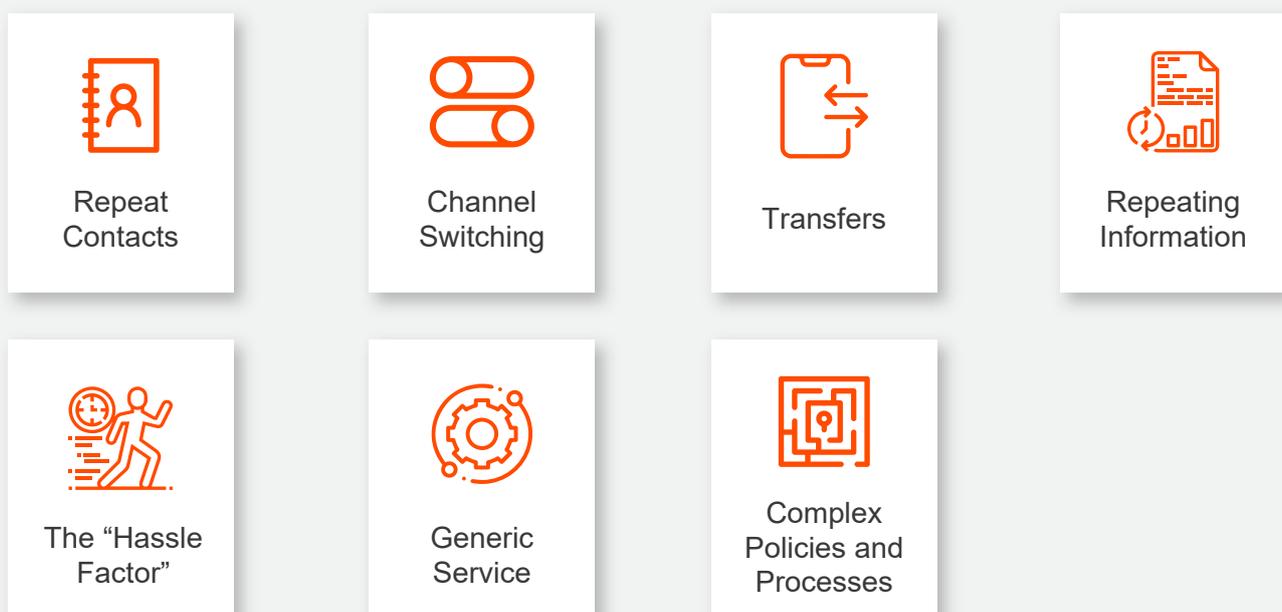## Drivers of Disloyalty

Repeat Contacts	Channel Switching	Transfers	Repeating Information
The "Hassle Factor"	Generic Service	Complex Policies and Processes	

Figure 1: Drivers of Disloyalty

Gartner

The real picture of technical support: What's cooking under the hood

Tech vendors need to provide seamless support across diverse domains, enterprise environments, scale, and channels. Technology support services have evolved from playing an administrative role to streamlining operations, increasing efficiencies, and integrating technology across functions. Now, it's all about taking a **cohesive and unified approach to optimizing enterprise functions**. Despite these developments, it's still not been a smooth ride for vendors and customers.
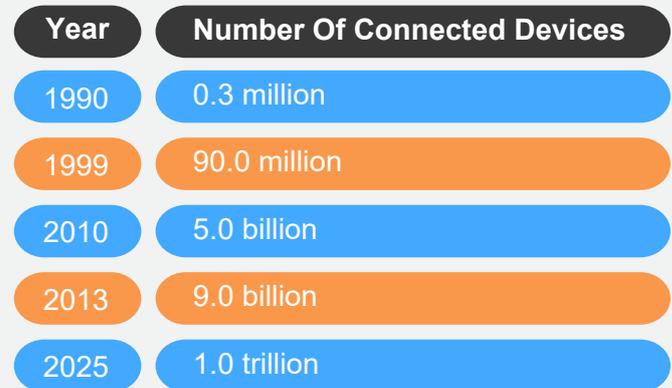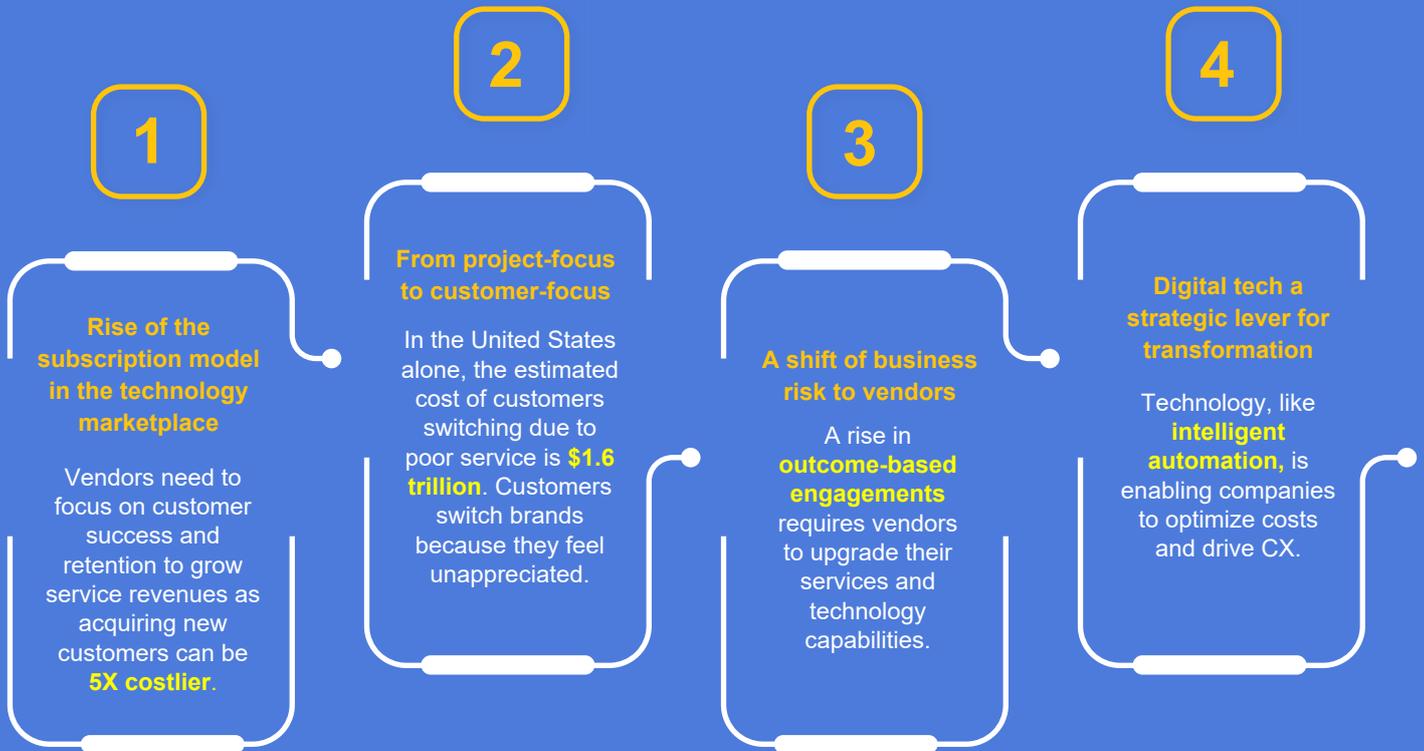
Year	Number Of Connected Devices
1990	0.3 million
1999	90.0 million
2010	5.0 billion
2013	9.0 billion
2025	1.0 trillion

Figure 2: Increase in connected devices

According to a study done by HP, the number of connected devices is growing exponentially and is likely to hit **1 trillion by 2025**. This complex ecosystem creates immense challenges and calls for an extremely agile and technology-driven approach towards providing support to their customers. Many support vendors are unable to apply technology interventions to smoothen the customer journey, thereby leading to low customer satisfaction and quality.

The new world order has challenged the traditional support model. With the new normal in place, it's a different world for vendors as they have to bring in **new ways to continue providing support**. For example, when considering the social distancing norms and lockdown restrictions, field support services may need a complete overhaul. HFS Research in their blog mentioned about the urgent need to augment customer-facing services with the locking down of call centers and corporate offices across the world (or even just keep them functioning at all), to keep IT help desks operating, or even internal needs such as finance, procurement HR and payroll services, the opportunity to have digital "workers" with whom to engage is in very high demand.

These recent developments have aggressively stoked the fire for immediate digital transformation and adoption. Technology is a great enabler, but it can also be a problem if not implemented appropriately. The erstwhile technology frameworks are becoming less relevant in today's fast-paced and dynamic environment, which calls for an extremely proactive and intelligence-driven approach. **Research Vice President and Head of HFS Academy, Melissa O'Brien**, rightly pointed out the need to think in new ways—not just about today's problems at hand, but also about responding to future disruptive events in a way that uses tools like **digital associates** in productive ways. If the right technology framework is not in place, it leads to disjointed customer experiences that reduce the quality of technical support.

Trends driving enterprise technical support

1

Rise of the subscription model in the technology marketplace

Vendors need to focus on customer success and retention to grow service revenues as acquiring new customers can be **5X costlier**.

2

From project-focus to customer-focus

In the United States alone, the estimated cost of customers switching due to poor service is **$1.6 trillion**. Customers switch brands because they feel unappreciated.

3

A shift of business risk to vendors

A rise in **outcome-based engagements** requires vendors to upgrade their services and technology capabilities.

4

Digital tech a strategic lever for transformation

Technology, like **intelligent automation,** is enabling companies to optimize costs and drive CX.

Challenges faced by technology vendors in providing seamless technical support

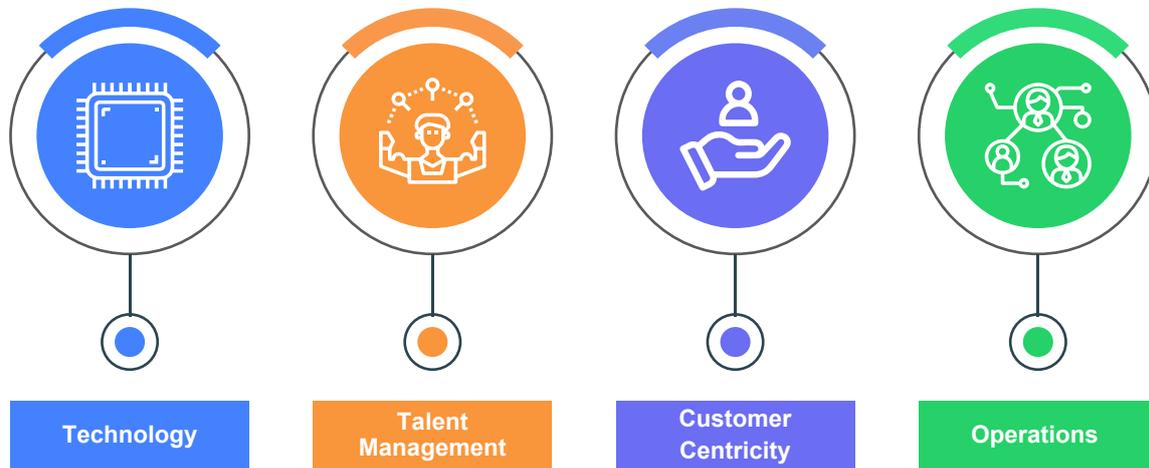| Technology | Talent Management | Customer Centricity | Operations |

Figure 3: Challenges within the technical support industry

Technology Challenges

End-customers are expecting digital channels to let them interact with sales and support. The surge in new-age technologies like **AI, Automation** is forcing vendors to rethink their technology strategies. A majority of them deal with inhibiting factors like risk aversion and budget constraints that stand in the way of their digital transformation efforts.

Talent Management

According to a research report, the technical support outsourcing industry will grow steadily at a CAGR of nearly 8% by 2022. As the industry and technology keep evolving, so does the need for highly specialized skills. Most tech vendors face challenges in identifying the right talent and reskilling them in new skillsets. Moreover, customers prefer to have a single vendor to cater to their needs than outsource to multiple ones. So, vendors need more **customer experience engineers** who can take on multiple portfolios and engineer seamless and customized experiences. New-age technologies like automation have redefined how work gets done with faster and shorter processing times, creating the need for newer skillsets to be relevant.

Customer-centricity

Customers expect support to be **context-sensitive** and personalized to them, thanks to multichannel support options available. But by and large, tech support engagements are rife with long and intricate workflows that create disjointed support experiences.

According to a research by Salesforce, 52% of customers will walk away and switch to other brands if their experiences are not personalized, and 65% of business buyers are likely to change vendors if they don't personalize communications. **Touchless, personalized, and contextualized experiences** lend enterprises a competitive edge and help them stay customer-centric.

Operational Challenges

Tech vendors find it tough to manage and optimize support operations in a heterogeneous environment. Challenges range from getting the buy-in of the top management to technology limitations, budget constraints, integration issues, data security issues, and data governance, to name a few. As a result, they are not able to balance customer needs, process effectiveness, and efficiencies.
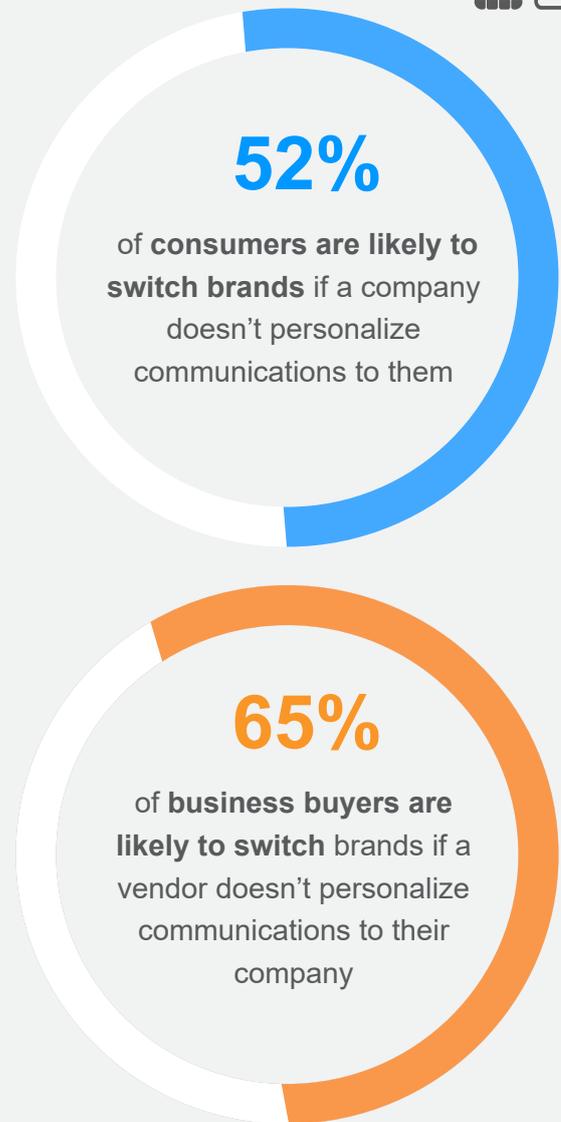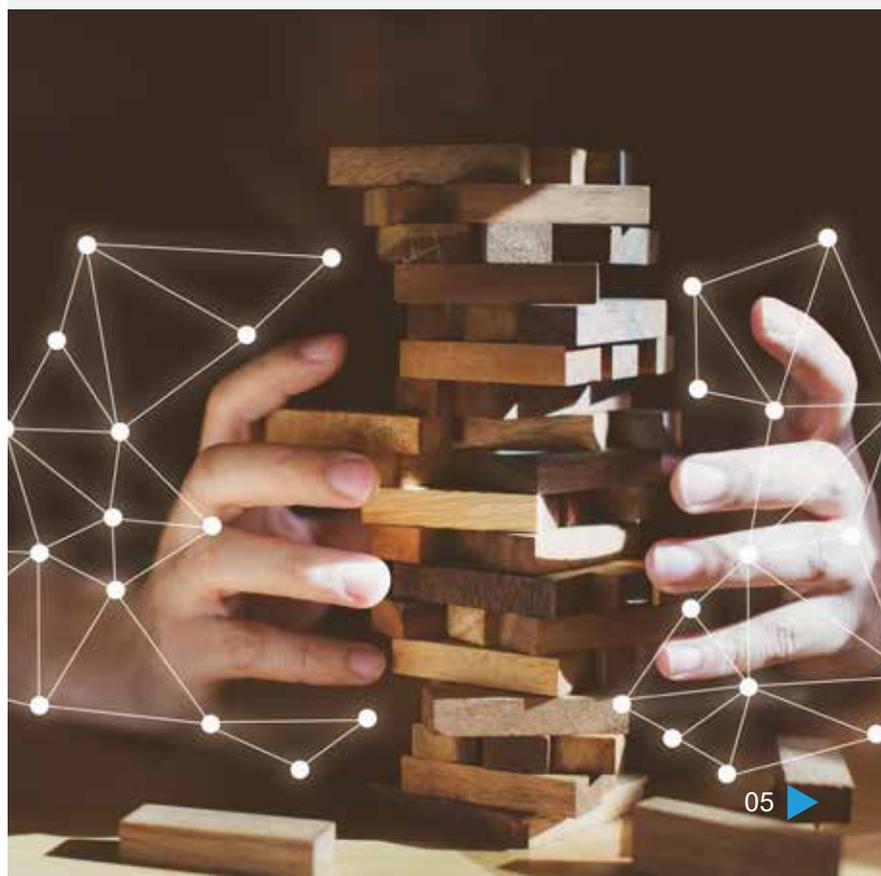
52%

of **consumers are likely to switch brands** if a company doesn't personalize communications to them

65%

of **business buyers are likely to switch** brands if a vendor doesn't personalize communications to their company

Figure 4: Salesforce research on customer experiences

Turn obstacles to opportunities.
Align with a technology-driven framework

But not all is gloom. There is light at the end of the tunnel, and it presents vendors with an excellent opportunity to **reimagine the way customer experience is envisioned**, handled, and delivered. By aligning to a technology-driven framework that uses digital technologies such as Artificial Intelligence (AI), Augmented Reality (AR), and cognitive chatbots, tech vendors can eclipse the technology curve and exceed customer expectations.

Address challenges with the right digital technology framework

A technology-centric approach can mitigate challenges faced by support vendors and transform them into superior, customer-centric engagements. Digital technologies like AI, AR, Automation have transformed traditional models, and have brought **collaboration, transparency across siloed operations**. The scope and indispensability of these technologies are only going to increase in the coming years. IDC Worldwide Semiannual Artificial Intelligence Systems Spending Guide expects spending on AI systems will more than double to $79.2 billion in 2022 with a compound annual growth rate (CAGR) of 38.0% over the 2018-2022 forecast period.
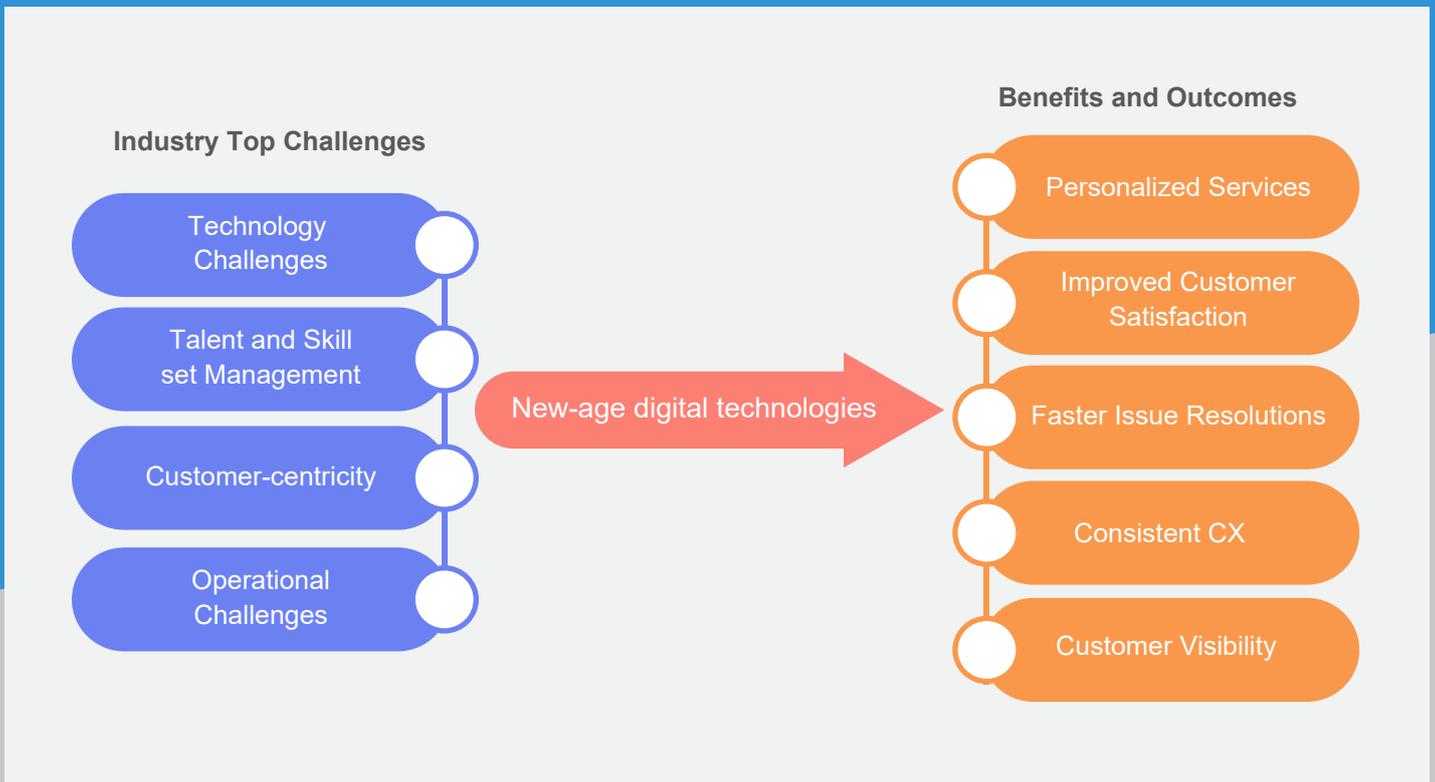
Industry Top Challenges

- Technology Challenges
- Talent and Skill set Management
- Customer-centricity
- Operational Challenges

New-age digital technologies →

Benefits and Outcomes

- Personalized Services
- Improved Customer Satisfaction
- Faster Issue Resolutions
- Consistent CX
- Customer Visibility

Figure 5 : Digital Solutions framework to address challenges

Introducing KYRA – CSS Corp's AR brainchild to elevate tech support

Augmented Reality(AR) provides a visually immersive and highly engaging support channel for customers that eliminates the pain of conveying their needs accurately, which is where most traditional support channels fail. By using markers and visual outlays over existing video feeds, AR presents a novel way for end-customers to show their problem and for agents to understand and suggest the best course of action.

KYRA is an indigenous AR-based virtual assistant that elevates technical support. The virtual assistant, part of a mobile application interacts with the user through contextual chat messages. KYRA brings a first-person view to technical support through **AR-aided step-by-step** visual user guides, in-depth installation manuals, component descriptions, component usage instructions, with remote visual troubleshooting. The support experience makes support agents feel as if they are present at the site.

By using AR, KYRA helps end-users by bringing support closer to them and by simplifying interactions– on their preferred channels. At the same time, KYRA minimizes the need for phone support and **reduces pressure on support agents** by involving them only when needed. As most users may not want to download separate applications for support, the mobile app texts or emails additional incentives and product features regularly to ensure active user engagement.

KYRA is available through a secure PCI DSS, **cloud-based technology**. It masks all sensitive information like user credentials, passwords. The underlying technology serves as an excellent enhancement for remote expert collaboration to guide local engineers by projecting problem resolution for a quicker handoff.

KYRA: The one-stop-solution to reimagine and simplify enterprise technical support

The top three use cases where KYRA enhances technical support initiatives are:

1

Visual self-service, where AR provides visual guidance to users on product features and interactive how-to use manuals.

2

Guided resolutions and installation support using the AR integrated virtual assistant, which automates the user engagement with intelligent bots using AR projections and overlays.

3

Field support where remote and accurate troubleshooting assistance resolves user issues with AR markers and overlays.

CSS Corp's unified and holistic approach lets KYRA work cohesively with other enterprise applications. KYRA leverages the following tenets:

Shift-left automation approach

Shift-left reduces troubleshooting times by detecting problems much earlier and attempting to resolve them through automation.

Conversational AI

Conversational AI is the result of using AI algorithms to produce contextual messages that are very different from the standard "answer pairs" that were synonymous with early chat implementations.

Smart voice assistance in real-time

The virtual assistant can communicate its intent or response to the user through a voice-enabled system.

KYRA augments the support experience through the following features:

01   **AR-enabled support:** By using augmented reality, the application provides visual markers and overlays drawn on the screen once the product is recognized.

02   **Self-help support:** the application provides support links from an integrated knowledge base. This integration minimizes the need to call support. Say goodbye to waiting times, complicated technical manuals and steps.

03   **Automatic case deflection:** If the installation runs into an error, the chatbot provides troubleshooting steps through voice guides and links. If the issue persists, the bot connects the user through a secure connection to an online agent for resolution with a copy of the transcript and steps completed.

04   **CRM integration:** The bot accurately updates the CRM in a timely fashion by creating a ticket with the interaction history.

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Elevate support.
It's much easier than you think.

1 The user scans a QR code and downloads the AR support application.

**2** A chatbot interacts with the user asking for product information.

3 The user points the camera over the product, and the AR overlay identifies the product and downloads relevant materials.

The virtual assistant helps the user with the installation using voice, on-screen messages, and animations. **4**

Installing....

If the installation fails, the chatbot reads the user's screen for details and starts troubleshooting by sending self-help links. **5**
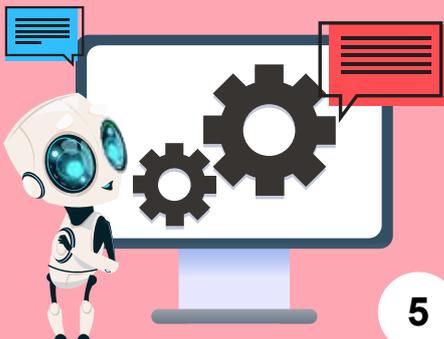
If the issue persists, the bot connects the user to an online agent via a secure link and transfers the transcript and completed steps. **6**

online agent

The bot creates a case in the CRM and updates the interaction history. **7**

history

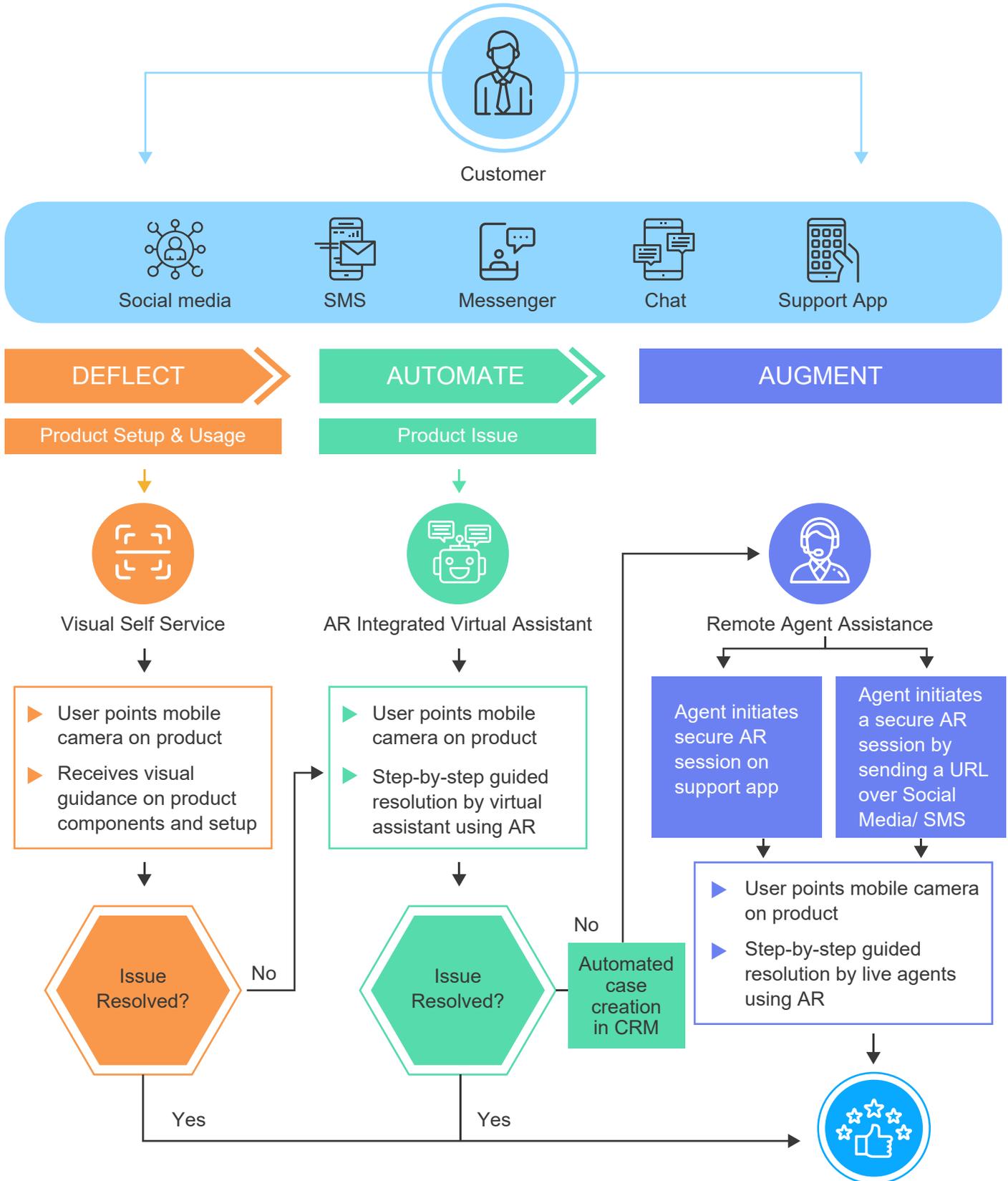# Technical representation of KYRA

Figure 6 : Solution Workflow.

Delivering tangible benefits to stakeholders

KYRA's potential in simplifying complex support has made it a strong contender to drive support for functions across an enterprise like HR, marketing, sales, IT, and operations by delivering:

1 Personalized service

2 Reduction in customer efforts

3 Faster issue resolution and troubleshooting

4 Increased customer satisfaction scores

Based on a recent implementation for a large telecom company, KYRA generated the following benefits.

01 23% faster issue resolutions for AR supported interactions.

02 38% AHT reduction with automation.

03 94% automation efficiencies across 20% of the case volumes.

KYRA helps **telecom field engineers** with their remote troubleshooting initiatives by optimizing field operations through virtual assistance. A large telecom company had high-volume dispatches for no-fault cases and low fix rates that required additional visits for some cases. Our solution offered remote issue resolution, improved due diligence before dispatch, and remote consultation for field engineers. It can **eliminate 90% of the no-fault dispatches** and minimize unscheduled truck rolls by ~25%, thereby resulting in cost savings, improved customer satisfaction, and freeing up technicians' time.

Revered by the industry and peers alike

Clients and the industry have appreciated KYRA's ability to integrate digital technologies and become a one-stop solution to drive technical support interactions. Besides remote support and troubleshooting, KYRA can also **augment engineer education and training**. KYRA can also add value in client segments in consumer electronics, networking, and connected environments suitable for AR-boosted technical support. It is a part of our **Digital Enterprise Experience Suite** and has won many coveted awards.
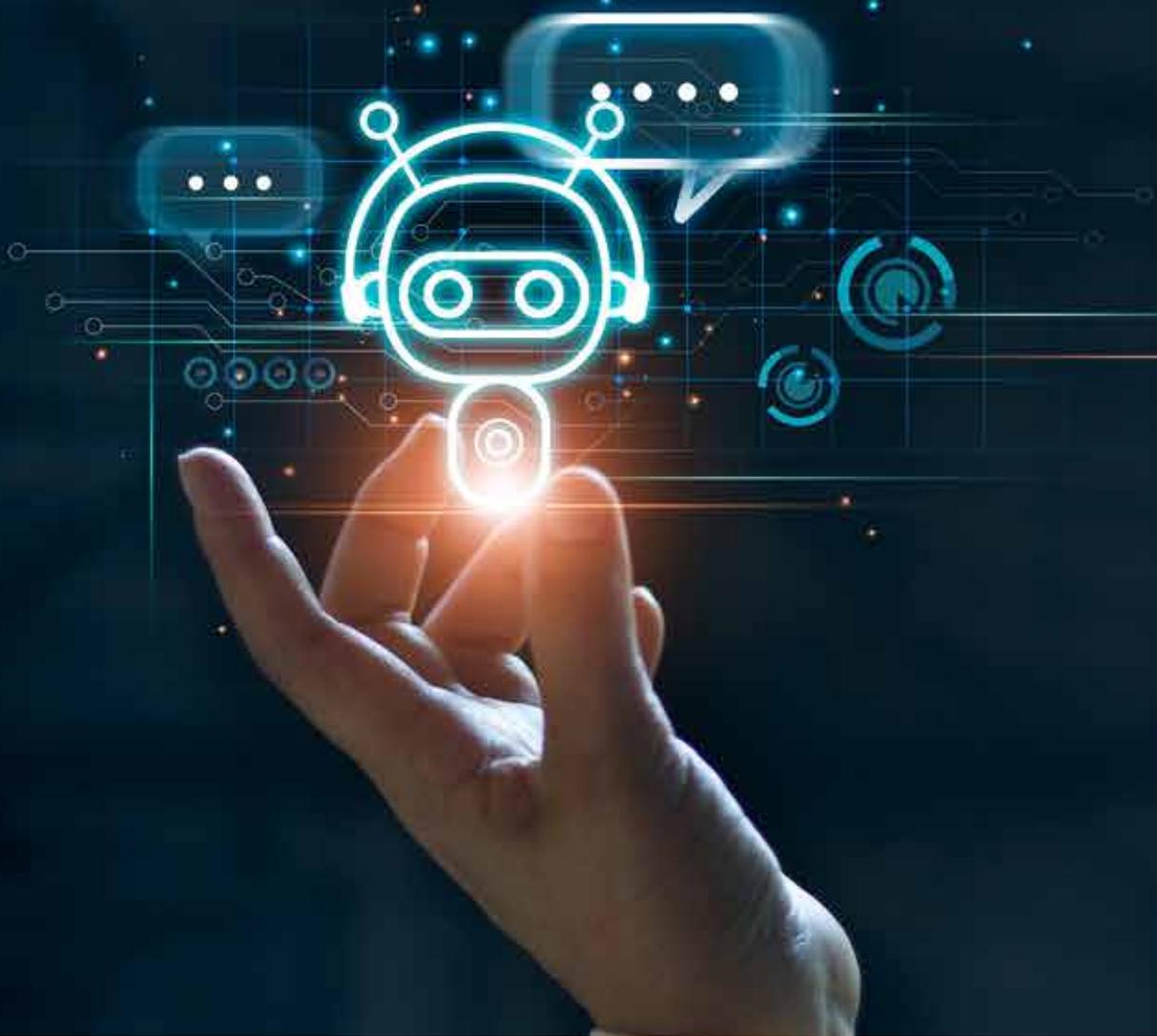
Conclusion

In this new normal with limited in-person interaction, tech vendors, as well as service providers, have an excellent opportunity to accelerate their digital transformation initiatives. TSIA highlighted that the **significant shifts in the customer relationship would stay in place well beyond the crisis** and are accelerating the digital transformation of vendors and customers. KYRA presents them a golden chance to drive superior customer experience, remotely and accurately, by leveraging an augmented reality-driven approach to technical support. New-age service providers like CSS Corp are reimagining the technical support services landscape by providing outcome-focused and technology-driven managed services.

Additional Resources:

01   Ivan Kotzev, NelsonHall's Customer Experience (CX) Services lead analyst hails KYRA

02   CSS Corp's AR-based solutions to transform CX

03   Infographic: Augmented Reality Powered Customer Experiences

04   Video: Augmented Reality in Customer Support

05   Most awarded mid-tier company

06   Blog: CSS Corp's KYRA transforms tech support

References:

- IDC: The global information technology industry is on pace to reach $5.2 trillion in 2020.

- Gartner: Create an effortless customer service experience

- HP study on connected devices

- HFS Research: Digital Associates

- Forbes: It can cost five times more to attract a new customer than it does to retain an existing one

- **Forbes:** 50 stats that prove the value of customer experience

- **PR Newswire:** Technical support outsourcing market growing steadily at 8% CAGR to 2022

- **Salesforce:** How CMOs use emotional marketing to drive meaningful customer experiences

- IDC Semiannual Artificial Intelligence Report

- TSIA Report: Accelerator of Digital Transformation

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Rahul is a technology professional with over 18 years of experience in building cutting edge IT solutions for global clients. His experience is building scalable and innovative solutions across Digital, Cloud, Security and Customer Support leveraging the knowledge of business domain, client challenges with technologies like mobile, analytics, artificial intelligence. At CSS Corp, he is responsible for driving an innovation-led culture, build differentiated solutions, platform and IPs.

Prior to CSS Corp he was with Infosys serving as Head of RnD for Datacenter and Cloud where he oversaw solution delivery, business development, managing large deals. He holds a BE in Mechanical Engineering from Nagpur and is an IBM Certified Specialist and Solution Provider.

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