SSON
An Infosys company

THE INTELLIGENT AUTOMATION GLOBAL MARKET REPORT:
OUTLOOK 2021

Automation in practice: The art of the possible

5 case studies illustrating IA-driven value generation

How automation delivers impact – and measurable value – to enterprises

Introduction

Enterprises have recognized the importance of Automation and have been adopting it at a fast pace. While RPA has supported the cost objective of enterprises well by taking humans out of transactional processes (and redeploying them in higher value-adding work), recent years have seen more interest in extending the impact of automation's range of capabilities, and driving performance improvements to the top line, as well as the bottom line. The addition of analytics capabilities to automated processing offers great potential in this regard.

Some examples of how enterprises are delivering better results include:

1. Improved customer experience through engagement
2. Improved revenue generation through analytics
3. Improved digitization through scaling of Intelligent Automation solutions
4. Improved data access by converting unstructured data into digitized & structured format
5. Improved transparency over process efficiency through Process Discovery

This report, the most recent in a series of Intelligent Automation market reports that were first launched in 2017, presents tangible proof of automation's lasting and transformative impact on the modern enterprise. It shines a spotlight not only on improved productivity but also, in the truest sense of the word, the added value that has arisen as a direct result of IA (Intelligent Automation) implementation. This report presents real, hard benefits for anyone looking for support in delivering a robust business case or uncertain as to how to progress with their automation strategy.

As such, it also proves IA's lasting – and constantly evolving – legacy.

BARBARA HODGE

Global Editor and Principal Analyst, SSON

1 Improved customer experience through engagement

Customer experience is one of the most important means of retaining existing revenue flows, as well as building loyalty and driving additional growth through upselling. As a result, one of the most persuasive applications for automation is by directly impacting customer experience through easier engagement.

"Poor levels of customer experience lead to high churn rates and negatively impact the brand."

ABOUT THE COMPANY

A large US telecom company and a world leader in communications, media, and entertainment supports customers/individuals with cutting-edge solutions that help them stay connected to their world and enables organizations to deliver breakthrough customer experiences.

CHALLENGE

However, the organization faced customer service challenges after an aggressive acquisition spree, which saw it acquiring multiple companies in order to expand its offerings across Mobile, IP TV & broadband. As a result, it ended up with nearly 50 call centers, including agents using multiple applications to retrieve customer information to solve order, billing, technical, internet, voice issues, etc. Adding to the complexity of requirements, field technicians installing and repairing products required real-time resolution of queries in order to resolve issues on the spot.

SOLUTION

Given the imperative to improve service quality, the company recognized automation as a solution to provide customer service agents with immediate access to both data and expertise. It was also important that the automation solution was able to integrate with existing applications to facilitate service assurance as well as fulfillment. Standard process steps were automated, forcing standardization upon processes and eliminating repetitive actions like repeat SMS. Crucial to the customer experience is the ability to tap best practices and expertise in

---

THE EXPERTS WEIGH IN:
IMPROVED CUSTOMER EXPERIENCE THROUGH ENGAGEMENT

R. Guha
Senior Director, Product Management for AssistEdge Platform, EdgeVerve

Q. What are the common hurdles to positive customer engagement?

R. Guha: A couple of factors impact customer engagement. First, how easy the interface is. Anything that is overly cumbersome results in a negative experience. Second, the amount of time spent going back and forth between a customer and an enterprise. Often, customers are asked a basic set of questions at the start, only to be asked for more information as their needs are clarified. The more this happens, the worse the experience. Third, the amount of information customers are required to provide. Much of this is already present in systems or provided during the first interaction. So supplication is frustrating. The good news is that automation and AI can help to solve this.

Q. Conversely, what positively influences customer engagement?

R. Guha: On the interaction side, engagement is significantly improved when customers choose their channel of choice and are proactively supported or interacted with during their engagement. This could be through chat, a pop-up, or an offer to connect on the phone.

»

---

technical support and billing to mobile access and delivery problems. The combination of automated steps, along with embedded expertise, ensured positive client engagement and issue resolution.

The automation solution was rolled out to nearly 50,000 agents across more than 300 locations and transformed the customer experience.

> Reduced processing time for address relocation orders by agents massively – from 8 hours to 5 minutes, nearly 100 times faster.
> Increased customer experience basis a 8% increase in Net Promoter Score (NPS)
> Saved IT development costs by $75Mn
> Increased first call resolution by 15%
> Decreased operational cost by 20%

AUTOMATION DRIVES POSITIVE CLIENT ENGAGEMENT

>>

Therefore, convenience and choice are essential. Similarly, the less an enterprise needs to 'ask' of a customer in terms of additional information, the better the experience.

On the transparency side, customers want to be updated throughout their 'journey.' Amazon has done a wonderful job in this area, offering transparency and updates at every stage of delivery or refund. This is what customers want in their other interactions, too. It also means not just linking a customer to a document or a resource in answer to a query but ensuring these resources address the question asked. However, that is not always the case.

Q. How can automation improve customer engagement?

R. Guha: It's not just about implementing automation. The key is not to automate 'patches,' but to see the customer journey holistically. That means some aspects of the journey might require more automation through alerts or proactive support, where AI can extract information from documents and request confirmation, but the high-touch experience is valued — it's what the customer wants.

SSON | edgeverve An Infosys company

2

Improved revenue generation through analytics

While automation initially focused on cutting costs by streamlining and connecting process execution more efficiently, forward-looking operations quickly recognized the value of data analytics resulting from automation to identify new opportunities for revenue generation.

"Disparate tech stacks make analytics a challenge – cause loss of potential revenues."

ABOUT THE COMPANY

A global telco, the largest operator in New Zealand, was struggling with a very complex IT system landscape due to both organic evolution as well as M&A activities over a period of time. In particular, the application ecosystem had multiple technology stacks due to acquisitions, which resulted in multiple operational challenges for the contact centers.

CHALLENGE

The operational complexity impacted the company's ability to understand the "whole of customer view" and significantly limiting product cross-sell and up-sell opportunities.

THE EXPERTS WEIGH IN:
IMPROVED REVENUE GENERATION THROUGH ANALYTICS

R. Guha
Senior Director, Product Management for AssistEdge Platform, EdgeVerve

Shrikant Deo
Associate Director, Product Management, EdgeVerve

Q. What are key analytics in support of revenue growth?

Shrikant Deo: The E2E customer journey is critical here, and understanding where bottlenecks create pain points and drive opportunity cost in terms of lost revenue. This might start with customer journey analytics but extend to process and task-level analytics. A functional dashboard can combine all of these to highlight key metrics, which can be drilled down to the process and task level to identify blockages.

R. Guha: It depends on the type of industry. Customer acquisition might be enabled by creating more targeted, personalized products and services, for example. Or upsells could be driven by the ability to reach out to customers with a broader menu of offerings. You can also see this from an execution perspective, where delivering faster-better-cheaper drives revenue growth. But it needs to align with the line of business in order to support revenue growth.

SSON | edgeverve
An Infosys company

SOLUTION

The opportunity lay in providing a single customer view, with comprehensive information and insights, by integrating multiple Applications across technology stacks. The viability of the approach was initially established through a Proof of Concept. The automated solution was then deployed within three months, resulting in a quick ROI and delighting stakeholders.

Along with enhancing the customer experience, automation improved agent productivity, leading to:

> Uplifted revenue by $200/agent/day
> Improved touch point NPS from – 27% to +54%
> Reduced rejected orders from 13.6% to 0.3%
> Reduced AHT for customer relocation by 56%
> Increased sales to fulfillment conversion by 12%
> Reduced repeat call rates by 30%

IMPROVED REVENUE GENERATION AND ENHANCED CUSTOMER EXPERIENCE

>>

The game-changer here is to define a business problem or objective, and then view it through a data lens, which indicates the relevant metrics to be monitored. The opportunity is to capture these metrics and then leverage tools to simulate predictive situations. That kind of modeling drives revenue opportunities. Start with customer engagement and interaction, and then follow the processes downstream.

Q. What are the typical hurdles enterprises face in making better use of analytics?

Shrikant Deo: One phenomenon is the concept of 'data blackout.' What I mean by this is the data that defines the causation of customer churn, for example, is missing. You might see many customers calling in for support and a correlation to a large number of customers canceling service. But the data that describes what went wrong is missing. This can be for multiple reasons:
– It might not be captured because it's embedded in voice, or
– It's based on how often the customer had to reach out for problem resolution.
The point is is that you need granular data to reflect every step of the journey, and there are still too many blackouts.

Q. Could you share some tips to get started?

Shrikant Deo: The key is to start with an overall business objective that provides focus and links it to a robust and transparent data strategy. Specifically, though, you need to ensure all the relevant data is captured, recorded, and analyzed. That means driving data capture to the lowest level of granularity, for example, through Process Discovery in task mining, which breaches these data blackouts.

sson | edgeverve
An Infosys company

3

Improved digitization through scaling of Intelligent Automation solutions

"Automated invoice coding replaces manual effort with far-reaching consequences."

ABOUT THE COMPANY

With over 75 years' experience, a global multinational automotive manufacturer is playing a leading role in transforming the automobile industry by leveraging the latest innovations.

CHALLENGE

One priority the organization identified was to automate the invoice coding process, which was still being managed manually by its employees. This involved logging into the portal to read the invoice description, analyze the repair code, and manually edit coding as required. In the case of multiple repairs, appropriate segmentation was also conducted. Employees were also manually validating the rates per customer contract, with reference to catalog rates and customer history. Errors naturally occurred as a result of the manual element.

Based on this process, each invoice could take up to 10 minutes. The entire process consumed 13,500 manual hours/year.

THE EXPERTS WEIGH IN:
IMPROVED DIGITIZATION THROUGH SCALING OF INTELLIGENT AUTOMATION SOLUTIONS

R. Guha
Senior Director, Product Management for AssistEdge Platform, EdgeVerve

Shrikant Deo
Associate Director, Product Management, EdgeVerve

Q. What are the common 'inhibitors' that prevent automated processes from scaling?

Shrikant Deo: One of the problems is the lack of maturity in technology, which impacts the scope of automation. This limitation in technologies means that, often, only a small part of the actual process is automated. The other parts lack a mature enough solution to enable automation. As much of the process requires human intervention, the scope for scaling is of necessity limited by this bottleneck.

The second factor is the criticality of the process. Many enterprises don't feel comfortable completely automating mission-critical processes or those linked to regulatory issues. It comes down to trust — they want to retain a human level of engagement.

And third, is that infrastructure issues can become inhibitors as automation scales. The IT infrastructure or underlying applications, for example, might limit automation scaling because

SSON | edgeverve
An Infosys company

Improved digitization through scaling of Intelligent Automation solutions

SOLUTION

The automation solution was a good fit, as the bot automatically logged into the portal, read the invoice description, and applied text search rules for repair code and repair type, in order to adjust the coding as required. In the case of multiple repair types, the bot created or edited segments, too.

The added utilization of Machine Learning algorithms to validate rate per history, service-level agreements, and catalog entries, was a critical factor in improving processing.

As a result of automating and streamlining the invoice coding process, the organization:

> Saved 3,000 hours / year
> Generated $138K / annum incremental profit by additional fleet billing

AUTOMATION ENABLES ADDITIONAL DIGITAL VALIDATION THROUGH ML ALGORITHMS

of slowdowns as the number of users tips over a certain level.

Q. What are some of the tips to get started?

R. Guha: The first tip is to continuously monitor what has already been automated, to ensure trust in the program is not lost. Systems are constantly changing, so it's important to monitor current automations to remain in control and not overlook any gaps that might develop as applications are updated, or systems switched.

The second is a more robust governance mechanism to both manage and communicate the value of automation. As automations are scaled, it becomes critically important to drive cultural awareness that supports change. This change needs to be supported at both the individual as well as process level.

A third tip is to proactively manage risk by being aware of where and how things can go wrong and planning accordingly. It's essential to proactively manage and control what can – and often will – go wrong. That means knowing the potential damage, where it applies, and how to react. Preparation is everything.

SSON | edgeverve An Infosys company

4 Improved data access by converting unstructured data into digitized structured format

"COVID-19 spike in business required quick adoption of automation, requiring digitized data."

ABOUT THE COMPANY

One of the oldest and largest US-based financial institutions offers a broad range of retail and commercial banking products and services to individuals, small businesses, middle-market companies, large corporations, and institutions.

CHALLENGE

Amid COVID-19, the company found itself having to review and approve 25K+ loan applications a week. They also faced an unprecedented surge in Paycheck Protection Program (PPP) Small Business Administration (SBA)-related loan applications. This involved a few additional steps, such as authenticating the small business enterprise applying for the loan, and extracting critical employee payroll data needed to approve the loan application.

SOLUTION

Implementing automation proved to be a game-changer. The bank utilized an automation and AI platform with the integrated computer vision capability to accelerate loan processing for PPP SBA loans with a very high degree of accuracy. The automation software crawled through loan application database (25K +loan application folders, with over 100K documents) to find and extract only the necessary documents for processing the loan. The bots also processed a variety of documents submitted by borrowers in various formats to extract Payroll information. Finally, the software also assembled wage data with related information for traceability and audit.

The solution delivered a simple system for validation, as well as an automated loan approval process and system enabling solution design, without any need for data or system integration.

THE EXPERTS WEIGH IN:
IMPROVED DATA ACCESS BY CONVERTING UNSTRUCTURED DATA INTO DIGITIZED STRUCTURED FORMAT

R. Guha
Senior Director, Product Management for AssistEdge Platform, EdgeVerve

Shrikant Deo
Associate Director, Product Management, EdgeVerve

Q: How much of enterprise data is still unstructured/non-digitized, and how can this be improved?

R. Guha: The consensus is that 70-80% of enterprise information is unstructured because it is trapped in images, emails, verbal exchanges, etc. Even though data is structured, it can be hard to access across groups or divisions because the traditional enterprise was built around efficiency, not around customer journeys. Moreover, when the same data is stored in different groups, the duplication is not always apparent as customer service may have different terms for a specific data than the supply side; or its 'meaning' is different. The limitation in this area can be down to technology, policy, or security issues.

The first step should be to establish the rationale around why data needs to be available, to bring alignment. Once you have that shared understanding around the need to have a common vocabulary and why you need to frame data in terms of what it means from a customer journey perspective, it's a lot easier to work out the security implications, policy, and technology needs. So

SSON | edgeverve
An Infosys company

4 Improved data access by converting unstructured data into digitized structured format

As a result of improving data access, the bank was able to:

> Served a large number of impacted customers by getting them access to PPP SBA loans
> Accelerated loan processing while adhering to stringent risk / audit requirements
> Achieved ca. 90% data accuracy
> Scaled the operation to extract information at the speed of 15,000 digital forms per hour, allowing for quick automated loan disposition
> Provided traceability for risk and audit, both now and in the future

A DIGITAL DATA STRATEGY SUPPORTS PROCESSING AND IMPROVES RISK-MANAGEMENT AND AUDIT

>>

the takeaway is to shift the organization from a process to a journey view.

Q. Is this about getting a more sophisticated OCR?

R. Guha: It starts before data enters the enterprise. For example, at the point of capture where a customer is doing this, you can use the customer for data validation using innovative UX and gamification. You don't require the customer to fill out anything; just confirm (and update where necessary) the data. The customer thus becomes the primary quality control for data. Therefore this is about reengineering the process to save time and improve quality.

Shrikant Deo: Another thing to consider is that there is a significant difference between front office data from customers and back-office data from partners or suppliers. Customers can be incentivized. As R. Guha mentioned, customers can be incentivized to send digital data, and I think this will pay off. But in the back-office it's a bit more complicated. Remember that we've been talking about digitization in the back-office for more than 20 years since the early days of EDI, but we still haven't gotten far enough because of the complexity. The technology needs to mature significantly before we can see the value in this.

Q. What prevents data from being digitized?

R. Guha: The main challenge is to eliminate paper and shift to a structured data format instead. And the way to do that is by changing processes and policies. For example, wet signatures are still broadly required, but the experience during the pandemic showed us that it's possible to operate without them.

Shrikant Deo: I would reinforce that regulations are still a big hurdle. Many countries still require paper documents to be filed as part of regulatory audits. Until that changes, the push towards digitization will be slowed down.

5 Improved transparency over process efficiency through Process Discovery

"Process Discovery provides granular empirical data and insights needed to gauge automation fitment."

ABOUT THE COMPANY

A US-based, 150-year-old, Fortune 100 enterprise offers premium financial products worldwide.

CHALLENGE

They were keen to automate. The company was convinced this process was a good fit for automation. Before implementation, however, it wanted to validate fit through a Process Discovery solution.

The company had also estimated average AHT was 15 mins and wanted to validate this finding along with SOP compliance. They also wanted to identify other processes ready for automation.

SOLUTION

As a result of leveraging a Process Discovery tool that integrated Artificial Intelligence to capture empirical data and task level details, the organization was able to validate the fit of the process based on visual mapping. The tool also analyzed the empirical data to generate the process insights, interactive process maps, dashboards, and provided an automation blueprint. With all this information, the company was able to make the right decision regarding fit.
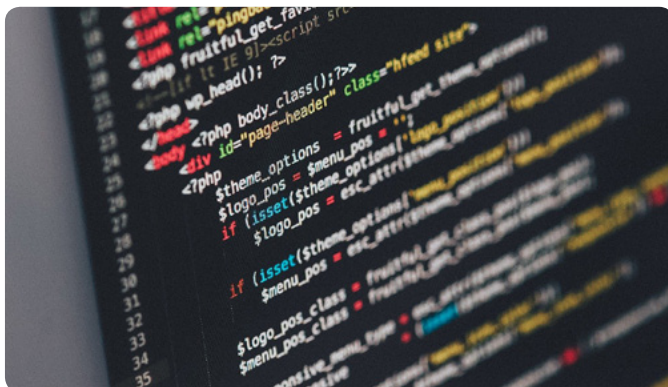
THE EXPERTS WEIGH IN:
IMPROVED TRANSPARENCY OVER PROCESS EFFICIENCY THROUGH PROCESS DISCOVERY

R. Guha
Senior Director, Product Management for AssistEdge Platform, EdgeVerve

Shrikant Deo
Associate Director, Product Management, EdgeVerve

Q. What's the value of 'discovery' in terms of driving critical business data?

R. Guha: No matter where you want to get to, you need to know where you are today, first. This requires better transparency over your current processes — a top to bottom view, starting with business objectives and business process metrics, and then digging down to task and key stroke level to see what's happening. This helps trace a break in service to the root cause—for instance, a mistake made by an individual or a broken process.

The main benefits of data in this respect include automation and driving process reengineering, improved compliance based on monitoring, and even identifying gaps in learning to drive skills training.

Q. How do you evaluate a 'fit' for improving efficiency?

Shrikant Deo: As R. Guha said, the opportunities for improving efficiencies lie in automating,

5 Improved transparency over process efficiency through Process Discovery

As a result of Process Discovery-based insights, the company

> - Identified 70 disparate execution paths
> - Highlighted 10-140 minutes as AHT range
> - Uncovered process bottlenecks such as diversion from SOP path, and use of disparate applications
> - Identified process standardization and employee training needs
> - Estimated $189K in savings based on process standardization

MOST COMPANIES DON'T KNOW THE TRUE NATURE OF THEIR PROCESSES. TRANSPARENCY OFFERS MULTIPLE ADDITIONAL BENEFITS

>> compliance, reengineering, optimization, etc. But this requires an end-to-end view and a holistic evaluation of opportunities. Process Mining covers the process part of it, but Process Discovery covers the 'past' aspect. Together they provide the E2E view that drives the appropriate recommendations and insights.

Q. What are some of the hurdles to effectively deploy Process Mining/Process Discovery?

Shrikant Deo: A common hurdle is identifying the right candidates for Discovery and Mining. E2E processes represent multiple tasks, but which are the tasks that should be targeted? The solution is to combine Mining and Discovery tools: Mining gives a high-level view, and high-level pain points that highlight inefficiencies, and Discovery offers more granular insights on what's driving this.

A second hurdle is an extent to which organizations allow users to record data due to stringent data privacy and security regulations so that it can be mined or discovered by software. This is, first and foremost, a technology problem, as well as a trust problem. The solution to solving the tech problem by investing heavily into security and data privacy aspects; but at the same time, we need to build trust through highlighting certifications and also showcasing case studies, where clients with similar concerns saw these resolved to their satisfaction.

Enterprise transformation reinforces Automation Singularity

Sateesh Seetharamiah, Vice President and Global Product Head at EdgeVerve

Approaching automation as a holistic, intelligence driven exercise creates a range of advantages. The rise of 'future worker', an idea that we have been bullish about for a while, will play a central role as enterprises embrace hyper-automation and hyper-personalization at scale.

By combining the efficiency and accuracy of a digital worker with the empathy and creativity of its human counterpart, the human-digital twin does not just support decision making, but can even help automate the process. We believe that this concept will drive the future, and that's why it is a critical component of our overarching solution design philosophy – Automation Singularity.

We define Automation Singularity as a highly customer-centric and agile-oriented state of constant improvement and optimization through the future workforce, opening up an expanded horizon of possibilities.

In this scenario, human specialists drive customer orientation using their creativity and empathy, and are complemented by digital workers with extreme productivity and consistency. Automation Singularity serves as a beacon for enterprises to conceive, design, structure, and deliver products and services. The idea of Automation Singularity is a journey, where a variety of automations (including attended and unattended) along with AI capabilities unleash unprecedented value, touching every process, every employee, and every system in the enterprise.

Our experience of working with large enterprises across the globe pointed out the need for an enhanced vision of automation that drives both expansion and profitability. By bringing human and evolved digital workers closer together than ever before, Automation Singularity creates a transformative blend of advanced capabilities to build the future enterprise.

It is a journey that broadly comprises three stages: Deterministic Automation, Intelligent Automation, and Autonomous Operations. As companies progress along this continuum, they move from a human-only workforce to a human-digital twin, at the same time evolving from rudimentary process-level data to more sophisticated process-contextual data. The result is that deterministic operations become more contextually-driven and dynamic.

We believe that our vision for Automation Singularity signals the next era for enterprises looking at end-to-end process optimization. However, the quality of execution is every bit as important – perhaps even more so – than understanding the idea. Consequently, our roadmap to achieving Automation Singularity features three key disciplines: Discover, Automate, and Orchestrate. Together, these ensure maximum effectiveness at every stage of automation maturity.

This is driven through our Automation platform, AssistEdge, a leader in RPA, known for its cohesive and enterprise-grade capabilities.
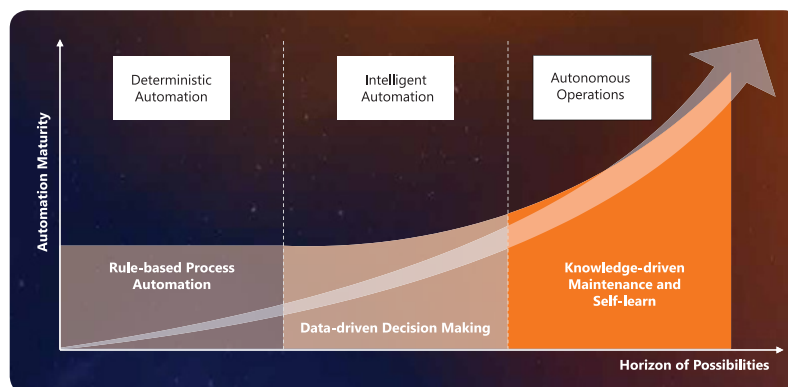
Summary

As we embark on a new year, enterprise leaders will be scratching their heads on leveraging and integrating the two key trends of 2020: the future of work and Intelligent Automation.

This report has made tangible the opportunities implied by Intelligent Automation. Of the many areas in which Intelligent Automation can – and does already – impact performance, we have highlighted five that present tried and tested use cases. We hope this report helps anyone not entirely sure of the ROI or missing a solid business case to back up their proposal.

Certainly, Intelligent Automation has many times over proven its efficacy when it comes to **improving customer experience, driving new revenue opportunities, supporting digitization** across an enterprise, improving **data's value add**, and last but not least: offering the **transparency** that is sorely needed at a time when 'seeing' a problem leads to solving it.

We wish you good luck in implementing these technologies and other opportunities within your organizations in the year ahead.

ABOUT **THE SHARED SERVICES & OUTSOURCING NETWORK (SSON)**

The Shared Services & Outsourcing Network (SSON) is the largest and most established community of shared services and outsourcing professionals in the world, with over 170,000 members.

Established in 1999, SSON recognised the revolution in support services as it was happening and realized that a forum was needed through which practitioners could connect with each other on a regional and global basis.

SSON is a one-stop shop for shared services professionals, offering industry-leading events, training, reports, surveys, interviews, white papers, videos, editorial, infographics, and more.

VISIT SITE   **CONNECT**   sson

ABOUT **EDGEVERVE**

EdgeVerve Systems Limited, a wholly owned subsidiary of Infosys, is a global leader in AI and Automation, assisting clients thrive in their digital transformation journey. Our mission is to create a world where our technology augments human intelligence and creates possibilities for enterprises to thrive. Our comprehensive product portfolio across AI (Infosys Nia), Automation (AssistEdge) and AI enabled Business Applications (TradeEdge, FinXEdge, ProcureEdge) helps businesses develop deeper connections with stakeholders, power continuous innovation and accelerate growth in the digital world. Today EdgeVerve's products are used by global corporations across financial services, insurance, retail, consumer & packaged goods, life sciences, manufacturing telecom and utilities.

VISIT SITE   **CONNECT**   edgeverve
An Infosys company

ABOUT **ASSISTEDGE**

AssistEdge offers a cohesive automation platform that enables enterprises to scale in their automation journey. It offers enterprises with a comprehensive suite of products enabling them to drive initiatives around process discovery, intelligent automation and digital workforce orchestration. AssistEdge has helped enterprises unlock value in the form of reduced service time, faster sales cycles, better resource allocation, accelerated revenue recognition and improved efficiency among others.

VISIT SITE   **CONNECT**   assistedge