



# Process Automations & Multichannel Technology

Exceptional Customer Experience Drives Success

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## Introduction

Business process automation is an easy to act on and predictable automated decisions process using content. Automation therefore goes beyond just content delivery and search.

To take advantage, organizations must identify and develop the parameters under which business process automation (BPA) solutions can make their way into the organization. At a minimum, it is recommended that any policies for BPA be based on the following provisions:

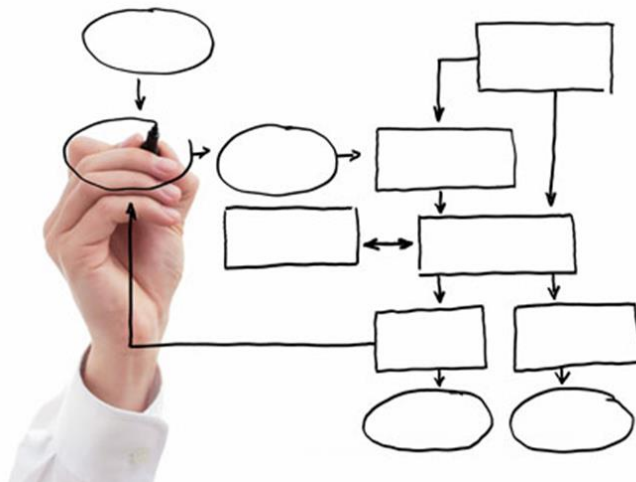
- BPA requirements ensuring that multichannel services can adequately, and in an automated way, integrate with existing systems; there can be no data islands or introduction of data inconsistency
- Highly personalized experiences for customers and internal users alike
- Consistent treatments of customers across multiple channels and touch points
- Rapidly deployed process automation models and optimized business strategies

**“Get closer than ever to your customers. So close, in fact, that you tell them what they need well before they realize it themselves.”**

*-Steve Jobs*

*-Steve Jobs*

## Problem Definition



Traditionally, most organizations have started BPA initiatives by analyzing inside the organization and transforming one system at a time. Each system is analyzed and flow models are created for every step in every system, and automation improvements are then developed based on perceived or known values for the organization. However, while this approach can transform many systems and make them somehow more efficient, it does not provide tangible benefits to the customer experience.

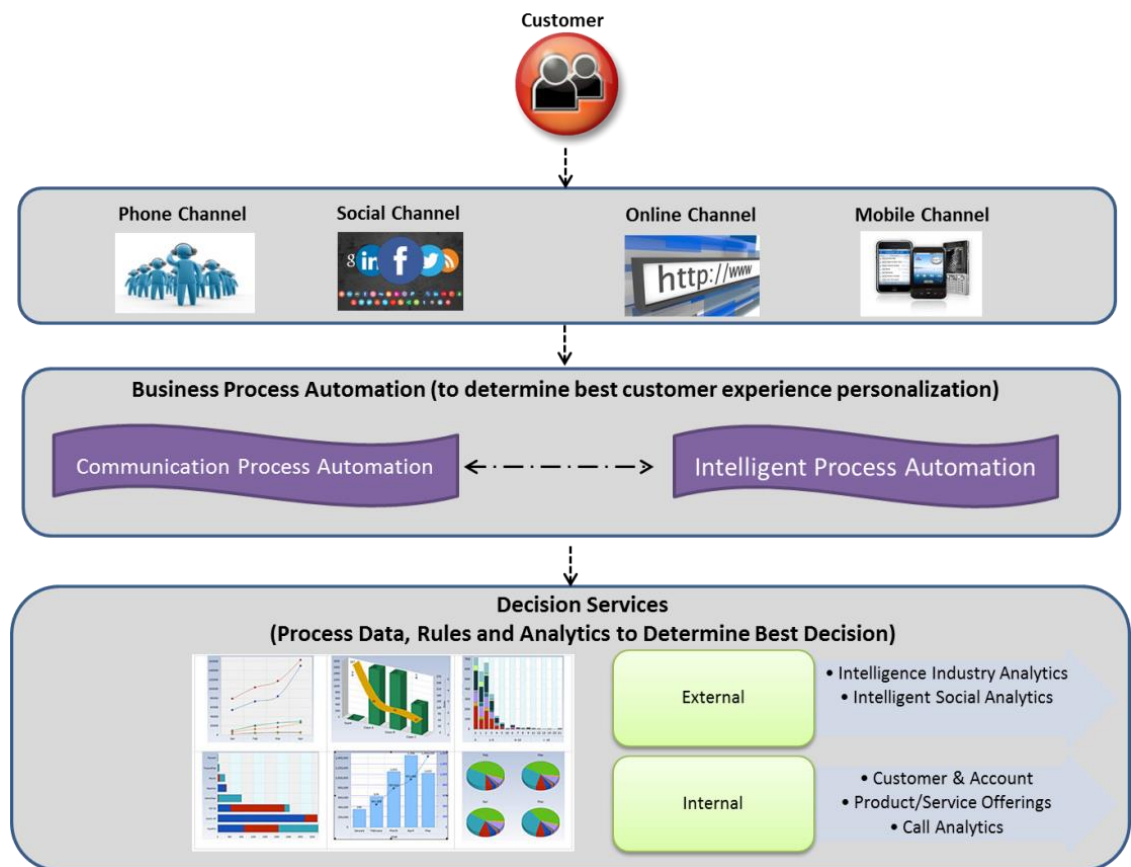
Today, business process automation is not just about efficiency and optimization for the organization: it's about operating a business for your customers.

To help ensure a positive customer experience outcome, a process must trigger an automated action and BPA must support a personalized interaction with your customers. This automation must be sufficiently agile to allow business operations to adapt to changing conditions quickly for diverse customer needs and a fast-changing marketplace.

Agile customer-based business automation has three distinct characteristics:

1. Managing the same experience for your customer across multiple channels
2. Personalizing interactions for your customers and predicting the best next actions
3. Monitoring and quick capture and adjustment to information and conditions to make consistent, informed, and profitable decisions

## High-Level Solution



Customer data typically spans multiple systems, and is often managed via organizational entities ranging from enterprise resource planning (ERP) and customer relationship management (CRM) to custom/legacy applications, among others. Entities can be on-premises, hosted, in the cloud, or in certain cases a hybrid combination of these infrastructure implementations. Collectively, customer data serves as the organization's internal customer intelligence, and most organizations are in the process of actively identifying such intelligence by integrating data stores from disparate systems.

In today's world, customer intelligence can also expand beyond internal data to external social networks, where external customer intelligence is abundant and gathered easily. Insights in the social sphere are significant in that they provide tangible and actionable information about your customers.

In turn, knowing your customers is the first step toward business process automation. Organizations can take this initial step by way of communication process automation that consists of information gathered from external and internal sources. In the effort to improve a customer's experience, this information enables the organization to communicate with that customer more effectively.

The next step is to personalize communication with customers by predicting their needs and the best next actions. To do so, organizations can enhance business processes using intelligent process automation. It is also important to know which systems and activities contribute to overall business services and where any handoffs occur. Business process automation must be created for the handoff between different systems, although it is not related to the processes within each system. An automated decision can then be created based on business rules and policies during process activity triggered by the customer. If an expectation is detected during real-time communication, the decision activates a corrective action.

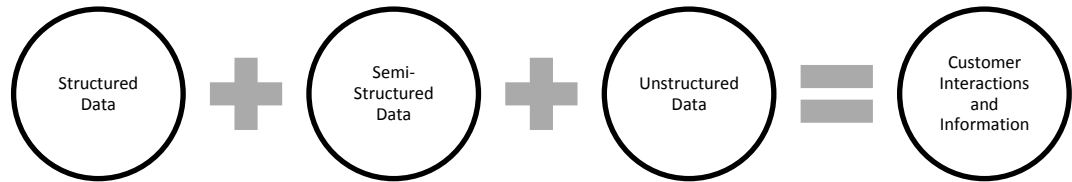
Historically, predictive modeling of this kind has been provided after customer interactions take place, as an after-the-fact process. While intelligent process automation does not provide the details of what was missed or not completed during an interaction, it does enable organizations to predict and avoid mistakes in their aim to retain customers.

Predictions and analysis won't end with the end of your communication, however. All interactivities must be captured and stored for insights of what will occur in the future if processes continue to execute and help in comparing future-state what-if scenarios.



## Solution Details

### *Communication process automation*



The main characteristic of the communication automation process is to address the collection and synthesis of data. Collected data is enriched with insights provided by the interactivities of customers through multiple layers of internal or external structured or unstructured formats. Note, however, that customer information based on interactions is rapidly changing, and cannot be structured or stored in traditional relational databases or data warehouses.

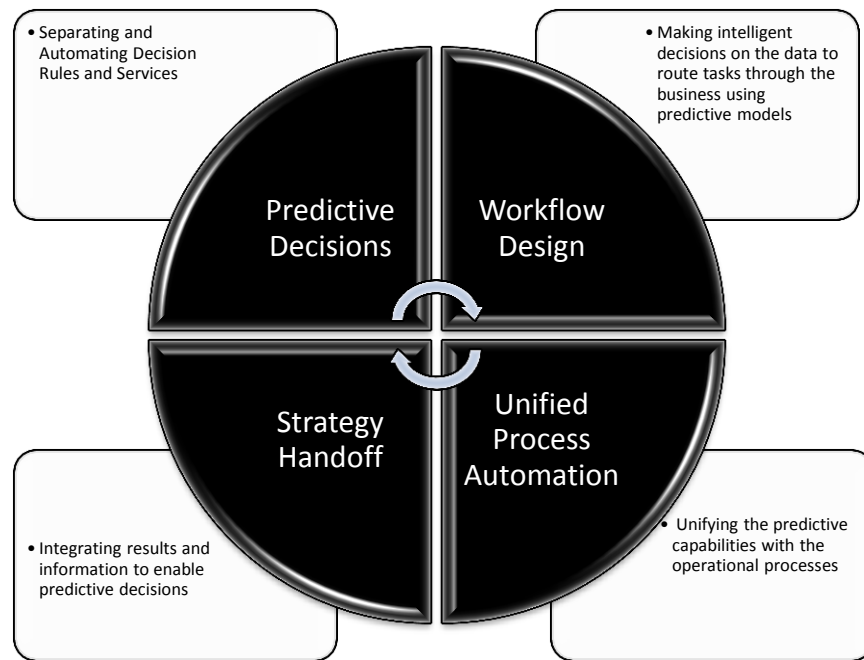
As an alternative solution for data storage, *Hadoop* has garnered numerous discussions in the last few years. (Hadoop has been linked to the concept of big data so frequently that the two often appear locked together.) Hadoop is an ecosystem and method to analyze data, but is not a single product provided by specific vendor. Instead, Hadoop is based on an open source that can be downloaded for free, with various vendors offering products that help make Hadoop look more relational and unstructured. These products come with added features such as administrative tools and support and maintenance.

While some industry sources have pigeonholed Hadoop as technology designed for high volumes of data (see: big data), its real value is its ability to ingest data — structured, semi-structured, and unstructured — and create actionable insights. In order to harness the real value of customer information, Hadoop can gather, analyze, and categorize data with actionable insights. An actionable data must be structured to:

- Address customer needs
- Assess risks correctly
- Add relevancy to products and services

Once actionable data is identified, it can be integrated into the existing and understood unified communications functionalities. Among such functionalities are intelligent skills-based routing; presence management; real-time monitoring and supervision; alerts on delays and the need for escalation; and compliance and quality control.

## Intelligent process automation



### Intelligent Process Automation

The underlying process for actionable data can give organizations the power to predict and then act on a recommended next-best-action. The ability to do this repetitively allows for an always-on customer decision hub, or recommendation engine, that uses insight into expected customer behavior.

An intelligent process automation layer contains predictive models to create recommendations and move the process to the next-best level. Intelligent process automation provides predictive models for:

- Workflow design
- Unified process orchestration
- Strategy handoff

### Workflow design

Popping data onto an employee's or service agent's screen to support an interaction, and to collect more information, is hardly revolutionary. Making intelligent decisions on that data to route tasks through the business, however, is an intelligent approach to handling customer interactions and providing a more personalized customer experience.

Putting those elements into workflows allows the business an open communications environment to maximize internal efficiency. The business knows what it wants to achieve, what steps are required, and where breakout points must exist for exceptions. Further, the business knows what the optimum timescales are, and where limits are required to trigger interventions or escalation.

### ***Unified process orchestration***

The focus on silo workflow only provides a disjoint between processes and does not deliver the full value of automation. The next step in the process is unifying predictive capabilities with operational processes. This unification is completed by identifying the handoffs and integrating these processes, not by changing all of the operational processes and automating each step.

For example:

- A customer contacts a mobile phone provider and, during the interaction, the provider presents a relevant offer using the predictive models from intelligent process automation
- The customer decides to accept the offer
- The mobile phone provider must then finalize the customer order and fulfill it
- Once offer is finalized and accepted, it is handed off to the fulfillment system

In this case, two capabilities must be unified by viewing the handoff process instead of changing the actual fulfillment system. A decision hub with orchestration capabilities can ensure the unity of disparate processes without impacting or changing every point of interaction.

### ***Strategy handoff***

Predictive models do not provide predictive decisions. The process of how to do things is called strategy handoff. Predictive decisions are created in the decision services and contribute to the end-to-end process automation.

## **Decision Services**

### ***Strategy for decisions***

A key tenet of a successful decision service provider is the automation of the operational decisions and strategies that drive the business. The business must identify operational decisions, automate them, and separate them from other applications so that they can be managed, reused, and changed rapidly. A centralized approach to separating and automating decision services can eliminate the impact on the overall processes, and reduce time, cost, and technical risk for multiple systems simultaneously with changing business requirements.

For instance, the rules for paying an insurance claim can be removed from the definition of the claims processing business process. These rules can be managed independently, which is important in that the legislative change cycle is different from the business cycle that drives process change. Rules can also be reused, for instance to help customers determine if they have a valid claim before submitting it to support third-party agents. The same rules can be in multiple decision services.

Decision services must be monitored and adjusted over time to improve results. Constant monitoring and adjustments can be managed by advanced analytics and mathematical relationships between business objectives, actions, customer reactions, constraints, and outcomes.



A few examples of decision services in various industries include:

- An auto policy underwriting service that combines pricing rules and risk models to underwrite policies
- A cross-sell offer service that combines segmentation rules and response models to generate the best cross-sell offer across channels
- A fraud detection service that uses rules and a neural net to identify fraudulent credit card transactions
- A shipment routing service that routes shipments to customers based on demand, contracts, and status
- A claims payment service that uses rules to verify a claim for authorization to pay while also applying analytics to detect potential fraud
- An eligibility service that allows citizens to verify their eligibility for benefits, and that applies state and federal rules appropriately
- A return authorization service that tells front-line retail staff whether a particular customer can make a particular return using return rules, purchase history, and future revenue potential

## Summary

Many organizations understand, and value, the role of customer service and the financial ramifications of a satisfied and engaged customer. Customer service excellence is usually identified as resolving service issues in a timely manner, with the extending use of multiple channels to engage and retain customers. But let's not forget that it is critical to ensure consistency of customer interactions across numerous touch points and the personalization of messages provided to the customer. It is this approach that persuades customers to take the leap beyond retention to increased loyalty.

To establish a customer service organization successfully, it is likewise important to change the organizational mindset for business process automation. The key to achieving best-in-class is to adjust business processes — to change and automate them based on your customer interactions. To view automation as just a cost-saving measure for the organization ignores the role customers play in ensuring business success. The transition to “everyone serves the customer” drives overall business results quickly and positively. Customer-based process automation adopts a data-driven, decision-managed, personalized approach.

This is not a one-time automation process, and needs a flexible framework with the ability to adjust rules and decisions based on customer feedback.

## The Authors

**Chris Thalassinios** is a strategically focused technology executive at Communications Intelligence Group with a record of achievement that consistently exceeds client expectations. His collaborative approach and proven methodology with Fortune 1000 companies in emerging and converging technologies is a testament to over 20+ years of delivering award-winning innovative solutions to business objectives.

A unique understanding of the complex issues and challenges clients face on a daily basis has set him apart from others. Project leadership, solutions development, and superior client relationship management have created the foundation for exceptional customer results and a remarkable record of success. ADP, CanPar, CanWest Global, CTV, Ernst & Young, Imperial Oil, Maple Leaf Foods, York Catholic District School Board, and Deloitte are only a handful of distinguished clients who have benefited from his ability to understand the importance of change with today's emerging technology.

Experience, expertise, and knowledge have made Chris a trusted advisor in the fast-paced and cutting edge global technology sector. Chris can be reached at [chris@commsintelgroup.com](mailto:chris@commsintelgroup.com)

**Mahnaz Meshkati** is a senior project and program manager at Communications Intelligence Group. She is an action oriented, detailed minded individual with comprehensive technical knowledge, process, and management acumen. She has the inherent ability to communicate with all levels of stakeholders (team members, customers, executives), enabling complete solutions for both tactical and strategic initiatives.

Mahnaz has more than 20+ years of consulting experience in project and program management. She builds innovative solutions to a diverse range of organizations, including multiple site networked implementations throughout Canada and North America. Organizations Mahnaz has worked with include Sun Life Financial, Toyota Canada, Alliance Data, JTI-Macdonald (International), Moneris (Canada, US, and UK), Davis + Henderson (Canada & USA), Bank of America, JPMorgan Chase, TD Waterhouse, and Cargill, to name a few.

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