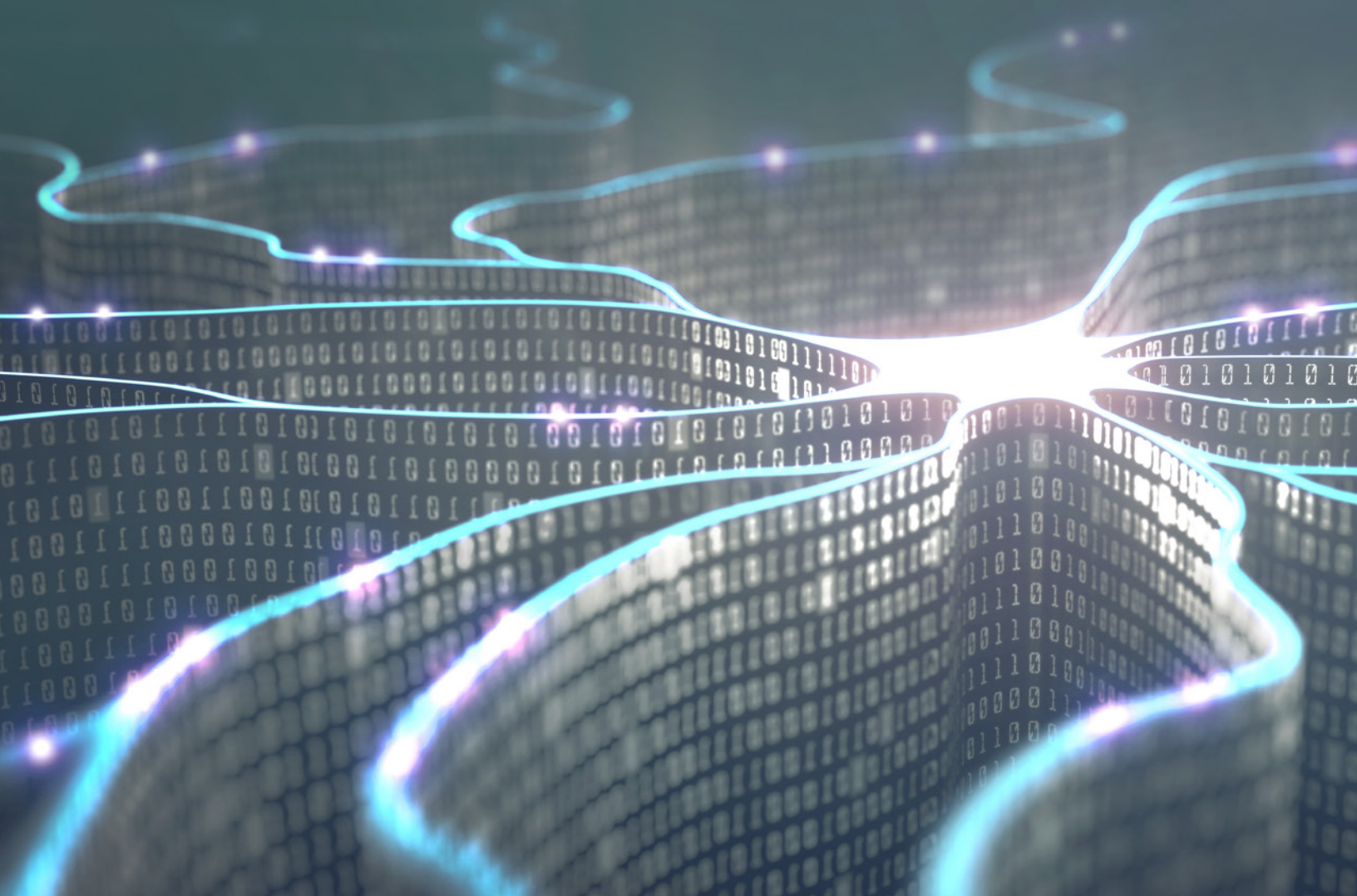# OnProcess® TECHNOLOGY

How Artificial Intelligence Can Supercharge Your Post-Sale Supply Chain

WHITE PAPER

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Artificial intelligence (AI) is a charged topic. Once lauded for its promised ability to mimic human intelligence and transform business with machines that learn, AI was soon spurned for being much more hype than reality. Talk of AI went from non-stop to non-existent. But now, it's back with a vengeance. And for good reason.

Alive and Thriving

Why is AI real now when it wasn't before? Because the conditions needed for it to thrive actually exist. The core capabilities required for guided, self-driving AI—the ability to acquire data, search for relevant patterns and apply business rules, while adapting and learning—are now eminently doable. Massive computer power and exceedingly cheap storage are part of what makes this possible. As does the fact that many new and rich data types can be gathered, analyzed and acted upon, including from social media and IoT-connected machines. Unlike general analytics, which require well-defined data, AI processes unstructured data, putting its own structure around it. Enterprises are hungry to leverage all this data, quickly, so they can improve their businesses and be much more agile in responding to changing dynamics.

So, it shouldn't be a surprise that, as Gartner noted, "artificial intelligence, a topic of interest for over 20 years, is at last finding rapid uptake as a tool to provide better customer service."[1] Through 2020, Gartner estimates "organizations using cognitive ergonomics and system design in new artificial intelligence projects will achieve long-term success four times more often than others."[2]

How AI Benefits the Post-Sale Supply Chain

AI is a key enabler of advanced post-sale supply chains. When properly embedded in order management, triage/support, service event fulfillment, and parts return and repair processes, AI helps deliver great efficiencies, reliability and profitability, along with improved customer experience.

AI projects will achieve long-term success 4X's more often than others

Faster, Better Results

AI enables data engines to automatically analyze data, such as problem symptoms, customer comments, SLAs, GPS and more, looking for, recognizing and learning from patterns, and filling in blank data fields. That means you no longer need many data scientists sifting through structured and unstructured data trying to normalize and rename data fields, which is very time-consuming and error-prone.

By accelerating getting data into your systems and vastly improving data quality, AI enables better, faster decision-making, and the ability to quickly and more accurately predict future states. As a result, AI can accelerate steps so you get to outcomes faster.

For instance, when AI diagnoses that a customer's broken product can be fixed via online means, it automatically creates a path for triage that prescribes and initiates the remote fix, saving time and money by eliminating troubleshooting and enabling a more effortless and satisfying customer experience. Similarly, when applied to technician dispatching, AI captures and analyzes SLA, scheduled event and GPS information to proactively schedule the service event, reducing cost-to-serve and optimizing dispatch and service operations. And when AI is rigorously leveraged in spare parts inventory planning, it can quickly ingest and analyze machine signal failures to more accurately predict demand—enabling a 5%-10% reduction in inventory stock levels, while preserving customer service levels.

More Reliable Processes, Products and Services

The post-sale supply chain is prone to rare, yet high-impact, events. These long-tail events are difficult to forecast with basic analytics and, therefore, hard to address. You'll recognize them as process exceptions that must be handled separately and manually, product failures in the field, and after-sales services that don't deliver their intended results. All of which lead to time-consuming and often costly escalations, and highly frustrated customers.

AI enables you to deal with these events in a more systematic, efficient and proactive way, making complex processes, products and services much more reliable – and your customers much happier.

Consider the process of forecasting replacement parts for a global company whose locations include several small, remote countries. While supply chain managers rely on analytics for predicting heavy-demand, high-value parts, they don't trust it for intermittently-demanded, high-value parts in hard-to-reach places because, in truth, general analytics aren't up to the task. Instead, managers make up their own rules of thumb for how to handle these events, with decision-making geared to putting out fires fast, regardless of how expensive or convoluted the process. AI, on the other hand, can easily take in intermittent demand signals. With AI, data doesn't have to be structured and traditional equations don't have to be followed. It can include machine signals (or IoT data). AI's sophistication enables it to more reliably detect patterns with rare events, so you can trust the output and put the best processes and plans in place.

Next-Issue Avoidance

AI anticipates issues and directs actions to avoid them in highly automated and adaptive ways. If AI learns from machine signals and historical failure patterns that a customer's product is likely to break down in the next few months, it can initiate a sequence that contacts the customer and offers a replacement part in advance, avoiding the failure as well as associated complaint calls and truck rolls.

AI anticipates and avoids issues, saving time and money

Revenue Enablement

You can leverage AI to save and make money by applying it to obsolete technology, remorse returns and fraud prevention. For example, AI can predict if customers are using older technology that's likely to fail and require a service event, and trigger proactive outreach about upgrading to a new model of the product. AI can help you understand the root cause of remorse returns for particular products based on historical data so you can head them off in the future. If it determines that returns are largely due to customers having misconceptions about the product's capabilities or how to use certain features, AI can initiate issue-specific outreach to customers who recently purchased the product, educating them and perhaps offering additional help through live tutorials.

Fraudulent warranty claims cause businesses to lose about five percent of their annual revenue.[3] AI can help mitigate those losses by identifying claimants who are likely to be fraudulent and directing steps to block fraud from happening. It determines fraud propensity by creating risk indicators based on a variety of nuanced factors related to the claimant, claim parameters and the product itself. And, instead of processing higher-risk claims as it would lower-risk, it flags them for further examination according to business rules you set for that risk level.

Requirements for Effective AI in the Post-Sale Supply Chain

To maximize AI's impact, you need to understand the nuances and complexities inherent in the post-sale supply chain so you can put the right processes around the right data, establish clear process metrics, and present results in ways that are intuitive and believable.

Holistic

Your AI implementation must be able to consume and analyze data from all aspects of the fragmented post-sale supply chain, from work orders to triage and dispatch to reverse logistics, including data from third parties. Otherwise, it's a niche solution with limited effectiveness.

Closed-Loop

AI must include predictive and prescriptive analytics so that it not only identifies issues and needs, it also anticipates what will happen, when, and initiates steps to address them.

Clear and Credible

You shouldn't need data scientists to interpret AI output. End-users who depend on it, such as customer service agents and dispatch managers, must be provided with tools that intelligently filter, decipher and present information. They must feel the results clearly make sense and enable a smarter way of working. Otherwise, these users may not believe the output and won't use it properly, consistently or at all.

The OnProcess AI Approach

OnProcess is a pioneer in using embedded analytics to deliver better, faster post-sale supply chain outcomes. We evolved purposefully and naturally into AI, leveraging our expertise at pulling in massive, unstructured data sets and applying business rules to streamline and improve processes.

We make it easy for clients to benefit quickly by using segmentation to precede and feed AI. Segmentation enables us to isolate groups and processes that are performing extremely well from areas where cost-to-serve is ultra-high, customers are underserved and there is rampant exception management. With this knowledge, we can unleash the power of AI in focused, high-impact areas.

As part of our AI regiment, we convert data flat files into proper data lakes that can be stored and applied. We wrap a process around the data, which makes it much more meaningful, with clear start points and end points, which makes the data most useful. And we employ predictive and prescriptive analytics to transform data to business outcomes in an automated, algorithmic fashion that is far less dependent on data definitions.

AI requires a control tower to make it business-ready and OnProcess' OPTvision platform is that system. It's the only real-time microanalytics and visibility platform built for the post-sale supply chain. Designed for supply chain business users—rather than data scientists and programmers—OPTvision is extremely intuitive, with clear actionable insights and up-to-the-minute recommendations. According to Gartner, by 2018, 50% of agent interactions will be influenced by real-time analytics.[4] OPTvision not only enables real-time business, but also enhances it via always-on, always-processing AI.

To learn how AI can accelerate and improve your post-sale supply chain outcomes, contact OnProcess at **sales@onprocess.com, U.S. 508-623-0810, The Netherlands +31 (0)20 2184623** or visit **www.onprocess.com.**

[1] Gartner Predicts 2017: CRM Customer Service and Support, Gartner, November 7, 2016
[2] Predicts 2017: Artificial Intelligence, Gartner, November 23, 2016
[3] Association of Certified Fraud Examiners, 2014
[4] Gartner Predicts 2017: CRM Customer Service and Support, Gartner, November 7, 2016