How the industrial Internet impacts your label production process

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Introduction

Many industry analysts have pointed to the Internet of Things (IoT) and the Industrial Internet as the keys to providing the transparency and traceability manufacturers need to meet the ever-expanding array of industry requirements and regulations, and to optimizing their production processes in order to compete in today's marketplace.

As early as 2014, in a survey conducted by Forrester, in collaboration with Zebra, 80% of respondents indicated that IoT would represent the most strategic technological initiative for their organizations in the past decade. This is significant indeed. But before we dive into what this 'strategic technological initiative' might mean for your labeling, let's zero in on what we mean by "the Industrial Internet".

The Industrial Internet has been defined as the digital transformation of the product supply infrastructure, from manufacturing to packaging to delivery. For SAP users, this means moving away from legacy approaches, such as SAPscript and SmartForms, to a standardized and streamlined approach. Manual processes are replaced by future-proof technology resulting in improved accuracy, reduced costs and faster time to market. This delivers a lower total cost of ownership when compared to legacy solutions and an opportunity to minimize visible and hidden costs while capitalizing on opportunities to grow. To show what this digital transformation can mean for SAP users, we've zoomed in on the process we know best: labeling. So, what will your labeling process look like once it's been digitally transformed?

The total cost of labeling is bigger than you think. Digitally transform labeling to reduce visible and hidden costs.

Goodbye paper

In a recent survey of 100 key decision makers involved in the evaluation and purchase of modern label management systems, almost one-third of the companies surveyed still relied on a paper-based label management processes. In the world of the Industrial Internet, paper-based processes and manual checks are things of the past. All of the information needed to produce and maintain labels has gone digital. Data can be accessed and updated in real time. It is readily accessible so that companies can track products in the event of an issue and can correct errant information more quickly and efficiently.

With all the production data at your fingertips, you will be able to search for anything in the system: label content, print jobs, print history - it will be like having Google for your label data, only you can control the level of access each system user has. By taking full control of your label production process, you will be in the driver's seat when it comes to quality assurance or regulatory compliance.

A new approach to quality control

Despite all of the modern advancements we've seen in quality control, companies still struggle with product quarantine or even product recalls due to mislabeling. In some regulated industries, each recall comes with an average price tag of around $8-10 million. Suddenly, label quality becomes business-critical.

In the world of the Industrial Internet, best practice quality control will be about having the right technologies at each stage of the production process so you can validate that each step has been completed according to the specifications and requirements defined for that process. The right technologies would include a modern label management system that can facilitate the transition from legacy and paper-based processes to full digitalization and provide the necessary transparency and tracking capabilities to monitor label production. Added quality translates to reduced costs. The survey mentioned above revealed that 82% of the companies using a standardized label management system experienced cost savings from reducing labeling errors.

82% reduced costs related to labeling errors.

From fragmented systems to one standardized solution

62% of respondents stated that they needed to print labels across multiple locations. In addition to this come variations that result from having to comply with label requirements in multiple markets. Many manufacturers also have to deal with printers that require creating specific label formats, resulting in hundreds of hard-coded label templates that make processing label change requests a time-consuming IT nightmare. And with constantly evolving regulatory and customer requirements, with unique numbers and barcodes needing to be assigned to everything from large packages to the smallest saleable unit and displayed in the transaction history, compliance without the benefit of digitalization will be next to impossible.

In the world of the Industrial Internet, everything is connected. There are no longer disparate systems and home-grown solutions. SAP customers using a modern label management system are mitigating some of the risks associated with legacy labeling methods by shifting the control and management of label creation and change requests from the IT organization to empowered business users. This helps eliminate many of the inefficiencies arising from having to rely on IT-developed SAPscript or Smart Forms to satisfy change management requests. The IT department can then focus on helping the organization optimize its production processes. In order to keep pace and experience the benefits of digitization, companies must achieve a full and seamless integration between SAP, their label management system and their barcode label printers.

Next step: automation

One of the key pillars of the Industrial Internet is automation. This means ridding label production of the manual and complex processes that often plague it today. Once the entire label production process is lean and automated, this opens the door for agility and scalability.

Integration of label printers using labeling software can also have many limitations. Basic integrations do not meet the speed requirements of today's supply chain. Some companies try to overcome these limitations by programming SAP system integrations in house because the alternative — sending master data via the spooler to legacy labeling software for printing without previewing the finished label combined with the master data — results in reduced accuracy for most labeling processes. In-house ABAP programming of a seamless integration with the label management system that supports label preview inside SAP systems may take several months, but the trade-off is that it provides companies with the ability to see their SAP master data with their label templates, which in turn prevents errors and provides agility, consistency, and faster on-demand printing capability. A modern label management system includes a pre-built ABAP package that can be transported to an SAP system within seconds to deliver a working best-practice solution in just hours. This significantly reduces the amount of professional services required for deployment and provides faster-time to value. The result is a streamlined SAP label printing process and less risk. The ABAP package enables label template previews with master data and true on-demand instant printing of labels, all directly within the SAP system user interface without spending months writing code. This provides SAP customers with real-time print status feedback and confirmed print delivery.

The label production process can be implemented and duplicated across multiple production lines, plants, locations and even to business partners. It can be scaled up or down depending on market demand or conditions, and extended throughout the supply chain. The modern web technology of a label management system enables customers to connect all of their printers across borders and regions, quickly establishing consistent labeling processes across all locations and business partners. This leads to efficiency gains that go beyond increased productivity. In fact, 76% of label management system customers surveyed have reduced time-to-market. Given the fact that lack of visibility across the extended supply chain consistently ranks as one of the top concerns of manufacturers, this level of consistency and transparency will bring welcome peace of mind.

76% reduced time-to-market with a label management system.

Digitalization paves the way for true process improvement

In order to optimize a process, companies must have a clear understanding of how it works across all production lines and sites. If there are any blind spots or aspects of production that are not visible to you, there is a significant chance that these areas contain inefficiencies that could adversely affect your productivity. On the other hand, every event that can be identified and tracked can also potentially be improved. The more data you have, the greater the level of understanding of your production process, and the more equipped you'll be to make informed business decisions.

100% digitalization, one of the core features of the Industrial Internet, will give SAP customers an unprecedented understanding of label production, and therefore their business. By taking advantage of a modern label management system, SAP customers can significantly reduce the visible and hidden costs associated with their labeling while at the same time getting products to market faster, helping them sell more.

There are many hidden costs of legacy labeling processes, including label change requests, quarantine, reworking mislabeled products, product recalls, costs associated with interrupting operations to reprint labels, and unplanned downtime. When added up, these hidden costs can significantly impact the bottom line. And then there's the direct cost of the labor-intensive deployment and ABAP programming if you choose to integrate a legacy labeling software. Labeling costs amount to much more than many businesses realize. By digitally transforming labeling, companies uncover the hidden value in their business and increase sales by delivering products to market faster with fewer resources.

About NiceLabel

NiceLabel, a leading developer of label management systems, helps companies mitigate risk, optimize process and make their supply chain more agile, effective and competitive. NiceLabel delivers unmatched label design productivity, label lifecycle management, automated label printing from SAP, and web printing for partner collaboration. NiceLabel's SAP integration enables instant label previews with master data, instant first-label-out printing and real-time print status feedback, all within SAP. As the world's leading developer of Windows drivers for thermal printers, NiceLabel software is shipped by the world's largest printer manufacturers and used by the majority of Fortune 500 companies.

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