Why labeling matters in electronics

A question and answer with Loftware

How can cloud labeling help electronics companies succeed in a highly competitive global marketplace?

This Q&A addresses key top-of-mind challenges that companies face and provides insight into the significant gains that could be realized using the right labeling solution.

Labeling today is complex; electronics manufacturers are faced with a range of evolving requirements that make labeling even more complicated — and leave many companies accepting this complexity as the cost of doing business. But it doesn't have to be. Labeling can make a huge difference; enabling it and supply chain decision makers to not just overcome challenges but provide their company with a distinct competitive advantage.
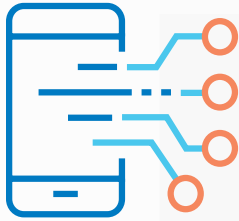
How can labeling help simplify the growing complexity in the supply chain?

The electronics industry has an intricate supply chain that's only growing more complex with a broad range of players, including raw material suppliers, warehouse and transportation managers, distributors, retailers, and end consumers. Each step requires accurate labeling for faster, more accurate processing as well as precise track and trace of the product along the way.
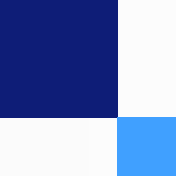
At the same time, customer-specific requirements are increasing at a rapid rate with regional, language, branding, and other requirements needing to be added to labels. As a result, electronics companies struggle with a staggering amount of label templates, all of which must be created and maintained individually. This involves a lot of time and effort that flies in the face of efforts to simplify processes and gain efficiency in a complex global supply chain.

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Which brings us to the inherent business benefits of a standardized cloud-based labeling solution. By taking a holistic and integrated approach to labeling, companies can respond quickly to new and evolving requirements, all while maintaining labeling consistency across the supply chain. Dynamic, data-driven capabilities allow electronics companies to easily manage mass label changes — with fewer templates — and achieve dramatic reductions in overall label maintenance and the costs associated with it.
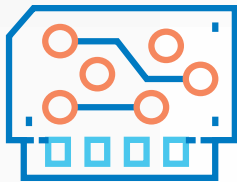
How can labeling help me deal with constant change?

Change has a significant impact on an electronics business. When it comes to labeling, constant change — be it customer-specific label changes or branding requirements for distributors in a new territory — can mean a manual, labor-intensive process. Without a centralized and standardized labeling solution, changing label requirements often lead to multiple label permutations created in silos, slowing production and introducing the risk of errors and inconsistencies.

Integrating labeling with ERP, WMS, and other enterprise systems can eliminate time-consuming manual procedures and reduce the chance of human error. Adding business logic configured to automatically drive content and label selection manages label variability and reduces the number of label templates required.

Electronics companies can make changes once at the data source to ensure that the correct information will be reflected on the appropriate labels. Similarly, if regulations or customer-specific demands change, companies can update business rules to reflect the new requirements, without requiring coding or outside consultants. Change it once, apply it many times. And when you can provide access to the same labeling solution to multiple users at different locations, you have full visibility and control across the value chain.
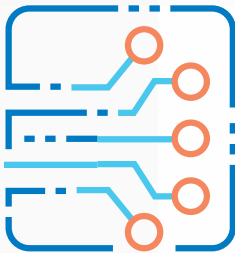
You replace the costly practice of using a mix of disparate labeling solutions with a unified, streamlined approach that manages change quickly and, ultimately, helps get product in the hands of distributors and customers faster.

How can labeling create efficiencies at the supplier level?

Just as you can leverage an enterprise-wide solution to deliver the right labels to regional operations and distributors, why not do the same with your suppliers? If you're like most electronics manufacturers, you rely on suppliers to deliver raw materials or components in a timely manner but experience costly hold ups in receiving as containers often need to be re-labeled before moving on to a specific production line. You could send suppliers your own pre-printed labels, but that has its own drawbacks as you have to rely on your supplier to manage the process of storing and applying labels.

But now, through secure, web-based access to your cloud-based labeling solution — and templates you create — the supplier can simply run off your labels to their local printers. Again, drawing from your data sources, the labels are already pre-populated with the information you need, so there are no delays when supplier materials arrive. They are scanned and put into production right away, saving companies millions of dollars in inventory and warehousing costs.

How can labeling help us expand into new markets and geographies?

With competition as fierce as ever, electronics manufacturers are always looking to improve efficiency, including moving operations to cheaper countries. China, Mexico, and India are common destinations for outsourcing. With this expansion to new markets, there's a need for speed as automation technologies quicken production and time to market. But is your labeling able to keep pace, especially when there are requirements for multiple languages and complex content?

For example, certain health and safety information must be in the language of the country where the product is made and, if it's being shipped to another country, the same information on the label must also be in that region's local language.

When a specific regulation changes in a country that you're shipping a product to, can you make the necessary text changes to labels quickly without stopping the manufacturing line? We discussed the value of pulling data from sources of truth like SAP or Oracle, but a change like this may require programming which can take four to six weeks to complete.

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To overcome this challenge, look for cloud-based labeling with built-in business logic that can be dynamically updated as needed without having to wait for changes or updates to your enterprise application. Business rules can be configured and customized within a standard user interface to update label specifications quickly and dynamically — be it language, branding, or regional compliance — where they are needed.
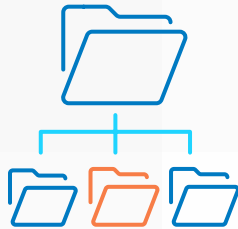
Let's take that same example of the health and safety information on the label. Suppose you bring on a new distributor in Germany who needs product right away to meet a huge customer opportunity. With configurable business logic as part of the labeling solution, select users can quickly pull up the template and translate the text to German without any delays. Product moves out the door within days versus weeks or months.

How can labeling improve compliance with regulatory requirements?

Certainly, regulatory compliance must be considered in the electronics supply chain with organizations such as the electronics components industry association (ECIA) dictating barcode standards for shipping containers, shipping and receiving transactions, 2D machine readable symbols, and more. Add in the requirements of government organizations like OSHA's GHS or EU's RoHS and REACH, and the challenge to comply swiftly and accurately gets even more daunting.

A case in point is the continued popularity of smartphones, a market that is expected to reach $1,351.8 billion by 2025. Consumers are drawn to devices with high screen resolutions and color accuracy. But many of these screens contain hazardous substances. Manufacturers cannot invest in new technology unless they contend with the cost of complying with the RoHS standard.

Updating product labels to reflect the materials contained within the smartphone or tablet can be complicated. Sometimes, manufacturers actually decide if it's easier to procure and use non-hazardous

materials than to manually adjust labeling. But as we've discussed, a cloud-based labeling solution enables electronics companies to make regulatory changes and automate the process with relative ease.
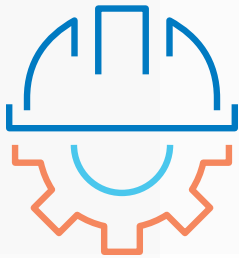
How can labeling help combat counterfeiting in electronics?

Some reports estimate that up to 8% of total market revenue for electronics components are diverted through the gray market. For the semiconductor industry alone, which earned more than $570 billion in 2022, the gray market could account for up to $75 billion. A standardized and centralized approach to labeling provides tighter control of the creation and print distribution of the labels. This gives the original manufacturer complete oversight of the issuance of serial numbers to be applied to the labels. Centralized labeling supports the use of traceability

solutions that electronics products need as they traverse the supply chain (via distributors, 3PLs, transportation providers, and customers) to the end user.

Now there are multiple providers of track and trace solutions, but the label serialization starts at the centralized location of the manufacturer. By providing tight security and control of the original serial numbers, electronics companies can easily verify the authenticity of the product during the verification process. One way to create a "first line of defense" in the process is to allow approved suppliers and distributors to participate in your streamlined labeling solution. Standardization of labeling solutions with approved suppliers and distributors can greatly diminish the likelihood of obsolete or counterfeit components making their way into the supply chain.
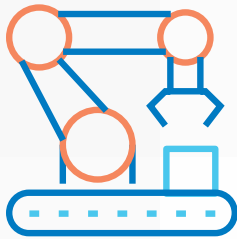
What are your questions about cloud labeling?

Learn more about how cloud labeling solutions can help your electronics business reduce costs, improve response time, and drive greater efficiencies across your extended supply chain. Visit Loftware's website for more information or contact one of our experts.

The world's largest cloud-based labeling and artwork management provider

No matter what the challenge – digital transformation, time to market, or brand authenticity – Loftware can help you make your mark. We understand how global supply chains work and know that each item you produce, and ship is an expression of your company's brand. We can help you improve accuracy, traceability, and compliance while improving the quality, speed, and efficiency of your labeling. Our end-to-end cloud-based labeling platform helps businesses of all sizes manage labeling across their operations and supply chain and our solutions are used to print over 51 billion labels every year. Loftware also fosters supply chain agility and supports evolving customer and regulatory requirements, helping companies save over $200 million in fines annually. And with over 500 industry experts and 1,000 global partners, Loftware maintains a global presence with offices in the US, UK, Germany, Slovenia, China, and Singapore making us a trusted partner for companies in automotive, chemicals, clinical trials, consumer products, electronics, food & beverage, manufacturing, medical device, pharmaceuticals, retail/apparel and more.

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