

The logo for LabelCloud, featuring the text "LabelCloud" in a bold, dark blue font. The text is centered within a blue cloud shape, which is itself centered within a white circle with a light blue border. The background of the slide is a solid blue color.

LabelCloud

Digital Age of Labelling

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The logo for Cloud Printing Solutions, featuring the text "Cloud" in a large, white, bold font and "Printing Solutions" in a smaller, dark blue, bold font below it. The text is centered within a blue cloud shape, which is itself centered within a white circle with a light blue border. The background of the slide is a solid blue color.

Cloud
Printing Solutions

A landscape fraught with challenges



Labelling has come along way from its humble beginnings, when labels were still hand painted or created using lithography. Since then, we've seen countless advancements like

- self-adhesive label in the 1930s
- laser printing in the 1960s
- thermal printing in the 1970s
- inkjet printers in the 1980

And though these advancements have made label printing more cost-effective, quick and easy, we are now at another step in the evolution of labelling, where new challenges of the digital age must be addressed for companies to compete.

In an increasingly connected world, where high-quality products must be delivered faster and to more markets, it's never been more critical for every company to make the labelling process more effective.

Digital Age of labelling



Today, labels are considered a business-critical process widely used across extended supply chains. They're essential in a multitude of industries, from food and beverage to pharmaceutical, retail and more. But until recently, the process was complex, expensive and simply not feasible for many, if not most, small to mid-sized businesses. Now, the process is more democratized.

Labelling is also data intensive, quality sensitive and thoroughly regulated. And while there are unique challenges for every industry, everyone faces the challenge of ensuring their labels are compliant and their revision history is transparent, both domestically and internationally. Meeting these requirements in today's age requires ensuring that labelling is aligned between suppliers, sites and locations with centralized visibility and control. And as one can imagine, assuring quality, accuracy and productivity in an environment with countless stakeholders and label variations can be overwhelming.

A cloud-based solution



Though the challenges involved may seem daunting, they can be overcome with the right solution. Digitally transforming the labelling process, for example, can eliminate the chance for human error – significantly reducing IT costs, promoting end-to-end operational efficiency, increasing consistency and scalability, and centralizing and streamlining quality assurance.

Going one step further, cloud-based capabilities can democratize labelling by making it affordable and feasible for companies of all sizes, not just large enterprises. SaaS solutions also enable companies to store label templates in a central location. Therefore, changes and updates are logged automatically, making it easier to send label designs and information across an entire supply chain (including factories, distribution centers, retail stores, or even to suppliers) with assurance that labels will be correct and current.

A cloud-based label management system is also more traceable and secure. This can enable multiple tiers of role-based security, so only people with the right access can amend data or label templates. It can also provide an extensive audit trail, detailing when and where changes were made and labels were printed, as well as the people behind those activities. This ability to track assets can be a critical success factor for meeting compliance in regulated industries.

Use cases for the cloud



One example where a cloud-based system is particularly important is in allergen and food labelling. When it comes to food safety, the consequences of getting a label wrong are too high to chance. In this case, a cloud-based labelling solution could eliminate the need for human intervention, ensuring greater compliance, traceability and accuracy.

Additionally, compliance can be easier to maintain as access rights can be limited to those authorised to design and approve labels, reducing mistakes and unintended errors. This brings risk down and lowers costs in an environment where one small mistake can endanger countless consumer lives or result in a costly recall.

Another scenario where correct labelling is essential is in the apparel or garment industry. In these businesses, it's vital to get merchandise to a destination as quickly as possible, especially when online competitors are shipping at increasingly fast speeds. Before digitalization, a retailer would have had to wait weeks for a bureau to provide tickets and tags. However, with a centralized database information can be found easily and efficiently, and labels can be printed quickly and accurately either at a distribution centre or in-store when re-tagging or re-ticketing is needed.

A new, digital age



A cloud-based label management system provides businesses of all sizes with the ability to keep centralised control of their labelling while eliminating time delays and bottlenecks, minimizing errors, and improving traceability and accuracy.

With digitalization bringing improved systems at a cheaper, more accessible price, we are experiencing a watershed moment in labelling. And with improved logistics processes and technology, consumers now have higher standards for speed and quality of delivery. Label accuracy and compliance are critical for safety and success, so having a streamlined and agile process for labelling is essential to not only survive but thrive in the business landscape of today and tomorrow.

Find out how your business can benefit from cloud-based label management system – visit the [Label Cloud page](#).

Use Case Scenario – Product ID, Staging, Assembly, Pick/Pack applications

Business with local or remote operations such as;

- Manufacturing & Assembly sites
- Distribution Centers
- Depots
- Global Business Partners / Suppliers

Printing

- Product Labels
- Co-Pack Labels
- Case / Cartons Labels
- Returns Labels
- Shipping/SSCC Labels



Head Office

- Responsible for design and deployment of centralised labelling solutions






Remote Location / Operators

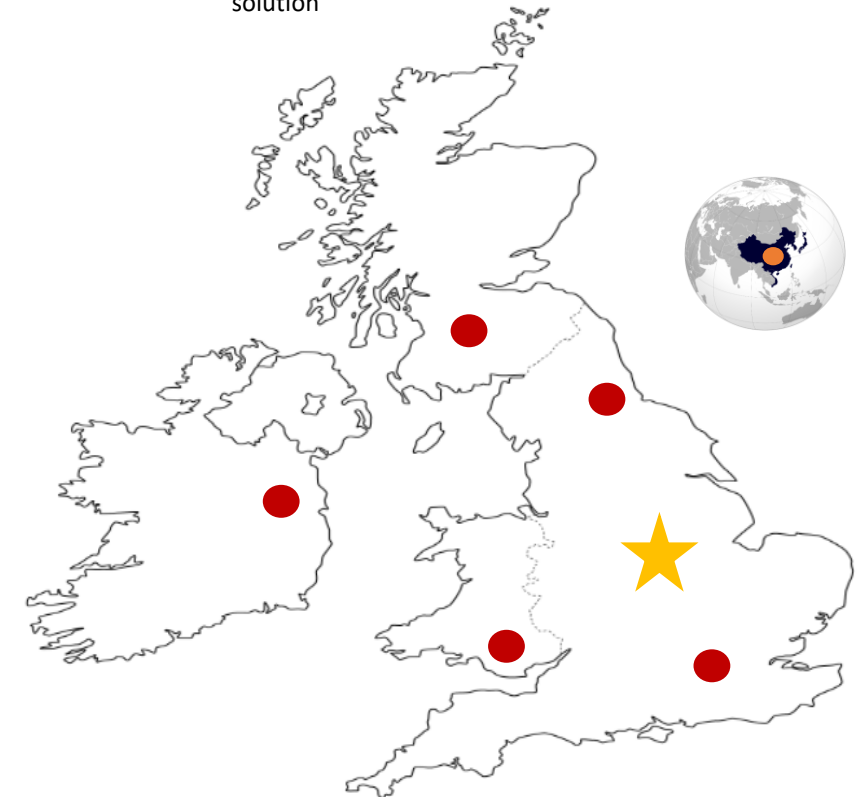
- Print from a centralised label printing solution



Global Users / Operators

- Print from customer/supplier/partner centralised labelling solution

Software	Printer	Scanner
		
<p>NiceLabel Label Cloud</p> <p>Design, manage and deploy label and document printing solutions to local and remote employees, or 3rd Party business partners and suppliers.</p>	<p>TSC DA210</p> <p>The printer will check bad dots on the printhead before starting the print job, this will ensure your printer is ready to print quality text and barcodes, ensuring unreadable barcodes are not printed and avoid product identification and supply chain disruptions.</p>	<p>ProGlove MK2</p> <p>Improve operator efficiency with ProGlove wearable barcode solutions.</p> <ul style="list-style-type: none"> • Optimized for high frequency scanning • Extended battery life of up to 15 hours



Use Case Scenario – Integrated label printing from master data systems






Integrate label printing with your business system

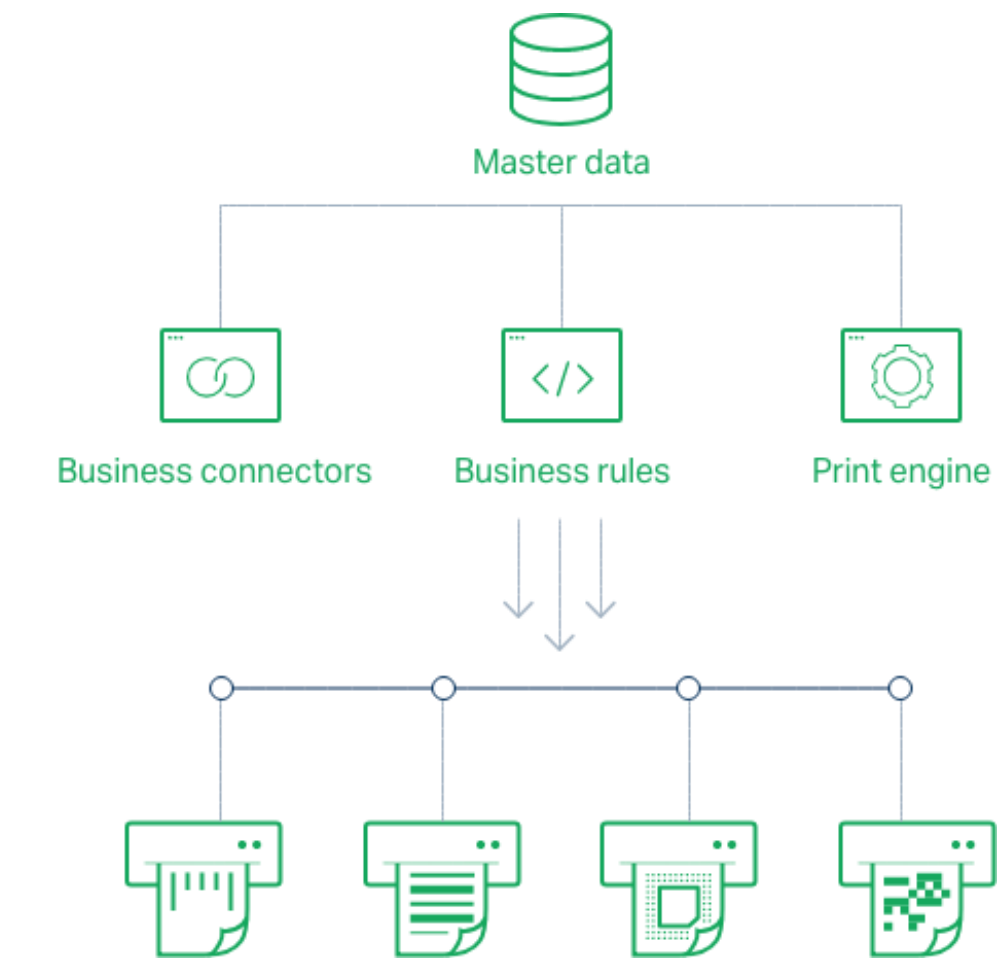
Companies that want to automat label printing from manufacturing and supply chain applications

- **Triggers** that accept data from any business applications
 - csv, xml, serial, tcp/ip, database, https, web services, cloud API
- **Filters** that integrate with all modern and legacy data formats
- **Actions** for building business rules and workflows

Printing

- Product Labels
- Case / Cartons Labels
- SSCC Labels

Software	Integration System	Label Printers
		
<p>NiceLabel Label Cloud</p> <p>Design, manage and deploy barcode printing solutions to local and remote employees, or 3rd Party business partners and suppliers.</p> <p>Labels and templates that need to be electronically approved and recorded to compliance standards such as CFR Part 11, EUMDR, ISO9001 quality management systems and more...</p>	<p>Label Cloud Integration System</p> <p>Label Cloud integration system includes an intuitive graphical integration builder that lets you build simple or complex integrations. It lets your IT team rapidly configure connectors (triggers), data extraction and transformation (filters) and business rules and workflows (actions) without any coding.</p>	<p>Desktop Printers</p> <p>Select the right label printers for your application.</p> <p>Select from small format desktop printer with bad dot detection, or industrial performance printer with barcode quality control.</p>



Use Case Scenario – Regulatory barcode label design and printing applications



Business that needs to print barcodes to compliance standards

- Food & Beverage Producers
- Retail Supply Chain
- Medical Device Manufacturers
- Pharmaceutical Device Manufacturers
- Cosmetic Product Manufacturers

Printing

- Product Labels
- Case / Cartons Labels

Barcode Grades required

- All barcodes must be grade 1.5 or C or above, except for ITF-14 symbols printed on to fibreboard, when grade 0.5 or D is acceptable

ANSI to ISO Grade Conversion Table	
A	3.5 to 4.0
B	2.5 to 3.4
C	1.5 to 2.4
D	0.5 to 1.4
F	Less than 0.5

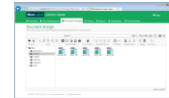
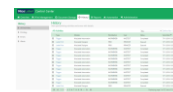
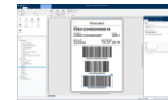
Software Printer



NiceLabel Label Cloud	Printronix T8000 2D ODV
Design, manage and deploy barcode printing solutions to local and remote employees, or 3 rd Party business partners and suppliers.	Every barcode on every label is checked and validated to meet GS1, ISO/ IEC 15426-1 standards.
Labels and templates that need to be electronically approved and recorded to compliance standards such as CFR Part 11, EUMDR, ISO9001 quality management systems and more...	If a bad barcode is detected, the label is pulled back into the printer and overprinted, then reprints a new label.

Designing, Managing and Printing Regulatory Barcode Labels

1. Design label templates (NiceLabel Designer)
2. Design on demand printing solutions (NiceLabel Application Builder), or integrated printing solutions (NiceLabel Integration System)
3. Validate printed test labels prior to production printing (Printronix T8000 2D ODV)
4. Approve printed test labels or return to template designer for required changes
5. Approve, manage templates & printing Solutions (NiceLabel Label Cloud)
6. Deploy printing solutions (NiceLabel Web client for on-demand printing or Automation on Server)
7. Print and inspect EVERY Label (Printronix T8000 2D ODV Printer)
 - If barcodes are good go onto the next label
 - If barcodes are not correct, retract bad label and overprint it, then automatically retry/reprint labels
8. Record all print history (NiceLabel Label Cloud)
9. Apply labels to products, case, carton, pallet etc



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