SATO as a one-stop solutions provider

SATO engineers and delivers one-stop auto-ID solutions integrating printers, labels, software, after-sales support and more to solve managerial and operational challenges for businesses in different industries.

Auto ID technology

+

Products / Services		
Hardware	Consumables	Maintenance
Designs	Software	Peripherals

+

On-site strengths / Partnerships

SOS
SATO Online Services

Cloud-based IoT service to keep your operations running & visible
- Perform proactive preventative maintenance
- Visualize and manage all printers on site

Cut printer downtime by **86**% *Based on in-house estimates

Sato App Storage

Cloud-based data management service to achieve higher productivity
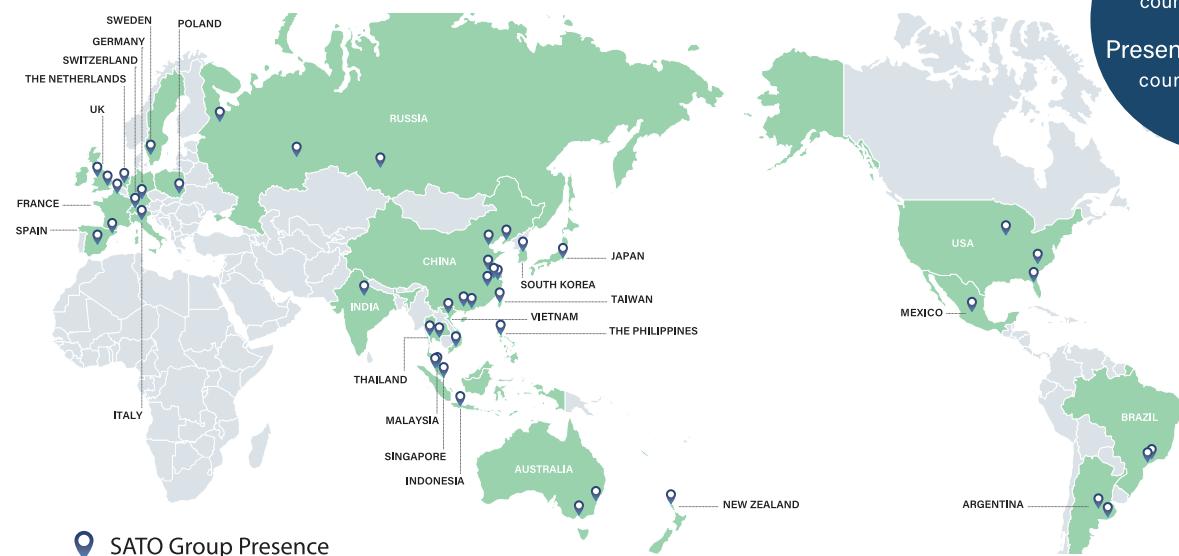- Keep label data accurate for printing across global locations
- Track downloads of label printing applications

Consumables
- Choose from a comprehensive lineup including labels, tags, ribbons, and wristbands
- Find the best match for your business needs with our production experience and expertise for bespoke sizes, adhesives, facestock and backing materials

SATO Global Network (As of September 2019)

Offices in **27** countries / regions

Presence in over **90** countries/regions

SWEDEN
POLAND
GERMANY
SWITZERLAND
THE NETHERLANDS
UK
FRANCE
SPAIN
RUSSIA
ITALY
INDIA
CHINA
SOUTH KOREA
JAPAN
TAIWAN
VIETNAM
THE PHILIPPINES
THAILAND
MALAYSIA
SINGAPORE
INDONESIA
AUSTRALIA
NEW ZEALAND
USA
MEXICO
BRAZIL
ARGENTINA

⦿ SATO Group Presence

Transform Your Business with AEP

Intelligence inside the printer

SATO AEP
Application Enabled Printing

Application Enabled Printing

SATO AEP Application Enabled Printing

AEP is a powerful on-board intelligence which enables customization of printer operations to significantly simplify labeling processes and reduce business costs.

Values for your business

Manufacturing

- ✓ Print from PLC directly to printer
- ✓ Simplify printing for greater efficiency and accuracy
- ✓ Connect scales and other devices directly to printer for weight input, etc.

Retail

- ✓ Automatically calculate markdown prices for inventory
- ✓ Provide accurate information for consumers
- ✓ Easily input data to printer via barcode scanner

Food

- ✓ Print labels in compliance with food safety standards
- ✓ Automatically calculate best-before and discard dates for operational ease
- ✓ Save space with small footprint, all-in-one solution

Logistics

- ✓ Accurately print barcode labels according to 3PL requirements
- ✓ Create and modify label templates easily and quickly
- ✓ Perform printing without the need of a PC

Label printers with AEP

CL4/6NX Series
4/6-inch industrial thermal printers engineered to offer exceptional print capabilities in the most demanding customer environments

CT4-LX
Compact 4-inch printer with powerful performance and advanced support for barcode symbologies, character sets and RFID encoding

FX3-LX
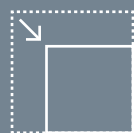Flexible label printer with a 7-inch full color touch screen, suitable for a wide range of industries

PW2NX
Highly productive and durable 2-inch mobile printer with robust connectivity

General Benefits

- PC-less
- Small footprint
- Cost saving
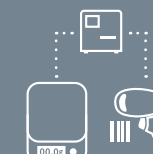- Simple to use
- Connect printer directly to system
- Easy to implement
- Control multiple data streams
- Manage other printers
- Input data directly from peripheral devices

AEP video library to find out more!

Manufacturing (automotive parts)
Efficient ID Tag Printing

Manufacturer and supplier of automotive systems and components, bearings, machine tools, etc.

An average car has about 30,000 individual parts / components which are provided to assembly plants by automotive suppliers. Many suppliers use manual processes to print, cut, and sort ID tags for the identification of these parts/components, and any errors would affect tagging, delivery, and subsequent vehicle assembly.

ⓘ Customer challenges

- Time & safety concerns
Multiple ID tags are printed on the same sheet and trimmed manually into single tags.
This takes time and puts workers at risk of injury.

- Low accuracy
ID tags are sorted manually after trimming, and human errors may cause parts/components to be tagged wrongly.

- High operating cost
Besides labor costs, rework costs are also incurred when wrong ID tags need to be replaced.

AEP solution with CL4NX to automate ID tag printing tasks

For this customer, we introduced our AEP solution using the CL4NX label printer. With AEP, the printer can **process data received from PC to print, cut, and sort ID tags automatically** without worker intervention at high accuracy.
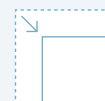
SATO
AEP
Application
Enabled Printing

CL4NX

Benefits of AEP

Simple to use | Easy to implement | Cost saving | Small footprint

Customer Values

⊘ **Increase efficiency & safety**

The automotive supplier can complete ID tag printing tasks in about 20% less time and prevent work accidents by doing away with manual trimming.
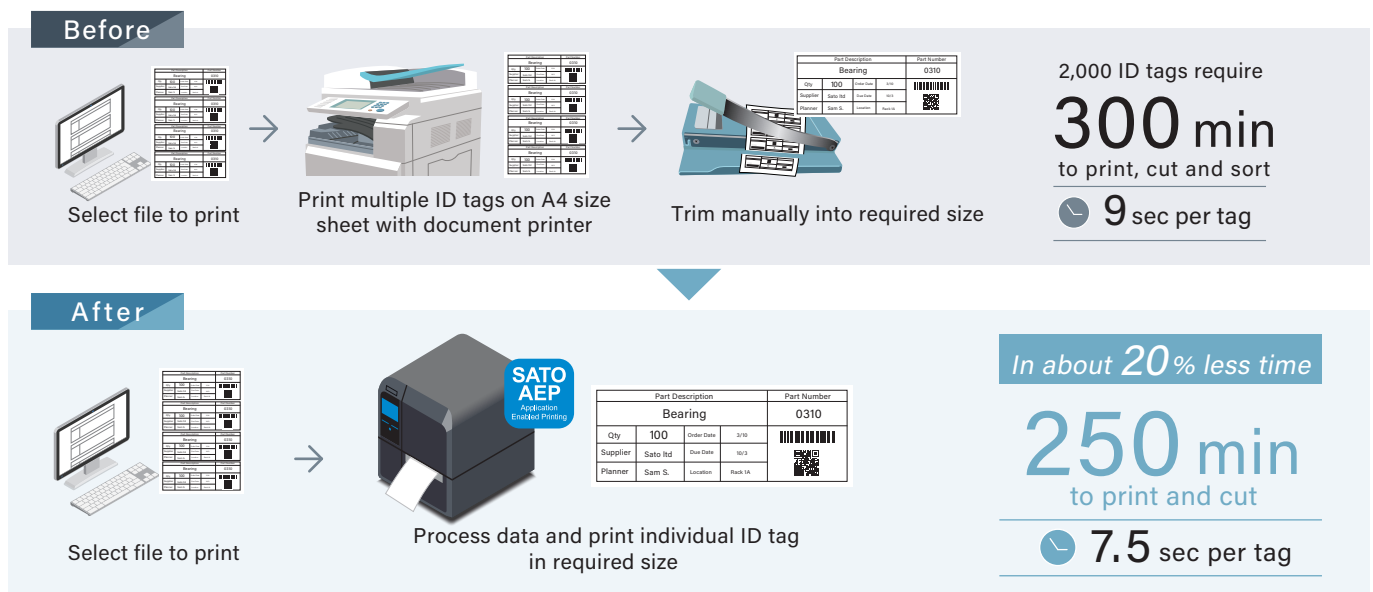
⊘ **Operate with ease & accuracy**

Our AEP solution is **simple to use** with minimal training. As individual tags will be printed in sequence, manual sorting becomes no longer necessary.

⊘ **Achieve cost reduction**

With AEP, the automotive supplier can **save cost** as it need not dedicate labor resources for the cutting and sorting of ID tags.

Before

Select file to print → Print multiple ID tags on A4 size sheet with document printer → Trim manually into required size

2,000 ID tags require
300 min
to print, cut and sort

🕐 **9** sec per tag

After

Select file to print → Process data and print individual ID tag in required size

Part Description		Part Number	
Bearing		0310	
Qty	100	Order Date	3/10
Supplier	Sato ltd	Due Date	10/3
Planner	Sam S.	Location	Rack 1A

In about **20** % less time
250 min
to print and cut

🕐 **7.5** sec per tag

*All numbers based on internal calculations

+ SATO Online Services

SOS
SATO Online Services

IoT preventative maintenance

SOS is a service that makes use of IoT to monitor SATO printers at customer sites 24/7 and enable proactive servicing before issues become critical. By keeping constant watch on printer status, SOS notifies operator when an expendable part needs replacement, and offers prompt and effective resolution to problems, reducing downtime significantly.

Downtime due to printer errors cut by

86%

*Based on in-house estimates

Video

For more information,
scan QR code to visit our website:

www.satoasiapacific.com

Manufacturing (automotive assembly)

Versatile Label Printing from PLC
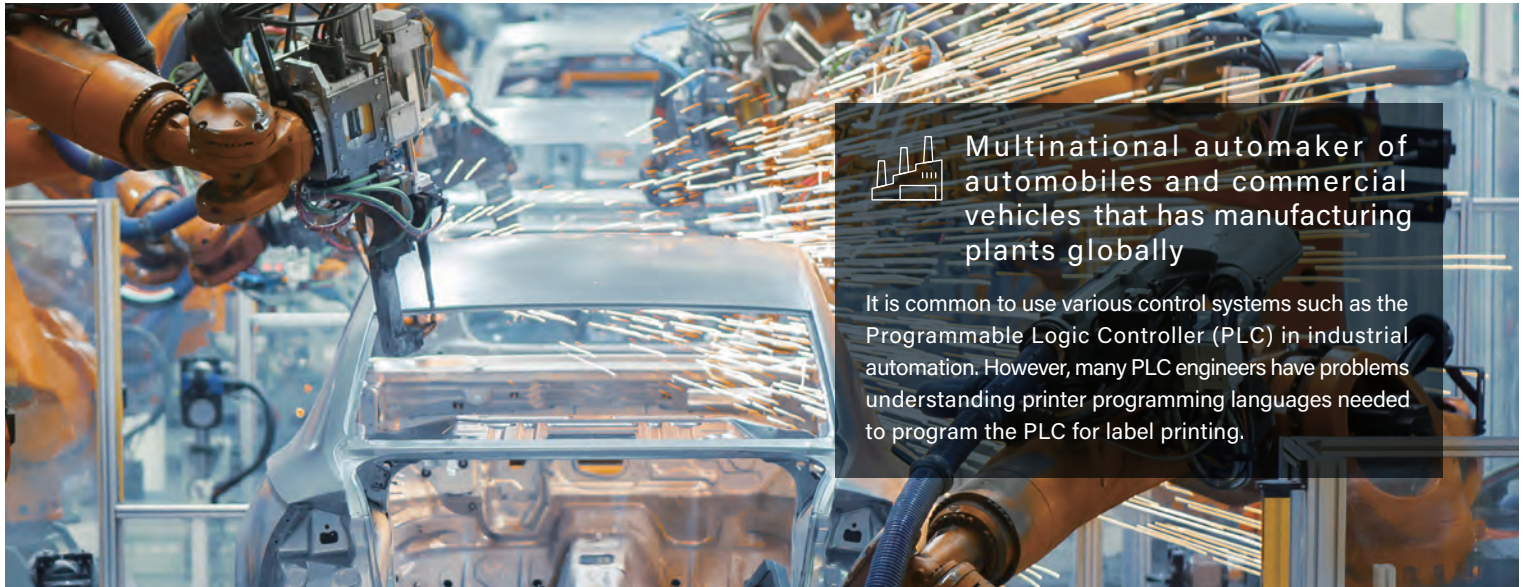
Multinational automaker of automobiles and commercial vehicles that has manufacturing plants globally

It is common to use various control systems such as the Programmable Logic Controller (PLC) in industrial automation. However, many PLC engineers have problems understanding printer programming languages needed to program the PLC for label printing.

⚠ Customer challenges

- Long lead time
It takes time to learn printer programming languages to integrate label printing with the PLC.

- Limited flexibility
Whenever there are modifications or additions to label templates, engineers have to reprogram the PLC with new printer commands.

- Low productivity
There is a need to maintain individual printer programming code for different label formatting.

AEP solution with CL4NX to simplify label printing

For this customer, we introduced our AEP solution using the CL4NX label printer. With AEP, **label templates can be saved in the printer** so that **only variable data needs to be sent from the PLC** (as comma-separated text files) for label printing.

SATO
AEP
Application
Enabled Printing

CL4NX

Benefits of AEP

| PC-less | Cost saving | Connect printer directly to system | Easy to implement |

Customer Values

✅ Increase productivity

Using the PLC with AEP makes it possible for the same printing application to be **easily implemented** at any manufacturing plants.
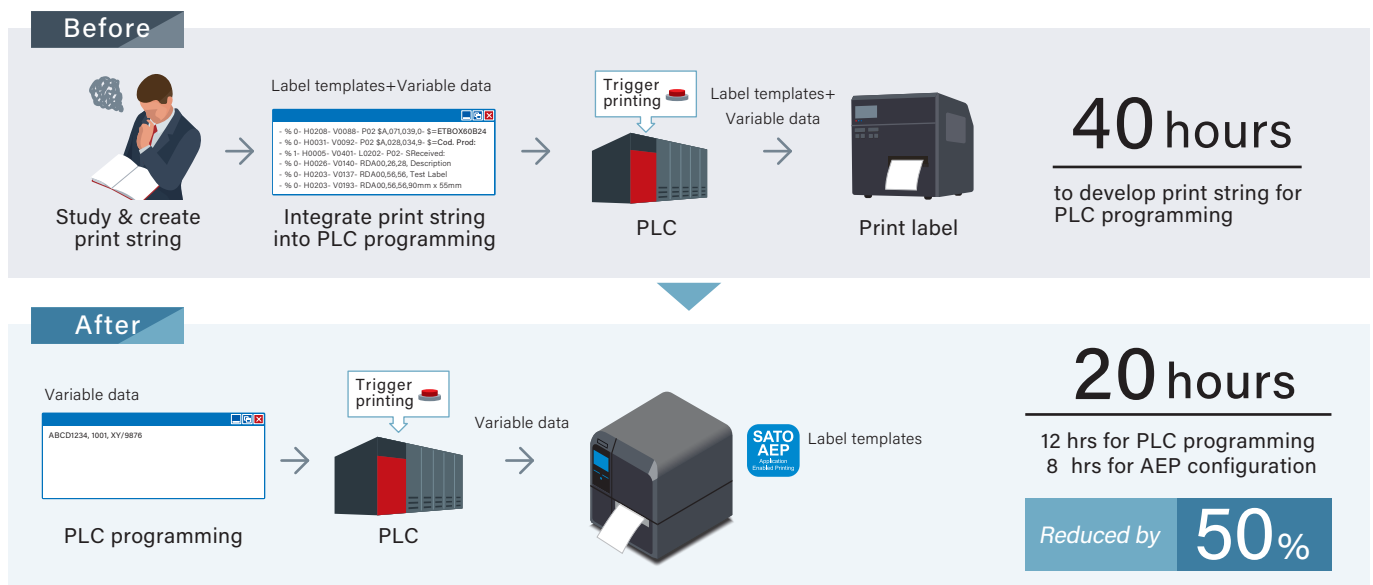
✅ Improve flexibility and speed of deployment

Our AEP solution handles label template data so that PLC engineers need not program the PLC for label printing using printer programming languages.

✅ Achieve cost reduction

Engineers spend less time on PLC programming, which helps **save cost** for the business.

Before

Study & create print string

Label templates+Variable data
```
- % 0- H0208- V0088- P02 $A,071,039,0- $=ETBOX60B24
- % 0- H0031- V0092- P02 $A,028,034,9- $=Cod. Prod:
- % 1- H0005- V0401- L0202- P02- SReceived:
- % 0- H0026- V0140- RDA00,26,28, Description
- % 0- H0203- V0137- RDA00,56,56, Test Label
- % 0- H0203- V0193- RDA00,56,56,90mm x 55mm
```
Integrate print string into PLC programming

Trigger printing
Label templates+ Variable data

PLC

Print label

40 hours
to develop print string for PLC programming

After

Variable data
`ABCD1234, 1001, XY/9876`

PLC programming

Trigger printing
Variable data

PLC

SATO AEP Application Enabled Printing
Label templates

20 hours
12 hrs for PLC programming
8 hrs for AEP configuration

Reduced by **50**%

*All numbers based on internal calculations

➕ SATO Online Services

SOS SATO Online Services

IoT preventative maintenance

SOS is a service that makes use of IoT to monitor SATO printers at customer sites 24/7 and enable proactive servicing before issues become critical. By keeping constant watch on printer status, SOS notifies operator when an expendable part needs replacement, and offers prompt and effective resolution to problems, reducing downtime significantly.

Downtime due to printer errors cut by

86%
*Based on in-house estimates

Video

Food retail
Easy & Efficient Food Labeling

Leading bakery chain in the Europe region producing an assortment of breads and buns

Food retailers typically operate in strategic locations such as train stations and shopping malls. They have limited store space but need various equipment to run their operations.

! Customer challenges

- Equipment and operations too complex to manage
Different brand hardware and systems are used, making product labeling and store operations complicated.

- Lack of space
Stores do not have enough space to accommodate all their equipment.

- Time consuming & unproductive
Headquarters updates label data for all chain stores frequently via a manual process that is prone to human error.

SATO App Storage

AEP solution with FX3-LX & SATO App Storage to improve store operations

For this customer, we introduced our AEP solution using the FX3-LX label printer, together with SATO App Storage, a cloud-based service for **managing label data and design templates centrally.** The customer's headquarters can now update data across its chain stores instantly, while stores can **print labels more easily with minimal equipment.**

SATO
AEP
Application
Enabled Printing

FX3-LX

Benefits of AEP

PC-less   Small footprint   Simple to use   Easy to implement

Customer Values

☑ Operate with ease

With the FX3-LX printer and AEP, stores can print labels without the hassle of managing multiple equipment. Staff can adapt easily to the new system which is as intuitive as smartphones/tablets and **simple to use** with minimal training.

☑ Save space

The compact and portable design of FX3-LX allows stores to make the most of their limited space.
FX3-LX also comes with the AEP technology so it can be used for printing without a PC or tablet to fit in a **small footprint.**

☑ Increase efficiency & accuracy

When used with SATO App Storage, the time required for data management and update can be cut by more than 50%. The bakery's headquarters can manage data centrally on the cloud while stores can have the latest label data downloaded to their printers automatically and seamlessly.

Visualize download status

Complete ○   Incomplete ✕

Store A   Store B
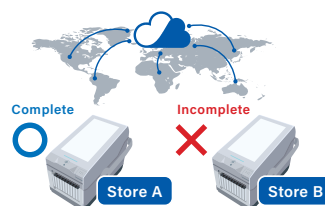
Video

Before

- Label printing
- Operation manual in booklet form
- Item master data updated manually (by HQ)

After

Operate with ease
- Label printing
- Operation manual on printer's display
- Item master & label layout data updated automatically

+ SATO Online Services

SOS
SATO Online Services
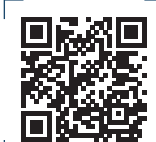
IoT preventative maintenance

SOS is a service that makes use of IoT to monitor SATO printers at customer sites 24/7 and enable proactive servicing before issues become critical. By keeping constant watch on printer status, SOS notifies operator when an expendable part needs replacement, and offers prompt and effective resolution to problems, reducing downtime significantly.

Downtime due to printer errors cut by

86%
*Based on in-house estimates

Video

Retail

Efficient RFID Tag Printing

Multi-brand sporting goods retailer from the Nordics with over 200 stores across the region

Retail businesses are often required to manage as many as tens of thousands of items at one store. More and more retailers are therefore turning to RFID tagging to increase their productivity.

⚠ Customer challenges

- Low efficiency
The sports retailer sells both global and private brand products, and some of the global brand products carry RFID tags that are attached at the point of production. Identifying these RFID tagged items takes time and effort.

- High cost
As the retailer is unable to accurately identify which items already have RFID tags, it ends up adding its own RFID price labels to all product tags, incurring more cost.

- Limited flexibility and long lead time
A long lead time is required for developing software to optimize label printing & RFID encoding.

AEP solution with CL4NX & WS4 printers to improve store operations

For this customer, we introduced our AEP solution using CL4NX (RFID printer), together with WS4 (non-RFID printer). The customer can now use **CL4NX to print RFID price labels** for products, excluding items which are already RFID tagged. With AEP, CL4NX can control and send print data to **WS4 to print normal price labels** for these items.

SATO AEP
Application Enabled Printing

CL4NX

WS4

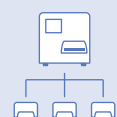**Benefits of AEP**

Simple to use · Cost saving · Easy to implement · Control multiple data streams · Manage other printers

Customer Values

⊘ Increase efficiency

Our solution helps identify items that already have RFID tags so store staff need not check manually.

⊘ Achieve cost reduction

The sports retailer can **save cost** by printing normal price labels for products with existing RFID tags instead of printing RFID price labels for all products.

Scenario:
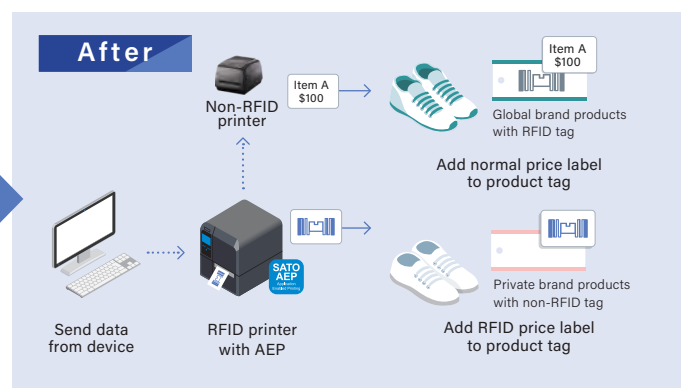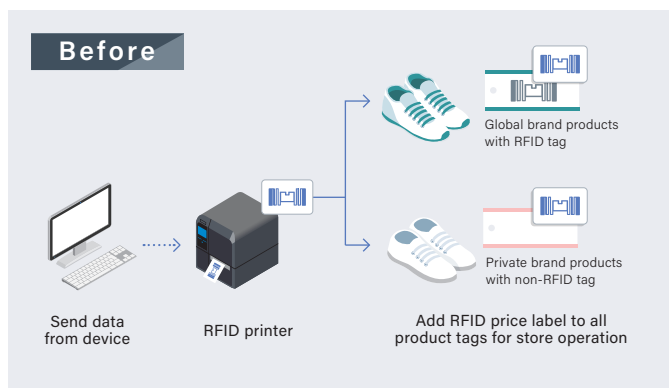50% of products are already RFID tagged
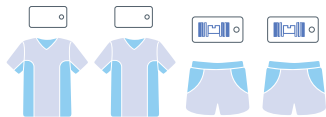
> Cost reduced by **45**% ⊕

*Based on the assumptions that RFID labels are 10 times more expensive than normal barcode labels and that the retailer stocks 10,000 items per store per year.

⊘ Improve flexibility and speed of deployment

AEP can be used to build customized applications that are **easy to implement** without heavy programming.

Before

Send data from device → RFID printer →
Global brand products with RFID tag
Private brand products with non-RFID tag
Add RFID price label to all product tags for store operation

After

Send data from device → RFID printer with AEP →
Non-RFID printer — Item A $100 → Global brand products with RFID tag — Item A $100 — Add normal price label to product tag
Private brand products with non-RFID tag — Add RFID price label to product tag

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+ SATO Online Services

SOS SATO Online Services

IoT preventative maintenance

SOS is a service that makes use of IoT to monitor SATO printers at customer sites 24/7 and enable proactive servicing before issues become critical. By keeping constant watch on printer status, SOS notifies operator when an expendable part needs replacement, and offers prompt and effective resolution to problems, reducing downtime significantly.

Downtime due to printer errors cut by

86%

*Based on in-house estimates

Video

Logistics
Identification Label Printing for 3PL

One-stop logistics provider operating in 23 countries, which engages a third-party logistics (3PL) operator for deliveries outside its service area

The transportation and logistics industry relies heavily on identification labels for the accurate tracking of parcels. Quality labels with the right information are crucial to ensuring smooth supply chain operations and eliminating incorrect or lost deliveries.

⚠ Customer challenges

- Long lead time & high cost
3PL operator cannot read barcode data from the existing parcel tracking labels due to compatibility issues, but it will take too much time and cost for the logistics provider to change its labels.

- Low accuracy
3PL operator records parcel tracking information manually for delivery purposes, leading to errors and delays.

- Space constraints
There is not enough space in the warehouse to set up PCs with the printers.

AEP solution with CL4NX to print compatible labels

For this customer, we introduced our AEP solution using the CL4NX label printer. The printer is connected to a barcode scanner that **captures data from the existing tracking label on parcels.** With AEP, the printer can **analyze the captured data to print barcode labels in compatible format for the 3PL operator.**

SATO
AEP
Application
Enabled Printing

CL4NX

Benefits of AEP

PC-less   Cost saving   Simple to use   Easy to implement   Input data directly from peripheral devices

Customer Values

✓ Achieve cost reduction and speed of deployment

With CL4NX and AEP, the logistics provider can minimize manual operations to **save cost** associated with misdeliveries. Label templates are created more quickly thanks to AEP while printing is made easier with the printer's intuitive user interface.

✓ Improve accuracy

Our solution prints barcode labels that the 3PL operator can read and use to move parcels across the supply chain seamlessly and accurately.

✓ Save space

AEP allows CL4NX to be used as a PC-less, standalone solution for printing labels within the warehouse.

3.5-inch color LCD

47 printable languages

31 display languages

Before

3PL warehouse operation

Unable to read origin forwarder's parcel tracking number

→

Record information manually

⚠ Risks
- **Delivery errors**
- **Delivery delays**

After

Origin forwarder warehouse operation | 3PL warehouse operation

Parcel with tracking number

→

Capture tracking number data via scanner directly connected to CL4NX

SATO AEP Application Enabled Printing

CL4NX with AEP print 3PL-compatible tracking label

→

Paste label and send to 3PL warehouse

→

Receive parcel

→

Parcel ready for delivery

+ SATO Online Services

SOS SATO Online Services

IoT preventative maintenance

SOS is a service that makes use of IoT to monitor SATO printers at customer sites 24/7 and enable proactive servicing before issues become critical. By keeping constant watch on printer status, SOS notifies operator when an expendable part needs replacement, and offers prompt and effective resolution to problems, reducing downtime significantly.

Downtime due to printer errors cut by

86%

*Based on in-house estimates

Video