

# Print and Label Solutions for High Volume Supply Chain Needs

WHITEPAPER



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# Introduction

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## Resilience Throughout the Supply Chain

Customer expectations are changing, resulting in increasingly complex supply chain processes. Today's digitally native buyers are accustomed to transparency and flexibility in the online marketplace. As a result, the accelerated distribution of purchased goods and services has transformed from an 'above-and-beyond' service experience to an industry standard.

As the driving force behind the demand, online shopping in Australia has witnessed a 20.2% annualised market size growth in the past five years.<sup>1</sup> Reaching a market-high evaluation of \$78 billion AUD in 2022, this rate of growth has left some businesses scrambling to adopt digital architectures that can keep pace with the demand.

Traceability and transparency are the keys to [supply chain efficiency](#), but how can your business achieve this as demand increases? How do you effectively keep an eye on your operations when more products than ever are being shipped?

The receiving, storing, picking and shipping processes within warehouses are dependent on productive workflows that can run undisturbed in tandem with streamlined monitoring platforms. Together, applications and connected devices provide near-instantaneous updates into metrics ranging from delivery status updates to warehouse floor quantities.

Here's how connected Brother print, scan and label solutions can provide transparency and traceability to maintain or grow your supply chain business in a digital environment.

# The Challenges Facing a Digital Landscape

## Disruption on the Horizon

What happens when unforeseen circumstances seek to derail supply chain operations?

On the verge of a global shortage of their product, AdBlue faced that question last year. The diesel exhaust additive designed to reduce emissions was impacted by China's decision to make more of the product available for diesel vehicles in Beijing.<sup>2</sup> Seeking to reduce exhaust emissions ahead of the 2022 Winter Olympics, the amount of AdBlue available for import into Australia was substantially reduced.

Reactive modelling resulted in AdBlue's international prices soaring over 50% between September and October 2021 due to the shortages.<sup>3</sup> Left scrambling, Aussie drivers struggled to maintain regulatory compliance with emissions standards for their vehicles.

The demand highlights the importance of predictive modelling for logistics operators, and how adopting digitally monitored supply chain management systems can enhance resilience and efficiency.

## Visibility Across the Supply Chain

Traceability and transparency into product quantities are important elements of establishing a predictive forecast of product availability. Brother printing and labelling solutions can easily be integrated on the warehouse floor to provide insight into stock totals and communicate with inventory order platforms.

Brother [industrial label printers](#) support various printer command languages, including ZPL2 emulation, thanks to our [Software Development Kits](#) (SDKs). This simple and reliable means of integrating printing into your warehouse management software (WMS) makes replacing old printers an easy plug-and-play task.



# How Brother Industrial Label Printers Handle Your High-Volume Workflows



The increasing scale of supply chain operations requires print devices that are built to keep pace with printing and labelling demands.

## Durability, Scaled

Brother offers an array of industrial printers designed to handle the high-volume demands of complex supply chain processes. By communicating effortlessly with warehouse management software, these versatile hardware devices enhance warehouse and delivery workflows.

The Titan Industrial Printer range has a 10,000-per-day print-capability, making these devices perfect for printing pallet labels for incoming goods and shipping labels for deliverable products. Models like the [TJ-4522TN](#) are equipped with high-capacity ribbons to ensure that productivity remains high amid the creation of labels in a fast-paced environment.

Time saved from changing ribbons can be spent focusing on the task at hand and working more efficiently, providing cost savings for your business in the long run.

Regardless of whether your organisation ships with service providers like DHL, GLS or DPD, Brother industrial printers can quickly and reliably deliver approved shipping labels to maintain delivery schedules, regardless of scale.



# OCR Technology Aids Your Digital Transformation

## Why Supply Chain Operators are Going Paper-Free

Many logistics businesses understand the vulnerabilities associated with a reliance on paper-based systems. Excessive storage space and the illegibility of poorly handwritten documents are problems solved by a digital solution that possesses edit capabilities and can read and translate images and text.

However, even the appeal of a digital infrastructure that reduces manual workflows can be overshadowed by the assumption that digitising all old paper documents will be a productivity-wasting exercise in futility.

Warehouse operators converting manifests, goods-receiving documents, invoices and proof-of-delivery receipts onto a digital architecture need solutions that can handle processing what could amount to years' worth of important paperwork.



## Scannable. Retrievable. Effortless.

Optical Character Recognition (OCR) technology supports Brother desktop scanners like the [ADS-3300W](#) can handle up to 60 sheets at a time in one tray.

The high-volume processing capabilities of these scanners make them perfect for reducing time-consuming manual workflows in environments like warehouse administration offices. The instant processing [benefits of OCR](#) make keeping up with high-volume workloads possible in ways that weren't previously achievable.

Supply chain documents, PDFs and textual electronic images can instantly be retrieved once scanned into workforce management systems.

By inputting a few keywords, specific shipping manifests or delivery schedule documents can be accessed in seconds, even if entire file cabinets' worth of backlogged documents have been transitioned to cloud-based systems.

OCR technology transfers images, blueprints, diagrams and handwritten notes into digital files that can be indexed and retrieved effortlessly.

High-speed scanners like the [ADS-4900W](#) offer enhanced connectivity to authorised devices via USB 3.0, USB host, Dual Band (2.4Ghz & 5Ghz) Wi-Fi and ethernet, so that your scanned data can be pulled up on any network-connected assets.



A hand is holding a white shipping label from Express Logistics. The label contains the following information: FROM: Brother International, 1 Tame Street, Manchester, M14 4JE; Brother Australia, 10 Main Street, Sydney NSW, Australia; 2E/1; SHIPMENT: 1/1; CUSTOMER NO: 1471066; CONTENTS: 2 x CANDLES. There are two barcode labels at the bottom of the shipping label. The background shows a cardboard box and other boxes in a warehouse setting.

# Protect the Transparency of Your Products Along the Supply Chain

## Efficiency, out for Delivery

Once thought to be reserved for enterprise-level operators, third-party logistics (3PL) providers are now readily used by companies of all sizes. The 3PL market is expected to expand at a compound annual growth rate (CAGR) of 8.5%, with the fastest growth taking place in Asia-Pacific (APAC) region.<sup>4</sup>

To keep pace with consumer demand, many Australian 3PL companies are shifting their focus from long-haul to just-in-time delivery strategies. With suppliers outsourcing the shipping and delivery to these last-mile providers, a renewed importance on the accuracy of scannable barcode labels affixed to products is observed.

Using 3PL drivers versus company-specific operators can come with a reduction in the understanding of common shipping routes and processes. In the event that a scannable shipping label is damaged, the odds of drivers delivering your products on time drop substantially.





## Reliable Labelling Solutions

Brother [thermal label printers](#) like the [TD-4550DNWB](#) can create various QR code and barcode labels with the readability and support necessary for the realities of delivery workflows. The [Brother Professional Label Printer QL-1110NWB](#) can print up to 69 shipping labels per minute from desktop or mobile devices, helping to bolster efficiency and mobility in your warehouse.

While you may not be able to predict the weather or wear-and-tear that will occur on the road, you can safeguard your packages against the unforeseen with durable [Brother labelling solutions](#).

## On the Warehouse Floor

Mobile label printers are perfect for labelling on the go. They can be deployed within the warehouse for receiving, storing and picking processes. Devices like the [RJ-4250WB](#) allow you to save time once spent travelling across the floor to retrieve labels and receipts from the office. Thanks to the on-the-spot print capabilities of Brother [portable printers](#), you'll optimise processes for many important logistics workflows.



# Conclusion

Brother provides tools to keep pace with the high-volume demands of your mission-critical supply chain workflows.

Whether you're an enterprise-level multinational distributor, or a small business taking advantage of 3PL delivery to meet the demands of your digitally savvy consumers, you can trust the durability and efficiency of Brother print, scan and label solutions.

Our **at your side** support means you don't have to be a programmer or IT expert to work with our devices. Integration and programming are made easy with our SDKs and the next-level support of our industry-experienced experts. We'll work with you to develop end-to-end transparency and traceability for your supply chain processes by integrating hardware devices that seamlessly connect with your operational architecture.

## Sources

<sup>1</sup>IBIS World. "Online Shopping in Australia - Market Size 2008-2029." Retrieved from [Online Shopping in Australia - Market Size | IBISWorld](#)

<sup>2</sup>Australian Strategic Policy Institute. "Redesigning supply chains to meet Australia's needs." Retrieved from [Redesigning supply chains to meet Australia's needs | The Strategist \(aspistrategist.org.au\)](#)

<sup>3</sup>The Conversation. "Australia's shortage of diesel additive AdBlue is serious, but we can stop it going critical." Retrieved from [Australia's shortage of diesel additive AdBlue is serious, but we can stop it going critical \(theconversation.com\)](#)

<sup>4</sup>Grand View Research. "Third-party Logistics Market Size: Share & Trends Analysis Report By End Use (Manufacturing, Automotive), By Service (DTM, ITM, VALs), By Transport (Roadways, Airways), By Region, And Segment Forecasts, 2022 - 2030." Retrieved from [Third-party Logistics Market Size Report, 2022-2030 \(grandviewresearch.com\)](#)



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