

**WHITE PAPER**

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# The Paperless Pandemic:

How Ditching Documents Keeps People Safe and Makes You More Efficient

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# In Brief

Do you remember when efforts to go paperless in the supply chain were simply related to green initiatives?

**Saving paper was the big thing** – and still should be – but now the coronavirus pandemic has driven a renewed demand for avoiding paper.

People are understandably concerned that there is a risk of transmitting the virus as paperwork changes hands. As one of our grocery customers explained to us recently, the contamination risk occurs every time a new person touches it. In our customer's process, shipment-related paperwork changes hands multiple times within a short period of time. **This includes:**



When the driver arrives at the gate and the guard verifies paperwork.



At the receiving office where a second verification occurs.



When the papers are transferred to receiving staff in the warehouse.



At the gate, when the driver leaves the site.

Is the concern justified? In a word, yes. However, as it turns out, paper is not a great way to transmit the coronavirus. The virus is mainly spread via microscopic aerosol droplets from talking, breathing, coughing or sneezing, which are then breathed in by another person. If the droplets do land on paper they don't last long, according to recent research<sup>1</sup>. The risk of catching Covid-19 from paperwork changing hands at a distribution centre is therefore quite low.

**So why are our clients so concerned about this?**

**The companies we've spoken to so far wish to spare no effort to reassure employees that they are safe and protected in their work environment. The expression "out of an abundance of caution" is one we see over and over again as companies explain their approach to preventing the spread of coronavirus.**

And they are right to be cautious. Businesses need to be leaders in protecting their staff and customers from the disease. With an acute labour shortage, there is an advantage in being an employer with a good reputation for looking after employee health and safety. Not only do you keep your current employees safe, you also enhance your reputation as a great place to work.

Health and safety is not the only reason to go paperless, of course. We'll look at a few others below, including cost savings, accuracy and, of course, the environment.

But first, let's look at the technology that's enabling paperless processes.

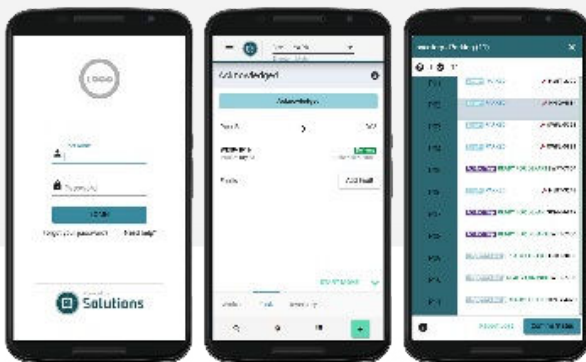
# 1.

## Technology For a Paperless Future

A couple significant developments in the software world are affecting the way we deliver our services.

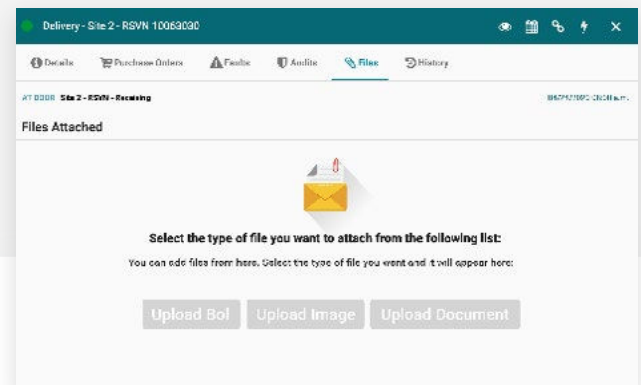
First, Adobe is stopping support for its Flash software at the end of 2020, forcing those who were using it to upgrade their software platforms to the now available fifth generation of HTML (HTML5). Not only is C3 one of those companies making the shift over to HTML5, but it was used as an opportunity to revamp our mobile application.

A major benefit of this new HTML5 progressive web application (PWA), is that it is agnostic to any device and operating system (OS).



With HTML5, software like C3's has become 100 percent mobile friendly, eliminating the need to download apps from the app stores. This facilitates collaboration among all users, since our PWA is readily available on any mobile device.

Previously, apps had to be developed separately for each OS, meaning developers had to nearly reinvent the product for each one and support multiple versions. That meant extra time and labour, and challenges in ensuring seamless and identical performance on different types of devices.



Users will be able to access statuses and file attachments (shipping documents), and trigger and approve specific actions based on their access rights all on their mobile devices. This further reduces the need to exchange paperwork, and in many use cases can eliminate it altogether.

## 2.

# The Paperless Advantage

But, as we noted above, this is by no means the only advantage conferred by going paperless. Let's take a quick look at some of the key benefits you can realize by adopting paper-free operations.

## Be a Shipper of Choice

The safety benefits of providing paperless arrivals and departures go beyond their face value, and can contribute to your attractiveness as a shipper of choice with carriers. [As we have described in a previous paper](#), shippers that demonstrate care for and provide important extras for their suppliers' employees are more likely to have successful long-term relationships with those companies.

Deploying contactless technology is just one more way you can ensure your position as a customer that carriers will want to do business with. If your facilities are known as places where drivers are treated with respect and safety protocols, word gets around and drivers will want to work with you.

Likewise, by having paperless processes in place, you enhance the efficiency with which drivers can get in, unload or load, and get back on the road

In the pandemic, keeping employees, truck drivers, and supply chain partners safe from the coronavirus has certainly been top of mind for many looking to leverage their [scheduling software](#) for contactless arrivals and departures.

again. Eliminating delays in their day means they make more money and deliver better performance all across their routes. With these benefits to your suppliers, going paperless is both the right thing to do from a human perspective and it makes good business sense at the same time.

## Speed

**During the pandemic pressure has mounted on supply chain operations.** From unprecedented demand – think toilet paper shortages in stores – to rapid reconfiguration to [omnichannel retail options](#) to facilitate buy-online-pickup-at-curb (BOPAC), there has been no time to stand still. And that need for speed is one area where paper can slow you down.

Let's think about paper-based processes. Once a document is prepared it has to be printed, handled, delivered somewhere, and handled again, possibly numerous times. Along the way it can get ripped and smeared, pages separated from a bundle or worse, the whole thing gets lost or forgotten. And then someone has to start all over again.

**But if your business is paperless that document is transmitted electronically the instant it's ready, and received just as fast at the other end. The chances of it getting lost are almost nil; and if someone has forgotten to send it, that's rectified by an automated notification stating that paperwork must be attached to the appointment. All that time spent waiting for printers, collating and handling documents can be better spent doing more value-added tasks, and your business speeds up across the board as processes become more efficient.**

## Accuracy and Accountability

Paperless systems eliminate the need for manual form filling, and also ensure that documents are filed where they should be. In our increasingly regulated logistics environment, especially where **Chain of Custody** requirements are in place, accuracy is not just a nice-to-have, it's essential. Anybody operating in a temperature-controlled environment – such as grocery – or a regulated industry like pharma, knows this to be true.

As one supply chain manager noted in an interview<sup>2</sup>, paper-based processes were a problem for traceability in his business. Using a pen and paper system for receiving meant they had “very few ways of verifying what happened”. The paper trail was hard to dig through when something went missing, and was unreliable as well.

**In a paperless system documents don't get lost or misfiled and they are backed up, ending the risk that a fire or flood will destroy your records. Paperwork can also be linked to other important elements, such as the appointment number, audits and pictures, timestamps, and more; storing the entire 'chain' history in one easy-to-access place. Thus, the element of human error is substantially reduced, especially when we are trying to move faster and faster in dealing with a crisis situation such as a pandemic.**

## Cost Savings

The cost savings from going paperless can be found in reduced reliance on physical assets and paper, but even more from the savings in employee time. The numbers are staggering. Non-productive information-related tasks such as filing, faxing and reformatting documents cost American companies US\$1.5 trillion in salaries in 2018. It costs on average \$20 to file a document, \$120 to find one that's been misplaced and \$220 to replace it. One estimate says companies spend 15 percent of their revenue on creating, managing and distributing documents.<sup>3</sup>

And then you must figure in the cost of buying paper and printers, ink and toner, cabinets to store files in, fax machines, phone charges, and recycling fees. Admittedly, some of this will be offset by the cost of your paperless systems, but with the savings in labour, you'll be in the black.

## Sustainability

As we said at the outset, it used to be that going green was the main argument for paperless business processes. The facts still back this up. In the U.S. alone more than a billion trees worth of paper is simply discarded every year.<sup>4</sup>

Avoiding the use of paper in your business may be a bottom-line decision, based on gains in speed and cost savings, but you can also think about it as a way to reduce your own supply chain's carbon emissions. From the forests that don't get cut down, to the carbon that won't be emitted in processing and transporting the fiber and paper, to the energy saved in not requiring recycling processes, your paperless operation will be contributing in many ways to a cleaner future.

**You can measure and use the gains as part of your corporate responsibility strategy.**

## Laying the Foundation For Automation

Contactless processes in the yard and docks represent a relatively simple form of automation. The cost is low, and the technology easy to implement.

But you don't have to stop there. Introducing low-risk automation that delivers the big rewards we've been discussing in this paper can also be an important stepping stone to an even more robust automation strategy for your operation. By demonstrating the ease and accessibility of a contactless arrivals and departures system, you are also showing that your company is ready to adopt even more automated solutions.

Building a use-case for further projects such as yard management or full-on dock scheduling will be much simpler and more convincing when you can point to the success of your initial project. It will be easier to persuade senior management of the effectiveness of automation, and at the same time readies operations staff for the changes it will introduce – a win-win scenario.

By moving away from reliance on possibly error-prone and time-consuming manual processes, you are preparing for fully automated operations. Implementing a simple, cost-effective solution that has such immediate benefits lays the foundation for more automation.

## Overall Efficiency

You've speeded up, improved accuracy, saved cash, and greened up your supply chain. All this can be achieved by adopting paperless processes. Now, whether that's in one key area, like at the docks, or across multiple functional areas of your operation, all these benefits add up to a more efficient business.

**And in this pandemic-altered world, the efficient are the ones that thrive.** Because there's one more benefit to paperless operations: **agility**. When your processes are digitized it is much easier to make adjustments to take into account unpredictable disruptions in normal activity. And that's what this black swan pandemic event has required. So going paperless will make you better prepared to handle whatever comes next.

# 3.

## How it Works in Practice

Now that we've examined the wide range of benefits that paperless operations can deliver, let's take a look at some of the examples we've worked on with our customers during the Covid-19 pandemic.

As proponents of providing advanced notifications to shippers in some form of [appointment scheduling](#), most of these examples gravitate around how appointment scheduling software can be leveraged in order to reduce the use of paperwork and maintain physical distancing.

**These are all creative and forward-thinking applications of our technologies, and we hope that they will inspire you to think of ways you can make your business safer, as well as more productive.**

We encourage you to take a look at **these success stories** in the context of your own operations; and then, don't hesitate to ask us how we can help your organization and use our apps to propel your innovative ideas into successful solutions.

### 1. Helping Grocers Stay Safe

**This one might be obvious, but it works: Uploading all shipment paperwork as a file attachment to the appointment request.**

Even if appointment scheduling is not a requirement in your business, it serves the purpose of providing a pre-arrival notification that all the paperwork can be attached to. Attaching documents online with the appointment request isn't new. Its initial purpose was to ensure that drivers do not forget the paperwork and create delays at the gate or receiving office.

But with the COVID-19 pandemic, customers are discovering an added benefit. As outlined in the opening paragraphs, our grocery customer now wants to require that files be attached to the appointments for all shipments.

**This means the gate guard will be able to consult the documentation online, just like all the users throughout the receiving process. Additional documents can be added, and faults and audits conducted, maintaining 100 percent visibility and control online with no need to physically exchange paperwork.**



## Driver App & Automated Gate In

If drivers are concerned about social distancing when arriving at a site, they can use the appointment confirmation email to display the barcode for easy scanning or even at an automated kiosk. If specific instructions need to be provided to the driver, an appropriate printer can be installed outside the gatehouse so that the drivers can collect their gate pass details.

## 2. A Lesson in Connectivity

There isn't a software system in existence that can pretend to be a complete end-to-end solution for a paperless supply chain. That means connectivity – through various forms and protocols – is essential to promote productivity while also ensuring security.

### Australian Retail Story

In our example, an Australian retailer asked us to collaborate with them in adapting our scheduling software (they call it “time slotting” Down Under) to their automated gate initiative. They were already

using advanced C3 Hub configuration features such as driver validation, and are taking full advantage of the external portal for suppliers and carriers to book their appointments. [Chain of Responsibility](#) (CoR) is law in Australia, so carriers and suppliers are accustomed to collaborating with shippers in providing the necessary information in the appointment details.

The retailer was using third-party kiosk hardware and software and asked C3 to communicate the appointment data in real-time through web APIs. The drivers will enter their reference number in the kiosk and will receive validation and directions to the correct dock door.

In this example, the web APIs not only exchange information, but also trigger transitions. They can communicate directly to our appointment scheduling software that the driver has arrived, is at door, has departed, etc. Although this project was first initiated with the objective of obtaining productivity gains through automation, they now feel their site is more secure from the risk of COVID-19 contamination.



### 3. Keep it Simple

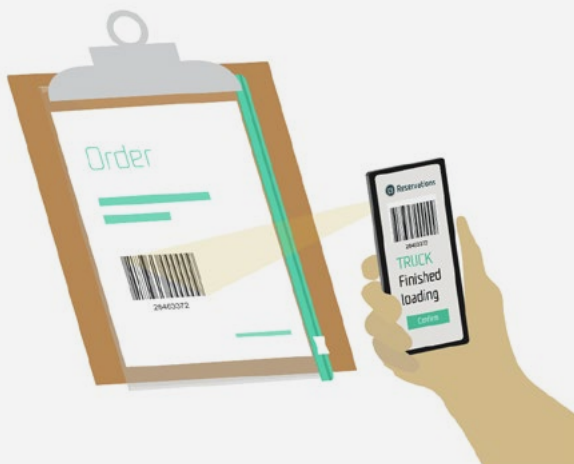
Some technology-driven solutions may seem out of reach for your business at this time. **You may be looking for small wins that don't require a significant investment in capital and project resources.**

#### The Food and Beverage Industry

In a final example, a beverage distributor didn't quite eliminate the paper but was able to simplify the process and protect the shipping team and drivers from spreading the coronavirus. At their station, the shipping lead prints a summary of the purchase orders being picked up as per the schedule, and inserts it on top of the rest of the paperwork in a clear plastic sleeve. The clear plastic sleeve is cleaned before being handed over to the shipper loading the truck.

Using C3 Hub on their mobile devices, they are able to scan the barcode, visible through the clear plastic, allowing the loading personnel to confirm that the truck is finished loading and ready to depart – without touching the paperwork directly.

The plastic sleeve is then safely handed over to the driver while respecting physical distancing protocols.



#### The Retail Industry

For example, a retail customer said the company wasn't ready to have an automated entry point to their site, for a variety of reasons. However, they asked if C3 could help them make drivers' departures paperless.

Whether they are arriving to deliver or pick up, drivers have submitted all the information regarding their tractor and load numbers. The logistics team now has the necessary control and visibility over the asset and driver information.

Reasonably priced license plate recognition software was installed at the outbound gate, making it possible to verify driver, tractor, load, etc. in advance at the shipping/receiving office. This information is then made visible to all via the [yard and dock management software](#). Using simple data integration, the license plate number is sent to the license plate recognition software that validates it and opens the gate barrier to let the truck in.

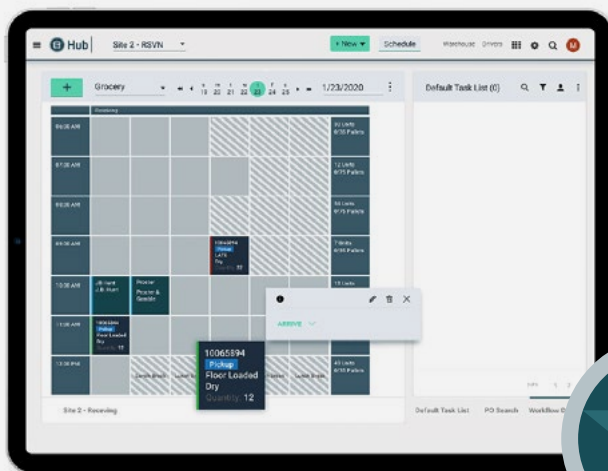


# Lessons Learned

**The paperless wave is here**, and given the benefits it makes more and more sense. We've all witnessed wonderfully creative solutions showing how people are adapting to the COVID-19 pandemic. We recognize that the ones mentioned here are modest in scope, but we are hopeful they may stimulate even more creative ideas, and contribute in making our respective work environments safer and more efficient.

Whether you are initiating a paperless project to censure physical distancing protocols during the pandemic, or because you recognize the efficiency gains it offers, the technology that makes it possible just keeps getting better. Now that HTML is making Progressive Web Apps possible, the dream of a purely paperless, universally compatible system is becoming reality.

Feel free to [contact us directly for more information](#) about how our scheduling and yard management software solutions can help you adapt to the new normal as the pandemic continues to evolve.

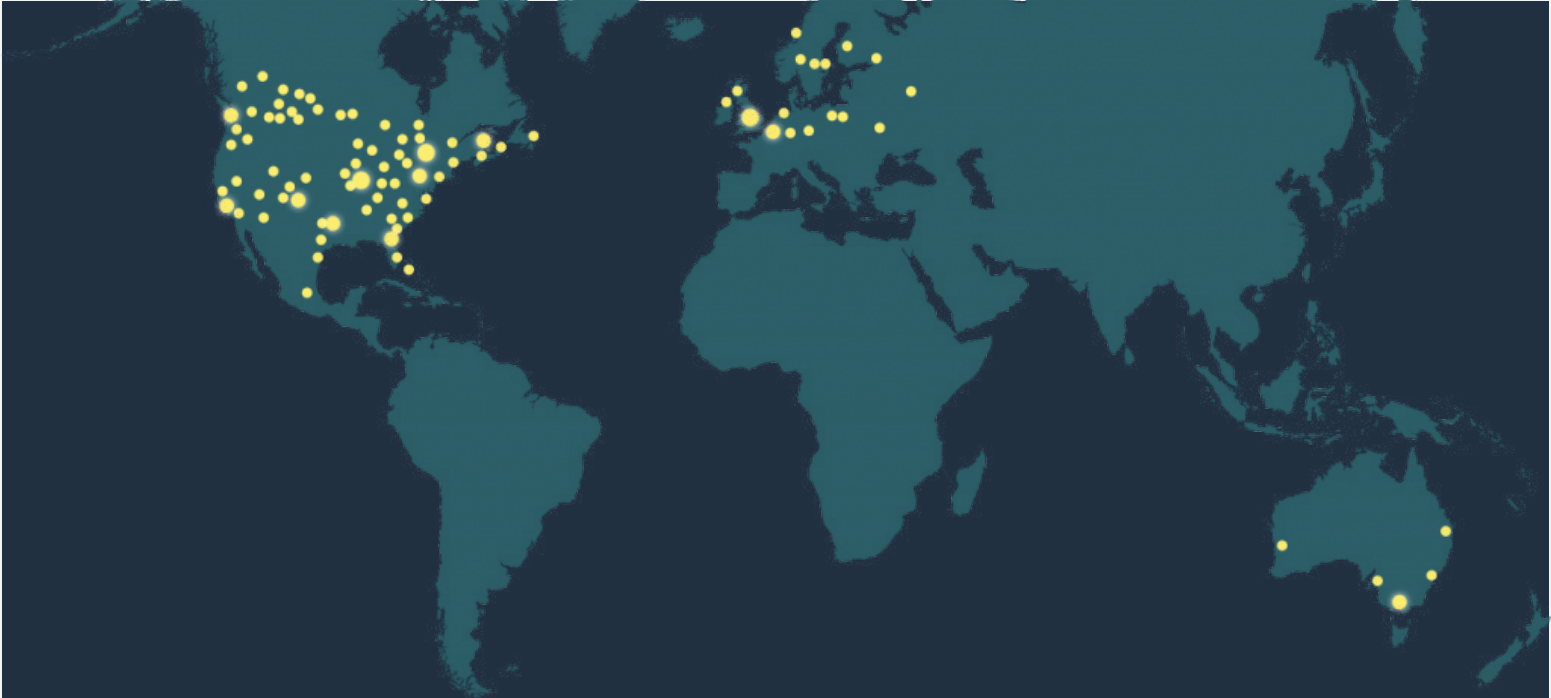


## Ready to Make Your Operations Paperless?

Contact Us Today!



C3 Solutions



C3 Solutions is an information technology company specialized in yard management (YMS) and dock scheduling (DSS) systems.

Since its founding in 2000, C3 has gained the confidence of clients around the world and across many industries including retail, grocery, distribution, manufacturing and parcel post.

Headquartered in Montreal (QC), Canada and privately owned, C3 is dedicated to developing, implementing and supporting the most complete yard management and dock scheduling products on the market today.

For more information,  
visit [www.c3solutions.com](http://www.c3solutions.com)

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# References

- [1] “[How long does the coronavirus live on surfaces?](https://www.webmd.com/lung/how-long-covid-19-lives-on-surfaces)”, WebMD, Reviewed by Brunilda Nazario, MD on July 29, 2020. <https://www.webmd.com/lung/how-long-covid-19-lives-on-surfaces>
- [2] “[Turning the page: Going paperless with a WMS](https://www.supplychainbrain.com/blogs/1-think-tank/post/29248-turning-the-page-on-paper-perspectives-on-going-paperless-with-a-wms)”, Eric Allais, Supply Chain Brain Blogs, January 21, 2019. <https://www.supplychainbrain.com/blogs/1-think-tank/post/29248-turning-the-page-on-paper-perspectives-on-going-paperless-with-a-wms>
- [3] “[The Real cost of paper: Facts that show what your business spends \(and where it can save\)](https://www.qls.com/blog/the-real-cost-of-paper-facts-that-show-what-your-business-spends-and-where-it-can-save)”, Bob Loblaw, QLS Solutions Group blog, May 29, 2019. <https://www.qls.com/blog/the-real-cost-of-paper-facts-that-show-what-your-business-spends-and-where-it-can-save>
- [4] “[A recycling revolution](http://www.recycling-revolution.com/recycling-facts.html)”. <http://www.recycling-revolution.com/recycling-facts.html>