



GUIDE

# How to increase productivity in your warehouse

– 25 years of knowledge and expertise working  
with mobility and digitalization of warehouses



## Introduction

Whether you run a warehouse for manufacturing, retail, shipping or storage, every second counts. The 21st century is all about speed and no waste. Customer expectations are increasing, the supply chain is transforming and technology continues its unrelenting evolution.

On top of this, there's the pressure to increase throughput, reduce inventory cycles, hit increasingly tougher targets and generate even higher profits.

Against this backdrop of ever escalating internal and external demands, it's paramount that your warehouse operation is performing optimally. Being slow or late isn't an option.

Productivity has many facets. In this guide, we'll focus on how your mobile technology may be impacting your warehouse's productivity. We'll also suggest some actions you can take to speed up your operation.

At JLT, we've worked with the mobility and digitalization of businesses since 1994. Over this time, we've seen it all and become experts in identifying and fixing productivity issues. We're going to share some of our experience in this guide.

# Four productivity challenges facing today's warehouses

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There's dust, forklifts thunder by and items get dropped. A warehouse is a demanding setting that requires devices built to match.

## Connectivity

**1** Good connectivity allows your workers to move freely around your warehouse, accessing the real-time data they need to get on with their jobs and hit their targets. Bad connectivity stops them in their tracks.

Substandard networks, poor placement of access points (APs) and changes in inventory can all cause dead spots. Add to this, unsuitable devices with insufficient roaming capabilities and you may have problems with efficiency.

## Computer breakdowns

**2** In a technology driven world computer breakdowns are a fact of life. Whether it's a handheld device or a vehicle mounted computer, at some point you will experience an IT issue, though these issues can be reduced.

Warehouses are nothing like the clean, static environment you get in an office or at home. There's dust, forklifts thunder by and items get dropped. It's a demanding setting that requires devices built to match.

## Unengaged workers

**3** Your workforce is a vital factor in assuring high productivity levels. They need to keep moving to fulfil their tasks and meet their targets. For them every second counts, especially when they are paid based on performance.

However, technology that is supposed to help them often slows them down if it isn't suited for the purpose and an unengaged warehouse employee has a negative effect, not just on their own productivity but also their colleagues'.

## Inflexible technology

**4** Warehouses are ruled by deadlines. Tough deadlines. But if your technology is not up to scratch, it puts the breaks on the whole operation. Using out of date technology, consumer grade devices, or running a standard consumer version of Windows are all examples of when inflexible technology hits your productivity.

Not fit for purpose technology can cause compatibility issues between the device and your warehouse IT infrastructure as well as older peripherals. This may cause unreliable operation, resulting in frequent lock-up and reboots. Which, in turn, distracts your employees and forces them to work in ways that cause errors and frustration, as well as being ineffective and unproductive.

## The hidden costs of lost productivity

The cost of suboptimal productivity is hard to quantify, as each warehouse is unique. However, the value is often higher than one may think. It's not just the cost of lost minutes while a worker tries to fix a broken device. Nor is it just the cost of a broken computer.

Research by VDC shows that the average computer breakdown takes IT 53 minutes to fix, loses 78 minutes of productivity and takes more than one person to fix. As you can see, you need to consider both the direct and indirect costs to calculate the full price of lost productivity.

Let's take a broken vehicle mounted computer (VMC) as an example. Your forklift driver tries to fix it but can't and they get their supervisor to try. Still no luck. Next, it's the warehouse manager's turn, who can't solve the issue either. So, IT gets a call. IT determines it's unfixable. Time to find a replacement unit and get the original unit repaired.

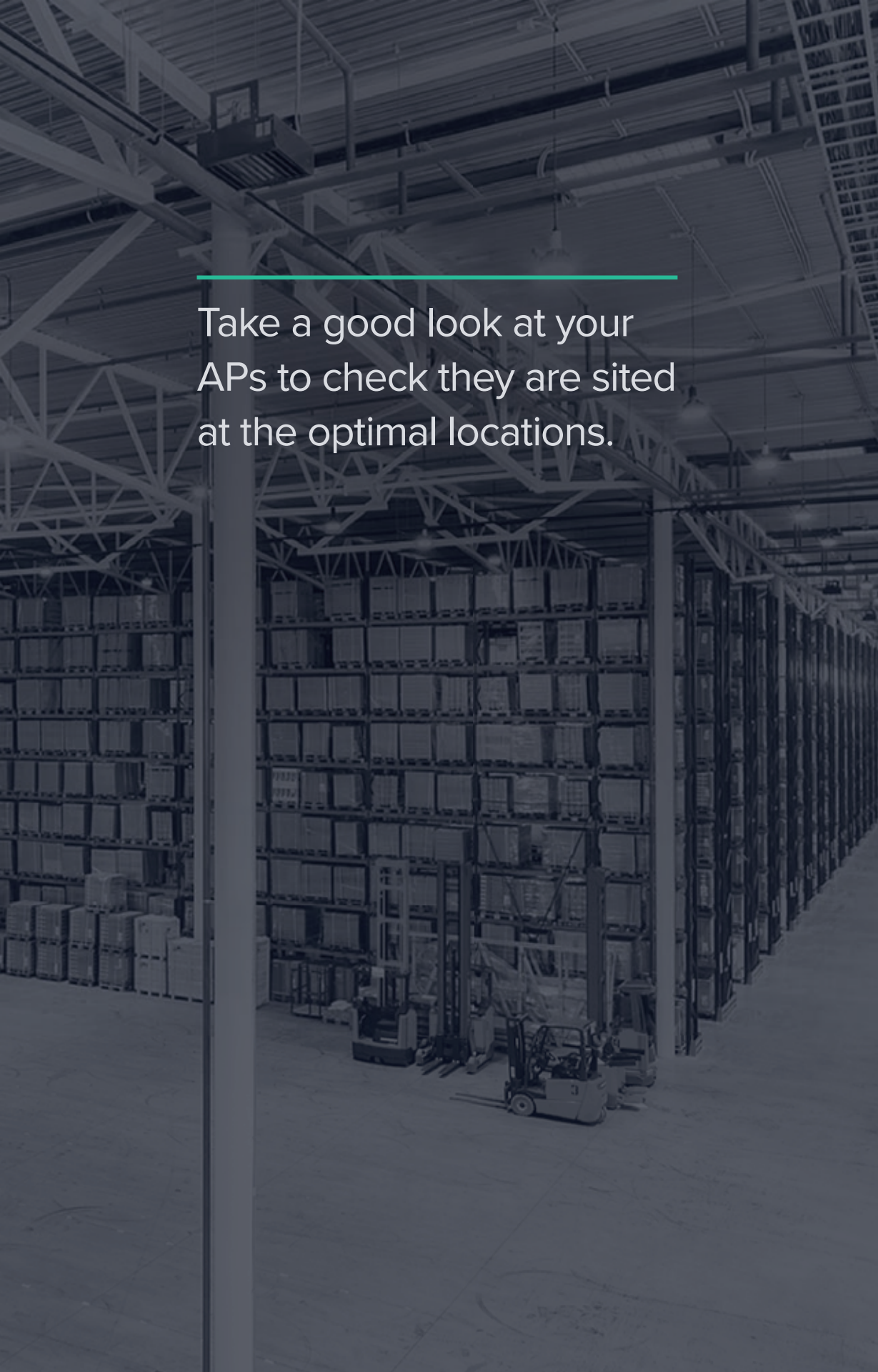
By the time you've fixed the problem, an entire team of your staff are working on a single issue and not getting on with the tasks they should be. This is how the cost of lost productivity can quickly snowball.

In a worse-case scenario, you may even be liable to a fine or lose your customer's business if you continually deliver late.

However, there are several actions you can take to improve your productivity and stop problems arising.

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# 1

## Secure good connectivity

For your warehouse, 100% connectivity is the pot of gold at the end of a rainbow. To get your hands on this treasure, you need robust wireless infrastructure with seamless roaming from one access point (AP) to another at the speed of a forklift. But in a vast building with changing contents, it's not that straightforward.

Whenever you are upgrading or even just maintaining your network, you should bring in external, independent experts who can give you objective advice about the best WIFI design and equipment for your set up. Involve your internal network people too. Having several viewpoints can sometimes uncover some previously unthought of solutions.

Take a good look at your APs to check they are sited at the optimal locations. The best way to do this is to get a network survey that will quickly discover any hidden dead spots or other problems.

Don't forget to plan for your inventory as well as your set up. Stock levels fluctuate and different materials can affect signals in different ways – steel shelving or metal cages deflects, wood, liquids, or clothing absorbs, and concrete totally blocks.

Finally, there's another element to connectivity that doesn't concern your network. It's your devices. Ideally you will run rugged devices featuring dual antennas. Having two antennas enables the unit to pick up the strongest available signal. This results in a more stable connection and better connectivity in every corner of the warehouse.

## 2

# Minimize the impact of computer breakdowns

Unfortunately, technology has not yet reached the point where we can build an infallible computer, so your devices will breakdown. But despite not being able to avoid failures entirely, you can still reduce the frequency.

Purchase devices built specifically to survive the demanding environment of a warehouse. Dust, moisture, vibrations and changes in temperature are all common conditions that will make consumer-grade devices fail quicker than truly rugged devices. And watch out for devices that are just an average tablet dressed up with rubber corners that might not be up to the job.

When evaluating rugged devices for your business, make sure you choose high quality products and consider the total cost of ownership (TCO) rather than just the upfront price tag. To calculate TCO, take into account all costs that occur during the lifetime of the product – for example cost and frequency of breakdown, service and repair. By doing this, you reduce the risk of buying equipment that seems affordable at first and then ends up surprisingly costly, at a point when there's nothing you can do about it.

Buying high quality, fit for purpose devices vastly reduces the frequency of computer breakdowns. But to fully minimize the impact of lost productivity, make sure you have a good process in place that kicks in when issues arise. One way to do this is have swap out units on site, fully charged and ready to go in case a device fails. Then, have a plan in place to troubleshoot devices remotely.

And it's not just quality of devices you should look for. Working with a quality partner who can provide a solid service contract and guarantee the availability of spare parts is just as important.

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### 3

## Engage and motivate your employees

Your workforce is a potential mine of information that can help you boost your productivity.

Engaged and motivated employees can help your productivity improve. Make them feel valued and provide them with the right tools to do their job to stop them clock-watching and struggling with technology.

The first thing you can do is to involve them. Your workforce is a potential mine of information that can help you boost your productivity. They know your warehouse and their jobs back to front, so they can highlight inefficiencies that you may not have considered before. Ask them what they think and listen to what they say.

Secondly, combat resistance to change by engaging them in the process. For example, when you're procuring new tablets or VMCs they can help set requirements, test potential new devices and onboard other members of staff.

And finally, give them the right tools that help them do their jobs. A fit for purpose device that's built for the warehouse environment means they have a tool they can depend on. A fully locked-down device with a custom image means they stay on track with their tasks. Tailor-made shortcuts save time. Up to date software will appeal to the tech-savvy and bigger screens can help the more mature members of your team.

## 4

# Deal with inflexible technology

Technology is designed to help. But inflexible technology turns into a hindrance. Old, incompatible or not fit for purpose devices slow down your workers as they try to find work arounds or waste time trying to get things to function.

Make sure your warehouse is running genuine rugged devices. Consumer-grade kit and many so-called rugged computers are not built to withstand the harsh environment of a warehouse. Rubber corners or a slightly tightened housing do not go far enough in most cases. Buy from a reputable company with a track record in supplying warehouses, to ensure you procure equipment that not only speeds up your workers, but also reduces errors.

Get your hardware and software customized for your operation. Functions and onscreen shortcuts can save valuable time and stop your workforce becoming frustrated. As we've mentioned before, custom imaging keeps employees focused and only lets them access the information they need to do their job.

Finally, update your hardware when needed to reduce incompatibility problems, slow devices and computer breakdowns. Software updates should only be performed when required, such as security updates.

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# Five productivity take-aways

In our fast moving, technology-driven world, productivity is not about to drop off the agenda. In fact it's only going to become more significant as businesses strive to find ways to

differentiate themselves from the competition. Starting to look at where you can gain efficiencies today will equip you better for the future.

## Here's five key ways to start boosting your productivity now:

### **1** Involve your workforce

Show your workforce that they are valued and an important part of your operation by engaging them and supplying them with the right tools to do their jobs.

### **2** Invest in your network

Involve experts and carry out a network survey to make sure your workers have seamless connectivity wherever they are in your warehouse.

### **3** Get high-quality rugged devices

Avoid cheap, consumer devices and invest in high-quality rugged equipment that will withstand the challenging environment of a warehouse.

### **4** Keep technology up to date

Upgrade your technology when it starts failing or showing signs of incompatibility.

### **5** Take the total cost of ownership in consideration

Start taking a more rounded look at costs. Consider direct and indirect expenditure over the lifetime of a device instead of just the purchase price.



# JLT – 25 years of making communications work

Our story starts in 1994. The Internet was new. Industrial computers were basic and 3G was still a dream. Over the following decades, JLT pioneered the rugged computing market. By taking design and quality to new levels, we brought the possibilities of computing to industries where a typical office machine might last just minutes. We think every business should be able to utilize the power of communication technology without restrictions – anytime, anywhere.

Today we are one of the leading companies in the rugged computer market and have shipped over 100,000 units worldwide. Our mission remains the same as ever: we're here to empower customers' business by enabling hassle-free data communication in challenging environments.

Warehousing presents a range of challenges, including the need to minimize downtime and difficult environments for wireless coverage. We match these demands through the most dependable devices and enabling services that go the extra mile.

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