



Reverse Logistics for Electronics Repair:

Reducing Tech Disruptions
and Downtime with Your
Shipping Provider

Optimizing your Electronics Fulfillment Cycle

Contents

Introduction	3
Industry snapshot: OEMs, managed services, Break/Fix, and extended warranty providers	5
Right to repair	
Original Equipment Manufacturers (OEMs)	
Managed service providers	
Break/fix providers	
Warranty service providers	
Field service vs. depot service management	12
To replace or repair? Surging demand for repair services ...	14
How long companies use technology equipment before replacing/decommissioning	
Key findings about industries' use of equipment	
The changing computer repair industry landscap	18
Logistics essentials in an effective “retrieve—repair— return” process	25
Product retrieval	
Repairs	
Return	
With so much at stake, take the time to explore your logistics options	31
Choose a logistics provider that understands repair shipment needs	33



Introduction

For millions of consumers, the pandemic-induced closure of workplaces and schools meant one thing—time to buy a new computer. Or a big TV. And that is exactly what happened. Sales of personal computers grew almost [five percent](#) during 2020, which was the industry's highest rate of growth in ten years. Sales of large TVs—65 inches and larger—increased by [more than 50 percent](#) in the first six months of 2020. And sales of mobile phones will likely reach [1.7 billion](#) units during 2021.

These purchases are in addition to the billions of laptops, desktops, tablets and smartphones already in use worldwide. [Microsoft](#), for example, says more than

one billion devices use its Windows 10 platform. [GSMA Intelligence](#) reports almost 5.3 billion people currently own mobile devices. The average U.S. household now has [ten connected devices](#). And in [Canada](#), almost 85% of households own computers, with nearly 90% owning mobile phones.

With that many devices, there's a clear need for electronics repair and maintenance services. Research by [SquareTrade](#) found one-third of all laptops will fail within three years. And with regard to phones? [SquareTrade](#) reports nearly 5,800 phone screens break every hour, or about two per second.

Repair facilities include more than [13,000 companies](#) across the United States and [more than 4,000 businesses](#) in Canada. These companies range from multi-store chains that operate nationwide, to local owner-operated shops. In total, IBISWorld values the U.S. repair industry at [\\$18 billion](#), and the Canadian industry at [\\$2 billion](#).

Regardless of size, electronic repair companies have been busy. Industry-leader [Asurion](#) noted that at the height of the pandemic, it experienced “nearly a 65% jump in repairs of broken home tech devices compared to the same time the previous year.” Florida-based [uBreakiFix](#), which specializes in same day repairs of small electronics opened [38 new stores](#) during the second quarter of 2021, more than tripling the company's 2020 growth rate.

Asurion also noted a [surge in phone mishaps](#) during Summer 2020, as people clamored to get outside. This included “a nearly 90% spike in liquid-related incidents, a 25% increase in cracked screens and a 65% jump in unrecoverable phones—those dropped where they cannot be retrieved.”

Local repair shops have also seen a surge in demand. North Carolina technician Allen Davis said his shop's revenue had doubled, compared with the year prior. “It's been very steady,” Davis told [Spectrum News 1](#). “There's been almost no drop-off.”

Regardless of a company's scope or size, all repair businesses want to diagnose and repair customers' products as quickly and efficiently as possible. Achieving this goal though, is dependent upon several factors, which are often beyond the repair company's control. These factors include:

- Availability of parts.
- Access to skilled technicians with deep understanding of current products and systems.
- Limited ability to add automation to repair processes, since each repair must be assessed on a case-by-case basis.
- Customer expectations for fast repairs.
- Access to fast, dependable reverse logistics services that ensure supply chain functionality, minimize downtime, and allow companies to fulfill customer expectations. This includes readily-available courier services that offer broad geographic coverage and can accommodate customer needs ranging from inside pickups to special handling to overnight service.





Industry snapshot:
OEMs, managed services,
Break/Fix, and extended
warranty providers

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Within the electronics repair industry, companies generally fall into one of four main categories:

- 1. Original Equipment Manufacturers (OEMs).** Companies such as IBM, Xerox, Apple, and Lenovo that offer support and repair services.
- 2. Managed Service Providers (MSPs).** Companies that provide IT services including network support, “Help Desk” functionality, upkeep and repairs.
- 3. Break/Fix providers.** Companies that offer “as needed” service to consumers and businesses when an IT-related problem arises.
- 4. Extended Warranty providers.** Companies that offer coverage that exceeds coverage offered by a manufacturer.

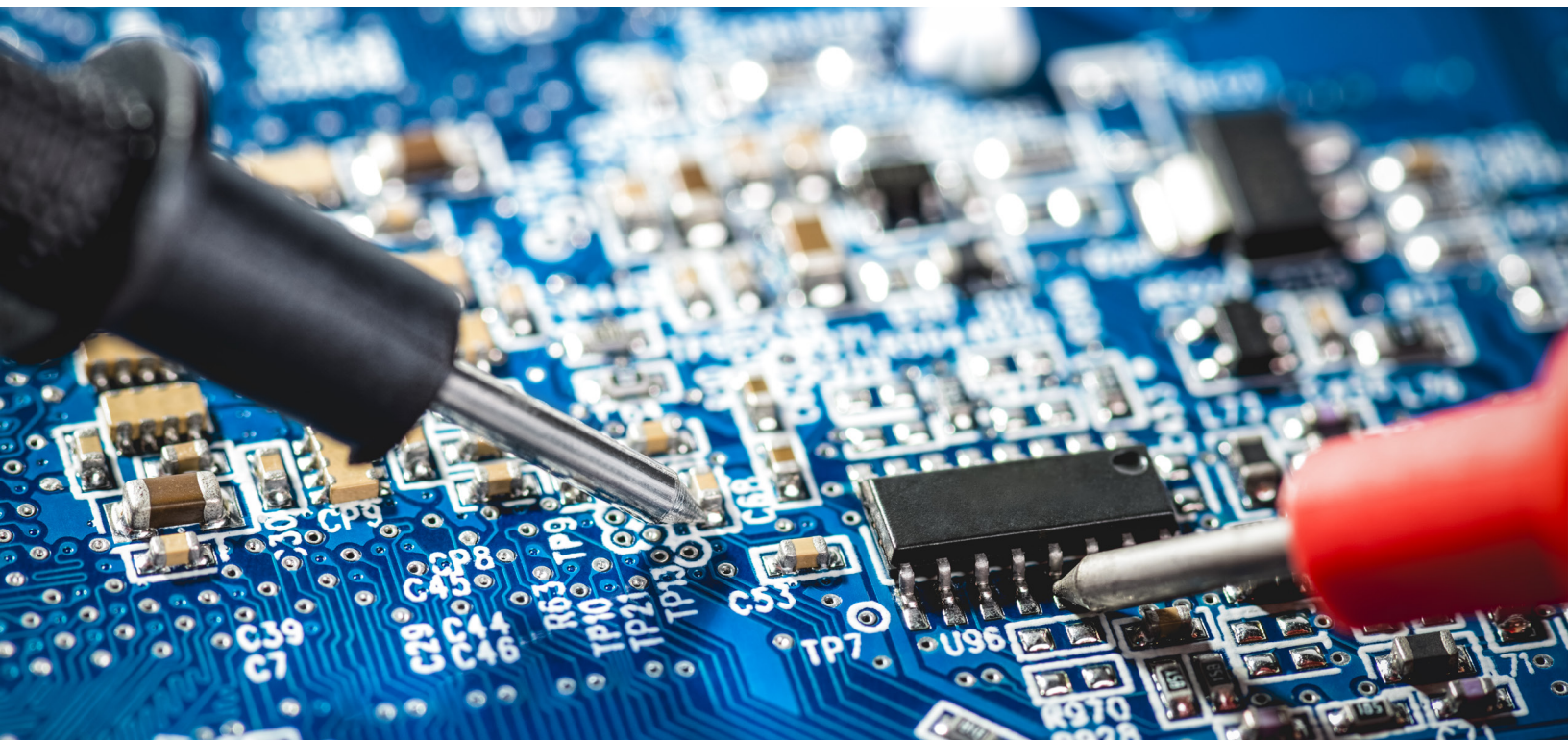
Right to repair

Before discussing the electronics repair industry, it's helpful to understand the “right to repair” issue. This issue has a direct impact on how—and where—electronics can be repaired.

“Right to repair” refers to practices by manufacturers to limit repairs by consumers and repair shops. Manufacturers exert control in many ways, such as by limiting access to product manuals and replacement parts. Manufacturers argue that allowing third parties to repair their products would violate their intellectual property rights. Companies cite the need to protect the investments they make in their products. They also cite safety risks from improperly repaired products, cybersecurity threats, liability and reputational harm.

Efforts to force manufacturers to open the repair process have developed into a national “right to repair” movement. This movement spans industries including IT, appliances, and consumer electronics. (In 2014, an [agreement](#) was reached with the automobile industry. The agreement ended the practice of forcing consumers to have automobiles repaired at dealerships.)

During 2021 “right-to-repair” legislation was [introduced](#) in 27 states. However, no proposal became law.



In May 2021 the Federal Trade Commission issued a report, "[Nixing the Fix](#)," that faulted manufacturers for refusing to allow repairs. The report identified several ways manufacturers impair consumer repair choices, including:

- Limits on the ability to open devices or remove component parts. These restrictions include specialized nuts and bolts that require unique screwdrivers; the use of glue to close device cases; and the increased use of soldering on motherboards and other technical components.
- Unavailability of parts, repair manuals, diagnostic software and tools.
- Telematics (i.e., information about the operation and status of a product that is collected and relayed back to the manufacturer).
- Application of patent rights and enforcement of trademarks.

Supporters of the "right to repair" movement got a boost in July 2021, when President Joe Biden became involved in the issue. According to [Bloomberg News](#), the president directed the FTC to "draft new rules aimed at stopping manufacturers from limiting consumers' ability to repair products at independent shops or on their own."

With this basic understanding of the "right to repair" issue, following is an overview of the types of businesses that offer repair services.

Original Equipment Manufacturers (OEMs)

Many manufacturers—known as original equipment manufacturers (OEMs)—also provide repair and maintenance services. These services provide an important source of revenue, and also help build customer loyalty. Benefits of using an OEM for repair services, according to Wall Street-focused blog "[The Street](#)" include:

- Use of original parts. This can be an important selling point. Most non-OEM facilities use secondary parts and components, known as aftermarket parts. "Think of a Ford dealer which can guarantee original Firestone tires or an Apple service center that can offer original parts, like a Sony camera on an iPhone," the analysis notes.
- OEM parts are considered a safer bet and more dependable since they are manufactured by the original equipment provider.
- For repairs to big ticket items like computers, OEMs represent the "known."
- Quality is generally guaranteed with OEM parts, including the offer of a warranty.



Despite these advantages, offering repair services can present serious obstacles for a manufacturer. A [Harvard Business Review \(HBR\)](#) report highlighted challenges that include:

- The need to send parts, people, and equipment to multiple locations, with little advance notice, and a time-definite sense of urgency.
- The need to support a manufacturer's entire product line—current models as well as past inventory. This generally means maintaining an extensive SKU listing.
- An ongoing need to train technicians. Workers must be aware of new product offerings, and have their skills regularly refreshed. Technicians also need continued expertise in repairing older product models.
- Repair facilities operate in an environment of uncertainty since returns pop up “unexpectedly and sporadically.”
- The need to plan for the environmentally-safe disposal of failed components.

Customers who use OEM facilities expect fast, accurate, and thorough repairs. Manufacturers have responded with impressive service offerings that include:

- **Lenovo** offers direct access to technicians who are evaluated based on their rate of “first time fixes.” If a new part is needed, or the repair must be sent off-site, Lenovo offers “next-business-day repair completion.”
- **IBM** offers [extensive hardware and software support services](#) that include:
 - 24/7 same-day remote assistance.
 - Access to engineers for onsite support to identify and resolve more complex issues.
 - Service [upgrades](#) are available for additional coverage. Upgrades can include parts replacement by an IBM engineer, support for more than [30,000 multi-vendor hardware and software products](#), and IBM equipment upgrades.

- **Hewlett Packard (HP)** posts all product manuals on its website. The company also offers diagnostic tools that help customers troubleshoot and correct problems. A network of [authorized repair providers](#) is available for both remote and in-store service. Should a product need off-site servicing, HP offers complimentary expedited shipping.

Managed service providers

Managed Service Providers (MSPs) offer IT services to other businesses. There are an estimated [40,000 MSPs](#) across North America. MSPs contract with other businesses—large and small—to provide IT services ranging from complete system management, to security services, to technical support and repair.

Alabama-based Otelco lists [several advantages](#) of using an MSP, which include:

- **24/7 monitoring**
MSP experts continually monitor clients' systems for threats and/or irregularities. Potential threats are addressed immediately, with any problems resolved before they affect business operations. Should a system failure occur, an account technician—dedicated to that client—will quickly restore service.
- **Prevention**
MSP's use state-of-the-art technology to proactively protect systems against cybercriminals and other security threats.
- **Updates**
Core MSP services include regular software updates, data security, and third-party app management.
- **Help desk support**
MSPs provide 24/7/365 support. Users have instant access to remote and online support for common software or network issues. An MSP will also retrieve, repair, and return computers that require off-site servicing.

Break/fix providers

As the name implies, break/fix providers come into play when a problem arises. According to technology solutions provider [Consolidated Technologies](#), “break/fix vendors send a professional IT technician to your location to analyze and determine system issues, then provide on-premises remedies.” Businesses are charged for the services rendered during their appointment. Break/fix IT services do not require contracts or subscriptions.

As such, break/fix relationships do not focus on preventative services that could help avoid system or equipment failures. Instead, they provide repairs after a problem occurs. New York-based [CCSI](#), which offers both break/fix and MSP services, notes: “The break-fix model does offer a couple of advantages. It’s a good model for things you expect will only be one-time problems, like configuring settings on new hardware. It can also be a cost-saver for businesses with simple IT needs.”

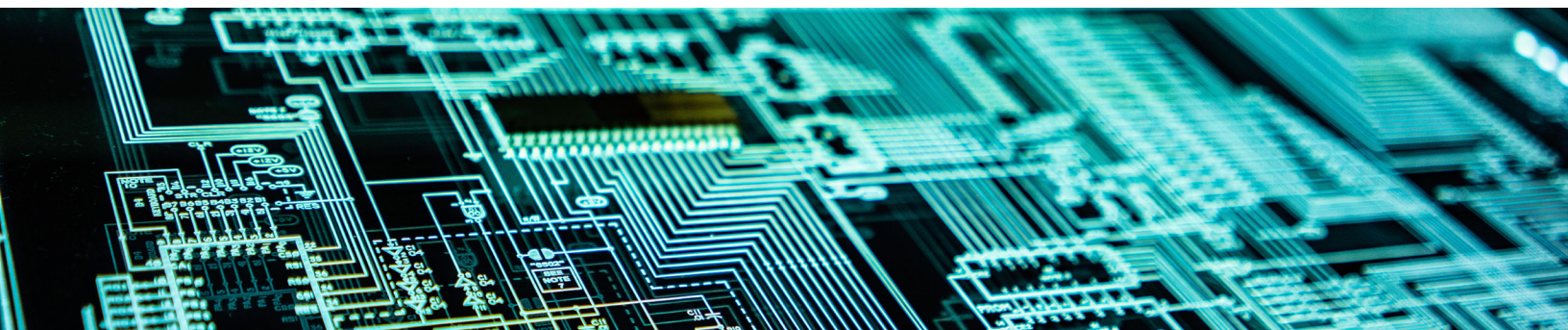
Warranty service providers

Warranty Service Providers offer warranties that exceed coverage offered by manufacturers. This coverage can extend for periods of several years. During 2019, consumers spent almost [\\$50 billion](#) on protection plans for their appliances, electronics, computers, and mobile phones. That number is expected to reach \$59.5 billion by 2028.

Leading providers in the extended warranty sector include:

- **AppleCare** is the extended warranty coverage offered by Apple to purchasers of its portfolio of products. AppleCare is the world’s largest extended warranty program. [Warranty Week](#) estimates AppleCare has \$7.25 billion worth of service contracts worldwide.

- **Asurion Service Plans** administers plans sold by three of the top four American cellphone networks: Verizon, AT&T Wireless, and Sprint. (The fourth, T-Mobile switched from Asurion to Assurant in 2013.) Asurion also manages plans for products sold by Amazon.com, BJ’s Wholesale Club, Home Depot, and Walmart, among others. [Warranty Week](#) estimates “that Asurion has its name on half the retail service contracts sold to U.S. consumers for mobile, electronics, and appliances.”
- **SquareTrade** was acquired by the Allstate Corp. in 2017. SquareTrade offers coverage for consumer electronics and promises a “zero hassle claims process.” [Warranty Week](#) calls SquareTrade “one of the best-known extended warranty administrators in the business.” The company manages plans for Costco, Office Depot, Staples, Sam’s Club, and Target. Square Trade is the exclusive warranty provider for Amazon’s Kindle, Echo, and Fire products.
- **Assurant** is a leading provider of extended service contracts for both automobiles and retail products. Assurant administers protection plans for T-Mobile and Lowe’s, and has “a minority share” of the Amazon.com account.
- **The American International Group (AIG)** manages plans for Best Buy and other retailers. AIG accounts for more than 20% of all U.S. service contracts for mobile phones, appliances, and electronics. Only Asurion has a larger share of the market.



While warranty providers offer different levels of coverage, at different price points, all prioritize good customer service. This includes fast repair/replacement services that minimize the time a customer is without a device or product. A few examples include:

- **Asurion** is the parent company of the uBreakiFix chain of repair stores. uBreakiFix offers walk-in service and same-day repairs for small electronics such as smartphones, game consoles and tablets. The company is a Samsung Care authorized provider, and the exclusive walk-in partner for Google Pixel customers.
- Asurion and uBreakiFix have a combined workforce of more than 10,000 trained technicians. Equipment is repaired either in-store, or at a customer's home or place of employment.
- Asurion offers same-day phone repairs and next-day phone replacement.
- With regard to [laptops](#), Asurion offers pre-paid shipping back to one of its repair centers. Customers can track the status of their claim via email updates. Most repairs are completed within two business days of receipt.
- Remote workforce needs can be managed through [Asurion Enterprise](#). This service includes access to technicians who travel to employee locations, and device repairs or replacements within four hours.
- **SquareTrade** offers "[on-demand device repairs in 60 minutes](#)" for iPhone and Galaxy mobile phones. A Square Trade technician will travel to a customer's home, office, "or even a neighborhood hangout" to quickly repair a phone.

For items other than phones, SquareTrade offers options that include:

- Customer is provided [free shipping](#) to send a damaged item to a repair facility. SquareTrade guarantees repairs in 5 business days or less.
- Same-day local repair. The customer arranges with a repair provider for same-day service and sends SquareTrade the receipt for reimbursement. In 2019, Square Trade's parent company Allstate purchased the [iCracked](#) chain of repair shops. iCracked provides on-site repair services for smartphones and tablets throughout North America.
- Large items such as televisions and appliances are serviced on-site, by a technician who travels to a customer's home or business.
- **AppleCare** offers three options for obtaining repair services:
 - Apple will arrange to have a [product shipped](#) to an Apple Repair Center. The customer is provided with a box and shipping label to pack the computer or other type of device. The shipping label includes the name of a courier service. The customer is instructed to bring the package to a drop-off location, or contact the courier to arrange a pickup.
 - A customer can contact an authorized Apple service provider.
 - A customer can make an appointment for in-store servicing at a "Genius Bar." Genius Bars are staffed by Apple-certified technicians and are located within Apple Stores.





Safety is key when shipping computers and electronics repairs

Computers, phones, and other electronic repair shipments require special care. Take a look at our tips to ensure your shipments arrive on-time and undamaged!

[Review tips](#)



A photograph of two women in professional settings. The woman on the left has long, wavy blonde hair and is wearing glasses and a dark blazer. She is looking towards the woman on the right. The woman on the right has long, wavy brown hair and is wearing a light blue button-down shirt. She is looking down at a document or tablet she is holding, with a pencil in her hand. The background is a bright, out-of-focus window. A solid magenta bar is at the bottom of the image.

Field service vs. depot service management

Field service vs. depot service management

Technicians are often able to provide repairs remotely, or through in-person service calls. There are times though, when a piece of equipment must be serviced at a repair facility. These facilities are referred to as “repair depots.”

[Customers](#) ship their products directly to a repair depot for service. Once a product is serviced or repaired, it is shipped back to the customer.

Repair depots rely on technology and logistics to manage these challenges. Today's repair depots are largely technology-based with key processes automated to ensure visibility, accountability and overall efficiency. In many instances, a facility will rely on courier services to ensure fast, secure pickups and deliveries. The speed and reliability of a courier solution reduces the time customers are without their computers or other devices. An ideal courier service provider will offer technology-based, customized solutions that ensure on-time, hassle-free equipment pickups and deliveries.



While all repairs prioritize fast and accurate service, depot facilities face unique challenges. Those challenges include:

- ✓ Coordinating logistics between the customer and repair center.
- ✓ Providing product “loaners” for use while the piece of equipment is “in the shop.”
- ✓ Fulfilling parts orders that do not require service.
- ✓ Receiving and tagging products received at the depot service center.
- ✓ Tracking customers' equipment as it moves around the repair facility.
- ✓ Communicating with customers throughout the repair process.
- ✓ Coordinating service activities with third-party vendors.
- ✓ Returning repaired products to customers.





To replace or repair?
Surging demand for
repair services

To replace or repair? Surging demand for repair services

One school in Louisiana reported that within weeks of opening, three students had broken their school-supplied iPads. As reported by [Reuters](#), one device was crushed by books in a backpack, one was dropped on the ground, and the third “mysteriously” cracked. This level of breakage is consistent with research by SquareTrade, which found 50% of parents said their kids had damaged an electronic device.

Another report by SquareTrade found [57%](#) of consumers said they had damaged a device, and spent an average \$334 on repairs.

Clearly, electronic repair is big business. It’s also a growing industry. According to [CareerExplorer](#), there are currently more than 635,000 computer repair technicians operating in the United States. But, demand is expected to increase by more than 11%, or 72,000 additional technicians by 2026.

As computers have become more complex—and costly—companies often find it more cost effective to repair a unit, rather than pay for a replacement. [Business.org](#) advises that businesses can expect to pay as much as \$3,500 for a top of the line desktop computer. Businesses choosing to provide employees with laptops can expect to pay \$3,000 for high-speed models with large storage capacity.

In general, notes the [Guardian](#), businesses “want laptops that are sturdy, reliable and repairable, and they are willing to pay a bit more for them.” In addition, businesses frequently require customization, with requirements that go beyond specifications offered on standard consumer machines.

And critically important, businesses want to hang on to their machines for a period of several years. “[B]usinesses buying fleets of perhaps 10,000 or more machines want to be able to buy identical machines over a long period, perhaps 12-18 months, and parts for up to five years,” the Guardian noted. “And sometimes,” the article continued, “their IT departments repair machines by swapping in parts from broken ones, so it helps if the components are effectively the same.”

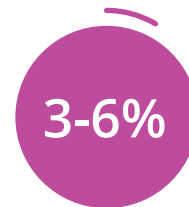
Technicians are in demand across many product categories. Consider the following repair rates reported by Consumer Affairs:



Between 3% and 7% of TVs fail in the first four years.



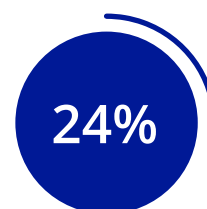
Cameras including point-and-shoot and SLRs have repair rates between 5% and 8%



The Sony PlayStation and Microsoft Xbox have failure rates between 3% and 6%.



Between 30% and 50% of smartphones are damaged or broken.

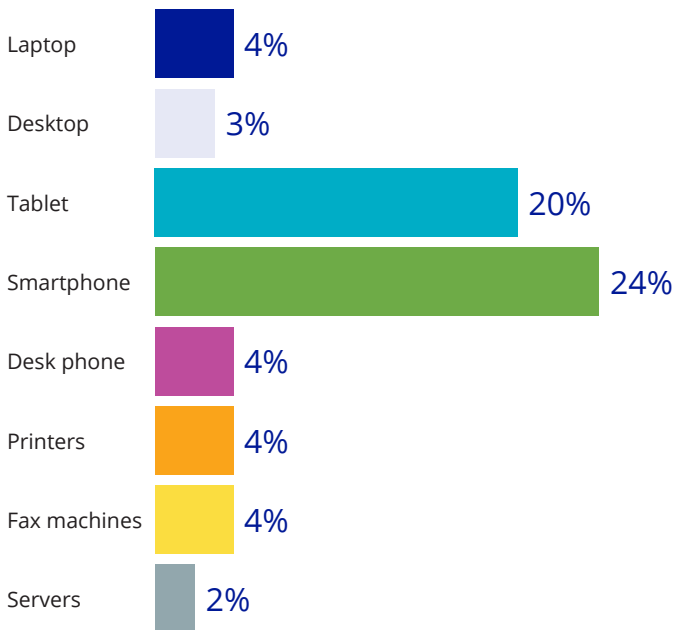


Personal computers including laptops, desktops and notebooks have a 24% repair rate.

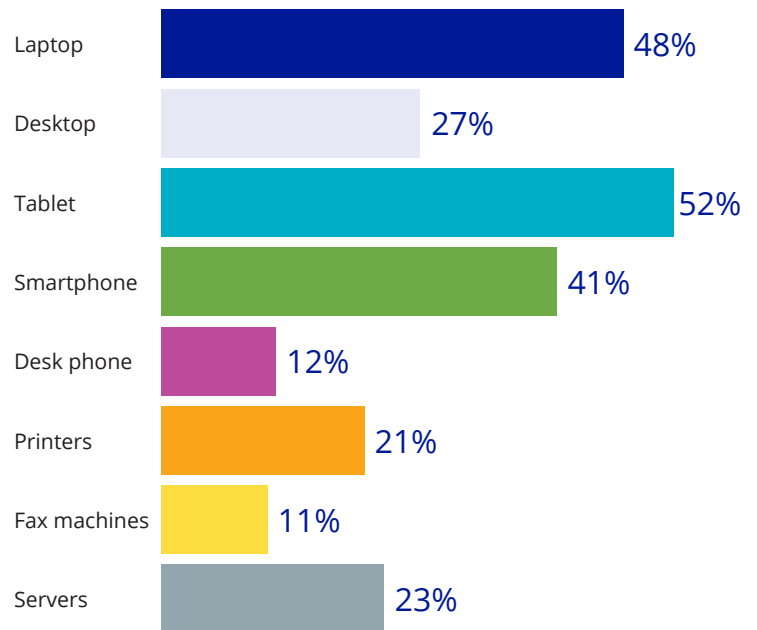
Research by [Spiceworks](#) found 70% of companies use desktops for at least five years before replacing them, 24% use them for more than 7 years—long past the expiration of warranty coverage. An overview of Spiceworks findings about the longevity of company-owned equipment includes:

How long companies use technology equipment before replacing/decommissioning

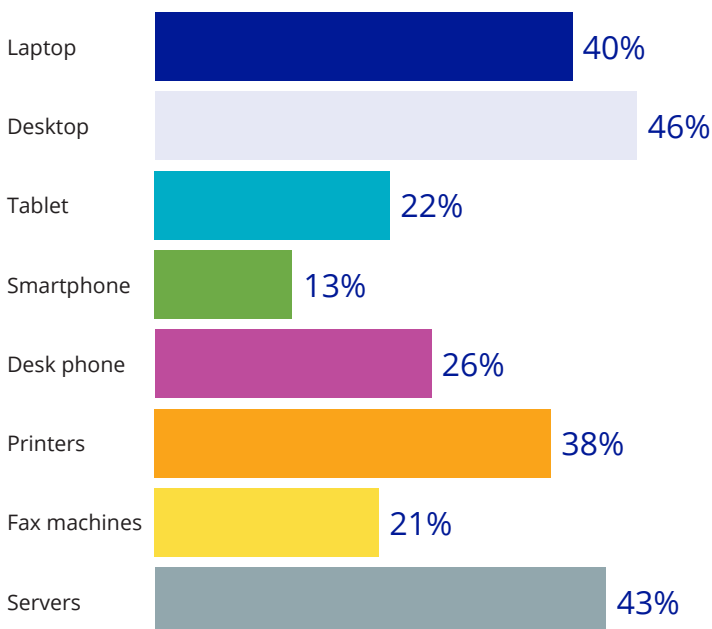
2 years or less



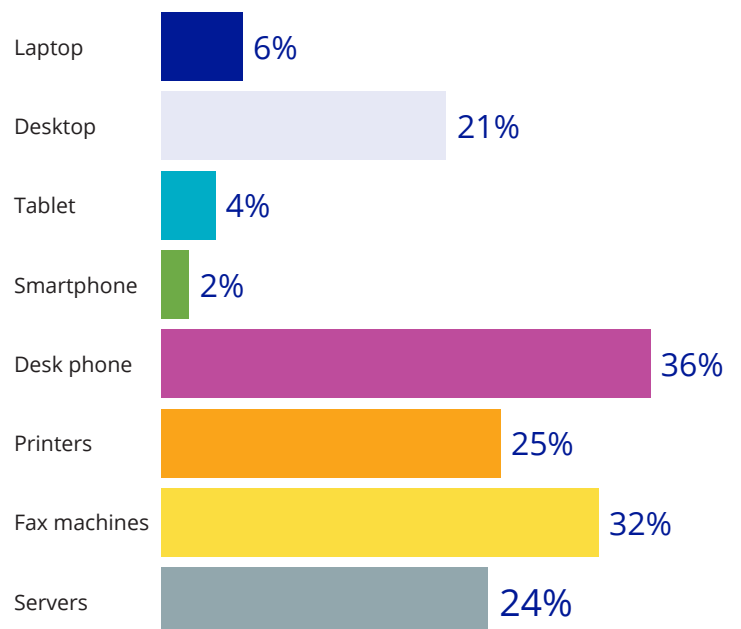
3–4 years



5–6 years



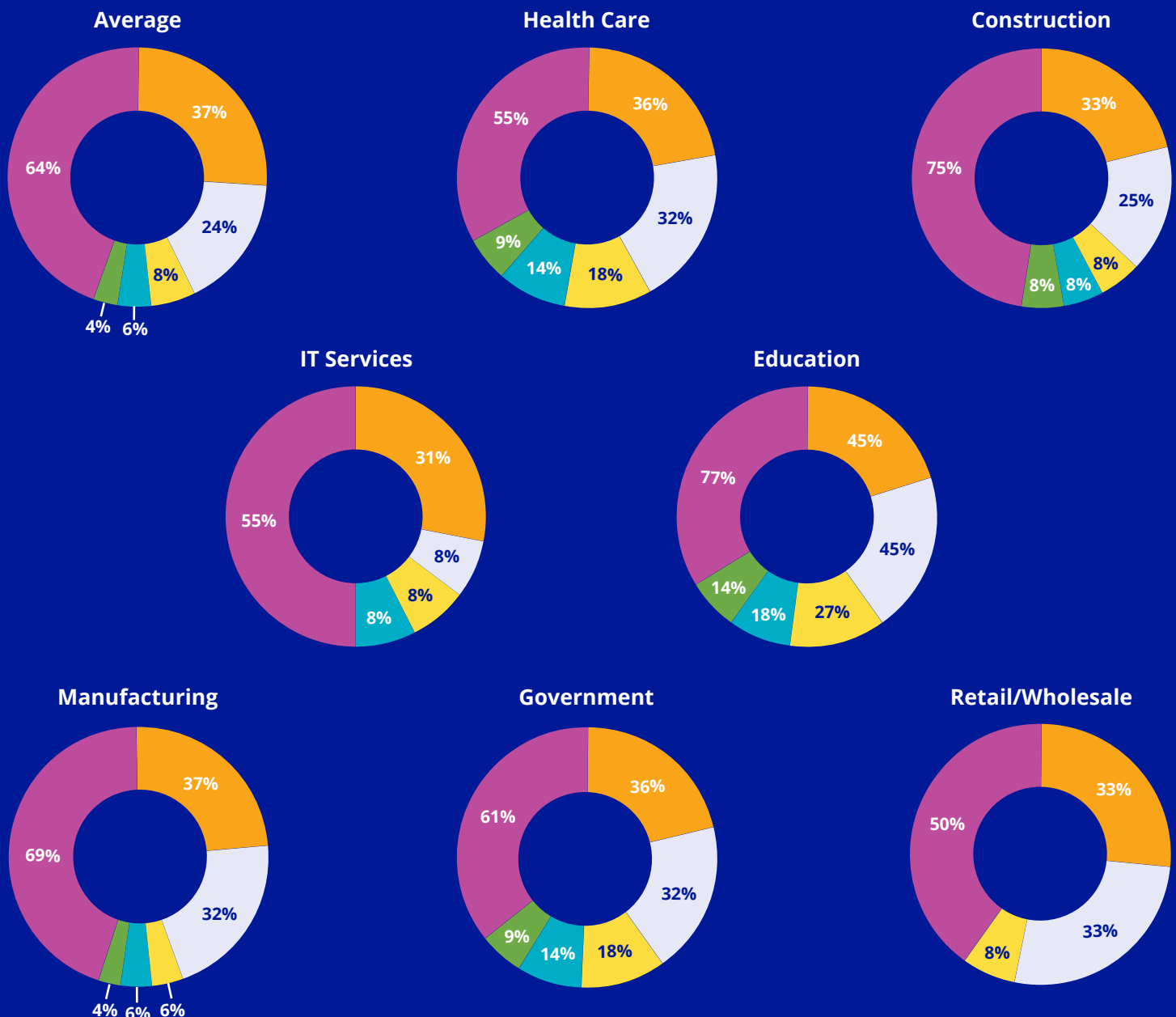
7–10 years



When it comes to replacing equipment, the Spiceworks research found differences among industries. Educational institutions were likely to retain technology equipment the longest. Not surprisingly, IT companies tend to replace their equipment more frequently.

Key findings about Replacement Policy for Different Industries

● Laptop ● Desktop ● Tablet ● Smartphone ● Printers ● Fax Machines



It's easy to see then, how these costs can add up. Businesses are often more inclined to opt for repairs, and put off the high costs of replacements.



The changing computer
repair industry landscape

The changing computer repair industry landscape

The [2020 International Trends in Technology and Workforce](#) report found tremendous optimism about the role of technology in driving innovation. More than 95% of global business leaders listed technology as either a “primary” or “secondary” factor in helping them meet their business objectives.

But, the report also found concern about return on investment (ROI) from technology spending. Business leaders listed concerns about ongoing maintenance costs, required upgrades, built-in obsolescence, and use of staff resources. In Canada, roughly one-third of survey respondents expressed concern about their ROI on tech spending while in the U.S., that figure was nearly 25%.



Repair companies help address these concerns with solutions that include:

- Providing remote and onsite access to qualified technicians. Technicians quickly diagnose and repair computer issues.
- Ensuring a fast process when equipment needs to be replaced, or repaired at an off-site location. This includes access to reliable courier services for seamless equipment pickups and drop-offs.
- Proactive maintenance to help identify and resolve potential problems.
- 24/7 monitoring to ensure network and data security.

To provide these solutions, repair companies must address challenges that include:

- **Training**

Companies must hire and maintain qualified technicians. This includes training on both current and legacy systems. This requires a deep commitment of both financial and staff resources.

To start, many repair companies require new hires to be certified by an accredited college or university. Or, an employee may be certified by the CompTIA trade association, regarded by many as the gold standard in IT training. [MyComputerCareer](#) states there are more than one million CompTIA A+ certificate holders. This level of certification is required for technicians who want to service Hewlett Packard, Intel, and Dell computer hardware.

- **Security**

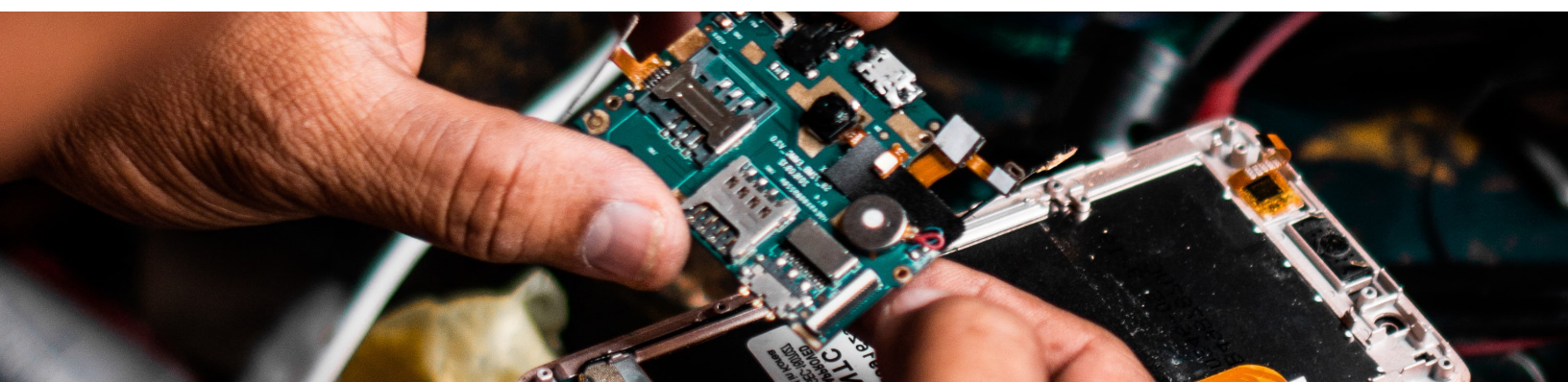
In 2021 cybersecurity has become a front burner issue. High-profile ransomware attacks have exposed the vulnerability of industries including:

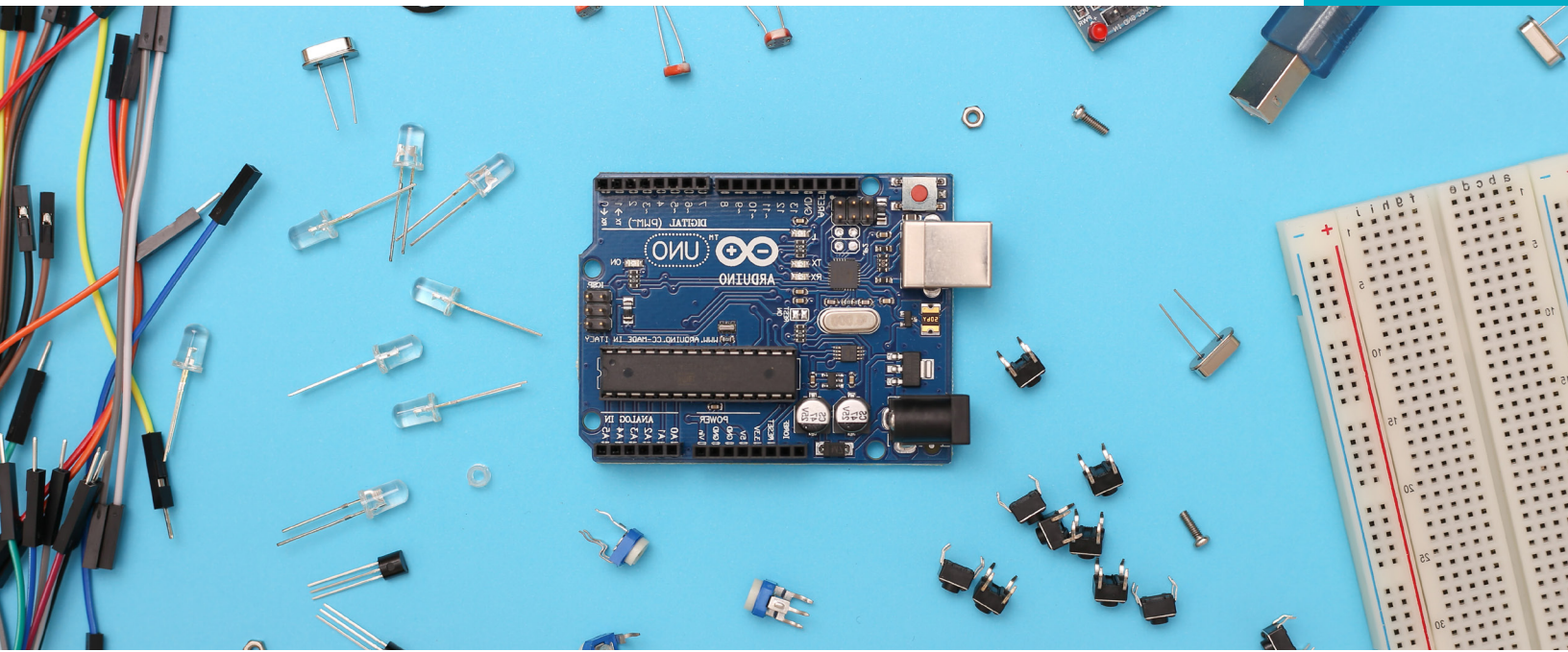
- Energy providers ([Colonial Pipeline](#)).
- Food providers ([JBS](#)).
- Hospitals (multiple incidents including [Hancock Regional](#)).
- Local entities (multiple incidents [including](#) Pensacola, FL; New Orleans, LA; Galt, CA; [Leeds](#), AL; and St. Lucie, FL).
- Federal agencies. The 2020 [SolarWinds](#) hack affected critical U.S. government agencies including the Department of Homeland Security and the Treasury Department.

In a June 2021 segment on [60 Minutes](#), FBI official Mike Christman expressed his view that “everyone should expect to be attacked.” Christman said the risk was especially high, with billions of devices worldwide now connected to the internet.

Companies that hold on to their computers for multiple years face an increased risk of a security lapse. “There are inherent security risks that come with running older systems,” notes [Spiceworks](#). “Particularly with technology older than 7 years, organizations run the risk of encountering security issues when hardware, firmware or operating systems go out of support.”

Repair companies help businesses reduce the risk of a cybersecurity attack. They also face pressure to ensure the safety of clients’ data while equipment is being repaired.





- **Ready-access to spare parts**

Once a technician identifies the reason a piece of equipment is malfunctioning, the next step is to replace the broken part as quickly as possible. But ensuring access to the required part can be a pain point.

Paragon Bay CEO Bob Everest, for example, says that his company maintains 70,000 different parts in-house. Having full visibility into each part's location at any time, he says, is vital. Similarly, Apple-authorized repair facility [Micro Center](#) assures customers that genuine Apple parts will be delivered overnight. This expedited service allows completion of most repairs in under two days, with many repairs made on a "same day" basis.

The ability to ensure fast, near-immediate access to required spare parts depends on:

- Relationships with experienced suppliers that provide reliable access to broad inventories of parts and supplies.
- Full visibility into parts and supplies inventories. A repair facility manager must know which parts are on the shelves, stored in a backroom, or stored off-site in a warehouse. This is especially important for facilities with multiple locations that often transfer parts.

- A highly-efficient reverse logistics strategy with components that [include](#):
 - [Fast, reliable courier services with broad geographic coverage](#). This will ensure fast pickup and delivery, all within the courier's network. An extensive network will also reduce the risk of damage, since shipments will not need transfer from one vehicle to another.
 - An experienced courier will also offer a wide range of service options. Options should range from ["mission critical"](#) service for urgent shipments, to express delivery service for less-urgent shipments.
 - 24/7 tracking capabilities, and full visibility into each shipment.
 - Experience in handling sensitive parts. This includes processes to ensure proper packaging, reduce "touches," and instill confidence that parts will be delivered, on-time and undamaged.



Protect your fragile electronics repair shipments!

Don't risk having a shipment arrive damaged. Learn how to protect your tech shipments by reviewing our list of suggestions.

[See article](#)



- **Specialization**

Repair companies often contract with businesses to provide IT maintenance and repair services. The scope of such contracts can be quite expansive. Services can [include](#):

- Network connectivity.
- Security.
- Diagnostics.
- Hardware repairs.
- Virus scans and removal.
- Software issues.
- System upgrades.
- Data recovery.

Important to note though, not all repair companies offer the same services. One company may specialize in PC repairs, for example, and not service printers or cellphones. Another company might only repair printers. It is not always possible to receive service for all repair needs under the same roof.

Also, different industries have different tech equipment needs. This has given rise to “specialized” repair shops. Industry-specific repair companies have technicians with expertise in that specific industry. These facilities are able to quickly diagnose and correct computer/tech issues. In Canada, for example, while the electronic/computer repair market overall is projected to [decline by 6.5%](#), repairs to medical equipment are expected to increase.

One example of a “specialized” relationship is the partnership between Cox Communications and CTDI. According to [SupplyChainWorld](#), Cox Communications supplies broadband, cable television, telephone, and home security services for residential and business customers in 18 states. Cox has products and supplies moving in three directions:

- Equipment manufacturer to Cox.
- Cox to customer.
- Customer back to Cox when equipment is returned or exchanged.

To manage this flow, Cox enlisted CTDI, a third-party logistics company, testing, refurbishing and repair supplier. CTDI has essentially assumed management of Cox’s testing and repair requirements. Cox established “primary distribution centers” (PDCs) in four key markets: [Virginia](#), Louisiana, Kansas and Arizona. The PDCs are managed by CTDI on Cox’s behalf. “Inside them,” says Cox Senior Vice President of Supply Chain Management George Richter, “we have testing, clean-and-screen, and repair capabilities, which is a big element of the supply chain in any cable operation.”

Cox believes CTDI has been essential in managing the repair and testing processes. CTDI has also helped reduce inventory demands and costs. Instead of having safety stock in 18 different markets, the company now maintains products in the four PDCs.



- **Expectations for fast, single point of contact resolution.** Anyone who has ever been without their phone or computer understands the need to have a repair completed as quickly as possible. Device repairs are inconvenient. But they can also be costly. An employee without access to a computer cannot interact with colleagues or perform other functions. And a business without access to its computer network is subject to highly-disruptive and expensive periods of downtime. As such, companies face enormous pressure to complete repairs as quickly as possible.

Certain repair providers streamline the process by providing comprehensive services. IBM for example, promises 24/7 remote services with access to engineers for onsite support. “Through a single point of contact,” the company advises, a user can expect a customizable, timely, and flexible problem resolution.

But what exactly is meant by “single point of contact” service?

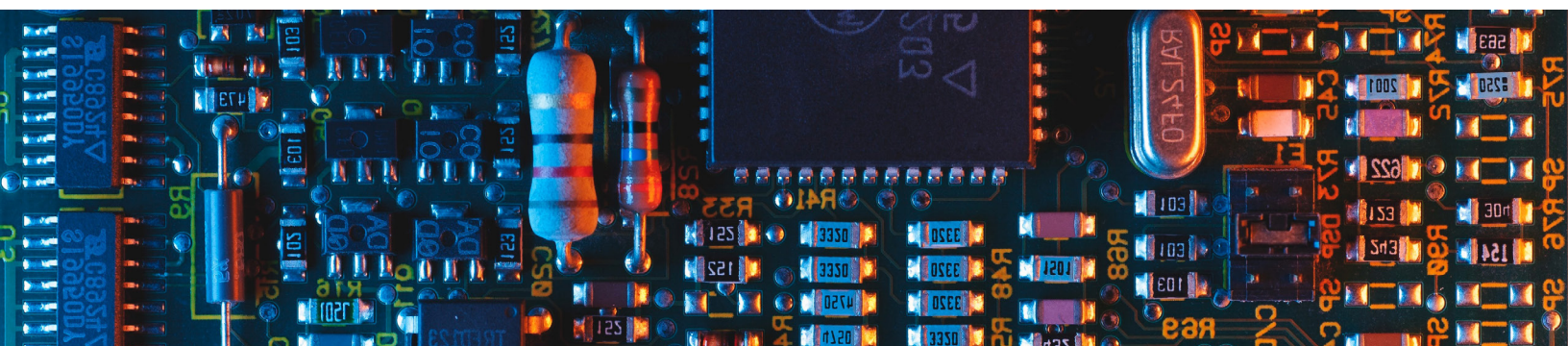
Pennsylvania-based technology company [DecisionOne](#), lists five important parts of a “single-source solution.” Those categories include:


- **Supply chain management.** This includes managing a product through its entire life cycle. Required warranty and end-of life fulfillment services may include:
 - Inventory warehousing and distribution services.
 - Management of secondary market sales for obsolete and refurbished parts and products.
- **Parts repair and refurbishment.** This involves access to spare parts, and customer access to regional repair depots.

- **Retuns management.** This involves management of programs that include:
 - Testing and screening. Products are evaluated, with defective products removed from inventory.
 - Repair and refurbishment. Equipment replacements and repairs are made, with repaired products returned to users as quickly as possible.
 - Upgrades and engineering change orders (ECOs). This includes manufacturer-issued software upgrades and production modifications.
 - Systems integration management. This refers to overall management and performance of servers, workstations, and network equipment.
 - Parts and supplies sales. This ensures availability of parts, including those used frequently, and those considered “hard-to-find.”

DecisionOne also lists four attributes a repair facility needs to successfully offer “single-source” functionality. These attributes include:

- Extensive and ongoing training.
- Technology-based management that ensures full visibility and tracking of all parts and equipment through the repair cycle.
- 24/7 customer service.
- Ongoing investment in technology. This ensures that capabilities and staff training reflect current market offerings, and can meet customer expectations.





Reverse logistics
essentials in an effective
“retrieve—repair—
return” process



Logistics essentials in an effective “retrieve—repair—return” process

The clock starts ticking for a computer repair company the minute a service request is made. This means a repair company is often behind schedule before the repair arrives at its facility!

This means a repair company must have confidence in its logistics provider. For starters, a provider must have a proven track record in executing three critical stages:

1. Retrieving equipment from an office or consumer.
2. Transporting that equipment directly to a repair facility.
3. Returning the repaired product back to its end-user.

An [experienced reverse logistics company](#)—preferably one that offers courier services—will offer flexibility and a broad range of service options. This includes the ability to accommodate last-minute changes and build a solution for each business’s needs. But not all logistics providers have the same capabilities. This means a repair facility manager must evaluate the services offered by a potential logistics provider.

Following are some logistics capabilities that are changing the way repair facilities operate.

Product retrieval

The repair process starts with the return of a damaged piece of equipment to a repair facility, or depot. This “retrieval” process generally happens in one of three ways:

- A courier is dispatched to collect the equipment from an office or other location.
- A customer is sent packing materials. Those materials are used to send equipment to a designated repair facility.
- A customer brings a broken device to a designated drop-off location.

Regardless of how equipment enters the repair process, reverse logistics efficiency can be assured with capabilities that include:

Single source/comprehensive solution provider.

Choose a logistics partner that offers complete management of the entire process. A repair facility that offers multiple services will need a range of logistics capabilities. This means a repair facility should make sure its reverse logistics company offers the services it needs. Important capabilities must include:

- Seamless equipment retrievals and returns.
- Order management.
- Inventory management.
- Warehousing.
- Kitting.
- Picking.
- Labeling/shipment preparation.
- Transportation and delivery.
- All backend functions including recordkeeping and compliance mandates.
- Full visibility into all processes.

Focus on shipment safety and minimizing damage.

A worst-case scenario would involve a computer or other electronic product being damaged—or stolen—while enroute to a repair facility.

A proven way to minimize the risk of damage or theft is to reduce the number of “touches” that happen during the shipping process. A “touch” refers to each hand-off that occurs during the shipping process. The more touches, the more opportunity for a package to be dropped, mishandled, lost, or stolen. It makes sense then, to enlist a courier provider that needs a minimal number of “touches” to complete a delivery. A few things to look for in a qualified service provider include:

• **Geographic coverage area.**

Most logistics companies only provide regional service. Companies rely on networks of local partners for deliveries that go beyond their networks. This means that shipments are transferred multiple times during transit, with each transfer requiring packages to be unloaded and reloaded.

A better option would be to enlist a reverse logistics company that maintains an extensive distribution network, and offers [broad coverage](#). At a minimum, a repair facility should review a logistics company's coverage map, and choose a provider that best meets its requirements.

• **Damage reports.**

A responsible logistics company will proudly disclose the rate of shipments that arrive damaged. For a company that prioritizes proper packaging and handling, the rate of damaged shipments will be negligible. If a logistics company is reluctant to share this information with you, it's probably not a story the company is eager to share.



- **Tamper-proof packaging and sealers.**

Consumer tech products are not only expensive, but often hold sensitive data. This can include a company's proprietary information as well as consumers' personal information stored on phones, PCs and other devices. An experienced returns logistics provider will protect that data by using tamper-proof packaging and seals. This precautionary measure will prevent access to that data while equipment is in-transit, and give customers peace-of-mind about their information's security.

- **Pallet integrity and configuration.**

According to [iGPS](#), the biggest cause of damage during transit is load shifting. Load shifting can occur in many ways, but is primarily the result of improperly packed or secured pallets. In some instances, the pallet itself may be damaged, putting shipments at risk should the pallet collapse. A repair facility can help protect its shipments by ensuring its logistics provider uses pallets approved by the National Wooden Pallet and Container Association, and prioritizes proper pallet configuration.

- **Technology-based solutions.**

Several innovative technology-based solutions that protect shipments while in-transit include:

- Impact sensors placed inside packages will immediately detect if packages are being compromised.
- Sensory tags will alert the driver about potential damage. Once a sensor transmits a warning, the driver can make any required adjustments.
- Shock loggers measure in-transit levels of vibration and movement, and will generate an alert if those levels become excessive.

- **Climate-controlled transport.**

Most electronics need to be stored in dry, dust-free environments. Moisture and particles can easily damage sensitive products. Inclement weather can also be a factor, so it's important to ensure all products are sealed tightly and wrapped inside weatherproof packaging.

- **Visibility and accountability.**

An experienced logistics company will have technology-based processes in place that allow 24/7 tracking and visibility. This means a repair facility will know a shipment's precise location at any given time. This capability will include established procedures in place to trace missing items.

Flexibility and service options.

Choose a reverse logistics provider that can accommodate your preferred pickup schedule:

- A repair facility that services many large corporations may want to schedule several daily pickups.
- Repair facilities that receive a smaller volume of shipments may prefer a single, end-of-day pickup.
- Facilities that send packaging to consumers often need overnight service, with delivery by a certain time.
- Or, a facility may want to offer customers the option of dropping off equipment in need of repair at a convenient location. An established logistics provider will maintain [a network of convenient locations](#).

Delivery guarantees.

What happens to pieces of equipment after pick up? Are they forced to wait for a prolonged period in a distribution center? Transferred multiple times while in-transit? In the time-sensitive world of computer repairs, the clock is continually ticking, and any downtime is time wasted. Choose a reverse logistics provider that will keep your shipments moving, and guarantee delivery. Look for a range of services that include:

- Same-day courier deliveries.
- [Overnight air service with guaranteed delivery as early as 9am.](#)
- [Extended ground options for less-urgent delivery needs.](#)

Expedited services.

Expedited service has become an increasingly attractive solution for ensuring guaranteed deliveries. This service option is especially helpful for urgent repairs. Depending on a specific situation, an expedited solution can have a product picked up within an hour of a service request! Options can include air service, direct ground service, or a mixture of the two. Expedited solutions address specific needs, and include exceptional levels of customer service.

Experience.

There is no substitute for experience. And with so many providers from which to choose, a business must do its research before signing on the dotted line. An experienced provider will have documented experience in successfully managing computer repair logistics, and understand the nuances of the industry. This will include a track record of solutions that have been used with other customers. An experienced provider will also have fresh ideas about how to efficiently address your specific needs.

Customization and collaboration.

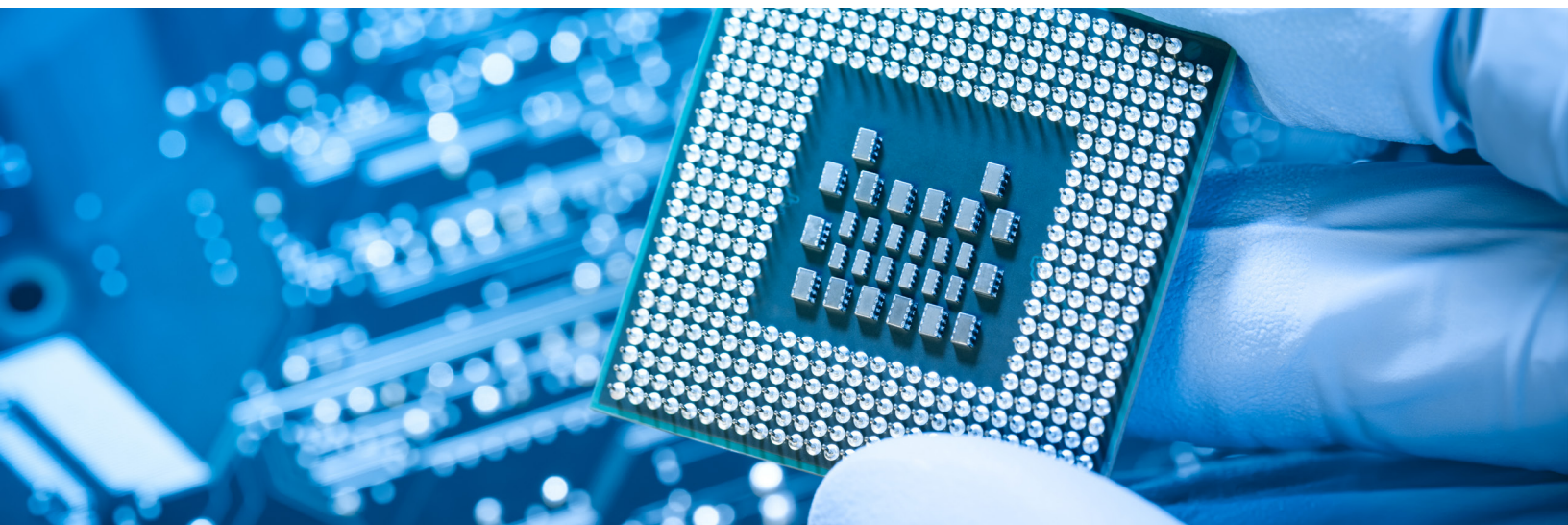
It's essential to view your reverse logistics provider as a partner. You want to build a relationship based on mutual understanding of your business objectives and needs. It takes time to build such a relationship. And it requires many direct conversations, and an open line of communication. A qualified reverse logistics provider will be invested in your success, and want to be your partner.

Customer service.

Equally important is a high level of customer service. This should include a designated contact with whom you have a personal relationship. You should have this individual's contact information, and know he or she is just a quick call away. Your contact should be understand your reverse logistics strategy, and provide you with regular updates. This individual should also know about—and be able to resolve—any snafus or changes before they become problematic.

Technology.

Choose a reverse logistics provider that prioritizes technology. This means a provider with its own technology network that links with customers' internal systems. This helps ensure a seamless on-boarding process. A technology-based process allows important functions including label generation, real-time access to warehouse and transportation updates, and extensive reporting capabilities.





Repairs

Computers, printers, and other types of equipment arriving at a repair facility usually have a sense of urgency about them. As such, equipment will usually undergo a three-part repair process:

Basic triage

- Confirmation of unit's serial number.
- Determination of warranty status.
- Initial determination of repair needs.

Assessment

- The equipment is assigned to a technician who will perform a diagnostic evaluation and determine the scope and cost of needed repairs.

Repair

- Assuming the owner of the equipment decides to proceed with the repair, the technician will draw from the inventory of replacement parts to fix all underlying problems.
- Parts must be readily available, with excess inventory available for replenishments.
- The repaired unit is tested, and a determination is made that all issues have been resolved.

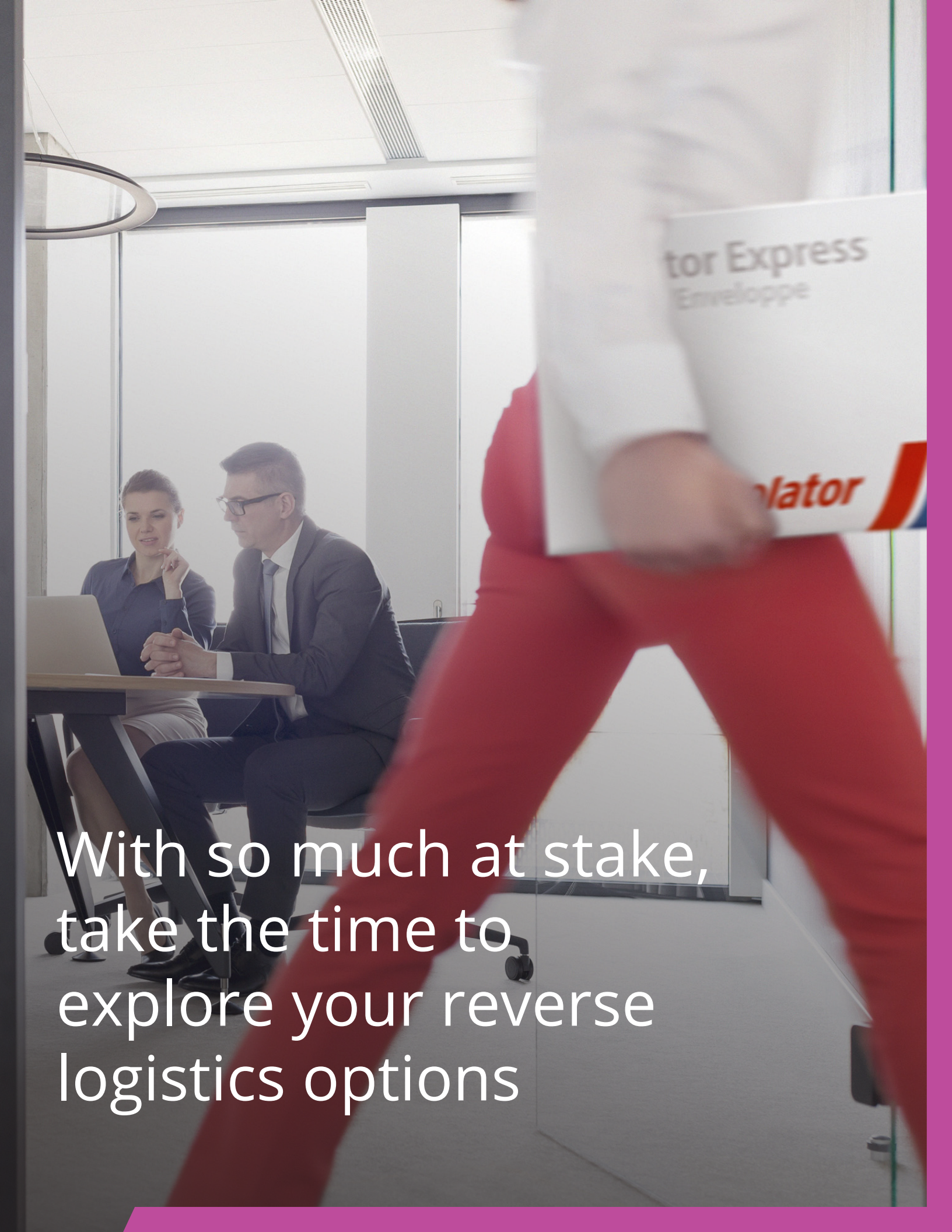
Return

The final step in the process—the last mile!

Similar to other [last mile experiences](#), end-delivery of repaired computers and office equipment is the “make or break” point for a repair facility. The last mile is the point at which a repaired piece of equipment either arrives on time, or it doesn't.

Once again, the repair company must have ready-access to its logistics provider, and confidence that a finished repair will be picked up and prioritized. Similar to the initial product retrieval process, reverse logistics capabilities to expect include:

- Customized pickups including evenings, or multiple daily pickups
- Options for overnight services, followed by early morning delivery
- [Broad geographic reach for in-network deliveries to residences and businesses](#)
- Guaranteed on-time delivery
- Transparent tracking



With so much at stake,
take the time to
explore your reverse
logistics options

With so much at stake, take the time to explore your logistics options

In the “customer care” section of a large tech company’s website, one customer inquired about the length of time needed to fix a computer. “My retailer said 15 days or less,” the customer wrote. “But it’s been 18 days today and I don’t know when I will get it.”


A customer service representative responded: “A depot service normally takes about 7-10 business days, but this depends on part availability.”

In this example, the repair was several days late. But even under “normal” circumstances, the 7-10 day window would seem to try consumers’ patience. People need their computers. And when they need to be fixed, they expect repairs to be completed in hours, rather than days.

Failure to deliver on customer repairs can reflect poorly on a manufacturer. But delays or mess-ups will also affect the reputation of the repair facility contracted to keep a company’s equipment up and running.

With an experienced reverse logistics partner, delays and snafus are largely avoidable. However, since different logistics providers have different capabilities, it’s important to make sure your provider’s capabilities meet your needs—and allow you to meet your customers’ expectations.



A man with dark hair and a beard, wearing a dark blazer over a blue shirt, and a woman with blonde hair, wearing a light-colored blazer, are both smiling and looking towards the left. A third person's arm and hand are visible in the foreground, holding a white document or folder. The background is a bright, out-of-focus office environment. A solid green bar is at the bottom of the image.

Choose a reverse logistics
provider that understands
repair shipment needs

Choose a logistics provider that understands repair shipment needs

Customers count the hours until their computers and other electronics arrive from the repair facility. Purolator has the resources and solutions to ensure your shipments arrive on time, as promised, and undamaged. From our extensive courier network and express service options, to our portfolio of last mile capabilities, Purolator is uniquely qualified for computer and electronic repair logistics solutions.





Trust purolator to manage your electronics repair reverse logistics

Learn about Purolator's portfolio of service options, designed to provide the flexibility and efficiency critical to success.

[Contact us](#)



Resources

Resources

1. ["Allstate Buys Smartphone Repairer iCracked, Expanding its Consumer Services," InsuranceJournal.com](#), February 13, 2019.
2. ["Asurion, uBreakiFix Recognized for New Gold Standard in High-Quality Mobile Device Repair,"](#) Asurion press release, December 20, 2019.
3. Avance, Rosemary, ["Find the Best Extended Warranties for Electronics,"](#) Consumer Affairs, February 1, 2018.
4. ["Break-Fix vs. Managed Services,"](#) Otelco blog post, July 27, 2018.
5. ["Breaking the Break-Fix Mentality: Managed IT Services vs. Break-Fix IT,"](#) TechPulse, accessed May 26, 2021.
6. Centers, Josh, ["FTC Comes Out in Favor of Right to Repair,"](#) TidBITS, May 10, 2021.
7. Cohen, Morris; Agrawal, Narendra; and Agrawal, Vipul, ["Winning in the Aftermarket,"](#) Harvard Business Review, May 2006.
8. ["Communications Monitoring Report 2019,"](#) Canadian Radio-television and Telecommunications Commission, January 21, 2020.
9. ["COVID-19 Is Wreaking Havoc on America's Home Tech: Skyrocketing Need for Repair,"](#) Asurion press statement, April 13, 2021.
10. ["Cox and CTDI Hold Grand Opening & Ribbon Cutting for New Facility in Chesapeake, VA on Feb. 8,"](#) Cox Communications press release, February 8, 2012.
11. ["Cox Communications,"](#) Supply Chain World, accessed June 7, 2021.
12. ["Data Snapshot: The Lifespan of Computers and Other Tech in the Workplace,"](#) Spiceworks, August 20, 2018.
13. Dormehl, Luke, ["Report: Tech Companies are Fighting to Kill 'Right to Repair' Bills in the US,"](#) MakeUseOf.com, May 21, 2021.
14. ["Electronic Equipment Repair Services Industry Insights from D&B Hoovers,"](#) Dun&Bradstreet Hoovers, accessed May 23, 2021.
15. ["Electronic & Computer Repair Services in Canada—Market Research Report,"](#) IBISWorld, May 28, 2020.
16. ["Electronic & Computer Repair Services Industry in the United States—Market Research Report,"](#) IBISWorld, November 30, 2020.
17. ["Find the Best Tech Support Services,"](#) Consumer Affairs, January 21, 2020.
18. ["Gartner Says Worldwide PC Shipments Grew 10.7% in Fourth Quarter of 2020 and 4.8% for the Year,"](#) Gartner press release, January 11, 2021.
19. ["Hold Your Phone! America's Largest Tech Care Company Expects a Surge in Phone Mishaps This Summer,"](#) Asurion press statement, May 25, 2021.
20. ["Holiday Damage Report 2016,"](#) SquareTrade, accessed August 30, 2021.

21. [“How Long will it take to repair my laptop?”](#) Dell Technologies Customer Care, May 21, 2019.
22. [“How Paragon Bay Uses ServiceManager to Drive Revenue,”](#) ServiceCentral, November 2, 2020.
23. [“How to Reduce Product Damage During Transportation,”](#) iGPS, August 30, 2018.
24. [“IBM hardware maintenance services,”](#) IBM, 2020.
25. [“International Trends in Technology and Workforce,”](#) CompTIA research report, January 2020.
26. Kenny, Joe and Meredith, Rob, [“Challenges and Solutions for Depot Service Management,”](#) Field Service Digital, June 11, 2020.
27. [“Managed Service Provider \(MSP\),”](#) Gartner Glossary, Gartner, Inc. accessed May 26, 2021.
28. Mehdi, Yusuf, [“Windows 10: Powering the world with 1 billion monthly active devices,”](#) Microsoft, March 16, 2020.
29. Mehl, Bernhard, [“How Many MSPs are there in the US and Worldwide?”](#) MSP Resources, February 18, 2020.
30. Morley, Lauren, [“Understanding Managed Services and its Benefits to Business,”](#) Techvera, March 5, 2015.
31. O’Connell, Brian, [“What is Original Equipment Manufacturer \(OEM\) \[With Examples\],?”](#) The Street, September 4, 2018.
32. Owen, Malcolm, [“Allstate acquires iPhone repair outfit iCracked, joins ‘right to repair’ fight against Apple,”](#) appleinsider.com, February 15, 2019.
33. Patterson, Dan, [“Four U.S. cities attacked by ransomware this month,”](#) CBS News, December 17, 2019.
34. Pelley, Scott, [“How Cybercriminals Hold Data Hostage... And Why The Best Solution Is Often Paying A Ransom,”](#) 60 Minutes, June 6, 2021.
35. Pinsker, Beth, [“Electronic Devices Damaged By Kids Have Cost Families \\$2.8 Billion In 5 Years,”](#) Reuters, December 6, 2017.
36. Pratt, Micah, [“How Much Should a Business Computer Cost,”](#) Business.org, June 18, 2017.
37. Purkis, Timothy, [“The Changing Model for Logistics Solutions: How DecisionOne has Created a New Model for Logistics Support,”](#) DecisionOne archives, originally published April 2000, accessed June 9, 2021.
38. Root, Tik, [“Apple effectively has a monopoly on fixing your iPhone. There’s now a fight to change that.”](#) Vox, July 3, 2019.
39. Schofield, Jack, [“How do I find a laptop that can be upgraded or repaired?”](#) The Guardian, October 17, 2019.
40. Simpson, Andrew G., [“Allstate to Pay \\$1.4 Billion for SquareTrade, Seller of Warranties for Mobile Devices, Appliances,”](#) InsuranceJournal.com, November 28, 2016.
41. Sink, Justin, [“Biden Sets Up Tech Showdown with ‘Right-to-Repair’ Rules for FTC,”](#) Bloomberg, July 6, 2021.
42. [“SquareTrade Makes Smartphone Repair Breathtakingly Fast and Easy,”](#) press release, March 19, 2014.
43. [“SWOT Analysis for the Computer Repair Industry,”](#) Houston Chronicle, accessed May 19, 2021.

44. [“The A-Team of Extended Warranties,”](#) Warranty Week®, September 21, 2017.
45. [“The Difference Between Managed IT Services and Break/Fix Services,”](#) Consolidated Technologies, Inc. blog post, April 15, 2019.
46. [“The job market for computer repair technicians in the United States,”](#) CareerExplorer, accessed May 26, 2021.
47. [“uBreakiFix® Accelerates Growth, Prepares for Back-to-School Repair Rush,”](#) uBreakiFix press release, July 19, 2021.
48. [“U.S. Extended Warranty Market to Reach \\$59.2 Billion by 2028,”](#) Allied Market Research press release, July 29, 2021.
49. Wellener, Paul; Millar, Kerry; and Lineberger, Robin, [“Aftermarket services—Transforming manufacturing in the wake of the COVID-19 pandemic,”](#) Deloitte, May 14, 2020.
50. [“What is CompTIA A+?,”](#) MyComputer Career, accessed June 7, 2021.
51. [“Why the Break/Fix Model for IT Services is Dying,”](#) Impact blog post, June 3, 2020.
52. Williams, Chris, [“Computer Repairs Surge During the Pandemic,”](#) Spectrum Local News, July 17, 2020.