Techbuyer

Crown
Commercial
Service
Supplier

A Buyer's Guide to Refurbished Products

techbuyer.com/uk/approved-government-supplier

The Time is Now

Governments around the world are taking steps to improve the sustainability performance of their departments. This includes working towards Net Zero, minimising waste and promoting resource efficiency, reducing water use, procuring sustainable products and services, making space for plants and wildlife and adapting to climate change. ICT has its own set of guidelines, being a particularly impactful sector as well as a pathway towards more a more sustainable pathway.

There are three business rules in the [UK Government's Greening Government: ICT and Digital Services Strategy 2020-2025](#) policy paper. One of these is Circular Economy – the practice of extending product life, refurbishment, remanufacturing, cascading assets between users and organisations and recycling at end of life.

Full recycling technologies for all the precious metals and rare earths in ICT are still in their infancy. Quality refurbishment and remanufacture is the highest value option for conserving resource. They also buy time for better circular design and recycling techniques to develop. The question for buyers is how to buy from a circular supply chain, and which areas of their estates are best suited to refurbished and remanufactured products.

Driving Forces

The EU highlights the following as reasons for a more circular approach to IT procurement:

- ✓ 70% increase in waste generation by 2050

- ✓ Over 90% biodiversity loss and water stress comes from resource extraction and processing

- ✓ Up to 80% of a product's environmental impact determined in the design phase

Detail on the environmental impact of ICT are given below:

Criticial Raw Materials
Identified by the EU as of high technical and economic value/significance, some of these are predicted to run out in decades. Many are in ICT.

Water Usage
Direct usage is significant in data centre cooling. It is also an issue in the prduction of non-renewable energy and in the production of IT hardware.

Waste Heat
This is the biproduct of the energy used in the building and a significant draw on the grid.

High Energy Usage
Identified by the EU as of high technical and economic value/significance, some of these are predicted to run out in decades. Many are in ICT.

High CO_2e Emmissions
Currently there is not enough renewable energy supply to feed current energy usage.

The Benefits of Refurbished

1   Cost Saving Solutions

With the Public Sector under pressure to demonstrate value for public money, the economic value of secondary market products is significant. The same performance can be obtained with a significantly lower price point.

2   Reduced Supply Chain Risk

There are significant social and environmental risks associated with the resource mining and production process of new ICT equipment. This touches on human health, conflict materials, pollution and resource depletion as well as freshwater usage. Sourcing from repurposed and remanufactured devices drastically reduces this as well as helping turn the tide of electronic waste.

3   High-Performance Systems

With the slowdown in Moore's Law creating a plateau in technology advancements, it is possible to upgrade older generations to compete with the latest in terms of performance and energy efficiency. Findings on this have been published in the IEEE Transactions on Sustainable Computing: The case for Circular Economy with an Aging Moore's Law.

4   Access to Hard to Find / Legacy Technology

The refurbished technology market is vast and contains technology from a wide range of brands that may no longer be available through the manufacturer. This means that refurbished can provide a wider range of solutions for you to choose from, including legacy equipment and older generations of devices. However, this vast pool of resources also makes it easy to find spares, upgrades and replacements to keep your current infrastructure in use – enabling you to continue reliable business functions.

Challenges and Solutions

Many organisations can be nervous about buying refurbished or remanufactured equipment for the first time for reasons of availability at scale, security, durability, support or maintenance. These concerns can be dealt with in the following ways...

1
How do I ensure availability at scale?

Refurbished and remanufactured suppliers tend to be smaller than the Original Equipment Manufacturers and the channel. However, established operators will have excellent relationships with other suppliers on the market. Reputations are built on ability to deliver in a reliable way. Picking a generation behind the latest generation will increase the likelihood of availability.

2
How do I answer security concerns?

Buyers are sometimes concerned about the risk of malware or spyware on secondary market devices as well as the availability of security updates on previous generations. It is worth noting that many secondary market suppliers also have an IT Asset Disposition (ITAD) service, which is a secure end to end solution with certified data sanitisation, CCTV monitoring on transport, asset registers and security vetted staff. This can be used to deliver equipment to client facilities. Data sanitisation can also be carried out at the client's site.

3
What about failure rates?

In the secondary market, comprehensive diagnostic tests are carried out as equipment arrives, during the refurbishment and remanufacturing process and prior to shipment to the customer. Parts that most often fail, like fans and batteries, are replaced during treatment. As a result, RMAs can be lower than with new equipment. Quality suppliers will offer a manufacturer comparable warranty as standard.

4
How can I get support on the equipment?

Buying new equipment usually comes with wrap around support as part of the contract. Customers are unsure of how this works within the secondary market. There is a wide network of Third Party Maintenance (TPM) providers that support the secondary market. Most offer Service Level Agreements that include remote monitoring software as well as 24/7 break/fix contracts. Post warranty care packs are also available from the manufacturers, however these are a more expensive option.

5
What do I do about maintenance?

TPM provision is also available for installation, upgrades and decommissioning, with qualified engineers available on a contract basis. Quality suppliers of refurbished hardware will have a network of these suppliers and be in a position to provide packages on request. The three year warranty on the hardware will include replacement components.

Navigating Regulation

Some legislation is making it easier to purchase sustainable products. For example, the Plastics Packaging Tax had reduced the amount of virgin plastics in the supply chain. The Ecodesign Directive has ensured base levels of energy efficiency for servers and made it easier for buyers to obtain firmware updates for refurbished products. However, there are other compliance issues on areas like data security and in region sales that make procurement of refurbished products different from the procurement of their new equivalents.

At the same time, supplier questionnaires are becoming more involved for all suppliers. Issues around modern slavery, freedom of association, environmental and social risk in the supply chain are increasingly at the forefront of supplier verification processes. This can be a challenge when vetting a refurbished supply chain, which has less control about the product manufacturing process than manufacturers of new equipment. Refurbished suppliers are typically smaller, which can also be challenging when carrying out supplier onboarding. Supporting them with clear guidance will help.

When it comes to a secondary market supply chain, issues around data security and provenance will be at the forefront of buyers' minds. Quality refurbishment and remanufacturing providers will hold and be able to provide customers with evidence of cyber security, data erasure and also how they ensure they observe the in-region sales stipulations set out by the European Economic Area.

. . . .

Which Types of Equipment Lend Themselves Best to Refurbishment?

Servers make one of the best choices when considering where to utilise refurbished in your IT infrastructure. This is because servers are modular by design, making them easier to upgrade to boost performance than other IT assets.

According to **research published by the IEEE Transactions on Sustainable Computing** shows that IT Assets do not degrade over time - they either work or they don't. Further, also reveals that upgrading an immediate past generation server with CPU and RAM can outperform the latest base configuration by over 30%.

Laptops, tablets and phones also respond well to refurbishment and remanufacture. They contain similar components to servers – CPUs, memory and RAM – the only difference being that the variation is slightly higher and they are more integrated into the overall system.

CASE STUDY:

Refreshing Current Equipment for Consolidation

We worked with a client to consolidate their hosted virtual machines into fewer physical devices to reduce running costs and energy draw.

Deciding what you need from IT hardware, what capabilities you require and what support is needed is essential when restructuring your systems. With the answers to these questions, you can decide if new IT hardware is the way to go, or if refurbished hardware could be a good option.

In the case of our customer, they chose to utilise refurbished, selecting 3 HPE Gen10 servers that met demand without compromise. They chose this option for a variety of reasons:

→ The virtual solution that the customer used, and planned to continue to use, was still supported by the vendor on the previous generation of equipment and so they wanted technology to match these devices.

→ Gen10 capabilities were more than sufficient for supporting their workload of hosting virtual machines. This meant that the client wasn't compromising on performance across their workload.

→ They were on a budget that meant that they could choose higher-performance configurations for lesser cost through refurbished technology. This meant that they could afford to do more with their budget and come out with more powerful devices as a result.

→ They already had Gen10 servers in their infrastructure and wanted to replicate what they already in place. This allowed them to standardise their infrastructure across the board – making it easier to manage.

This client received a cost-effective, powerful solution that supported their current infrastructure and met their workload demands. Without a requirement for vendor SLAs and with earlier generations meeting their compute demands, refurbished was a good choice for this client.

Where Does Refurbished Equipment Work best?

At Techbuyer, we understand that when it comes to choosing what you need from your IT hardware, it can be difficult to decide between new and refurbished. And if you are new to refurbished solutions, you may want to trial them in certain areas before you choose others.

One of the most accessible ways to experience refurbished and gain confidence in this technology is through purchasing spares and upgrades for current infrastructure. By upgrading your equipment, you get to keep your hands on the technology you're comfortable with, whilst also improving performance and efficiency.

However, when a device or system has reached end of life and a decision needs to be made on the direction you're wanting to go – understanding what you need from your technology, your support requirements and your workload demands, is essential.

CASE STUDY:

Refreshing Current Equipment for Performance

We worked with a customer looking to replace their database solution used to host and manage their cloud-based services. The client needed to see an increase in compute power and capabilities, however their workloads were not demanding enough to require the latest server technology.

In this case, refurbished was able to bridge the gap for the following reasons:

→ They were capable of maintaining the technology themselves thanks to their knowledge and experience – this meant that they did not require the support of vendor SLAs or maintenance packages. Upskilling staff on new equipment, systems and infrastructure design was not needed, and so productivity could be directed towards other projects and future development.

→ The cost saving of refurbished was a big factor – they purchased the level of power and performance that they needed by choosing refurbished rather than going for more expensive kit that exceeded their requirements.

→ The needs of their workload did not require the power or performance of the latest technology and refurbished earlier generations of server could meet their needs effectively.

In this case, the customer was able to expand the capabilities of their current infrastructure in a cost-effective way that didn't compromise on their priorities or needs.

How to Create a Reuse Mindset

Building confidence in secondary market IT is about more than just buying hardware. Extending product life in your own facility also means having access to maintenance on the equipment, software updates and support. Luckily, this is available amongst a growing network of software and support houses. This enables you to cascade assets within your own organisation to maximise their usefulness and total cost of ownership.

At end of life, consider donations of equipment or sale for reuse. Being close to a system that sanitises software, effects a secure supply chain and certification for compliance at end of life gives a real understanding of the relationship between data and the hardware it sits on. It also gives tangible benefits in terms of cost recovery and carbon saving contributions.

CASE STUDY:

Extending the Capabilities of Current Infrastructure

We worked with a customer to help them meet the needs of their current workload without compromising on the SLAs they currently had in place or their long-term goals.

In this case, what the client had was working well, but they needed to extend the capabilities of what they already had to meet growing demand within their systems. However, with a refresh planned in a couple of years, during which new would be the right decision, they didn't want to commit to new vendor maintenance programmes or brand-new technology.

In this case, refurbished was able to bridge the gap for the following reasons:

- → Our customer had lot of Lenovo servers currently under support but that was due to expire within a few years. They wanted devices that they didn't have to take out support on that would meet their current needs, but could be refreshed, along with their original kit, in a few years.

- → This meant that refurbished was a good choice now, but in future they would do a full refresh with new.

- → They wanted to extend the lifespan of their current solution to continue meeting demand but knew that a full refresh would be on the cards within a few years.

- → New was more expensive for a temporary fix where they didn't want or need support contracts.

- → They were able to choose the same model of Lenovo servers that they currently had in place for ease of management.

- → As we were also able to buy back their current equipment as part of the refresh, and data sanitise any data bearing devices and components in the process, the customer was able to maximise their budget fully.

Refurbished was a good choice for this client as an interim solution between their planned refreshes. When this refresh comes around, the client also had the choice of cascading their new assets down to less demanding workloads to keep technology in use and maximise their overall budget.

Choosing the Right Partner

So you've chosen refurbished technology as the right choice for you and now you need to look for a reputable supplier for your IT hardware?

When looking into a company and if they can both be trusted and depended on to deliver high quality refurbished equipment, there's a number of things that you can look out for, or questions that you can ask to ensure that you choose the best supplier for you.

Unsure on Your Decision?
This guide is designed to inform; however, we also offer free advice and recommendations on a case-by-case basis to help you create the best solution for your business across all metrics – price, performance, reliability and sustainability. To talk to our team, contact us at **uk-sales@techbuyer.com**

Company Credentials

Carrying out due diligence for refurbished suppliers is similar to any other provider. Company listing, credit rating and prequalification on secure data handling, ethics and governance can all be carried out with various supplier communities like the FSQS and supply chain verification mechanisms like EcoVadis. It is also worth noting that you should check supplier ratings as well as customer ratings on refurbishment companies. Access to high levels of equipment at short notice depends on company repuation with their suppliers. Data security is of paramount importance in the secondary supply chain, so check the accreditations on this (see section below).

Terms and Conditions

Look for Manufacturer comparable warranties as well as similar returns and replacement policies.

Accreditations, Standards and Certifications

- → ISO 9001
- → ISO 27001
- → ISO 14001
- → ISO 45001
- → EcoVadis

How Established is the Company?

Having years of experience within the industry is a good marker of a business within the refurbished market. This not only marks them as a credible source, but also identifies the company as an expert in the technical field in many cases.

Similarly, whilst many refurbished devices come with a warranty, this warranty is only as strong as the company who offers it. Therefore, a long history of a supplier gives you confidence in the warranty they offer, giving you peace of mind in the product.

How is the equipment Refurbished and Tested?

A reputable refurbished supplier will have a standard process for refurbishing and testing equipment – and this information can be readily shared to gain trust with their customers. If this information isn't available on a supplier's website, it's important to ask the business for this information to ensure that the equipment has been handled correctly, tested and refurbished to a high standard.

Having an intensive refurbishment and testing process means that the company can guarantee a certain level of quality that may be missing when looking at other items in the second-hand market. It also means that they can offer transparency on condition to ensure that you don't receive a product beneath your expectations.

Is the Company Selling in Your Region?

Where a company is based and their reach into different locations is also important to examine as it can highlight if a supplier will be able to meet your needs. Companies that can deliver equipment on a global scale, and have been achieving this for years, can be viewed as more reliable in terms of their own supply chain, making them a strong asset for yours.

How are the Reviews for the Company?

Reviews is often the first place a customer will look when exploring any business, and rightly so! Reviews offer the direct words and experiences of previous customers, making them vital when deciding on your refurbished provider.

If the experience of others has been, for the most part, positive, this is a good indicator on the level of service that you will receive and if the goods can be trusted.

FAQs

Do I Need Vendor SLAs or Maintenance?

Deciding whether or not you need vendor SLAs or maintenance packages comes down to the workload you're running – we would recommend vendor support for mission critical applications, high-security systems, or systems running demanding workloads.

Can Refurbished Support My Mission Critical Workloads?

Yes, refurbished can support mission critical applications and can perform as well as new with the right configuration. However, in general, if you need vendor SLAs or maintenance to support your mission critical workloads, it is often worth choosing new in these cases. If you are considering refurbished for your essential workloads, we can work with you on an individual case to ensure that all of your priorities are met.

Furthermore, many vendors provide the firmware patches of earlier generations for free online – this means that you can keep your refurbished technology up-to-date and leverage hardware maintenance, internally, or three a third-party contact. This allows you to access the same levels of support as you would experience for new.

How Much Cheaper is Refurbished Than New?

Price can vary drastically but you could save up to 70% by choosing refurbished over new. This means that not only will you have money to spare, but you could also invest more in more powerful or higher quality technology by choosing refurbished – it pushes more technology into your budget. This having been said, at Techbuyer, our partnerships with leading vendors allows us to find the best deals on new technology from leading names, including HPE, Dell and Microsoft.

How Reliable is Refurbished Server Technology?

Refurbished technology is a reliable option to support your business applications. Refurbished, paired with third party maintenance packages, gives you a good coverage for full peace of mind on performance and breakages. Refurbished technology has been supporting businesses effectively for many years, across different workloads, brands and device generations.

From a quality refurbished technology supplier, you will also find that the returns rate of equipment is not dissimilar to new equipment – this is due to the reliability and support offered by the refurbished market.

Contact Us

Email:
uk-sales@techbuyer.com

UK:
+44 (1423) 789 120

Advice, pricing and support within minutes

At Techbuyer, we transform IT challenges into opportunities, offering a comprehensive range of over 250,000 products with the expertise, availability, and commitment to quality that make us stand out.

Contact us today and we'll get back to you straight away with an evaluation/quote.

Techbuyer

Crown
Commercial
Service
Supplier