



IT PRO'S GUIDE: AMD IN THE WORKPLACE





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MONOCULTURE NO MORE

The processor industry has experienced a substantial shift in recent years, particularly in the mobile computing arena. AMD has disrupted the legacy 'monoculture' in all categories, but perhaps in this segment more than any other they have levelled the playing field on everything, especially performance, security and manageability.

A leading factor in the shift is the well-earned trust that AMD has gained from IT professionals, high-end enthusiasts and mainstream users alike who use and experience AMD products in their personal lives. AMD's notable contribution to the gaming industry is just one of the many ways that they have quietly built loyalty from those who want to obtain the same benefits from their business devices.

More recently, IT teams have had to completely rethink their device strategies - from user choice to pandemic-induced remote working, old approaches are being challenged at every turn. In pursuit of the best user experience and favourable economics, to not look 'outside Intel' is a serious misstep.

As a leading HP partner, Servium can craft computing solutions on every type of device and CPU architecture, covering notebooks, desktops and workstations. Our intention is not to advocate a bias towards AMD as the better option, but instead to offer IT professionals tasked with device strategy and acquisition the necessary insight to make more informed decisions as they seek to increase the productivity, flexibility, and mobility of the workforce.



EVOLVING YOUR MOBILE DEVICE STRATEGY

Today, work means helping your people to focus on what really matters. Working practices, workplaces and individual workspaces are all changing positively to enable this to happen. Your device strategy is a critical part of this approach and needs to keep up, which means the devices you choose must be ready to support the needs of ever-demanding personnel.

When it comes to device choice, the reality is that the CPU in your machines matters a lot and is a big factor in meeting the needs of your people. Higher clock speeds, greater core counts and on-chip functions can make a major difference to performance, providing a more responsive system, better battery life, smoother graphics, and assisting with faster completion of intensive tasks.

While easily overlooked, key attributes of the CPU architecture will feed into the common priorities underpinning your device strategy:

- Security
- Device roll-out and estate integration
- Ongoing manageability
- Cost efficiencies
- Increasing productivity
- Enabling employee innovation

To successfully achieve these priorities, IT teams need to understand all of the CPU choices available to them and be open to breaking out of historic purchasing patterns in order to do so.



AMD - A SERIOUS CONTENDER, MAKE NO MISTAKE

Like it or not, there are some IT professionals that have maintained an unjustified and undeserved prejudice towards AMD technology.

AMD has a rich heritage in business computing. For over 50 years, they have been innovating in this market at a remarkable pace. In that time, they've challenged every dimension of processor manufacture, from die size to embedded capabilities, which has not only broken new ground, but stimulated the entire industry to jump forward. They've repeatedly pioneered important PC developments and broken performance barriers, including releasing the first ever 1GHz CPU chip in 2000, followed up with the first ever 1GHz GPU in 2009.

Thanks to a strong architecture and disruptive technologies, AMD is focused on enabling users to extract every ounce of power from their systems. They are pioneering an era of many-core computing and doing so at an attractive price. The upshot is that AMD-based machines offer a compelling alternative to Intel - technological innovation, great performance and hard-to-ignore economics are rightfully catching the attention of IT teams.



In case you still need convincing, here are **9** belief challenging facts that prove why you should consider introducing AMD-powered machines into your device strategy:



1 - PERFORMANCE

As a fast-paced business, you expect your people to confidently multi-task, seamlessly interchanging between everyday productivity, content creation and multi-media collaboration, often while on-the-go. Your users are therefore demanding more from their systems, which means devices that offer them the freedom to perform tasks simultaneously, frequently using performance-impacting software. Frustrations surface when CPU performance doesn't keep up with the work they are trying to achieve.

It's widely recognised that AMD Accelerated Processing Units (APUs) offer comparable, if not superior, performance to their competitors. Everyday workloads are handled with extraordinary ease with latest models clocking a 37% increase in overall performance for Microsoft Office apps¹ compared to rivals. Likewise, they have achieved huge generational performance leaps in single-thread, multi-thread, and graphics performance. In fact, at their last release, they were able to boast the fastest chip in the ultra-thin device category².

Why is this important? Firstly, speed matters. When your users spend less time waiting for apps, they're getting things done instead. And when their tech steps up they have the confidence to tackle more critical tasks that add more value and might otherwise have been avoided.



APUs explained:

AMD launched Accelerated Processing Units (APUs) in 2011. By integrating the Central Processing Unit (CPU) and Graphics Processing Unit onto one single die, users get all the power in a smaller footprint.

Up to
19%
performance
increase
for Microsoft Word¹

Up to
77%
faster
for more demanding apps
such as Microsoft Excel¹



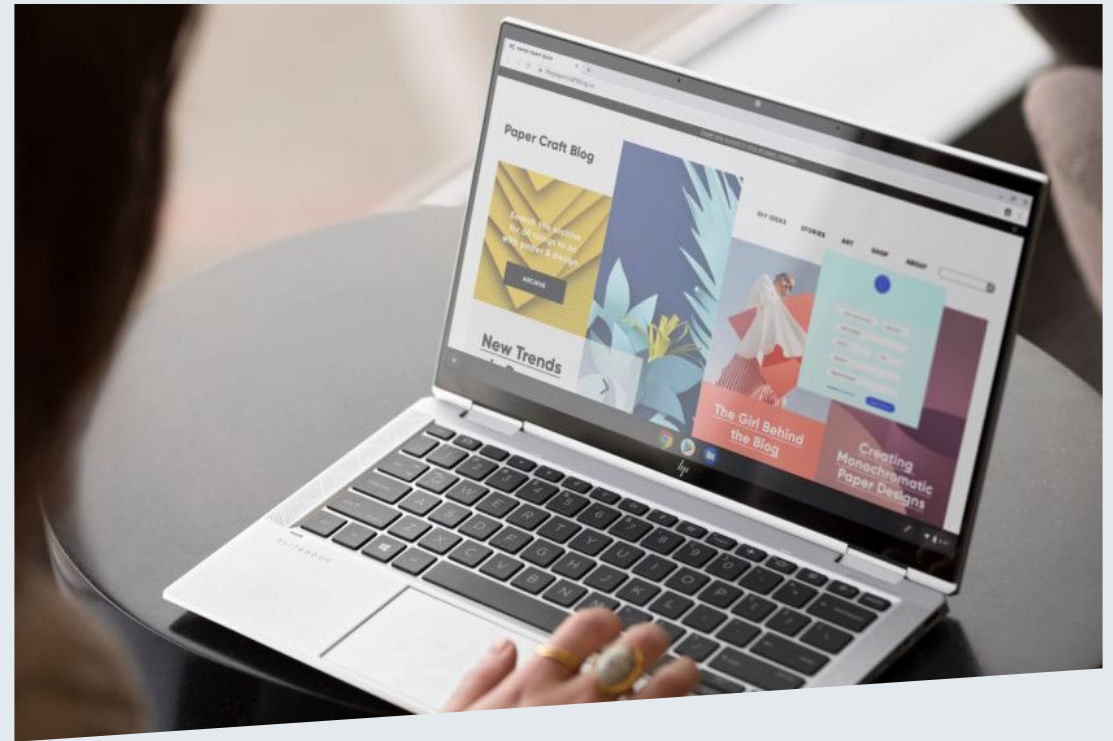
2 - POWER EFFICIENCY

The smaller your transistor, the more power efficient it is. AMD's innovations in chip size allow them to densely pack features onto a smaller chip that significantly boosts performance-per-watt, and reduces power consumption. This results in impressive battery life without compromising on processor performance along the way.

AMD APUs also run cooler than comparable processors; with less energy required to cool the devices, battery life is better preserved for uninterrupted use. A valuable side effect of running cooler is that AMD-embedded machines also produce less noise. In fact, AMD testing has proved that whilst operating at full load, their devices run quieter than the background noise of an average library³.

Other advances like the Ryzen Balanced Power Plan have also been developed to further improve these efficiencies. The power plan allows the Windows 10 default balanced plan to permit power management and deliver performance on par with the High-Performance plan.

Their innovation efforts show no sign of slowing down either. AMD believe that they'll be producing 3nm chips by 2022, which will deliver even bigger leaps in power efficiency while achieving equally impressive performance gains.



Up to
**25 hours of
battery life**

HP EliteBooks, powered by AMD, promise the world's longest lasting battery life in an AMD-based notebook⁴.



3 - PRODUCTIVITY

The cumulative benefit of superior performance and power efficiency is productivity. With devices that are made for peak productivity, your users can work unconstrained by technology, working faster and for longer, especially when they're on the move. The time saved by speeding up users' day-to-day tasks adds up and helps overcome the most common device frustrations. The result is they'll be able to achieve more work of value and be happier while they're at it. It goes without saying that happy employees are great for business.

The impact of recent global events has highlighted a need for businesses to maintain remote working-readiness, even for roles that are typically office-based. Whether that's working on the go, or working from home, it's essential that user devices have what it takes to keep your people working, whatever happens. Wherever your users are working, AMD-powered devices make light work of demanding workloads.





4 - SECURITY

It's fair to say that for most IT teams, security will always be a top priority. The sophistication of security threats is ever increasing, and your devices play a vital and often overlooked role in securing your organisation against them. Embedded right at the heart of AMD's APUs are advanced security features designed to help businesses keep their data, users and assets safe without slowing down productivity.

AMD chips are constructed using AMD's sophisticated Zen architecture which provides a secure foundation upon which each individual device's security ecosystem is built. Microsoft and HP's own security features are tightly integrated and layered upon this architecture to give you confidence in defences at a hardware level, while easily integrating with the other measures you may have deployed to protect your endpoints.

Key to this security-first architecture is the integrated AMD Secure Processor, which is a co-processor dedicated to securely storing and processing sensitive data such as customer information and Intellectual Property without the user even knowing. From the moment you power-on, AMD APUs are working to protect you. AMD Secure Boot helps to secure your BIOS as soon as you are ready to work, stopping malware from reaching your critical software.

If a device is lost or stolen, and an unauthorised person tries to access your data; AMD Memory Guard triggers real-time on-chip memory encryption, preventing your data from being read by standard encryption keys. This impressive feature mitigates data loss through physical attacks and adds an extra level of protection that is as yet, unmatched.





5 - DEPLOYMENT

Deploying AMD-powered devices is no different to deploying any other devices. Microsoft Endpoint Configuration Manager, formerly System Center Configuration Manager (SCCM) uses the same task sequence to deploy systems based on AMD processors as Intel-based systems. That means that even if you've used Intel heavily in the past, you can keep all your existing infrastructure, task sequences and software to image, deploy and manage any AMD-based systems you introduce.

Furthermore, additional tools, such as DASH (Desktop and mobile Architecture for System Hardware) are built into many AMD machines to make deployment and ongoing management even easier. DASH is a web-based platform built on open manageability standards that allows administrators to perform essential management tasks on business-class devices, regardless of their power state or operating system state. DASH-enabled systems achieve smarter, more efficient control of your business by enabling tasks like overnight system updates, system health checks, and secure remote system power-up to occur whether devices are in-band or out-of-band. Helpfully, DASH will also manage many Intel-based devices.



Did you know?

AMD machines use the same task sequences in Microsoft Endpoint Configuration Manager (formerly SCCM) as Intel. Deployment and management of PCs therefore remain unchanged when using AMD-based devices.



6 - GRAPHICS

Business users are sharing and manipulating richer content than ever, in higher volumes than ever. Video editing, accessing artwork files, or placing videos within presentation slides are just some of the day-to-day tasks that necessitate exceptional graphics capabilities. AMD has a well-established heritage in this space and continue to reinforce that legacy. The latest release of Ryzen APUs saw AMD's integrated graphics lead the market, becoming 2.5x faster than rival models⁵ when head-to-head in visually demanding tasks, offering exceptional screen clarity at break-neck speeds.

Just like their desktop counterparts, notebooks embedded with Ryzen APUs are also capable of driving high-resolution multi-display setups. It means mobile users who return home or back to the office can still enjoy the benefits of more apps open concurrently and more on-screen real estate to get work done. Importantly, this is achieved without excessive heat or ambient noise disrupting productivity.





7 - SUPPLY

Every IT team has faced tech supply challenges at one time or another, and recent global events have only served to emphasise the issue further. However, supply won't stop your company hiring people or needing new devices. Therefore, even the most considered device strategies can come unstuck when 'preferred' machines are rigidly pursued only to be unavailable or delayed. Thanks to efficiencies within their manufacturing process and longer horizon planning, AMD have been able to create an exceptional supply chain. Consequently, better supply reliability means better availability for AMD-based devices.

If your device strategy doesn't currently include AMD, then you are significantly limiting your options, both during business-as-usual moments and in times of crisis.



8 - COMPETITIVE ECONOMICS

At a time when budgets are being squeezed for every last drop of value, using competitively priced AMD-based devices can help your budget go further. Aggregated savings over the course of an estate refresh have the potential to release considerable funds back into budgets, presenting the opportunity to reinvest cash into other critical projects that might otherwise be short on funding. Alternatively, unlocked funds can be reinvested to enhance your wider device strategy, such as including SaaS solutions, additional security tools or peripherals that are critical to workspace improvements.



9 - USER SATISFACTION

AMD processors have been critically acclaimed. Their products have been created around user demands for how a CPU should perform, enabling high-performance use no matter the task. Helping your people work at their best means less frustration and makes for happier workers. Every business wants to hold on to its best people and attract the best talent, and your choice of technology could be a deciding factor.

Furthermore, when you provide users with devices they enjoy working with, a mobile device feels more like a perk. Naturally, the lines between work and personal use blur as the desire to use them outside of work increases. It's tough to prevent users from doing this, so providing them with devices that enable them to do so safely is essential for securing your data and your people. AMD processors enable off-the-clock employees to enjoy superior streaming and gaming quality, without putting your business at risk.





WHY HP AND AMD?

Combining market-leading hardware from HP with AMD APUs turns every device into a powerful do-anything, go-anywhere device for the modern mobile professional. Since their release in 2011, AMD APUs have been integrated into HP EliteBooks to create high-performance mobile devices that enable your users to deftly handle the challenges of their working day. With a range of exclusive features embedded at hardware-level, here's what you can expect from the collaboration:



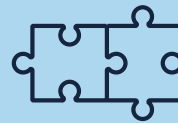
Secure to the core

Intrinsically secure devices with a range of inbuilt protections



Great choice

Machines suited to every type of user, from high-end to more economic options



Easily integrate

Seamlessly deploy into existing device estates



Expert support

Professional after-sale service from HP



Flexible purchasing

Options for DaaS or outright purchase

Sources

¹ <https://community.amd.com/community/amd-business/blog/2020/05/07/the-new-standard-for-modern-business-notebooks-amd-ryzen-pro-mobile-processors>.

² https://www.amd.com/en/products/ryzen-pro-processors-laptop?gclid=Cj0KCQjw0rr4BRCTARIsAB0_48N2HisLxxlpKQPDZkABkdGZzCxf74JmLy3y5fPF2EhB9jcXRkQ7dJ8aApBwEALw_wcB.

³ <https://www.youtube.com/watch?v=JK7hjW6Blq8&feature=youtu.be>.

⁴ <https://press.hp.com/us/en/press-releases/2020/hp-provides-ultimate-office-experience-at-home.html>.

⁵ <https://www.tomshardware.com/uk/features/amd-vs-intel-integrated-graphics>.

⁶ <https://store.hp.com/UKStore/Merch/Offer.aspx?p=b-elitebook-800-series>



THE HP ELITEBOOK FAMILY

The HP EliteBook family of premium business devices, powered by AMD, enable users to work however, whenever and wherever they want. Signature HP features complement AMD technology to build sought-after products:



Contemporary design

Stylish, lightweight and robust devices designed to go anywhere



Leading security

The world's most secure PCs thanks to the HP Sure family of protections and Windows 10 Pro



Privacy

HP Sure View privacy screen and HP Privacy Camera with webcam shutter



Fast charging

HP Fast Charging Battery reaches up to 50% of battery life in just 30 minutes of charging⁶



Rich visual

HD screens with different modes that work wherever you do ranging from Ultrabright Sure View for outdoor working to Super Low Power



Crystal clear audio

Bang & Olufsen delivers clearer calls and better all-round audio



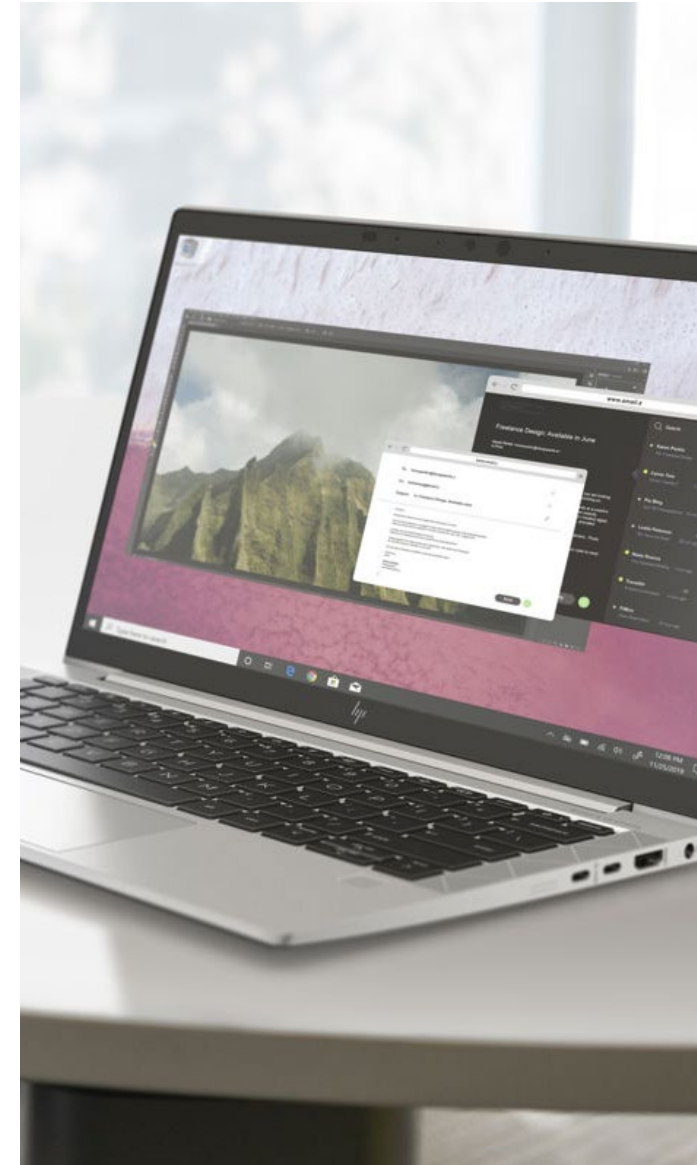
5G-ready

Inbuilt 5G readiness in selected devices



Quiet keyboard

Light-touch, super quiet keyboards





WHAT COMES NEXT?

If you really want to evaluate the role of AMD-based machines in your device strategy, then take one for a test drive. Servium can arrange flexible loan devices from across the HP EliteBook family so you can see the benefits for yourself. To request yours or simply to learn more, speak to your Servium Account Manager or visit www.servium.com.

ABOUT SERVIUM

Servium is dedicated to creating great IT experiences - we seek to win the hearts and minds of IT strategy-makers, professionals and users. Our attitude is that no challenge is too big, no detail too small. We tackle both the ordinary and the extraordinary with the same focus and originality of thought that ensures solutions make a difference. It means we're one partner ready to assemble all the technology and know-how every medium to large organisation relies on. Matched by straight-talking, real-world experience and amazing service, our customers enjoy exceptional value; the product of the best innovation, latest thinking and a thriving ecosystem of technical experts.

