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SPYING ON
YOU**

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GLOBAL EDITORIAL DIRECTOR Jon Phillips

EXECUTIVE EDITOR Brad Chacos

MANAGING EDITOR Katherine Stevenson

SENIOR EDITORS Mark Hachman, Alaina Yee

ASSOCIATE EDITOR Ashley Biancuzzo

ASSISTANT EDITOR Sam Singleton

EDITOR, PCWORLD AUSTRALIA Dominic Bailey

STAFF WRITER Michael Crider

DESIGN & PRODUCTION

ART DIRECTOR Steve Traynor

PRODUCTION EDITOR Rob Woodcock

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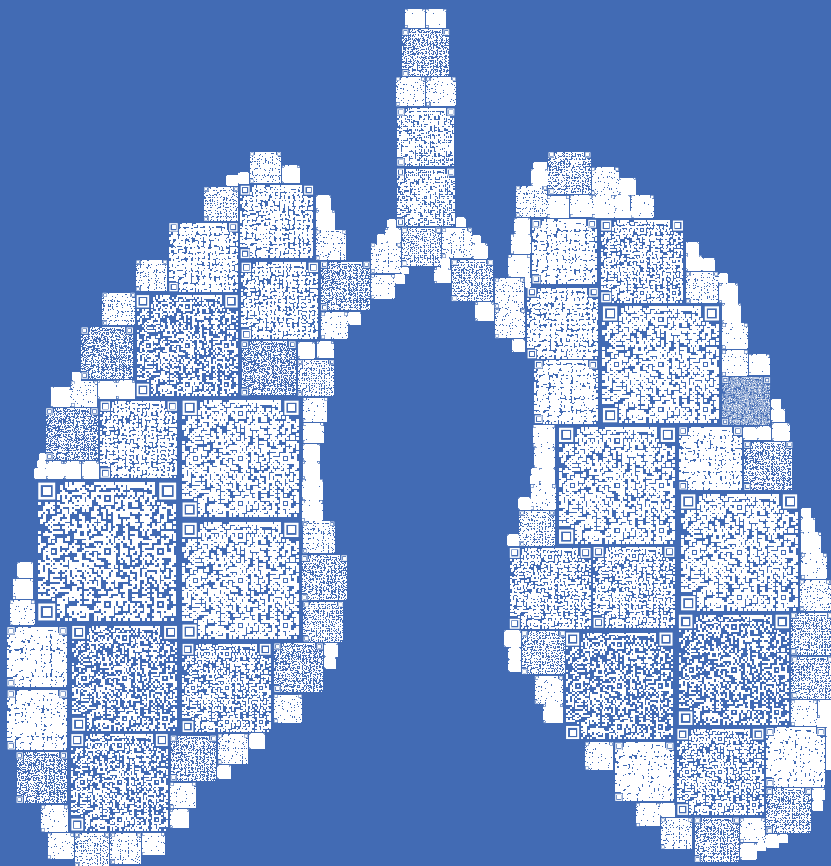
MAIL Editorial: 501 Second Street #650, San Francisco, CA 94107

STAFF ADDRESS To contact any *PCWorld* staff member, simply format the address as follows:
firstname_lastname@foundryco.com

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if you should scan yours.

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5 years later, I can finally use Windows 11 the way I want

It took entirely too long to get the taskbar back on top without mods. But at least I found a cool new program with community-supplied tweaks. **BY MICHAEL CRIDER**

This morning I woke up to a freshly rebooted desktop. A bit annoying, but that's just something that happens with Windows 11—it reboots to install an update after a while, sometimes even when you don't ask it to. But I got the feature I've been waiting for since Windows 11 launched, almost five full years ago: I can put the taskbar on the top of the screen (fave.co/3ToUvQ8).

I'm in a small minority of users here, I know. Most people use the taskbar on the bottom. If that weren't the case, Microsoft wouldn't have unaccountably stripped out a feature Windows has had for decades, for apparently no reason. But when we're talking about a user base in the billions, it's a big deal.

Personally, I use the taskbar on the top because it just *feels* right on my standing desk (fave.co/3Vpvt3S), where I've got an iPad

beneath my monitors, and I try to keep the screens roughly parallel with my eyes for ergonomics. Looking at the taskbar, as I need to do for triple screens and constant multitasking, is a much bigger part of my day than for a lot of people.

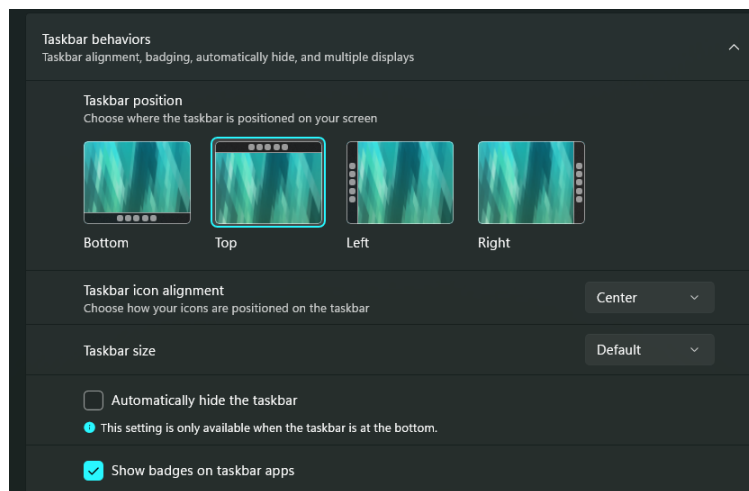
I'm glad it's back. Microsoft seems to be seriously trying to improve Windows 11 for users for the first time, not just using it as a serving platter for AI and a bunch of other expensive services. (And advertising: Don't forget, Microsoft is a massive advertising company, fave.co/4gM1yvc.) This isn't the only thing it's doing. Microsoft, while careful not to walk back its commitment to Copilot in pretty much every way, is pulling out a lot of the actual Copilot buttons it's jammed into every possible nook and cranny of Windows (fave.co/4rKn6Lh).

And Microsoft is, allegedly, trying to make Windows functional on 8GB of RAM (fave.co/4hmlOUo). Here I'll point out that Microsoft set 16GB as a standard for itself years ago, and now sells Surface products that start at 8GB. And also Microsoft is a fairly sizable part of the corporate issue creating the problem that's making RAM unaffordable. So yeah, thanks for all of that, Microsoft! Windows feels kind of nice for me again, for the first time in years, despite your best efforts to make both hardware and software terrible.

One of my core measurements for improvement in an operating system is that I need fewer third-party tools. For example, I used to use a program called Ultramon (fave.co/4cDfDZo) to put taskbars on secondary monitors, back when Windows didn't do that on its own. Now it does.

Improvement. Simple.

Windows 11 required me to *add programs to bring core features back*. So in honor of Microsoft reversing one of the biggest annoyances of its OS, I'm going to show you a program that can easily tweak a



This took five years to do for some reason.

bunch of stuff, which I've been using and enjoying. It's called Windhawk.

Windhawk isn't a mod in and of itself (fave.co/3VpRHTp). It's more of a platform for delivering Windows modifications. It

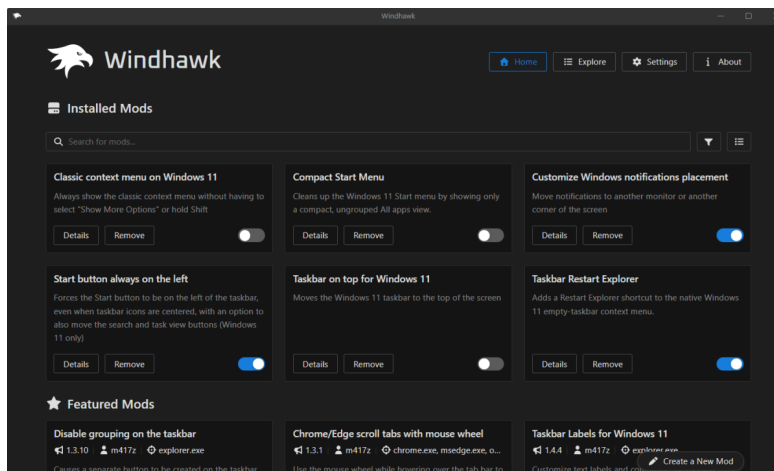
reminds me a lot of some of the tools I used to use for rooted Android phones, back when that operating system was a lot less mature and needed work. (Take that statement as you will.) Windhawk offers hundreds of small tweaks, provided by the community, and shows users and reviews to give you a glimpse of how well they work. You can search and browse through it with an interface similar to an app store.

These are all fairly small tweaks, but a lot of them are serious creature comforts for me. I'll give you an example. Some time ago, Windows started trying to put notifications on the active monitor you're using. That's a good idea. But it doesn't work. Slack and email notifications seem to appear randomly across my three monitors, and there's no way to

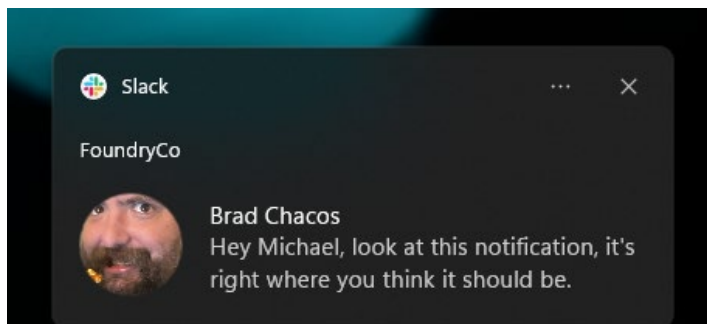
assign them to one monitor specifically. I hear a notification, and I have to rapidly look across three screens to find it before it disappears.

A Windhawk mod called "Customize Windows notification placement," created by m417z and currently reviewed at 5 stars with over 16,000 users, fixes that. Now when I hear the ding of a notification, I know exactly where to look: the bottom center of my main screen. Thanks, m417z, you've genuinely helped me.

Most of the tweaks in Windhawk are possible with other programs—there's one that puts the taskbar on top, for example, which I was doing with StartAllBack before (fave.co/3ED7Use). (I happily paid five bucks for that one years ago.) But the centralized interface and easy-to-add, easy-to-disable



Windhawk isn't a mod in and of itself; it's more of a platform for delivering Windows modifications.



Slack and email notifications seem to appear randomly across my three monitors, and there's no way to assign them to one monitor specifically.

nature makes it super fast to add a bunch of stuff, like the option to put the Start button on the left even when your apps are in the center, or add weather or performance information to your clock without needing a widget that gobbles up RAM and serves you ads.

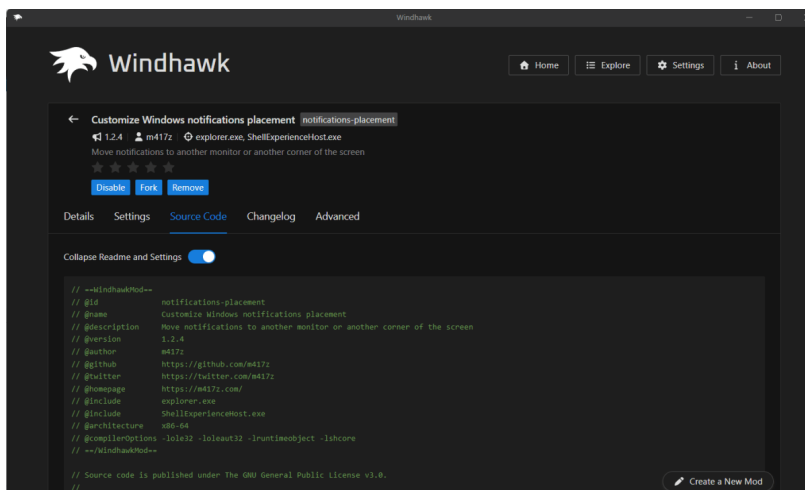
A word of caution: Windhawk is installing small programs on your PC that aren't coming from a verified source, and anyone can add stuff or even fork an existing mod. It's

presenting the same kind of security issues any third-party software does. But the creator of the program, Ramen Software (Michael Maltsev), fave.co/4xmS3Yr, seems to be aware of this.

Contributors can link their Github profiles for extra verification, and

you can take a look at the source code and updates for each tool right on its page.

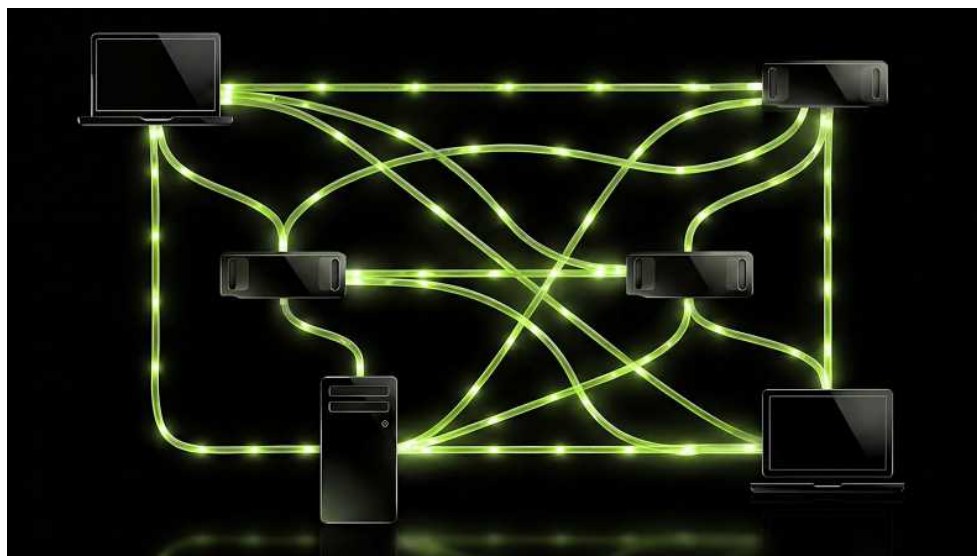
Someone who actually understands that source code should make a mod that brings back the list view for icons on the desktop—please and thanks. 🔥



Windhawk's centralized interface and easy-to-add, easy-to-disable nature makes it superfast to add a bunch of stuff.

Nvidia wants to turn your gaming PCs into an AI supercomputer

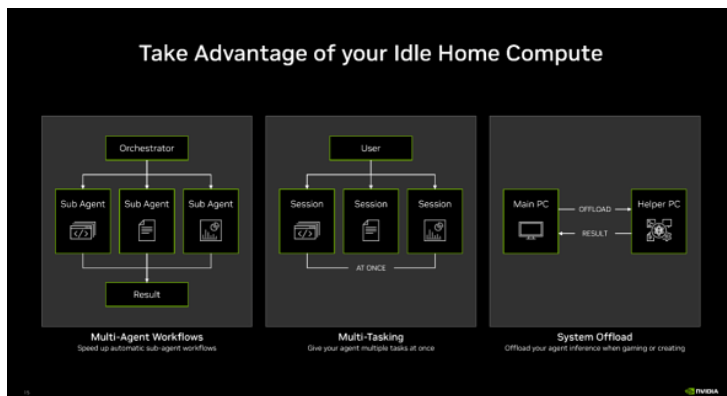
Nvidia's free RTX PAIR app spreads local AI workloads across multiple GPUs on your network, dramatically cutting down on processing times. **BY BRAD CHACOS**



Nvidia and its partners are ready to roll out new RTX Spark-powered devices in October, shoving the GPU Goliath into the CPU spotlight with a beastly first processor that's augmented by powerful integrated graphics. It's all to chase the allure of local AI.

And to set the stage, at IFA Berlin 2026, Nvidia is introducing new software designed to turn your RTX-powered gaming household into a miniature AI factory of its own.

Dubbed Nvidia PAIR (short for Personal AI Router), the free application finds all the GPUs in your local network and dynamically shoots AI agents and subagents to the best available resources during inference tasks. Better yet, Nvidia says it should work with rival GPUs as well, not just GeForce or Nvidia's pro graphics cards. The idea is simple: Install RTX PAIR on every GPU-equipped PC on your network. The software will automatically detect and pair devices over your LAN, so



Nvidia PAIR takes the GPUs in your local network and dynamically shoots AI agents and subagents to the best available resources during inference tasks.

note that hardwired Ethernet connections are key here. RTX PAIR will intelligently and dynamically shift tasks from AI agents and subagents to the GPU on your network that's able to handle it first.

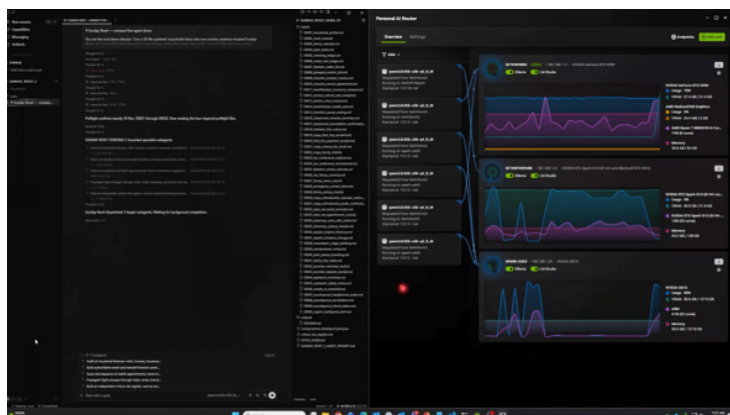
RTX PAIR will initially support Ollama and LM Studio, two popular local AI options with support for multiple open models. In a demo, Nvidia showed Ollama running a person's typical "Sunday morning" checklist of tasks side by side with RTX PAIR. You could see PAIR dynamically allocating agent

tasks across the network as they spawned.

Spreading the load across a trio of RTX-powered PCs on a network helped the task complete in just over 9 minutes with RTX PAIR, compared to over 18 minutes running on a single PC.

It's a thoughtful

move by Nvidia. There's no question that RTX Spark PCs are built for AI-native workloads, and the early adopters who buy them likely already have big local models running on home PCs, gaming or otherwise. RTX PAIR lets AI fanatics



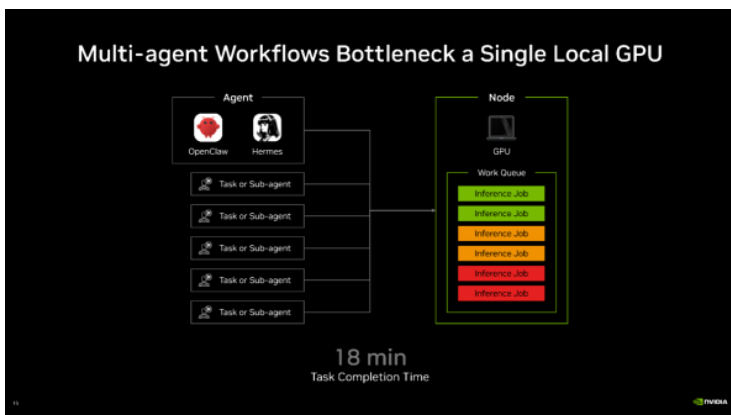
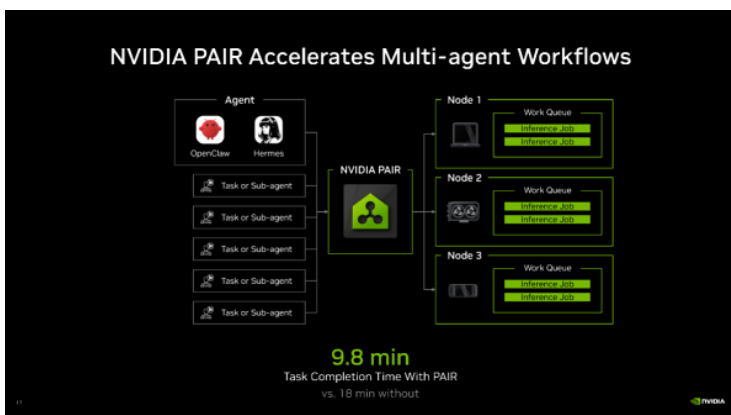
RTX PAIR in action, shunting AI agents and subagents to various GPUs across a connected network.

unleash their entire home's collective GPU compute on tasks, rather than singular devices alone. It's a smart pairing (ha ha) with the RTX Spark announcement... especially if the cloud AI bubble ever bursts (fave.co/4A7TGMe). If ChatGPT and Claude keep raising token rates, or circular funding deals make the AI bubble pop in spectacular fashion, local AI will still be around and ready to kick ass on the hardware you already own.

Nvidia says it has tested RTX PAIR on up to 18 devices on a local network, but there's theoretically no limit to the number of connected PCs, so this could be a powerful tool that pushes local AI farms even deeper into CUDA's arms, despite its compatibility with rival GPUs.

To quote Robert Muldoon in *Jurassic Park*: Clever girl.

Nvidia is launching RTX PAIR as a free download today, and you can use it to start distributing AI tasks among gaming and AI PCs ahead of RTX Spark's October launch. The app will be open source under the Apache 2.0 license and available on Windows, Linux, and macOS. 🔌



Spreading the load across a trio of RTX-powered PCs on a network helped the task complete in 9-plus minutes with RTX PAIR, compared to 18 minutes running on a single PC.



Your Xfinity Wi-Fi can see you now

Arguably, Xfinity customers will be those most tracked if they turn on this 'home protection' feature. **BY ALAINA YEE**

Comcast wants to be your free security company, but not just any company—a high-tech one that detects motion through the disruption of radio waves.

Called Wi-Fi Motion, this feature is part of the corporation's Xfinity Wi-Fi Shield service (fave.co/4ddeY0Z), which combines tools for combating cybersecurity and residential

threats with parental controls. Wi-Fi Motion specifically monitors Wi-Fi interference to determine the presence and movement of people in a home. Comcast specifically tracks how the signal gets redirected, blocked, or absorbed through its Xfinity devices, including gateways and Wi-Fi extenders.

In abstract, the concept is sci-fi come to life. In reality, I don't like the privacy

implications—and you shouldn’t either. Whether video or invisible radio signals, such surveillance can expose your personal life to others, often unwittingly. Recall the Ring camera debacle (fave.co/4ioQtRX), where employees and contractors alike first had unrestricted access to customer footage, then still kept spying on others. Ring also failed to provide adequate security for the cameras, allowing hackers to harass women and children through them.

Comcast says in a support page (fave.co/4yx6pXg) that it “does not monitor the motion and/or notifications generated” by Wi-Fi Motion. It also says that this feature is opt-in. So what’s the harm? The problem is if you use the feature, you won’t know who can see your information—or which hands that data will pass through.

First are the partners Comcast works with. If any of them ever falls victim to a hack (fave.co/4iiMnuF), the intimate details of your habits and living situation could spill into the open. Next is the level of trustworthiness of those partners, who might be tempted to spy on customers.

And possibly most importantly, Comcast doesn’t promise complete privacy. When obligated by law, it will share the data. In an era of identifying people through novel methods (for instance, tech like SignalTrace, fave.co/4A8Po76, which adds phone tracking to license plate cameras such as Flock, fave.co/3ULOPjC), it’s not a stretch to

imagine that a feature like Wi-Fi Motion could eventually get used for Wi-Fi body tracking (fave.co/4xJSFlw).

In the right hands, monitoring would alert people to actual problems, and nothing more. I definitely like imagining a world where Wi-Fi Motion tips me off to a potential intruder or even warns me of a loved one’s bad fall.

But in this chaotic era, privacy is actually a valuable commodity. AI can mine for patterns—exploitable patterns—and the more information you lose or give away about yourself, the easier it is to fall for scams. (They’re becoming harder and harder to detect, as all the loose data on the dark web helps with increasingly better targeting and wording.) You could even fall victim to blackmail, if you have hobbies or activities you don’t want others to know about (even if that’s as benign as taking a slightly long lunch—with a strict enough boss, it’s an issue).

Plus, Comcast doesn’t have a spotless record for clear, defensible advertising, fave.co/3Sxik3O—much less impenetrable cybersecurity practices (fave.co/4yxBcTK). Even when marketing Wi-Fi Motion, the Wi-Fi Shield is touted as “home protection” in the announcement...but in its support page, Comcast clarifies that “WiFi Motion is not a home security service and is not professionally monitored.” Accurate? Yes. But will most people interpret the marketing that way? Probably not. 🔌

AI is cheaper than workers. Bill Gates wants to change that

Could an AI token tax keep businesses from replacing human jobs? The idea is gaining traction, and the Microsoft co-founder says he's on board. **BY BEN PATTERSON**



AI is about to change everything, and we're not ready. That's the overarching message of Bill Gates's 6,000-word essay about his growing worries over AI, and my initial thought after giving it a skim was this: Tell me

something I don't know. The disruption that AI is about to cause will be unprecedented, Gates writes (fave.co/4iYsCZy). It could put weapons of mass destruction into the wrong hands. Even worse, it could devastate the job market, with world-altering consequences.

We need a plan, and we don't have one. Haven't we heard all this before?

To be fair, I don't think the legendary Microsoft co-founder—who, famously, was late to the internet revolution, fave.co/3V4DN9—just realized that AI could be a problem. If anything, he seems less alarmed by the threat of AI itself (and make no mistake, Gates sounds very alarmed by AI) than he is appalled by the laissez-faire, “let the market sort it out” attitude of those in a position to actually do something about that threat (fave.co/4h5UVCr).

Gates's AI manifesto gets more interesting once he arrives at his proposals, even if the first—a category of “just for humans” jobs that he dubbed “Human Reserved”—sounds more like a rhetorical talking point than an actionable plan.

The idea of uniquely human jobs, including roles such as caretakers and teacher, is a laudable one. But as Gates himself asks, who precisely would be in charge of labeling specific jobs as Human Reserved, and who would enforce it? And let's face it: The very idea of “Human Reserved” jobs is more than a little dystopian and creepy (or maybe it's just a sign of the times).

But Gates's *other* proposal is far more concrete, albeit certain to be controversial: taxes. Specifically, we're talking about a tax on AI tokens and robots, and it's not a new idea (fave.co/4gOwzi3). Basically, businesses

would need to pay taxes on every AI token they use, adding a new element to the equation when it comes to employers deploying AI in the workplace, and the decision of whether to replace human jobs in the process.

As Gates writes, the current tax system actually encourages replacing human workers with AI, given that employers must cough up cash for payroll taxes but may write off AI costs as business expenses.

An AI token tax could flip the equation, deleting the current built-in incentive for employers to replace people with ChatGPT, Claude, or Gemini, while simultaneously funding programs to help assist and retrain displaced workers.

Would big business hate the idea of an AI token tax? Sure, but I can also think of millions of AI-leery voters who'd likely warm to it.

Of course, the actual implementation of an AI token tax wouldn't be that simple. As any Claude Fable or GPT-5.6 Sol user will tell you, not all AI tokens are created equal, and they're certainly not priced that way. How would the tax code keep abreast of the latest AI models? Would certain AI tokens be tax-exempt? Wouldn't there be ample opportunity for token-tax loopholes to emerge?

An AI token tax would be a messy solution, make no mistake. But if you can allow me a movie quote here, it might be the best bad idea we have. 



Windows 11 wants your trust. Microsoft keeps testing it

Windows 11 has a habit of crying wolf. Users could get devoured by real threats as a result. **BY ALAINA YEE**

Microsoft launched Windows 11 as the most secure Windows ever built—and the marketing was almost convincing at the time. Almost five years later, I can't say the same. And that's a problem.

A recent bug in Windows was the final straw. Microsoft has confirmed users are mistakenly being alerted (fave.co/4r5vaap)

that Defender, Windows' native antivirus protection, has been turned off.

On the back of earlier issues this summer (fave.co/46TBjwY) with system startup and BitLocker recovery, and the messy process of Secure Boot certificate updates (fave.co/4gll0pj), Microsoft's fumbles no longer feel like occasional one-offs. Nor are they minor. (Not when you can't boot your

system at all. Or you have a momentary heart attack because BitLocker unexpectedly demands its recovery key.)

Family members have asked me to explain Secure Boot certificates to them and why they weren't updated automatically. If they run into Defender's latest woes, I'll have to explain Microsoft Defender Antivirus to them and field questions on why the error even happened. These conversations aren't easy because they sit on top of a continual pile.

And that heap of trouble started even before Windows 11's release. Remember the TPM requirement? Then Microsoft walking back the TPM requirement? Then the restriction on unofficial installations? Then the threatened death of Windows 10? Heck, that stay of execution even got a surprise extension out of nowhere.

I'm not surprised by this chaos—AI truly has changed the game. At a product launch event in late July, several Microsoft representatives said that hackers and other bad actors are ahead of those protecting against attacks. The defenders are playing catch-up. Microsoft has increased the frequency and number of security patches for this reason.

But Windows keeps changing and breaking. In the absence of a reliable



IMAGE: IB PHOTOGRAPHY/SHUTTERSTOCK

Microsoft confirmed users are mistakenly being alerted that Defender has been turned off.

warning system, people will increasingly make decisions without thinking too deep about what Windows is or isn't doing. Microsoft is training us to not believe the very systems we're supposed to put our faith in.

That goes directly against what Windows 11 aims to be. It's a real pity. 🛑



IMAGE: FIZKES/SHUTTERSTOCK

Microsoft is training us to not believe the very systems we're supposed to put our faith in.

Lenovo made a ThinkBook that literally stretches sideways

Lenovo has unveiled its ThinkBook widescreen rollable laptop, dubbed Project Swan.

BY MARK HACHMAN



At CES 2026, we saw a Lenovo gaming laptop that slowly unrolled into a widescreen laptop. At IFA, we're seeing a second: a ThinkBook prototype that Lenovo is calling "Project Swan."

Let's face it: Lenovo seems to have this rollable laptop concept sewn up. Lenovo's

ThinkBook Plus Rollable (fave.co/4nse16l) from last year was all about productivity: The \$3,299 laptop included a screen that extended upward from 14 inches to create a 16.7-inch display. Now Lenovo has gone in the opposite direction.

Since Project Swan is a prototype concept, details are somewhat scarce.

The basics, however, are here: Lenovo is taking a 14-inch laptop and unrolling the display to create a 17-inch laptop instead, via a 16:9 aspect ratio. It's a simpler, more productive version of the Legion Pro Rollable that Lenovo showed off at CES 2026 (fave.co/3UJZlrD), which unrolled in two segments: from 16 inches to 21.5 inches, and then to 23.8 inches. The Legion's functions were controlled by the function keys at the top of the keyboard, just like the new Project Swan ThinkBook.

More precisely, the ThinkBook Project Swan laptop unrolls from an effective 2,258×1,672 screen to 2,850×1672, which is "almost" a 4K display, according to a Lenovo representative. (It's actually about 57 percent of the pixels you'd see on a 3840×2160 4K display. The Legion Pro Rollable, however, was about a 3.6K display.)

Personally, I liked how the ThinkBook Plus Rollable created what was essentially a pair of 4:3 displays sitting virtually on top of one another. Lenovo's representatives had another take: The widescreen rollable isn't top-heavy, sits more ergonomically, and better reproduces a traditional form factor. Moreover, as a gaming laptop, the Legion widescreen rollable was heavy, with no real

portability to it. "It's the Legion technology with a productivity bent," I was told.

Lenovo didn't reveal whether Project Swan would use a traditional IPS or an OLED display. The Legion Pro Rollable, however, used the latter—a good sign that the Swan will do the same.

I still think actually arranging windows on the vertical rollable would be more productive than the widescreen Project Swan prototype Lenovo showed, but Lenovo's team made a strong case in the Project Swan's defense. We're going to have to see what the future holds: the price, the configuration, and the ship date. All those remain unknown. The next showcase will be CES 2026, where Project Swan may become a shipping product. 🔌



Lenovo is taking a 14-inch laptop and unrolling the display to create a 17-inch laptop instead.



I tried the Gemini app for Windows. It wasted my time

Gemini's new Windows app promises a productivity boost, but it fails at basic tasks that competing AI apps like ChatGPT handle easily. **BY MARK HACHMAN**

A few months ago, Google released the Gemini app for macOS as a one-stop shop for accessing Google content. It came and went. Now it's available for Windows too. Is it any better? Nope.

My colleague on the AI beat, Ben Patterson, characterized the Mac version of the Gemini app with a middling "meh," and that's where I am as well. As I sat down to write, the blog post (fave.co/4r6iHDb)

announcing the Windows app didn't even include a link to download the free Gemini app for Windows itself (fave.co/4h2OaSr).

The Gemini app for Windows is a front page of sorts to Gemini's generative content: the LLM chatbot itself, which is all that appears if you refuse to sign in to Google's services with a Google account. Once you do, that unlocks the ability to access stored chats, plus dedicated tabs for images, video, and a stored library of the same. Optionally,

connecting Gemini to your Workspace account (Gmail, Drive, and more) allows access to a “daily brief” of your most important emails.

That *should* be a productivity boost, right? Well...

Competing options, like ChatGPT’s Windows app (fave.co/4AcNUji), let you connect the agent to your desktop or services like Slack. There, those agents can take actions for you. Gemini can’t even do that.

Supposedly, one of the new Gemini app features access to Spark, Google’s personalized AI agent (fave.co/43vmLIH), at least in Google’s blog post. I didn’t see it in the app, either as a feature or even a potential upsell. (I’m currently not paying \$100 per month to Google to access Spark via a Pro plan, which may have affected what the app showed me.)

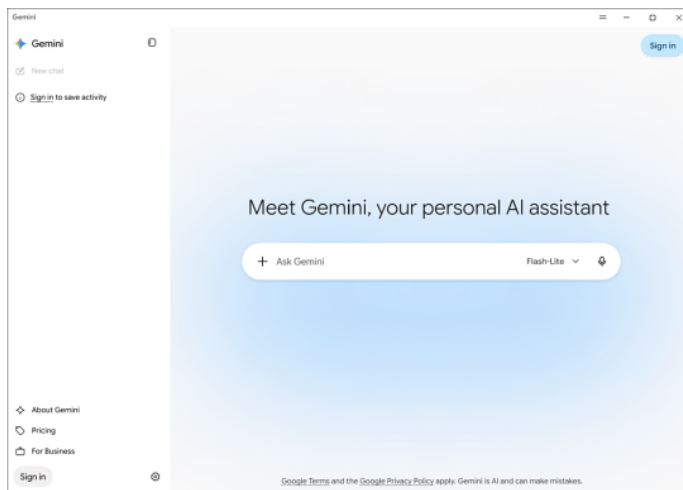
Instead, the app directed me to Scheduled Actions via the Settings menu at the bottom of the page, where I could sample Google’s suggestions, such as sending me a recipe every weekend or suggesting a motivational quote every morning.

If you download the Gemini app for Windows, make sure you explore

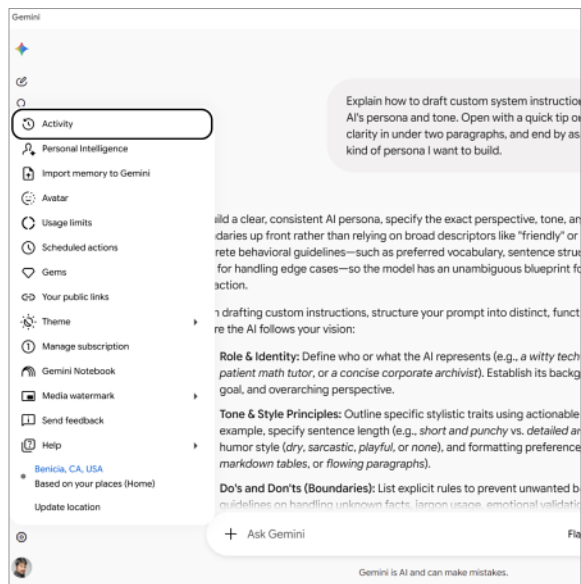
the Settings menu further. There, the Personal Intelligence tab will allow you to turn on (or off) Gemini’s memory about you. A separate “Import memory to Gemini” tab lets you tell other LLMs to summarize what they know about you and then feed that information to Gemini. (My colleague Ben reports that Anthropic’s Claude does this as well.) There are a few other controls to tweak, too.

Still, the chatbot interface is where you should interact with Gemini. What does the Windows app offer that a prompt on Gemini’s web app does not? The one function that immediately came to mind was to use the app to clean out my Gmail inbox, such as deleting any email in my Social tab that was older than 60 days.

“I found emails from your Gmail search, but I am unable to permanently delete them



You’ll see a much more basic interface if you decline to sign in.



Be sure to check out the Settings menu for additional options.

for you,” Gemini responded. “I do not have access to an API function that performs email deletions or modifies category tabs. To clear or manage your ‘Social’ tab, you will need to open Gmail, navigate to the Social tab (or search **category:social older_than:60d**), select the messages, and delete them manually.”

OK, what’s the largest file in my Google Drive? “I don’t have direct visibility into

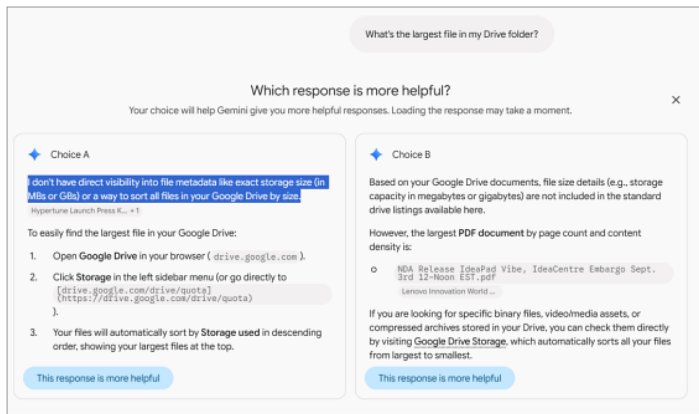
file metadata like exact storage size (in MBs or GBs) or a way to sort all files in your Google Drive by size,” Gemini responded.

That’s a bunch of crap, to be honest. If Google Gemini can’t even control Google’s Workspace apps, then what good is it?

I noodled around a bit more, trying to create a video of a bunny and a squirrel playing tennis. My request apparently vanished after I navigated away from the tab. My library of saved media appeared, then presented itself as “unavailable” when I tried again.

And with that, I was done.

Obviously, no service or app is ever really complete. But for now, the Gemini app for Windows is probably a waste of your time. I know it was a waste of mine. 🔌



Yeah, how about neither?

Nvidia's DLSS 5 makes NBA 2K27 look incredibly real, which is kind of the problem

NBA 2K27 shows off DLSS 5's impressive new realism—and hints at a future where animation, not graphics, becomes gaming's weakest link. **BY BRAD CHACOS**



I couldn't stop staring at the shadows on Tyrese Haliburton's hand. That sounds weird, but hear me out. Nvidia showed me and other journalists a preview of 2K's NBA 2K27 ahead of the game's launch, because NBA 2K27 will also mark the debut of Nvidia's DLSS 5 technology, which applies AI models to rendered game scenes to drastically improve realism.

It's the little things that sell it. Shadows fell naturally across Haliburton's hand as it gripped the ball. Jerseys met skin much more convincingly. Lighting behaved in ways that made players feel less like collections of polygons wrapped in expensive textures and more like, you know, actual people.

DLSS 5 can look *damn* good. Just zoom in on the DLSS 5 on/off comparison shots

below to see those jaw-dropping shadows and sweat for yourself! Then one of those startlingly realistic players started moving awkwardly during a cutscene. And suddenly I couldn't stop staring at that either.

That may wind up being one of the most interesting side effects of Nvidia's latest neural rendering push. Making video game characters look this lifelike exposes everything else that isn't.



Zoom in on these DLSS 5 comparison shots to see those jaw-dropping shadows and sweat.

DLSS 5 made me wonder whether we're reaching the point where the graphics themselves aren't the weakest link anymore. Consider that a hell of a compliment, Nvidia.

DLSS 5 GIVES GAME DEVELOPERS A LOT OF CONTROL

There's been a lot of confusion and hate floating around DLSS 5 since its controversial

reveal earlier this year. But DLSS 5 isn't just a binary "make graphics prettier" switch that devs slap onto a game and call it a day.

Nvidia says developers get extensive control over how its new neural rendering technology affects a scene, retaining a significant amount of input over where and how aggressively the technology gets used. (It's important to note that DLSS 5 never adjusts the structural geometry of objects.) They can effectively create an unlimited number of masks that target individual objects or entire classes of objects—foliage or food, for example—then adjust

the intensity of the DLSS 5 effects independently, on an object-by-object and scene-by-scene basis.

That's important, because neural rendering isn't something you'd necessarily want applied uniformly everywhere. A basketball player's skin might benefit from a different treatment than his jersey, the hardwood court, or the crowd sitting behind him. A developer may want to unleash DLSS 5's power on scenery but stick to their artists' pure character designs, or vice versa.

Nvidia says adding more masks doesn't inherently increase the performance penalty either (more on that soon!), giving developers plenty of room to fine-tune how DLSS 5 is deployed.

That developer control was obvious in NBA 2K27. Humans are brutally difficult to render convincingly because our brains are incredibly good at noticing when another human looks wrong. Slightly unnatural lighting, shadows, skin, or clothing immediately screams "video game." But with DLSS 5 flipped on and properly tuned, you could



Nvidia says adding more masks doesn't inherently increase the performance penalty.



With DLSS 5 flipped on and properly tuned, you could mistake NBA 2K27's on-court action for the real thing.

mistake NBA 2K27's on-court action for *actual* on-court action from NBA League Pass.

You may have already seen purported DLSS 5 comparisons (fave.co/4dvLz26) bouncing around the internet. Modders discovered the technology inside NBA 2K27's early-access build and began transplanting it into other games, but those unofficial examples—many of which look damn good, especially sports games—aren't necessarily representative of what developers can accomplish when DLSS 5 is actively integrated and tuned for a specific game.

DLSS 5 COMES WITH A HEFTY PERFORMANCE COST

All those neural rendering smarts don't come without a price, though. Nvidia says enabling DLSS 5's new rendering technology on its

own can knock roughly 50 to 60 percent off frame rates, depending on the game, scene, and resolution. Modders are seeing similar frame rate hits in the early games they've guerrilla-ported NBA 2K27's DLSS 5 files into.

Oof. That's a huge performance hit...but "on its own" is doing a lot of work there.

Sure, DLSS 5 can operate independently of Super Resolution and Multi Frame Generation, the other well-known performance-enhancement AI features in the DLSS suite, but Nvidia clearly intends all these technologies to work together.

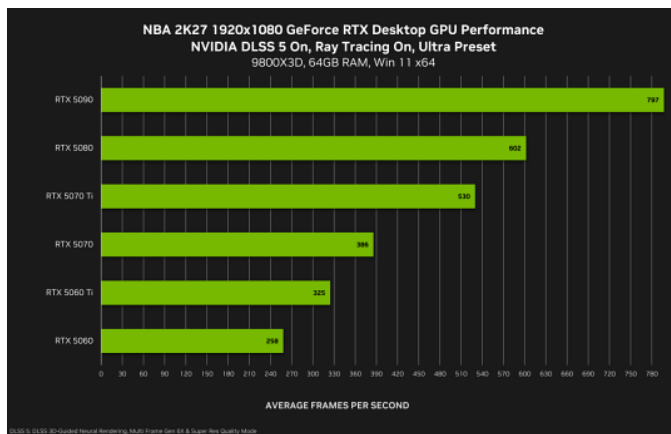
Think of it this way: Super Resolution claws back much of DLSS 5's performance hit by rendering fewer pixels internally and reconstructing the final image at a higher resolution. Multi Frame Generation then creates additional frames to make the game

appear dramatically smoother. DLSS 5 wraps things up by spending GPU horsepower making the final image look better than native rendering.

Put the whole package together, and the numbers get ridiculous. As part of its briefing for journalists, Nvidia showed NBA 2K27 looking *substantially* better with DLSS 5 flipped on, but with a frame rate over 150fps higher



Since DLSS 5 enhances visuals on a per-frame basis, having a higher-quality rendered frame can create even better DLSS 5-enhanced visuals. This same scene in an Nvidia DLSS 5 demo uses traditional rendering on the left, ray tracing on the right; the ray-traced DLSS 5-enhanced visuals look even more luscious.



Nvidia is claiming 797 frames per second on an RTX 5090.

thanks to the effects of Super Resolution and Multi Frame Gen.

That's not just impressive; it's *utterly transformative*. And no, it doesn't need a pair of ferocious RTX 5090s to run, either. Let's

look at some tangible performance numbers Nvidia shared across 1080p, 1440p, and 4K resolution with all DLSS features enabled. Only RTX 50-series GPUs will support DLSS 5 at launch.

Note that these are Nvidia's

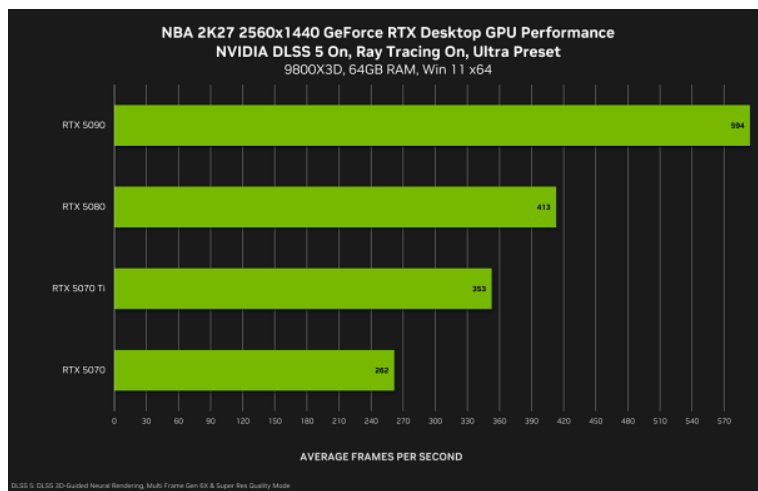
numbers, not independent PCWorld benchmarks, so you should keep a few pinches of salt handy.

Yes, you're reading that correctly. Nvidia is claiming a ludicrous *797 frames per second* on an RTX 5090...though playing a sports game on a beastly 5090 at 1080p resolution is kind of laughable in and of itself.

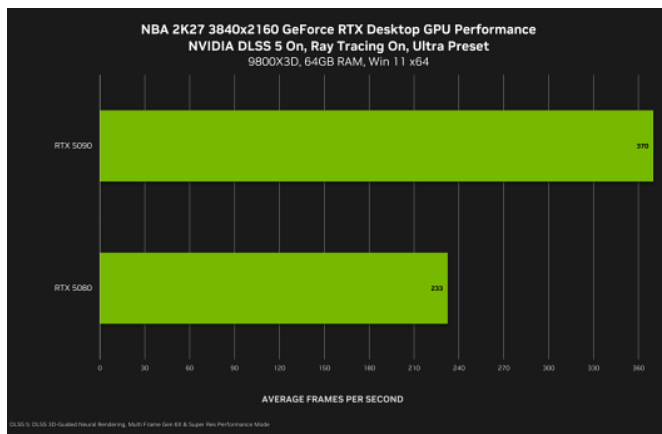
Even better news:

The humble RTX 5060 blasts past 250 fps.

A vanilla RTX 5070 pushing a 262 fps at 1440p Ultra with ray tracing sounds bonkers, considering that DLSS 5's neural rendering itself carries such a heavy computational cost.



A vanilla RTX 5070 pushing 262 fps at 1440p Ultra.



At 4K, Nvidia showed the RTX 5090 hitting 370 fps, while the RTX 5080 managed 233 fps.

Though to be fair, the lighting and luscious character models DLSS 5 can enable would be utterly impossible for real-time gaming without Nvidia's AI-powered features.

At 4K, Nvidia showed the RTX 5090 hitting 370 fps, while the RTX 5080 managed 233 fps. Considering this is at 4K output with full ray tracing and Ultra settings, those are hellaciously fast numbers.

But there's an important caveat: Nvidia used Super Resolution's Quality mode in the lower-resolution tests and switched to Performance mode at 4K. Another caveat: These numbers use 6X Multi Frame Generation, meaning many of those displayed frames aren't traditionally rendered frames. Instead, Nvidia's MFG tech inserts multiple AI-generated frames between "normal" frames to greatly enhance visual

smoothness, with help from the game's motion vectors.

Those frightfully fast numbers and DLSS caveats drive home how much DLSS has changed since its 2018 inception. This isn't really an upscaling technology anymore. It's becoming an entire AI-assisted rendering pipeline, improving performance and image quality alike.

DLSS 5'S REALISM EXPOSES NBA 2K27'S ANIMATION PROBLEM

But the thing that stuck with me most watching DLSS 5 in action wasn't the frame rate. It was the animation.

NBA 2K27 looked absolutely outstanding during gameplay. The improved lighting and rendering helped players blend into the scene much more convincingly, and the in-game graphics and presentation could easily be mistaken for a live NBA broadcast. I could practically hear Charles Barkley chortling in my head.

Then a cutscene would start.

The player models still looked fantastic, but slightly stiff movements suddenly became far more noticeable. All of a sudden, everyone looked like robotic

Pinocchios rather than lifelike players gliding across the court.

That's the uncanny valley (fave.co/3SDVBr5) working in a whole new direction.

When everything obviously looks like a video game, your brain happily forgives slightly unnatural animation—usually you won't even notice it. But when the person on screen starts looking almost real, you expect them to move like a real person, too.

DLSS 5 may help solve gaming's graphics problem, only to expose a new animation problem. And that's not a criticism of DLSS 5; if anything, it's a compliment.

As graphics rendering becomes more convincing, I wouldn't be surprised if developers pour even more attention into character animation, facial expressions, cloth simulation, physics, and the countless little movements that make people feel alive.

Seeing a lifelike NBA player mimicking a marionette during cutscenes yanks your brain right out of its happy forgiveness zone.

BOTTOM LINE

Calling DLSS "Nvidia's AI upscaling technology" already felt outdated. DLSS 5 makes that description feel downright ancient. Nvidia is building a collection of AI rendering technologies where one component can spend GPU resources making games prettier than traditional rendering allows, while others reconstruct pixels and generate frames to keep everything running fast.

I'll need to test DLSS 5 myself before drawing any hard conclusions. I'm looking forward to playing with DLSS 5 myself when NBA 2K27 launches, and I can't wait to see it in other types of games. But NBA 2K27 made

one thing clear: The closer games get to looking real, the easier it becomes to see everything that still isn't. For now, though, I'll keep drooling over those shadows on Tyrese Haliburton's hand. 



With DLSS 5, Nvidia is building a collection of AI rendering technologies.

Protect what matters. **Secure all your guns.**

Don't live with the threat of family fire.
Learn how to make your home safer at
EndFamilyFire.org





LG UltraGear Evo AI GM9: A fast and bright 5K mini-LED monitor

The Evo AI GM9 is a top-of-the-line 5K monitor for creative work, media, and gaming—and it comes with a price tag to match. **BY MATTIAS INGHE**

PCWorld
EDITORS'
CHOICE

The UltraGear Evo AI GM9, model name 27GM950B-B, is a new and high-end desktop monitor from LG. It measures 27 inches and offers full adjustability in height, lateral movement, tilt, and pivot on a sturdy

metal stand. The chassis is made of matte-black plastic, but it gives a solid, high-quality impression and is stylishly designed from both the front and the back.

UltraGear is a gaming-focused brand, and there is the option to add some RGB LED

lighting to the back of the monitor, but otherwise the design is understated. There is a definite focus on gaming in the settings menu, with quick-select options for two player profiles and various game genres as the first choices.

The monitor is just as well suited to desk-based work and creative tasks as it is to gaming. You can also select pure sRGB and P3 profiles that maintain good color accuracy, and there are preset modes for blue-light-reduced reading, HDR-optimized media playback, and two additional profiles you can calibrate yourself.

Read on to learn more, then see our roundup of the best monitors (fave.co/3Jg6rfw) for comparison.

SPECIFICATIONS

Display technology: Mini-LED, IPS

Screen size: 27 inches, 16:9 aspect ratio

Adjustability: Height adjustment, side to side, tilt, pivot

Resolution: Up to 5K, 2560×1440 pixels

Refresh rate: 165Hz at 5K, 330Hz @ 1440p, dynamic

Response time: 1ms (gtg)

Color gamut, specified: 99% DCI-P3

Brightness, specified: 750 cd/m² (typical), 1,250 cd/m² (peak)

Contrast ratio: 1,000:1 (static)

HDR: HDR10, VESA Display HDR 1000

Video inputs: 2× HDMI 2.1, DisplayPort 1.4, USB-C with DisplayPort Alt Mode (90 W)

Other features: USB hub (USB-C in, 2× USB-A Gen 3 Out), flicker-free, 5K upscaling, FreeSync Premium Pro, G-Sync, 2×7-watt speakers, headphone jack

Dimensions: 61.47×40–53×24.9 cm

Price: \$1,200

BRIGHTER THAN MOST

It's built on a display panel that's as colorful as it is bright, and as high resolution as it is fast. Using quantum-dot technology, the LCD layer delivers DCI-P3-class colors with factory calibration to very low color deviation values, while a Mini-LED matrix behind it provides backlighting that offers both high luminance of over 1,200 cd/m² and deep blacks across 2,304 densely packed dimming zones.

It supports HDR10 and is VESA Display HDR 1000 certified. Playing HDR films on it delivers one of the best viewing experiences I've seen on a screen to date, with colors that pack a real punch and an image featuring both dazzling highlights and subtle shading in both light and dark areas. Even in SDR mode, it's very bright and shines more brightly than most other screens do in HDR mode.

Large bright areas are rendered well, and quickly enough to prevent any flickering effect when panning—a good sign of quality for a mini-LED display. Occasionally, however, there can be issues with small bright spots that do not activate the backlight and are therefore too faint.



The 5K resolution means it can display a great deal of content.

If I move a white mouse pointer over a black background, it is noticeably dimmed. But I can easily adjust the level of dimming for the zones or switch it off completely if needed. It's usually possible to find a good balance.

In this respect, an OLED screen has the advantage, but no OLED can match this screen's brightness and overall dynamic range. Playing an HDR-supported game or streaming a film from the right source makes for an unbeatable experience. For desktop work, it might be a good idea to switch to a profile without local dimming instead. The contrast is still perfectly acceptable.

HIGH REFRESH RATE, HIGH RESOLUTION, AND AI UPSCALING

With 5K resolution, the image is exceptionally dense and sharp. Despite this, you can

achieve a very high refresh rate—165Hz if you're running in 5K mode, or up to a full 330Hz if you drop down to 1440p resolution or lower. In both cases, it supports dynamic refresh rates and can automatically drop

to the standard 60Hz refresh rate—though you'd have to choose to do so, perhaps to save power. But is that really important for a fixed desktop monitor?

If you don't have a 5K image, the UltraGear Evo AI GM9 features AI-powered image upscaling that makes both 1080p and 1440p video noticeably sharper. I'm not sure if it's quite as good as on a premium TV, but it does manage to upscale the 1080p picture from my Nintendo Switch to 5K with seemingly decent results, without introducing any unacceptable lag. With this feature disabled, you can achieve response times as low as 1 millisecond.

You connect via DisplayPort 1.4 or HDMI 2.1 using the downward-facing ports on the back, and there's also a USB-C port with DP Alt Mode for docking to a laptop. I'd have hoped for a slightly neater cable management solution than a snap-on loop on the outside of



The light strip at the back can be switched off if you find it more distracting than charming

the stand, but it's better than nothing, at least. Via USB-C, you also get access to a small hub with two USB-A ports, for a mouse and keyboard, for example. There's only one USB input, so no KVM functionality is offered.

DECENT SOUND, BUT NOTHING MORE

The computer also has a built-in audio unit that works with all video inputs, featuring both a headphone jack and built-in speakers. It sounds better than most monitors, but to call it "good sound" would be an

exaggeration. Monitors usually have rubbish sound or none at all — this is just slightly better. If you're only using it to play back a bit of Windows audio and run video meetings, it'll do the job; otherwise, I'd recommend separate speakers.

The monitor's menu is accessed via a tiny control button along the bottom edge of the back panel. It's hard to find and may be too small for thick fingers. However, the menu it controls via four-way navigation is well-designed and laid out in an exemplary manner for quick and easy access to everything from detailed settings to adjusting volume and brightness, and for switching quickly between preset

profiles. In plain Swedish, too.

If you want to control the screen from your computer, you can install LG Switch and access the same controls there, although the update is annoyingly slow. There are also a handful of other features here, such as window guidance on the desktop, a shortcut for video calls, and the option to connect to a Web OS device such as an LG TV.

SKIPS THE BLOATWARE

Over the summer, LG came under criticism for automatically installing the LG App Installer



Not many ports, but a good selection and high standards for those that are there.

HDR. With smooth controls for picture modes and for backlighting, you can quickly and easily adapt it to different situations. If you don't have complete control over the lighting in the

via Windows Update, which also meant you ended up with a whole lot of bloatware. They've apparently sorted that out now, but it might still be a reason to steer clear of the app—who knows what they'll try next? In any case, I don't see anything being auto-installed when I plug in this monitor, so it probably only applies to certain other models.

With an MSRP of \$1,200, I also think LG should be able to steer clear of that sort of thing. This is a monitor you buy for a top-quality experience, and such details would have given it a budget feel. And the experience—from the controls to the colors, refresh rate, and dynamics—is all very premium here.

There are pros and cons compared to a good OLED screen, but the brightness in particular is hard to beat, for both SDR and

room and can get plenty of daylight in, its wide dynamic range and, moreover, its anti-glare matte finish are a major plus. 🔌

LG UltraGear Evo AI GM9

★★★★★

PROS

- 5K with upscaling capability.
- Vibrant and bright mini-LED.
- High refresh rate and fast response times.
- User-friendly interface.

CONS

- Doesn't beat a top-of-the-range OLED in every respect.
- The speakers could be better.
- Lacks a KVM function.

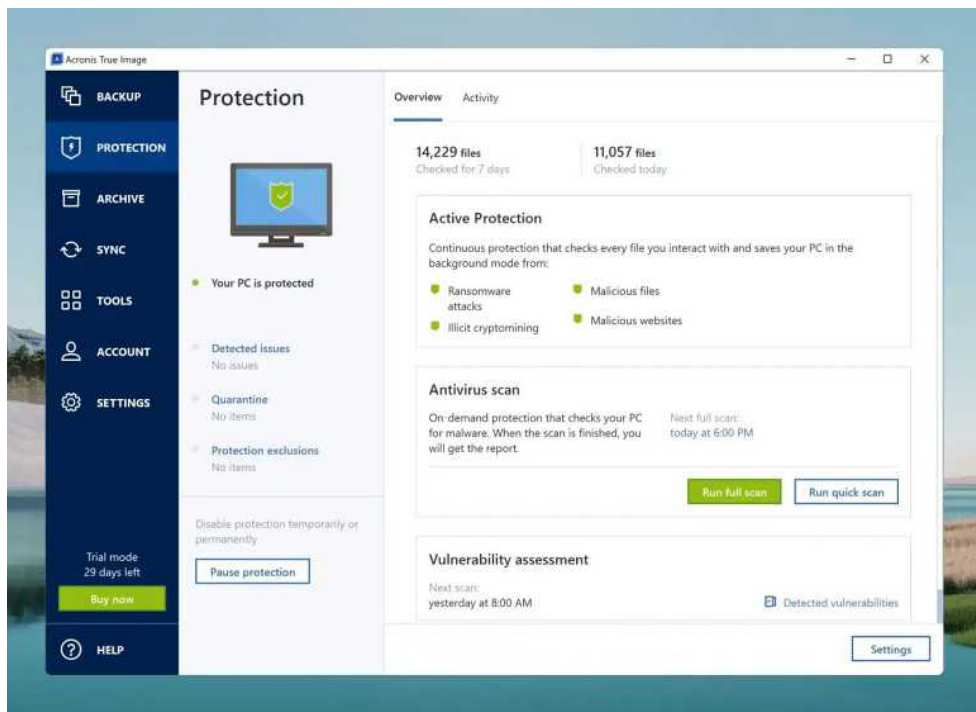
BOTTOM LINE

More brightness and dynamic range than the best OLED screens; a rich, expansive, and accurate color palette; and dual mode offering a good refresh rate in 5K mode and an even higher refresh rate at 1440p: There's a lot to like about this 5K screen, even if it isn't the best at absolutely everything.

\$1,200

Acronis True Image: Unique, do-it-all PC security and backup

With malware protection, backup, and disaster recovery under one roof, Acronis delivers the most comprehensive data safety solution on the planet. **BY JON L. JACOBI**



Acronis True Image (2026) is without question the most comprehensive suite of utilities for keeping your computer secure and backed up. As far as breadth of features is concerned, it's not even a particularly close matchup.

True Image is still a very good backup program, and is extremely good at security. But since our last look in 2024, all the new features are "security" related, and it actually lost the ability to sync folders, so it's not the tightest fit for the backup category. (Norton 360, anyone?) We're still on board with the

program, but being subscription only, it's also teetering on the edge of pricey overkill for the average user.

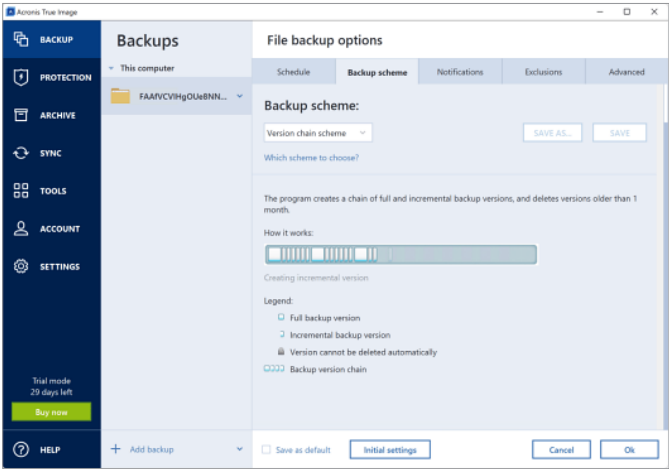
Read on to learn more, then see our roundup of the best Windows backup software (fave.co/3nINb3Z) for comparison.

FEATURES

There's a lot to cover in a program as comprehensive as True Image. I'll get to the anti-malware and security features in a bit, but as the program started life as a fantastic and reliable backup program—let's talk about that first.

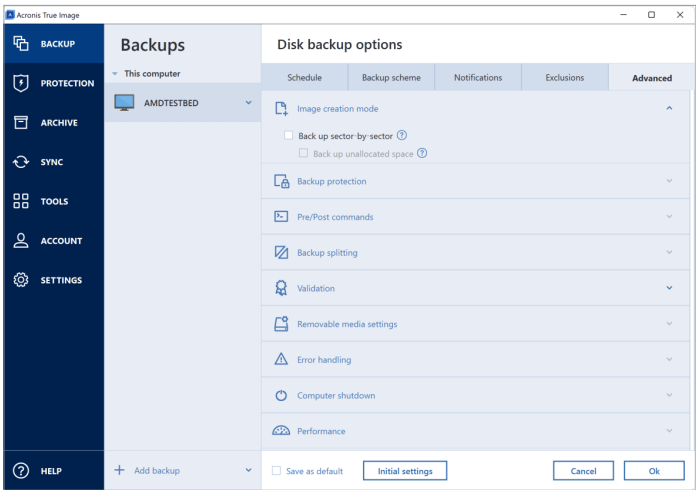
True Image creates image files (container files created from data sectors) from drives or partitions, as well as selected files and folders. These can be full (everything), incremental (everything since the last backup), or differential (everything since the initial backup).

There are different "schemes" you can employ using the

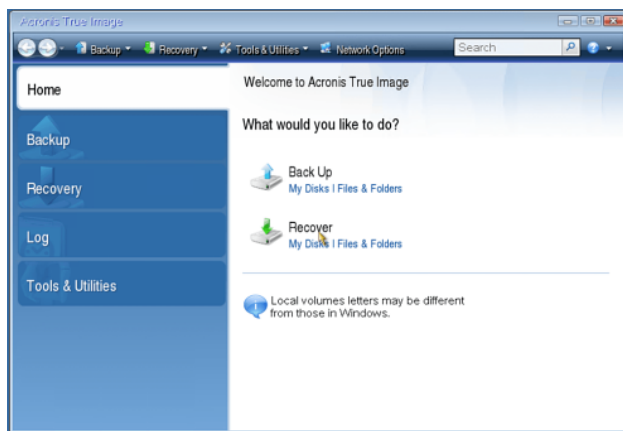


True Image offers a variety of pre-cooked backup schemes, including the hybrid chain. The explanatory image is actually animated. Sweet.

backup types outlined above, which describe how to mix and cull them—for example, the "Version chain scheme" periodically creates



True Image offers just about every backup feature known.



Acronis True Image running from recovery media.

full backups, creates incremental backups in between, and deletes everything over a month old. Note that I'd only use this scheme alongside a full backup that is never culled.

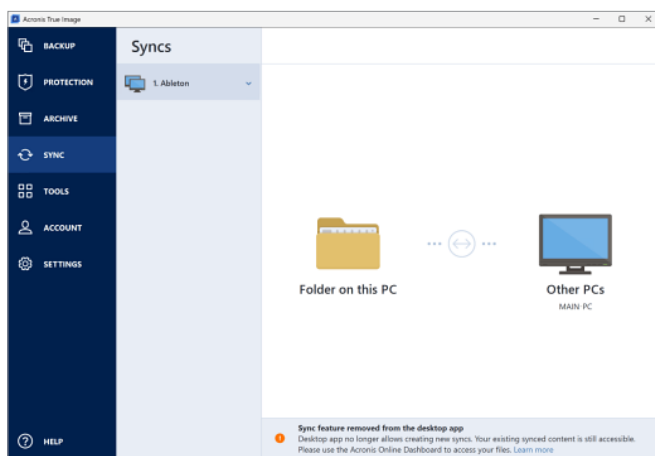
A host of other options are provided, such as granular scheduling (to the hour), notifications, running programs pre- and post-backup, image splitting, verification, and even a reserve copy of the backup.

I particularly appreciate the "Reserve copy," as it partially ameliorates one of my pet peeves—having to re-create the same job over and over just to back up the same data set to different locations. In light of that, why not make multiple

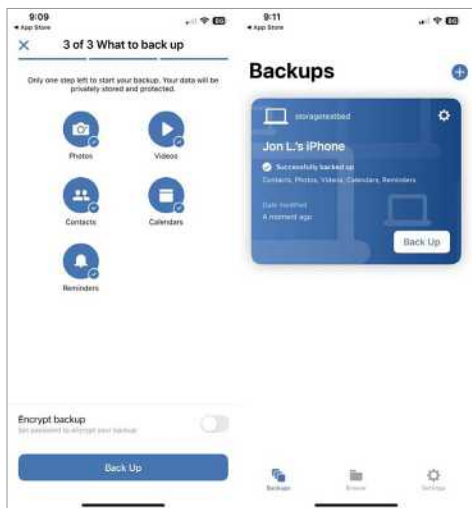
reserve copies? Acronis? Additionally, the program backs up to and from nearly any type of media or location: local drives, network destinations, the 250GB/1TB of cloud storage provided by Acronis with some subscriptions, and even optical—remember CDs and DVDs? They're still in use! If you're super old school, sorry—tape is not supported. True Image will optionally place a version of the program on

removable media for use during restore (Acronis calls it recovery) operations—that is, create a disaster recovery boot disk.

My favorite feature of the recovery disk, other than being able to make additional emergency backups (some recovery disks,



There's still a "Sync" option in the menu column to the left.



The Acronis Mobile app is also available to back up files from your mobile devices.

such as Ashampoo Backup Pro's, don't), is the system report facility.

Once again, I'm sorry to inform you that the True Image clients no longer let you create folder sync relationships. There's still a Sync option in the menu column to the left. Click on it, however, and you're presented with the message shown at the bottom of the image below left on the opposite page.

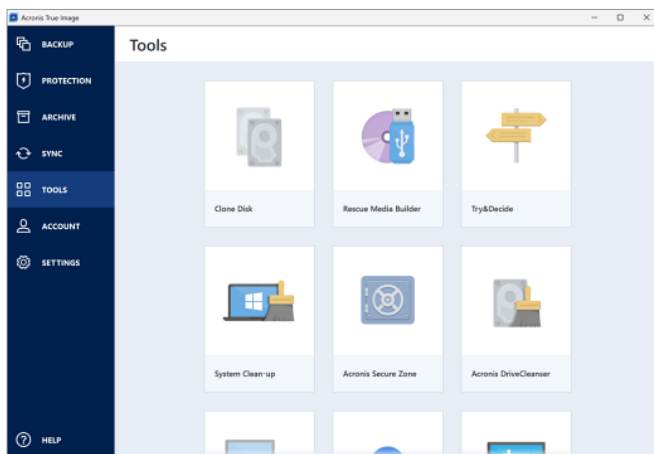
I suppose the Sync option was left in so that Acronis could assure users that their synced data on

Acronis Cloud had not disappeared. But the upshot is that Acronis is selling subscription software that's actually ditching features. Say it ain't so, Joe.

The Acronis Mobile app is also available to back up files from your phone or other mobile device to the Acronis Cloud or to local computers.

Other related and tangential backup features include disk cloning, an OEM-like recovery partition (boot time restore of your original OS state from your internal drive) creator, a system cleanup tool (think CCleaner), and a secure-erase utility.

Acronis True Image sports a clean, attractive interface, and is easy to use—once you're accustomed to it. It's not amazingly intuitive when it comes to organization and operation, and I have several complaints about terminology (Network Locations, not



True Image offers a number of image- and backup-related utilities.

NAS) and display (always a closed tree). But a half-hour of kicking the tires, and you should be good to go—assuming you're familiar with basic backup concepts, of course.

Note that True Image uses proprietary image formats—.tib up to 2019, and .tibx starting in 2020. The new format is not backward compatible, but the latest version was able to mount some .tib archives I had from 2005 to 2006. I could've sworn this was not possible during my last look in 2024, forcing me to retreat to the 2019 version. However, it might also have been user error.

Acronis offers a "Convert to VHD" feature, but this didn't seem to work on older .tib files. Neither did mounting them, which appeared successful but failed when I tried to copy off the files. Download the 2019 version ([fave.co/4h95chQ](https://www.acronis.com/en/true-image/4h95chQ)—run it as a 30-day trial if you no longer have a valid serial) and use it for restoring data from older .tib files to VHDs created with Disk Manager.

Caveat: Be careful when opening old .tib files. Work with copies, as it's easy to accidentally erase the old one if you delete the job you create using "Add existing backup"

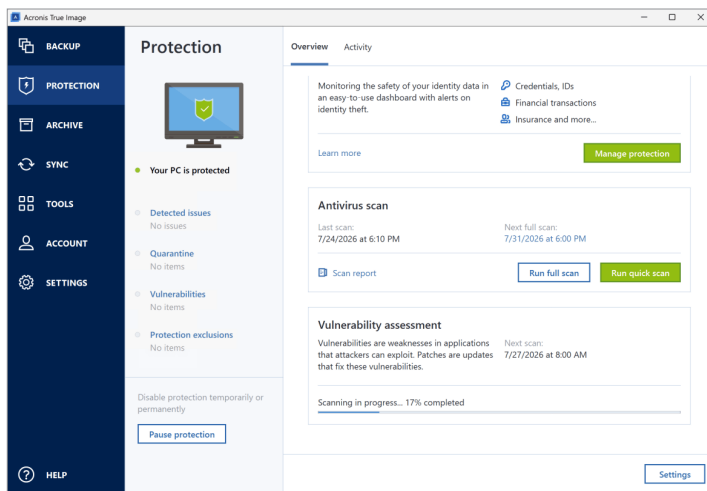
and select Delete Entirely, which is the first option. Don't ask.

Now for the promised discussion of the system protection or security features.

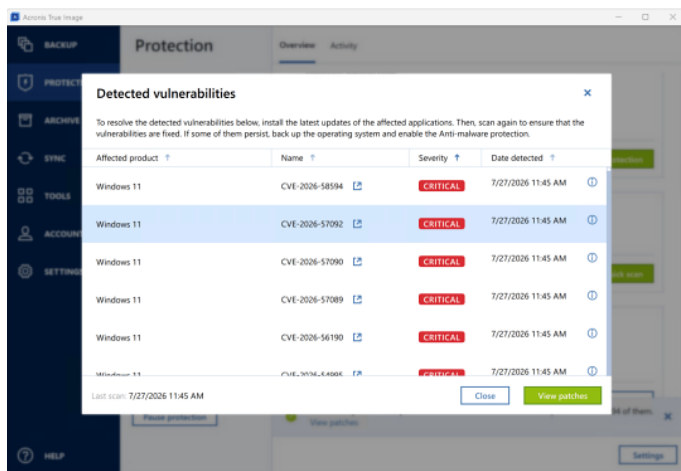
PROTECTION AND SECURITY FEATURES

A few years ago, Acronis spotted an opening in the market created by a spate of ransomware attacks. It rapidly added some rather clever protection to its flagship backup software's bag of tricks. (And it changed the name for a while to Cyber Protect, which still adorns business versions.)

Don't poo-poo ransomware as something that happens to someone else. It happened to me on a NAS box hosting my website. Without backups, I would have been royally hosed.



True Image's Protection settings page.



Windows vulnerabilities are scouted out and the patches are listed.

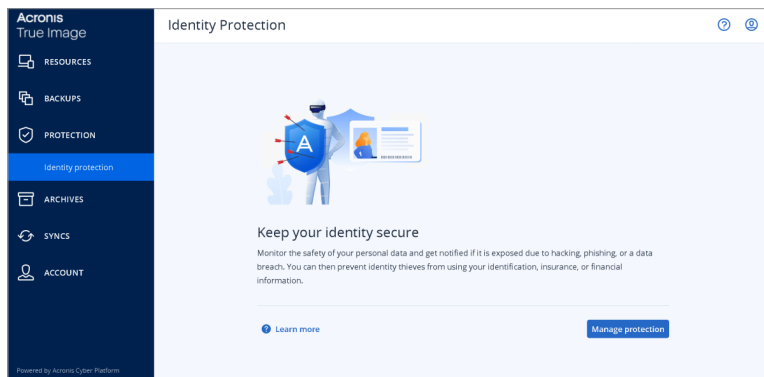
Acronis subsequently expanded anti-malware capabilities to protect against general threats, malicious websites, and bad behavior such as code injection into apps. This obviously requires real-time intervention—a big addition back in 2021.

Originally, True Image would fire off a new backup upon detecting malware, but now it deals with the malware and repairs damaged files. You can choose to protect backups from malware, but

that option doesn't prevent accidental user deletion, as does Easeus ToDo Backup (fave.co/3MiPPHQ).

Relatively new to the game (late 2025) is patch management, found under the Vulnerabilities section. Basically, True Image checks the status of your Windows installations and tells you what patches are available.

Alas, it sends you online for the information about them. I'm not sure why this info couldn't be downloaded and presented within the program. After all, True Image is in constant contact with the company's servers. This type of information changes, but so do



This is the identity threat page on the Acronis website. Yes, it looks exactly like the client software. So why isn't it there?

the AV definitions. I did mention there's an AV scan, right? There is.

New to me also is an identity protection service, which is implemented from the Acronis website. Of course, one might question the wisdom of providing the amount of information this requires. But I'm a paranoid type.

That comes down to your trust in the company. I lend exactly zero credence to any Wikipedia page covering a possibly contentious subject (log on as an editor some time and look at the edits), but this one (fave.co/4A6CBIR) seems like a relatively accurate and unbiased history of Acronis.

To test True Image's bad-guys-on-the-web abilities, I ran the tests on the WICAR.ORG site (fave.co/4azELxf) and surfed some known bad areas of the web. True Image caught everything. As effective as it proved, real-time protection is optional and may be turned off.

On macOS, I found True Image's malware protection a bit overzealous, forcing me to restore almost 80 programs I knew to be safe.

On that platform, I'll stick with the occasional Malwarebytes scan.

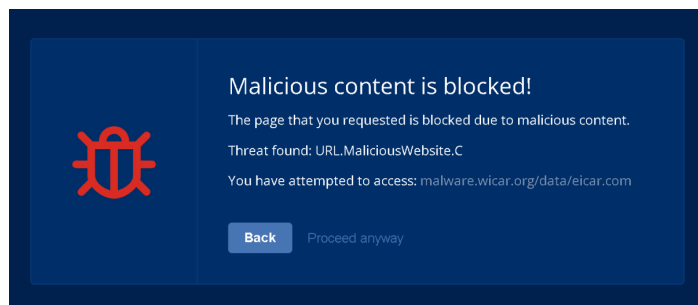
PRICE

Acronis provides a 30-day trial that you can use to test out the program. Beyond that, it's \$50 for a one-year subscription sans online storage (Essentials), \$73 per year for Advanced with 250GB of storage, and \$125 a year for Premium with 1TB of storage. A full comparison is available here (fave.co/4hn00bb—scroll down a bit on the linked page).

You're basically paying \$75 per year for the 1TB of storage with True Image, which isn't outrageously expensive but certainly isn't cheap. For instance, Easeus ToDo Backup's 1TB of online storage is only \$20 a year on top of the subscription.

Note that if the True Image subscription lapses, you'll be limited to restoring data from the recovery disk after 30 days. You'll also need to grab your existing online data within that period.

That brings me to cloud storage managers (fave.co/4azEVol) such as CloudMounter (fave.co/3Q5C6Tx) and Mountain Duck (fave.co/3Q04F52), which will integrate any number of different online storage services



True Image is warning you of a dangerous web page.

into Windows Explorer as pseudo or virtual local drives (fave.co/4azEVol). This could let you use the \$50 tier for an initial savings.

Fifty dollars a year adds up quickly over time,

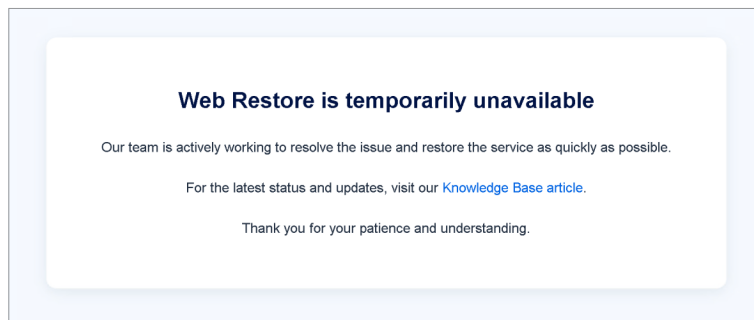
and purely as a backup program that isn't adding any significant features (it's lost one, remember?)—that's a lousy deal. Especially when there are competent freebies from Easeus (fave.co/3MiPPHQ) and Aomei (fave.co/46Spc3i), as well as the no-longer-supported-but-still-highly effective free version of Macrium Reflect (fave.co/3ACJb9d).

Adding online storage makes True Image an okay deal, but it's the security features that make the yearly fees palatable and/or worthwhile. These work very well, and need to be updated continually, so a subscription for that is understandable.

Put in more simple terms, don't buy True Image solely for backup, but buy it as a unique and effective total security solution.

PERFORMANCE

Generally speaking, True Image is as quick as it gets. I ran backup jobs to external and internal SSDs, a NAS box (2.5Gbps), wrote folders to optical (single BD-R/M-Disc), and



I experienced this error when trying to restore some data from Acronis Cloud.

wrote them to Acronis Cloud. All proceeded as quickly as you could ask, given their particular bandwidth, and without incident. I hate incidents and I tend not to trust backup software that suffers them.

The issues I experienced in 2024 with the Linux boot disc were nowhere in sight. Yay, Acronis! Alas, I did experience the above error when trying to restore some data from Acronis Cloud. Stuff happens, but this does point out the advantage of local backup as well as not relying solely on the cloud.

My only real performance gripe is that the main interface is rather slow to launch. That's no doubt due the large number of processes spawned by the various components, not to mention connecting to Acronis Cloud. The program is doing a lot.

As to processes, True Image has a sprawling system footprint that spawns a whopping 13 of them (shown on the following page). I noticed no impact on overall system performance, and modern

>  Acronis Active Protection Service	0%	48.4 MB	0 MB/s
>  Acronis Agent Core (32 bit)	0.1%	19.7 MB	0.1 MB/s
>  Acronis Alert Manager Service (32 bit)	0%	12.6 MB	0 MB/s
 Acronis Cyber Protect Agent (32 bit)	0%	9.3 MB	0 MB/s
>  Acronis Cyber Protect Service	0%	282.2 MB	0.1 MB/s
 Acronis Cyber Protect Updater (32 bit)	0%	7.8 MB	0.1 MB/s
>  Acronis File Level CDP (Time Machine) Service (32 bit)	0%	1.7 MB	0 MB/s
>  Acronis Scheduler Service (32 bit)	0%	6.0 MB	0 MB/s
 Acronis Scheduler Service Helper (32 bit)	0%	1.2 MB	0 MB/s
>  Acronis Sync Agent Service (32 bit)	0%	5.8 MB	0 MB/s
 Acronis Task Manager (32 bit)	0.1%	17.5 MB	0 MB/s
 Acronis TIB Mounter Monitor (32 bit)	0%	0.7 MB	0 MB/s
 Acronis True Image (32 bit)	0.1%	25.2 MB	0 MB/s

Twelve processes running in the background is a lot, even for a program as comprehensive as True Image.

PCs should be able to handle it with ease—if you don't pile on a lot of other stuff. For older legacy hardware, it might be a strain. True Image also takes up somewhere around 1.6GB of disk space.

In my 2024 look, Google analytics report sender (fave.co/4h1Qmjl) was running alongside True Image (see above). That's no bueno. This is no longer the case; however, while comprehensive, True Image is also singularly intrusive and loves to send you to the web portal without asking—less than perfectly polite.

BOTTOM LINE

If you're looking for a comprehensive, set-it-and-forget-it data-safety solution, I know of nothing better than True Image—or anything that is comparable for that matter, though Retrospect (fave.co/4h0bpwq) seems headed down this path as well. Anyone who works in a high-threat environment should likely sign up.

This is the source of the 4.5 star rating.

That said, True Image is likely pricey overkill for the average user, as there's a ton of telemetry going on (privacy, anyone?), and its subscription software is losing instead of gaining backup features.

I have a proposal for Acronis. Along with

baking in legacy format support, take a hike back in time, and offer the clean, efficient, small footprint utility that simply images disks and partitions reliably that we all loved. Sell it with a perpetual license and recovery disk for \$30 or less. Oh, and use a nonproprietary format such as VHD. 🔥

Acronis True Image



PROS

- Imaging, backup, and disaster recovery.
- Actively protects against viruses and ransomware.
- Integrated cloud storage available.

CONS

- Subscription-only makes it expensive over time.
- Heavy installation footprint and lots of telemetry.
- No more folder sync.

BOTTOM LINE

Acronis True Image is a comprehensive security solution without peer thanks to integrated anti-malware, backup, and disaster recovery features. However, it has a heavy system footprint, there's lots of telemetry, and it's subscription-only.

From \$50 per year



eMeet SmartCam C960 Ultra webcam: Almost perfect

Only the surprisingly bad mics hold back the eMeet SmartCam C960 Ultra 4K webcam from what could have been a perfect score. **BY MARK HACHMAN**

PCWorld
EDITORS'
CHOICE

It's hard to find anything to dislike about the eMeet C960 Ultra 4K autofocus webcam (fave.co/4A911Lz), which continues the industry's trend to provide 4K resolution at ever-lower prices. The key here

is the webcam's 1/1.5-inch sensor, unusually large for the price range, which helps the camera excel in low-light situations.

I've used several eMeet cameras, whose strength has been delivering good to very good capabilities at affordable price points.

But they've felt cheap, too: lots of plastic, plus flimsy folding webcam shutters that felt more like an afterthought. A metal construction signals quality, and the C960 Ultra's new, all-metal chassis just feels solid, secure, and upscale. A twist-to-close shutter solves the other problem, too.

EXCELLENT LOW-LIGHT PERFORMANCE (WITH ONE CAVEAT)

Webcams matter, especially as a work-from-home productivity tool. You'll want to look your best under various lighting conditions without spending a bunch on a lighting setup, and the eMeet C960 delivers...with one exception. The C960 Ultra takes its cue from the TVs you see in big-box electronics

stores: They're tuned to deliver over-the-top saturation. The same goes here. In a low-light setting, the C960's performance is exceptional, rivaling a high-end webcam. However, it gave my slightly ruddy complexion an exaggerated red tinge.

Fortunately, a bit of tweaking in Windows settings solved the problem even before I explored the webcam's capabilities with the associated eMeet Studio customization software—though that software only runs on x86 PCs, not Arm.

The webcam captures video at resolutions up to 2160p (4K) at 30Hz, down through various resolutions including 1080p at both 30 and 60Hz, for that "TV-like" appearance. The field of view is 73 degrees, nice and tight for a single subject (you).

The C960 Ultra 4K includes a device-level zoom, essentially interchangeable with the camera settings in the Windows settings (Settings > Bluetooth & Devices > Cameras > EMEET SmartCam C960 Ultra). However, there's also a 1× to 4× digital zoom available within the eMeet Studio software that can be used for recording and streaming.

(This webcam does not include Windows Hello biometric authentication to log you in, however. For a list of



The eMeet C960 Ultra 4K can stand by itself, and it also has a threaded screw hole for mounting on a tripod.



The eMeet C960 Ultra 4K holds pretty securely to a laptop or monitor.

those cameras, visit our best picks for the best Windows Hello webcams: fave.co/3ImacXy.)

SETUP AND CONSTRUCTION

The setup is pretty simple. Inside the box, eMeet has placed the webcam, alongside a lengthy 1.5m (4.9 feet) cable that ends in a USB-C plug for the webcam and a legacy USB-A connection for the PC. (The USB-A connector is actually a passive dongle that can be removed to expose a second USB-C connector.) No driver software is needed, and the eMeet Studio software is optional.

The entire construction is aluminum, and it clamps onto a laptop or external display using a “jaws” configuration, where a small tooth hooks over the front of the laptop or monitor. The rest is supported by the lower jaws,

coated with a rubber-like substance to avoid slippage. Some webcams include an additional “tongue” to provide an extra layer of stability. This one doesn’t, but the construction doesn’t require it. It holds well.

PERFORMANCE

I typically mount a few webcams on the display above my desk for easy comparison between them.

That includes the Razer Kiyo Pro Ultra (fave.co/42J0yhi), which I crowned as possibly the best webcam I’d ever seen...in 2023. The world has advanced since then, but physics hasn’t. The Kiyo Pro Ultra includes a 1/1.2" Sony STARVIS sensor and an f/1.7 aperture, while the C960 Ultra uses a smaller 1/1.5" Sony CMOS sensor and an f/1.8 aperture.

That still gives the Kiyo Pro a marked advantage in terms of light collection, but in low-light settings, the two cameras are surprisingly close in terms of image capture. In bright light, the difference usually goes to how the image is processed.

So let’s take a look. Downstairs, with faint natural light as well as artificial light from the display, I do loom redder than I should. Tweaking the saturation down a few points solved that problem.



With faint natural light as well as artificial light from the display, I loom redder than I should.

Upstairs, in more natural sunlight entering from the side, the C960 Ultra 4K isn't too shabby, either. The focus looks a little soft to my eyes, but the colors are more natural.

Again, both photos are at default settings, so by playing around with the settings, you might be able to tweak and tune a bit.



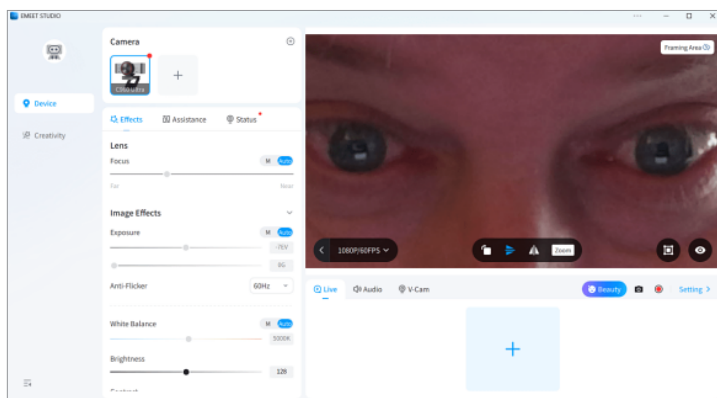
In more natural sunlight entering from the side, the focus looks a little soft to my eyes, but the colors are more natural.

The other feature that I haven't mentioned is this webcam's PDAF, or phase-detection autofocus, which mirrors (little camera joke there, sorry) how DSLRs split light into incoming rays using photodiodes. That means autofocus is quick and accurate, and doesn't need to reorient itself every second or two. It's how it should work.

The eMeet Studio app isn't as robust as what, say, Obsbot offers, with its Meet 2 webcam (fave.co/4cAYZK6), another excellent 4K webcam (but priced somewhat higher). That's not necessarily a bad thing, as the selection of features is tight and well organized. I'd resist the temptation to manually adjust the webcam's settings, however, as the auto settings actually seemed to be optimal in most cases.

The eMeet Studio app can also be used for recording yourself, with some nice features for reducing the bitrate and resolution to manage the resulting file size.

There are some optional "beauty" settings, which can use an AI filter to slim your face or adjust your eye width,



You'll never record at this zoom level, which is truly outrageous.

though the latter setting didn't do much. You can also set the aspect ratio at either a standard 16:9 or a vertical 9:16 setting. I was a little surprised that I couldn't find an option to record a true vertical video, as the 16:9 setting preserves the landscape orientation of the captured video. eMeet showed a tripod with a mount angled horizontally (with the video then captured vertically) as a solution to this problem.

Remember how I said that it was hard to find something to dislike about this webcam? It was. I was all set to declare this webcam almost perfect until I began testing the mics, which I think most people ignore. They stink. If you own a modern laptop, I suspect that the onboard mic array will be better than what eMeet offers, which sounds like it's from 1995 or something. They're simply awful, and you'll want to use earbuds or an external mic instead.

BOTTOM LINE

I really liked it, save for the surprisingly bad mics. The saving grace is that both the oversaturated video and the subpar mics can be corrected, either in Windows or by selecting another audio source.

For the price and quality, though, I

would recommend it. I have to knock down the rating by an entire point because of the mic quality, but otherwise the eMeet C960 Ultra 4K earns my recommendation and an Editor's Choice award. If you're still in doubt, check our list of the best webcams (fave.co/3LZ3Gjk) for our other recommendations. 🔌

eMeet SmartCam C960 Ultra



PROS

- Great price for a 4K webcam.
- 1080p, 60Hz image capture, too.
- Excellent image quality, even in low light.
- Solid construction.

CONS

- Surprisingly poor input mics.

BOTTOM LINE

The eMeet C960 Ultra 4K webcam is a well-constructed, affordable 4K autofocus camera with terrific image quality. However, the input mics are truly bad.

From \$89

ExpressVPN vs. NordVPN: Clash of the heavyweight titans

In the red corner we have ExpressVPN, and in the blue corner we have NordVPN.

BY SAM SINGLETON



It's a heavyweight matchup between the two VPN giants: ExpressVPN versus NordVPN. They are the Godzilla versus Kong, Gates versus Jobs, or Packers versus Bears of the VPN world. Both offer some of the fastest, most secure, feature-rich services on the market. So which should you choose?

NordVPN might have cheaper long-term plans and it offers more servers, but ExpressVPN has a better privacy record and more consistent access to streaming services. While both are neck and neck, I recommend NordVPN for most folks. It's our pick for best

VPN overall due to its unrivaled feature set, blazing-fast speeds, and excellent streaming support. That's not to take anything away from ExpressVPN which is also an exemplary choice. The differences are nuanced, so let's break it all down in more detail below to help you choose the best VPN (fave.co/43k8lzX) for your own needs.

BEST FOR SPEED: NORDVPN

In my testing, both NordVPN and ExpressVPN attained stellar speed scores. Along with Hotspot Shield (fave.co/3L7l8iH), they're

the fastest VPNs available. While all VPNs will slow down your internet speeds to some degree, these two slow it down the least.

In my latest tests, ExpressVPN resulted in an average of 70 percent of the base internet speed for downloads and 80 percent of the base for uploads—with a slight bump on most servers if you utilize the Lightway Turbo protocol. NordVPN nosed it out, though, with 75 percent of the base download speeds and 81 percent of the base upload speeds. Those are pretty close margins, and you likely won't see much of a difference in your everyday usage. For what it's worth, though, NordVPN has consistently had the fastest speeds of any VPN (fave.co/3OWgSrf) for a few years running now.

Whichever you choose, you can expect to handle bandwidth-heavy tasks, such as gaming and 4K streaming, with ease. However, the winner for speed—by the slimmest of margins—is NordVPN.

BEST FOR COST: EXPRESSVPN

ExpressVPN used to have only one subscription tier for the longest time. That's all changed, thanks to the overhaul of its pricing model in 2025. Now, ExpressVPN offers three subscription tiers: Basic, Advanced, and Pro. The Basic plan gives you access to the VPN with 10 simultaneous connections and ad-blocking. A Basic subscription costs

FEATURES

	EXPRESSVPN	NORDVPN
Server network	Number of servers is unknown; 113 country locations	9,100-plus servers, 149 country locations
Simultaneous connections	Up to 14	10
Average speeds	70% of base download, 80% of base upload	75% of base download, 81% of base upload
Protocols	OpenVPN, IKEv2, Lightway, Lightway Turbo	WireGuard (NordLynx), NordWhisper, OpenVPN, IKEv2/IPsec
Memory	LPDDR4x-4266	LPDDR4x-4266
Available platforms	Windows, macOS, Android, iOS, iPadOS, Fire TV, Apple TV, Linux, browsers, routers	Windows, macOS, Android, iOS, iPadOS, Fire TV, Apple TV, Linux, browsers, routers
Business location	British Virgin Islands	Panama
Cost (base price only)	\$14.99 per month, \$74.85 for the first year, or \$83.72 for the first two years	\$14.99 per month, \$65.88 for the first year, \$94.23 for the first two years

\$14.99 per month, \$74.85 for one year, or \$83.72 for a two-year plan.

Advanced adds two extra connections, tracker blocking, a password manager, and three days of eSIM service. An Advanced subscription costs \$16.99 per month, \$89.85 for one year, or \$125.72 for a two-year plan.

The Pro plan adds another two connections, bringing the total to 14, along with five days of eSIM service and access to your own dedicated IP. A Pro subscription costs \$22.99 per month, \$134.85 for one year, or \$209.72 for a two-year plan. Both the Advanced and Pro two-year plans also include four extra months for free.



ExpressVPN offers better value over the long term.

NordVPN, on the other hand, offers three subscription tiers: Basic, Complete, and Prime. The Basic plan provides 10 simultaneous connections, access to the VPN, protection against malicious domains, and Dark Web Monitor. It costs \$14.99 per month, \$65.88 for one year, or \$94.23 for two years.

The Complete plan adds antivirus protection, an ad and tracker blocker, scam-call protection, Dark Web Monitor Pro, a password manager, and 1TB of encrypted cloud storage. It costs \$19.99 per month, \$77.88 for one year, or \$121.23 for two years.

Finally, Nord's Prime plan adds identity protection, credit monitoring, identity-theft insurance, and cyber-extortion coverage. It will set you back \$29.99 per month, \$113.88

for one year, or \$202.23 for two years. The identity-theft and cyber-extortion benefits are currently limited to U.S. residents.

NordVPN's two-year plans also include three extra months.

While NordVPN offers lower introductory prices for its one- and two-year Basic plans, ExpressVPN has the cheaper monthly subscription and much

lower renewal rates. ExpressVPN Basic renews at \$99.95 per year, while NordVPN Basic renews at \$139.08 per year. Nord provides the better upfront deal for a one-year subscription, but Express offers better value over the long term. Ultimately, price will depend on how long you intend to use a VPN, but since ExpressVPN is more affordable long term, I'm giving it the slight edge here.

BEST FOR PRIVACY AND SECURITY: EXPRESSVPN FOR PRIVACY, NORDVPN FOR SECURITY

Both ExpressVPN and NordVPN are industry leaders when it comes to comprehensive and innovative security features. These services now do much more than simply anonymize

your internet connection, offering a range of extras such as ad and tracker blocking, password managers, and more.

If this category came down to the sheer number of features, NordVPN would win. It offers Double VPN, Onion Over VPN, and Meshnet, none of which have direct equivalents in ExpressVPN. Its higher-tier plans also include next-gen antivirus, an AI-powered Link Checker, scam call and message protection, and Dark Web Monitor Pro. P2P traffic is supported across all standard servers, while an optional dedicated server provides a static IP address and port forwarding.

This sounds impressive, but there are some caveats. Many of NordVPN's best security tools require a more expensive subscription or only work on certain platforms. Its full antivirus protection is limited to Windows and macOS, for example, while split tunneling isn't available on macOS or iOS.

But many would argue that a VPN's main job is to protect your privacy and earn your trust—something I wholeheartedly agree with. On that front, ExpressVPN has the better record for privacy and transparency. NordVPN has now completed six independent no-logs audits, but ExpressVPN has

undergone more than 20 independent security and privacy audits covering different areas of its service—three times as many.

Both companies also publish regularly updated transparency reports on their websites. ExpressVPN began doing so slightly earlier, however, and its reports provide more detail than NordVPN's.

Both services use strong encryption and RAM-only servers, which wipe all stored data whenever they reboot. ExpressVPN goes a step further with its TrustedServer technology. Every reboot reloads the entire software stack, including the operating system, helping prevent bugs and inconsistencies that could create vulnerabilities.

The two services are also preparing for future threats from quantum computing.



NordVPN offers a much larger collection of security tools, giving it the edge in security.

ExpressVPN now offers post-quantum protection with WireGuard across its apps, while NordVPN supports it through NordLynx on most platforms. This technology helps defend against “harvest now, decrypt later” attacks, in which bad actors collect encrypted data today in hopes of decoding it once quantum computers become powerful enough.

ExpressVPN also includes ShuffleIP, a built-in feature that changes your IP address for each website you visit. This provides a little extra anonymity and makes it harder for sites to track you. NordVPN currently offers no direct equivalent.

NordVPN offers a much larger collection of security tools, giving it the nod in security, but ExpressVPN’s stronger record on transparency and privacy gives it the edge for those who are most concerned with privacy.

BEST FOR STREAMING: TIE

VPNs are mainly used for privacy and security, but they can also be used for entertainment purposes by unblocking geo-restricted content. Whether you’re traveling or just want to access region-locked content, using a VPN to spoof your location is a great way to watch all of the content you want no matter where your physical location—looking at you, Netflix England’s entire selection of Ghibli movies.

In my testing, both ExpressVPN and NordVPN came through with flying colors when attempting to access streaming services in different locations. They successfully

unblocked Netflix, HBO Max, Hulu, Disney+, Amazon Prime, and a handful of other services as well.

The differences in streaming performance are so minimal I can’t even nitpick to justify a winner in this category. As for streaming, it’s a tie between these two services. Both are perfectly capable of unblocking content on every major streaming site, and either will serve you well if this is your goal.

BOTTOM LINE

You can’t really go wrong with either of these VPNs. I gave both NordVPN and ExpressVPN 4.5 out of 5 stars in their respective reviews, and both garnered Editor’s Choice awards for their outstanding offerings and value. That said, NordVPN is our pick for best VPN overall, and for good reason: It provides excellent security features, unrivaled speeds, terrific streaming capabilities, and great customization options.

ExpressVPN does have a sterling privacy track record and a really clean and easy-to-use interface. But Nord offers rock-solid privacy as well—and with a little bit of time, anyone can use the app comfortably.

Overall, if speed and extra features are your jam, then Nord is an easy choice. If ease of use and transparency are more important to you, then consider ExpressVPN. Still, at the end of the day, whenever someone asks me for a VPN recommendation, I usually default to NordVPN first. 



Thermal Master P3: Close-up thermal imaging for your phone

The Thermal Master P3 transforms a smartphone into a compact thermal imaging camera via the USB-C port. **BY CHRISTOPH HOFFMANN**



Thermal imaging cameras visualize temperature differences and help to detect heat build-up and potential

thermal issues. In our day-to-day testing, we use them, for example, to examine the waste heat from laptops, mini PCs, and projectors. The Thermal Master P3 turns a smartphone

into a compact thermography tool in just a few simple steps.

SPECIFICATIONS

Sensor: VOx microbolometer, 256×192 pixels, 12µm pixel size

Image optimization: X³ IR to 512×384 pixels, RazorX algorithm

Thermal sensitivity**(NETD):** Less than 35mK at 25 °C**Frame rate:** 25Hz**Field of view:** 40×30.2

degrees, focal length 4.3mm

Focus: manual, 8mm to 80m**Measuring range:** -20 to 600 °C**Measurement accuracy:**

±2 °C or ±2 percent

Digital zoom: 15×**Power consumption:**

0.32 watts

Connection: USB-C

(Lightning and USB-A adapters included)

Compatibility: iOS, Android 7.0 and above, Windows 10/11**Dimensions and weight:** 59×27×17.2 mm, 27 g**Price:** Around \$300 retail

COMPACT DESIGN, BUT WITHOUT A MOUNT

The P3 is barely any larger than a USB stick. The aluminum casing measures 2.32×1.06×0.67 inches and weighs about an ounce. The build quality feels premium; the focus ring offers a pleasant amount of resistance and can be rotated precisely. It is the only control on the casing; everything else is handled by the app.

There is no tripod socket. For longer series of measurements or images taken from a fixed position, you'll have to use your free



The package includes an extension cable, a Lightning adapter for older iPhones, a USB-A adapter, and a sturdy carrying case.

hand or an improvised mount. When you're working on open, live assemblies, the metal casing must not come into contact with circuit traces or component terminals.

Thermal Master also offers the P3 in sets with an additional mount. As well as the standalone camera, there is a version with a smartphone mount, allowing the camera and mobile device to be combined into a more stable unit. Alternatively, a set with a 6D inspection stand is available. This is particularly useful for work on printed circuit boards and other stationary measurements where the camera and smartphone need to be positioned as steadily and reproducibly as possible. The sets do not alter the technical specifications of the P3.

The package includes an extension cable, a Lightning adapter for older iPhones, a USB-A adapter, and a sturdy carrying case.

The printed manual explains the measurement functions clearly.

READY FOR IMMEDIATE USE WITH A SMARTPHONE

The P3 can be connected directly to a smartphone. For devices with a USB-C port, the camera is simply plugged into the port. An appropriate adapter is included for older iPhones with a Lightning connector. There's no need to pair it via Bluetooth or Wi-Fi. Once you've launched the Temp Master app and granted the necessary permissions, the live feed appears straight away. We used an iPhone 15 Pro as our test device. The setup works in exactly the same way with an Android smartphone.

Two things stand out during use. First, the module protrudes horizontally from beneath the smartphone and puts mechanical strain on the USB-C port when taking photos overhead. Secondly, the camera occupies the USB-C port, meaning the smartphone cannot be charged via that port while the camera is in use.

If you're using a thick protective case, the plug may not click into place fully. A short extension cable is included to address this. Power consumption is negligible during use and

places only a minimal strain on the phone's battery, even with prolonged use.

MANUAL FOCUS MAKES ALL THE DIFFERENCE

Almost all clip-on cameras in this price range feature a fixed lens, including the Thermal Master P2 (fave.co/4ypijlU). The P3 is fitted with a lens with a 4.3-millimeter focal length and a rotatable focus ring. The manufacturer specifies a focus range of 8 millimeters to 80 meters.

In practice, manual focus proves its worth on a wide variety of devices. With mini PCs and laptops, for example, heatsinks, voltage converters, and other heated components can be examined in detail from close range. With the GMKtec NucBox K13 (fave.co/4gNAKv1), for instance, we used the P3 to analyze the heat distribution within the compact chassis.



The module protrudes horizontally from beneath the smartphone.

When testing the JMGO N3 Ultimate (fave.co/4h2XNR6), we again used the P3 to monitor the projector's heat dissipation. The camera recorded temperatures of around 40 degrees Celsius at the rear ventilation slots. Such measurements demonstrate the practical benefits of the P3: Heat build-up and noticeable temperature differences can be quickly located and documented.

The resolution is also sufficient for larger subjects: Among other things, we checked the heat distribution on a sauna heater and inspected the installation of several Anker Solix solar panels in the cellar for any noticeable hot spots. The manual focus via the dial helps to bring both small details at close range and larger areas into sharp focus.

It was also possible to visualize the layout of underfloor heating. With our test subjects, the discernible level of detail decreased significantly beyond around 20 meters. At

that point, manual focus can no longer compensate for the limited sensor resolution.

IMAGE QUALITY AND MEASUREMENT VALUES

The VOx sensor has a native resolution of 256×192 pixels with a pixel size of 12 micrometers. In X³ mode, the software upscales the thermal image to 512×384 pixels. The result appears more detailed and with sharper contours for static subjects. However, interpolation does not produce any additional sensor detail.

In live view, the display responds slightly more sluggishly when X³ is activated; edges become blurred during panning. The mode is worthwhile for static shots, but less so for quick scans while on the move. The app saves images at a resolution of 1440×1880 pixels.

Thermal Master specifies the thermal sensitivity as less than 35 millikelvin (mK) at 25 degrees. This means the camera can display temperature differences of less than 0.035 degrees Celsius. The frame rate is 25Hz.

Both of these characteristics are evident in practical use: Subtle temperature differences are clearly visible, and the live image runs smoothly. The measurement range extends from minus 20 to 600 degrees and is divided into a standard and a high-temperature setting.



The Thermal Master P3 plugs into your phone's USB-C port.

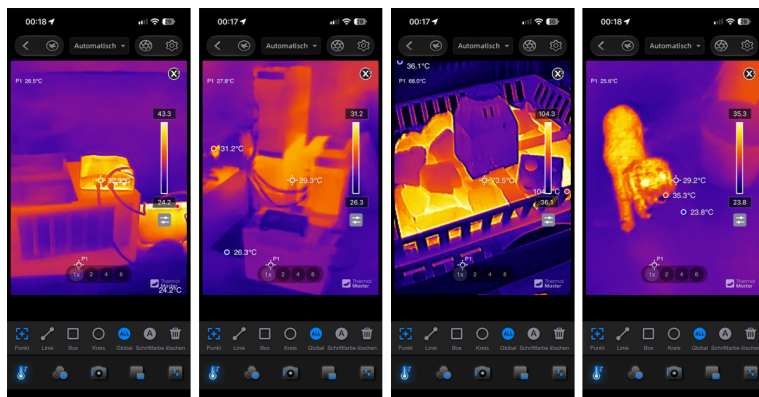
According to the data sheet, the accuracy is plus/minus 2 degrees or 2 percent of the measured value. In our test, random comparative measurements using a contact

thermometer showed deviations of less than 1.5 degrees on matte surfaces.

On bare metal surfaces, reflections significantly distort the readings. This is a fundamental limitation of noncontact infrared measurements. Emissivity, measurement distance, and ambient temperature can be adjusted in the app.

THERMAL MASTER APP: LOTS OF FEATURES, BUT NOT YET FULLY DEVELOPED

The iOS version of the free app that we tested offers extensive functions for capturing, analyzing, and documenting thermal images. There are 12 color palettes to choose from. Indoors, Iron Red has proved to be well-balanced, while Rainbow offers better orientation across wide temperature ranges. The digital zoom allows the image to be enlarged up to 15 times.



The camera can display temperature differences of less than 0.035°C.

For temperature measurements, individual measurement points as well as lines and areas are available. In addition, alarms can be set for when temperatures exceed or fall below specified values. An isotherm mode highlights defined temperature ranges in color. For more accurate measurements, the emissivity, measurement distance, and ambient temperature can be adjusted. This is particularly important when dealing with different materials, as their emissivity can vary significantly.

In the mode referred to by Thermal Master as Picture-in-Picture, the thermal image can be superimposed over the iPhone camera's view with adjustable transparency. The app records videos at 25 frames per second, including audio. This allows spoken comments to be recorded during a measurement. X³ mode upscales the thermal image to 512×384 pixels, providing a slightly sharper outline for static subjects.

Saved thermal images are stored in a gallery sorted by date and can then be reused. The integrated reporting function is particularly useful. For an IR report, details such as the report name, creator, and date can be entered. In addition, the app records measurement conditions such as ambient temperature, emissivity, and measurement distance. The thermal image is included in the report alongside the minimum, maximum, and center temperatures. A watermark can also be activated.

After previewing, the app generates a PDF document directly on the iPhone. This can be shared via the iOS sharing function—for example, by email or AirDrop—opened in other apps or printed. Individual thermal images can also be exported as JPEGs. This makes the P3 suitable for documented measurements during maintenance, electrical, or building inspections. However, we were unable to find an option to export the measurement data as a CSV file.

The software is not entirely without its flaws. The interface looks in places as though it were from an earlier generation of Android; some menu items appear to have been machine-translated, and the operating logic is not always self-explanatory. This is partly reflected in user reviews, which mention, among other things, display issues, crashes, and difficulties with screen rotation. In our test with the iPhone 15 Pro, however, the

Thermal Master app ran smoothly. There were no crashes or connection drops.

BOTTOM LINE

The Thermal Master P3 impressed in our test with good image quality and high thermal sensitivity. It stands out from many budget smartphone thermal imaging cameras thanks to its manual focus. This makes it suitable for close-up shots of circuit boards as well as for detecting thermal anomalies and potential thermal bridges in buildings.

On suitable surfaces, the readings are accurate. It is straightforward to use. Weaknesses include the outdated app, which features some clunky translations, and the lack of a mounting option. 🔌

Thermal Master P3



PROS

- Manual focus from a distance of 8mm.
- High thermal sensitivity of less than 35mK.
- A well-finished aluminum housing weighing 27g.
- Extensive range of accessories, including a case.

CONS

- No mounting option; no tripod thread.

BOTTOM LINE

At a street price of around \$300, the P3 delivers high image quality for this price range. A standout feature is the manual focus, which proves its worth when shooting a wide variety of subjects. In our test, we used it to examine the heat distribution on a sauna heater, check for unusual heating during the installation of an Anker Solix solar panel in the cellar, and visualize the waste heat from mini PCs and projectors. The app looks a bit dated and in places is clearly machine-translated, but it runs smoothly. This makes the P3 a versatile, pocket-size tool.

From \$300

Dreame Matrix10 Pro: Clever mopping comes at a cost

Its automated mop-swapping system keeps different cleaning jobs separate, but the added complexity and \$1,500 price are hard to ignore. **BY MICHAEL ANSALDO**



Most robot mops (fave.co/4wxymMV) have a problem that owners may not think much about. The same damp pads that clean bathroom floors and pet messes often end up traveling through the kitchen and living room. Some higher-end robots periodically return to their docks to wash the pads as they clean, but no rinse

cycle can completely wash away the ick factor of knowing the same pads that just cleaned around the toilet may later be wiping the floor where you eat.

Instead of relying on one pair of pads for the whole house, the Dreame Matrix10 Pro (fave.co/4r6Ui0h) keeps three sets in its dock and swaps them automatically depending on where it's cleaning. Each set is intended for

a different job, and the dock can also dispense different cleaning solutions for general floors, pet odors, and wood.

At \$1,499.99, though, the Matrix10 Pro puts a premium on that extra peace of mind. Its multi-mop system needs to deliver a meaningful improvement in cleaning and convenience, not just make you feel better about where the pads have been.

DESIGN AND FEATURES

The Matrix10 Pro's robot has a standard round design, measuring 13.78 inches across and 4.09 inches tall, and is topped by a fixed lidar turret and buttons for spot cleaning, starting or pausing a job, and returning to the dock. Its feature set is typical of a flagship robot vacuum: It's rated for 30,000Pa of suction and uses a dual-roller system that pairs a rubber- and-nylon brush for sweeping fine debris from

hard floors with a flexible TPU (thermoplastic polyurethane) roller that agitates carpet fibers to lift dust and hair.

Round-bodied vacuums have a tough time cleaning along straight edges, so Dreame has equipped the Matrix10 Pro's robot with a side brush that can swing outward into corners and an extending arm that pushes one mop beyond the robot's body to reach along baseboards. The pads can lift 0.41 inch over carpet or be left behind at the dock during vacuum-only cleaning.

Lidar handles mapping, while an RGB camera, structured light, and LEDs help the robot see objects in its path. Dreame says it can identify more than 280 types of obstacles, including cables, socks, coins, and small toy blocks.

The dock is more novel. With its boxy proportions and patterned metallic front, the 23.2×16.4×18-inch (H×W×D) unit looks a bit like the minifridge you might have kept under a dorm-room desk. Inside the door, six color-coded mop assemblies are stacked vertically in three pairs. Orange-ringed Mop A uses nylon bristles to scrub greasy floors (think kitchens and eating areas). Gray-ringed Mop B uses absorbent pads for bathrooms and other damp areas, and blue-ringed Mop C uses thermal pads designed to retain heat for everyday cleaning and wood floors.



The Matrix10 Pro's dock stores three pairs of color-coded mop pads, each designed for a different type of cleaning.

Dreame advertises mopping temperatures of up to 104-degree Fahrenheit, though the fine print says the pads actually measure between 86 and 104 degrees after one minute of cleaning following a hot-water wash at the dock. When the robot needs to switch mops, an internal shuttle removes one pair from the robot, parks it in the door, and installs another.

Much of the dock's size is to accommodate a 5.5-liter clean-water tank and a 4-liter dirty-water tank. During mopping, it refills the robot's 80ml onboard reservoir, washes and dries the pads, collects the wastewater, and scrubs the washboard. It also empties the robot's 250ml dustbin into a 3.2-liter disposable bag; Dreame says the bag can hold up to 100 days of debris, though the actual interval will depend on how often you clean and how dirty your floors are.

SETUP AND PERFORMANCE

The dock comes mostly assembled—you only need to attach the ramp extension so the robot can enter and exit—but because of the intricacies of the mop-changing system, there's a bit more setup than for the average robot vacuum.

You have to place each pair of mops in the matching color-coded slot, following the guide inside the dock door. You'll also need to fill the dock's three cleaning-solution



The removable dispenser module has separate compartments for the Matrix10 Pro's multi-surface, pet-odor, and wood-floor cleaning solutions.

reservoirs, housed in a removable dispenser module behind the dust-tank cover. Dreame provides a 200ml bottle of each, and I found that each bottle was just enough to fill its corresponding reservoir. Replacement 1-liter bottles cost \$26.99 for the multi-surface cleaner and \$21.99 each for the pet-odor and wood-floor formulas, or \$70.97 to restock all three. Each larger bottle should provide about five refills.

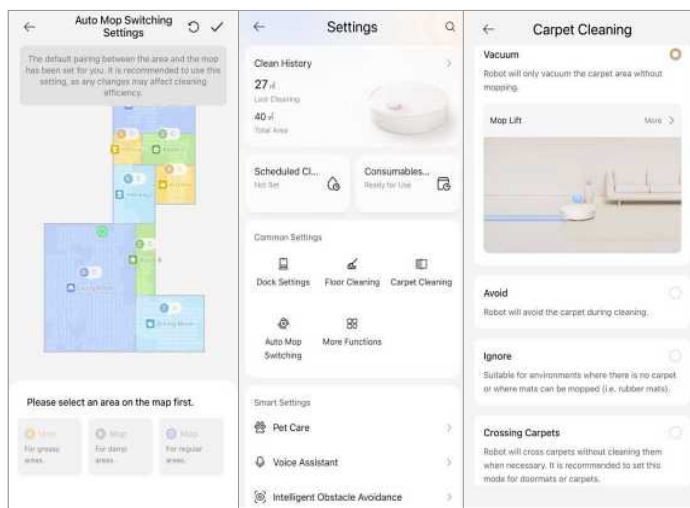
Finally, you need to slide the dispenser back into place, fill the clean-water tank, and the dock is ready to go.

Once the hardware is in place, the rest of setup happens on the Dreamehome app. You scan the QR code beneath the robot's top cover, add the Matrix10 Pro, and follow the prompts to connect it to your 2.4GHz Wi-Fi network. The app then walks you through the main features and prepares the robot for its first mapping run.

Fast mapping may not produce a finished map on the first pass. Mine captured the overall shape of my home but misread some room divisions and assigned generic labels such as “Room 2,” “Room 6,” “Hallway,” and “Hallway2.” The app gives you the tools to fix those mistakes: You can merge, divide, hide, and rename rooms, add furniture, draw no-go zones and virtual walls, and mark thresholds or ramps.

It’s important to start with an accurate map, because the app uses each room’s type to assign its default mop set. If a bathroom is mislabeled as a hallway, for example, the robot may choose the wrong pads for the job. The app then recommends a cleaning order based on the mop assignments to limit trips back to the dock.

I’ve used the Dreamehome app with other Dreame robots, so its mix of straightforward controls and densely packed menus was familiar. Along with the ability to send the robot to individual rooms, edit the map, and build cleaning schedules, it lets you adjust nearly every part of a cleaning run, from suction and mop moisture to preset cleaning



The Dreamehome app lets you assign mop types by room, manage cleaning settings, and customize how the Matrix10 Pro handles carpets.

routes and pet-related behavior. The Matrix10 Pro adds controls for assigning mop sets to rooms and managing the cleaning sequence built around them. The app is powerful once you learn where everything lives, but newcomers may find the sheer number of options daunting. CleanGenius mode offers an easier route by choosing the cleaning settings for you.

My home is mostly laminate flooring and one large area rug, and the vacuuming results were strong on both. The Matrix10 Pro picked up dust, cat hair, crumbs, and dry pet food without leaving much behind. For vacuuming, the app gives you the option of having the robot return to the dock and leave the mop pads there rather than just lifting them over

carpet. That solved a recurring problem, where dangling pads can catch on the edge of the area rug and get pulled off. The extendable side brush did a good job of sweeping debris from along walls and out of corners, and despite sharing the house with three cats, I never had to cut hair from either roller.

Mopping is the Matrix10 Pro's marquee feature, and in my testing it did the job well. It cleared dried spills and routine kitchen grime with little effort, while stickier residue needed more water and multiple cleaning passes. The extending mop reached closer to baseboards and furniture legs than a fixed pair would, and carpet detection when I left the pads on was dependable.

When the Matrix10 Pro needs a different mop set, it returns to the dock and backs in so the current pads can be removed. It then pulls forward while the dock's internal shuttle stores those pads and positions the next pair, before backing in again to attach them and resume cleaning. The whole exchange is automatic, but the extra trips to the dock and back-and-forth add time to mopping runs.

The dock cuts down on hands-on effort, but it doesn't eliminate it. You'll need to empty the dirty-water tank after every job to prevent odors. The clean- and dirty-water tanks lift out easily, and the washboard and filter can be removed and rinsed. You'll also need to replace the dust bag when it fills and refill each of the three solution reservoirs as needed.

BOTTOM LINE

I was generally happy with the results I got from the Matrix10 Pro, but I didn't find them noticeably better than those of other premium robot mops I've used. What I did appreciate was that it kept dirt from different parts of my home more compartmentalized.

That convenience comes with tradeoffs, though. The biggest is that mop changes add time to cleaning. And the three cleaning solutions and six mop assemblies give you more supplies to keep track of than with a conventional robot mop.

If you're mainly after excellent vacuuming and strong mopping, you can get comparable cleaning performance for less. But if the idea of better floor hygiene is appealing, this is one of the few robot mops that could put your mind at ease. 

Dreame Matrix10 Pro



PROS

- Excellent vacuuming and strong mopping performance.
- Reliable obstacle avoidance and carpet handling.

CONS

- \$1,500 price is steep.
- Mop changes add time to cleaning runs.

BOTTOM LINE

The Dreame Matrix10 Pro is an excellent robot vacuum and mop with a genuinely useful approach to keeping cleaning tasks separate. But its multi-mop system adds more to hygiene and convenience than to actual cleaning performance, making the \$1,500 price easier to justify for people concerned about cross-contamination than for anyone simply seeking the best clean for the money.

From \$1,500



5 WAYS TO STOP SNOOPING BY

WORRIED THAT YOUR SMART TV
WHAT WILL HELP, AND WHAT WO



TOP SMART TV LG & OTHERS

IS SPYING ON YOU? HERE'S
DON'T. **BY JARED NEWMAN**

It's time for another round of panic about smart TV privacy, with LG taking its turn in the hot seat.

The impetus is a 135-minute video from Gamers Nexus (fave.co/46Xd9Sc), digging into the data that LG can collect from its users. The most shocking claim is that LG's TVs can persistently listen to what you're saying even when the power is off (albeit only if you plug in an external USB webcam).

But the report also delves into the privacy ramifications of hands-free voice control and automatic content recognition. The video quickly went viral, drawing millions of views and prompting some alarming headlines. ("Disconnect your LG television from the internet, now," for instance: fave.co/4xkZtLS.) While many of the core claims aren't new or even unique to LG (fave.co/3UC4q5n), I'm all

for more folks realizing exactly what their TVs are up to. Even if they're not constantly recording what you say or do, smart TVs can be privacy minefields, and it's worth taking some steps to minimize what they can collect. Here's how to do that.

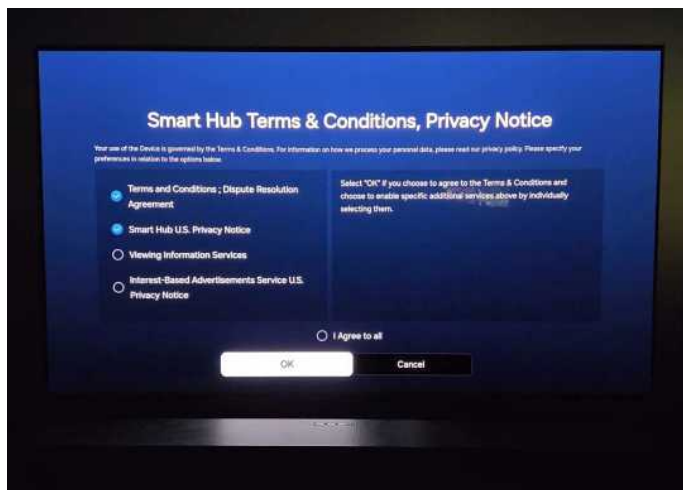
1. DISABLE ACR

Automatic Content Recognition, or ACR, is a technology that smart TV makers use to monitor what you're watching and monetize that data through targeted ads. ACR even collects viewing data from devices you connect over HDMI, such as game consoles and streaming dongles. If you don't pay close attention during setup, it's easy to end up with ACR enabled.

LG's implementation of ACR is similar to that of other smart TV makers, though

Gamers Nexus observed an LG TV connecting to its advertising endpoints even before the user accepts any usage agreements. ACR also appeared to run while the TV was offline for users who'd allowed it, possibly so LG could upload data later.

In any case, opting out of ACR is a good way to minimize what your smart TV collects. Here's a



Viewing Information Services is Samsung's term for ACR.



The microphone switch on a Google TV from Hisense.

useful list of how-to steps for most major TV platforms (fave.co/4xoRE7D).

2. LOOK FOR A MICROPHONE KILL SWITCH

Like many other TV makers, LG includes microphones on some of its TVs for hands-free voice control. The TV does not record your voice until you utter a wake phrase (“Hi, LG,” in this case), at which point it will transcribe the audio to understand your intent. Smart speakers such as Amazon’s Echo devices function in similar fashion. LG denies recording audio in any other context (fave.co/4A9uu7Q).

Still, Gamers Nexus found that LG’s microphones would continue capturing audio long after the user stops talking, even upward of 10 seconds in some cases. The TV then stores transcriptions of those recordings in plain text, including things that other people say within earshot. Gamers Nexus was able to

read a record of those transcripts by enabling root access to the TV.

Even if your TV isn’t constantly recording you, you might still want to turn off the microphones. If your TV has a built-in microphone for hands-free voice commands, try looking

for a physical off switch on the side or bottom of the set. Digging through your TV’s settings may also reveal an option to disable the mic as well.

3. DON’T PLUG A CAMERA INTO YOUR TV

One of Gamers Nexus’ most eyebrow-raising claims is that LG TVs can persistently capture video and audio, even when the TV is off. The video acknowledges, however, that this requires an external microphone and camera plugged into the TV, such as the USB webcam that Gamers Nexus used for testing or the one from LG itself (fave.co/4dv1OfS). Recording that output also requires root access to the TV, which is not enabled by default.

The finding does raise a practical concern: If an attacker has access to the TV—in a hotel room, for instance—they could potentially hide a connected camera to surreptitiously record their target. But for a TV at home, the



The easiest way to stop your TV from spying on you is to avoid connecting a camera in the first place.

easiest way to stop it from spying on you is to avoid connecting a camera in the first place.

4. DISCONNECT YOUR TV FROM WI-FI AND USE IT AS A DUMB TV INSTEAD

The most foolproof way to prevent your TV from uploading your personal data is to make sure it's not connected to the internet. Then you can plug an external streaming device, such as a Roku or Fire TV stick, into one of the TV's HDMI ports. These devices have their own Wi-Fi connections, separate from what's built into the TV.

How you disconnect will depend on your TV, but you should avoid merely turning off the TV's Wi-Fi, as it might turn back on again after a reboot. Instead, dig into the TV's settings and find a way to delete or forget

your network. Failing that, you can always factory-reset the TV and skip the Wi-Fi connection process during setup. Some TVs even offer a more basic navigation mode for when Wi-Fi and smart TV features are disabled.

5. UNDERSTAND THAT STREAMING DEVICES HAVE PRIVACY ISSUES, TOO

More broadly, streaming sticks and streaming boxes collect all kinds of data about how you use them. They know which apps you open and how you interact with the content on their home screens, letting them make inferences about what you're into. Roku even collects information about the other devices on your Wi-Fi network (as laid out in its privacy policy, fave.co/3UHS3cj), which is precisely what the Gamers Nexus video criticizes LG for doing.

Some folks suggest the Apple TV 4K (fave.co/3T3bM1c) as a more private alternative to the likes of Roku and Fire TV, and there's some truth to that. The device's menu system is free of targeted ads, and there's a handy setting that limits apps' ability to share data among



Deleting a Wi-Fi network on a Samsung TV.

themselves. (That's under Settings > General > Privacy & Security > Tracking.)

You can also go full nerd and plug a PC into your TV instead, like I'm experimenting with now (fave.co/4A8I9wa). This would allow you, for instance, to set up an ad and tracker blocker like uBlock Origin in your browser and use offline voice dictation that doesn't send voice recordings anywhere. You can even plug in a webcam without wondering if it's recording without your knowledge.

But no matter which device you use, individual services such as Netflix and Hulu know what you've watched and can use that data for their own ad targeting purposes. Getting them not to sell your data is a whole other ordeal (fave.co/4xI5GXY).

My point is not to make you give up on TV privacy, but to be

realistic about what's happening and what you can do about it. While it's great that folks are learning what's really going on inside their smart TVs, disconnecting yours from the internet doesn't magically solve streaming's deeper privacy problems. 🔌



Targeted ad settings on a Roku streaming stick.



BEST OF 10 HOT PC TECH ON THE

GROUNDBREAKING MONITOR REFRESH RATE
 A FREE APP THAT HARNESSSES ALL OF YOUR H
 JUST SOME OF THE PRODUCTS WE'RE I



IFA 2026: PRODUCTS & THE HORIZON

ES, CUTTING-EDGE LAPTOP COOLING, AND
OME'S PCs FOR FASTER AI INFERENCING ARE
EXCITED ABOUT. **BY PCWORLD STAFF**

Like CES in Las Vegas, the IFA technology tradeshow that takes place every year in Berlin gives technology vendors and taste makers an opportunity to show off their latest and greatest wares, and consumers a chance to start planning their next purchases and saving their shekels.

From a PC user's perspective, the category that got the most love this year was monitors, and we're here for it as innovations include esports-caliber OLED and truly affordable Mini LED.

There are also some tasty laptops coming down the pike, some intriguing developments for consumer AI, and a few very promising hardware concepts that we're praying will make it to market.

Without further ado, here are the 10 products and innovations from IFA 2026 that have us most excited.



Acer stole the show with its revamped Vero 16.

ACER VERO 16

IFA is generally a showcase for laptops, and this year the big news is those RTX Spark models due in October. But I'm wary of new Arm chips and doubly wary of Nvidia. For my money (what little it buys in a laptop these days), Acer stole the show with its revamped Vero 16 (fave.co/4h0Xtlw).

Granted, Acer is mostly cribbing on Framework here. In addition to recycled components that were a highlight of previous Vero designs, this one allows tool-free access to the primary laptop component bay, replaceable hinges, replaceable battery, all while keeping at least some durability. You can swap out the SSD, too...but not the RAM, as with most Core Ultra Series 3 laptops.

With a standard OLED screen and a base Core Ultra 5 322 processor (up to Core Ultra X9 388H at the top end), respectable Arc B390 graphics, and a 71-watt-hour battery,

this looks like a pretty good option for a midrange, all-rounder laptop...though who knows how much all that extra engineering will add to the price?

I can't say I'd prefer the Vero to a Framework without getting my hands on it, but I'm happy to see more companies incorporate repairable designs.—*Michael Crider*

Lenovo's Project AeroBlade concept finally looks like it could bring the AirJet chip to store shelves inside a new 14-inch laptop.



quiet (no fans, remember) as well as light—1.83 pounds, in this case. It's literally as heavy as a full 24-ounce water bottle. Lenovo is using Intel's Core Ultra 200 chip inside it, so it stands to be moderately powerful as well. I can't wait until I can take something like this on a business trip.—*Mark Hachman*

LENOVO'S PROJECT AEROBLADE CONCEPT

PCWorld was the first to break the story on the Frore AirJet cooling chip, and we've been following the technology for years. Now the Lenovo Project AeroBlade (fave.co/4A9yjKe) concept finally looks like it could bring the AirJet chip to store shelves inside a new 14-inch laptop. Fortunately, Lenovo concepts often end up as products—I'm guessing in 2027.

Why is this important? An AirJet laptop stands to be both

ALIENWARE AW2527HX 560HZ OLED ESPORTS MONITOR

For me, the biggest story coming out of IFA was the deluge of fantastical new monitors, and the Alienware 25 560Hz QD-OLED Gaming Monitor (AW2527HX), fave.co/4AqXWqr, captured my attention like no other. The upshot here? OLED is finally ready for the high refresh rates that esports sweats clamor for.



Alienware's 24.5-inch OLED gaming monitor looks ready to turn heads when it launches in 2027.

That means in addition to the blistering 560Hz refresh rate, this 24.5-inch 1080p display also offers all of OLED's benefits, like luscious contrast, vivid colors with wicked accuracy, fast gray-to-gray pixel response times, and inky VESA DisplayHDR True Black 600 certification that ensures blacks deeper than the darkest soul. Typical esports monitors use ancient TN panel technology instead, which is fast but suffers in visual quality and viewing angles. You won't find that here.

Add in physical design feedback from the esports pros at Team Liquid—I dig the height markers on the stand for easily repeatable setup—and the Alienware AW2527HX looks

ready to turn heads when it launches in the first quarter of 2027.—*Brad Chacos*

ACER NITRO XV275U Z2

OLED isn't the only big dawg in the display junkyard. Mini-LED offers many of the same benefits of OLED, but offers higher peak brightness and better text clarity at the slight expense of slower gray-to-gray response times. Bottom line? Mini-LED monitors look great—and now they're shockingly cheap.

Case in point: Acer's Nitro XV275U Z2 (fave.co/4claS0F). It will cost just \$329 when it launches later this year, giving you a stunning 1,000 nits of HDR brightness powered by 1,152-zone mini-LED

backlighting, along with a Dynamic Frequency and Resolution feature that starts at 275Hz at its default 1440p, 360Hz at 1080p, and 520Hz at 720p (ick). Mini-LED doesn't suffer from the pixel burn-in concerns like OLED, either.

Look for the Acer Nitro XV275U Z2 to land before the holidays.—*Brad Chacos*



Acer's Mini-LED monitor will cost just \$329 when it launches later this year.

ALIENWARE 32 4K OLED GAMING MONITOR (AW3226Q)

Mini-LED may have historically offered superior text clarity to OLED, but thanks to new RGB Stripe OLED technology



The Alienware 32 4K OLED Gaming Monitor has everything gamers could want.

debuting this year, those days may be over. And Dell created a killer-looking 4K monitor for work and play that leverages the bleeding-edge feature.

The Alienware 32 4K OLED Gaming Monitor (AW3226Q), fave.co/4yv3h5, offers everything gamers could want, from its pixel-packed resolution and 165Hz running speeds to its stunning 1,000-nit peak brightness and VESA DisplayHDR True Black 400 and Dolby Vision certifications. The panel is factory-calibrated for Delta E<2 color accuracy and covers 99 percent of the DCI-P3 color space, which should make it appealing to creators and visual pros as well—especially paired with

RGB Stripe's improved text clarity. Heck, Alienware even packed in HDMI 2.1, so the display plays nice with consoles, too.

Is this the One Monitor To Rule Them All? I'm drooling at the idea of testing this display when it launches for \$699—a shockingly low price tag considering what the AW3226Q offers—later this fall.—*Brad Chacos*

ACER DUALPLAY MINI CONCEPT

Why would you spend \$2,000 on a PC gaming handheld instead of a gaming laptop? Aside from the size and the controls, everything else is a compromise. But what if you could have...both? Acer's DualPlay Mini (fave.co/4h76ERP) concept answers that question, with a transforming handheld that flips up to reveal a mini-laptop.

High price and a lack of utility for most buyers are what makes me lose interest in high-end gaming handhelds. But this one could make a solid value argument, albeit for a small group of users. It's basically cramming a netbook into a handheld, albeit a very powerful Arc G3 one. You could even say it's more portable than a conventional gaming laptop, while preserving a full keyboard...though an 8-inch



Acer's DualPlay Mini concept is a gaming handheld, with an 8-inch display that flips up to reveal a mini-laptop.

screen and no touchpad mean you're still making compromises.

I don't think this is a practical or realistic design, and frankly I'd be shocked to see it come to market. But I'd love to be proven wrong.—*Michael Crider*

ACER SFF RTX SPARK MINI WORKSTATION

Acer's SFF RTX Spark (fave.co/3To5sBy) is bigger than a mini PC, smaller than a desktop PC, with more than enough power for at-home AI work. Built on Nvidia's new RTX Spark platform, it features a Blackwell RTX GPU with up to 6,144 cores, an Nvidia Grace CPU with

up to 20 cores, up to 128GB of unified memory, and up to 1 petaflop of AI compute. Why pay for expensive tokens when you can run language models and image generation locally? That's what this mini-workstation is geared for.

The appeal here is obvious: a quiet, compact box that can handle modest AI tasks without involving a subscription or data center. It offers better privacy, no usage caps, and greater potential than running those same local models on less well-equipped laptops. As one of the first with Nvidia's RTX Spark, the Acer SFF RTX Spark is on the cutting edge—and what I appreciate most is how much power it packs



Acer's SFF RTX Spark has more than enough power for at-home AI work.

into an unassuming box. It's form and function, not mere novelty. Acer hasn't announced pricing or availability yet, so for now we'll just have to wait and see what comes of it.—*Joel Lee*

NVIDIA RTX PAIR

Nvidia teased out some more details about its forthcoming RTX Spark processor at IFA, but I'm more intrigued by some free software meant to tease more AI performance out of the hardware you already own.

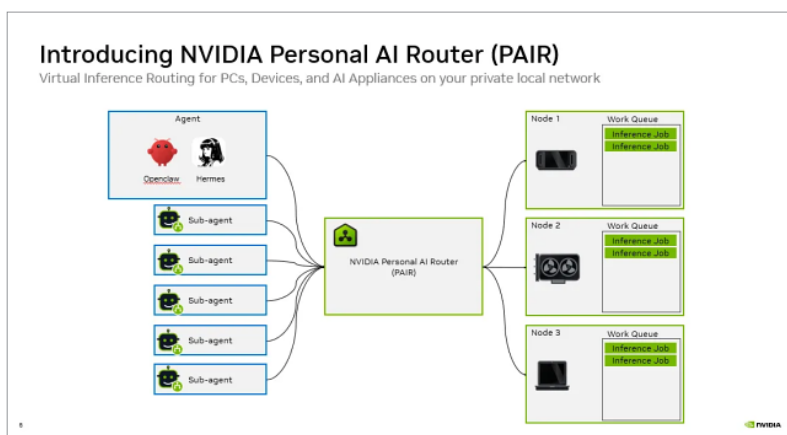
Nvidia's RTX PAIR, see page 11—an acronym for Personal AI Router—is a free app for Windows, MacOS, and Linux that you install on every PC you own with a GPU inside. After you do, they're added to a collective pool of resources. Once you spool up tasks for local AI agents in Ollama or LM Studio, RTX PAIR springs into action, dynamically assigning subtasks to the various GPUs in your home to complete AI inference faster. In Nvidia's example, a "weekly Sunday tasks"

chore took more than 18 minutes to complete on a single PC, but RTX PAIR dropped that to just 9 minutes by splitting agents between three computers.

It's a clever way for Nvidia to augment its already ferocious-looking RTX Spark chips, using the RTX gaming and creator laptops you already own to create an AI supercomputer inside your home. RTX PAIR is available now.—*Brad Chacos*

ACER SWIFT BLADE 14

Acer's Swift Blade (fave.co/4rbAWYe) is actually lighter (1.76 pounds) than the Lenovo AeroBlade (1.83 pounds), not to mention Acer's older TravelMate P6 14 AI (2.2 pounds, fave.co/4gW2Suk). What all these numbers say, though, is that ultralight laptops are back in a big way, and that the



Nvidia's RTX PAIR app spreads local AI workloads across multiple GPUs on your network to create an AI supercomputer.



The Swift Blade may be the lightest 14-inch laptop on the market.

Swift Blade may be the lightest 14-inch laptop on the market.

There are still questions: How long will its 50Wh battery last attached to an 1800p OLED? Will its Wildcat Lake processor deliver the goods?

Sure, there are those who don't mind shouldering a 3- or 4-pound laptop for some additional performance. However, there's also a viable market for consumers who just want a lightweight computing solution that's not a phone or a tablet. And did we mention that the Swift Blade 14 is about a pound

lighter than a MacBook Air?—*Mark Hachman*

LENOVO PROJECT SWAN CONCEPT

Look, I'm a sucker for ultrawide monitors. Lenovo's Project Swan (see page 20) concept turns a traditional 14-inch ThinkBook into a widescreen productivity beast at the simple push of a button. That's all I

need to know. I'm sold. Please make this real, Lenovo. Please.—*Brad Chacos*. 



Lenovo's Project Swan concept turns a 14-inch ThinkBook into a widescreen monster.



Who adopted who?

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LOVE
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Public Wi-Fi just got riskier. Follow these 4 security tips

Hackers are targeting Wi-Fi networks at hotels and other locales in ever sneakier ways.

BY ALAINA YEE

You probably trust public Wi-Fi. But you shouldn't—at least not completely and not without any safeguards.

A new kind of attack is the latest reminder of this. As detailed by Microsoft (fave.co/3UR78Uu), hackers have been infiltrating login portals at hotels (fave.co/46eYC4f). Previously, such hijacking was used to redirect users to fake Microsoft 365 login pages or subvert Microsoft's corporate-grade

authentication method (Entra ID). But now there's a more dangerous variation that tricks people into installing malware.

It relies on a technique called ClickFix (fave.co/4A2HWKN), where a pop-up appears with instructions that claim to fix a problem with an account or on your PC. Obviously, a phishing page is bad enough, but the malware deposited by this upgraded hack lets bad actors spy on you in addition to potentially stealing a Microsoft 365 account.

And most people rarely question hotel Wi-Fi with a captive portal login system. At a property that nice, you'll likely assume other users are a threat, not the portal itself.

So what should you do to stay safe when on public Wi-Fi, whether fully open or kept behind a portal? Here are the four things I always recommend:

1. Ensure you're on the official public Wi-Fi network. Smart hackers will create networks that sound similar to legitimate ones, hoping to catch people who aren't paying close attention. For example, just the other day, I saw an "XfinityWifi" hot spot available in a location that seemed unusual.

2. If you're routed through a portal, pay attention to the instructions. Most will ask you to agree to terms before proceeding. Hotel portals may ask for your surname and your room number. No legitimate portal will tell you to run commands on your device, or

input your login information for an account (especially an unrelated account).

3. Once connected, use a VPN. This sets up an encrypted tunnel, where all your web traffic routes through a secure server. If someone also on the same public Wi-Fi network as you tries to snoop on your activity, they will only see that you're connecting to the VPN service. (Obviously, this method is only as good as the VPN you choose, so pick one that has strong security, plus a verified no-logs policy to maintain your privacy, fave.co/43k8IzX.)

4. If you can't use a VPN, avoid browsing insecure websites—anything that only has http (no s) in the address. Such sites are not encrypted, meaning anyone else on that public Wi-Fi network can see the exact data passed back and forth between your device and that insecure website. Also consider avoiding use of sensitive apps and websites (such as financial).

Of course, the easiest way to stay safe on public Wi-Fi is to just not use it. Cellphone connections are harder to hack—so keep using the data on your phone. If you need a connection for your PC, turn on your phone's hot spot. If you have enough data on your plan, this solution requires the least amount of effort. 🔌



Using a VPN sets up an encrypted tunnel, where all your web traffic routes through a secure server.

IMAGE: EARTHPHOTO/SHUTTERSTOCK



This Windows security trick auto-locks your PC when you leave

Dynamic Lock watches for your phone to leave Bluetooth range, then locks Windows. It provides a useful safety net when you forget to lock your PC. **BY SAM SINGLETON**

I'm pretty good about remembering to lock my PC when I leave my desk, but every once in a while I forget. Thankfully, when I walk away from my computer and my brain is already halfway to the coffee machine, there's an easy way to keep it protected. Windows' Dynamic Lock gives you a handy backup plan by using your phone to tell when you've walked away.

Dynamic Lock works via Bluetooth. Pair your phone with your Windows PC, then go to Settings > Accounts > Sign-in options > Dynamic lock and enable the option that lets Windows lock your device when you're away.

Once it's turned on, Windows monitors the Bluetooth signal from your phone. When

you walk far enough away that the signal drops out of range, Windows assumes you've left and automatically locks your PC. Microsoft says this should happen within about a minute after your phone goes out of Bluetooth range. In my experience, it usually takes less than 30 seconds.

While Dynamic Lock is a useful backup, it shouldn't be treated as a replacement for locking your computer with **Win + L**.

Dynamic Lock isn't instant. There can be a short window between your leaving and Windows locking itself, and Bluetooth isn't something I'd want to depend on as my only line of defense. Always try to remember to press **Win + L** before leaving your PC. 



The Google Docs backup trick everybody should know

Use Google Docs' version history to roll back unwanted changes when a rewrite goes wrong or something important disappears. **BY SAM SINGLETON**

Anyone who frequently writes documents has had that moment where a big edit goes sideways. So what do you do when you've deleted a paragraph you needed, then rewritten half a document, only

to regret the whole thing, or when you've opened a shared file and scratched your head, wondering who changed what? There's no need to freak out. Google Docs has a safety net called "version history" that remembers every version of your work.

To find it, open your document and go to **File > Version history > See version history**. You'll see older drafts listed by date and time on the right side of the screen. You can click on any of them to preview how the document looked at that point. Google also shows who made changes, with different colors tied to different editors, which I find really helpful when several people are working in the same file as me.

If you find the draft you want, click **Restore this version**, and Google Docs will replace your current document with that older draft. You can also make a separate copy of an older version if you only want to recover a section without replacing your current work.

One habit I highly recommend is naming important versions before you make any major changes. Go to **File > Version history > Name current version** and give it a useful label such as "First draft" or "Final draft before edits." Named versions are much easier to spot later, and Google even says naming a version also keeps it from being merged with other revisions later.



IMAGE: DOTSHOCK/SHUTTERSTOCK

Google Docs' version history can save you from the headaches of trying to remember your earlier brilliant idea before someone accidentally deleted it.

It only takes a few seconds, but it can save you from the headaches of trying to remember your earlier brilliant idea before someone accidentally deleted it. 🔌



IMAGE: GORDENKOFF/SHUTTERSTOCK

We recommend naming important versions before you make any major changes.

3 Gmail features that save you from embarrassing email mistakes

Schedule messages, stop accidental sends, and put limits on sensitive emails. Gmail's built-in tools can help you control your sent emails more effectively. **BY SAM SINGLETON**



Gmail has a few handy tools that give you more control over when your emails go out, and what happens after you press the send button. Here are my favorites:

SCHEDULE SEND

I don't know about you, but there are plenty of times when I want to write an email now

and don't want it landing in someone's inbox until later. Sometimes I'm working late, I want to draft a birthday message while I still remember, or I'm trying not to bother a coworker while they're on vacation. Gmail's **Schedule send** feature makes this easy.

Simply write your email like normal, then click the small arrow next to the Send button, and choose **Schedule send**. Gmail offers a

few suggested times, or you can pick your own date and time instead. You can also find scheduled messages in the Scheduled folder below your Inbox, where you can cancel or edit them before they go out. Gmail lets you queue up to 100 scheduled emails.

UNDO SEND

Another nifty feature most people overlook is the **Undo Send** option. Despite its name, it doesn't actually take a sent email back after it reaches someone's inbox. Instead, it allows you a second chance to make any corrections before sending the email.

After you send an email, a small black box appears at the bottom of your window with the option to click **Undo**. By default, Gmail is set to wait a short time before actually sending your emails. You can change that delay to five, 10, 20, or 30 seconds under Settings. Hit Undo during that window and the message pops back into your draft without ever being sent. Once the hidden timer runs out, though, it's sent for good.

CONFIDENTIAL MODE

Then there's **Confidential mode**, which serves a different purpose. It lets you set an

Confidential mode

Recipients won't have the option to forward, copy, print, or download this email. [Learn more](#)

SET EXPIRATION

Expires in 1 week ▼

Mon, Sep 21, 2026

REQUIRE PASSCODE

All passcodes will be generated by Google. ⓘ



No SMS passcode



SMS passcode

Cancel

Save

Gmail's Confidential mode allows you to set the expiration date and require a passcode.

expiration date, revoke access, require a passcode, and block built-in options for forwarding, copying, printing, or downloading a message.

To turn it on, click on the lock icon at the bottom of your Gmail messaging window. Here you can set the expiration date and require a passcode. All emails that have Confidential mode enabled will automatically restrict forwarding, copying, printing, or downloading.

Just don't mistake it for foolproof security—there are always ways around these types of protections. Someone can still take a screenshot or photo of what you sent, for example. 🔌

Tech Spotlight

A video showcase
of the latest trends



Watch the
video at
[youtu.be/
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My tech travel essentials that help me work cramp-free

➡ In this video, Alex walks you through the tech he brings when he travels.