



An Extended Guide · No. 1758

Common Surge-Protection Myths

Sorting the good advice
from the old wives' tales

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! Read this first — two kinds of protection, one safety rule

There are two kinds of surge protection in this guide, and they are not the same job. A whole-home surge protector wires into your electrical panel, where the power is always live and a mistake can be deadly — that is strictly a licensed electrician's work, almost always with a permit, and never a do-it-yourself project. (It isn't something I do myself, either; I help you understand it, choose wisely, and line up a trustworthy local pro.) The other kind — the surge-protector strips and plug-in units you use at the wall — are perfectly safe for you to set up on your own. One honest note either way: no surge protector is a lightning rod or an iron-clad guarantee, so in a violent electrical storm, unplugging a treasured device is still the surest protection of all. This particular guide is about the tall tales — the well-meant but wrong advice that gets passed around the neighborhood — so you can tell the good tips from the old wives' tales with confidence.

Let's clear up the tall tales together

Surge protection collects more bad advice than almost any home topic I help with. A lot of it sounds reasonable, which is exactly why it sticks. Let's sort the sense from the nonsense, plainly and without any finger-wagging.

I'm Bill, and I run Bill's Home Tech here in Portage County, Ohio. In 30-plus years of house calls, I've heard every one of these myths, usually from kind folks who were sure they were doing the right thing. There's no shame in believing any of them — they get repeated everywhere.

My aim here isn't to make anyone feel foolish. It's to hand you the plain truth behind each myth, so the next time you hear one, you'll know better — and spend your money and effort where they actually help.

★ Heard one that's not in here?

If a piece of surge advice has you scratching your head, call or text me at (330) 200-8042 and I'll give you the straight story — free, and with nothing to sell you.

Every myth, busted on one page

If you read nothing else, read these. Each is a myth folks believe, followed by the plain truth.

- ❑ 'A power strip protects my electronics.' No — only a real surge protector does. A plain strip just adds outlets.
- ❑ 'Surge protectors last forever.' No — they wear out, and the little light is there to tell you.
- ❑ 'A whole-home unit means I need nothing else.' No — you still want plug-in protectors on sensitive gear.
- ❑ 'A surge protector stops outages and brownouts.' No — that's a battery backup, a UPS. Different tool.
- ❑ 'Lightning is the only cause.' No — most surges start inside your own home, from your own appliances.
- ❑ 'More outlets means more protection.' No — how many outlets a strip has tells you nothing about protection.
- ❑ 'A plug-in protector will stop a direct lightning strike.' No — unplug your treasures in a severe storm.
- ❑ 'A new house doesn't need protection.' Backwards — newer homes are full of sensitive electronics, so they need it more.

✓ One rule of thumb

When a surge-protection claim sounds too good, or too simple, it usually is. The truth is almost always 'you want more than one layer, and you want to check on it now and then.'

Myth 1: 'A power strip protects my electronics'

This is the big one — the myth I run into more than any other, in the nicest homes and the tidiest offices.

A plain power strip does exactly one thing: it turns one outlet into several. That's genuinely useful, but it is not protection. There are no special parts inside a basic strip to catch a surge — it passes whatever comes down the wire straight through to your devices.

A real surge protector looks almost identical, which is the whole trouble. The difference is inside, and on the label: a true protector says 'surge protector,' usually lists a joule rating, and typically has an indicator light. If a strip says none of that, treat it as just a strip.

! Look before you trust it

Plenty of cheap strips are sold in a way that lets folks assume they protect. They don't. Our guide on a surge protector versus a power strip shows you exactly how to tell them apart at a glance.

Myth 2: 'Surge protectors last forever'

This one fools almost everyone, because a worn-out protector gives no obvious sign it has quit protecting.

A surge protector is sacrificial by design. The parts inside that absorb surges wear down a little with each hit and with age, until one day they can't protect anymore. Here's the catch that gets people: even fully used up, the protector still powers your devices. The outlets still work, so folks keep trusting dead protection for years.

That's what the little indicator light is for. On most units, a 'protected' light that has gone dark — while the strip still has power — means the protection is spent, even though everything plugged in still turns on. Replace it then, after any big surge, and every few years as a matter of course.

✓ Two guides go deeper

Our guide on when to replace a surge protector and our indicator-light guide both walk through this — how to read the light, and when it's simply time for a fresh one. When in doubt, replace it; they're the cheap part.

Myth 3: 'A whole-home unit means I need nothing else'

A whole-home protector is wonderful — I recommend one to most folks. But believing it does the whole job leaves a gap.

A whole-home unit at the panel is your first line of defense. It knocks a big incoming surge down to a much safer level before it can spread through the house. What it can't do is finely protect your most delicate electronics, and it does nothing about the small surges that start inside your home, past the panel, from your own appliances cycling on and off.

That's why the strong setup is layered: the panel unit for the big stuff, plus plug-in protectors on the sensitive gear — the television, the computer, the network equipment. Each covers what the other can't. Neither alone is the whole answer.

✓ See the layered picture

Our layered-protection guide lays out how the two work as a team, and the whole-home protection guide covers the panel unit itself. The short version: use both when you can.

Myth 4: 'A surge protector stops outages and brownouts'

This mix-up is easy to make, because two very different devices sit side by side on the store shelf.

A surge protector stops spikes — brief jumps of too much voltage. It does not keep anything running when the power goes out, and it does not prop up the voltage during a brownout, when the power sags low. Those are different problems entirely.

The tool for outages and sags is a UPS — an uninterruptible power supply, which is really just a battery in a box. When the power quits, the battery takes over and buys you time to shut down safely. Helpfully, most UPS units include surge protection too, so one box can cover both jobs for a computer or a medical device.

✓ The battery-backup guide has this

If keeping something running through an outage matters to you, our guide on battery backup (a UPS) is the one to read. A surge protector and a UPS are partners, not the same thing.

Myth 5: 'Lightning is the only cause'

Lightning gets all the blame, and it's certainly dramatic. But it's far from the whole story.

Lightning does cause surges — usually not a direct hit, but a nearby strike that jumps onto the power lines and travels in. The surprise, though, is that many experts say the majority of the surges your electronics see actually start right inside your own home.

Anything with a big motor or a strong heating element gives a little electrical kick as it switches on and off — the furnace blower, the air conditioner, the refrigerator, a well or sump pump, the washer and dryer. These small spikes happen all day and all night, quietly wearing on your gear. That's why protection earns its keep even in fair weather.

★ This one changes how folks think

Once you know your own fridge and furnace are part of the story, surge protection stops feeling like storm insurance and starts feeling like everyday sense. Our [what-is-a-power-surge](#) guide covers all the causes.

Myth 6: 'More outlets means more protection'

It feels logical — a bigger strip with more plugs must protect more, right? Afraid not.

The number of outlets on a strip tells you how many things you can plug in. It says nothing at all about how well — or whether — it protects them. A twelve-outlet strip can be a plain, unprotected strip, and a modest protector with just a few outlets can guard your gear beautifully.

What actually matters is whether it's a genuine surge protector, its joule rating (a rough measure of how much surge energy it can soak up over its life — higher generally lasts longer), a working indicator light, and a UL-listed safety mark. Count those things, not the outlets.

✓ How to choose well

Our choosing-a-protector guide walks through what to actually look for. A little tip: pick one with well-spaced outlets so bulky plugs fit — that's the outlet feature that really helps.

Myth 7: 'A plug-in protector stops a direct lightning strike'

I wish it were so, but honesty matters here, because this myth can cost you your most treasured electronics.

No plug-in protector reliably survives a direct lightning strike. The energy in a direct hit is simply enormous — it can overwhelm any device you plug into a wall. Good protection greatly reduces everyday and nearby-strike damage, and that's a real, worthwhile thing. But it is not a lightning rod.

So when a violent storm is right overhead, the surest protection for a prized computer or television is still the old-fashioned one: unplug it — including its data lines, like the cable or phone cord, since surges travel those too. It costs nothing and beats any strip in a severe storm.

! Unplug the treasures in a bad storm

Please don't let a surge protector talk you out of unplugging in a severe electrical storm. Our lightning-safety and storm-prep guides walk through this calmly, including a simple what-to-unplug list.

Two kinds of homes, two sets of needs

Some myths do more harm depending on where you live — a farmhouse on a well faces a different set of risks than a tidy lot in town, so the same tall tale can cost one home more than another.

If you live in town or the suburbs

In town and the suburbs, the myth that bites hardest is usually 'a power strip is protection' — because you're surrounded by electronics and it's easy to assume the strip behind the TV is doing a job it isn't. Your service lines are often shorter and sometimes buried, so you face somewhat less lightning exposure, but plenty of grid and everyday surges.

- Don't assume the strip behind your entertainment center protects anything — check the label for the words 'surge protector.'
- Plug-in protectors on the TV, computer, and network gear cover most of what matters here.
- A whole-home unit at the panel is still a fine, affordable upgrade — not just a rural thing.
- Closer neighbors mean shorter outages, but the jolt when power returns is just as real as anywhere.

If you are out in the country on a well

Out in the country, the costly myth is 'the whole-home unit covers everything' or 'I've never had a problem, so I'm fine.' Long overhead lines cross open land for miles, giving nearby lightning many chances to jump aboard, and you've got expensive hardwired gear a strip can never touch.

- A 240-volt well pump, the furnace, and other hardwired gear are costly to replace — the strong case for a whole-home unit, an electrician's job.
- But don't stop there: keep plug-in protectors on your sensitive electronics too. Layered beats any single myth-sized 'fix.'
- Longer, more frequent outages make a battery backup worth considering for anything you can't lose — see the battery-backup guide.
- 'Never had a problem' often just means the slow, invisible wear hasn't shown up yet. Protection is cheaper than the surprise.

★ Not sure which myths apply to your home?

Tell me where you live and how your power behaves in a storm, and I'll help you sort the real risks from the tall tales — no pressure, no sales pitch. Call (330) 200-8042.

Myth 8: 'A new house doesn't need protection'

This one is not just wrong — it's backwards, and worth turning right-side up.

The thinking goes that new wiring is sturdy wiring, so a new home is somehow surge-proof. But surges aren't mainly about the age of your wiring. They're about what's plugged into it — and a modern home is packed with sensitive electronics that an older home never had.

Today's furnaces, washers, dishwashers, thermostats, and even LED light fixtures carry small circuit boards that a surge can ruin. Add the televisions, computers, and smart devices, and a new home actually has more to lose, not less. Newer construction may include some protection, but it's worth confirming rather than assuming.

✓ Check, don't assume

If your home is newer, it's an easy thing to check the panel for a whole-home unit or ask your builder. Our [what-is-a-power-surge](#) and [whole-home](#) guides explain why modern homes need protection more than the houses our parents grew up in.

A few smaller myths worth clearing up

These come up less often, but they trip folks up all the same. Quick and plain.

- **'If the light's on, it'll protect forever.'** A lit 'protected' light means it's working today — not that it always will. Glance at it now and then, especially after big storms.
- **'A cheater plug is fine for an old outlet.'** No — forcing a three-prong protector into a two-prong outlet with a 3-to-2 adapter defeats the ground, and the protection with it.
- **'The most expensive one is always best.'** Not necessarily. Match the protector to the job; a fancy unit on a bedside lamp is wasted, while your computer deserves a good one.
- **'I've never had a problem, so I don't need it.'** The everyday surges are invisible. The first sign is often a gadget dying sooner than it should have, with no obvious cause.

! The cheater-plug trap is the risky one

Of these, the cheater adapter is the one that can quietly leave you unprotected while you think you're covered. Our grounding guide explains why a real ground is what makes a protector work at all.

Myth versus truth, at a glance

Here are the big ones side by side, so you can see the pattern. Notice how often the truth is 'use more than one layer.'

The myth	The plain truth
A power strip protects	Only a real protector does
Protectors last forever	They wear out — watch the light
One whole-home unit is all	Layer it with plug-in units
It stops outages too	That's a UPS, a different tool
Only lightning causes surges	Most start inside your home
A new home is safe	It has more to lose, not less

✓ **Keep this page handy**

This little table settles most kitchen-table debates about surge protection. If someone insists otherwise, the label on their strip usually proves the point.

Why these myths stick around

It helps to understand why so many folks believe these — it's not carelessness, it's how surges work.

Most surge damage is invisible and slow. When a device finally dies, the surge that wore it out happened months or years earlier, so nobody connects the two. That makes it easy to believe protection doesn't matter, or that whatever strip you already have is doing the job.

The look-alike problem doesn't help either. A plain strip and a real protector sit next to each other, priced close, looking nearly the same. And because a worn-out protector still powers your devices, there's no obvious moment when it stops protecting. The myths fill in the silence.

★ Knowing the 'why' makes it stick

In my experience, folks remember the truth far better once they understand why the myth felt right in the first place. That's the whole idea behind this guide — not just what's true, but why.

The myths that cost you money

Some of these are harmless mix-ups. Others quietly drain your wallet. Here's where the real cost hides.

- **Trusting a plain strip** can mean a dead television or computer that a real protector might have spared.
- **Believing protectors last forever** leaves you 'protected' by a used-up unit for years — paying for coverage you no longer have.
- **Skipping the whole-home unit** because a strip 'covers it' leaves the furnace, AC, and well pump wide open — the priciest things to replace.
- **Thinking a new home is safe** can leave a house full of modern electronics with no protection at all.

✓ Spend where it counts

The good news: correcting these costs very little. Good plug-in protectors are inexpensive, and a whole-home unit is one of the more affordable electrical upgrades. Small money now, big money saved later.

The myths that are actually risky

A couple of these aren't just wrong — they touch on safety, so I want to flag them clearly.

The belief that a plug-in protector will stop a direct lightning strike is the one that can cost you your treasures in a severe storm, because it talks folks out of unplugging. And the idea that a cheater adapter is a fine way to use a protector in an old two-prong outlet leaves you unprotected while you feel covered.

! Two safety rules that beat any myth

In a violent storm, unplug what you'd hate to lose — data lines and all. And never use a 3-to-2-prong cheater adapter to force a protector into an ungrounded outlet; have an electrician add a properly grounded one instead. Our grounding and storm-prep guides cover both.

Neither of these is about spending more money — they're about a couple of simple habits that keep both your gear and your home safe. That's the kind of truth worth passing along to a neighbor.

What the truth means for you — a simple plan

Strip away the myths and what's left is refreshingly simple. Here's the whole truth as a short plan.

- ❑ Use real surge protectors — not plain strips — on your sensitive electronics, and plug them into a grounded outlet.
- ❑ Glance at their indicator lights now and then, and replace any that have gone dark or taken a big hit.
- ❑ Add a whole-home unit at the panel when you can — an electrician's job — for the hardwired gear a strip can't reach.
- ❑ Keep a battery backup (a UPS) on anything you can't afford to have shut off suddenly, like a desktop computer.
- ❑ In a severe storm, unplug your treasures, data lines included.

✓ That's genuinely the whole thing

No secret product, no magic number, no expensive gadget. Layered protection, a glance at the lights, and a little storm sense. The myths made it sound complicated; the truth is simple.

Common mistakes these myths cause

Believing a myth usually leads to a predictable slip. Here are the ones I see most, so you can sidestep them.

- **Buying the biggest strip** for the outlet count, without checking whether it protects at all.
- **Never replacing a protector** because 'it still works' — when the outlets working says nothing about the protection.
- **Protecting the TV but not the furnace or well pump**, on the belief a strip or one gadget covers the house.
- **Leaving everything plugged in** through a violent storm because 'the surge protector's got it.'
- **Forcing a protector into an old outlet** with a cheater adapter, quietly defeating the ground it needs.

! The pattern behind the mistakes

Almost every one comes from treating surge protection as a single thing you buy once and forget. It's really a small set of habits and layers. Get that, and the mistakes take care of themselves.

How to check a claim before you believe it

New myths pop up all the time, especially in ads. Here's how to weigh a surge-protection claim without needing an engineering degree.

Start with the label and the honest words. A genuine protector says 'surge protector,' shows a joule rating, and carries a UL-listed mark (the safety standard for these is UL 1449). If a claim leans on the number of outlets, or promises to stop outages, or guarantees it'll beat a direct lightning strike, be skeptical — those are myth territory.

And remember the golden rule: if it sounds like one gadget solves everything, it's overselling. Real protection is layered and needs the occasional glance. When a claim tells you otherwise, trust the layers, not the slogan.

★ Run it by me

Saw a bold claim on a box or in an ad and not sure what to make of it? Read it to me over the phone at (330) 200-8042. I'll tell you honestly whether it holds up — I don't sell the stuff, so I've no reason to shade it.

How I can help

Sorting fact from fiction and then setting things up right is exactly the sort of thing I love to take off your plate.

On a visit, I'll look at what you already have and tell you plainly whether those strips are real protectors or just outlets, whether any are worn out, and where a good plug-in unit would actually help. I'll set up the right ones on the spot, cords managed so nothing's a trip hazard, and show you where the lights are and what they mean.

For a whole-home protector at the panel, I don't do the electrical work myself — that's a licensed electrician's job. But I'll help you understand it, decide if it's right for you, and line up a trustworthy local pro, so you're never sorting through the myths alone.

★ Real help, close to home

A first in-home visit is a flat \$99, and for the simple things I can often help over a screen-share for \$49. Every visit comes with a 30-day, come-back-free guarantee. Call or text (330) 200-8042.

Common Questions

The questions folks ask me most once the myths start falling away, answered plainly.

Q: How can I tell if my strip is a real surge protector?

Read the label. A genuine one says 'surge protector,' usually lists a joule rating, and typically has an indicator light. If it says none of that, assume it's just a power strip that adds outlets.

Q: If my devices still turn on, isn't my protector fine?

Not necessarily. A used-up protector still powers your devices — the outlets keep working — but the protection can be long gone. That's what the 'protected' light is for; when it's dark, replace the unit.

Q: Do I really need both whole-home and plug-in protection?

For the strongest setup, yes — they do different jobs. The panel unit stops the big surges and guards hardwired gear; plug-in units finely protect your electronics and catch surges born inside the home.

Q: Will a good surge protector let me leave things plugged in during a storm?

For everyday and nearby-strike surges, it helps a lot. But no plug-in unit reliably survives a direct strike, so in a severe storm, unplugging your treasures — data lines too — is still the surest step.

★ Still have a question?

That's what I'm here for. Call or text me at (330) 200-8042 and ask away — there's truly no such thing as a silly question about this.

You don't have to do this alone

You just have to remember that a friendly, patient person is one call away.

I hope this guide made the myths around surge protection feel a little less daunting and a lot more doable. Keep it in a drawer with your other home papers, come back to a page whenever you need it, and don't worry about memorizing anything.

When you'd rather have a hand, that's exactly what I do. I come to your home, work at your pace, and never make you feel rushed or silly for asking. A first visit is a flat \$99, and for the parts that don't need me on-site I can often help right on your screen for \$49. Every visit comes with a 30-day, come-back-free guarantee. I don't do the licensed electrical work myself — for that I'll help you line up a trustworthy local pro.

★ Bill's Home Tech — real help, close to home

Call or text me at (330) 200-8042, or visit BillsHomeTech.com. Serving Atwater and all of Portage County. 30+ years of patient, plain-English tech help — and if you're ever not 100% happy with a visit, I'll make it right or refund it. That's a promise. — Bill

Myth Versus Truth

The four folks get wrong most often

	The myth	The truth
Power strips	Protect gear	Protectors do
Protectors	Last forever	They wear out
The cause	Just lightning	Start inside
One unit	All you need	Layer it too

When a claim sounds too simple, it usually is. Layer your defenses.

Four More, Set Straight

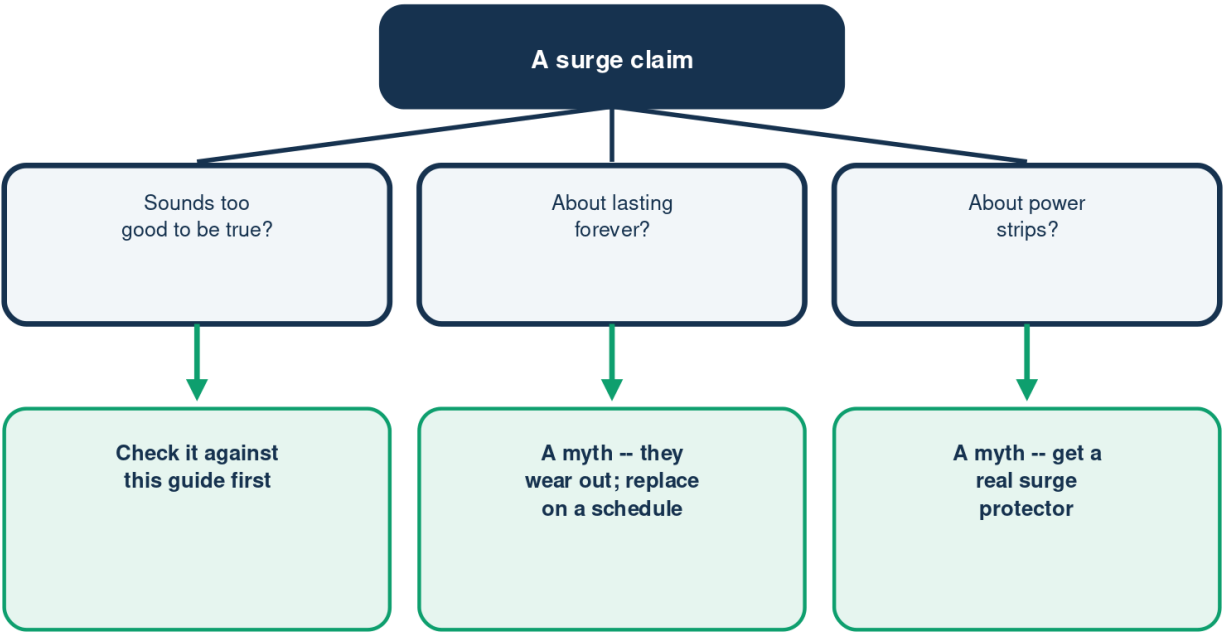
The truth behind the tall tales

	The myth	The truth
Outages	It stops them	That's a UPS
More outlets	Means safer	No it doesn't
Direct strike	Strip stops it	Unplug instead
A new home	Is safe	Needs it more

Outlet count is not protection; a UPS handles outages, not a strip.

Weighing a Surge Claim

How to tell sense from a sales pitch

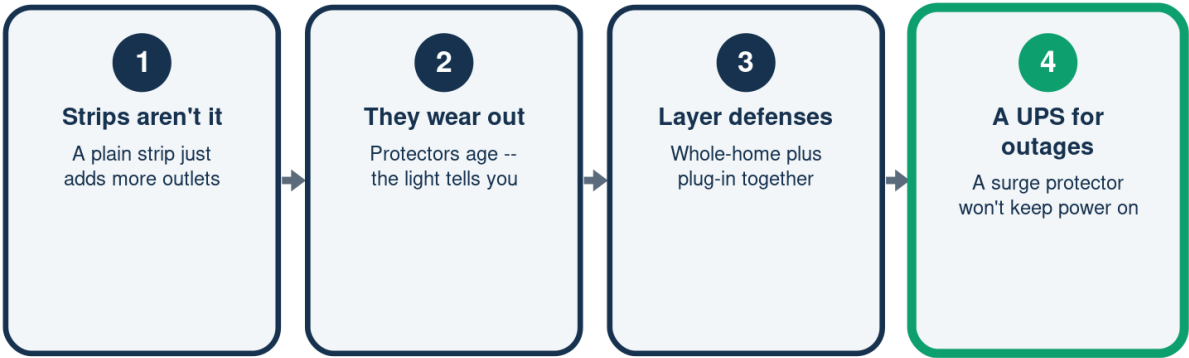


If one gadget claims to solve everything, it is overselling.

Illustration - a schematic, not to scale. Your setup may differ.

The Truth in Four

Everything the myths get wrong, made right



Layered protection, a glance at the lights, and a little storm sense.



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A Note From Bill

A quick note from Bill.

I write these guides to make home tech a little less frustrating, and I do my best to keep every step accurate and up to date. Still, every home, device, and setup is a bit different, so I can't promise a guide will match yours exactly or fix your particular problem. These guides are for general information only — they're not professional, legal, or financial advice, and they don't replace your device's own manual or the manufacturer's instructions. Please go slow, use your own good judgment, and use everything here at your own risk. If a step involves electrical wiring, a gas appliance, a water heater, plumbing, or climbing a ladder — or if anything just doesn't feel safe — please stop and call a licensed professional (or give me a call at 330-200-8042). Bill's Home Tech and Bill Davis can't be responsible for any damage, data loss, or injury that comes from using these guides. Thanks for reading, and stay safe out there.

— *Bill*



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