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Astroid Framework Vulnerability - What Happened and How to Check Your Joomla Site

CVE-2026-21628 (CVSS 10.0) - Astroid Framework for Joomla had a critical auth bypass letting attackers upload backdoors. What happened and what to do.

Phil E. Taylor | 7 April 2026

The Astroid Framework for Joomla has a critical authentication bypass vulnerability (CVE-2026-21628, CVSS 10.0) that attackers are actively exploiting. They're using it to install backdoor plugins and inject hidden SEO spam links into affected sites.

If your Joomla site runs the Astroid Framework, check it now. If you already know your Joomla site has been hacked, skip to our recovery guide.

TL;DR

- **CVE-2026-21628** - CVSS 10.0 critical auth bypass in every Astroid Framework version before 3.3.11
- Attackers grab a CSRF token from the public login page and use it to upload backdoors and install SEO spam plugins - no login required
- **Update to** Astroid 3.3.13 immediately (3.3.11 had regressions, 3.3.12 fixed those, 3.3.13 adds further bug fixes and dependency updates)
- Check your plugin manager for **BLPayload** / **BL Payload** plugins and delete any `plg_jcp_*.html` files in `/administrator/cache/`
- Already compromised? Updating alone won't help - the backdoors stay. Full cleanup steps below

> This post relates to the wave of Astroid Framework attacks in late February and early March 2026. The vulnerability (CVE-2026-21628, CVSS 10.0 Critical) was publicly reported on 4 March 2026 and patched in version 3.3.11 on 5 March 2026. If you haven't updated since then, your site is at risk.

What happened?

The vulnerability was in `library/astroid/Admin.php`, the file that handles all AJAX requests for the Astroid Framework's admin interface.

The code used Joomla's `checkToken()` function to verify CSRF tokens, but it never checked whether the person sending the request was actually logged in as an administrator. The CSRF token from the public `/administrator` login page was enough to authenticate any request.

That meant an attacker could:

1. Visit the Joomla admin login page and grab the CSRF token from the HTML
2. Send requests to the Astroid AJAX endpoint using that token
3. Upload files, rename them, and install extensions, all without ever logging in

The fix in version 3.3.11 added a `checkAdminAuth()` method that verifies the user has `core.manage` permission for `com_templates` before processing any request. Basic authorization checking that should have been there from the start.

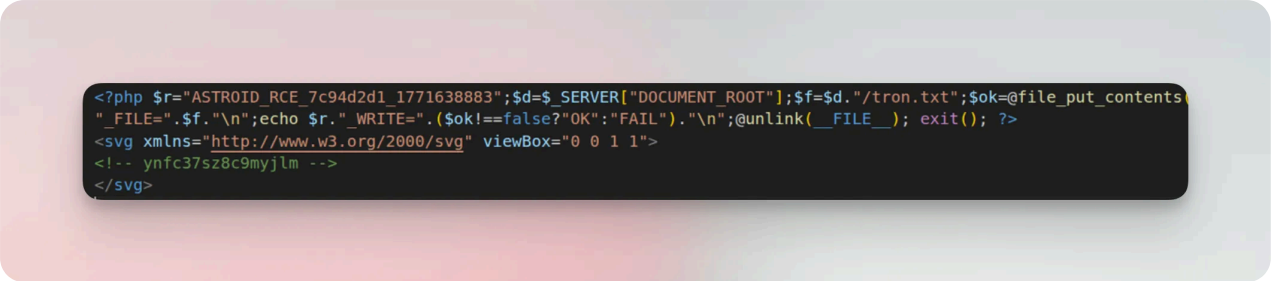
Every version of Astroid before 3.3.11 is vulnerable, including all versions from the original JoomDev era. Sites running Joomla 5 and Joomla 6 are both affected - reports from the Swiss Joomla forum and the French Joomla forum confirm compromised Joomla 6.0.3 and Joomla 5.4.3 installations respectively.

What are the attackers installing?

The attack is a two-stage process: a dropper, then a payload.

Stage 1: the dropper

The attacker uploads a PHP file disguised as an SVG image through the Astroid AJAX endpoint. The file looks harmless to basic file type checks because it ends with valid SVG markup, but the PHP code runs first.



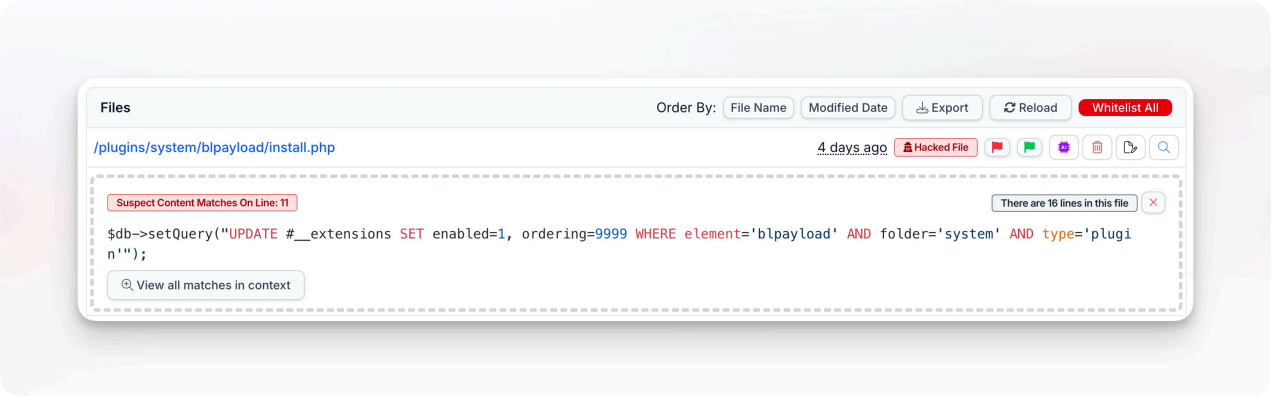
Inside the dropper is a base64-encoded ZIP archive containing the actual payload plugin. The dropper accepts URL parameters that control the installation:

- `?go` extracts the ZIP to `/plugins/system/blpayload/`, reads your Joomla `configuration.php` to grab the database credentials, then writes directly to the `extensions` table. It registers itself as enabled with ordering 9999 (highest priority) so it runs before everything else.
- `?check` confirms the payload was successfully installed.
- `?del` deletes the dropper itself to cover the attacker's tracks.

The dropper also cleans up after an earlier variant called `jcachepro`, deleting it from both the database and filesystem. This tells us the attack has evolved through at least two generations. Reports from the Swiss Joomla forum confirm both `jcachepro` and `blpayload` have been found side by side on compromised sites, so don't assume the dropper always cleans up after itself.

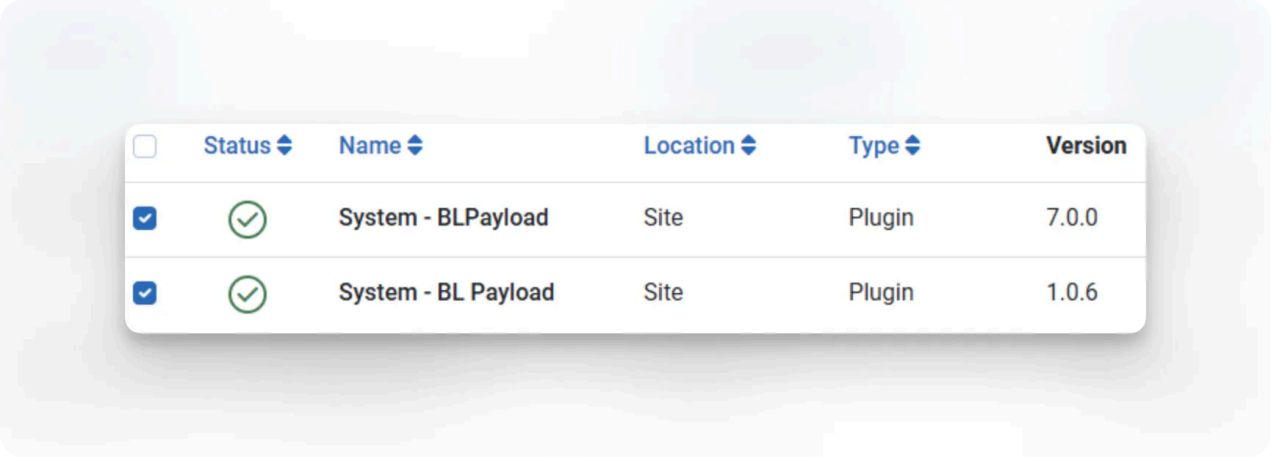
We've also seen dropper files with randomized filenames like `blp_9948.php`, `blr_6661.php`, and `astroid_poc_[random].php` dropped into the `/images/` directory. The `astroid_poc` variant was first spotted on February 24, a full week before the mass exploitation wave began on March 1. Check your media folders, not just the plugin directories.

mySites.guru's suspect content scanner flags the `install.php` file with 11 pattern matches, including the SQL query that force-enables the plugin at priority 9999:



Stage 2: the payload plugins

Once the dropper runs, you end up with malicious system plugins installed in Joomla:



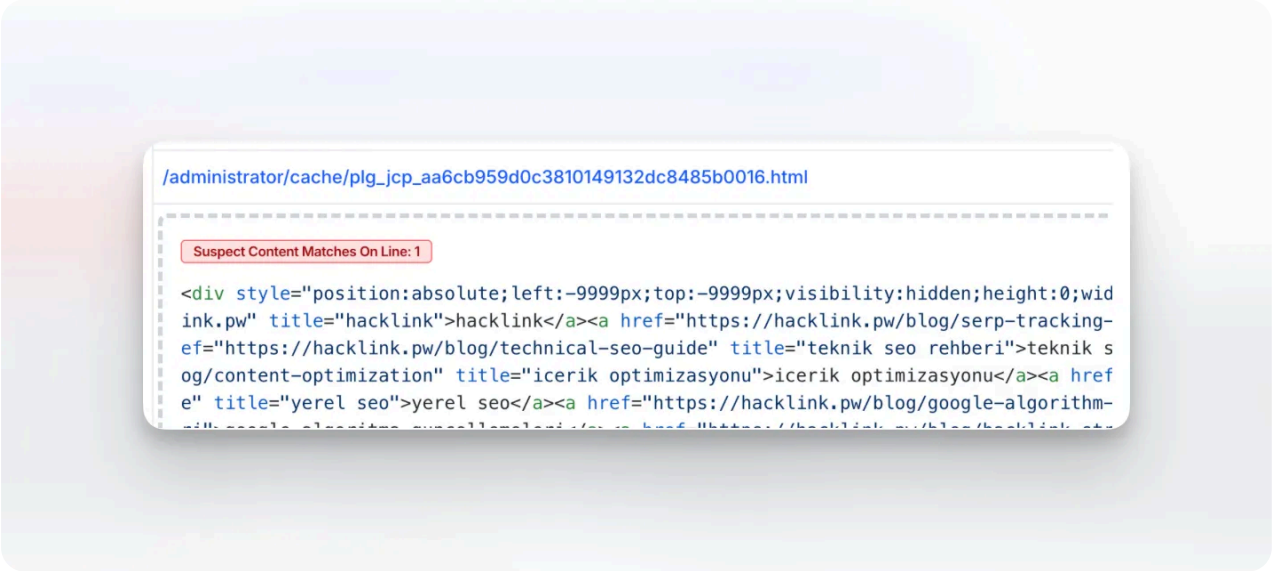
We've seen them registered as **System - BLPayload** (v7.0.0) and **System - BL Payload** (v1.0.6). Both run at priority 9999 and execute on every single page load.

What the payload does

On every frontend request, the plugin contacts `hacklink.pw`, a black-market SEO platform. It fetches a list of hidden spam links — gambling, phishing, crypto scam sites — and injects them into your page HTML. The links are hidden from visitors using CSS positioning (`left:-9999px; visibility:hidden`) but fully visible to search engine crawlers.

mySites.guru's suspect content scanner flags the `blpayload.php` file itself, showing the API call to `hacklink.pw`, the cache file generation, and even an `$aggressiveness`

setting the attacker can control remotely:



The plugin caches its output locally as HTML files in `/administrator/cache/` with filenames like `plg_jcp_aa6cb959d0c3810149132dc8485b0016.html`. These cache files keep serving spam even when the external server goes down.

The attackers are riding on your domain's reputation to boost their own sites in search results.

How does mySites.guru detect this?

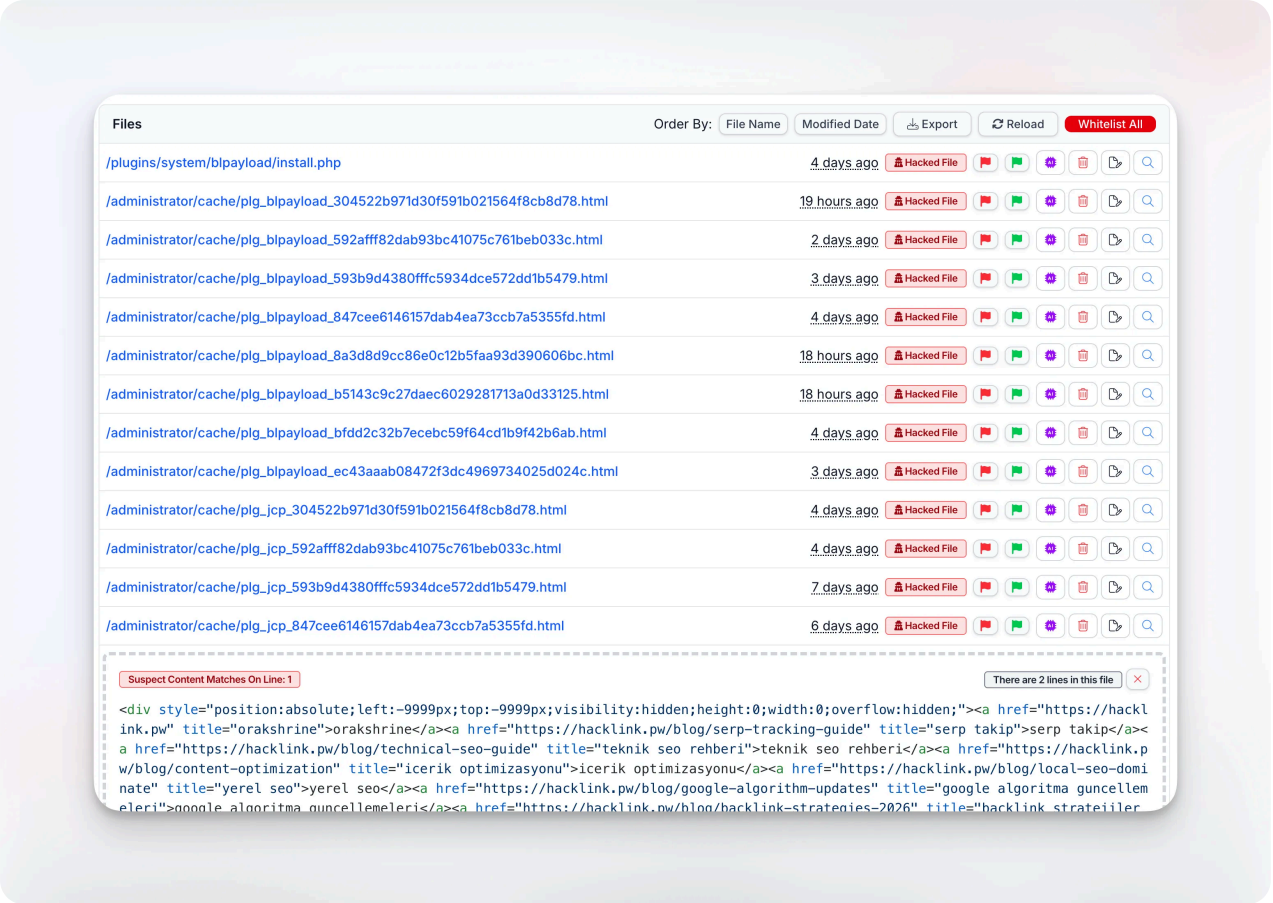
mySites.guru catches this from two angles: the vulnerable framework file itself and the payloads left behind by attackers.

Vulnerable framework files

Our audit system matches the md5 hash of `library/astroid/Admin.php` against known vulnerable versions. If your site has an old, unpatched copy of this file, mySites.guru flags it as a confirmed hacked file. No false positives — each hash was verified against the vulnerable source code.

Malicious payload plugins and cache files

The suspect content scanner picks up the BLPayload plugin files and the `plg_jcp_*.html` cache files in `/administrator/cache/`. Here's what a compromised site looks like after an audit — the `install.php` dropper, dozens of `plg_blpayload_*` and `plg_jcp_*` cache files, all flagged as "Hacked File":



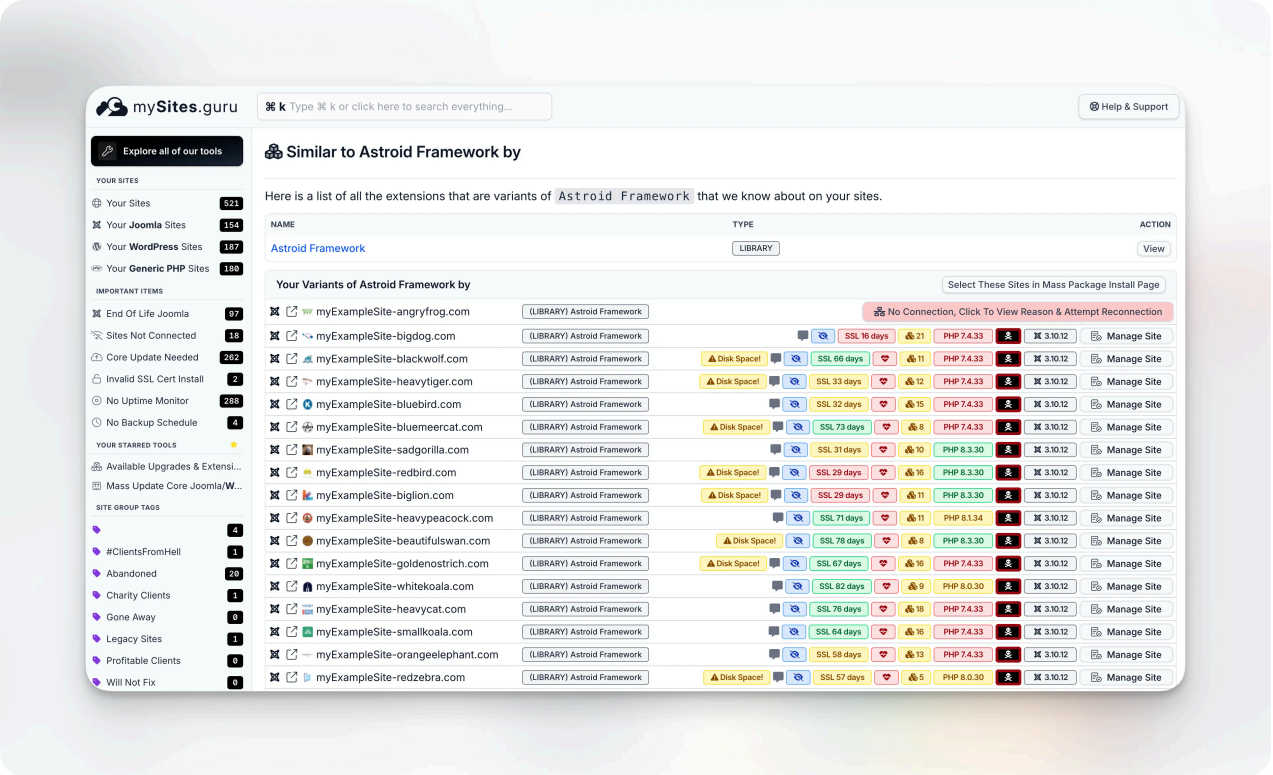
Not sure what you're looking at in a flagged file? Our AI-powered malware analysis can review it with one click and tell you exactly what it does.

Which of your sites are affected?

If you manage more than a handful of Joomla sites, this is where things get stressful. You need to know which sites have the Astroid Framework installed, and you need to know right now, not after logging into each one individually.

This is exactly the kind of situation mySites.guru was built for. Every extension on every connected site is indexed and searchable. One URL gives you the full list:

View all your sites with Astroid Framework installed



That page shows every site in your account running this framework, with the version number, so you can see at a glance which ones still need updating. No logging into 50 admin panels. No spreadsheets. No guessing which client sites might be using an Astroid-based template. You can also use the Active Theme and Template List to see every site's active template at a glance and export the full list as CSV.

When a vulnerability like this drops, knowing which sites are affected in 10 seconds means you can patch before the attackers get there - not after they already have.

If you don't have a mySites.guru account yet, sign up for a free trial and connect your sites. The extension index builds automatically on the first audit.

What do you need to do right now?

1. Update the Astroid Framework to 3.3.13

Download it from the official release page and install it through your Joomla extension manager. This closes the vulnerability and includes all bug fixes since the initial patch. If you manage multiple sites, you can push the update to all of them at once.

Quick version history since the patch: 3.3.11 (5 March) fixed the vulnerability but had video background and mega menu width regressions. 3.3.12 (6 March) fixed those regressions. 3.3.13 (15 March) fixes GSAP plugin loading errors, improves touch device navigation and mega menu behavior, adds section/column height controls and a stagger animation toggle, and updates Font Awesome to 7.2.0, LenisJS to 1.3.18, and Fancybox to 6.1. No additional security changes - 3.3.11 already has the full CVE-2026-21628 fix.

2. Check for installed payload plugins

Open your Joomla plugin manager and search for "BLPayload" or "BL Payload". If you find either one, your site was compromised. Uninstall them immediately. With mySites.guru you can search installed extensions across all your sites to find every instance in seconds.

3. Clear the administrator cache

Look in `/administrator/cache/` for any files matching `plg_jcp_*.html` or `plg_blpayload_*.html`. Delete them.

4. Run a full security audit

If you have a mySites.guru account, run an audit now. The suspect content tool will scan every file in your webspace and flag anything suspicious.

If you don't have an account, sign up for a free trial and connect your site. The audit runs automatically.

5. Check for additional backdoors

Attackers who got in through this vulnerability may have installed more than just the BLPayload plugin. Look for:

- The earlier variant `jcachepro` in `/plugins/system/jcachepro/` (the current dropper tries to clean this up, but it may still be present)

- SVG files in `/administrator/` or media folders that contain PHP code (the droppers disguise themselves as SVG images)
- PHP files in `/images/`, `/tmp/`, `/cache/`, or `/logs/` where they don't belong - look specifically for `blp_*.php`, `blr_*.php`, and `astroid_poc_*.php`
- Unfamiliar admin user accounts
- Other unknown plugins, especially system plugins
- Files containing `eval(`, `base64_decode(`, `shell_exec(`, or `system(` calls

Our file change monitoring will alert you in real time if any watched files are modified after cleanup.

6. Change all passwords

Change your Joomla admin password, database password, FTP credentials, and hosting panel login. If attackers had admin-level access, assume they saw everything.

7. Check Google Search Console

The hidden link injection may have already affected your search rankings. Check Google Search Console for manual actions or unusual coverage changes. If spam backlinks are indexed, use Google's Disavow Tool.

What are the technical details?

This vulnerability is tracked as CVE-2026-21628 with a CVSS 4.0 score of **10.0 Critical** and classified under CWE-434 (Unrestricted Upload of File with Dangerous Type). The full vector string: `CVSS:4.0/AV:N/AC:L/AT:N/PR:N/UI:N/VC:H/VI:H/VA:H/SC:H/SI:H/SA:H/E:A/AU:Y` - network-exploitable, no privileges required, no user interaction needed, with high impact across confidentiality, integrity, and availability.

The Astroid Framework's `Admin.php` handled all AJAX operations for template management through protected methods like `save()`, `media()`, `getLayouts()`,

`search()`, `clearCache()`, and `installTemplate()`.

Each of these methods checked for a valid CSRF token with `Session::checkToken()`, but none of them verified that the requesting user was an authenticated administrator with appropriate permissions. The CSRF token is meant to prevent cross-site request forgery from authenticated sessions. It was never designed to be the only authentication check.

The token from the login form is embedded in the page HTML and accessible to anyone who can view the page. Using it as the sole authentication mechanism is like checking that someone has a key to the building's front door but never asking if they're actually an employee.

The fix adds a single authorization check before each sensitive operation:

```
$user = Factory::getApplication()->getIdentity();
if (!$user->authorise('core.manage', 'com_templates')) {
    throw new \Exception('You are not authorized to access this page.', 403
}
```

Standard Joomla ACL. It should have been there all along.

Update (March 31, 2026): The same problem keeps showing up. Joomla 5.4.4 and 6.0.4 shipped with ACL hardening for `com_ajax` in Joomla core, alongside the Novarain Framework (CVE-2026-21627) and Smart Slider 3 (CVE-2026-3098) disclosures earlier this month. That's four AJAX authorization failures in March 2026 alone, across plugins and core. If you build Joomla extensions, audit your `com_ajax` handlers now.

Update (April 7, 2026): And it happened again, this time on WordPress. Ninja Forms File Uploads (CVE-2026-0740) disclosed on April 6: CVSS 9.8 unauthenticated arbitrary file upload in an `admin-ajax.php` handler, around 50,000 affected sites. The vendor even shipped a first patch that did not actually fix it - only 3.3.27 closes the hole. Same pattern as Astroid, different platform.

Want someone to clean it up for you?

If you'd rather hand this off, visit fix.mysites.guru and submit a request. For a one-time set fee, the site gets cleaned, upgraded, locked down, and handed back secure. Non-subscribers get a free month of mySites.guru included.

Related

- Novarain Framework Vulnerability - CVE-2026-21627 (CVSS 9.5) follows the same pattern: a shared Joomla framework plugin with unauthenticated AJAX endpoints, affecting 8,297 sites across our dataset
- Smart Slider 3 Arbitrary File Read - CVE-2026-3098 on WordPress, same root cause: AJAX nonce without capability check
- Ninja Forms File Uploads CVE-2026-0740 - CVSS 9.8 unauthenticated RCE in a WordPress plugin `admin-ajax.php` handler affecting around 50,000 sites, with a failed first patch that only shipped the real fix in 3.3.27
- Four WordPress Plugins That Shipped Security Patches in March 2026 - Elementor, Yoast SEO, WPForms, and Really Simple Security all disclosed vulnerabilities in the same month, showing how widespread the problem is across the WordPress ecosystem
- Joomla 5.4.4 / 6.0.4 release - Joomla core itself needed `com_ajax` ACL hardening, same class of bug
- Joomla TinyMCE Editor Broken in Firefox 148 - Another recent Joomla incident where the Mass Upgrade tool let agencies push a fix to every site at once

Further reading

- CVE-2026-21628 on NVD - official vulnerability entry (CVSS 10.0 Critical)
- CVE-2026-21628 on CVE.org

- Astroid Framework 3.3.13 release - latest version with GSAP fix, touch navigation improvements, and dependency updates
- Astroid Framework 3.3.12 release - first stable patched version (fixed 3.3.11 regressions)
- Fix commit on GitHub - the authorization check that was missing
- Swiss Joomla forum thread - early reports of compromised Joomla 6 sites (German)
- French Joomla forum thread - reports of compromised Joomla 5 sites (French)
- AJAX Endpoints: The Biggest CMS Security Blind Spot - how Astroid, Novarain, Smart Slider 3, and Joomla core all share the same AJAX authorization failure

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For a broader look at CMS security, see our agency security guide.

Frequently Asked Questions

What is the Astroid Framework vulnerability?

CVE-2026-21628 is a CVSS 10.0 critical vulnerability affecting every version of the Astroid Framework before 3.3.11. The AJAX endpoint checked for a valid CSRF token but never verified that the request came from an authenticated administrator. Attackers could grab the token from the public login form and use it to upload files, install plugins, and take full control of the site. Update to version 3.3.13 or later.

How do I know if my Joomla site was compromised through this vulnerability?

Check your Joomla plugin manager for plugins named System - BLPayload or System - BL Payload. Also look for HTML files matching the pattern plg_jcp_[hash].html in your /administrator/cache/ folder. Running a mySites.guru audit will automatically flag both the vulnerable Admin.php file and any installed payloads.

Is updating to Astroid 3.3.11 enough to fix a compromised site?

No. Updating closes the door, but if attackers already got in, their backdoors and payload plugins remain active. You need to remove the malicious plugins, clear cache files, scan for additional backdoors, and check for unauthorized admin accounts.

Does mySites.guru detect this vulnerability automatically?

Yes. mySites.guru flags vulnerable versions of library/astroid/Admin.php by md5 hash matching and detects the BLPayload plugins and hacklink cache files through its suspect content scanner.

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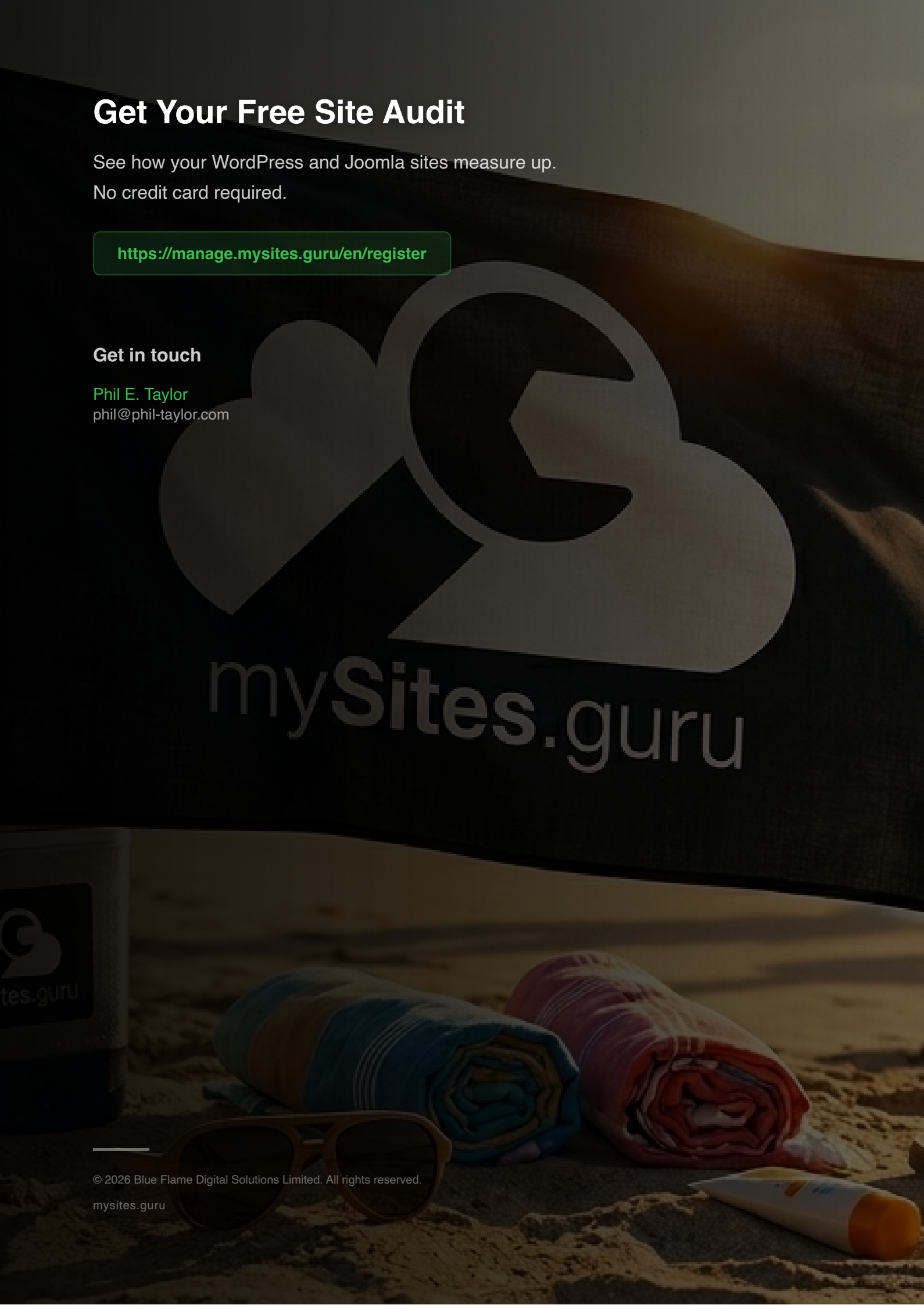
https://manage.mysites.guru/en/register



Get in touch

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