The arbitrary file upload vulnerability caused by path traversal is on github.com/flipped-aurora/gin-vue-admin

Moderate **piexlmax** published **GHSA-7gc4-r5jr-9hxv** on Oct 23

Package

github.com/flipped-aurora/gin-vue-admin/server (Go)

Affected versions	Patched versions
<2.5.4	<2.5.4

Description

Impact

Gin-vue-admin < 2.5.4 has File upload vulnerabilities。
File upload vulnerabilities are when a web server allows users to upload files to its filesystem without sufficiently validating things like their name, type, contents, or size. Failing to properly enforce restrictions on these could mean that even a basic image upload function can be used to upload arbitrary and potentially dangerous files instead. This could even include server-side script files that enable remote code execution.

Patches

#1264

Workarounds

#1264

References

#1263

For more information

The plugin installation function of Gin-Vue-Admin allows users to download zip packages from the plugin market and upload them for installation. This function has an arbitrary file upload vulnerability. A malicious attacker can upload a constructed zip package to traverse the directory and upload or overwrite arbitrary files on the server side.

The affected code https://github.com/flipped-aurora/gin-vue-admin/blob/main/server/service/system/sys_auto_code.go line 880 called the `utils.Unzip` method

```
paths, err := utils.Unzip(GVAPLUGPINATH+file.Filename, GVAPLUGPINATH)
        paths = filterFile(paths)
        var webIndex = -1
        var serverIndex = -1
        for i := range paths {
                paths[i] = filepath.ToSlash(paths[i])
                pathArr := strings.Split(paths[i], "/")
                ln := len(pathArr)
                if ln < 2 {
                        continue
                }
                if pathArr[ln-2] == "server" && pathArr[ln-1] == "plugin" {
                        serverIndex = i
                }
                if pathArr[ln-2] == "web" && pathArr[ln-1] == "plugin" {
                        webIndex = i
                }
        }
        if webIndex == -1 && serverIndex == -1 {
                zap.L().Error("非标准插件，请按照文档自动迁移使用")
                return webIndex, serverIndex, errors.New("非标准插件，请按照文档自动迁移使用")
        }
...
```

The https://github.com/flipped-aurora/gin-vue-admin/blob/main/server/utils/zip.go code defines the `utils.Unzip` method

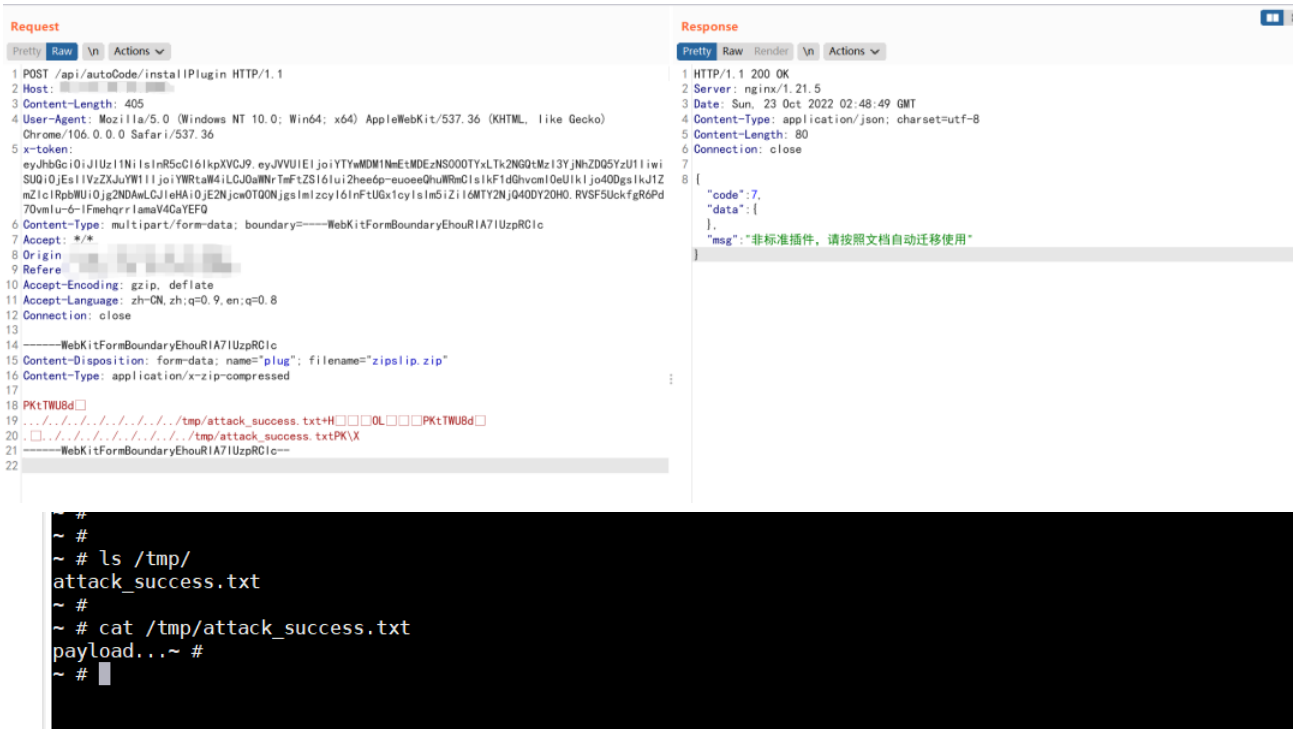
```
//解压
func Unzip(zipFile string, destDir string) ([]string, error) {
        zipReader, err := zip.OpenReader(zipFile)
        var paths []string
        if err != nil {
                return []string{}, err
        }
        defer zipReader.Close()

        for _, f := range zipReader.File {
                fpath := filepath.Join(destDir, f.Name)
                paths = append(paths, fpath)
                if f.FileInfo().IsDir() {
                        os.MkdirAll(fpath, os.ModePerm)
...
```

It can be analyzed that after uploading a zip compressed file, the `Unzip` method will be called to decompress the compressed file, and then judge whether the compressed file contains the fixed directory structure of server, web, and plugin.

Whether the zip file is correct or not, it will be decompressed first. If the directory does not exist, it will be created automatically. Therefore, malicious zip packages can be constructed, and directory traversal can be performed during automatic decompression to upload or overwrite any file.

Use the Zip Slip vulnerability to construct a malicious zip package with `../../../../` filenames, and upload the malicious zip package to trigger the vulnerability.



Severity

Moderate

CVE ID

CVE-2022-39345

Weaknesses

CWE-22 CWE-23

Credits

0xngs