New issue

[Security Bug] Open Redirection Vulnerability at Login Page #5265

⊙ Closed humblelad opened this issue on Apr 19, 2020 · 3 comments · Fixed by #5375



humblelad commented on Apr 19, 2020

Describe the bug

It is possible to redirect a user to an attacker owned domain and trick the user. I am investigating on the potential chaining of this bug to perform other attacks.

Expected behavio

Redirection to external urls must not be allowed.

To Reproduce

This occurs at the main login page when the user enters an invalid username/password.

The url gets changed to

http://localhost:1501/authentication/login?old=http%3A%2F%2Flocalhost%3A1501%2Fhome

An attacker can change the url(to any attacker owned domain which may mimic submitty interface) to something like

localhost:1501/authentication/login?old=http%3A%2F%2Flgoogle.com

and trick redirection to google.com users after they enter their creds.

Additional context

This can be prevented either by-

- 1. Adding regex checks on url and whitelisting the url.
- 2. Completely removing GET request based url redirection.

I am trying to fix this but thought to create this issue for others to contribute the fix if interested.

- humblelad added the bug label on Apr 19, 2020
- MasterOdin added the security label on Apr 19, 2020

MasterOdin commented on Apr 19, 2020 • edited ▼

AmasterOdin added this to the Spring 2020 Priorities milestone on Apr 19, 2020

at https://github.com/Submitty/Submitty/blob/master/site/app/controllers/AuthenticationController.php#L75 and

https://github.com/Submitty/Submitty/blob/master/site/app/controllers/AuthenticationController.php#L95 as I would like to retain the behavior of redirecting the user after they login, and without making it complicated to copy/paste a URL if need be.

humblelad commented on Apr 19, 2020

Author

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ok if that works. :) ILYK for any bypasses.

- ⇔ bmcutler modified the milestones: Spring 2020 Priorities, May 2020 on May 11, 2020
- A elihschiff self-assigned this on May 11, 2020

elihschiff commented on May 11, 2020

Member

Is there ever a time when we want the php to redirect users to external websites? It seems like automatically redirecting users to external websites is a bad idea anyway. There might be some way in the future where somebody finds a different way to redirect users to an external domain (other than on login) and only putting the check in the login code would not stop that. If we do want to have the ability to allow redirecting to external websites then we don't have a choice, but if we don't ever want to redirect users to external websites, I think it might be better to add that check here which will stop all redirects.

Submitty/site/app/libraries/Core.php Line 531 in 1acccad

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I can even have it thrown an exception so if a future developer tries an external redirect, it will let them know.







