

Bug Bounties

By SSHC™ (Andy, Vishal, Andre, Jason and Frank)

You let your feelings get in the way of hacks, Sasuke.



What the heck are Bug Bounties?



“Get paid to hack things”

- A platform rewarding anyone that discovers and discloses security vulnerabilities for specific software products/systems.
- The company will provide a scope as a guideline for what is/isn't allowed.
- Each vulnerability disclosed is prioritised from low to critical priority.
- Responsible disclosure guidelines are outlined in the bounty program's scope.



Private vs Public Bug Bounties

Private	Public
<ul style="list-style-type: none">- Recommended as a starting program- Selected number of established hackers to undertake the program	<ul style="list-style-type: none">- Recommended to be used after a private program.- Large influx of low quality bug reports



Valve Pays £15,000 To Hacker Who Found Steam Bug That Generates Free Games

1. Crafting a specific URL, anyone with access to those tools could make the service spit out keys for games that didn't belong to them.
2. **Artem Moskowsky** managed to manipulate the system into giving him 36,000 keys for *Portal 2*.
3. How long it would have been before Valve caught on and shut it down
4. One in July on SQL Injection that netted him an additional **£19,300.**



The deets

~: Hit the `/partnercdkeys/assignkeys` endpoint on the developer portal (`partner.steamgames.com`)

- appid (ID of the game)
- keyid (ID of a set of CD keys)
- keycount (number of keys to return in a set of CD keys)
- Unknown parameter name to bypass ownership verification

~: Make one API call with a zero keycount

~: Must be an authenticated user

~: Audit logs not bypassed, no prior/ongoing exploitation

~: Improper access control





The Impacto



- Illegal and misuse of keys can be sold on the market for a cheaper price.
- Generating keys isn't just limited to Portal 2, a hacker can generate a key to any game.
- Portal 2 is selling for price of \$10USD but there are games up to an average price of \$60USD.
 - $36000 \times 10 = \$360,000$ USD or $36000 \times 60 = \$2,160,000$ USD
- Giving unauthorised generated keys to buyers can lead to banned or temporarily locking accounts for fraudulent games.
- Profits of a game lets studios develop more games however if they do not receive these profits it can force bankruptcy and close.
- Bug bounty is one the modern method to help companies fix vulnerabilities and offer a reward



References (ESSENTIAL)



1. Cimpanu. C, 2018, ZDNet, Steam bug could have given you access to all the CD keys of any game, Accessed on 05 Feb 2019 - <https://www.zdnet.com/article/steam-bug-could-have-given-you-access-to-all-the-cd-keys-of-any-game/>>
2. Grayson. N, 2018, Kotaku UK, Valve Pays £15,000 To Hacker Who Found Steam Bug That Generates Free Games. Accessed on 04 Feb 2019 - <http://www.kotaku.co.uk/2018/11/13/valve-pays-15000-to-hacker-who-found-steam-bug-that-generates-free-games>>
3. HackerOne. Docs, n.d. Viewed on 5/2/19 Private vs Public - <https://docs.hackerone.com/programs/private-vs-public-programs.html>>
4. Moskowsky. A, 2018, Hackerone, Getting all the CD keys of any game, Accessed on 04 Feb 2019 - <https://hackerone.com/reports/391217>>
5. Nichols. S, 2018, The Register, I found a security hole in Steam that gave me every game's license keys and all I got was this... Oh nice: \$20,000. Accessed on 05 Feb 2019 - https://www.theregister.co.uk/2018/11/09/valve_steam_key_vulnerability/>