



CVE-2021-42764

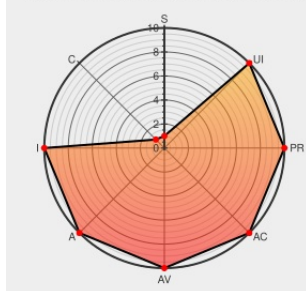
Published on: 10/20/2021 12:00:00 AM UTC

Last Modified on: 10/26/2021 07:48:00 PM UTC

CVE-2021-42764

[Source: Mitre](#)[Source: NIST](#)[CVE.ORG](#)[Print: PDF](#)

CVSS:31/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:H/A:H



Certain versions of [Proof-of-stake Ethereum](#) from [Proof-of-stake Ethereum Project](#) contain the following vulnerability:

The Proof-of-Stake (PoS) Ethereum consensus protocol through 2021-10-19 allows an adversary to cause a denial of service (delayed consensus decisions), and also increase the profits of individual validators, via short-range reorganizations of the underlying consensus chain.

CVE-2021-42764 has been assigned by [M](#) cve@mitre.org to track the vulnerability - currently rated as **CRITICAL** severity.

CVSS3 Score: **9.1 - CRITICAL**

Attack Vector	Attack Complexity	Privileges Required	User Interaction
NETWORK	LOW	NONE	NONE
Scope	Confidentiality Impact	Integrity Impact	Availability Impact
UNCHANGED	NONE	HIGH	HIGH

CVSS2 Score: **6.4 - MEDIUM**

Access Vector	Access Complexity	Authentication
NETWORK	LOW	NONE
Confidentiality Impact	Integrity Impact	Availability Impact
NONE	PARTIAL	PARTIAL

CVE References

Description	Tags	Link
[2110.10086] Three Attacks on Proof-of-Stake Ethereum	arxiv.org text/xml	X MISC arxiv.org/abs/2110.10086

By selecting these links, you may be leaving CVEreport webpages. We have provided these links to other websites because they may have information that

By selecting these links, you may be leaving CVEreport webspace. We have provided these links to other websites because they may have information that would be of interest to you. No inferences should be drawn on account of other sites being referenced, or not, from this page. There may be other websites that are more appropriate for your purpose. CVEreport does not necessarily endorse the views expressed, or concur with the facts presented on these sites. Further, CVEreport does not endorse any commercial products that may be mentioned on these sites. Please address comments about any linked pages to comment@cve.report.

There are currently no QIDs associated with this CVE

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Application	Proof-of-stake Ethereum Project	Proof-of-stake Ethereum	All	All	All	All
cpe:2.3:a:proof-of-stake_ethereum_project:proof-of-stake_ethereum:*****:						

No vendor comments have been submitted for this CVE

Social Mentions

Source	Title	Posted (UTC)
 @CVEreport	CVE-2021-42764 : The Proof-of-Stake PoS Ethereum consensus protocol through 2021-10-19 allows an adversary to cau... twitter.com/i/web/status/1...	2021-10-20 20:05:48
 @SecRiskRptSME	RT: CVE-2021-42764 The Proof-of-Stake (PoS) Ethereum consensus protocol through 2021-10-19 allows an adversary to... twitter.com/i/web/status/1...	2021-10-21 07:33:21
 @1337in	The Proof-of-Stake (PoS) Ethereum consensus protocol through 2021-10-19 > DoS. CVE-2021-42764 CVE-2021-42765 CVE-2021-42766	2021-10-22 08:13:01

[← Previous ID](#)

[Next ID →](#)

© CVE.report 2023   |

Use of this information constitutes acceptance for use in an AS IS condition. There are NO warranties, implied or otherwise, with regard to this information or its use. Any use of this information is at the user's risk. It is the responsibility of user to evaluate the accuracy, completeness or usefulness of any information, opinion, advice or other content. EACH USER WILL BE SOLELY RESPONSIBLE FOR ANY consequences of his or her direct or indirect use of this web site. ALL WARRANTIES OF ANY KIND ARE EXPRESSLY DISCLAIMED. This site will NOT BE LIABLE FOR ANY DIRECT, INDIRECT or any other kind of loss.

CVE, CWE, and OVAL are registered trademarks of [The MITRE Corporation](#) and the authoritative source of CVE content is [MITRE's CVE web site](#). This site includes MITRE data granted under the following [license](#).

CVE.report and Source URL Uptime Status [status.cve.report](#)