RUSTSEC-2020-0081

`mio` invalidly assumes the memory layout of std::net::SocketAddr

Reported	November 2, 2020
Issued	December 2, 2020 (last modified: October 19, 2021)
Package	mio (crates.io)
Type	INFO Unsound
Keywords	#memory #layout #cast
Aliases	CVE-2020-35922
Details	https://github.com/tokio-rs/mio/issues/1386
CVSS Score	5.5 MEDIUM
CVSS Details	Attack vector: Local Attack complexity: Low Privileges required: Low User interaction: None Scope: Unchanged Confidentiality: None Integrity: None Availability: High
CVSS Vector	CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:H
Patched	`>=0.7.6`
Unaffected	`<0.7.0`

Description

The `mio` crate has assumed `std::net::SocketAddrV4` and `std::net::SocketAddrV6` have the same memory layout as the system C representation `sockaddr`. It has simply casted the pointers to convert the socket addresses to the system representation. The standard library does not say anything about the memory layout, and this will cause invalid memory access if the standard library changes the implementation. No warnings or errors will be emitted once the change happens.