

NAME

s390_pci_mmio_write, s390_pci_mmio_read – transfer data to/from PCI MMIO memory page

SYNOPSIS

```
#include <asm/unistd.h>

int s390_pci_mmio_write(unsigned long mmio_addr,
                       void *user_buffer, size_t length);
int s390_pci_mmio_read(unsigned long mmio_addr,
                       void *user_buffer, size_t length);
```

DESCRIPTION

The `s390_pci_mmio_write()` system call writes *length* bytes of data from the user-space buffer *user_buffer* to the PCI MMIO memory location specified by *mmio_addr*. The `s390_pci_mmio_read()` system call reads *length* bytes of data from the PCI MMIO memory location specified by *mmio_addr* to the user-space buffer *user_buffer*.

These system calls must be used instead of the simple assignment or data-transfer operations that are used to access the PCI MMIO memory areas mapped to user space on the Linux System z platform. The address specified by *mmio_addr* must belong to a PCI MMIO memory page mapping in the caller's address space, and the data being written or read must not cross a page boundary. The *length* value cannot be greater than the system page size.

RETURN VALUE

On success, `s390_pci_mmio_write()` and `s390_pci_mmio_read()` return 0. On error, `-1` is returned and *errno* is set to one of the error codes listed below.

ERRORS**EFAULT**

The address in *mmio_addr* is invalid.

EFAULT

user_buffer does not point to a valid location in the caller's address space.

EINVAL

Invalid *length* argument.

ENODEV

PCI support is not enabled.

ENOMEM

Insufficient memory.

VERSIONS

These system calls are available since Linux 3.19.

CONFORMING TO

This Linux-specific system call is available only on the s390 architecture. The required PCI support is available beginning with System z EC12.

NOTES

Glibc does not provide a wrapper for this system call, use `syscall(2)` to call it.

SEE ALSO

`syscall(2)`

COLOPHON

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