

**NAME**

netlink - Netlink macros

**SYNOPSIS**

```
#include <asm/types.h>
#include <linux/netlink.h>

int NLMSG_ALIGN(size_t len);
int NLMSG_LENGTH(size_t len);
int NLMSG_SPACE(size_t len);
void *NLMSG_DATA(struct nlmsghdr *nlh);
struct nlmsghdr *NLMSG_NEXT(struct nlmsghdr *nlh, int len);
int NLMSG_OK(struct nlmsghdr *nlh, int len);
int NLMSG_PAYLOAD(struct nlmsghdr *nlh, int len);
```

**DESCRIPTION**

<linux/netlink.h> defines several standard macros to access or create a netlink datagram. They are similar in spirit to the macros defined in [cmsg\(3\)](#) for auxiliary data. The buffer passed to and from a netlink socket should be accessed using only these macros.

**NLMSG\_ALIGN()**

Round the length of a netlink message up to align it properly.

**NLMSG\_LENGTH()**

Given the payload length, *len*, this macro returns the aligned length to store in the *nlmsg\_len* field of the *nlmsghdr*.

**NLMSG\_SPACE()**

Return the number of bytes that a netlink message with payload of *len* would occupy.

**NLMSG\_DATA()**

Return a pointer to the payload associated with the passed *nlmsghdr*.

**NLMSG\_NEXT()**

Get the next *nlmsghdr* in a multipart message. The caller must check if the current *nlmsghdr* didn't have the **NLMSG\_DONE** set—this function doesn't return NULL on end. The *len* argument is an lvalue containing the remaining length of the message buffer. This macro decrements it by the length of the message header.

**NLMSG\_OK()**

Return true if the netlink message is not truncated and is in a form suitable for parsing.

**NLMSG\_PAYLOAD()**

Return the length of the payload associated with the *nlmsghdr*.

**CONFORMING TO**

These macros are nonstandard Linux extensions.

**NOTES**

It is often better to use netlink via *libnetlink* than via the low-level kernel interface.

**SEE ALSO**

[libnetlink\(3\)](#), [netlink\(7\)](#)

**COLOPHON**

This page is part of release 3.74 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <http://www.kernel.org/doc/man-pages/>.