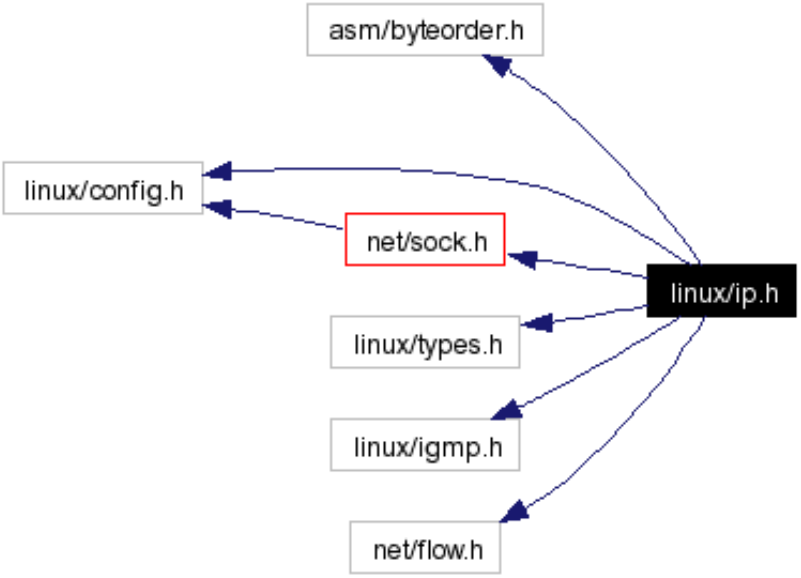
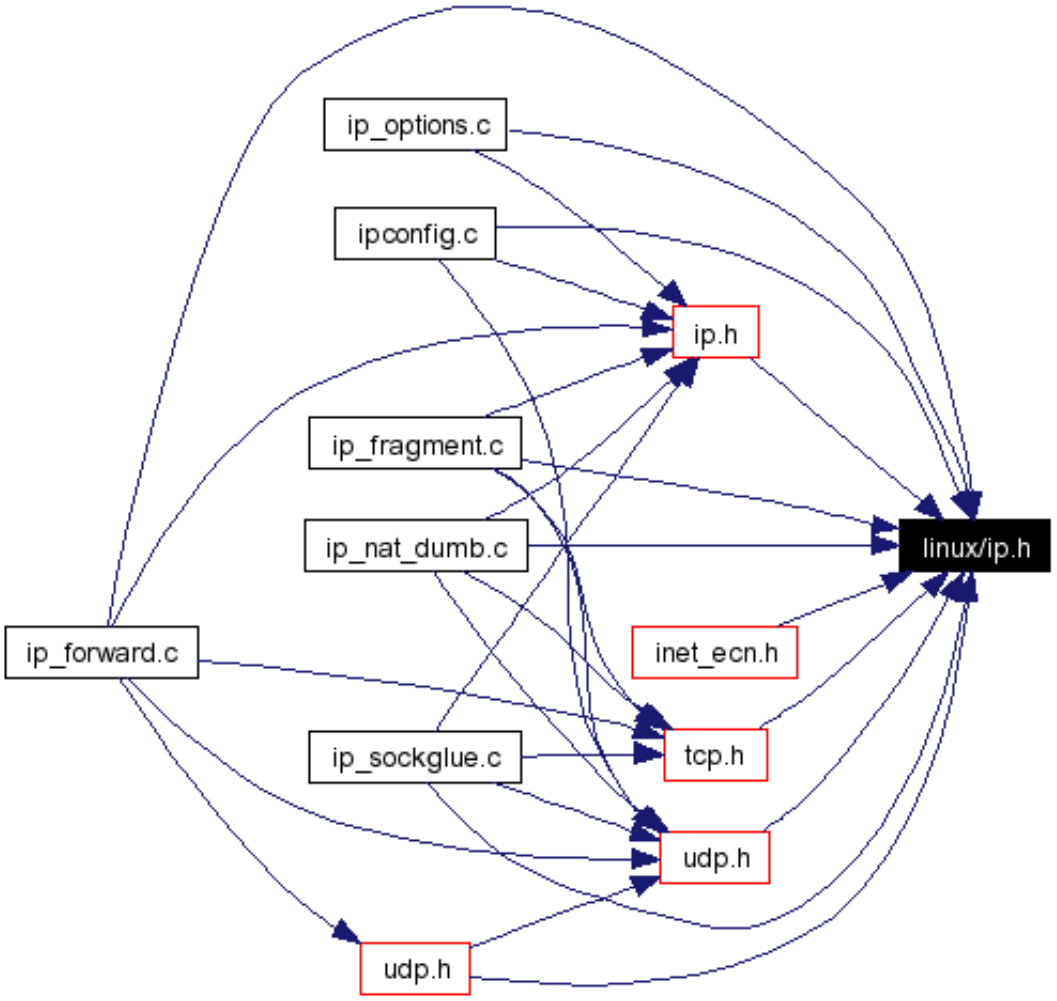
ip.h File Reference

```
#include <asm/byteorder.h>
#include <linux/config.h>
#include <linux/types.h>
#include <net/sock.h>
#include <linux/igmp.h>
#include <net/flow.h>
```

Include dependency graph for linux/ip.h:



This graph shows which files directly or indirectly include this file:



Go to the source code of this file.

Data Structures

struct **inet_opt**
struct **inet_sock**
struct **ip_auth_hdr**
struct **ip_comp_hdr**
struct **ip_esp_hdr**
struct **ip_options**
struct **iphdr**

Defines

#define **IPTOS_TOS_MASK** 0x1E
#define **IPTOS_TOS**(tos) ((tos)&IPTOS_TOS_MASK)
#define **IPTOS_LOWDELAY** 0x10
#define **IPTOS_THROUGHPUT** 0x08
#define **IPTOS_RELIABILITY** 0x04

#define **IPTOS_MINCOST** 0x02
#define **IPTOS_PREC_MASK** 0xE0
#define **IPTOS_PREC**(tos) ((tos)&IPTOS_PREC_MASK)
#define **IPTOS_PREC_NETCONTROL** 0xe0
#define **IPTOS_PREC_INTERNETCONTROL** 0xc0
#define **IPTOS_PREC_CRITIC_ECP** 0xa0
#define **IPTOS_PREC_FLASHOVERRIDE** 0x80
#define **IPTOS_PREC_FLASH** 0x60
#define **IPTOS_PREC_IMMEDIATE** 0x40
#define **IPTOS_PREC_PRIORITY** 0x20
#define **IPTOS_PREC_ROUTINE** 0x00
#define **IPOPT_COPY** 0x80
#define **IPOPT_CLASS_MASK** 0x60
#define **IPOPT_NUMBER_MASK** 0x1f
#define **IPOPT_COPIED**(o) ((o)&IPOPT_COPY)
#define **IPOPT_CLASS**(o) ((o)&IPOPT_CLASS_MASK)
#define **IPOPT_NUMBER**(o) ((o)&IPOPT_NUMBER_MASK)
#define **IPOPT_CONTROL** 0x00
#define **IPOPT_RESERVED1** 0x20
#define **IPOPT_MEASUREMENT** 0x40
#define **IPOPT_RESERVED2** 0x60
#define **IPOPT_END** (0 |IPOPT_CONTROL)
#define **IPOPT_NOOP** (1 |IPOPT_CONTROL)
#define **IPOPT_SEC** (2 |IPOPT_CONTROL|IPOPT_COPY)
#define **IPOPT_LSRR** (3 |IPOPT_CONTROL|IPOPT_COPY)
#define **IPOPT_TIMESTAMP** (4 |IPOPT_MEASUREMENT)
#define **IPOPT_RR** (7 |IPOPT_CONTROL)
#define **IPOPT_SID** (8 |IPOPT_CONTROL|IPOPT_COPY)
#define **IPOPT_SSRR** (9 |IPOPT_CONTROL|IPOPT_COPY)
#define **IPOPT_RA** (20|IPOPT_CONTROL|IPOPT_COPY)
#define **IPVERSION** 4
#define **MAXTTL** 255
#define **IPDEFTTL** 64
#define **IPOPT_OPTVAL** 0
#define **IPOPT_OLEN** 1
#define **IPOPT_OFFSET** 2
#define **IPOPT_MINOFF** 4
#define **MAX_IPOPTLEN** 40
#define **IPOPT_NOP** IPOPT_NOOP
#define **IPOPT_EOL** IPOPT_END
#define **IPOPT_TS** IPOPT_TIMESTAMP
#define **IPOPT_TS_TSONLY** 0
#define **IPOPT_TS_TSANDADDR** 1
#define **IPOPT_TS_PRESPEC** 3
#define **optlength**(opt) (sizeof(struct **ip_options**) + opt->optlen)
#define **IPCORK_OPT** 1

Functions

struct **inet_opt*** **inet_sk** (const struct **sock** *__sk)

Define Documentation

#define IPCORK_OPT 1

Definition at line **149** of file **linux/ip.h**.

#define IPDEFTTL 64

Definition at line **66** of file **linux/ip.h**.

#define IPOPT_CLASS(o) ((o)&IPOPT_CLASS_MASK)

Definition at line **46** of file **linux/ip.h**.

#define IPOPT_CLASS_MASK 0x60

Definition at line **42** of file **linux/ip.h**.

#define IPOPT_CONTROL 0x00

Definition at line **49** of file **linux/ip.h**.

#define IPOPT_COPIED(o) ((o)&IPOPT_COPY)

Definition at line **45** of file **linux/ip.h**.

Referenced by **ip_options_fragment**().

#define IPOPT_COPY 0x80

Definition at line **41** of file **linux/ip.h**.

#define IPOPT_END (0 |IPOPT_CONTROL)

Definition at line **54** of file **linux/ip.h**.

#define IPOPT_EOL IPOPT_END

Definition at line **74** of file **linux/ip.h**.

#define IPOPT_LSRR (3 |IPOPT_CONTROL|IPOPT_COPY)

Definition at line **57** of file **linux/ip.h**.

#define IPOPT_MEASUREMENT 0x40

Definition at line **51** of file **linux/ip.h**.

#define IPOPT_MINOFF 4

Definition at line **71** of file **linux/ip.h**.

#define IPOPT_NOOP (1 |IPOPT_CONTROL)

Definition at line **55** of file **linux/ip.h**.

#define IPOPT_NOP IPOPT_NOOP

Definition at line **73** of file **linux/ip.h**.

#define IPOPT_NUMBER(o) ((o)&IPOPT_NUMBER_MASK)

Definition at line **47** of file **linux/ip.h**.

#define IPOPT_NUMBER_MASK 0x1f

Definition at line **43** of file **linux/ip.h**.

#define IPOPT_OFFSET 2

Definition at line **70** of file **linux/ip.h**.

#define IPOPT_OLEN 1

Definition at line **69** of file **linux/ip.h**.

#define IPOPT_OPTVAL 0

Definition at line **68** of file **linux/ip.h**.

#define IPOPT_RA (20|IPOPT_CONTROL|IPOPT_COPY)

Definition at line **62** of file **linux/ip.h**.

#define IPOPT_RESERVED1 0x20

Definition at line **50** of file **linux/ip.h**.

#define IPOPT_RESERVED2 0x60

Definition at line **52** of file **linux/ip.h**.

#define IPOPT_RR (7 |IPOPT_CONTROL)

Definition at line **59** of file **linux/ip.h**.

#define IPOPT_SEC (2 |IPOPT_CONTROL|IPOPT_COPY)

Definition at line **56** of file **linux/ip.h**.

#define IPOPT_SID (8 |IPOPT_CONTROL|IPOPT_COPY)

Definition at line **60** of file **linux/ip.h**.

#define IPOPT_SSRR (9 |IPOPT_CONTROL|IPOPT_COPY)

Definition at line **61** of file **linux/ip.h**.

#define IPOPT_TIMESTAMP (4 |IPOPT_MEASUREMENT)

Definition at line **58** of file **linux/ip.h**.

#define IPOPT_TS IPOPT_TIMESTAMP

Definition at line **75** of file **linux/ip.h**.

#define IPOPT_TS_PRESPEC 3

Definition at line **79** of file **linux/ip.h**.

#define IPOPT_TS_TSANDADDR 1

Definition at line **78** of file **linux/ip.h**.

#define IPOPT_TS_TSONLY 0

Definition at line **77** of file **linux/ip.h**.

#define IPTOS_LOWDELAY 0x10

Definition at line **23** of file **linux/ip.h**.

#define IPTOS_MINCOST 0x02

Definition at line **26** of file **linux/ip.h**.

#define IPTOS_PREC(tos) ((tos)&IPTOS_PREC_MASK)

Definition at line **29** of file **linux/ip.h**.

Referenced by **ip_setsockopt**().

#define IPTOS_PREC_CRITIC_ECP 0xa0

Definition at line **32** of file **linux/ip.h**.

#define IPTOS_PREC_FLASH 0x60

Definition at line **34** of file **linux/ip.h**.

#define IPTOS_PREC_FLASHOVERRIDE 0x80

Definition at line **33** of file **linux/ip.h**.

#define IPTOS_PREC_IMMEDIATE 0x40

Definition at line **35** of file **linux/ip.h**.

#define IPTOS_PREC_INTERNETCONTROL 0xc0

Definition at line **31** of file **linux/ip.h**.

#define IPTOS_PREC_MASK 0xE0

Definition at line **28** of file **linux/ip.h**.

#define IPTOS_PREC_NETCONTROL 0xe0

Definition at line **30** of file **linux/ip.h**.

#define IPTOS_PREC_PRIORITY 0x20

Definition at line **36** of file **linux/ip.h**.

#define IPTOS_PREC_ROUTINE 0x00

Definition at line **37** of file **linux/ip.h**.

#define IPTOS_RELIABILITY 0x04

Definition at line **25** of file **linux/ip.h**.

#define IPTOS_THROUGHPUT 0x08

Definition at line **24** of file **linux/ip.h**.

#define IPTOS_TOS(tos) ((tos)&IPTOS_TOS_MASK)

Definition at line **22** of file **linux/ip.h**.

#define IPTOS_TOS_MASK 0x1E

Definition at line **21** of file **linux/ip.h**.

#define IPVERSION 4

Definition at line **64** of file **linux/ip.h**.

#define MAXTTL 255

Definition at line **65** of file **linux/ip.h**.

#define MAX_IPOPTLEN 40

Definition at line **72** of file **linux/ip.h**.

#define optlength(opt) (sizeof(struct ip_options) + opt->optlen)

Definition at line **108** of file **linux/ip.h**.

Referenced by **tcp_v4_save_options**().

Function Documentation

struct inet_opt * inet_sk (const struct sock * *__sk*) `[inline, static]`

Definition at line **162** of file **linux/ip.h**.

Referenced by **__tcp_tw_hashdance**(), **inet_autobind**(), **inet_create**(), **inet_dgram_connect**(), **inet_sendmsg**(), **inet_sendpage**(), **ip_call_ra_chain**(), **ip_mc_output**(), **ip_mroute_setsockopt**(), **ip_ra_control**(), **tcp_bind_hash**(), **tcp_create_openreq_child**(), **tcp_destroy_sock**(), **tcp_sk_listen_hashfn**(), **tcp_v4_destroy_sock**(), **tcp_v4_err**(), **tcp_v4_hash_connect**(), **tcp_v4_init**(), **tcp_v4_rcv_saddr**(), **tcp_v4_route_req**(), **tcp_v4_syn_recv_sock**(), **udp_err**(), **udp_lport_inuse**(), and **udp_v4_unhash**().
