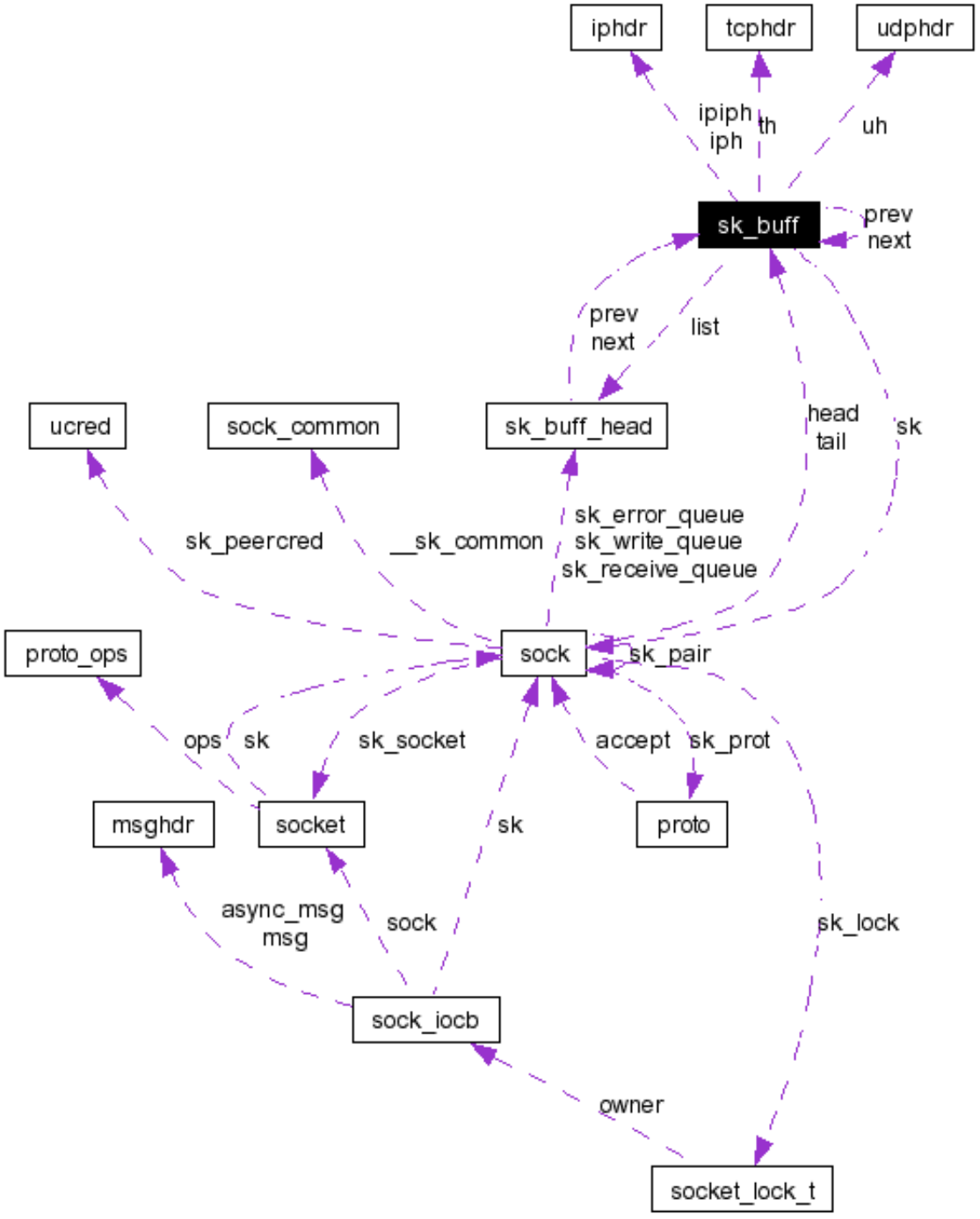
sk_buff Struct Reference

`#include <skbuff.h>`

Collaboration diagram for sk_buff:



[legend]

Data Fields

struct sk_buff* **next**

```
            struct sk_buff* prev
      struct sk_buff_head* list
               struct sock* sk
             struct timeval stamp
         struct net_device* dev
         struct net_device* real_dev
union {
  struct tcphdr*   th
  struct udphdr*   uh
  struct icmphdr*   icmph
  struct igmphdr*   igmph
  struct iphdr*   ipiph
  struct ipv6hdr*   ipv6h
  unsigned char*   raw
}                          h
union {
  struct iphdr*   iph
  struct ipv6hdr*   ipv6h
  struct arphdr*   arph
  unsigned char*   raw
}                          nh
union {
  struct ethhdr*   ethernet
  unsigned char*   raw
}                          mac
          struct dst_entry* dst
           struct sec_path* sp
                      char cb [48]
              unsigned int len
              unsigned int data_len
              unsigned int mac_len
              unsigned int csum
             unsigned char local_df
             unsigned char cloned
             unsigned char pkt_type
             unsigned char ip_summed
                     __u32 priority
            unsigned short protocol
            unsigned short security
                      void (* destructor )(struct sk_buff *skb)
              unsigned int truesize
                   atomic_t users
           unsigned char* head
          unsigned char * data
          unsigned char * tail
          unsigned char * end
```

Detailed Description

struct sk_buff - **socket** buffer @next: Next buffer in list @prev: Previous buffer in list @list: List we are on @sk: Socket we are owned by @stamp: Time we arrived @dev: Device we arrived on/are leaving by @real_dev: The real device we are using @h: Transport layer header @nh: Network layer header @mac: Link layer header @dst: FIXME: Describe this field @cb: Control buffer. Free for use

by every layer. Put private vars here @len: Length of actual data @data_len: Data length @mac_len: Length of link layer header @csum: Checksum @__unused: Dead field, may be reused @cloned: Head may be cloned (check refcnt to be sure) @pkt_type: Packet class @ip_summed: Driver fed us an IP checksum @priority: Packet queueing priority @users: User count - see {datagram,tcp}.c @protocol: Packet protocol from driver @security: Security level of packet @truesize: Buffer size @head: Head of buffer @data: Data head pointer @tail: Tail pointer @end: End pointer @destructor: Destruct function @nfmark: Can be used for communication between hooks @nfcache: Cache info @nfct: Associated connection, if any @nf_debug: Netfilter debugging @nf_bridge: Saved data about a bridged frame - see br_netfilter.c @private: Data which is private to the HIPPI implementation @tc_index: Traffic control index

Definition at line **191** of file **skbuff.h**.

Field Documentation

struct arphdr* sk_buff::arph

Definition at line **215** of file **skbuff.h**.

char sk_buff::cb

Definition at line **233** of file **skbuff.h**.

unsigned char sk_buff::cloned

Definition at line **239** of file **skbuff.h**.

unsigned int sk_buff::csum

Definition at line **235** of file **skbuff.h**.

unsigned char * sk_buff::data

Definition at line **271** of file **skbuff.h**.

unsigned int sk_buff::data_len

Definition at line **235** of file **skbuff.h**.

void(* sk_buff::destructor)(struct sk_buff *skb)

struct net_device * sk_buff::dev

Definition at line **199** of file **skbuff.h**.

struct dst_entry * sk_buff::dst

Definition at line **224** of file **skbuff.h**.

unsigned char * sk_buff::end

Definition at line **271** of file **skbuff.h**.

struct ethhdr* sk_buff::ethernet

Definition at line **220** of file **skbuff.h**.

union { ... } sk_buff::h

unsigned char * sk_buff::head

Definition at line **271** of file **skbuff.h**.

struct icmphdr* sk_buff::icmph

Definition at line **205** of file **skbuff.h**.

struct igmphdr* sk_buff::igmph

Definition at line **206** of file **skbuff.h**.

unsigned char sk_buff::ip_summed

Definition at line **239** of file **skbuff.h**.

struct iphdr* sk_buff::iph

Definition at line **213** of file **skbuff.h**.

struct iphdr* sk_buff::ipiph

Definition at line **207** of file **skbuff.h**.

struct ipv6hdr* sk_buff::ipv6h

Definition at line **214** of file **skbuff.h**.

unsigned int sk_buff::len

Definition at line **235** of file **skbuff.h**.

struct sk_buff_head * sk_buff::list

Definition at line **196** of file **skbuff.h**.

unsigned char sk_buff::local_df

Definition at line **239** of file **skbuff.h**.

union { ... } sk_buff::mac

unsigned int sk_buff::mac_len

Definition at line **235** of file **skbuff.h**.

struct sk_buff * sk_buff::next

Definition at line **193** of file **skbuff.h**.

union { ... } sk_buff::nh

unsigned char sk_buff::pkt_type

Definition at line **239** of file **skbuff.h**.

struct sk_buff * sk_buff::prev

Definition at line **194** of file **skbuff.h**.

__u32 sk_buff::priority

Definition at line **243** of file **skbuff.h**.

unsigned short sk_buff::protocol

Definition at line **244** of file **skbuff.h**.

unsigned char* sk_buff::raw

Definition at line **221** of file **skbuff.h**.

struct net_device * sk_buff::real_dev

Definition at line **200** of file **skbuff.h**.

unsigned short sk_buff::security

Definition at line **244** of file **skbuff.h**.

struct sock * sk_buff::sk

Definition at line **197** of file **skbuff.h**.

struct sec_path * sk_buff::sp

Definition at line **225** of file **skbuff.h**.

struct timeval sk_buff::stamp

Definition at line **198** of file **skbuff.h**.

unsigned char * sk_buff::tail

Definition at line **271** of file **skbuff.h**.

struct tcphdr* sk_buff::th

Definition at line **203** of file **skbuff.h**.

unsigned int sk_buff::truesize

Definition at line **269** of file **skbuff.h**.

struct udphdr* sk_buff::uh

Definition at line **204** of file **skbuff.h**.

atomic_t sk_buff::users

Definition at line **270** of file **skbuff.h**.

The documentation for this struct was generated from the following file:

- **skbuff.h**
