

IPsec and FAST_IPSEC

- Currently there are two IPsec code bases in FreeBSD
 - Kame IPsec
 - FAST_IPSEC
- Until recently FAST_IPSEC did not support IPv6
 - Work is in `gnn_fast_ipsec` and `gnn_radical_ipsec` branches
 - Is not perfect, it does panic
- Goal for 7.0 is one IPsec stack
 - Should be based on FAST_IPSEC which has support for outboard hardware



Code Organization

- Kame Code

- `src/sys/netkey`
- `src/sys/netinet6`

- FAST_IPSEC Code

- `src/sys/netipsec`

- Connecting Code

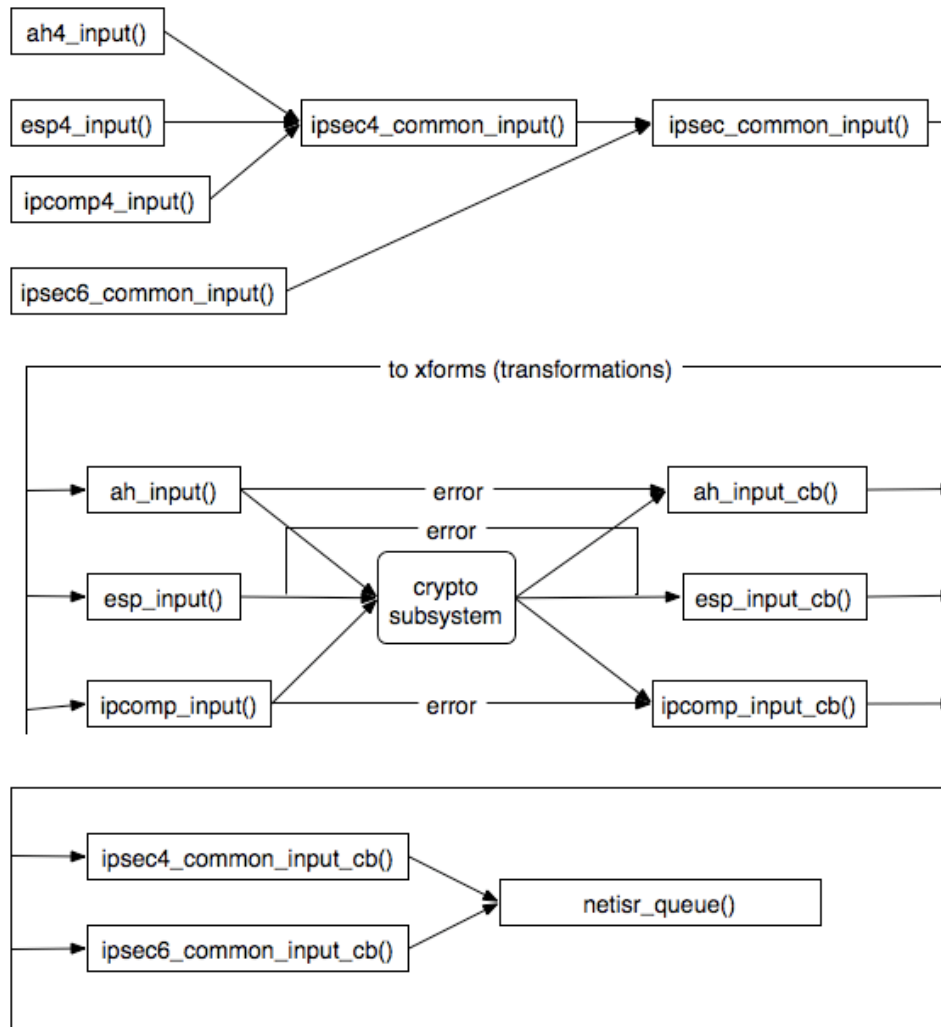
- `src/sys/netinet/ip_ipsec.[ch]`
- `src/sys/netinet6/ip6_ipsec.[ch]`

- Kernel Options

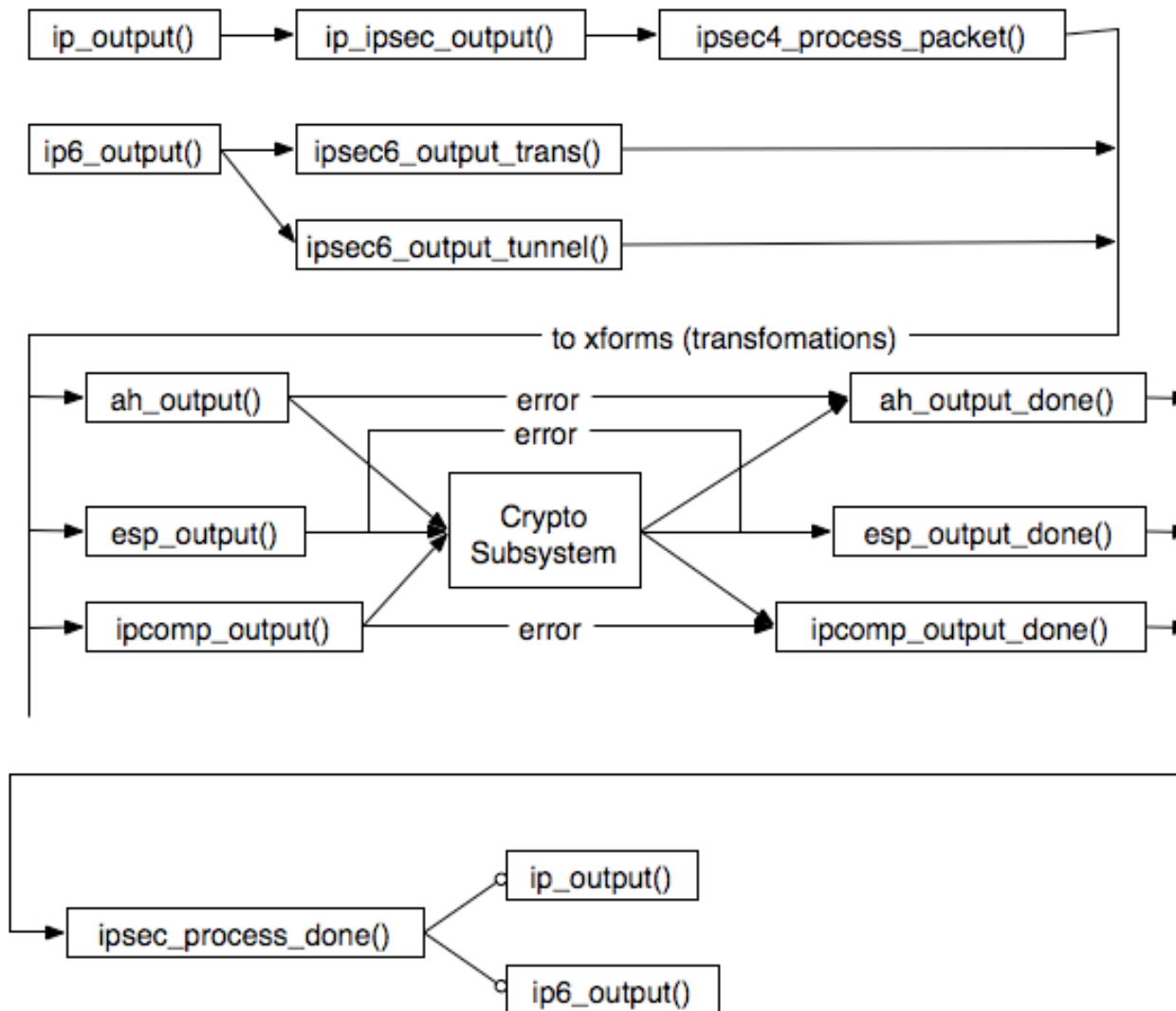
- IPSEC (KAME)
- IPSEC_ESP (KAME)
- INET6 (KAME but w/o IPsec)
- FAST_IPSEC



Packet Input Call Graph



Packet Output Call Graph



Remaining Problems

- Lack of testing
- v6eval port is broken in CURRENT
- Various panics based on LORs etc.
- Lack of eyeballs
- Lack of hands
- Need to port ipsecctl from OpenBSD

