

Low-level kernel API testsuite

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NFWS'23 Dresden (Germany)

Oct 13th-14th 2023

# New testsuite

- We have a number of bugs due to lack of sanitization and error unwinding path
- WIP
- Existing tests mostly cover userspace interactions with the kernel, through nft.
- Add tests for kernel API.
  - Which utilizes and resides in libnftnl
  - Minimalistic

# Example: add unbound chain

```
#include "test.h"
```

```
int main(void)
```

```
{  
    struct test_batch batch;  
  
    setup_batch(&batch);  
    add_table(&batch, NFPROTO_IPV4, "test");  
    add_chain(&batch, "__test0", "0x1", "NFT_CHAIN_BINDING");  
  
    if (batch_commit(&batch) < 0)  
        return EXIT_FAILURE;  
  
    return EXIT_SUCCESS;  
}
```

# Example: delete a bound set

...

```
add_table(&batch, NFPROTO_IPV4, "test");  
add_set(&batch, "test", "NFT_SET_ANONYMOUS", "0x1");  
add_chain(&batch, "test", "0x1", 0);
```

```
add_rule(&batch, "test", NULL);  
add_payload(&batch,  
            NFT_PAYLOAD_TRANSPORT_HEADER,  
            NFT_REG_1, offsetof(struct tcphdr, dest),  
            sizeof(uint16_t));
```

```
add_lookup(&batch, NFT_REG_1, NULL, "test", "0x1");  
del_set(&batch, NFPROTO_IPV4, "test", "test");
```

...

# Next steps

- Fuzzy testing for mutations
- C compiler too slow
  - Bison parser for test API